

**TECHNICAL MANUAL**  
**AVIATION UNIT AND INTERMEDIATE  
MAINTENANCE MANUAL**  
**VOLUME 9 OF 9**  
**HELICOPTER, ATTACK,**  
**AH-64A APACHE**  
**(NSN 1520-01-106-9519)**  
**(EIC: RHA)**

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**APPENDIX B – MAINTENANCE ALLOCATION CHART**  
**APPENDIX C – AIRCRAFT INVENTORY MASTER GUIDE**  
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<b>APPENDIX A – REFERENCES</b>
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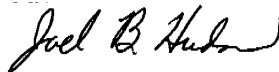
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Remove pages	Insert pages
A and B	A and B
B-79 and B-80	B-79 and B-80
B-117 and B-118	B-117 and B-118
B-179 and B-180	B-179 and B-180
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D-3 and D-4	D-3 and D-4
D-41 and D-42	D-41 and D-42
D-261 and D-262	D-261 and D-262
D-404.7/(D-404.8 blank)	D-404.7 and D-404.8
-----	D-404.9 and D-404.10
D-415 and D-416	D-415 and D-416
D-419 and D-420	D-419 and D-420
E-21 through E-26	E-21 through E-26
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H-3 and H-4	H-3 and H-4
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B-7 and B-8  
B-179 through B-182  
B-185 and B-186  
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B-199 through B-202  
D-1 through D-4  
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D-431/(D-432 blank)

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### Insert pages

A and B  
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D-433 and D-434  
F-1 through F-17/( F-18 blank)  
H-3 and H-4  
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H-13 and H-14

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A-1 through A-6  
B-7 and B-8  
B-199 and B-200  
C-11 through C13/(C-14 blank)  
D-1 and D-2  
D-17 and D-18  
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D-25 and D-26  
D-89 and D-90  
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—————  
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F-1 through F-4  
F-11 through F-14  
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a and b  
A and B  
A-1 through A-6  
B-7 and B-8  
B-199 and B-200  
C-11 through C-13/(C-14 blank)  
D-1 and D-2  
D-17 and D-18  
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D-269 and D-270  
D-404.7/(4-404.8 blank)  
D-425 and D-426  
D-429 through D-431/(4-432 blank)  
F-1 through F-4  
F11 through F-14  
G-19 through G-22  
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H-9 through H-14

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B-19 and B-20 -----	B-19 and B-20
C-3 through C-10 C-11/(C-12 blank) -----	B-20.1/(B-21.2 blank) C-3 through C-10 C-11 and C-12 C-13/(C-14 blank)
D-3 and D-4 D-49 and D-50 D-404.3/(D-404.4 blank) -----	D-3 and D-4 D-49 and D-50 D-404.3 and D-404.4 D-404.5 and D-404.6 (D-405 blank)/D-406
D-405 and D-406	

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### Remove pages

A-3 and A-4  
B-53 through B-56  
B-83 and B-84  
B-171 through B-174  
B-185 and B-186  
B-195 and B-196  
C-3 through C-10  
D-3 and D-4  
D-13 and D-14  
D-39/(D-40 blank)  
D-47 and D-48  
D-173 and D-174  
D-175 and D-176  
D-405 and D-406  
H-5 and H-6  
H-11 and H-12

### Insert pages

A-3 and A-4  
B-53 through B-56  
B-83 and B-84  
B-171 through B-174  
B-185 and B-186  
B-195 and B-196  
C-3 through C-10  
D-3 and D-4  
D-13 and D-14  
D-39/ (D-40 blank)  
D-47 and D-48  
D-173 and D-174  
- - - -  
D-405 and D-406  
H-5 and H-6  
H-11 and H-12

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A-1 through A-6	A-1 through A-6
B-3 and B-4	B-3 and B-4
B-7 through B-162	B-7 through B-162
-----	B-163 through B-206
C-3 through C-6	C-3 through C-6
C-11/(C-12 blank)	C-11/(C-12 blank)
D-1 and D-2	D-1 and D-2
D-13 and D-14	D-13 and D-14
D-25 and D-26	D-25 and D-26
D-39/(D-40 blank)	D-39/(D-40 blank)
D-43 and D-44	D-43 and D-44
D-237 and D-238	D-237 and D-238
D-253 and D-254	D-253 and D-254
D-281 and D-282	D-281/(D-282 blank)
D-413 and D-414	D-413 and D-414
D-423/(D-424 blank)	D-423 and D-424
-----	D-425 through D-428
F-3 through F-17/(F-18 blank)	F-3 through F-17/(F-18 blank)
G-3 and G-4	G-3 and G-4
G-15 and G-16	G-15 and G-16
G-25 and G-26	G-25 and G-26
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H-5 through H-10	H-5 through H-10
H-13 through H-16	H-13 through H-16
-----	E-mail instruction page

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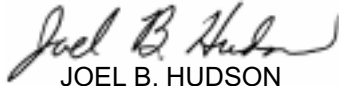
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A-5 and A-6	A-5 and A-6
B-7 through B-10	B-7 through B-10
B-13 through B-16	B-13 through B-16
B-19 through B-36	B-19 through B-36
B-39 through B-134	B-39 through B-134
-----	B-134.1 and B-134.2
B-137 and B-138	B-137 and B-138
B-141 and B-142	B-141 and B-142
B-145 and B-146	B-145 and B-146
B-149 and B-150	B-149 and B-150
B-155 through B-158	B-155 through B-158
C-7 and C-8	C-7 and C-8
D-1 through D-8	D-1 through D-8
D-33 and D-34	D-33 and D-34
D-39/(D-40 blank)	D-39/(D-40 blank)
D-45 and D-46	D-45 and D-46
D-89 and D-90	D-89 and D-90
D-119 and D-120	D-119 and D-120
D-404.1/(D-404.2 blank)	D-404.1 and D-404.2
-----	D-404.3/(D-404.4 blank)
D-421/(D-422 blank)	D-421 and D-422
-----	D-423/(D-424 blank)
F-1 through F-8	F-1 through F-8
F-11 through F-14	F-11 through F-14
G-29 and G-30	G-29 and G-30
H-3 through H-14	H-3 through H-14

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B-33 and B-34  
B-51 and B-52  
B-57 and B-58  
B-93 through B-96  
B-103 and B-104  
B-135 and B-136  
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———  
D-1 through D-4  
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D-93 and D-94  
———  
D-405 and D-406  
D-419/(D-420 blank)  
———  
F-1 through F-10  
G-21 and G-22  
G-29 and G-30  
H-11 through H-14

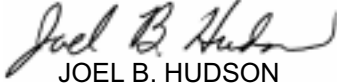
#### Insert pages

B-21 and B-22  
B-33 and B-34  
B-51 and B-52  
B-57 and B-58  
B-93 through B-96  
B-103 and B-104  
B-135 and B-136  
B-151 through B-156  
C-3 through C-10  
C-11/(C-12 blank)  
D-1 through D-4  
D-13 and D-14  
D-93 and D-94  
D-404.1/(D-404.2 blank)  
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F-1 through F-10  
G-21 and G-22  
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Original . . . . . 0 . . . . . 16 May 1994	Change . . . . . 5 . . . . . 27 February 1998
Change . . . . . 1 . . . . . 17 May 1995	Change . . . . . 6 . . . . . 10 May 2000
Change . . . . . 2 . . . . . 16 February 1996	Change . . . . . 7 . . . . . 31 July 2001
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A – B . . . . .	8	C-1 – C-2 . . . . .	0
A-1 . . . . .	7	C-3 – C-10 . . . . .	5
A-2 . . . . .	6	C-11 . . . . .	6
A-3 . . . . .	7	C-12 . . . . .	5
A-4 . . . . .	4	C-13 . . . . .	6
A-5 . . . . .	2	C-14 Blank . . . . .	6
A-6 . . . . .	6	D-1 . . . . .	6
A-7 . . . . .	0	D-2 . . . . .	7
A-8 Blank . . . . .	0	D-3 – D-4 . . . . .	8
B-1 – B-2 . . . . .	0	D-5 . . . . .	2
B-3 . . . . .	3	D-6 – D-7 . . . . .	0
B-4 – B-7 . . . . .	0	D-8 . . . . .	2
B-8 . . . . .	7	D-9 – D-13 . . . . .	0
B-9 – B-19 . . . . .	3	D-14 . . . . .	4
B-20 . . . . .	5	D-15 – D-17 . . . . .	0
B-20.1 . . . . .	5	D-18 . . . . .	6
B-20.2 Blank . . . . .	5	D-19 – D-21 . . . . .	0
B-21 – B-52 . . . . .	3	D-22 . . . . .	6
B-53 . . . . .	4	D-23 – D-24 . . . . .	0
B-54 . . . . .	3	D-25 – D-26 . . . . .	6
B-55 . . . . .	4	D-27 – D-32 . . . . .	0
B-56 – B-78 . . . . .	3	D-33 . . . . .	2
B-79 . . . . .	8	D-34 – D-38 . . . . .	0
B-80 – B-116 . . . . .	3	D-39 . . . . .	4
B-117 . . . . .	8	D-40 Blank . . . . .	4
B-118 – B-171 . . . . .	3	D-41 . . . . .	0
B-172 – B-174 . . . . .	4	D-42 . . . . .	8
B-175 – B-179 . . . . .	3	D-43 . . . . .	0
B-180 . . . . .	8	D-44 . . . . .	3
B-181 . . . . .	7	D-45 . . . . .	2
B-182 – B-185 . . . . .	3	D-46 . . . . .	0
B-186 . . . . .	7	D-47 – D-48 . . . . .	4
B-187 – B-188 . . . . .	3	D-49 . . . . .	5
B-189 . . . . .	8	D-50 – D-88 . . . . .	0
B-190 – B-192 . . . . .	3	D-89 . . . . .	6
B-193 – B-194 . . . . .	7	D-90 – D-93 . . . . .	0
B-195 . . . . .	3	D-94 . . . . .	1
B-196 . . . . .	4	D-95 – D-96 . . . . .	0
B-197 – B-198 . . . . .	3	D-97 – D-98 . . . . .	6
B-199 . . . . .	6	D-99 – D-118 . . . . .	0

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D-174 .....	4	E-22 – E-23 .....	8
D-175 – D-176 Deleted .....	4	E-24 .....	0
D-177 – D-237 .....	0	E-25 – E-26 .....	8
D-238 .....	3	F-1 .....	0
D-239 – D-253 .....	0	F-2 – F-5 .....	8
D-254 .....	3	F-6 – F-8 .....	7
D-255 – D-260 .....	0	F-9 – F-10 .....	8
D-261 .....	8	F-11 .....	7
D-262 – D-269 .....	0	F-12 .....	8
D-270 .....	6	F-13 – F-15 .....	7
D-271 – D-280 .....	0	F-16 .....	8
D-281 .....	3	F-17 .....	7
D-282 Blank .....	3	F-18 Blank .....	7
D-283 – D-302 .....	0	G-1 – G-3 .....	0
D-303 .....	7	G-4 .....	3
D-304 – D-341 .....	0	G-5 – G-14 .....	0
D-342 – D-393 .....	7	G-15 .....	3
D-394 – D-395 .....	0	G-16 – G-19 .....	0
D-396 – D-397 .....	7	G-20 .....	6
D-398 – D-404 .....	0	G-21 .....	0
D-404.1 .....	2	G-22 .....	6
D-404.2 .....	7	G-23 .....	8
D-404.3 – D-404.6 Added .....	5	G-24 – G-25 .....	0
D-404.7 Added .....	6	G-26 .....	3
D-404.8 .....	8	G-27 – G-28 .....	0
D-404.9 – D-404.10 Added .....	8	G-29 – G-30 .....	2
D-405 Blank .....	5	G-31 – G-33 .....	0
D-406 .....	5	G-34 .....	3
D-407 – D-413 .....	0	H-1 – H-2 .....	0
D-414 .....	3	H-3 .....	8
D-415 .....	8	H-4 .....	2
D-416 – D-418 .....	0	H-5 – H-6 .....	6
D-419 .....	1	H-7 .....	8
D-420 .....	8	H-8 .....	7
D-421 .....	1	H-9 .....	8
D-422 .....	2	H-10 .....	7
D-423 .....	3	H-11 .....	6
D-424 – D-425 .....	7	H-12 .....	2
D-426 – D-428 Added .....	3	H-13 – H-14 .....	7
D-429 – D-431 Added .....	6	H-15 – H-16 .....	3

\*Zero in this column indicates an original page.

## APPENDIX A REFERENCES

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### A.1. GENERAL REFERENCES

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This appendix contains a list of official publications applicable to unit and intermediate maintenance. The list includes official publications used for maintenance of the Army AH-64A helicopter.

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### A.2. REFERENCES

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■ AR 95-1	Flight Regulations
AR 750-1	Army Materiel Maintenance Policy and Retail Maintenance Operation
CTA 50-970	Expendable/Durable Items (Except Medical, Class V, Repair Parts and Heraldic Items)
DA PAM 25-30	Consolidated Index of Army Publications and Blank Forms
DA PAM 40-501	Hearing Conservation
DA PAM 738-751	Functional Users Manual for the Army Aviation Maintenance Management System-Aviation (TAMMS-A)
DA PAM 710-2-1	Using Unit Supply System (Manual Procedures)
DOD-HDBK-263	Electrostatic Discharge Control Handbook for Protection of Electrical and Electronic Parts, Assemblies and Equipment; Excluding Electrically Initiated Explosive Devices
DOD-HDBK-SB708-3	DOD Ammunition Codes
DOD 4160.21-M-1	Defense Demilitarization Manual (Restructured)
FM 1-500	Army Aviation Maintenance
FM 1-511	Army Aircraft Quality Control and Technical Inspection
FM 1-513	Battlefield Recovery and Evacuation of Aircraft
FM 1-514	Fundamentals of Rotor and Power Train Maintenance Techniques and Procedures
FM 3-5	NBC Decontamination
FM 10-68	Aircraft Refueling
FM 21-11	First Aid for Soldiers



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**A.2 REFERENCES – continued**

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MIL-STD-12	Abbreviations for Use on Drawings, and in Specifications, Standards and Technical Documents
SB 11-642	Repair and Return Procedures Under Overhaul and Repair (O&R) for Electronic Altimeter Set, AN/APN-209(V)
TB MED-524	Occupational and Environmental Health Control of Hazards to Health from Laser Radiation
TB 9-1300-385	Munitions Restricted or Suspended
TB 43-0106	Aeronautical Equipment Army Oil Analysis Program (AOAP)
TB 55-1520-238-23	AH-64A Components Requiring Maintenance Management and Historical Data
TB 55-1520-238-23-1	Warranty Program for AH-64A Attack Helicopter
TB 55-8100-200-24	Maintenance of Specialized Reusable Containers for Aircraft Equipment
TB 55-9150-200-24	Engine and Transmission Oils, Fuels, and Additives for Army Aircraft
TM 1-1270-476-T	Aviation Unit Troubleshooting Manual for Target Acquisition Designation Sight (TADS) Assembly for Army AH-64A Attack Helicopter, AN/ASQ-170
TM 1-1270-476-20	Aviation Unit Maintenance Manual for Target Acquisition Designation Sight (TADS) Assembly for Army AH-64A Attack Helicopter, AN/ASQ-170
TM 1-1270-476-23P	Aviation Unit and Intermediate Maintenance Repair Parts and Special Tools (Including Depot Level Parts) for Target Acquisition Designation Sight (TADS) Assembly, AN/ASQ-170
TM 1-1500-204-23	General Aircraft Maintenance Manual
TM 1-1500-250-23	Aviation Unit and Intermediate Maintenance Technical Manual for General Tiedown and Mooring on All Series Army Models AH-64, UH-60, CH-47, UH-1, AH-1, OH-58 Helicopters
TM 1-1500-328-23	Aeronautical Equipment Maintenance Management Policies and Procedures
■ TM 1-1500-344-23	Aircraft Weapons System Cleaning and Corrosion Control
TM 1-1520-238-CL	Operator's Checklist for Army AH-64A Helicopter
TM 1-1520-238-MTF	Maintenance Test Flight Manual for Army AH-64A Helicopter
TM 1-1520-238-PM	Phased Maintenance Inspection Checklist for Army AH-64A Helicopter
TM 1-1520-238-PMS	AH-64A Helicopter 10 Hour/14 Day Inspection Checklist

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**A.2 REFERENCES – continued**


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TM 1-1520-238-T	Aviation Unit and Intermediate Troubleshooting Manual for Army Model AH-64A Helicopter
■ TM 1-1520-238-10	Operator's Manual for Helicopter, Attack, AH-64A Apache
TM 1-1520-238-23P	Aviation Unit and Intermediate Maintenance Repair Parts and Special Parts List for Attack AH-64A Helicopter
TM 1-1520-264-23	Aviation Unit Maintenance (AVUM) and Aviation Intermediate Maintenance (AVIM) Manual for Nondestructive Inspection Procedures for AH-64A Helicopter
TM 1-2835-213-23	Aviation Unit and Intermediate Maintenance Manual for Engine Assembly Gas Turbine (GTCP 36-55H), PN 3800102-2
TM 1-5855-265-T	Aviation Unit Maintenance Manual for Pilot Night Vision Sensor (PNVS) Assembly for Army AH-64A Attack Helicopter, AN/AAQ-11
TM 1-5855-265-20	Aviation Unit Maintenance Manual for Pilot Night Vision Sensor (PNVS) Assembly, AN/AAQ-11 (AH-64A Attack Helicopter)
TM 1-6625-3081-23P	Organizational and Direct Support Maintenance Repair Parts and Special Tools List for Electronic Equipment Test Facility TADS/PNVS Augmentation Equipment
TM 1-8145-476-23P	Aviation Unit and Intermediate Maintenance Repair Parts and Special Tools List for Target Acquisition Designation Sight (TADS) Assembly and Pilot Night Vision Sensor (PNVS) Assembly Shipping and Storage Containers
TM 3-4240-312-12&P	Operator's and Unit Maintenance Aircraft Chemical-Biological Mask, M43 Type 1 (CBR Blower)
TM 9-1090-208-23-1	Aviation Unit and Intermediate Maintenance Manual for M139 Helicopter Armament Subsystem, M230 30-Millimeter Automatic Gun, M140 Inventory and Deployment for Rocket Management Subsystem
TM 9-1090-208-23-2	Aviation Unit and Intermediate Troubleshooting Manual for M139 Helicopter Armament Subsystem, M230 30-Millimeter Automatic Gun, M140 Inventory and Deployment for Rocket Management Subsystem
TM 9-1090-208-23P	Aviation Unit and Intermediate Maintenance Repair Parts and Special Tools List (Including Depot Maintenance Repair Parts) for M139 Helicopter Armament Subsystem, M230 30-Millimeter Automatic Gun, M140 Inventory and Deployment for Rocket Management Subsystem
TM 9-1095-206-23&P	Aviation Unit Maintenance and Aviation Intermediate Maintenance Manual (Including Repair Parts and Special Tools List) for General Purpose Aircraft Dispenser, M130
TM 9-1230-476-20-1	Aviation Unit Maintenance Manual for Army AH-64A Helicopter Fire Control System
TM 9-1230-476-20-2	Aviation Unit Troubleshooting Manual for Army AH-64A Helicopter Fire Control System

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**A.2 REFERENCES – continued**

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TM 9-1230-476-23P	Aviation Unit and Intermediate Maintenance Repair Parts and Special Tools List (Including Depot Maintenance Repair Parts) for AH-64A Helicopter Fire Control System Fire Control Computer, Air Data Processor, Multiplex Remote Terminal Unit Type I, Type II, Type III, Omnidirectional Air Speed Sensor, and HELLFIRE/MMS/TADS/HME/FCS (AH-64A Application) for Fire Control System
TM 9-1230-476-30	Aviation Intermediate Maintenance Manual for Army AH-64A Helicopter Fire Control System
TM 9-1270-221-CL	Operational Checklist for Army AH-64A Helicopter Fire Control Subsystem Helmet Directed M142 Integrated Helmet
TM 9-1270-221-23	Aviation Unit and Intermediate Maintenance Manual for Helmet Directed Fire Control Subsystem, M142
TM 9-1270-221-23P	Aviation Unit and Intermediate Maintenance Repair Parts and Special Tools List (Including Depot Maintenance Repair Parts) for Helmet Directed Fire Control Subsystem, M142
TM 9-1270-233-23&P	Aviation Unit and Intermediate Maintenance Manual (Including Repair Parts and Special Tools List) for Integrated Helmet Unit
TM 9-1270-476-30	Aviation Intermediate Maintenance Manual for Target Acquisition Designation Sight (TADS) Assembly, AN/ASQ-170 (AH-64A Attack Helicopter)
■ TM 9-1300-206	Ammunition and Explosives Standards
TM 9-1427-475-20	Aviation Unit Maintenance Manual for Army AH-64A Helicopter Hellfire Missile Equipment (Point Target Weapon System) and Helicopter Launcher Interface (Aircraft Guided Missile Launcher, M272)
TM 9-1427-475-23P	Aviation Unit and Intermediate Maintenance Repair Parts and Special Tools List (Including Depot Maintenance Repair Parts) for AH-64A Helicopter Hellfire Missile Equipment, Pilot Missile Control Panel, CPG Missile Control Panel, and Remote HELLFIRE Electronics
TM 9-1427-475-30	Aviation Intermediate Maintenance Manual for Army AH-64A Helicopter Hellfire Missile Equipment
TM 9-4925-233-CL	Operator's Checklist for Army AH-64A Helicopter Box Magazine Ammunition Loader
TM 9-4925-233-13	Operator's Aviation Unit and Intermediate Maintenance Manual for Box Magazine Ammunition Loader (Loader/Downloader)
TM 9-4925-233-23P	Operator's Aviation Unit and Intermediate Maintenance Repair Parts and Special Tools List (Including Depot Maintenance Repair Parts) for Box Magazine Ammunition Loader

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**A.2 REFERENCES – continued**


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TM 9-4935-476-13	Operator's Aviation Unit and Intermediate Maintenance Manual for Army AH-64A Helicopter Captive Boresight Harmonization Kit
TM 9-4935-476-23P	Aviation Unit and Intermediate Maintenance Repair Parts and Special Tools List (Including Depot Maintenance Repair Parts) for Army AH-64A Helicopter Captive Boresight Harmonization Kit
TM 9-8145-476-23	Aviation Unit and Intermediate Maintenance Manual for Target Acquisition Designation Sight/Pilot Night Vision Sensor Assembly (TADS/PNVS) Shipping and Storage Containers
TM 11-1520-238-23-1	Aviation Unit and Intermediate Maintenance Manual for Army Model AH-64A Helicopter Avionics Configuration
TM 11-1520-238-23-2	Aviation Unit and Intermediate Troubleshooting Manual for Army Model AH-64A Helicopter Avionics Configuration
TM 11-1520-238-23P	Aviation Unit and Intermediate Maintenance Repair Parts and Special Tools List (Including Depot Maintenance Repair Parts) for Army AH-64A Helicopter Avionics Configuration
TM 11-5855-265-30	Aviation Intermediate Maintenance Manual for Pilot Night Vision Sensor (PNVS) Assembly, AN/AQQ-11 (AH-64A Attack Helicopter)
TM 11-5895-1184-23	Aviation Unit and Intermediate Maintenance Manual for Symbol Generator MX-10465/ASQ
TM 11-5895-1184-23P	Aviation Unit and Intermediate Maintenance Repair Parts and Special Tools List (Including Depot Maintenance Repair Parts) for Symbol Generator MX-10465/ASQ
TM 11-6140-203-14-1	Operator's, Organizational, Direct Support, and General Support Maintenance Manual for Aircraft and Nonaircraft Nickel-Cadmium Batteries (General)
TM 11-6140-203-14-2	Aviation Unit and Intermediate Maintenance Manual for Aircraft Nickel-Cadmium Batteries
■ TM 11-6140-203-23	Aircraft Nickel Cadmium Batteries
TM 11-6605-300-23&P	Aviation Unit and Intermediate Maintenance Manual (Including Repair Parts and Special Tools List) for Attitude Heading and Reference System, AN/ASN-143
TM 11-6625-3081-23	Organizational and Direct Support Maintenance Manual for Electronic Equipment Test Facility TADS/PNVS Augmentation Equipment Volume I, Volume II, Volume III, Volume IV, and Volume V
TM 11-6625-3085-12-1	Operator and Aviation Unit Maintenance Manual (AVUM) Deployment, Operation, and Teardown Procedures for AH-64A Electronic Equipment Test Facilities (EETF)

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**A.2 REFERENCES – continued**

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TM 11-6625-3085-12-2	Operator and Aviation Unit Maintenance Manual (AVUM) Procedures Test Van and Support Van Test Facility for AH-64A Electronic Equipment Test Facilities (EETF)
TM 11-6625-3085-12-3	Operator and Aviation Unit Maintenance Manual (AVUM) Procedures for Peculiar Subsystem and System Interface Devices for AH-64A Electronic Equipment Test Facilities (EETF)
TM 11-6625-3085-30	Aviation Intermediate Maintenance Procedures AH-64 Electronic Equipment Test Facility (EETF) Volume I, Volume II, Volume III, Volume IV, and Volume V
TM 38-230-1	Packaging of Material Preservation (Vol. I)
TM 38-230-2	Packaging of Material Preservation (Vol. II)
TM 43-0001-39	Army Data Sheets for Cartridges, Cartridge Activated Devices, and Propellant Activated Devices
TM 43-0106	Engineering Series – General Data and Usage Factors of Aerospace Metals for Aircraft Repair
TM 55-1500-322-24	Maintenance of Aeronautical Antifriction Bearings for Organizational, Intermediate, and Depot Maintenance Levels
TM 55-1500-323-24	Installation Practices for Aircraft Electric and Electronic Wiring
TM 55-1500-335-23	Nondestructive Inspection Methods
TM 55-1500-342-23	Army Aviation Maintenance Engineering Manual for Weight and Balance
TM 55-1500-343-23	Organizational and Intermediate Avionics Cleaning and Corrosion Prevention/Control
TM 55-1500-344-23	Aircraft Weapons System Cleaning and Corrosion Control (Superceded by TM 1-1500-344-23)
TM 55-1500-345-23	Painting and Marking of Army Aircraft
TM 55-1520-238-CL	Operator's Checklist for Army AH-64A Helicopter (Superceded by TM 1-1520-238-CL)
TM 55-1520-238-MTF	Maintenance Test Flight Manual for Army AH-64A Helicopter (Superceded by TM 1-1520-238-MTF)
TM 55-1520-238-S	Preparation for Shipment for Army AH-64A Helicopter
TM 55-1520-238-10	Operator's Manual for Army AH-64A Helicopter (Superceded by TM 1-1520-238-10)
TM 55-1680-317-23&P	Organizational and Direct Support Maintenance Manual With Repair Parts and Special Tools List for Army Aircraft Survival Kits

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**A.2 REFERENCES – continued**

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TM 55-1730-229-12	Operator's and Organizational Maintenance Manual, Power Unit, Aviation, Multi-Output GTED Electrical, Hydraulic, Pneumatic (AGPU), Wheel Mounted, Self-Propelled, Towable, AC400Hz, 3 PH, 0.8 PF, 155/200 V, 30 KW, DC 28 VDC, 700 AMPS, 60 LBS/MIN. at 40 PSIG Hydraulic 15 GPM at 3300 PSIG
TM 55-2620-200-24	Inspection, Maintenance Instructions, Storage, and Disposition of Aircraft Tires and Inner Tubes
TM 55-2835-208-23	Aviation Unit and Intermediate Maintenance Manual for Gas Turbine Engine (Auxiliary Power Unit - APU) Model T-62T-40-1 Part Numbers 116305-100 and 116305-200 (NSN 2835-01-083-9978) and (NSN 2835-01-166-9129)
TM 55-2840-248-23	Aviation Unit and Intermediate Maintenance Manual for Turboshift Aircraft Engine Models T700-GE-700, T700-GE-701, and T700-GE-701C
TM 55-4920-325-14&P	Operator's, Organizational, Direct, and General Support Maintenance Manual Including Repair Parts and Special Tools List for Fuel-Quantity-Gage Capacitance Type Test Set
TM 55-4920-334-14	Operator's Organizational, Direct Support, and General Support Maintenance Manual for Environmental Controls Test Set (A/E 24T-102)
TM 55-4920-334-34P	Direct Support and General Support Maintenance Repair Parts and Special Tools List for Environmental Controls Test Set (A/E 24T-102)
TM 750-244-1-5	Procedures for Destruction for Aircraft and Associated Equipment to Prevent Enemy Use



## APPENDIX B MAINTENANCE ALLOCATION CHART

### SECTION I. INTRODUCTION

#### B.1. MAINTENANCE ALLOCATION CHART

a. This Maintenance Allocation Chart (MAC) assigns maintenance functions in accordance with the Aviation Maintenance concept for Army aviation. These maintenance levels, Aviation Unit Maintenance (AVUM), Aviation Intermediate Maintenance (AVIM), and Depot Maintenance are depicted on the MAC as:

- (1) AVUM – corresponds to an O code in the Repair Parts and Special Tools List (RPSTL).
- (2) AVIM – corresponds to an F code in the Repair Parts and Special Tools List (RPSTL).
- (3) DEPOT – corresponds to a D code in the Repair Parts and Special Tools List (RPSTL).

b. The maintenance to be performed below depot and in the field is described as follows:

(1) Aviation Unit Maintenance (AVUM) activities will be staffed and equipped to perform high frequency “On-Aircraft” maintenance tasks required to retain or return aircraft to a serviceable condition. The maintenance capability of the AVUM will be governed by the Maintenance Allocation Chart (MAC) and limited by the amount and complexity of ground support equipment (GSE), facilities required, authorized manning strength, and critical skills available. The range and quantity of authorized spare modules/components will be consistent with the mobility requirements dictated by the air mobility concept. (Assignments of maintenance tasks to divisional company size aviation units will consider the overall maintenance capability of the division, the requirement to conserve personnel and equipment resources, and air mobility requirements.)

(a) Company Size Aviation Units: Perform those tasks which consist primarily of preventive maintenance and maintenance repair and replacement functions associated with sustaining a high level of aircraft operational readiness. Perform maintenance inspections and servicing to include preflight, daily, intermediate, periodic (or phased), and special inspections as authorized by the MAC or higher headquarters. Identify the cause of equipment/system malfunctions using applicable technical manual troubleshooting instructions, built-in test equipment (BITE), installed aircraft instruments, or test, measurement, and diagnostic equipment (TMDE). Replace worn or damaged modules/components that do not require complex adjustments or system alinement and which can be removed/installed with available skills, tools, and ground support equipment. Perform operational and continuity checks and make minor repairs to the electrical system. Inspect, service, and make operational, capacity, and pressure checks to hydraulic systems. Perform servicing, functional adjustments, and minor repair/replacement to the flight control, propulsion, power train, and fuel systems. Accomplish airframe repair that does not require extensive disassembly, jiggling, or alinement. The manufacture of airframe parts will be limited to those items which can be fabricated with tools and equipment found in current air mobile tool and shop sets. Evacuate unserviceable modules/components and end items beyond the repair capability of AVUM to the supporting AVIM.



(b) Less than Company Size Aviation Units: Aviation elements organic to brigade, group, battalion headquarters, and detachment size units are normally small and have less than 10 aircraft assigned. Maintenance tasks performed by these units will be those which can be accomplished by the aircraft crew chief or assigned aircraft repairman and will normally be limited to preventive maintenance, inspections, servicing, spot painting, module/component fault diagnosis, and replacement of selected modules/components. Repair functions will normally be accomplished by the support AVIM unit.

(2) Aviation Intermediate Maintenance (AVIM).

(a) Provides mobile, responsive "One Stop" maintenance support. (Maintenance functions which are not conducive to sustaining air mobility will be assigned to depot maintenance.)

(b) May perform all maintenance functions authorized to be done at AVUM. Repair of equipment for return to user will emphasize support or operational readiness requirements. Authorized maintenance includes replacement and repair of modules/components and end items which can be accomplished efficiently with available skills, tools, and equipment.

(c) Establishes the Direct Exchange (DX) program for AVUM units by repairing selected items for return to stock when such repairs cannot be accomplished at the AVUM level.

(d) Inspects, troubleshoots, performs diagnostic tests, repairs, adjusts, calibrates, and aligns aircraft system modules/components. AVIM units will have capability to determine the serviceability of specified modules/components removed prior to the expiration of the Time Between Overhaul (TBO) or finite life. Module/component disassembly and repair will support the DX program and will normally be limited to tasks requiring cleaning and the replacement of seals, fittings, and items of common hardware. Airframe repair and fabrication of parts will be limited to those maintenance tasks which can be performed with available tools and test equipment. Unserviceable repairable modules/components and end items which are beyond the capability of AVIM to repair will be evacuated to Depot Maintenance.

(e) Performs aircraft weight and balance inspections and other special inspections which exceed AVUM capability.

(f) Provides quick response maintenance support, including aircraft recovery and air evacuation, on-the-job training, and technical assistance through the use of mobile maintenance contact teams.

(g) Maintains authorized operational readiness float aircraft.

(h) Provides collection and classification services for serviceable/unserviceable material.

(i) Operates a cannibalization activity in accordance with AR 750-1. (The aircraft maintenance company within the maintenance battalion of a division will perform AVIM functions consistent with air mobility requirements and conservation of personnel and equipment resources. Additional intermediate maintenance support will be provided by the supporting nondivisional AVIM unit.)

**B.2. USE OF THE MAINTENANCE ALLOCATION CHART (SECTION II).****NOTE**

Approved item names are used throughout this MAC. Generic terms/nomenclatures (if any) are expressed in parentheses and are not to be considered as official terminology.

a. This Maintenance Allocation Chart assigns maintenance functions to the lowest level of maintenance, based on past experience and the following considerations:

- (1) Skills available.
- (2) Time required.
- (3) Tools and test equipment required and/or available.

b. Only the lowest level of maintenance authorized to perform a maintenance function is indicated. If the lowest maintenance level cannot perform all tasks of any single maintenance function (e.g., test, repair), then the higher maintenance level(s) that can accomplish additional tasks will also be indicated.

c. A maintenance function assigned to a maintenance level will automatically be authorized to be performed at any higher maintenance level.

d. A maintenance function that cannot be performed at the assigned level of maintenance for any reason may be evacuated to the next higher maintenance level. Higher maintenance levels will perform the maintenance functions of lower maintenance levels when required by the commander who has the authority to direct such tasking.

e. The assignment of a maintenance function will not be construed as authorization to carry the related repair parts or spares in stock. Information to requisition or otherwise secure the necessary repair parts will be as specified in the associated Repair Parts, and Special Tools List (RPSTL).

f. Higher level of maintenance organization commanders may authorize deviation from the assigned level of maintenance on a case by case basis or for up to one year when the lower level maintenance organization meets the following requirements:

- (1) The lower level maintenance organization must possess the trained personnel capable of performing the work.
- (2) Inspection may be performed by the lower level when expertise is available (or provided by the higher level).
- (3) Special tools/test equipment must be available (if required) at the requesting unit or furnished by the higher level.

**B.3. MAINTENANCE FUNCTIONS.**

Maintenance functions will be limited to and defined as follows:

a. **Inspect.** To determine the serviceability of an item by comparing its physical, mechanical, and/or electrical characteristics with established standards through examination (e.g., by sight, sound, or feel).

b. **Test.** To verify serviceability by measuring the mechanical, pneumatic, hydraulic, or electrical characteristics of an item and comparing those characteristics with prescribed standards.

c. **Service.** Operations required periodically to keep an item in proper operating condition, i.e., to clean (includes decontaminate, when required), to preserve, to drain, to paint, or to replenish fuel, lubricants, chemical fluids, or gases.

d. **Adjust.** To maintain or regulate, within prescribed limits, by bringing into proper or exact position, or by setting the operating characteristics to specified parameters.

e. **Align.** To adjust specified variable elements of an item to bring about optimum or desired performance.

f. **Calibrate.** To determine and cause corrections to be made or to be adjusted on instruments or test, measuring, and diagnostic equipments used in precision measurement. Consists of comparisons of two instruments, one of which is a certified standard of known accuracy, to detect and adjust any discrepancy in the accuracy of the instrument being compared.

g. **Remove/install.** To remove and install the same item when required to perform service or other maintenance functions. Install may be the act of placing, seating, or fixing into position a spare, repair part, or module (component or assembly) in a manner to allow the proper functioning of equipment or a system.

h. **Replace.** To remove an unserviceable item and install a serviceable counterpart in its place. "Replace" is authorized by the MAC, and assigned maintenance level is shown as the 3rd position code of the SMR code.

i. **Repair.** The application of maintenance services,<sup>1</sup> including fault location/troubleshooting,<sup>2</sup> removal/installation and disassembly/assembly procedures,<sup>3</sup> and maintenance actions<sup>4</sup> to identify troubles and restore serviceability to an item by correcting specific damage, fault, malfunction, or failure in a part, subassembly, module (component or assembly), end item, or system.

j. **Overhaul.** That maintenance effort (service/action) prescribed to restore an item to a completely serviceable/operational condition as required by maintenance standards in appropriate technical publications (i.e., DMWR). Overhaul is normally the highest degree of maintenance performed by the Army. Overhaul does not normally return an item to like-new condition.

k. **Rebuild.** Those services/actions necessary for the restoration of unserviceable equipment to a like-new condition in accordance with original manufacturing standards. Rebuild is the highest degree of materiel maintenance applied to Army equipment. The rebuild operation includes the act of returning to zero those age measurements (e.g., hours/miles) considered in classifying Army equipment/components.

#### B.4. EXPLANATION OF COLUMNS IN THE MAC, SECTION II.

a. **Functional Groups (Columns 1 and 2).** The functional groupings shown in the sample below identify maintenance significant components, assemblies, subassemblies, and modules with the next higher assembly.

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<sup>1</sup>Services – Inspect, test, service, adjust, align, calibrate, and/or replace.

<sup>2</sup>Fault locate/troubleshoot – The process of investigating and detecting the cause of equipment malfunctioning; the act of isolating a fault within a system or unit under test (UUT).

<sup>3</sup>Disassemble/assemble – Encompasses the step-by-step taking apart (or breakdown) of a spare/functional group coded item to the lowest level of component identified as maintenance significant (i.e., assigned an SMR code) for the level of maintenance under consideration.

<sup>4</sup>Actions – Welding, grinding, riveting, straightening, facing, machining, and/or resurfacing.

GROUP NUMBER	DESCRIPTION
00	Aircraft System
01	Aircraft General Servicing, handling, inspection requirements, lubrication requirements, overhaul and retirement requirements, cleaning, mooring, towing, jacking, hoisting, preservation requirements, weight and balance requirements, spot painting, complete painting, and subassembly painting requirements.
02	Airframe Structure Fuselage, empennage, pylons, wings mounts (engine and transmission), armor, seats, ramps, decks, and tiedowns.
03	Landing Gear Landing gear, skids, floats, skis, struts, wheel brakes, and mechanical mechanisms.
04	Power Plant Removal, installation, cooling systems, air induction, exhaust, oil systems, components, ignition systems, power control, harnesses, carburetors, fuel controls, pumps (engine driven), filters/particle separators, and Quick Change Assemblies (QCA). (See Power Plant Items, figure 2, for more detailed functions.)
05	Propellers/Rotors Systems Propellers, governors, rotors (main and tail), hubs, blades, dampeners, stabilizer bars, and swashplates.

GROUP NUMBER	DESCRIPTION
06	Drive Train Systems Transmission, gearboxes, clutches, shafting, oil systems, bearings, hangers, oil tanks, and freewheeling units.
07	Hydraulic and Pneumatic Systems Pumps, filters, reservoirs, cylinders, valves, servos, motors, starters, and accumulators.
08	Instrument Systems. Flight instruments, navigation instruments, engine instruments, miscellaneous instrument (i.e. clocks) sending units, panels, and flow meters.
09	Electrical System Motors, actuators, regulators, generators, starters, batteries, lighting, caution and warning lights, inverters, fault isolation systems, rotor brakes, and avionics provisions.
10	Fuel Systems Tanks, cells, filters, pumps, valves, auxiliary fuel systems, and refueling systems.
11	Flight Controls System Control sticks, pedals, cables, pulleys, push-pull rods, torque tubes, quadrants, force gradients, control surfaces bellcranks, and trim actuators (mechanical).
12	Utility Systems Fire detecting/extinguishing systems, oxygen systems, windshield wiper systems, mirrors, and de-ice/anti-ice systems.

GROUP NUMBER	DESCRIPTION
13	Environmental Control Systems (ECS) Heaters, air conditioners, defrosters, control mixing valves, and ducts.
14	Hoists and Winches Cargo/rescue hoists, winches, hooks, slings, loading systems, and emergency release systems.
15	Auxiliary Power Unit (APU) Fuel, exhaust, and ducting.

GROUP NUMBER	DESCRIPTION
16	Mission Equipment Spraying equipment, stores, racks, armament, reconnaissance, photography pods, and litters.
17	Emergency Equipment Ejection seats, canopies, jettison system, portable fire extinguishers, axes, and first aid kits.
18	Installed Avionics Components Communications and navigational black boxes.

b. **Maintenance Function (Column 3).** Column 3 lists the functions to be performed on the items listed in column 2.

c. **Maintenance Levels (Column 4).** The maintenance levels AVUM, AVIM, and DEPOT are listed on the Maintenance Allocation Chart with individual columns that include the work times for maintenance functions at each maintenance level. Work time presentations such as "0.1" indicate the average time (expressed in man-hours in whole hours or decimals) it requires a maintenance level to perform a specified maintenance function. If a work time has not been established, the columnar presentation shall indicate "-.-". Maintenance levels higher than the level of maintenance indicated are authorized to perform the indicated function.

d. **Tools and Equipment Reference Code (Column 5).** Column 5 specifies, by code, those common tool sets (not individual tools), common TMDE, and special tools, special TMDE, and special support equipment required to perform the designed function.

e. **Remarks Code (Column 6).** When applicable, this column contains a letter code, in alphabetical order, which is keyed to the remarks contained in Section IV.

**B.5. EXPLANATION OF COLUMNS IN TOOLS AND TEST EQUIPMENT REQUIREMENTS, SECTION III.**

a. **Column 1, Tools and Test Equipment Reference Code.** The tool and test equipment reference code correlates with a code used in the MAC, Section II, Column 5.

b. **Column 2, Maintenance Level.** The lowest level of maintenance authorized to use the tool or test equipment.

c. **Column 3, Nomenclature.** Name or identification of the tool or test equipment.

d. **Column 4, National Stock Number.** The National Stock Number of the tool or test equipment.

e. **Column 5, Tool Number.** The manufacturer's part number.

**B.6. EXPLANATION OF COLUMNS IN REMARKS, SECTION IV.**

- a. **Column 1, Remarks Code.** The code recorded in column 6, Section II.
- b. **Column 2, Remark.** This column lists information pertinent to the maintenance function being performed as indicated in the MAC, Section II.

SECTION II. MAINTENANCE ALLOCATION CHART (AVIATION)  
FOR  
AH-64A HELICOPTER

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL			(5) TOOLS & EQUIP REF CODE	(6) REMARKS CODE
			AVUM (O)	AVIM (F)	DEPOT (D)		
01	AIRCRAFT GENERAL						
0101	HELICOPTER, ATTACK	INSPECT	2.5			6, 25, 27, 28, 68, 70, 95, 129, 131, 137, 140, 154, 156, 162, 174, 188A, 192, 205, 209, 216, 220, 222, 232, 238, 262, 271, 276,354B 363, 364, 371, 373, 376, 396, 398, 399, 435, 436, 445, 447	
		SERVICE	0.1				
0102	HYDRAULIC SYSTEM INSTL	SERVICE	0.6			70, 137, 156, 222, 232, 364, 373, 376, 398, 399, 435, 447	
0103	BRAKE SYSTEM INSTL	SERVICE	2.0			27, 129, 131, 154, 216, 222, 399	
0104	FUEL SYSTEM INSTL	SERVICE	0.4			27, 129, 154, 222, 232, 262, 376	
0105	KIT, HYDRAULIC HOSES	REMOVE INSTALL	0.4 0.4			69, 376	

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL			(5) TOOLS & EQUIP REF CODE	(6) REMARKS CODE
			AVUM (O)	AVIM (F)	DEPOT (D)		
02	AIRFRAME STRUCTURE	INSPECT		0.3	0.3	376	
0201	FORWARD FUSELAGE	REPAIR	1.1	16.4		27, 60, 102, 112, 154, 155, 163, 199, 213, 215, 245A, 262, 272, 284, 339, 376, 377, 378	A, AD, AF
020101	CONTROL, SURFACE, SUPPORT	REPAIR		1.2		27, 154, 262, 377, 435	
020102	FRAME INSTALLATION ASSEMBLY	REPAIR	1.1			377	A, D, I, J, K, U, AD, AF
020103	FLOOR INSTALLATION ASSEMBLY	REPAIR	0.6	0.7		27, 50, 112, 154, 155, 163, 213, 262, 377	A, AD, AF
020104	FLOOR INSTALLATION ASSEMBLY	REPAIR	0.6	0.7		376	A, AD, AF
020105	COVER, ACCESS	REMOVE INSTALL REPAIR	0.5 0.5 1.1			377	
020106	COVER, ACCESS	REMOVE INSTALL REPAIR	0.2 0.2 0.4			377	
020107	COVER, ACCESS	REMOVE INSTALL REPAIR	0.2 0.2 0.4			377	
020108	DOOR, ACCESS	REMOVE INSTALL REPAIR	0.2 0.2 0.5			377	



(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL			(5) TOOLS & EQUIP REF CODE	(6) REMARKS CODE
			AVUM (O)	AVIM (F)	DEPOT (D)		
020109	FITTING ASSEMBLY SUPPORT	REPAIR		1.0		27, 112, 154, 155, 163, 213, 262, 377	A, D
020110	BRACKET, DOUBLE ANGLE	REPAIR		1.0		27, 154, 262, 376	A, I
020111	DRAIN INSTALLATION ASSEMBLY	REPAIR	0.2			376	
020112	DOOR, ACCESS	REMOVE INSTALL REPAIR	0.4 0.4 1.1			377	
020113	DOOR, ACCESS	REMOVE INSTALL REPAIR	0.4 0.4 1.2			377	
020114	COVER, ACCESS	REMOVE INSTALL REPAIR	0.4 0.4 1.2			377	
020115	AVIONICS BAY INSTALLATION	REPAIR	0.3			27, 154, 262, 376	
020116	FAIRING, AIRCRAFT, LH	REMOVE INSTALL REPAIR	0.4 0.4 1.2	1.1		27, 154, 262, 376	
020117	DOOR, ACCESS	REMOVE INSTALL REPAIR	0.2 0.2 0.9	1.0		377	
020118	COVER, ACCESS	REMOVE INSTALL REPAIR	0.3 0.3 1.1			377	
020119	COVER, ACCESS	REMOVE INSTALL REPAIR	0.2 0.2 0.8			377	
020120	AVIONICS BAY INSTALLATION	REPAIR	0.3			27, 154, 262, 376	

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL			(5) TOOLS & EQUIP REF CODE	(6) REMARKS CODE
			AVUM (O)	AVIM (F)	DEPOT (D)		
020121	FAIRING ASSEMBLY, AMMO CARRIER, RH	REMOVE INSTALL REPAIR	0.2 0.2 1.2	0.8		27, 154, 262, 376	A, D, I, J, U
020122	FAIRING, AIRCRAFT	REMOVE INSTALL REPAIR	0.4 0.4 1.3	0.6		27, 154, 262, 376	
020123	DOOR, ACCESS	REMOVE INSTALL REPAIR	0.2 0.2 1.0	0.6		377	
020124	DOOR, ACCESS	REMOVE INSTALL REPAIR	0.1 0.1 0.5			377	
020125	STEP ASSEMBLY, AIRFRAME	REMOVE INSTALL REPAIR	0.4 0.4 0.6			376	
020126	COVER, ACCESS	REMOVE INSTALL REPAIR	0.3 0.3 0.7			377	
020127	COVER, ACCESS	REMOVE INSTALL REPAIR	0.3 0.3 0.8			377	
020128	FRAME ASSEMBLY, RH FAB	REPAIR	1.2			27, 154, 262, 234, 376	
020129	SUPPORT, STRUCTURAL	REMOVE INSTALL REPAIR	0.3 0.3 0.4			27, 154, 262, 234, 376	
020130	COVER, ACCESS	REMOVE INSTALL REPAIR	0.3 0.3 1.0			377	
020131	COVER, ACCESS	REMOVE INSTALL REPAIR	0.3 0.3 1.1			377	

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL			(5) TOOLS & EQUIP REF CODE	(6) REMARKS CODE
			AVUM (O)	AVIM (F)	DEPOT (D)		
020201	BOW BEAM, LH INSTALLATION	REPAIR		1.1	0.5	27, 154, 199, 262, 376, 377, 446	
020202	BOW BEAM, RH INSTALLATION	REPAIR	1.3			27, 154, 199, 262, 376, 377, 446	
020203	STRUCTURE, INSTALLATION	REPAIR	0.2			27, 154, 262, 376	A, D, I, J, K, U, AD, AF
020204	PANEL INSTALLATION ASSEMBLY	REPAIR		0.5		27, 154, 262, 376	
020205	HANDLE ASSEMBLY, CANOPY	REMOVE INSTALL	0.1 0.1			27, 154, 262, 376	
020301	STRUCTURE ASSEMBLY	REPAIR	0.6	4.9		377	
020302	DOOR ASSEMBLY INSTALLATION, REFUEL PANEL	REPAIR	0.2			377	
020303	DOOR, ACCESS	REMOVE INSTALL REPAIR	0.2 0.2 0.7			377	
020304	DOOR	REPAIR	0.3			377	
020305	DOOR, AIRFRAME	REMOVE INSTALL REPAIR	0.3 0.3 0.6			377	A, D, I, J, U
020306	COVER, ACCESS	REMOVE INSTALL REPAIR	0.2 0.2 0.6			377	
020307	DOOR INSTALLATION	REPAIR	0.3			377	
020308	FOOTSTEP ASSEMBLY INSTALLATION	REPAIR	0.7			376	
020309	FOOTSTEP ASSEMBLY INSTALLATION	REPAIR	0.7			376	

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL			(5) TOOLS & EQUIP REF CODE	(6) REMARKS CODE
			AVUM (O)	AVIM (F)	DEPOT (D)		
020310	FRAME SECTION, SKID	REMOVE INSTALL REPAIR	0.3	3.3 3.3		27, 154, 262, 376	
020311	FOOTSTEP INSTALLATION ASSEMBLY	REPAIR	0.3			376	
020312	FOOTSTEP INSTALLATION	REPAIR	0.3			376	
020313	SUPPORT INSTALLATION ASSEMBLY	REPAIR	1.3			27, 154, 262, 376	
020314	BOLT, EYE	REMOVE INSTALL	2.1 2.1			27, 154, 262, 376	
020315	SUPPORT INSTALLATION ASSEMBLY	REPAIR	0.9			27, 154, 262, 376	
020316	BOLT, EYE	REMOVE INSTALL	1.9 1.9			27, 154, 262, 376	
020317	BULKHEAD INSTALLATION ASSEMBLY	REPAIR	0.3			27, 154, 262, 376	
020318	SUPPORT ASSEMBLY, ENGINE	REMOVE INSTALL REPAIR		3.1 3.1 2.6		377	A, D, I, J, U
020319	BULKHEAD INSTALLATION ASSEMBLY	INSPECT REMOVE INSTALL REPAIR	0.2 0.7 0.7 1.4			27, 154, 262, 376	
020320	BULKHEAD INSTALLATION ASSEMBLY	REPAIR	11.8			27, 154, 262, 376	
020321	PAN ASSEMBLY, FWD FUEL DRAIN	INSPECT REMOVE INSTALL REPAIR	0.1 1.8 1.8 2.0			27, 154, 262, 376	

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL			(5) TOOLS & EQUIP REF CODE	(6) REMARKS CODE
			AVUM (O)	AVIM (F)	DEPOT (D)		
020322	FRAME INSTALLATION ASSEMBLY	INSPECT	0.3			27, 154, 262, 376	A, D, I, J, K, U, AD, AF
		REPAIR	0.8				
020323	PANEL ASSEMBLY, FUEL CELL	INSPECT	0.1			376	A, D, I, U
		REMOVE	0.5				
		INSTALL	0.5				
		REPAIR	0.7				
020324	ACCESS PANEL INSTALLATION	INSPECT	0.2			377	
		REPAIR	0.2				
020325	DOOR	INSPECT	0.2			377	
		REMOVE	0.1				
		INSTALL	0.1				
		REPAIR	0.3				
020326	COVER, ACCESS	INSPECT	0.1			377	
		REMOVE	0.1				
		INSTALL	0.1				
		REPAIR	0.3				
020327	DECK INSTALLATION ASSEMBLY	INSPECT	0.1			376	
		REPAIR	0.5	4.5			
020328	DOOR	INSPECT	0.2			377	
		REMOVE	0.3				
		INSTALL	0.3				
		REPAIR	0.8				
020329	DOOR	INSPECT	0.1			377	
		REMOVE	0.3				
		INSTALL	0.3				
		REPAIR	0.7				
020330	DOOR	INSPECT	0.1			377	
		REMOVE	0.3				
		INSTALL	0.3				
		REPAIR	0.7				
020331	DOOR, ACCESS	INSPECT	0.1			377	
		REMOVE	0.3				
		INSTALL	0.3				
		REPAIR	0.7				

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL			(5) TOOLS & EQUIP REF CODE	(6) REMARKS CODE
			AVUM (O)	AVIM (F)	DEPOT (D)		
020332	DOOR	INSPECT	0.1			377	
		REMOVE	0.3				
		INSTALL	0.3				
		REPAIR	0.8				
020333	DOOR	INSPECT	0.3			377	
		REMOVE	0.4				
		INSTALL	0.4				
		REPAIR	0.9				
020334	DOOR, ACCESS	INSPECT	0.1			377	
		REMOVE	0.2				
		INSTALL	0.2				
		REPAIR	1.3				
020335	DOOR, ACCESS	INSPECT	0.1			377	
		REMOVE	0.8				
		INSTALL	0.8				
		REPAIR	1.3				
020336	DOOR, ACCESS	INSPECT	0.1			377	
		REMOVE	0.3				
		INSTALL	0.3				
		REPAIR	0.8				
020337	DOOR, ACCESS	INSPECT	0.1			377	
		REMOVE	0.3				
		INSTALL	0.3				
		REPAIR	0.7				
020338	MOUNT ASSEMBLY, EGI	REMOVE			2.5	377	
		INSTALL			2.5		
020339	SUPPORT ASSEMBLY, ENGINE	INSPECT	0.1			377	
		REMOVE		2.9			
		INSTALL		2.9			
		REPAIR		5.2			
020340	SUPPORT ASSEMBLY, ENGINE	REMOVE		0.4		377	
		INSTALL		0.4			
020341	FAIRING INSTALLATION, LH	INSPECT	0.1			377	
		REPAIR	0.1				

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL			(5) TOOLS & EQUIP REF CODE	(6) REMARKS CODE
			AVUM (O)	AVIM (F)	DEPOT (D)		
020342	FAIRING, FUSELAGE, AIRCRAFT	INSPECT REMOVE INSTALL REPAIR	0.1 0.8 0.8 0.7			377	
020343	FAIRING INSTALLATION, RH	INSPECT REPAIR	0.1 0.1			376	
020344	FAIRING, SHOCK STRUT	INSPECT REMOVE INSTALL REPAIR	0.1 0.9 0.9 0.7			376	
020345	PIVOT, INSTALLATION, LANDING GEAR, LH	INSPECT REPAIR	0.1	5.0		27, 154, 262, 376	
020346	PIVOT, INSTALLATION, LANDING GEAR, RH	INSPECT REPAIR	0.1	5.0		27, 154, 262, 376	
020347	FITTING INSTALLATION, SUPPORT, LH	INSPECT REPAIR	0.1 2.9			21, 27, 154, 163, 262, 376, 441, 443	
020348	FITTING INSTALLATION, SUPPORT, RH	REPAIR	3.0			21, 27, 154, 163, 262, 376, 441, 443	
020349	DOOR, ACCESS	INSPECT REMOVE INSTALL REPAIR	0.1 0.1 0.1 1.7	1.7		377	
020350	WALKWAY INSTALLATION, LH	INSPECT REPAIR	0.1 0.6			376	M
020351	SEAL ASSEMBLY, WALKWAY	INSPECT REMOVE INSTALL REPAIR	0.2 0.2 0.2 0.6			376	

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL			(5) TOOLS & EQUIP REF CODE	(6) REMARKS CODE
			AVUM (O)	AVIM (F)	DEPOT (D)		
020352	DOOR, ACCESS	INSPECT	0.1			377	
		SERVICE	1.4				
		REMOVE	0.6				
		INSTALL	0.6				
		REPAIR	0.8				
020353	PANEL	INSPECT	0.1			376	
		REMOVE	0.5				
		INSTALL	0.5				
		REPAIR	0.5				
020354	PANEL ASSEMBLY	INSPECT	0.1			376	
		REMOVE	0.5				
		INSTALL	0.5				
		REPAIR	0.5				
020355	WALKWAY INSTALLATION, RH	INSPECT	0.1			376	M
		REPAIR	0.4				
020356	SEAL ASSEMBLY, WALKWAY	INSPECT	0.1			376	
		REMOVE	0.2				
		INSTALL	0.2				
		REPAIR	0.6				
020357	DOOR, ACCESS	INSPECT	0.1			377	
		SERVICE	1.3				
		REMOVE	0.6				
		INSTALL	0.6				
		REPAIR	0.8				
020358	PANEL	INSPECT	0.2			376	
		REMOVE	0.2				
		INSTALL	0.2				
		REPAIR	0.5				
020359	PANEL ASSEMBLY	INSPECT	0.2			376	
		REMOVE	0.2				
		INSTALL	0.2				
		REPAIR	0.5				
020360	INTERFACE INSTALLATION	REPAIR			1.3	376	



(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL			(5) TOOLS & EQUIP REF CODE	(6) REMARKS CODE
			AVUM (O)	AVIM (F)	DEPOT (D)		
020361	FLOOR INSTALLATION, PILOTS	INSPECT REPAIR	0.3 0.7	1.8		376	
020362	DOOR	INSPECT REMOVE INSTALL REPAIR	0.1 0.4 0.4 0.9			376	
020363	DOOR	INSPECT REMOVE INSTALL REPAIR	0.1 0.4 0.4 0.9			376	
020364	DOOR	INSPECT REMOVE INSTALL REPAIR	0.1 0.5 0.5 0.9			376	
020365	HANDLE INSTALLATION ASSEMBLY	INSPECT REPAIR	0.2 0.3			376	
020366	HANDLE INSTALLATION ASSEMBLY	INSPECT REPAIR	0.2 0.3			376	
020367	HANDLE INSTALLATION ASSEMBLY	INSPECT REPAIR	0.2 0.3			376	
020368	PAN INSTALLATION ASSEMBLY	REMOVE INSTALL REPAIR	3.7 3.7 0.8	0.2		376	
0204	SPLICE INSTALLATION ASSEMBLY	REPAIR	0.7			376	
0205	FUSELAGE ASSEMBLY, AFT	REPAIR	1.2	8.6	4.4	376	
020501	DOOR ASSEMBLY, STOWAGE	REMOVE INSTALL REPAIR	0.2 0.2 2.3			376	
020502	DOOR, CARGO, AIRCRAFT	REMOVE INSTALL REPAIR	0.2 0.2 2.3			376	

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL			(5) TOOLS & EQUIP REF CODE	(6) REMARKS CODE
			AVUM (O)	AVIM (F)	DEPOT (D)		
020503	STRUCTURAL INSTALLATION	REPAIR	0.4			376	
020504	STRUCTURAL ASSEMBLY	REMOVE INSTALL REPAIR	0.2 0.2 0.7			376	
020505	STEPS INSTALLATION ASSEMBLY	REPAIR	0.2			376	
020506	STEP, FOOT	SERVICE REMOVE INSTALL REPAIR	0.5 0.2 0.2 0.9			376	
020507	FLOOR INSTALLATION ASSEMBLY	REPAIR	0.4	0.4		377	
020508	SUPPORT INSTALLATION ASSEMBLY	REPAIR	0.3			377	
020509	SUPPORT ASSEMBLY	REMOVE INSTALL REPAIR	0.4 0.4 0.8			377	
020510	SUPPORT, STRUCTURAL	REMOVE INSTALL REPAIR		0.6 0.6		377	
020511	BAFFLE ASSEMBLY	REMOVE INSTALL REPAIR	0.3 0.3 0.7			376	
020512	SUPPORT INSTALLATION, NACELLE	REPAIR	0.2			377	
020513	FLOOR INSTALLATION ASSEMBLY	INSPECT REPAIR	0.4 0.2			377	
020514	COVER, ACCESS	INSPECT REMOVE INSTALL REPAIR	0.1 0.1 0.1 0.5			377	

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL			(5) TOOLS & EQUIP REF CODE	(6) REMARKS CODE
			AVUM (O)	AVIM (F)	DEPOT (D)		
020515	RAIL ASSEMBLY, FLOOR	INSPECT	0.1			377	
		REMOVE	0.1				
		INSTALL	0.1				
		REPAIR	0.6				
020516	BRACKET ASSEMBLY, DECK	REMOVE		0.6		376	
		INSTALL		0.6			
		REPAIR		0.3			
020517	BRACKET ASSEMBLY	REMOVE	0.5			376	
		INSTALL	0.5				
		REPAIR	0.4				
020518	STRUCTURAL INSTALLATION	REPAIR	1.7			377	
020519	DOOR, ACCESS	INSPECT	0.2			377	
		REMOVE	0.6				
		INSTALL	0.6				
		REPAIR	1.0				
020520	BULKHEAD INSTALLATION ASSEMBLY	REPAIR	0.2			377	
020521	COVER, ACCESS	INSPECT	0.1			377	
		REMOVE	0.2				
		INSTALL	0.2				
		REPAIR	1.0				
020522	DOOR, ACCESS	INSPECT	0.1			377	
		REMOVE	0.2				
		INSTALL	0.2				
		REPAIR	0.4				
020523	DOOR, ACCESS	REMOVE	0.2			377	
		INSTALL	0.2				
		REPAIR	0.5				
020524	PAN ASSEMBLY, DRAIN	REMOVE	2.1			376, 377	
		INSTALL	2.1				
		REPAIR	0.4				

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL			(5) TOOLS & EQUIP REF CODE	(6) REMARKS CODE
			AVUM (O)	AVIM (F)	DEPOT (D)		
0202525	FWD FUSELAGE LEFT AN/AVR-2A(V) SENSOR MOUNT	INSPECT	0.1			376, 377	
		REMOVE	0.5				
		INSTALL	0.5				
		REPAIR	0.3				
0202526	FWD FUSELAGE RIGHT AN/AVR-2A(V) SENSOR MOUNT	INSPECT	0.1			376, 377	
		REMOVE	0.5				
		INSTALL	0.5				
		REPAIR	0.3				
0202527	AFT FUSELAGE LEFT AN/AVR-2A(V) SENSOR MOUNT	INSPECT	0.1			376, 377	
		REMOVE	0.5				
		INSTALL	0.5				
		REPAIR	0.3				
0202528	AFT FUSELAGE RIGHT AN/AVR-2A(V) SENSOR MOUNT	INSPECT	0.1			376, 377	
		REMOVE	0.5				
		INSTALL	0.5				
		REPAIR	0.3				
0206	TAILBOOM ASSEMBLY, AIRCRAFT	INSPECT	0.4			27, 154, 262, 376	A, D, I, J, U, AF
		REPAIR	2.1	7.4			



(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL			(5) TOOLS & EQUIP REF CODE	(6) REMARKS CODE
			AVUM (O)	AVIM (F)	DEPOT (D)		
020601	BULKHEAD, AIRCRAFT	REPAIR	0.7			377	
020602	BULKHEAD, AIRCRAFT	REPAIR	4.0			377	
020603	SKIN, STRINGER INSTALLATION	REPAIR	1.0			377	
020604	SUPPORT ASSEMBLY	REMOVE INSTALL REPAIR	0.4 0.4 1.1			376	
020605	STEP INSTALLATION ASSEMBLY	REPAIR	0.1			376	
0207	PANEL, INSTRUMENT, INSTALLATION	INSPECT REPAIR	0.1 0.4			377	
0208	CONSOLE ASSEMBLY INSTALLATION	INSPECT REPAIR	0.1 0.4			376	
020801	PANEL ASSEMBLY, CONSOLE	INSPECT REMOVE INSTALL REPAIR	0.1 0.2 0.2 0.5			376	
020802	PANEL ASSEMBLY, CONSOLE	REMOVE INSTALL REPAIR	0.2 0.2 0.5			376	
020803	PANEL ASSEMBLY, CONSOLE	REMOVE INSTALL REPAIR	0.2 0.2 0.4			376	
020804	PANEL ASSEMBLY, CONSOLE	INSPECT REMOVE INSTALL REPAIR	0.1 0.2 0.2 0.5			376	
020805	CONSOLE INSTALLATION	INSPECT REPAIR	0.1 0.3			376	
020806	PANEL INSTALLATION, CONSOLE	INSPECT REMOVE INSTALL REPAIR	0.1 0.2 0.2 0.5			376	A, D, I, J, U

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL			(5) TOOLS & EQUIP REF CODE	(6) REMARKS CODE
			AVUM (O)	AVIM (F)	DEPOT (D)		
020807	COVER, ACCESS	REMOVE INSTALL REPAIR	0.2 0.2 0.5			377	
020808	PANEL ASSEMBLY, CONSOLE	INSPECT REMOVE INSTALL REPAIR	0.1 0.2 0.2 0.5			376	A, D, I, J, U
0209	PANEL, INSTRUMENT, INSTALLATION	INSPECT REPAIR	0.1 0.3			377	
020901	PLATE, STRUCTURAL, AIRCRAFT	INSPECT REMOVE INSTALL REPAIR	0.1 0.1 0.1 0.5			376	D, I, J, U
020902	CONSOLE ASSEMBLY INSTALLATION	INSPECT REPAIR	0.1 0.4			376	
020903	PANEL ASSEMBLY, CONSOLE	INSPECT REMOVE INSTALL REPAIR	0.1 0.2 0.2 0.5			376	A, D, I, J, U
020904	PANEL ASSEMBLY, CONSOLE	INSPECT REMOVE INSTALL REPAIR	0.1 0.2 0.2 0.5			376	A, D, I, J, U
020905	PANEL ASSEMBLY, CONSOLE	REMOVE INSTALL REPAIR	0.2 0.2 0.7			376	A, D, I, J, U
020906	PANEL, INDICATOR	INSPECT REMOVE INSTALL REPAIR	0.1 0.1 0.1 0.5			376	A, D, I, J, U
020907	CONSOLE ASSEMBLY INSTALLATION	INSPECT REPAIR	0.1 0.4			376	
020908	PANEL	REMOVE INSTALL REPAIR	0.1 0.1 0.6			376	

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL			(5) TOOLS & EQUIP REF CODE	(6) REMARKS CODE
			AVUM (O)	AVIM (F)	DEPOT (D)		
020909	PANEL, CONSOLE	REMOVE INSTALL REPAIR	0.5 0.5 0.5			376	
020910	PANEL, SIDE	INSPECT REMOVE INSTALL REPAIR	0.1 1.1 1.1 0.5			376	
0210	COVER ASSEMBLY INSTALLATION	INSPECT REPAIR	0.1 0.1			376	
021001	COVER ASSEMBLY	INSPECT REMOVE INSTALL REPAIR	0.1 1.5 1.5 0.9			376	
021002	COVER	INSPECT REMOVE INSTALL REPAIR	0.1 4.6 4.6 1.0			376	
021003	SEAL ASSEMBLY INSTALLATION	INSPECT REPAIR	0.1 0.4			376	
0211	EMPENNAGE INSTALLATION	INSPECT REPAIR	0.2 0.9			27, 154, 262, 377	
021101	STABILIZER, VERTICAL	REMOVE INSTALL REPAIR	3.2 3.2 0.4			4, 27, 154, 218, 262, 289, 376, 378, 390, 433, 442, 446	
021102	SPAR BOX ASSEMBLY	INSPECT REPAIR	0.2 0.7	7.3		376	
021103	RIB	REMOVE INSTALL REPAIR		0.5 0.5 0.4		376	
021104	BRACKET ASSEMBLY, UPPER	REMOVE INSTALL		0.9 0.9		376	



(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL			(5) TOOLS & EQUIP REF CODE	(6) REMARKS CODE
			AVUM (O)	AVIM (F)	DEPOT (D)		
021105	FAIRING INSTALLATION ASSEMBLY	INSPECT	0.6	0.7		376	
		REMOVE	0.3				
		INSTALL	0.3				
		REPAIR	0.7				
021106	FAIRING INSTALLATION ASSEMBLY	INSPECT	0.3			376	
		REMOVE	0.2				
		INSTALL	0.2				
		REPAIR	0.8				
021107	FAIRING INSTALLATION ASSEMBLY	REPAIR	0.1			376	
021108	FAIRING, AIRCRAFT	REMOVE	0.1			376	
		INSTALL	0.1				
		REPAIR	0.5				
021109	FAIRING, AIRCRAFT	REMOVE	0.1			376	
		INSTALL	0.1				
		REPAIR	0.7				
021110	ANTENNA, TRAILING EDGE ASSEMBLY	INSPECT	0.1			211, 218, 376, 378	
		REMOVE	0.3				
		INSTALL	0.3				
		REPAIR	0.8				
021111	FAIRING, STABILIZER	INSPECT	0.1			376	
		REMOVE	0.2				
		INSTALL	0.2				
		REPAIR	0.7				
021112	TIP ASSEMBLY, VERTICAL STABILIZER	REPAIR	0.2			211, 376, 378	
021113	FORWARD TIP ASSEMBLY	REMOVE	0.3			376	
		INSTALL	0.3				
		REPAIR	0.9				
021114	AFT TIP ASSEMBLY	INSPECT	0.1			376	
		REMOVE	0.8				
		INSTALL	0.8				
		REPAIR	1.6				
021115	STEPS, HANDHOLD INSTALLATION	INSPECT	0.2			27, 154, 262, 376	
		REPAIR	0.7				

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL			(5) TOOLS & EQUIP REF CODE	(6) REMARKS CODE
			AVUM (O)	AVIM (F)	DEPOT (D)		
021116	FAIRING ASSEMBLY	INSPECT REPAIR	0.1 0.8			376	
021117	DOOR, ACCESS	REMOVE INSTALL REPAIR	0.3 0.3 0.1	0.8		377	
021118	STABILATOR ASSEMBLY	INSPECT REMOVE INSTALL REPAIR	0.1 1.2 1.2 1.0	6.8		3, 27, 95, 154, 262, 276, 306, 376, 418, 433, 447	
021119	FITTING ASSEMBLY, PI	INSPECT REPAIR	0.1 0.3	0.8	3.6	27, 154, 234, 243, 262, 376, 392, 445	
021120	TIP, FAIRING	INSPECT REMOVE INSTALL REPAIR	0.1 0.2 0.2 0.7			376	
021121	DOOR INSTALLATION	INSPECT REPAIR	0.1 0.2			376	
021122	COVER, ACCESS	REMOVE INSTALL REPAIR	0.2 0.2 0.4			377	
021123	FITTING, STABILIZER	INSPECT REMOVE INSTALL REPAIR	0.1 0.4 0.4 0.7	1.4		376	
021124	COVER INSTALLATION, DEBRIS	REPAIR	1.3			27, 154, 262, 270, 376	
0212	WING INSTALLATION, LH	INSPECT SERVICE REPAIR	0.1 1.2 0.2			376	

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL			(5) TOOLS & EQUIP REF CODE	(6) REMARKS CODE
			AVUM (O)	AVIM (F)	DEPOT (D)		
021201	WING ASSEMBLY, AIRCRAFT	INSPECT	0.1	5.1		5, 172, 304, 315A, 316, 376, 443, 444	AA
		REMOVE	1.5				
		INSTALL	1.5				
		REPAIR	0.6				
021202	PANEL INSTALLATION ASSEMBLY	INSPECT	0.1			376	AA, AC, AD, AE, AF
		REPAIR	0.6				
021203	COVER ACCESS	REMOVE	0.2			376	
		INSTALL	0.2				
		REPAIR	0.7				
021204	COVER, ACCESS	INSPECT	0.1			377	
		REMOVE	0.2				
		INSTALL	0.2				
		REPAIR	0.7				
021205	COVER, ACCESS	INSPECT	0.1			377	
		REMOVE	0.2				
		INSTALL	0.2				
		REPAIR	0.7				
021206	TRAILING EDGE INSTALLATION	REMOVE	0.5			376	
		INSTALL	0.5				
		REPAIR	0.1				
021207	TRAILING EDGE, WING	INSPECT	0.1			376	
		REMOVE	1.0				
		INSTALL	1.0				
		REPAIR	0.2				
021208	RIB ASSEMBLY	INSPECT	0.1			377	
		REPAIR	0.3				
021209	COVER ASSEMBLY, LH	INSPECT	0.1			376	
		REMOVE	0.1				
		INSTALL	0.1				
		REPAIR	0.4				
021210	COVER, ACCESS	INSPECT	0.1			377	
		REMOVE	0.1				
		INSTALL	0.1				
		REPAIR	0.2				

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL			(5) TOOLS & EQUIP REF CODE	(6) REMARKS CODE
			AVUM (O)	AVIM (F)	DEPOT (D)		
021211	FAIRING INSTALLATION ASSEMBLY	INSPECT REPAIR	0.1 1.2			376	
021212	FAIRING ASSEMBLY, LH	INSPECT REMOVE INSTALL REPAIR	0.1 0.2 0.2 0.8			376	
021213	FAIRING INSTALLATION ASSEMBLY	INSPECT REPAIR	0.1 1.3			376	
021214	FAIRING ASSEMBLY	INSPECT REMOVE INSTALL REPAIR	0.1 0.2 0.2 0.9			376	
0213	WING INSTALLATION, RH	INSPECT SERVICE REPAIR	0.1 1.2 0.2			376	
021301	WING ASSEMBLY, AIRCRAFT	INSPECT REMOVE INSTALL REPAIR	0.1 1.5 1.5 0.6	5.0		5, 172, 304, 315A, 316, 376, 443, 444	AA
021302	PANEL INSTALLATION ASSEMBLY	INSPECT REPAIR	0.1 0.6			376	AA, AC, AD, AE, AF
021303	COVER, ACCESS	REMOVE INSTALL REPAIR	0.2 0.2 0.7			377	
021304	COVER, ACCESS	INSPECT REMOVE INSTALL REPAIR	0.1 0.2 0.2 0.7			377	
021305	COVER, ACCESS	INSPECT REMOVE INSTALL REPAIR	0.1 0.2 0.2 0.7			377	

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL			(5) TOOLS & EQUIP REF CODE	(6) REMARKS CODE
			AVUM (O)	AVIM (F)	DEPOT (D)		
021306	TRAILING EDGE INSTALLATION	REMOVE INSTALL REPAIR	0.5 0.5 0.1			376	
021307	TRAILING EDGE, WING	INSPECT REMOVE INSTALL REPAIR	0.1 1.0 1.0 0.2			376	
021308	RIB ASSEMBLY	INSPECT REPAIR	0.1 0.3			377	
021309	COVER ASSEMBLY, RH	INSPECT REMOVE INSTALL REPAIR	0.1 0.1 0.1 0.4			376	
021310	COVER, ACCESS	INSPECT REMOVE INSTALL REPAIR	0.1 0.1 0.1 0.2			377	
021311	FAIRING INSTALLATION ASSEMBLY	INSPECT REPAIR	0.1 1.2			376	
021312	FAIRING ASSEMBLY	INSPECT REMOVE INSTALL REPAIR	0.1 0.2 0.2 0.8			376	
021313	FAIRING INSTALLATION ASSEMBLY	INSPECT REPAIR	0.1 1.2			376	
021314	FAIRING ASSEMBLY	INSPECT REMOVE INSTALL REPAIR	0.1 0.2 0.2 0.9			376	
0214	NACELLE INSTALLATION	REPAIR	0.2			376	

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL			(5) TOOLS & EQUIP REF CODE	(6) REMARKS CODE
			AVUM (O)	AVIM (F)	DEPOT (D)		
021401	NACELLE ASSEMBLY, ENGINE, LH	INSPECT	0.1			27, 154, 195, 262, 365, 376, 377, 416, 417, 434, 439	A, D, I, J, U
		REMOVE	2.3				
		INSTALL	2.3				
		REPAIR	0.8				
021402	FRAME INSTALLATION	INSPECT	0.1			376	
		REPAIR	0.3				
021403	SUPPORT ASSEMBLY	REPAIR	0.7			376	
021404	DOOR INSTALLATION	INSPECT	0.1			376	
		REPAIR	0.3				
021405	DOOR ASSEMBLY, WATER	INSPECT	0.1			377	A, D, I, J, U
		REMOVE	0.1				
		INSTALL	0.1				
		REPAIR	0.5				
021406	DOOR INSTALLATION	INSPECT	0.1			376	
		REPAIR	0.3				
021407	DOOR ASSEMBLY	INSPECT	0.1			376	
		REMOVE	0.3				
		INSTALL	0.3				
		REPAIR	0.3				
021408	DOOR ASSEMBLY	INSPECT	0.1			376	
		REMOVE	0.3				
		INSTALL	0.3				
		REPAIR	0.4				
021409	DOOR ASSEMBLY	INSPECT	0.1			376	
		REMOVE	0.5				
		INSTALL	0.5				
		REPAIR	0.7				
021410	DOOR, ACCESS	REMOVE	0.2			377	
		INSTALL	0.2				
		REPAIR	0.6				
021411	FIREWALL ASSEMBLY	INSPECT	5.7			376	
021412	DOOR INSTALLATION ASSEMBLY	INSPECT	0.1			376	
		REPAIR	0.2				

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL			(5) TOOLS & EQUIP REF CODE	(6) REMARKS CODE
			AVUM (O)	AVIM (F)	DEPOT (D)		
021413	DOOR ASSEMBLY	INSPECT REMOVE INSTALL REPAIR	0.1 0.2 0.2 0.6			376	
021414	DOOR ASSEMBLY	INSPECT REMOVE INSTALL REPAIR	0.1 0.1 0.1 0.4			376	
021415	DOOR, ACCESS	INSPECT SERVICE REMOVE INSTALL REPAIR	0.1 1.7 0.3 0.3 0.4	2.2		377	
021416	DOOR, ACCESS	INSPECT REMOVE INSTALL REPAIR	0.1 0.1 0.1 0.4			377	
021417	SUPPORT, STRUCTURAL	REPAIR	0.2			376	
021418	STRUT ASSEMBLY, DOOR	REMOVE INSTALL REPAIR	0.2 0.2	0.8		27, 59, 154, 225, 235, 262, 273, 342, 348, 376, 426	D, J
021419	FAIRING, AIRCRAFT	INSPECT REMOVE INSTALL REPAIR	0.1 0.4 0.4 1.1	1.0		376	
0215	NACELLE INSTALLATION	REPAIR	0.3			376	
021501	NACELLE ASSEMBLY, ENGINE, RH	INSPECT REMOVE INSTALL REPAIR	0.1 2.2 2.2 0.9			27, 154, 195, 262, 365, 376, 377, 416, 417, 434, 439	A, D, I, J, U
021502	FRAME INSTALLATION	INSPECT REPAIR	0.1 0.3			376	D, I, J, U

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL			(5) TOOLS & EQUIP REF CODE	(6) REMARKS CODE
			AVUM (O)	AVIM (F)	DEPOT (D)		
021503	SUPPORT ASSEMBLY	REPAIR	0.7			376	
021504	DOOR, ACCESS	INSPECT	0.1			377	
		REMOVE	0.1				
		INSTALL	0.1				
		REPAIR	0.5				
021505	DOOR INSTALLATION	INSPECT	0.1			376	
		REPAIR	0.3				
021506	DOOR ASSEMBLY, WATER	INSPECT	0.1			377	A, D, I, J, U
		REMOVE	0.1				
		INSTALL	0.1				
		REPAIR	0.5				
021507	DOOR INSTALLATION ENGINE ACCESS	INSPECT	0.1			376	
		REPAIR	0.3				
021508	VENT ASSEMBLY	INSPECT	0.1			27, 154, 262, 376	
		REMOVE	0.3				
		INSTALL	0.3				
		REPAIR	0.4				
021509	VENT ASSEMBLY	INSPECT	0.1			27, 154, 262, 376	
		REMOVE	0.3				
		INSTALL	0.3				
		REPAIR	0.4				
021510	DOOR ASSEMBLY	INSPECT	0.1			27, 154, 262, 376	
		REMOVE	0.4				
		INSTALL	0.4				
		REPAIR	0.7				
021511	DOOR, ACCESS	REMOVE	0.2			377	
		INSTALL	0.2				
		REPAIR	0.6				
021512	DOOR INSTALLATION ASSEMBLY	INSPECT	0.1			376	
		REPAIR	0.2				
021513	DOOR ASSEMBLY	INSPECT	0.1			27, 154, 262, 376	
		REMOVE	0.2				
		INSTALL	0.2				
		REPAIR	0.6				



(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL			(5) TOOLS & EQUIP REF CODE	(6) REMARKS CODE
			AVUM (O)	AVIM (F)	DEPOT (D)		
021514	DOOR, ACCESS	INSPECT	0.1			377	
		SERVICE	1.7				
		REMOVE	0.5				
		INSTALL	0.5				
		REPAIR	0.4	2.2			
021515	DOOR, ACCESS	INSPECT	0.1			377	
		REMOVE	0.1				
		INSTALL	0.1				
		REPAIR	0.4				
021516	FAIRING INSTALLATION ASSEMBLY	REPAIR	0.1			376	
021517	FAIRING, ENGINE NACELLE	INSPECT	0.1			376	
		REMOVE	0.3				
		INSTALL	0.3				
		REPAIR	1.0	1.0			
0216	FAIRING INSTALLATION, FUSELAGE	REPAIR	0.5			376	
021601	FAIRING INSTALLATION	INSPECT	0.1			376	
		REPAIR	0.2				
021602	FAIRING, AIRCRAFT	REMOVE	0.2			376	
		INSTALL	0.2				
		REPAIR	0.5				
021603	FAIRING, FUSELAGE, AIRCRAFT	REMOVE	0.2			376	
		INSTALL	0.2				
		REPAIR	0.6				
021604	FAIRING INSTALLATION	INSPECT	0.1			376	
		REPAIR	0.2				
021605	FAIRING, AIRCRAFT	REMOVE	0.4			376	
		INSTALL	0.4				
		REPAIR	1.1	1.2			
021606	PANEL INSTALLATION	INSPECT	0.1			376	
		REPAIR	0.4				

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL			(5) TOOLS & EQUIP REF CODE	(6) REMARKS CODE
			AVUM (O)	AVIM (F)	DEPOT (D)		
021607	PANEL, STRUCTURAL, AIRCRAFT	INSPECT	0.1			376	
		REMOVE	0.1				
		INSTALL	0.1				
		REPAIR	0.7				
021608	DOOR, ACCESS	INSPECT	0.1			377	
		REMOVE	0.2				
		INSTALL	0.2				
		REPAIR	0.7				
021609	DOOR, ACCESS	INSPECT	0.1			377	
		REMOVE	0.2				
		INSTALL	0.2				
		REPAIR	0.6				
021610	PANEL INSTALLATION	INSPECT	0.1			376	
		REPAIR	0.4				
021611	PANEL, STRUCTURAL, AIRCRAFT	INSPECT	0.1			376	
		REMOVE	0.1				
		INSTALL	0.1				
		REPAIR	0.6				
021612	DOOR, ACCESS	INSPECT	0.1			377	
		REMOVE	0.2				
		INSTALL	0.2				
		REPAIR	0.7				
021613	DOOR, ACCESS	INSPECT	0.1			377	
		REMOVE	0.2				
		INSTALL	0.2				
		REPAIR	0.6				
021614	SUPPORT INSTALLATION, LH	INSPECT	0.1			376	
		REPAIR	0.3				
021615	SUPPORT ASSEMBLY, TRANSMISSION, LH	REMOVE	0.2			376	D, I, J, U
		INSTALL	0.2				
		REPAIR	0.7				
021616	FAIRING, AIRCRAFT	INSPECT	0.1			376	
		REMOVE	0.3				
		INSTALL	0.3				
		REPAIR	1.0				

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL			(5) TOOLS & EQUIP REF CODE	(6) REMARKS CODE
			AVUM (O)	AVIM (F)	DEPOT (D)		
021617	SUPPORT INSTALLATION, RH	INSPECT REPAIR	0.1 0.2			376	
021618	SUPPORT ASSEMBLY, TRANSMISSION, RH	REMOVE INSTALL REPAIR	0.2 0.2 0.7			376	D, I, J, U
021619	FAIRING, AIRCRAFT	INSPECT REMOVE INSTALL REPAIR	0.1 0.3 0.3 1.1			376	
021620	SUPPORT INSTALLATION ASSEMBLY, LH	INSPECT REPAIR	0.1 0.2			376	
021621	SUPPORT ASSEMBLY, UPPER, LH	INSPECT REPAIR	0.1 0.5			376	
021622	SUPPORT INSTALLATION ASSEMBLY, RH	INSPECT REPAIR	0.1 0.2			376	
021623	SUPPORT ASSEMBLY	INSPECT REPAIR	0.1 0.7			376	
201624	FAIRING INSTALLATION	INSPECT REPAIR	0.1 0.2			376	
021625	FAIRING ASSEMBLY	INSPECT REMOVE INSTALL REPAIR	0.1 0.2 0.2 0.8			376	
021626	FAIRING INSTALLATION	INSPECT REPAIR	0.1 0.3			376	
021627	FAIRING, AIRCRAFT	INSPECT REMOVE INSTALL REPAIR	0.1 0.2 0.2 0.8			376	
021628	LONGERON INSTALLATION	INSPECT REPAIR	0.1 0.1			376	

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL			(5) TOOLS & EQUIP REF CODE	(6) REMARKS CODE
			AVUM (O)	AVIM (F)	DEPOT (D)		
021629	LONGERON	INSPECT	0.2			5, 6, 29, 113, 124, 172, 199, 215, 337, 412, 376, 438, 442	A, AA, AD, AE
		REMOVE	0.6				
		INSTALL	0.6				
		REPAIR	1.5				
021630	LONGERON INSTALLATION	INSPECT	0.1			376	
		REPAIR	0.2				
021631	LONGERON	INSPECT	0.2			5, 6, 29, 113, 124, 172, 199, 215, 337, 412, 376, 438, 442	A, AA, AD, AE
		REMOVE	0.6				
		INSTALL	0.6				
		REPAIR	1.1				
021632	FAIRING INSTALLATION ASSEMBLY	INSPECT	0.1			376	
		REPAIR	0.2				
021633	FAIRING ASSEMBLY	INSPECT	0.2			376	
		REMOVE	0.2				
		INSTALL	0.2				
		REPAIR	0.8				
021634	FAIRING INSTALLATION ASSEMBLY	INSPECT	0.1			376	
		REPAIR	0.2				
021635	FAIRING ASSEMBLY	REMOVE	0.2			376	
		INSTALL	0.2				
		REPAIR	0.8				
021636	DOOR INSTALLATION ASSEMBLY	INSPECT	0.1			376	
		REPAIR	0.3				
021637	DOOR, ACCESS	INSPECT	0.1			377	
		REMOVE	0.2				
		INSTALL	0.2				
		REPAIR	0.7				
021638	DOOR INSTALLATION ASSEMBLY	INSPECT	0.1			376	
		REPAIR	1.2				

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL			(5) TOOLS & EQUIP REF CODE	(6) REMARKS CODE
			AVUM (O)	AVIM (F)	DEPOT (D)		
021639	DOOR, ACCESS	INSPECT	0.2			377	
		REMOVE	0.2				
		INSTALL	0.2				
		REPAIR	0.6				
021640	DOOR INSTALLATION ASSEMBLY	INSPECT	0.1			376	
		REPAIR	0.3				
021641	DOOR, ACCESS	INSPECT	0.1			377	
		REMOVE	0.2				
		INSTALL	0.2				
		REPAIR	0.5				
021642	DOOR INSTALLATION ASSEMBLY	INSPECT	0.1			376	
		REPAIR	0.2				
021643	DOOR, ACCESS	INSPECT	0.1			377	
		REMOVE	0.2				
		INSTALL	0.2				
		REPAIR	0.6				
021644	FAIRING INSTALLATION ASSEMBLY	INSPECT	0.1			376	
		REPAIR	0.2				
021645	FAIRING, FUSELAGE, AIRCRAFT	INSPECT	0.1			376	
		REMOVE	0.4				
		INSTALL	0.4				
		REPAIR	1.1	1.2			
021646	FAIRING INSTALLATION ASSEMBLY	INSPECT	0.1			376	
		REPAIR	0.1				
021647	DOOR AND PANEL ASSEMBLY	INSPECT	0.1			376	
		REPAIR	0.9				
021648	DOOR, ACCESS	INSPECT	0.1			377	
		REMOVE	0.3				
		INSTALL	0.3				
		REPAIR	1.3				
021649	DOOR, ACCESS	INSPECT	0.1			377	
		REMOVE	0.4				
		INSTALL	0.4				
		REPAIR	1.2				

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL			(5) TOOLS & EQUIP REF CODE	(6) REMARKS CODE
			AVUM (O)	AVIM (F)	DEPOT (D)		
021650	DOOR INSTALLATION ASSEMBLY	INSPECT	0.1			376	
		REPAIR	0.2				
021651	DOOR, ACCESS	INSPECT	0.1			377	
		REMOVE	0.3				
		INSTALL	0.3				
		REPAIR	1.0				
021652	FAIRING INSTALLATION ASSEMBLY	INSPECT	0.1			376	
		REPAIR	0.3				
021653	FAIRING, ROTOR, AIRCRAFT	INSPECT	0.3			376	
		REMOVE	0.5				
		INSTALL	0.5				
		REPAIR	0.7				
021654	FAIRING	INSPECT	0.1			376	
		REPAIR	0.3				
021655	FAIRING, ROTOR, AIRCRAFT	INSPECT	0.1			376	
		REMOVE	0.5				
		INSTALL	0.5				
		REPAIR	1.1				
021656	FAIRING ASSEMBLY	INSPECT	0.2			376	
		REMOVE	0.2				
		INSTALL	0.2				
		REPAIR	0.5				
021657	FAIRING, FUSELAGE, AIRCRAFT	INSPECT	0.1			376	
		REMOVE	0.2				
		INSTALL	0.2				
		REPAIR	0.6				
021658	DOOR, ACCESS	REMOVE	0.3			377	
		INSTALL	0.3				
		REPAIR	0.5				
021659	FAIRING, AMMO FEED	INSPECT	0.1			376	
		REMOVE	0.1				
		INSTALL	0.1				
		REPAIR	0.4				

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL			(5) TOOLS & EQUIP REF CODE	(6) REMARKS CODE
			AVUM (O)	AVIM (F)	DEPOT (D)		
021660	FAIRING, AMMO FEED	INSPECT	0.1			376	
		REMOVE	0.1				
		INSTALL	0.1				
		REPAIR	0.6				
021661	DOOR, ACCESS	INSPECT	0.1			377	
		REMOVE	0.2				
		INSTALL	0.2				
		REPAIR	0.4				
021662	DOOR, ACCESS	INSPECT	0.1			377	
		REMOVE	0.2				
		INSTALL	0.2				
		REPAIR	0.5				
021663	FRAME INSTALLATION ASSEMBLY	INSPECT	0.1			376	
		REPAIR	0.5				
021664	FRAME ASSEMBLY, FAIRING	INSPECT	0.1			376	
		REMOVE	1.4				
		INSTALL	1.4				
		REPAIR	1.1				
021665	FAIRING INSTALLATION ASSEMBLY	INSPECT	0.1			376	
		REPAIR	0.3				
021666	FAIRING, ROTOR, AIRCRAFT	INSPECT	0.1			376	
		REMOVE	0.2				
		INSTALL	0.2				
		REPAIR	0.6				
021667	SUPPORT INSTALLATION ASSEMBLY	INSPECT	0.1			376	
		REPAIR	0.3				
021668	FAIRING ASSEMBLY	INSPECT	0.1			376	
		REPAIR	0.3				
021669	FAIRING, AIRCRAFT	INSPECT	0.1			376	
		REMOVE	0.2				
		INSTALL	0.2				
		REPAIR	0.7				
021670	MOUNT ASSEMBLY, ANTENNA	REMOVE	0.3			376	
		INSTALL	0.3				
		REPAIR	1.2				

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL			(5) TOOLS & EQUIP REF CODE	(6) REMARKS CODE
			AVUM (O)	AVIM (F)	DEPOT (D)		
021671	FAIRING INSTALLATION ASSEMBLY	INSPECT REPAIR	0.1 0.2			376	
021672	COVER, ACCESS	REMOVE INSTALL REPAIR	0.2 0.2 0.9			377	
021673	COVER, ACCESS	REMOVE INSTALL REPAIR	0.2 0.2 0.6			377	
021674	FAIRING INSTALLATION ASSEMBLY	REPAIR	0.3			376	
021675	FAIRING, AIRCRAFT	INSPECT REMOVE INSTALL REPAIR	0.1 0.7 0.7 1.1			376	
021676	FAIRING ASSEMBLY	INSPECT REMOVE INSTALL REPAIR	0.1 0.1 0.1 0.4			376	
021677	FAIRING, FUSELAGE, AIRCRAFT	INSPECT REMOVE INSTALL REPAIR	0.1 0.2 0.2 0.6			376	
021678	FAIRING ASSEMBLY, FAB	INSPECT REMOVE INSTALL REPAIR	0.2 0.2 0.2 0.5			376	
021679	COVER ASSEMBLY, RADAR JAMMER	REMOVE INSTALL REPAIR	0.1 0.1 0.5			376	
021680	AIR DUCT INSTALLATION ASSEMBLY	REPAIR	1.2			376	
021681	DUCT ASSEMBLY, AIRCRAFT	REMOVE INSTALL REPAIR	1.5 1.5 0.9			376	



(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL			(5) TOOLS & EQUIP REF CODE	(6) REMARKS CODE
			AVUM (O)	AVIM (F)	DEPOT (D)		
021682	COVER PLATE INSTALLATION	REPAIR	0.2			376	
021683	COVER, ACCESS	INSPECT	0.1			377	
		REMOVE	0.1				
		INSTALL	0.1				
		REPAIR	0.7				
021684	PANEL ASSEMBLY, ACCESS	INSPECT	0.1			377	
		REMOVE	0.1				
		INSTALL	0.1				
		REPAIR	0.5				
0217	SUPPORT INSTALLATION, ROTOR	INSPECT	0.1			376	
		REPAIR	1.6				
021701	BASE, ROTOR SUPPORT	REMOVE	6.5			5, 6, 27, 29, 50, 113, 124, 152, 154, 172, 206, 262, 292, 376, 412, 428, 438, 447	D, F, I, J, L, U, AA
		INSTALL	6.5				
		REPAIR	0.4	0.5			
021702	BASE, MAST SUPPORT	REPAIR		0.7	0.5	5, 6, 27, 29, 50, 113, 124, 152, 154, 172, 206, 262, 292, 376, 412, 428, 428A, 438, 447	D, F, I, J, L, U, AA
021703	STRUT ASSEMBLY, ROTOR SUPPORT (FORWARD LEFT CENTER)	INSPECT	0.1			5, 29, 113, 125, 376, 412, 413, 413A, 438	
		REMOVE	1.5				
		INSTALL	1.5				
		REPAIR	0.9	3.0			

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL			(5) TOOLS & EQUIP REF CODE	(6) REMARKS CODE
			AVUM (O)	AVIM (F)	DEPOT (D)		
021704	STRUT ASSEMBLY, ROTOR SUPPORT (FORWARD RIGHT CENTER)	INSPECT	0.1			5, 29, 113, 125, 376, 412, 413, 413A, 438	
		REMOVE	1.3				
		INSTALL	1.3				
		REPAIR	0.9	3.0			
021705	STRUT ASSEMBLY, ROTOR SUPPORT (LEFT FORWARD SIDE)	INSPECT	0.1			5, 6, 29, 113, 124, 172, 376, 412, 438, 442	
		REMOVE	1.4				
		INSTALL	1.4				
		REPAIR	0.9	1.8			
021706	STRUT ASSEMBLY, ROTOR SUPPORT (RIGHT FORWARD SIDE)	INSPECT	0.1			5, 6, 29, 113, 124, 172, 376, 412, 438, 442	
		REMOVE	1.4				
		INSTALL	1.4				
		REPAIR	0.9	3.0			
021707	STRUT ASSEMBLY, ROTOR SUPPORT (LEFT AFT SIDE)	REMOVE	1.4			5, 6, 29, 113, 124, 172, 376, 412, 438, 442	
		INSTALL	1.4				
		REPAIR	0.9	1.8			
021708	STRUT ASSEMBLY, ROTOR SUPPORT (RIGHT AFT SIDE)	INSPECT	0.1			5, 6, 29, 113, 124, 172, 376, 412, 438, 442	
		REMOVE	1.4				
		INSTALL	1.4				
		REPAIR	0.9	3.0			
021709	STRUT ASSEMBLY, ROTOR SUPPORT (AFT LEFT CENTER)	INSPECT	0.1			2, 5, 29, 113, 124, 172, 376, 412, 428, 428A, 438	
		REMOVE	1.4				
		INSTALL	1.4				
		REPAIR	0.9	3.0			
021710	STRUT ASSEMBLY, ROTOR SUPPORT (AFT RIGHT CENTER)	INSPECT	0.1			5, 27, 29, 124, 154, 172, 262, 376, 412, 428, 428A, 438	
		REMOVE	1.4				
		INSTALL	1.4				
		REPAIR	0.9	3.0			

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL			(5) TOOLS & EQUIP REF CODE	(6) REMARKS CODE
			AVUM (O)	AVIM (F)	DEPOT (D)		
021711	BEARING UNIT, PLAIN	INSPECT REMOVE INSTALL REPAIR	0.2 2.4 2.4 0.5	0.9		19, 27, 107, 154, 199, 262, 372, 376, 438	
0218	GLARESHIELD INSTALLATION	INSPECT	0.1			376	
021801	GLARESHIELD ASSEMBLY	INSPECT REMOVE INSTALL REPAIR	0.2 1.0 1.0 0.8			376, 378	
021802	COVER	REMOVE INSTALL REPAIR	0.2 0.2 0.8			376	
021803	GLARESHIELD ASSEMBLY, RH	INSPECT REMOVE INSTALL REPAIR	0.2 0.5 0.5 0.9			376, 378	
021804	EXTENSION ASSEMBLY, LH	INSPECT REMOVE INSTALL REPAIR	0.1 0.1 0.1 0.2			27, 154, 262, 376	
021805	EXTENSION ASSEMBLY, RH	INSPECT REMOVE INSTALL REPAIR	0.1 0.1 0.1 0.2			27, 154, 262, 376	
021806	CURTAIN INSTALLATION	INSPECT REPAIR	0.1 0.2			376	A, I, N
021807	CURTAIN INSTALLATION	INSPECT REPAIR	0.1 0.2			376	A, I, N
021808	CURTAIN TRAY ASSEMBLY	INSPECT REMOVE INSTALL REPAIR	0.1 0.2 0.2 0.4			376	A, I, N

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL			(5) TOOLS & EQUIP REF CODE	(6) REMARKS CODE
			AVUM (O)	AVIM (F)	DEPOT (D)		
021809	GLARESHIELD INSTALLATION	REPAIR	0.2			376	
021810	GLARESHIELD ASSEMBLY	INSPECT REMOVE INSTALL REPAIR	0.1 1.2 1.2 1.3			376, 378	
021811	GLARESHIELD ASSEMBLY	REMOVE INSTALL REPAIR	0.3 0.3 0.7			376, 378	
021812	GLARESHIELD ASSEMBLY	REMOVE INSTALL REPAIR	0.1 0.1 0.4			376, 378	
021813	CURTAIN INSTALLATION, LH	REPAIR	0.3			376	A, I, N
021814	CURTAIN INSTALLATION, RH	REPAIR	0.3			376	A, I, N
021815	TRAY, CURTAIN	REMOVE INSTALL REPAIR	0.2 0.2 0.2			376	A, I, N
021816	GLARESHIELD INSTALLATION	REPAIR	0.1			376	
021817	GLARESHIELD, COCKPIT	REMOVE INSTALL REPAIR	0.1 0.1 0.6			376, 378	
021818	GLARESHIELD, COCKPIT	REMOVE INSTALL REPAIR	0.2 0.2 0.6			376, 378	
0219	EQUIPMENT DRAWING LIST	INSPECT	0.1			376	
021901	COMPARTMENT, MAP	REMOVE INSTALL REPAIR	0.1 0.1 0.4			376	
021902	FIRST AID KIT INSTALLATION	REPAIR	0.1			376	

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL			(5) TOOLS & EQUIP REF CODE	(6) REMARKS CODE
			AVUM (O)	AVIM (F)	DEPOT (D)		
021903	FIRE EXTINGUISHER INSTALLATION	REPAIR	0.1			376	
021904	SCUFF PLATE INSTALLATION	REPAIR	0.4			376	
021905	SCUFF PLATE INSTALLATION	REPAIR	0.4			376	
021906	MIRROR INSTALLATION	REPAIR	0.1			376	
021907	PLATE INSTALLATION, MOUNT SSU	REPAIR	0.9			376	
021908	MOUNT INSTALLATION	REPAIR	2.9			376	
021909	SUPPORT ASSEMBLY	REMOVE INSTALL REPAIR	1.8 1.8 0.3			376	
021910	BASE ASSEMBLY	REMOVE INSTALL REPAIR	1.8 1.8 0.3			376	
021911	BASE ASSEMBLY	REMOVE INSTALL REPAIR	1.8 1.8 0.3			376	
021912	PLATE SUPPORT INSTALLATION	REPAIR	1.9			376	
021913	MASK POUCH INSTALLATION	REPAIR	0.1			376	
021914	BORESIGHT MOUNT INSTALLATION	REPAIR	0.2			376	
021915	THERMAL INSULATION INSTALLATION	REMOVE INSTALL REPAIR	0.2 0.2 2.6			27, 154, 262, 284, 377	
021916	HOLSTER INSTALLATION	REPAIR	0.2			376	
021917	FOOT GUARD, SEAT, AIRCRAFT	REPAIR	1.0			376	D, I, J, U

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL			(5) TOOLS & EQUIP REF CODE	(6) REMARKS CODE
			AVUM (O)	AVIM (F)	DEPOT (D)		
021918	FOOT GUARD, SEAT, AIRCRAFT	REPAIR	1.0			376	
021919	FAIRING INSTALLATION ASSEMBLY	REPAIR	0.2			376	
021920	FAIRING ASSEMBLY	REMOVE INSTALL REPAIR	0.3 0.3 0.5			376	
0220	CATWALK INSTALLATION ASSEMBLY	INSPECT REMOVE INSTALL REPAIR	0.1 0.4 0.4 0.3			376	
022001	PANEL, STRUCTURAL, AIRCRAFT	SERVICE REMOVE INSTALL REPAIR	0.7 0.2 0.2 1.2	0.6		376	
022002	PANEL, STRUCTURAL, AIRCRAFT	SERVICE REMOVE INSTALL REPAIR	0.7 0.3 0.3 1.1	0.6		376	
022003	PANEL, STRUCTURAL, AIRCRAFT	SERVICE REMOVE INSTALL REPAIR	0.7 0.3 0.3 1.1	0.6		376	
022004	PANEL ASSEMBLY	REMOVE INSTALL REPAIR	0.2 0.2 0.9	0.6		376	
022005	PANEL, STRUCTURAL, AIRCRAFT	SERVICE REMOVE INSTALL REPAIR	0.7 0.3 0.3 1.2	0.6		376	
022006	PANEL, STRUCTURAL, AIRCRAFT	SERVICE REMOVE INSTALL REPAIR	0.7 0.2 0.2 0.8	0.6		376	
0221	FAIRING ASSEMBLY, GUN	INSPECT	0.1			376	

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL			(5) TOOLS & EQUIP REF CODE	(6) REMARKS CODE
			AVUM (O)	AVIM (F)	DEPOT (D)		
022101	FAIRING, GUN ASSEMBLY	REMOVE INSTALL REPAIR	0.2 0.2 0.6			376	
022102	FAIRING ASSEMBLY	REMOVE INSTALL REPAIR	0.2 0.2 0.3			376	
0222	TRANSPARENCIES	REMOVE INSTALL REPAIR	0.5 0.5 0.8			27, 154, 160, 262, 376, 445	A, O
0223	DOOR ASSEMBLY INSTALLATION (CPG)	INSPECT	0.1			27, 100, 154, 262, 376, 446	
022301	DOOR, PASSENGER, AIRCRAFT	REPAIR	0.8			376	
022302	MECHANICAL INSTALLATION	ADJUST REPAIR	0.9 0.9			27, 154, 199, 262, 376, 377, 435, 445	
022303	DOOR ASSEMBLY, CANOPY (CPG)	REMOVE INSTALL REPAIR	0.4 0.4 0.6	1.4		27, 154, 160, 262, 376, 445	
022304	COVER (CPG DOOR)	REMOVE INSTALL REPAIR	0.1 0.1 0.7			27, 109, 111, 147, 154, 262, 376	
022305	COVER	REMOVE INSTALL REPAIR	0.1 0.1 0.8			27, 109, 111, 147, 154, 262, 376	
022306	COVER	REMOVE INSTALL REPAIR	0.1 0.1 0.3			27, 109, 111, 147, 154, 262, 376	

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL			(5) TOOLS & EQUIP REF CODE	(6) REMARKS CODE
			AVUM (O)	AVIM (F)	DEPOT (D)		
022307	COVER	REMOVE INSTALL REPAIR	0.1 0.1 0.8			27, 109, 111, 147, 154, 262, 376	
022308	CYLINDER ASSEMBLY, (CPG DOOR)	REPAIR	0.3			376	
022309	WINDSHIELD PANEL, AIRCRAFT	REMOVE INSTALL REPAIR	0.7 0.7 1.0			27, 154, 160, 262, 376, 445	J
022310	DOOR, PILOT	REPAIR	0.7			27, 154, 262, 376	
022311	MECHANICAL INSTALLATION	REPAIR	0.9			27, 100, 111, 147, 154, 199, 262, 376, 377, 378, 435, 445, 446	
022312	DOOR ASSEMBLY, CANOPY (PILOT)	REMOVE INSTALL REPAIR	0.2 0.2 0.6	1.4		27, 154, 160, 262, 376, 445	
022313	COVER	REMOVE INSTALL REPAIR	0.1 0.1 0.8			27, 111, 147, 154, 262, 376	
022314	COVER, ACCESS	REMOVE INSTALL REPAIR	0.1 0.1 0.8			27, 111, 147, 154, 262, 376	
022315	COVER, ACCESS	REMOVE INSTALL REPAIR	0.1 0.1 0.8			27, 111, 147, 154, 262, 376	
022316	CYLINDER ASSEMBLY, R (PILOT DOOR)	REMOVE INSTALL REPAIR	0.4 0.4 0.3			376	
022317	WINDSHIELD PANEL, AIRCRAFT	REMOVE INSTALL REPAIR	0.6 0.6 1.0			27, 154, 160, 262, 376, 445	J



(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL			(5) TOOLS & EQUIP REF CODE	(6) REMARKS CODE
			AVUM (O)	AVIM (F)	DEPOT (D)		
0224	ELECTRICAL/AVIONICS/ WEAPONS	INSPECT	0.1			376	
022401	COMPONENT INSTL	REPAIR	0.7			376	
022402	COMPONENT INSTALLATION (CPG)	REPAIR	0.9			376	
022403	COMPONENT INSTALLATION (PILOT)	REPAIR	0.7			376	
0225	FAIRING, FUSELAGE, AIRCRAFT	TEST REMOVE INSTALL REPAIR	0.3 0.4 0.4 0.5			27, 154, 262, 376	
022501	FAIRING, AIRCRAFT	REMOVE INSTALL REPAIR	0.2 0.2 0.5			27, 154, 262, 376	
022502	FAIRING ASSEMBLY, NOSE	REMOVE INSTALL REPAIR	0.3 0.3 0.4			27, 154, 262, 376	
022503	CONTROL MODULE ASSEMBLY	REMOVE INSTALL	0.4 0.4			27, 154, 262, 376	
0226	FAIRING, FUSELAGE, AIRCRAFT	TEST REMOVE INSTALL REPAIR	0.3 0.4 0.4 0.5			27, 154, 262, 376	
022601	FAIRING, AIRCRAFT	REMOVE INSTALL REPAIR	0.2 0.2 0.5			27, 154, 262, 376	
022602	FAIRING ASSEMBLY, NOSE GEARBOX	REMOVE INSTALL REPAIR	0.3 0.3 0.4			27, 154, 262, 376	
022603	CONTROL MODULE ASSEMBLY	REMOVE INSTALL	0.4 0.4			27, 154, 262, 376	
0227	WIRE STRIKE PROTECTION INSTL	INSPECT	0.8			27, 154, 262, 376, 435	

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL			(5) TOOLS & EQUIP REF CODE	(6) REMARKS CODE
			AVUM (O)	AVIM (F)	DEPOT (D)		
022701	CUTTER ASSEMBLY, LANDING GEAR (LH MLG)	REPAIR	0.3			27, 154, 262, 376, 435	
02270101	CUTTER, CABLE, AIRCRAFT (LH MLG)	REMOVE	0.3			27, 154, 262, 376, 435	
		INSTALL	0.3				
		REPAIR	0.6				
0227010101	CUTTER, CABLE, AIRCRAFT (LH MLG)	REMOVE	0.1			27, 154, 262, 376, 435	
		INSTALL	0.1				
		REPAIR	0.4				
022702	CUTTER, ASSEMBLY, LANDING GEAR (RH MLG)	REPAIR	0.3			27, 154, 262, 376, 435	
02270201	CUTTER, CABLE, AIRCRAFT (RH MLG)	REMOVE	0.3			27, 154, 262, 376, 435	
		INSTALL	0.3				
		REPAIR	0.2				
0227020101	CUTTER, CABLE, AIRCRAFT (RH MLG)	REMOVE	0.1			27, 154, 262, 376, 435	
		INSTALL	0.1				
		REPAIR	0.4				
022703	DEFLECTOR, CABLE (WIPER)	REMOVE		0.3		376	
		INSTALL		0.3			
		REPAIR	0.2				
022704	CUTTER, CABLE, AIRCRAFT (LOWER)	REMOVE		0.2		376	
		INSTALL		0.2			
		REPAIR	0.6	0.6			
022705	DEFLECTOR, CABLE (JACKPAD)	REMOVE		0.3		377	
		INSTALL		0.3			
		REPAIR		0.3			
022706	CUTTER, CABLE, AIRCRAFT (UPPER)	REMOVE	0.1			27, 154, 262, 377	
		INSTALL	0.1				
		REPAIR	0.5				
022707	DEFLECTOR, TAIL GEAR INSTALLATION	REPAIR	0.4			376	
022708	TURRET SS, GUN INSTALLATION	REMOVE	0.3			376	
		INSTALL	0.3				

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL			(5) TOOLS & EQUIP REF CODE	(6) REMARKS CODE
			AVUM (O)	AVIM (F)	DEPOT (D)		
02270801	CUTTER, CABLE, AIRCRAFT (GUN)	REMOVE	0.2			376	
		INSTALL	0.2				
		REPAIR	0.5				
022709	TURRET	REPAIR	0.4			376	
02270901	CUTTER, CABLE, AIRCRAFT	REMOVE	0.2			27, 154, 262, 376, 435	
		INSTALL	0.2				
		REPAIR	0.5				

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL			(5) TOOLS & EQUIP REF CODE	(6) REMARKS CODE
			AVUM (O)	AVIM (F)	DEPOT (D)		
03	LANDING GEAR						
0301	MAIN LDG, LH INSTALLATION	SERVICE ADJUST REPAIR	0.2 0.3 0.8			27, 154, 218, 262, 376	
030101	WHEEL, LANDING GEAR (GOODYEAR)	REMOVE  INSTALL  REPAIR	0.4  0.4  0.6			27, 30, 49, 129, 154, 260, 262, 364, 376, 398, 406, 435, 447	
03010101	WHEEL, SUBASSEMBLY, INBOARD	REMOVE INSTALL	0.5 0.5			376	
03010102	WHEEL, SUBASSEMBLY, OUTBOARD	REMOVE INSTALL	0.5 0.5			376	
0301010201	VALVE, PNEUMATIC, TIRE	REMOVE INSTALL REPAIR	0.5 0.5 0.9			27, 129, 154, 260, 364, 398, 435	
030102	WHEEL, LH LANDING GEAR (PARKER-HANNIFIN)	REMOVE  INSTALL  REPAIR	0.4  0.4  0.6			27, 30, 49, 129, 154, 260, 262, 364, 376, 398, 406, 435, 447	
03010201	WHEEL, INNER HALF	REMOVE INSTALL	0.5 0.5			376	
03010202	WHEEL, OUTER HALF	REMOVE INSTALL	0.5 0.5			376	
030103	BRAKE, SINGLE DISK (GOODYEAR)	INSPECT TEST REMOVE INSTALL REPAIR	0.2  1.1 1.1 2.1	0.3 0.8  1.3		27, 52, 129, 149, 154, 222, 226, 262, 349, 354A, 376, 384, 427, 439, 447	Q

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL			(5) TOOLS & EQUIP REF CODE	(6) REMARKS CODE
			AVUM (O)	AVIM (F)	DEPOT (D)		
030104	BRAKE, SINGLE DISK (PARKER-HANNIFIN)	INSPECT	0.2	0.3		27, 52, 129, 149, 154, 222, 226, 262, 349, 354A, 376, 384, 427, 439, 447	Q
		TEST		0.8			
		REMOVE	1.1				
		INSTALL	1.1				
		REPAIR	3.0	1.3			
03010401	CYLINDER ASSEMBLY	REMOVE	1.4			27, 52, 129, 149, 154, 226, 262, 349, 354A, 376, 384, 439, 447	
		INSTALL	1.4				
0301040101	PISTON, HYDRAULIC BRAKE	REMOVE	1.2			27, 129, 149, 154, 226, 262, 349, 354A, 376, 384	Y
		INSTALL	1.2				
		REPAIR	2.5				
03010402	VALVE, BLEEDER, HYDRAULIC	REMOVE	0.2			27, 52, 129, 149, 154, 222, 226, 262, 349, 354A, 376, 384	Y
		INSTALL	0.2				
030105	LANDING GEAR ASSEMBLY	REMOVE	2.8			27, 154, 215, 218, 262, 376, 435	
		INSTALL	2.8				
03010501	TRAILING ARM ASSEMBLY, MAIN	INSPECT	0.2		0.5	27, 44, 54, 129, 141, 154, 215, 262, 335, 340, 376, 378, 384, 433, 435, 445	
		REMOVE	2.5				
		INSTALL	2.5				
		REPAIR	1.0		1.3		

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL			(5) TOOLS & EQUIP REF CODE	(6) REMARKS CODE
			AVUM (O)	AVIM (F)	DEPOT (D)		
03010502	SHOCK STRUT ASSEMBLY, MAIN	INSPECT	0.1			27, 109, 112, 129, 154, 171, 183, 199, 215, 262, 312A, 335, 336, 376, 384, 425, 435, 438, 442, 445	
		SERVICE	0.5	0.5			
		REMOVE	0.8				
		INSTALL	0.8				
		REPAIR	1.3	0.5			
		OVERHAUL			20.3		
0301050201	PISTON, LINEAR ACTUATOR	OVERHAUL			5.9	27, 154, 171, 262, 336, 384, 425, 445	
0301050202	CONNECTOR, ROD END	INSPECT	0.1			27, 154, 262, 335, 376, 442	
		REMOVE			0.2		
		INSTALL			0.2		
		REPAIR			1.5		
0301050203	VALVE ASSEMBLY, SHOCK STRUT	OVERHAUL			2.1	27, 154, 262, 376	
0302	MAIN LDG, RH INSTALLATION	SERVICE	0.2			27, 154, 218, 262, 376	
		REPAIR	0.9				
030201	WHEEL, LANDING GEAR (GOODYEAR)	REMOVE	0.4			27, 30, 49, 129, 154, 260, 262, 364, 376, 398, 406, 435, 447	
		INSTALL	0.4				
		REPAIR	0.6				
03020101	WHEEL, SUBASSEMBLY INBOARD	REMOVE	0.5			376	
		INSTALL	0.5				
03020102	WHEEL, SUBASSEMBLY OUTBOARD	REMOVE	0.5			376	
		INSTALL	0.5				

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL			(5) TOOLS & EQUIP REF CODE	(6) REMARKS CODE
			AVUM (O)	AVIM (F)	DEPOT (D)		
030202	WHEEL, LANDING GEAR (PARKER-HANNIFIN)	REMOVE	0.4			27, 30, 49, 129, 154, 260, 262, 364, 376, 398, 406, 435, 447	
		INSTALL	0.4				
		REPAIR	0.6				
03020201	WHEEL, INNER HALF	REMOVE	0.5			376	
		INSTALL	0.5				
03020202	WHEEL, OUTER HALF	REMOVE	0.5			376	
		INSTALL	0.5				
030203	BRAKE, SINGLE DISK	INSPECT	0.2	0.3		27, 52, 129, 149, 154, 222, 226, 262, 349, 354A, 376, 384, 427, 439, 447	Q
		TEST		0.8			
		REMOVE	1.1				
		INSTALL	1.1				
		REPAIR	2.1	1.3			
03020301	CYLINDER ASSEMBLY	REMOVE	1.4			27, 52, 129, 149, 154, 226, 262, 349, 354A, 376, 384, 439, 447	
		INSTALL	1.4				
0302030101	PISTON, HYDRAULIC BRAKE	REMOVE	1.2			27, 129, 149, 154, 226, 262, 349, 354A, 376, 384	Y
		INSTALL	1.2				
		REPAIR	2.5				
030204	BRAKE, SINGLE DISK	INSPECT	0.2	0.3		27, 52, 129, 149, 154, 222, 226, 262, 349, 354A, 376, 384, 427, 439, 447	Q
		TEST		0.8			
		REMOVE	1.1				
		INSTALL	1.1				
		REPAIR	3.0	1.3			

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL			(5) TOOLS & EQUIP REF CODE	(6) REMARKS CODE
			AVUM (O)	AVIM (F)	DEPOT (D)		
030205	TRAILING ARM ASSEMBLY, MAIN	INSPECT	0.2		0.5	27, 44, 54, 129, 141, 154, 215, 262, 335, 340, 376, 378, 384, 433, 435, 445	
		REMOVE	2.4				
		INSTALL	2.4				
		REPAIR	1.0		1.3		
030206	SHOCK STRUT ASSEMBLY, MAIN	INSPECT	0.1			27, 109, 112, 129, 154, 171, 183, 199, 215, 262, 312A, 335, 336, 376, 384, 425, 435, 438, 442, 445	
		SERVICE	0.5	0.5			
		REMOVE	0.8				
		INSTALL	0.8				
		REPAIR	1.3	0.5			
		OVERHAUL			20.3		
03020601	PISTON, LINEAR ACTUATOR	OVERHAUL			5.9	27, 154, 171, 262, 336, 384, 425, 445	
03020602	CONNECTOR, ROD END	INSPECT	0.1			27, 154, 262, 335, 376, 442	
		REMOVE			0.2		
		INSTALL			0.2		
		REPAIR			1.5		
03020603	VALVE ASSEMBLY, SHOCK STRUT	OVERHAUL			2.1	27, 154, 262, 376	Y
0303	TAIL, LANDING GEAR	SERVICE	0.3			376	
		REPAIR	0.8				
030301	LANDING GEAR FIXED	REMOVE	0.5			27, 154, 215, 218, 262, 376, 435	
		INSTALL	0.5				
03030101	LEVER, REMOTE CONTROL	REMOVE	0.2			27, 154, 262, 376	
		INSTALL	0.2				
		REPAIR	0.5				



(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL			(5) TOOLS & EQUIP REF CODE	(6) REMARKS CODE
			AVUM (O)	AVIM (F)	DEPOT (D)		
03030102	HOUSING ASSEMBLY, CAM, TAIL	INSPECT	0.1			27, 154, 227, 262, 376, 447	
		REMOVE	0.2				
		INSTALL	0.2				
		REPAIR	0.3				
03030103	AXLE, LANDING GEAR	REMOVE	0.4			27, 154, 215, 262, 364, 376, 378, 398, 427	
		INSTALL	0.4				
		REPAIR	1.2				
03030104	CYLINDER ASSEMBLY	REMOVE	0.6			27, 52, 129, 149, 154, 226, 262, 349, 354A, 376, 384, 439, 447	
		INSTALL	0.6				
		REPAIR	0.9	0.7			
03030105	SHOCK STRUT ASSEMBLY	INSPECT	0.1			27, 112, 129, 154, 212, 215, 222, 236, 243, 262, 298, 299, 358, 372, 376, 378, 384, 392, 398, 405, 412, 427, 434, 439, 442	
		SERVICE	0.5				
		REMOVE	0.5				
		INSTALL	0.5				
		REPAIR	0.4	0.8			
		OVERHAUL			3.2		
0303010501	PISTON ASSEMBLY, SHOCK STRUT	REMOVE		0.8		27, 154, 222, 262, 298, 299, 358, 398, 405, 427, 434, 439	
		INSTALL		0.8			
		REPAIR	0.4	0.7	0.4		
0303010502	PISTON LINEAR ACTUATOR	REMOVE		0.5		27, 154, 222, 262, 298, 299, 358, 398, 405, 427, 434, 439	
		INSTALL		0.5			
		OVERHAUL			5.9		
03030106	RELEASE HANDLE, LOCK	REMOVE	0.3			227, 376	
		INSTALL	0.3				

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL			(5) TOOLS & EQUIP REF CODE	(6) REMARKS CODE
			AVUM (O)	AVIM (F)	DEPOT (D)		
03030107	CONNECTING LINK, RIG	INSPECT	0.1			27, 112, 129, 152, 154, 212, 218, 222, 262, 376, 378, 412, 434, 436	
		REMOVE	1.5				
		INSTALL	1.5				
		REPAIR	0.4	0.8			
03030108	ARM ASSEMBLY, TAIL GEAR	INSPECT	0.1			27, 112, 129, 152, 154, 212, 218, 222, 262, 376, 378, 412, 434, 436	
		REMOVE	0.5				
		INSTALL	0.5				
		REPAIR	0.3	0.5			
030302	WHEEL, LANDING GEAR	INSPECT	0.4			27, 49, 112, 129, 154, 215, 260, 262, 364, 376, 378, 398, 427, 435, 445	
		TEST	0.9				
		REMOVE	0.8				
		INSTALL	0.8				
		REPAIR	1.1				
03030201	WHEEL SUBASSEMBLY, FEMALE	REMOVE	0.5			376	
		INSTALL	0.5				
03030202	WHEEL SUBASSEMBLY, MALE	REMOVE	0.5			376	
		INSTALL	0.5				
030303	WHEEL, LANDING GEAR	INSPECT	0.4			27, 49, 112, 129, 154, 215, 260, 262, 364, 376, 378, 398, 427, 435, 445	
		TEST	0.9				
		REMOVE	0.8				
		INSTALL	0.8				
		REPAIR	1.1				
03030301	INNER WHEEL ASSEMBLY	REMOVE	0.5			376	
		INSTALL	0.5				
03030302	OUTER WHEEL ASSEMBLY	REMOVE	0.5			376	
		INSTALL	0.5				

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL			(5) TOOLS & EQUIP REF CODE	(6) REMARKS CODE
			AVUM (O)	AVIM (F)	DEPOT (D)		
0304	BRAKE, SYSTEM INSTALLATION	TEST	1.0			27, 52, 129, 149, 154, 222, 226, 262, 384, 427, 439, 447	
		SERVICE	2.4				
		REPAIR	1.1				
030401	CYLINDER ASSEMBLY, H	REMOVE	1.0			27, 67, 129, 154, 222, 262, 267, 353, 354A, 357, 376, 384, 445	
		INSTALL	1.0				
		REPAIR	0.3	1.2			
030402	CYLINDER ASSEMBLY, H	REMOVE	1.0			27, 67, 129, 154, 222, 262, 267, 353, 354A, 357, 376, 384, 445	
		INSTALL	1.0				
		REPAIR	0.3	1.3			
030403	VALVE, ROTARY, DIRECT	REMOVE	1.4			27, 53, 55, 67, 129, 154, 272, 353, 376, 129, 154, 384	
		INSTALL	1.4				
		REPAIR	1.2	1.8			
030404	VALVE, BRAKE CONTROL	REMOVE	1.7			27, 52, 129, 151, 154, 353, 358, 376, 384, 445	
		INSTALL	1.7				
		REPAIR	2.0	1.6			
030405	BRACKET ASSEMBLY	REMOVE	1.2			376	E
		INSTALL	1.2				
		REPAIR	2.4				
030406	BRACKET ASSEMBLY	REMOVE	0.1			376, 377	E
		INSTALL	0.1				
		REPAIR	0.3				
030407	TUBE ASSEMBLY, METAL	REPAIR	1.5			376	R
030408	TUBE ASSEMBLY, METAL	REPAIR	1.4			376	R

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL			(5) TOOLS & EQUIP REF CODE	(6) REMARKS CODE
			AVUM (O)	AVIM (F)	DEPOT (D)		
030409	TUBE ASSEMBLY, METAL	REPAIR	1.4			376	R
030410	TUBE ASSEMBLY, METAL	REPAIR	1.4			376	R
030411	TUBE ASSEMBLY, METAL	REPAIR	1.4			376	R
030412	TUBE ASSEMBLY, METAL	REPAIR	1.4			376	R
030413	TUBE ASSEMBLY, METAL	REPAIR	2.0			376	R
030414	TUBE ASSEMBLY, METAL	REPAIR	2.0			376	R
030415	TUBE ASSEMBLY, METAL	REPAIR	1.5			376	R
030416	TUBE ASSEMBLY, METAL	REPAIR	1.5			376	R
030417	TUBE ASSEMBLY, METAL	REPAIR	1.1			376	R
030418	TUBE ASSEMBLY, METAL	REPAIR	0.5			376	R
030419	TUBE ASSEMBLY, BRAKE SYSTEM	REPAIR	1.5			376	R
030420	TUBE ASSEMBLY, BRAKE SYSTEM	REPAIR	1.4			376	R
030421	TUBE ASSEMBLY, METAL	REPAIR	1.4			376	R
030422	TUBE ASSEMBLY, METAL	REPAIR	1.4			376	R
030423	TUBE ASSEMBLY, METAL	REPAIR	1.5			376	R
030424	TUBE ASSEMBLY, METAL	REPAIR	1.5			376	R
030425	TUBE ASSEMBLY, METAL	REPAIR	1.5			376	R
030426	TUBE ASSEMBLY, METAL	REPAIR	1.5			376	R
030427	TUBE ASSEMBLY, METAL	REPAIR	2.0			376	R
030428	TUBE ASSEMBLY, METAL	REPAIR	2.0			376	R
030429	TUBE ASSEMBLY, METAL	REPAIR	1.5			376	R
030430	TUBE ASSEMBLY, METAL	REPAIR	1.5			376	R

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			AVUM (O)	AVIM (F)	DEPOT (D)		
04	POWER PLANTS						
0401	ENGINE 1 SUBSYSTEMS	TEST	1.4			25, 27, 69, 85, 129, 154, 213, 232, 262, 291, 371, 376, 378, 417, 435, 446	AJ, AK
		SERVICE	0.7				
		REMOVE	1.5				
		INSTALL	1.5				
		REPAIR	2.3				
040101	FUEL CONTROL, INSTALLATION	INSPECT	2.3			12, 27, 129, 154, 156, 232, 262, 376, 434, 435	
		REMOVE	2.4				
		INSTALL	2.4				
		REPAIR	1.7				
04010101	SUPPRESSOR, HEAT	REMOVE	2.1			337, 376, 377, 435	
		INSTALL	2.1				
		REPAIR	0.8				
04010102	MOUNT, ASSEMBLY, ENGINE QCA	REMOVE	2.6			27, 146, 151, 154, 156, 206, 222, 232, 376, 445	S
		INSTALL	2.6				
0401010201	MOUNT, ENGINE	REMOVE	2.2			50, 146, 151, 206, 234, 376, 441, 442, 447	
		INSTALL	2.2				
		REPAIR	0.4				
0401010202	BELLCRANK	REMOVE	2.1			50, 234, 376, 442, 447	
		INSTALL	2.1				
		REPAIR		0.4			
0401010203	BELLCRANK	REMOVE	2.2			50, 234, 376, 442, 447	
		INSTALL	2.2				
		REPAIR		0.4			
0401010204	BOLT ASSEMBLY, ENGINE MOUNT	REMOVE	2.1			376, 441, 442, 447	
		INSTALL	2.1				

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL			(5) TOOLS & EQUIP REF CODE	(6) REMARKS CODE
			AVUM (O)	AVIM (F)	DEPOT (D)		
04010103	SHROUD ASSEMBLY	REMOVE INSTALL REPAIR	0.2 0.2 0.2			212, 371, 376, 435, 446	E
0401010301	IPAS AND SHROUD INSTL	REMOVE INSTALL REPAIR	0.3 0.3 0.5			54, 59, 145, 285, 376, 377, 402	
04010104	WIRING INSTALLATION	REMOVE INSTALL REPAIR	1.3 1.3 0.1			376, 378	
04010105	DUCT ASSEMBLY, AIR COOLING	REMOVE INSTALL REPAIR	0.5 0.5 0.6		0.6	27, 154, 213, 262, 376, 377, 441, 446	
04010106	STARTER, ENGINE AIR	INSPECT SERVICE REMOVE INSTALL REPAIR OVERHAUL	0.2 0.4 0.5 0.5 0.4		10.7	27, 129, 154, 222, 234, 240, 376, 384, 435, 446, 447	
0401010601	VALVE, REGULATING, FLOW	INSPECT REMOVE INSTALL REPAIR OVERHAUL	0.1 0.3 0.3 0.4		6.3	27, 156, 172, 222, 262, 376, 384, 446	A, C
04010107	BLEED AIR SYSTEM	REPAIR	0.5			27, 89, 129, 154, 156, 376, 416, 421, 435, 442, 446	
0401010701	INLET ASSEMBLY, AIR	REMOVE INSTALL REPAIR	2.0 2.0 1.2			27, 154, 156, 262, 376, 433	A, C

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL			(5) TOOLS & EQUIP REF CODE	(6) REMARKS CODE
			AVUM (O)	AVIM (F)	DEPOT (D)		
0401010702	VALVE, ANTI-ICING	INSPECT REMOVE INSTALL REPAIR OVERHAUL	0.1 0.6 0.6 1.3		4.7	27, 89, 94, 129, 154, 376, 442	
04010108	DRAIN SYSTEM, ENGINE QCA	REPAIR	0.8			129, 156, 376, 435, 443	
04010109	LINK ASSEMBLY	REMOVE INSTALL REPAIR	2.2 2.2 4.3			27, 154, 156, 376, 446	
04010110	CONNECTING LINK, RIG	REMOVE INSTALL REPAIR	2.3 2.3 4.4			27, 129, 154, 156, 262, 376, 435, 436	
04010111	WIRE HARNESS	REPAIR	1.2			215, 232, 376, 378, 379	
04010112	CONNECTING LINK, RIG	REMOVE INSTALL REPAIR	2.3 2.3 4.7			27, 129, 154, 156, 262, 376, 435, 436	
04010113	SHIELD, RADIATION	REMOVE INSTALL REPAIR	2.2 2.2 4.8			27, 129, 154, 376	
04010114	SHIELD, RADIATION	REMOVE INSTALL REPAIR	2.0 2.0 4.2			27, 129, 154, 376	
04010115	GUARD, ENGINE	REMOVE INSTALL REPAIR	0.2 0.2 0.6			27, 154, 156, 376	
04010116	SHIELD, RADIATION	REMOVE INSTALL REPAIR	2.3 2.3 4.7			27, 129, 154, 376, 377	

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL			(5) TOOLS & EQUIP REF CODE	(6) REMARKS CODE
			AVUM (O)	AVIM (F)	DEPOT (D)		
04010117	SHIELD, RADIATION	REMOVE INSTALL REPAIR	2.3 2.3 4.7			27, 129, 154, 376, 377	
04010118	SHIELD, RADIATION	REMOVE INSTALL REPAIR	2.2 2.2 4.6			27, 129, 154, 376, 377	
04010119	WIRE HARNESS	REPAIR	0.8			232, 376, 378	
04010120	CYLINDER, ACTUATING	REMOVE INSTALL REPAIR	0.3 0.3 0.3			27, 154, 156, 376	
04010121	PRESSURIZED AIR SYSTEM	INSPECT REPAIR	0.5 1.3			376	
040102	NOZZLE INSTALLATION, SECONDARY	INSPECT REMOVE INSTALL REPAIR	0.1 0.3 0.3 0.5			27, 154, 156, 211, 262, 376	A, C
04010201	NOZZLE ASSEMBLY, COMMON	REMOVE INSTALL REPAIR	0.2 0.2 0.3			27, 129, 154, 376, 377	A, C
04010202	NOZZLE ASSEMBLY, SUPPRESSOR	REMOVE INSTALL REPAIR	0.5 0.5		0.5	27, 129, 154, 376	A, C, S
04010203	FRAME, NOZZLE	REMOVE INSTALL REPAIR		0.2 0.2 0.5		235, 376, 377	A, C
04010204	SHIELD ASSEMBLY, RADIATION HEAT	REMOVE INSTALL REPAIR	0.3 0.3 0.7			376, 377	
04010205	SHIELD ASSEMBLY, HEAT	REMOVE INSTALL REPAIR	0.3 0.3 0.6			376, 377	



(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL			(5) TOOLS & EQUIP REF CODE	(6) REMARKS CODE
			AVUM (O)	AVIM (F)	DEPOT (D)		
04010206	NOZZLE ASSEMBLY, COMMON	REMOVE INSTALL REPAIR	0.1 0.1 0.3			27, 154, 156, 211, 262, 376	
04010207	SUPPRESSOR, IGNITION	REMOVE INSTALL REPAIR	0.4 0.4 0.9			376, 377	
04010208	SUPPORT, STRUCTURAL	REMOVE INSTALL REPAIR	0.3 0.3 0.9		0.3	27, 154, 156, 211, 262, 376	
04010209	STRUT, SUPPORT	REMOVE INSTALL REPAIR	0.1 0.1	0.2 0.2		27, 154, 156, 211, 262, 376	
040103	CONTROLS INSTALLATION, ENGINE	REPAIR	1.2			45, 156, 262, 376, 396	
04010301	CLIP, SPRING TENSION	REMOVE INSTALL	0.2 0.2			376	
0402	ENGINE 2 SUBSYSTEMS INSTALLATION	TEST SERVICE REMOVE INSTALL REPAIR	1.4 0.7 1.5 1.5 2.3			25, 27, 69, 85, 129, 154, 213, 232, 262, 291, 371, 376, 378, 417, 435, 446	AJ, AK
040201	ENGINE BUILDUP ASSY	REMOVE INSTALL REPAIR	2.4 2.4 2.6			25, 27, 77, 97, 100, 129, 154, 262, 291, 371, 376, 435, 439, 445, 446, 447	
04020101	FUEL CONTROL INSTALLATION	INSPECT REPAIR	2.3 1.7			12, 27, 129, 154, 156, 232, 262, 376, 434, 435	

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL			(5) TOOLS & EQUIP REF CODE	(6) REMARKS CODE
			AVUM (O)	AVIM (F)	DEPOT (D)		
04020102	SUPPRESSOR, HEAT	REMOVE INSTALL REPAIR	2.1 2.1 0.6			337, 376, 377, 435	
04020103	MOUNT, ENGINE QCA	REMOVE  INSTALL	2.1  2.1			27, 146, 151, 154, 156, 206, 222, 232, 376, 445	S
0402010301	BELLCRANK	REMOVE INSTALL REPAIR	2.1 2.1	0.4		50, 146, 151, 206, 234, 376, 441, 442, 447	
0402010302	BELLCRANK	REMOVE INSTALL REPAIR	2.2 2.2	0.4		50, 234, 376, 442, 447	
0402010303	BOLT ASSEMBLY, ENGINE MOUNT	REMOVE INSTALL	2.1 2.1			376, 441, 442, 447	
04020104	SHROUD ASSEMBLY	REMOVE INSTALL REPAIR	0.2 0.2 0.6			212, 371, 376, 435, 446	
0402010401	IPAS AND SHROUD INSTL	REMOVE INSTALL REPAIR	0.3 0.3 0.5			54, 59, 145, 285, 376, 377, 402	
04020105	WIRING INSTALLATION, ENGINE 2	REMOVE INSTALL REPAIR	1.3 1.3 0.1			376, 378	
04020106	DUCT ASSEMBLY, AIR COOLING	REMOVE INSTALL REPAIR	0.5 0.5 0.6		0.6	27, 154, 213, 262, 376, 377, 441, 446	

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL			(5) TOOLS & EQUIP REF CODE	(6) REMARKS CODE
			AVUM (O)	AVIM (F)	DEPOT (D)		
04020107	STARTER, ENGINE, AIR	INSPECT SERVICE REMOVE INSTALL REPAIR OVERHAUL	0.2 0.4 0.5 0.5 0.4		10.7	27, 129, 154, 222, 234, 240, 376, 384, 435, 446, 447	
0402010701	VALVE, REGULATING, FLOW	INSPECT REMOVE INSTALL REPAIR OVERHAUL	0.1 0.3 0.3 0.4		6.3	27, 156, 172, 222, 262, 376, 384, 446	A, C
04020108	BLEED AIR, SYSTEM	REPAIR	0.4			27, 89, 129, 154, 156, 376, 416, 421, 435, 442, 446	
0402010801	INLET ASSEMBLY, AIR	REMOVE INSTALL REPAIR	2.0 2.0 1.1			376, 377	A, C
0402010802	VALVE, ANTI-ICING	INSPECT REMOVE INSTALL REPAIR OVERHAUL	0.1 0.6 0.6 1.3		4.7	27, 89, 94, 129, 154, 376, 442	
04020109	DRAIN SYSTEM, ENGINE QCA	REPAIR	1.4			129, 156, 376, 435, 443	
04020110	ENGINE SUBSYSTEM	REPAIR	1.3			27, 154, 156, 262, 376, 377	
04020111	LINK ASSEMBLY	REMOVE INSTALL REPAIR	2.0 2.0 4.5			27, 154, 156, 262, 376, 446	

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL			(5) TOOLS & EQUIP REF CODE	(6) REMARKS CODE
			AVUM (O)	AVIM (F)	DEPOT (D)		
04020112	CONNECTING LINK, RIG	REMOVE	2.2			27, 129, 154, 156, 262, 376, 435, 436	
		INSTALL	2.2				
		REPAIR	4.6				
04020113	WIRE HARNESS	REPAIR	1.2			215, 232, 376, 378, 379	
04020114	CONNECTING LINK, RIG	REMOVE	2.3			27, 129, 154, 156, 262, 376, 435, 436	
		INSTALL	2.3				
		REPAIR	4.5				
04020115	SHIELD, RADIATION	REMOVE	2.2			27, 129, 154, 376	
		INSTALL	2.2				
		REPAIR	4.8				
04020116	SHIELD, RADIATION	REMOVE	2.0			27, 129, 154, 376	
		INSTALL	2.0				
		REPAIR	4.2				
04020117	GUARD, ENGINE	REMOVE	0.2			27, 154, 156, 376	
		INSTALL	0.2				
		REPAIR	0.6				
04020118	GUARD, ENGINE	REMOVE	2.3			27, 154, 156, 376	
		INSTALL	2.3				
		REPAIR		0.4			
04020119	SHIELD, NACELLE, FRAME	REMOVE	2.3			27, 154, 156, 376	
		INSTALL	2.3				
04020120	SHIELD, NACELLE, FRAME	REMOVE	2.3			27, 154, 156, 376	
		INSTALL	2.3				
04020121	WIRE HARNESS	REPAIR	0.8			232, 376, 378	
04020122	CYLINDER, ACTUATING	REMOVE	0.3			27, 154, 156, 376	
		INSTALL	0.3				
		REPAIR	0.3				

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL			(5) TOOLS & EQUIP REF CODE	(6) REMARKS CODE
			AVUM (O)	AVIM (F)	DEPOT (D)		
040202	NOZZLE INSTALLATION, SECONDARY	INSPECT REPAIR	0.1 0.3			27, 154, 156, 211, 262, 376	A, C
04020201	NOZZLE ASSEMBLY, COMMON	REMOVE INSTALL REPAIR	0.2 0.2 0.3			27, 129, 154, 376, 377	A, C
04020202	NOZZLE ASSEMBLY, SUPPRESSOR	REMOVE INSTALL REPAIR	0.2 0.2		0.5	27, 129, 154, 376	A, C, S
04020203	FRAME, NOZZLE	REMOVE INSTALL REPAIR		0.2 0.2 0.5		235, 376, 377	A, C
04020204	SHIELD ASSEMBLY, HEAT RADIATION	REMOVE INSTALL REPAIR	0.4 0.4 0.7			376, 377	
04020205	SHIELD ASSEMBLY, HEAT	REMOVE INSTALL REPAIR	0.3 0.3 0.6			376, 377	
04020206	NOZZLE ASSEMBLY, COMMON	REMOVE INSTALL REPAIR	0.2 0.2 0.3			27, 154, 156, 211, 262, 376	
04020207	SHIELD, HEAT, TURBINE	REMOVE INSTALL REPAIR	0.3 0.3 0.4			376, 377	
04020208	SHIELD ASSEMBLY, HEAT RADIATION	REMOVE INSTALL REPAIR	0.4 0.4 1.0			376, 377	
04020209	STRUCTURAL SUPPORT	REMOVE INSTALL REPAIR	0.3 0.3 0.8			27, 154, 156, 211, 262, 376	

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL			(5) TOOLS & EQUIP REF CODE	(6) REMARKS CODE
			AVUM (O)	AVIM (F)	DEPOT (D)		
04020210	SUPPORT STRUT	REMOVE	0.2			27, 154, 156, 211, 262, 376	
		INSTALL	0.2				
040203	ENGINE CONTROL SUBSYSTEM INSTALLATION	TEST	1.3			45, 112, 376	
		ADJUST	3.2				
04020301	COMPONENT INSTALLATION	ADJUST	0.8			376	
		REMOVE	0.5				
		INSTALL	0.5				
04020302	CLIP, SPRING TENSION	REMOVE	0.2			376, 377	
		INSTALL	0.2				
040204	CONTROL INSTALLATION, ENGINE	REPAIR	2.1			119, 232, 371, 376, 441, 445, 446	
04020401	BELLCRANK	REMOVE	1.7			27, 50, 154, 156, 232, 235, 267, 376, 447	
		INSTALL	1.7				
		REPAIR		0.2			
04020402	CONNECTING LINK, RIG	REMOVE	1.2			27, 154, 156, 232, 267, 376, 435, 445	
		INSTALL	1.2				
		REPAIR	2.1				
04020403	CONNECTING LINK, RIG	REMOVE	0.8			27, 154, 156, 232, 267, 376, 435, 445	
		INSTALL	0.8				
		REPAIR	1.7				
04020404	BELLCRANK	REMOVE	0.9			27, 50, 154, 156, 232, 235, 267, 376, 447	
		INSTALL	0.9				
		REPAIR		0.2			

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL			(5) TOOLS & EQUIP REF CODE	(6) REMARKS CODE
			AVUM (O)	AVIM (F)	DEPOT (D)		
04020405	BELLCRANK	REMOVE	1.7			27, 50, 154, 156, 232, 235, 267, 376, 447	
		INSTALL	1.7				
		REPAIR		0.2			
040205	PILOT POWER QUADRANT ASSEMBLY	INSPECT	0.2			27, 86, 129, 154, 156, 163, 218, 222, 226, 236, 267, 273, 331, 376, 378, 445	
		REMOVE	1.6				
		INSTALL	1.6				
		REPAIR	2.6	1.1			
		OVERHAUL			3.5		
040206	QUADRANT, CONTROL, COPILOT	REMOVE	0.8			27, 86, 129, 154, 163, 218, 236, 273, 331, 376, 378, 445	
		INSTALL	0.8				
		REPAIR	1.5	1.0			
		OVERHAUL			3.3		
040207	MOUNT, ENGINE	REMOVE	2.2			43, 156, 222, 376	
		INSTALL	2.2				
		REPAIR	0.4				
040208	SUPPORT, ENGINE MOUNT	REMOVE	2.0			43, 156, 222, 376	
		INSTALL	2.0				
		REPAIR		0.4			
0403	ENCLOSURE ASSEMBLY	REMOVE	2.0			376	
		INSTALL	2.0				
		REPAIR	0.4				
0404	ENCLOSURE ASSEMBLY	REMOVE	1.5			376	
		INSTALL	1.5				
		REPAIR	0.4				
0405	BRACKET MOUNTING	REMOVE	1.8			376	
		INSTALL	1.8				
		REPAIR	0.4				
0406	LOUVER ASSEMBLY, ENGINE	INSPECT	0.2			27, 103, 129, 154, 156, 262, 343, 376, 446	D, H, I
		REMOVE	1.4				
		INSTALL	1.4				
		REPAIR	0.5				

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL			(5) TOOLS & EQUIP REF CODE	(6) REMARKS CODE
			AVUM (O)	AVIM (F)	DEPOT (D)		
040601	CYLINDER ASSEMBLY, ACTUATING	REMOVE INSTALL REPAIR	0.4			27, 103, 129, 154, 156, 262, 343, 376, 446	A, C



(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL			(5) TOOLS & EQUIP REF CODE	(6) REMARKS CODE
			AVUM (O)	AVIM (F)	DEPOT (D)		
05	HEAD AND BLADE INSTL	REPAIR	2.3				
0501	BLADE, ROTARY WING	REMOVE	4.3			27, 60, 102, 107, 116, 118, 120, 128, 145, 154, 158, 160, 172, 194, 199, 211, 212, 215, 224, 238, 250, 262, 285, 287, 288, 320, 339, 344A,	B, G, T, V
		INSTALL	4.3			352, 354, 367, 372, 376, 377, 378, 410, 425, 434, 435, 442, 445, 447	
		REPAIR	0.2	1.1	3.3		
050101	TIP ASSEMBLY, LEADING EDGE	REMOVE		0.5		27, 154,	
		INSTALL		0.5		262, 320,	
		REPAIR		0.9		376, 434	

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL			(5) TOOLS & EQUIP REF CODE	(6) REMARKS CODE
			AVUM (O)	AVIM (F)	DEPOT (D)		
0502	HEAD, ROTARY WING	INSPECT	0.7	0.3		5, 25, 27, 52, 54, 56, 60, 78, 107, 147, 154, 155, 161, 163, 172, 173, 194, 197, 199, 211, 212, 213, 215, 262, 274, 285, 287, 295, 297, 309, 337, 345A, 372, 375, 376, 377, 378, 410, 425, 433, 435, 438, 439, 442, 445, 447	
		REMOVE	6.7				
		INSTALL	6.7				
		REPAIR	6.0	2.1	5.6		
050201	HOUSING ASSEMBLY	REMOVE	4.9			5, 27, 107, 147, 154, 155, 161, 163, 173, 197, 199, 212, 215, 218, 224, 262, 285, 287, 295, 297, 309, 337, 372, 376, 377, 378, 410, 435, 438, 442, 445	
		INSTALL	4.9				
		REPAIR	0.3	0.6	1.2		
050202	CONNECTING LINK, RIG	REMOVE	2.2			27, 52, 54, 154, 155, 172, 215, 236, 262, 372, 378, 410, 435, 442	F
		INSTALL	2.2				
		REPAIR		1.7	0.9		

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL			(5) TOOLS & EQUIP REF CODE	(6) REMARKS CODE
			AVUM (O)	AVIM (F)	DEPOT (D)		
050203	BRACKET, DOUBLE ANGLE	REMOVE INSTALL REPAIR	0.2 0.2 0.6			372	
050204	FOLLOWER, MAIN ROTOR	REMOVE INSTALL REPAIR	6.8 6.8	0.3		27, 154, 194, 199, 262, 372, 439	
050205	HUB, ROTOR, HELICOPTER	REPAIR	0.5		7.8	27, 107, 154, 194, 199, 211, 213, 262, 274, 372, 375,	W
050206	PLATE ASSEMBLY, HUB, MAIN	REPAIR		0.8		27, 154, 155, 163, 197, 199, 212, 262, 287, 372	W
050207	SHOE ASSEMBLY, MAIN ROTOR	REMOVE INSTALL REPAIR		1.6 1.6 0.8	0.7	2, 27, 107, 154, 194, 199, 262, 295, 309, 372, 410, 425	U
050208	FITTING ASSEMBLY-WEIGHT	REPAIR		0.7		27, 154, 194, 262, 372, 439	
050209	FITTING-WT SUPPORT	REPAIR		1.0		27, 154, 194, 262, 372, 439	
0503	TAIL ROTOR INSTL	INSPECT REPAIR	0.2 4.7			273, 376	

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL			(5) TOOLS & EQUIP REF CODE	(6) REMARKS CODE
			AVUM (O)	AVIM (F)	DEPOT (D)		
050301	BLADE, ROTARY RUDDER	REMOVE	1.2			27, 56, 102, 107, 122, 136, 149, 152, 154, 170, 171, 199, 209, 215, 218, 262, 273, 278, 304, 311, 339, 372, 374, 376, 377, 378, 396, 401, 434, 435, 438, 446, 447	B, C, G, T, V
		REPLACE	1.2				
		REPAIR	0.8	0.5			
050302	HEAD, ROTARY WING	REMOVE	1.5			3, 16, 25, 27, 56, 107, 122, 136, 149, 152, 154, 171, 199, 202, 209, 262, 304, 311, 372, 374, 376, 396, 401, 434, 438, 440, 446	
		INSTALL	1.5				
		REPAIR	1.1	0.8			
050303	FORK ASSEMBLY, TAIL ROTOR	REMOVE		0.8		27, 33, 107, 132, 154, 155, 163, 175, 199, 213, 262, 372, 445	
		INSTALL		0.8			
		REPAIR		2.1			
050304	NUT, SELF-LOCKING PL	REPAIR		0.5		33, 175, 372, 445	

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL			(5) TOOLS & EQUIP REF CODE	(6) REMARKS CODE
			AVUM (O)	AVIM (F)	DEPOT (D)		
06	DRIVE SYSTEM						
0601	SHAFT AND COUPLINGS	INSPECT	1.9			27, 129, 138, 145, 154, 376, 437	D, J
		REPAIR	0.7				
060101	COUPLING, ENGINE NOSE	REMOVE	0.6			22, 372, 441	
		INSTALL	0.6				
		REPAIR		0.3			
060102	SHAFT, INPUT, ENGINE	REMOVE	0.6			22, 372, 441	
		INSTALL	0.6				
		REPAIR		0.3			
060103	COUPLING ASSEMBLY, TRANSMISSION	REMOVE	0.6			22, 372, 441	
		INSTALL	0.6				
		REPAIR		0.3			
060104	COUPLING, TAIL ROTOR	REMOVE	0.9			22, 372, 434, 441	
		INSTALL	0.9				
		REPAIR		0.3			
060105	SHAFT AND CARRIER ASSEMBLY	REMOVE	0.7			22, 372, 441	
		INSTALL	0.7				
		REPAIR		0.3			
060106	BEARING UNIT, BALL	REMOVE	0.9			22, 27, 154, 262, 372, 441, 446	
		INSTALL	0.9				
		REPAIR		6.6	4.9		
		OVERHAUL			0.6		
060107	SHAFT ASSEMBLY, TAIL ROTOR	REMOVE	1.1			27, 33, 154, 175, 199, 262, 272, 372, 435, 445	D, J
		INSTALL	1.1				
		REPAIR		0.3			
060108	BEARING UNIT, BALL	INSPECT			0.2	22, 27, 33, 154, 175, 262, 372, 434, 441, 446	
		REMOVE	0.8				
		INSTALL	0.8				
		REPAIR	1.5				
		OVERHAUL			0.6		

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL			(5) TOOLS & EQUIP REF CODE	(6) REMARKS CODE
			AVUM (O)	AVIM (F)	DEPOT (D)		
060109	SHAFT, SHOULDERED	REMOVE INSTALL REPAIR	0.9 0.9	0.3		22, 372, 441	
060110	SHAFT, DRIVE, FLEXIBLE	REMOVE INSTALL REPAIR	0.6 0.6	0.3		11, 22, 27, 147, 154, 262, 372, 441, 445	
060111	DAMPER ASSEMBLY, FORWARD DRIVE	ADJUST REMOVE INSTALL REPAIR	0.6 1.0 1.0 0.9	1.2		11, 22, 372, 434, 435, 445	
06011101	BRACKET, MOUNTING	REMOVE INSTALL REPAIR	0.3 0.3 0.8			27, 33, 154, 175, 199, 262, 372, 435, 445	
060112	DAMPER ASSEMBLY, AFT DRIVE	ADJUST REMOVE INSTALL REPAIR	0.6 1.3 1.3 0.9	1.2		27, 33, 154, 175, 199, 262, 272, 372, 435, 445	
060113	SUPPORT ASSEMBLY, DRIVE	REMOVE INSTALL	0.7 0.7			27, 33, 154, 175, 199, 262, 372, 435, 445	
06011301	BRACKET, MOUNTING	REMOVE INSTALL REPAIR	0.3 0.3 0.8			27, 33, 154, 175, 199, 262, 372, 435, 445	E
060114	ANTI-FLAIL ASSEMBLY, TAIL	REMOVE INSTALL	1.3 1.3			27, 33, 154, 175, 199, 262, 272, 372, 435, 445	

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL			(5) TOOLS & EQUIP REF CODE	(6) REMARKS CODE
			AVUM (O)	AVIM (F)	DEPOT (D)		
0602	INSTALLATION, ENGINE NOSE GEARBOX	REPAIR	3.3			145, 317, 372, 407, 433, 434, 435, 446	
060201	DRIVE UNIT, ANGLE	SERVICE	0.6			3, 7, 27, 70, 90, 94, 97, 107, 129, 138, 145, 154, 199, 262, 293, 372, 376, 378, 423, 434, 439, 441	
		REMOVE	1.9				
		INSTALL	1.9				
		REPAIR	1.2	1.2			
		OVERHAUL			12.1		
06020101	PUMP, LUBE NOSE GEAR	INSPECT	0.2			27, 129, 154, 372, 435	
		REMOVE	0.9				
		INSTALL	0.9				
		OVERHAUL			4.0		
060202	BOWL ASSEMBLY, LUBE PUMP	REMOVE	0.4			7, 27, 89, 90, 129, 145, 154, 227, 262, 372, 434, 435, 439	
		INSTALL	0.4				
		REPAIR	0.8				
060203	PUMP, LUBE NOSE GEAR	INSPECT	0.2			27, 129, 154, 372, 435	
		REMOVE	0.9				
		INSTALL	0.9				
		OVERHAUL			4.0		
060204	ADAPTOR, MOUNTING	REMOVE	0.2			145, 317, 372, 407, 433, 435, 446	
		INSTALL	0.2				
		REPAIR	2.0				
060205	SHROUD ASSEMBLY, GEARBOX	REMOVE	0.4			145, 317, 372, 407, 433, 434, 435, 446	
		INSTALL	0.4				
		REPAIR	0.7				
060206	DETECTOR, CHIP	REMOVE	1.0			27, 129, 154, 376, 434	
		INSTALL	1.0				
		REPAIR	0.6				

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL			(5) TOOLS & EQUIP REF CODE	(6) REMARKS CODE
			AVUM (O)	AVIM (F)	DEPOT (D)		
060207	ADAPTOR, MOUNTING	REMOVE	0.9			145, 317, 372, 407, 433, 434, 435, 446	E
		INSTALL	0.9				
		REPAIR	2.0				
0603	TRANSMISSION, MAIN	INSPECT	1.8			18, 25, 27, 34, 36A, 45, 51, 52, 65, 70, 77, 79, 85, 89, 90, 93, 97, 100, 107, 113, 114, 129, 133, 138, 145, 154, 186, 194, 199, 206, 212, 218, 227, 230, 234, 239, 240, 245, 247, 262, 280, 281, 302A, 319, 321, 354, 366, 372, 376, 378, 396, 397, 417, 419, 420, 432, 433, 434, 435, 436, 439, 441, 444, 445, 446, 447	
		SERVICE	0.4				
		REMOVE	10.5				
		INSTALL	10.5				
		REPAIR	1.2	0.3	1.2		
		OVERHAUL			1.1		
060301	CAP, FILLER OPENING	REMOVE	0.2			27, 129, 154, 262, 372, 435	
		INSTALL	0.2				
		REPAIR	0.5				
060302	BOWL ASSEMBLY, TRANSMISSION	REMOVE	0.3			27, 89, 129, 154, 372, 439	
		INSTALL	0.3				
		REPAIR	1.3				



(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL			(5) TOOLS & EQUIP REF CODE	(6) REMARKS CODE
			AVUM (O)	AVIM (F)	DEPOT (D)		
060303	ROTOR, DISK BRAKE	INSPECT	0.4			2, 17, 27, 51, 52, 56, 59, 85, 129, 133, 145, 147, 154, 170, 234, 249, 262, 280, 318, 321, 357, 369, 372, 376, 384, 387, 402, 432, 433, 434, 435, 436, 439, 443, 446	
		REMOVE	0.9				
		INSTALL	0.9				
		REPAIR	0.1	0.8			
06030301	CYLINDER ASSEMBLY, LH	REPAIR		2.6		27, 52, 56, 59, 145, 152, 154, 234, 262, 357, 369, 387A, 402, 439, 446	
06030302	CYLINDER ASSEMBLY, RH	REPAIR		1.0		27,52, 56, 59, 145, 152, 154, 234, 262, 357, 369, 387A, 402, 439, 446	
06030303	VALVE, BLEEDER, HYDRAULIC	REMOVE		0.2		27,52, 56, 59, 145, 152, 154, 234, 262, 357, 369, 387A, 402, 439, 446	
		INSTALL		0.2			

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL			(5) TOOLS & EQUIP REF CODE	(6) REMARKS CODE
			AVUM (O)	AVIM (F)	DEPOT (D)		
06030304	PISTON, HYDRAULIC BRAKE	REMOVE		1.3		27, 52, 56, 59, 145, 152, 154, 234, 262, 357, 369, 387A, 402, 439, 446	
		INSTALL		1.3			
		REPAIR		0.1			
06030305	PISTON SUBASSEMBLY	REMOVE		0.2		27, 52, 56, 59, 145, 152, 154, 234, 262, 357, 369, 387A, 402, 439, 446	Y
		INSTALL		0.2			
		REPAIR		0.9			
060304	PUMP, ROTARY	REMOVE	0.7			22, 27, 129, 154, 372, 378, 434, 441	
		INSTALL	0.7				
		OVERHAUL			4.6		
060305	FILTER BODY, FLUID	REMOVE	0.5			27, 129, 154, 262, 376, 435	Y
		INSTALL	0.5				
		REPAIR	0.7				
060306	COOLER, FLUID, TRANSMISSION	REMOVE	0.7			7, 27, 70, 90, 93, 100, 129, 154, 372, 376, 378, 440, 445, 447	
		INSTALL	0.7				
		REPAIR	0.7				
060307	TUBE INSTALLATION TRANSMISSION	REPAIR	0.3			376	
06030701	TUBE ASSEMBLY, METAL	REMOVE	0.2			376	R
		INSTALL	0.2				
		REPAIR		0.8			

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL			(5) TOOLS & EQUIP REF CODE	(6) REMARKS CODE
			AVUM (O)	AVIM (F)	DEPOT (D)		
06030702	TUBE ASSEMBLY, METAL	REMOVE INSTALL REPAIR	0.2 0.2	0.8		376	R
06030703	TUBE, BENT METALLIC	REMOVE INSTALL REPAIR	1.7 1.7	0.8		376	R
06030704	TUBE, BENT METALLIC	REMOVE INSTALL REPAIR	1.7 1.7 0.8	0.8		376	R
06030705	TUBE, BENT METALLIC	REMOVE INSTALL REPAIR	1.7 1.7	0.8		376	R
06030706	TUBE, BENT METALLIC	REMOVE INSTALL REPAIR	1.7 1.7	0.8		376	R
06030707	TUBE, BENT METALLIC	REMOVE INSTALL REPAIR	0.2 0.2	0.8		376	R
060308	DISTRIBUTION BOX	REMOVE INSTALL REPAIR	0.3 0.3	0.3		27, 147, 154, 262, 372, 376, 378, 445	
060309	DRIVE PLATE, MAIN	REMOVE INSTALL REPAIR	2.5 2.5	0.3		18, 27, 129, 145, 154, 206, 262, 372, 438, 444, 445	
060310	MAST ASSEMBLY, DATA	TEST ALIGN REMOVE INSTALL REPAIR	1.2 2.8 0.5 0.5 0.1	0.4		27, 138, 146, 154, 194, 218, 262, 372, 376, 378	
060311	PUMP, ROTARY	INSPECT REMOVE INSTALL OVERHAUL	0.2 2.0 2.0		5.4	27, 69, 129, 135, 154, 372, 435	

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL			(5) TOOLS & EQUIP REF CODE	(6) REMARKS CODE
			AVUM (O)	AVIM (F)	DEPOT (D)		
060312	CLUTCH ASSEMBLY	REMOVE INSTALL OVERHAUL	2.6 2.6		2.1	27, 123, 129, 133, 154, 173, 372, 438	
060313	HOUSING ASSEMBLY, INPUT	REMOVE INSTALL	1.3 1.3			27, 129, 154, 372, 441	D
060314	DIVERTER, FLOAT VALVE	INSPECT REMOVE INSTALL OVERHAUL	0.1 10.4 10.4		2.0	27, 69, 129, 135, 154, 372, 435	
060315	MOUNT ASSEMBLY, AIR SENSOR	REMOVE INSTALL REPAIR		0.2 0.2 0.3		27, 129, 154, 262, 376, 378, 445	
060316	DETECTOR, METALLIC	REMOVE INSTALL REPAIR	0.4 0.4 1.0			27, 129, 154, 376, 378, 435	
060317	FLANGE ASSEMBLY, TAIL	REMOVE INSTALL REPAIR	0.5 0.5 1.0			22, 372, 441	
0604	GEARBOX, INTERMEDIATE	INSPECT SERVICE REMOVE INSTALL REPAIR OVERHAUL	0.7 0.6 2.1 2.1 0.9	0.4	5.7	27, 50, 52, 98, 107, 114, 129, 138, 145, 147, 152, 154, 199, 212, 262, 372, 434, 439, 441, 445, 446	
060401	WIRE INSTALLATION	REPAIR	0.7			372	
060402	SHAFT, SHOULDERED	REMOVE INSTALL REPAIR	0.7 0.7 0.5			22, 372, 441	

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL			(5) TOOLS & EQUIP REF CODE	(6) REMARKS CODE
			AVUM (O)	AVIM (F)	DEPOT (D)		
0605	GEARBOX, TAIL ROTOR	INSPECT	0.8			14, 25, 27, 38, 39, 50, 52, 86, 98, 107, 114, 116, 121, 121A, 138, 139, 145, 146, 147, 152, 154, 177, 199, 212, 234, 262, 281, 292, 368, 372, 376, 434, 439, 441, 442, 445, 446, 447	
		SERVICE	0.5				
		REMOVE	3.5				
		INSTALL	3.5				
		REPAIR	0.5	0.6			
		OVERHAUL			8.7		
060501	BRACE, INSTALLATION	REPAIR	0.1			22, 372, 441	

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL			(5) TOOLS & EQUIP REF CODE	(6) REMARKS CODE
			AVUM (O)	AVIM (F)	DEPOT (D)		
07	HYDRAULIC/PNEUMATIC SYSTEM						
0701	HYDRAULIC SYSTEM INSTL	INSPECT TEST SERVICE REPAIR OVERHAUL	0.7 1.4 0.4 1.4			27, 129, 137, 154, 156, 211, 222, 324, 376, 384, 393, 417, 445	
070101	PUMP, AXIAL, PISTONS	INSPECT REMOVE INSTALL OVERHAUL	0.3 1.3 1.3			12, 27, 52, 113, 129, 138, 154, 156, 211, 262, 364, 376, 417	
070102	BRACKET, MOUNTING	REMOVE INSTALL REPAIR	2.0 2.0 4.0			27, 129, 154, 376, 417	E
070103	MANIFOLD HYDRAULIC, PRIMARY	INSPECT REMOVE INSTALL REPAIR OVERHAUL	0.2 0.6 0.6 0.7	0.6		27, 129, 154, 262, 324, 329, 330, 376, 384, 435, 445	AD
07010301	MANIFOLD ASSEMBLY, RESERVOIR	REPAIR		0.8	1.6	27, 113, 129, 154, 236, 329, 384, 435, 445	
070104	PANEL ASSEMBLY, PRIMARY GSE	REPAIR	0.5			27, 129, 154, 376, 377, 419	E

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL			(5) TOOLS & EQUIP REF CODE	(6) REMARKS CODE
			AVUM (O)	AVIM (F)	DEPOT (D)		
07010401	PUMP, HYDRAULIC, RAM	INSPECT	0.3			3, 5, 27, 40, 41, 57, 58, 105, 129, 154, 156, 262, 293, 294, 306, 311, 313, 359, 376, 377, 380, 384, 386, 434, 433, 439, 442, 447	AD
		TEST		0.4			
		REMOVE	0.6				
		INSTALL	0.6				
		REPAIR	1.1	0.7			
		OVERHAUL			2.0		
0701040101	MANIFOLD ASSEMBLY	REPAIR	1.5		0.4	113, 156, 211, 262, 364, 447	
07010402	BRACKET ASSEMBLY, HYDRAULIC	REMOVE	0.5			27, 74, 129, 154, 156, 376, 417, 447	E
		INSTALL	0.5				
		REPAIR	0.6				
0701040201	PANEL ASSEMBLY, HYDRAULIC	REMOVE	0.7			154, 156, 376, 447	E, R, AM
		INSTALL	0.7				
07010501	TUBE ASSEMBLY, PRIMARY SYSTEM	REMOVE	2.0			137, 154, 376	R, AM
		INSTALL	2.0				
07010502	TUBE ASSEMBLY, PRIMARY SYSTEM	REPAIR	5.0			137, 154, 376	R, AM
0701050201	TUBE ASSEMBLY, PRIMARY SYSTEM	REPAIR	4.7			137, 154, 376	R, AM
0701050202	TUBE ASSEMBLY, PRIMARY SYSTEM	REPAIR	4.5			137, 154, 376	R, AM
0701050203	TUBE ASSEMBLY, PRIMARY SYSTEM	REPAIR	4.5			137, 154, 376	R, AM
0701050204	TUBE ASSEMBLY, PRIMARY SYSTEM	REPAIR	4.5			137, 154, 376	R, AM
0701050205	TUBE ASSEMBLY, PRIMARY SYSTEM	REPAIR	4.6			137, 154, 376	R, AM

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL			(5) TOOLS & EQUIP REF CODE	(6) REMARKS CODE
			AVUM (O)	AVIM (F)	DEPOT (D)		
0701050206	TUBE ASSEMBLY, PRIMARY SYSTEM	REPAIR	4.6			137, 154, 376	R, AM
0701050207	TUBE ASSEMBLY, PRIMARY SYSTEM	REPAIR	4.5			137, 154, 376	R, AM
0701050208	TUBE ASSEMBLY, PRIMARY SYSTEM	REPAIR	4.5			137, 154, 376	R, AM
0701050209	TUBE ASSEMBLY, PRIMARY SYSTEM	REPAIR	4.5			137, 154, 376	R, AM
07010503	TUBE ASSEMBLY, PRIMARY SYSTEM	REPAIR	5.0			137, 154, 376	R, AM
0701050401	TUBE ASSEMBLY, PRIMARY SYSTEM	REPAIR	4.7			137, 154, 376	R, AM
0701050402	TUBE ASSEMBLY, PRIMARY SYSTEM	REPAIR	4.7			137, 154, 376	R, AM
0701050403	TUBE ASSEMBLY, PRIMARY SYSTEM	REPAIR	4.6			137, 154, 376	R, AM
0701050404	TUBE ASSEMBLY, PRIMARY SYSTEM	REPAIR	4.6			137, 154, 376	R, AM
0701050405	TUBE ASSEMBLY, PRIMARY SYSTEM	REPAIR	4.6			137, 154, 376	R, AM
0701050406	TUBE ASSEMBLY, PRIMARY SYSTEM	REPAIR	4.6			137, 154, 376	R, AM
0701050407	TUBE ASSEMBLY, PRIMARY SYSTEM	REPAIR	4.6			137, 154, 376	R, AM
0701050408	TUBE ASSEMBLY, PRIMARY SYSTEM	REPAIR	4.5			137, 154, 376	R, AM
0701050409	TUBE ASSEMBLY, PRIMARY SYSTEM	REPAIR	4.6			137, 154, 376	R, AM
0701050410	TUBE ASSEMBLY, METAL	REPAIR		4.5		137, 154, 376	R, AM
07010505	TUBE ASSEMBLY, PRIMARY SYSTEM	REPAIR	5.0			137, 154, 376	R, AM



(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL			(5) TOOLS & EQUIP REF CODE	(6) REMARKS CODE
			AVUM (O)	AVIM (F)	DEPOT (D)		
0701050601	TUBE ASSEMBLY, PRIMARY SYSTEM	REPAIR	4.5			137, 154, 376	R, AM
0701050602	TUBE ASSEMBLY, PRIMARY SYSTEM	REPAIR	4.5			137, 154, 376	R, AM
0701050701	TUBE ASSEMBLY, PRIMARY SYSTEM	REPAIR	4.5			137, 154, 376	R, AM
0701050702	TUBE ASSEMBLY, PRIMARY SYSTEM	REPAIR	4.5			137, 154, 376	R, AM
0701050703	TUBE ASSEMBLY, PRIMARY SYSTEM	REPAIR	4.5			137, 154, 376	R, AM
0701050704	TUBE ASSEMBLY, PRIMARY SYSTEM	REPAIR	4.7			137, 154, 376	R, AM
07010508	TUBE ASSEMBLY, METAL DRAIN	REMOVE INSTALL REPAIR	1.3 1.3 0.6			137, 154, 376	R, AM
07010509	TUBE ASSEMBLY, METAL	REPAIR	4.5			137, 154, 376	R, AM
0701051001	TUBE ASSEMBLY, METAL	REPAIR	4.7			137, 154, 376	R, AM
0701051002	TUBE ASSEMBLY, METAL	REPAIR	4.5			137, 154, 376	R, AM
0701051003	TUBE ASSEMBLY, METAL	REPAIR	4.5			137, 154, 376	R, AM
0701051101	TUBE ASSEMBLY, METAL	REPAIR	4.7			137, 154, 376	R, AM
0701051102	TUBE ASSEMBLY, METAL	REPAIR	4.5			137, 154, 376	R, AM
0701051103	TUBE ASSEMBLY, METAL	REPAIR	4.5			137, 154, 376	R, AM

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL			(5) TOOLS & EQUIP REF CODE	(6) REMARKS CODE
			AVUM (O)	AVIM (F)	DEPOT (D)		
070106	SERVOCYLINDER, TAIL ROTOR	INSPECT	0.2			3, 5, 6, 27, 37, 45, 90, 113, 129, 154, 156, 191, 262, 293, 294, 306, 311, 313, 322, 324, 328, 364, 376, 377, 380, 384, 386, 433, 434, 435, 439, 442, 445, 446, 447	AD
		REMOVE	2.0				
		INSTALL	2.0				
		REPAIR	0.6	0.5			
		OVERHAUL		20.6			
070107	SERVOCYLINDER ASSEMBLY, COLLECTIVE	INSPECT	0.2			3, 5, 23, 27, 37, 45, 71, 75, 77, 80, 87, 113, 129, 154, 156, 191, 217, 232, 262, 293, 294, 305, 306, 311, 312, 313, 322, 324, 328, 364, 376, 377, 380, 381, 382, 383, 384, 386, 410, 412, 417, 433, 434, 435, 439, 442, 445, 446, 447	AD
		REMOVE	1.5				
		INSTALL	1.5				
		REPAIR	0.7	0.6	1.2		
		OVERHAUL		20.5			
07010701	LINK ASSEMBLY, UNIVERSAL	REPAIR		0.6		27, 154, 262, 191, 377	

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL			(5) TOOLS & EQUIP REF CODE	(6) REMARKS CODE
			AVUM (O)	AVIM (F)	DEPOT (D)		
070108	SERVOCYLINDER ASSEMBLY, LONGITUDINAL	INSPECT	0.4			3, 5, 27, 37, 45, 75, 77, 80, 113, 129, 154, 156, 191, 232, 262, 293, 294, 305, 306, 311, 312, 313, 322, 324, 328, 364, 376, 377, 380, 381, 382, 383, 384, 385, 386, 410, 412, 417, 433, 434, 435, 439, 442, 445, 446, 447	AD
		REMOVE	1.3				
		INSTALL	1.3				
		REPAIR	0.6	0.8			
		OVERHAUL			20.5		
07010801	LINK ASSEMBLY, UNIVERSAL	REMOVE		0.3		23, 27, 154, 156, 217, 262, 191, 377	
		INSTALL		0.3			
		REPAIR		0.5			
070201	BRACKET ASSEMBLY, SUPPORT	REMOVE	0.4			27, 74, 129, 154, 156, 376, 417	E
		INSTALL	0.4				
		REPAIR	0.8				
070202	MANIFOLD, HYDRAULIC	INSPECT	0.1			27, 129, 154, 156, 212, 215, 218, 329, 364, 384, 435, 445	
		REMOVE	0.7				
		INSTALL	0.7				
		REPAIR	0.6	0.4			
		OVERHAUL			12.4		

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL			(5) TOOLS & EQUIP REF CODE	(6) REMARKS CODE
			AVUM (O)	AVIM (F)	DEPOT (D)		
07020201	PISTON, RESERVOIR	REMOVE		0.5		27, 74, 129, 154, 156, 376, 417	E
		INSTALL		0.5			
07020202	MANIFOLD ASSEMBLY	REMOVE			3.6	27, 129, 154, 156, 212, 215, 218, 329, 364, 384, 435, 445	
		INSTALL			3.6		
		REPAIR		0.8	0.8		
070203	PANEL ASSEMBLY, UTILITY	REPAIR	0.4			27, 81, 129, 154, 156, 222, 364, 376, 419, 435	E
07020301	PANEL ASSEMBLY, GROUND SERVICE	REMOVE	0.5			27, 81, 129, 154, 156, 364, 376, 419, 435	E
		INSTALL	0.5				
		REPAIR	0.4				
070204	ACCUMULATOR, HYDRAULIC, UTILITY	INSPECT	0.3			3, 5, 27, 52, 56, 81, 129, 138, 154, 228, 262, 293, 294, 306, 311, 313, 324, 359, 376, 380, 384, 386, 398, 416, 418, 419, 421, 433, 435, 439, 442, 446	AD
		TEST		0.4			
		SERVICE	0.3				
		REMOVE	4.2				
		INSTALL	4.2				
		REPAIR	3.8	0.7			
07020401	END CAP, UTILITY ACCUMULATOR	REMOVE	4.3			27, 52, 56, 138, 154, 228, 262, 384	Y
		INSTALL	4.3				
		REPAIR	8.1				

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			AVUM (O)	AVIM (F)	DEPOT (D)		
07020402	MANIFOLD, UTILITY	REMOVE		0.4		27, 129, 154, 156, 212, 215, 218, 329, 364, 384, 435, 445	
		INSTALL		0.4			
		REPAIR		0.8			
070205	MANIFOLD, ACCUMULATOR	REMOVE	2.2			27, 129, 154, 156, 324, 326, 364, 376, 378, 384, 442	AD
		INSTALL	2.2				
		REPAIR	4.4				
07020501	TUBE ASSEMBLY, METAL	REMOVE	2.0			27, 129, 154, 156, 324, 326, 364, 376, 378, 384, 442	AD
		INSTALL	2.0				
		REPAIR	5.4				
070206	COUPLING HALF, SELF-LOCKING	REMOVE	2.1			27, 100, 101, 129, 154, 222, 310, 376	Y
		INSTALL	2.1				
		REPAIR	4.3				
070207	TUBE ASSEMBLY, GROUND SERVICE	REPAIR	4.6			27, 129, 154, 384, 393	R, AM
07020701	TUBE ASSEMBLY, METAL	REPAIR	4.5			27, 129, 154, 384, 393	R, AM
0702070101	TUBE ASSEMBLY, METAL	REPAIR	4.6			27, 129, 154, 384, 393	R, AM
0702070102	TUBE ASSEMBLY, METAL	REPAIR	4.6			27, 129, 154, 384, 393	R, AM
0702070103	TUBE ASSEMBLY, METAL	REPAIR	4.6			27, 129, 154, 384, 393	R, AM
07020702	TUBE ASSEMBLY, METAL	REPAIR	4.5			27, 129, 154, 384, 393	R, AM

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL			(5) TOOLS & EQUIP REF CODE	(6) REMARKS CODE
			AVUM (O)	AVIM (F)	DEPOT (D)		
07020703	TUBE ASSEMBLY, METAL	REPAIR	4.6			27, 129, 154, 384, 393	R, AM
07020704	TUBE ASSEMBLY, METAL	REPAIR	4.5			27, 129, 154, 384, 393	R, AM
0702070501	TUBE ASSEMBLY, METAL	REPAIR	4.5			27, 129, 154, 384, 393	R, AM
0702070502	TUBE ASSEMBLY, METAL	REPAIR	4.5			27, 129, 154, 384, 393	R, AM
0702070503	TUBE ASSEMBLY, METAL	REPAIR	4.7			27, 129, 154, 384, 393	R, AM
0702070504	TUBE ASSEMBLY, METAL	REPAIR	4.5			27, 129, 154, 384, 393	R, AM
0702070505	TUBE ASSEMBLY, METAL	REPAIR	4.5			27, 129, 154, 384, 393	R, AM
0702070506	TUBE ASSEMBLY, METAL	REPAIR	4.5			27, 129, 154, 384, 393	R, AM
0702070507	TUBE ASSEMBLY, METAL	REPAIR	4.5			27, 129, 154, 384, 393	R, AM
0702070508	TUBE ASSEMBLY, METAL	REPAIR	4.5			27, 129, 154, 384, 393	R, AM
0702070509	TUBE ASSEMBLY, METAL	REPAIR	4.5			27, 129, 154, 384, 393	R, AM
0702070601	TUBE ASSEMBLY, METAL	REPAIR	4.7			27, 129, 154, 384, 393	R, AM

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL			(5) TOOLS & EQUIP REF CODE	(6) REMARKS CODE
			AVUM (O)	AVIM (F)	DEPOT (D)		
0702070602	TUBE ASSEMBLY, METAL	REPAIR	4.8			27, 129, 154, 384, 393	R, AM
0702070603	TUBE ASSEMBLY, METAL	REPAIR	4.7			27, 129, 154, 384, 393	R, AM
0702070604	TUBE ASSEMBLY, METAL	REPAIR	4.7			27, 129, 154, 384, 393	R, AM
07020707	TUBE ASSEMBLY, METAL	REPAIR	4.6			27, 129, 154, 384, 393	R, AM
07020708	TUBE ASSEMBLY, METAL	REPAIR	5.0			27, 129, 154, 384, 393	R, AM
0702070901	TUBE ASSEMBLY, METAL	REPAIR	4.5			27, 129, 154, 384, 393	R, AM
0702070902	TUBE ASSEMBLY, METAL	REPAIR	4.5			27, 129, 154, 384, 393	R, AM
0702070903	TUBE ASSEMBLY, METAL	REPAIR	4.7			27, 129, 154, 384, 393	R, AM
0702070904	TUBE ASSEMBLY, METAL	REPAIR	4.7			27, 129, 154, 384, 393	R, AM
0702070905	TUBE ASSEMBLY, METAL	REPAIR	4.5			27, 129, 154, 384, 393	R, AM
0702070906	TUBE ASSEMBLY, METAL	REPAIR	4.5			27, 129, 154, 384, 393	R, AM
0702070907	TUBE ASSEMBLY, METAL	REPAIR	4.5			27, 129, 154, 384, 393	R, AM

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL			(5) TOOLS & EQUIP REF CODE	(6) REMARKS CODE
			AVUM (O)	AVIM (F)	DEPOT (D)		
0702070908	TUBE ASSEMBLY, METAL	REPAIR	4.7			27, 129, 154, 384, 393	R, AM
0702070909	TUBE ASSEMBLY, METAL	REPAIR	4.5			27, 129, 154, 384, 393	R, AM
07020710	TUBE ASSEMBLY, METAL	REPAIR	5.0			27, 129, 154, 384, 393	R, AM
0702071101	TUBE ASSEMBLY, METAL	REPAIR	4.7			27, 129, 154, 384, 393	R, AM
0702071102	TUBE ASSEMBLY, METAL	REPAIR	4.8			27, 129, 154, 384, 393	R, AM
0702071103	TUBE ASSEMBLY, METAL	REPAIR	4.7			27, 129, 154, 384, 393	R, AM
0702071104	TUBE ASSEMBLY, METAL	REPAIR	4.7			27, 129, 154, 384, 393	R, AM
0702071201	TUBE ASSEMBLY, METAL	REPAIR	4.6			27, 129, 154, 384, 393	R, AM
0702071202	TUBE ASSEMBLY, METAL	REPAIR	4.8			27, 129, 154, 384, 393	R, AM
0702071203	TUBE ASSEMBLY, METAL	REPAIR	4.7			27, 129, 154, 384, 393	R, AM
07020713	TUBE ASSEMBLY, METAL	REPAIR	4.6			27, 129, 154, 384, 393	R, AM
0702071401	TUBE ASSEMBLY, METAL	REPAIR	4.6			27, 129, 154, 384, 393	R, AM



(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL			(5) TOOLS & EQUIP REF CODE	(6) REMARKS CODE
			AVUM (O)	AVIM (F)	DEPOT (D)		
0702071402	TUBE ASSEMBLY, METAL	REPAIR	4.6			27, 129, 154, 384, 393	R, AM
0702071403	TUBE ASSEMBLY, METAL	REPAIR	4.7			27, 129, 154, 384, 393	R, AM
07020715	TUBE ASSEMBLY, METAL	REPAIR	4.6			27, 129, 154, 384, 393	R, AM
0702071601	TUBE ASSEMBLY, METAL	REPAIR	4.6			27, 129, 154, 384, 393	R, AM
0702071602	TUBE ASSEMBLY, METAL	REPAIR	4.7			27, 129, 154, 384, 393	R, AM
0702071603	TUBE ASSEMBLY, METAL	REPAIR	4.6			27, 129, 154, 384, 393	R, AM
0702071604	TUBE ASSEMBLY, METAL	REPAIR	4.7			27, 129, 154, 384, 393	R, AM
07020717	TUBE ASSEMBLY, METAL	REPAIR	4.6			27, 129, 154, 384, 393	R, AM
07020718	TUBE ASSEMBLY, METAL	REPAIR	4.6			27, 129, 154, 384, 393	R, AM
07020719	TUBE ASSEMBLY, METAL	REPAIR	4.6			27, 129, 154, 384, 393	R, AM
07020720	TUBE ASSEMBLY, METAL	REPAIR	4.6			27, 129, 154, 384, 393	R, AM
07020721	TUBE ASSEMBLY, METAL	REPAIR	4.6			27, 129, 154, 384, 393	R, AM

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL			(5) TOOLS & EQUIP REF CODE	(6) REMARKS CODE
			AVUM (O)	AVIM (F)	DEPOT (D)		
0702072201	TUBE ASSEMBLY, METAL	REPAIR	4.6			27, 129, 154, 384, 393	R, AM
0702072202	TUBE ASSEMBLY, METAL	REPAIR	7.0			27, 129, 154, 384, 393	R, AM
0702072203	TUBE ASSEMBLY, METAL	REPAIR	4.5			27, 129, 154, 384, 393	R, AM
0702072204	TUBE ASSEMBLY, METAL	REPAIR	6.9			27, 129, 154, 384, 393	R, AM
0702072205	TUBE ASSEMBLY, METAL	REPAIR	4.7			27, 129, 154, 384, 393	R, AM
0702072206	TUBE ASSEMBLY, METAL	REPAIR	4.5			27, 129, 154, 384, 393	R, AM
0702072207	TUBE ASSEMBLY, METAL	REPAIR	4.6			27, 129, 154, 384, 393	R, AM
0702072208	TUBE ASSEMBLY, METAL	REPAIR	4.6			27, 129, 154, 384, 393	R, AM
0702072209	TUBE ASSEMBLY, METAL	REPAIR	7.1			27, 129, 154, 384, 393	R, AM
0702072210	TUBE ASSEMBLY, METAL	REPAIR	4.6			27, 129, 154, 384, 393	R, AM
0702072211	TUBE ASSEMBLY, METAL	REPAIR	7.1			27, 129, 154, 384, 393	R, AM
0702072301	TUBE ASSEMBLY, METAL	REPAIR	7.1			27, 129, 154, 384, 393	R, AM

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL			(5) TOOLS & EQUIP REF CODE	(6) REMARKS CODE
			AVUM (O)	AVIM (F)	DEPOT (D)		
0702072302	TUBE ASSEMBLY, METAL	REPAIR	4.6			27, 129, 154, 384, 393	R, AM
0702072303	TUBE ASSEMBLY, METAL	REPAIR	4.6			27, 129, 154, 384, 393	R, AM
0702072304	TUBE ASSEMBLY, METAL	REPAIR	4.7			27, 129, 154, 384, 393	R, AM
0702072305	TUBE ASSEMBLY, METAL	REPAIR	6.8			27, 129, 154, 384, 393	R, AM
0702072306	TUBE ASSEMBLY, METAL	REPAIR	4.5			27, 129, 154, 384, 393	R, AM
0702072307	TUBE ASSEMBLY, METAL	REPAIR	7.0			27, 129, 154, 384, 393	R, AM
0702072308	TUBE ASSEMBLY, METAL	REPAIR	6.9			27, 129, 154, 384, 393	R, AM
0702072309	TUBE ASSEMBLY, METAL	REPAIR	7.1			27, 129, 154, 384, 393	R, AM
0702072310	TUBE ASSEMBLY, METAL	REPAIR	4.6			27, 129, 154, 384, 393	R, AM
0702072311	TUBE ASSEMBLY, METAL	REPAIR	4.7			27, 129, 154, 384, 393	R, AM
0702072312	TUBE ASSEMBLY, METAL	REPAIR	4.5			27, 129, 154, 384, 393	R, AM
0702072401	TUBE ASSEMBLY, METAL	REPAIR	4.7			27, 129, 154, 384, 393	R, AM

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL			(5) TOOLS & EQUIP REF CODE	(6) REMARKS CODE
			AVUM (O)	AVIM (F)	DEPOT (D)		
0702072402	TUBE ASSEMBLY, METAL	REPAIR	4.5			27, 129, 154, 384, 393	R, AM
0702072403	TUBE ASSEMBLY, METAL	REPAIR	4.5			27, 129, 154, 384, 393	R, AM
0702072501	TUBE ASSEMBLY, METAL	REPAIR	4.7			27, 129, 154, 384, 393	R, AM
0702072502	TUBE ASSEMBLY, METAL	REPAIR	4.5			27, 129, 154, 384, 393	R, AM
0702072503	TUBE ASSEMBLY, METAL	REPAIR	4.5			27, 129, 154, 384, 393	R, AM
07020726	TUBE ASSEMBLY, METAL	REPAIR	4.6			27, 129, 154, 384, 393	R, AM
07020727	TUBE ASSEMBLY, METAL	REMOVE INSTALL REPAIR		2.0 2.0 5.4		27, 129, 154, 384, 393	R, AM
0703	PRESSURIZED AIR SYSTEM	INSPECT	0.7			27, 89, 129, 154, 262, 296, 300, 364, 376, 378, 416, 417, 419, 421, 446	
		REPAIR	1.1				
070301	SEPARATOR, AIR/WATER	REMOVE	0.6			27, 154, 159, 262, 376, 435	
		INSTALL	0.6				
		REPAIR	1.4				
07030101	EXTENSION ASSEMBLY	REMOVE	1.0			27, 154, 159, 262, 376, 435	
		INSTALL	1.0				
		REPAIR	2.1				
07030102	DOOR, MTG PLATE	REMOVE	1.0			27, 154, 159, 262, 376, 435	
		INSTALL	1.0				

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL			(5) TOOLS & EQUIP REF CODE	(6) REMARKS CODE
			AVUM (O)	AVIM (F)	DEPOT (D)		
0703010201	DOOR ASSEMBLY	REMOVE INSTALL REPAIR	1.1 1.1 2.3			27, 154, 159, 262, 376, 435	
0703010202	PLATE, MOUNTING ASSEMBLY	REMOVE INSTALL REPAIR	1.0 1.0 2.1			27, 154, 159, 262, 376, 435	
070302	VALVE, SOLENOID	INSPECT REMOVE INSTALL OVERHAUL	0.3 1.0 1.0		6.3	27, 129, 154, 376, 447	
070303	ROTOR, COMPRESSOR, GAS	REMOVE INSTALL REPAIR	1.6 1.6 0.8			27, 35, 88, 129, 154, 262, 376, 378, 435, 447	AD
07030301	VALVE, REGULATING SYS	REMOVE INSTALL REPAIR OVERHAUL			1.0 1.0 1.4 4.9	27, 129, 154, 300, 376, 435	
07030302	FILTER ELEMENT, FLUID	REMOVE INSTALL REPAIR	0.3 0.3 0.6			27, 129, 154, 300, 376, 435	AD
070304	DUCT ASSEMBLY, AIR	REMOVE INSTALL REPAIR	0.7 0.7 1.2			27, 35, 88, 129, 154, 262, 376, 378, 435, 447	AD
070305	HOUSING, AIR FLEXIBLE	REMOVE INSTALL REPAIR	0.7 0.7 1.8			27, 129, 154, 300, 376, 435	
07030501	COUPLING, CLAMP, GROOVED	REMOVE INSTALL REPAIR	0.4 0.4 0.6			27, 129, 154, 300, 376, 435	
070306	VALVE, RELIEF, PRESSURE	REMOVE INSTALL OVERHAUL	0.5 0.5		5.0	27, 154, 262, 296, 301, 376, 434	

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL			(5) TOOLS & EQUIP REF CODE	(6) REMARKS CODE
			AVUM (O)	AVIM (F)	DEPOT (D)		
07030601	COUPLING, CLAMP, GROOVED	REMOVE INSTALL REPAIR	0.4 0.4 0.6			27, 129, 154, 300, 376, 435	
07030602	COUPLING, CLAMP, GROOVED	REMOVE INSTALL REPAIR	0.4 0.4 0.6			27, 129, 154, 300, 376, 435	
070307	VALVE ASSEMBLY, AIR START	REMOVE INSTALL	0.2 0.2			27, 154, 376, 426	
070308	BRACKET ASSEMBLY, PRESSURE	REMOVE INSTALL REPAIR	0.7 0.7 1.5			27, 129, 154, 376	E
070309	BRACKET ASSEMBLY, LOUVER	REMOVE INSTALL REPAIR	0.6 0.6 1.5			27, 129, 154, 376	E
070310	SEAL ASSEMBLY	REMOVE INSTALL REPAIR	0.4 0.4 0.7			27, 129, 154, 376, 447	Y
070311	VALVE, LINEAR DIRECT	INSPECT REMOVE INSTALL OVERHAUL	0.1 0.3 0.3		3.2	27, 129, 154, 376	
070312	VALVE, REGULATING, FLOW	INSPECT REMOVE INSTALL OVERHAUL	0.1 0.5 0.5		4.0	27, 129, 154, 376	
07031301	TUBE ASSEMBLY, METAL	REPAIR	2.3			376	R, AM
07031302	TUBE ASSEMBLY	REPAIR	3.5			376	R, AM
07031303	TUBE ASSEMBLY	REPAIR	2.8			376	R, AM
07031304	TUBE ASSEMBLY	REPAIR	3.5			376	R, AM
07031305	TUBE ASSEMBLY	REPAIR	3.5			376	R, AM
07031306	TUBE ASSEMBLY	REPAIR	1.3			376	R, AM

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			AVUM (O)	AVIM (F)	DEPOT (D)		
07031307	TUBE ASSEMBLY	REPAIR	2.8			376	R, AM
07031308	TUBE ASSEMBLY	REPAIR	3.5			376	R, AM
07031309	TUBE ASSEMBLY	REPAIR	3.5			376	R, AM
07031310	TUBE ASSEMBLY	REPAIR	1.3			376	R, AM
07031311	TUBE ASSEMBLY	REPAIR	1.3			376	R, AM
07031312	TUBE ASSEMBLY	REPAIR	1.3			376	R, AM
07031313	TUBE ASSEMBLY	REPAIR	1.3			376	R, AM
07031314	TUBE ASSEMBLY	REPAIR	2.3			376	R, AM
07031315	TUBE ASSEMBLY	REPAIR	2.3			376	R, AM
07031316	TUBE ASSEMBLY	REPAIR	2.3			376	R, AM
07031317	TUBE ASSEMBLY	REPAIR	2.3			376	R, AM
07031318	TUBE ASSEMBLY	REPAIR	1.3			376	R, AM
07031319	TUBE ASSEMBLY, METAL	REPAIR	2.3			376	R, AM
07031320	TUBE ASSEMBLY	REPAIR	1.3			376	R, AM
07031321	TUBE ASSEMBLY	REPAIR	1.3			376	R, AM
07031322	TUBE ASSEMBLY	REMOVER INSTALL REPAIR	0.7 0.7 1.8			376	R, AM
07031323	TUBE ASSEMBLY	REPAIR	1.3			376	R, AM
07031324	TUBE ASSEMBLY	REPAIR	1.3			376	R, AM
07031325	TUBE ASSEMBLY	REPAIR	1.3			376	R, AM
07031326	TUBE ASSEMBLY	REPAIR	1.3			376	R, AM
07031327	TUBE ASSEMBLY	REPAIR	1.3			376	R, AM

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL			(5) TOOLS & EQUIP REF CODE	(6) REMARKS CODE
			AVUM (O)	AVIM (F)	DEPOT (D)		
070314	VALVE, SOLENOID	INSPECT REMOVE INSTALL OVERHAUL	0.1 0.3 0.3		5.6	27, 129, 154, 376	
070315	VALVE, SOLENOID	INSPECT TEST REMOVE INSTALL OVERHAUL	0.1 0.3 0.4 0.4		6.6	376	
070316	COUPLING, CLAMP, GROOVED	REMOVE INSTALL REPAIR	0.3 0.3 0.4			27, 129, 154, 300, 376, 435	
070317	COUPLING, CLAMP, GROOVED	REMOVE INSTALL REPAIR	0.4 0.4 0.6			27, 129, 154, 300, 376, 435	
070318	VALVE, SHUTOFF, DEFOG	REMOVE INSTALL REPAIR	0.5 0.5		1.3	376	
070319	BRACKET, MOUNTING	REMOVE INSTALL REPAIR	0.5 0.5 1.3			376	
070320	BRACKET, ANGLE	REMOVE INSTALL REPAIR	0.3 0.3 0.9			376	



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			AVUM (O)	AVIM (F)	DEPOT (D)		
08	INSTRUMENT SYSTEM						
0801	INDICATOR, TORQUE METER	TEST REMOVE INSTALL REPAIR	0.4 0.3 0.3 0.2	0.3		378	
080101	POWER SUPPLY	TEST REMOVE INSTALL REPAIR		0.5	0.5	218, 378	
080102	DISPLAY ASSEMBLY, 28 LMP	REPAIR			0.2	378	
080103	PANEL, FRONT, SUB ASSEMBLY	REMOVE INSTALL REPAIR		0.3 0.3 0.2		27, 31, 129, 154, 346, 378, 437	
080104	CIRCUIT CARD ASSEMBLY	TEST REMOVE INSTALL REPAIR		0.3 0.3 0.3	0.3	27, 31, 35,154, 262, 346, 378, 437	AN
080105	CIRCUIT CARD ASSEMBLY	TEST REMOVE INSTALL REPAIR		0.3 0.1 0.1 0.3	0.3	27, 31, 35,154, 262, 346, 378, 437	AN
080106	DIGITAL DRIVER, DISPLAY	TEST REMOVE INSTALL REPAIR		0.3 0.3	0.3	27, 31, 35,154, 262, 346, 378	
080107	CASE ASSEMBLY, INDICATOR	REPAIR			0.5	27, 31, 35,154, 262, 346, 378	
080108	SUB ASSEMBLY, ANLG DISPLAY	REPAIR			0.8	27, 31, 35,154, 262, 346, 378	

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			AVUM (O)	AVIM (F)	DEPOT (D)		
080109	ALARM-MONITOR	TEST REMOVE INSTALL REPAIR	 0.5 0.5		0.3  0.9	378	
080110	COMPONENT INSTL	REPAIR	0.2			378	
080111	INDICATOR, HORIZONTAL	TEST REMOVE INSTALL REPAIR	0.5 0.3 0.3 0.4			378	
0802	INDICATOR, ELECTRICAL	TEST REMOVE INSTALL REPAIR	1.1 0.3 0.3 0.7	0.3   0.3		378	
080201	PANEL, INDICATOR	REMOVE INSTALL REPAIR		0.3 0.3 0.5		378	
080202	PANEL, INT, ILLUM 33L	REPAIR			0.2	27, 31, 35,154, 262, 346, 378	
080203	CIRCUIT CARD ASSEMBLY	TEST REMOVE INSTALL REPAIR		0.3 0.3	0.3  0.7	27, 31, 35,154, 262, 346, 378	AN
080204	CARD SUBASSEMBLY, DISPLAY	REPAIR OVERHAUL			0.6 4.7	378	AN
080205	CIRCUIT CARD ASSEMBLY	TEST REMOVE INSTALL REPAIR		0.3 0.3 0.3 0.5	0.3  0.7	378	AN
080206	INDICATOR, ATTITUDE	INSPECT TEST REMOVE INSTALL REPAIR	 0.4 0.3 0.3 0.2		0.1 1.3  1.8	378	

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			AVUM (O)	AVIM (F)	DEPOT (D)		
0803	INDICATOR, DIGITAL DISPLAY	TEST REMOVE INSTALL REPAIR	0.3 0.3 0.3 0.2	0.3   0.3	0.3    	378	
080301	CASE ASSEMBLY, INDICATOR	REPAIR			0.3	27, 31, 129, 154, 346, 378, 437	
080302	CARD, ANALOG DISPLAY	TEST REMOVE INSTALL REPAIR		0.3 0.3 0.2	0.3  0.6	27, 31, 35, 154, 262, 346, 378	
080303	PRINTED CIRCUIT BOARD	TEST REMOVE INSTALL REPAIR		0.3 0.3	0.3  0.3	27, 31, 35, 154, 262, 346, 378	AN
080304	CIRCUIT CARD ASSEMBLY	REMOVE INSTALL REPAIR		0.3 0.3	  0.5	27, 31, 35, 154, 262, 346, 378	AN
080305	PANEL FRONT, SUB ASSEMBLY	REMOVE INSTALL REPAIR		0.3 0.3 0.2		378	
0804	INDICATOR, PRESSURE	TEST REMOVE INSTALL REPAIR	0.3 0.3 0.3 0.3	0.3   0.3		378	
080401	CASE, LAMP	TEST  REPAIR			0.3 0.3	27, 31, 129, 154, 346, 378, 437	
08040101	INDICATOR, PRESSURE	INSPECT TEST REPAIR	0.3		0.3 1.7	378	

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			AVUM (O)	AVIM (F)	DEPOT (D)		
080402	CIRCUIT CARD ASSEMBLY	TEST REMOVE INSTALL REPAIR	 0.2 0.2	0.3 0.3 0.3 0.5	0.3   0.7	27, 31, 35,154, 262, 346, 378	AN
080403	CIRCUIT CARD ASSEMBLY	REPAIR			0.8	27, 31, 35,154, 262, 346, 378	AN
080404	INTERFACE, OIL PRESSURE	REMOVE INSTALL REPAIR		0.3 0.3	  0.6	378	
080405	PANEL, FRONT, SUB ASSEMBLY	REMOVE INSTALL REPAIR		0.3 0.3 0.2		378	
080406	PANEL ASSEMBLY, EMERGENCY	REMOVE INSTALL REPAIR	0.2 0.2 0.4			378	
0805	INDICATOR, LIQUID QUANTITY	TEST REMOVE INSTALL REPAIR	0.3 0.3 0.3 0.9	0.3		27, 42A, 129, 154, 262, 348A, 355, 378	
080501	CASE ASSEMBLY, INDICATOR	REPAIR		0.3		378	
080502	CIRCUIT CARD ASSEMBLY	TEST REMOVE INSTALL REPAIR		 0.3 0.3 0.3	0.3  0.5	27, 31, 35,154, 262, 346, 378	AN
080503	DIGITAL DRIVER, 3 DI	TEST REMOVE INSTALL REPAIR		 0.3 0.3	0.3  0.9	27, 31, 129, 154, 346, 378, 437	

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			AVUM (O)	AVIM (F)	DEPOT (D)		
080504	CIRCUIT CARD ASSEMBLY	TEST REMOVE INSTALL REPAIR		0.3 0.3	0.3 0.7	27, 31, 35,154, 262, 346, 378	AN
080505	PANEL FRONT, SUB ASSEMBLY	REMOVE INSTALL REPAIR		0.3 0.3 0.2		27, 31, 129, 154, 346, 378, 437	
0806	INDICATOR, EXHAUST TEMPERATURE	TEST REMOVE INSTALL REPAIR	0.4 0.3 0.3 0.3	0.3 0.3	0.3	378	
080601	DIGITAL DRIVER DISPLAY	TEST REMOVE INSTALL REPAIR		0.3 0.3	0.3 0.6	27, 31, 35,154, 262, 346, 378	
080602	CIRCUIT CARD ASSEMBLY	REMOVE INSTALL REPAIR		0.3 0.3	0.6	27, 31, 35,154, 262, 346, 378	AN
080603	SUB ASSEMBLY ANLG DISPLAY	REPAIR			0.8	378	
080604	CIRCUIT CARD ASSEMBLY	TEST REMOVE INSTALL REPAIR		0.3 0.3 0.3 0.3	0.3 0.7	27, 31, 35,154, 262, 346, 378	AN
080605	PANEL, FRONT, SUB ASSEMBLY	REPAIR		0.2		378	
080606	CASE ASSEMBLY, INDICATOR	REPAIR			0.3	378	
0807	INDICATOR, DIGITAL DISPLAY	TEST REMOVE INSTALL REPAIR	0.4 0.3 0.3 0.4	0.3	0.3	378	

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL			(5) TOOLS & EQUIP REF CODE	(6) REMARKS CODE
			AVUM (O)	AVIM (F)	DEPOT (D)		
080701	PRINTED CIRCUIT BOARD	TEST REMOVE INSTALL REPAIR		0.3 0.3	0.3 0.6	27, 31, 35,129, 154, 346, 378, 437	AN
080702	SWITCH MODULE ASSEMBLY	TEST REMOVE INSTALL REPAIR		0.4 0.4	0.3 0.5	346, 378	
080703	CIRCUIT CARD ASSEMBLY	REMOVE INSTALL REPAIR		0.4 0.4	0.6	223, 346, 378	AN
080704	CASE ASSEMBLY, INDICATOR	REPAIR			0.2	27, 35, 129, 154, 262, 346, 378, 437	
080705	MOTHER BOARD WIRING	REMOVE INSTALL REPAIR		0.6 0.6	1.1	27, 35, 129, 154, 262, 346, 378, 437	
080706	PANEL, FRONT, SUB ASSEMBLY	REMOVE INSTALL REPAIR		0.3 0.3 0.2		378	
080707	PANEL, INTEGRALLY, ILLUMINATED	REMOVE INSTALL		0.3 0.3		378	
080708	VOLTMETER, DIGITAL	REMOVE INSTALL		0.3 0.3		378	
0808	SIGNAL DATA CONVERTER	TEST REMOVE INSTALL REPAIR	0.3 0.3 0.3 0.3	0.3 0.3		378	
080801	REGULATOR BOARD	TEST REMOVE INSTALL REPAIR		0.3 0.3	0.3 0.7	35, 223, 346, 378, 437	

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL			(5) TOOLS & EQUIP REF CODE	(6) REMARKS CODE
			AVUM (O)	AVIM (F)	DEPOT (D)		
080802	POWER SUPPLY	REPAIR			0.9	27, 35, 154, 223, 262, 346, 378, 437	
080803	COMPONENT INSTL	REPAIR	0.2			378	
080804	TARGET, JCT SPLY	REMOVE INSTALL REPAIR		0.3 0.3	0.7	35, 223, 346, 378, 437	
080805	CIRCUIT CARD ASSEMBLY	TEST REMOVE INSTALL REPAIR		0.3 0.3	0.3 0.8	35, 223, 346, 378, 437	AN
080806	CHASSIS, ELECTRICAL	TEST REPAIR		0.3 0.3	1.6	27, 154, 262, 333, 378, 437	
080807	PLATE REAR ASSEMBLY	REPAIR		1.1		378	
080808	FRAME ASSEMBLY, CONVERTER	REPAIR		0.9		27, 154, 262, 333, 378, 437	
080809	ELECTRONIC COMPONENT	REMOVE INSTALL REPAIR		0.4 0.4 0.9	0.5	378	
080810	CIRCUIT CARD ASSEMBLY	REMOVE INSTALL REPAIR		0.3 0.3	0.6	35, 223, 346, 378, 437	AN
080811	CIRCUIT CARD ASSEMBLY	REMOVE INSTALL REPAIR		0.3 0.3	0.6	35, 223, 346, 378, 437	AN
080812	CIRCUIT CARD ASSEMBLY	REMOVE INSTALL REPAIR		0.3 0.3	0.7	35, 223, 346, 378, 437	AN

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL			(5) TOOLS & EQUIP REF CODE	(6) REMARKS CODE
			AVUM (O)	AVIM (F)	DEPOT (D)		
080813	REGULATOR ASSEMBLY	TEST REMOVE INSTALL REPAIR			0.3 0.4 0.4 0.6	35, 223, 346, 378, 437	
080814	RECTIFIER ASSEMBLY	TEST REMOVE INSTALL REPAIR			0.3 0.5 0.5 0.8	35, 223, 346, 378, 437	
080815	FILTER BOARD ASSEMBLY	TEST REMOVE INSTALL REPAIR			0.3 0.3 0.3 0.8	35, 223, 346, 378, 437	
080816	CIRCUIT CARD ASSEMBLY	REMOVE INSTALL REPAIR		0.3 0.3		35, 223, 346, 378, 437	AN
0809	DIM AND TEST UNIT	TEST REMOVE INSTALL REPAIR	0.3 0.3 0.3 0.2	0.3		27, 154, 262, 333, 378, 437	AN
080901	CONTROL PANEL ASSEMBLY	REPAIR		0.5		27, 35,154, 262, 333, 378, 437	
0810	POWER SUPPLY, DIMMER	REMOVE INSTALL REPAIR	0.3 0.3 0.6			218, 378	
0811	ALARM-MONITOR	TEST REMOVE INSTALL REPAIR			0.3 0.5 0.5 0.9	218, 378	
0812	COMPONENT INSTL	REPAIR	0.2			378	
0813	ALTIMETER ENCODER	REMOVE INSTALL	0.4 0.4			378, 408, 409	



(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL			(5) TOOLS & EQUIP REF CODE	(6) REMARKS CODE
			AVUM (O)	AVIM (F)	DEPOT (D)		
081301	INDICATOR, ATTITUDE	TEST	0.2			378	
		REMOVE	0.1				
		INSTALL	0.1				
		REPAIR	0.3				
0814	PITOT STATIC INSTL	TEST	2.5			27, 155, 163, 262, 378	
		REPAIR	2.4				
0815	COMPONENT INSTL	REPAIR	0.9			376	
0816	COMPONENT INSTL	REPAIR	0.4			376	
0817	CLOCK, PANEL	REMOVE	0.2			378	
		INSTALL	0.2				
0818	CONTROL BOX, ELEC	INSPECT		0.1		378	
		TEST		0.3			
		REMOVE	0.2				
		INSTALL	0.2				
0819	INDICATOR ASSEMBLY	REPAIR	0.4	0.6		378	
		REMOVE	0.2				
		INSTALL	0.2				
		REPAIR	0.5				

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL			(5) TOOLS & EQUIP REF CODE	(6) REMARKS CODE
			AVUM (O)	AVIM (F)	DEPOT (D)		
09	ELECTRICAL SYSTEM						
0901	BOX ASSEMBLY	REMOVE INSTALL REPAIR	0.5 0.5 1.1			187, 218, 378	
090101	WIRING HARNESS W605	REPAIR	1.8			218, 378	
090102	STRAP, HINGE, CIRCUIT	REMOVE INSTALL	0.7 0.7			378	
090103	BOX ASSEMBLY, DISTRIBUTION	TEST REPAIR	1.3 0.7			85, 218, 378, 435, 445	
09010301	PANEL, ELECTRICAL	REMOVE INSTALL	0.7 0.7			378	
09010302	BUS CONDUCTOR ASSEMBLY	REMOVE INSTALL REPAIR	0.5 0.5 1.0			85, 218, 378, 435	
09010303	BUS CONDUCTOR ASSEMBLY	REMOVE INSTALL REPAIR	0.5 0.5 1.0			85, 218, 378, 435	
0902	CONTROL, GENERATOR	TEST REMOVE INSTALL REPAIR		0.3	0.3	218, 378	AA
090201	BASE AND ELEC COMPONENTS	TEST REMOVE INSTALL REPAIR			0.3 0.3 0.3 0.6	379	
090202	WIRING HARNESS	REPAIR			0.6	218, 378	

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL			(5) TOOLS & EQUIP REF CODE	(6) REMARKS CODE
			AVUM (O)	AVIM (F)	DEPOT (D)		
090203	CIRCUIT CARD ASSEMBLY	TEST REMOVE INSTALL REPAIR		0.3 0.3	0.3 0.6	379	AN
090204	CIRCUIT CARD ASSEMBLY	TEST REMOVE INSTALL REPAIR		0.4 0.4	0.3 0.7	379	AN
0903	RELAY BOX ASSEMBLY ENG START	REPAIR	0.8			27, 154, 187, 262, 378	
090301	RELAY ASSEMBLY	REMOVE INSTALL REPAIR	0.2 0.2 0.4			218, 379	
090302	BOX ASSEMBLY, RELAY	REPAIR	0.6			379	
090303	WIRING HARNESS W652	REMOVE INSTALL REPAIR	0.3 0.3 0.5			218, 379	
090401	WIRING HARNESS W102	REPAIR	1.2			218, 378	
090402	WIRING HARNESS W108	REPAIR	1.2			218, 378	
090403	WIRING HARNESS W115	REPAIR	0.6			218, 378	
090404	WIRING HARNESS W116	REPAIR	1.2			218, 378	
090405	WIRING HARNESS W117	REPAIR	1.2			218, 378	
090406	WIRING HARNESS W118	REPAIR	1.2			218, 378	
090407	WIRING HARNESS W119	REPAIR	1.2			218, 378	
090408	WIRING HARNESS W145	REPAIR	0.5			218, 378	
090409	WIRING HARNESS W167	REMOVE INSTALL REPAIR	1.4 1.4 1.8			218, 378	
090410	WIRING HARNESS W170	REPAIR	1.2			218, 378	

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL			(5) TOOLS & EQUIP REF CODE	(6) REMARKS CODE
			AVUM (O)	AVIM (F)	DEPOT (D)		
090411	WIRING HARNESS W171	REPAIR	2.5			218, 378	
090412	WIRING HARNESS W230	REMOVE INSTALL REPAIR	1.1 1.1 0.5			218, 378	
090413	WIRING HARNESS W229	REMOVE INSTALL REPAIR	1.1 1.1 0.5			218, 378	
090414	WIRING HARNESS W213	REPAIR	0.5			218, 378	
090415	WIRING HARNESS W182	REMOVE INSTALL REPAIR	1.4 1.4 0.5			218, 378	
090416	CABLE ASSEMBLY	REPAIR	0.9			218, 378	AH
090417	WIRING HARNESS W183	REMOVE INSTALL REPAIR	1.4 1.4 0.5			218, 378	
090418	WIRING HARNESS W184	REMOVE INSTALL REPAIR	1.4 1.4 0.5			218, 378	
090419	WIRING HARNESS W187	REMOVE INSTALL REPAIR	1.4 1.4 0.5			218, 378	
090420	WIRING HARNESS W188	REMOVE INSTALL REPAIR	1.4 1.4 0.5			218, 378	
090421	WIRING HARNESS W189	REPAIR	0.6			218, 378	
090422	WIRING HARNESS W190	REMOVE INSTALL REPAIR	1.4 1.4 0.5			218, 378	
090423	WIRING HARNESS W191	REMOVE INSTALL REPAIR	1.4 1.4 0.5			218, 378	

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL			(5) TOOLS & EQUIP REF CODE	(6) REMARKS CODE
			AVUM (O)	AVIM (F)	DEPOT (D)		
090424	WIRING HARNESS W195	REMOVE INSTALL REPAIR	1.4 1.4 0.5			218, 378	
090425	WIRING HARNESS W197	REMOVE INSTALL REPAIR	1.4 1.4 0.5			218, 378	
090426	WIRING HARNESS W201	REPAIR	0.5			218, 378	
090427	WIRING HARNESS W202	REMOVE INSTALL REPAIR	1.4 1.4 0.5			218, 378	
090428	WIRING HARNESS W203	REMOVE INSTALL REPAIR	1.4 1.4 0.5			218, 378	
090429	WIRING HARNESS W207	REMOVE INSTALL REPAIR	1.4 1.4 0.5			218, 378	
090430	WIRING HARNESS W211	REPAIR	1.2			218, 378	
090431	WIRING HARNESS W212	REMOVE INSTALL REPAIR	1.4 1.4 0.5			218, 378	
090432	WIRING HARNESS W219	REMOVE INSTALL REPAIR	1.4 1.4 0.7			218, 378	
090433	WIRING HARNESS W220	REMOVE INSTALL REPAIR	1.4 1.4 0.5			218, 378	
090434	WIRING HARNESS W224	REMOVE INSTALL REPAIR	1.4 1.4 0.6			218, 378	
090435	WIRING HARNESS W225	REPAIR	1.2			218, 378	
090436	WIRING HARNESS W261	REPAIR	1.2			218, 378	

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL			(5) TOOLS & EQUIP REF CODE	(6) REMARKS CODE
			AVUM (O)	AVIM (F)	DEPOT (D)		
090437	WIRING HARNESS W262	REMOVE	1.4			218, 378	
		INSTALL	1.4				
		REPAIR	0.5				
090438	WIRING HARNESS W264	REPAIR	1.2			218, 378	
090439	WIRING HARNESS W266	REPAIR	1.2			218, 378	
090440	WIRING HARNESS W268	REPAIR	1.2			218, 378	
090441	WIRING HARNESS W640	REPAIR	0.5			218, 378	
090442	WIRING HARNESS W641	REPAIR	0.5			218, 378	
090443	WIRING HARNESS W643	REPAIR	1.2			218, 378	
090444	WIRING HARNESS W645	REPAIR	1.2			218, 378	
090445	WIRING HARNESS W647	REPAIR	1.2			218, 378	
090446	WIRING HARNESS W143	REPAIR	0.6			218, 378	
090447	WIRING HARNESS W216	REMOVE	1.4			218, 378	
		INSTALL	1.4				
		REPAIR	0.5				
090448	WIRING HARNESS W218	REMOVE	1.4			218, 378	
		INSTALL	1.4				
		REPAIR	0.5				
090449	WIRING HARNESS W232	REMOVE	1.4			218, 378	
		INSTALL	1.4				
		REPAIR	0.5				
0905	GENERATOR, ALTERNATING	INSPECT	0.1			213, 153A, 378, 435	
		TEST	0.3				
		REMOVE	1.0				
		INSTALL	1.0				
0906	PANEL, ELECTRICAL, TEST	REMOVE	0.4			218, 376, 378	
		INSTALL	0.4				
		REPAIR	0.8		11.5		

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL			(5) TOOLS & EQUIP REF CODE	(6) REMARKS CODE
			AVUM (O)	AVIM (F)	DEPOT (D)		
0907	TRANSFORMER, POWER	TEST REMOVE INSTALL REPAIR	 0.3 0.3		0.3  0.7	215, 218, 376	
090701	CAPACITOR ASSEMBLY	REMOVE INSTALL REPAIR			0.5 0.5 0.4	215, 218, 378	
0908	POWER SUPPLY	TEST REMOVE INSTALL REPAIR	 0.3 0.3 0.3		0.3  0.3	376	
090801	POWER SUPPLY SUBASSEMBLY	TEST REMOVE INSTALL REPAIR			0.3 0.4 0.4 0.7	218, 378	
090802	CIRCUIT CARD ASSEMBLY	REMOVE INSTALL REPAIR			0.6 0.6 1.8	208	AN
090803	CAPACITOR ASSEMBLY	REMOVE INSTALL REPAIR			0.7 0.7 1.0	218, 378	
090804	CHASSIS ELECTRICAL	REMOVE INSTALL REPAIR			1.3 1.3 0.4	378	
0909	SUPPORT ASSEMBLY, RECTIFIER	REMOVE INSTALL REPAIR	0.5 0.5 1.5			376	
0910	COMPONENT INSTALLATION	INSPECT REPAIR	0.1 0.3			218, 378	
0911	BATTERY ASSEMBLY	TEST SERVICE REMOVE INSTALL REPAIR	  0.5 0.5	1.8 1.7		27, 154, 218, 262, 378, 446	
				3.2			

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			AVUM (O)	AVIM (F)	DEPOT (D)		
0912	CHARGER BATTERY	REMOVE	0.2			152, 215, 218, 152, 215, 218, 378	
		INSTALL	0.2				
0913	PANEL POWER DISTRIBUTION	TEST		0.3		27, 154, 187, 262, 332, 333, 378	
		REMOVE	0.3				
		INSTALL	0.3				
		REPAIR	0.4	0.5			
091301	ELECTRONIC COMPONENT A1	REPAIR		0.2		27, 154, 262, 332, 378	
091302	ELECTRONIC COMPONENT A2	REPAIR		0.2		27, 154, 262, 332, 378	
091303	WIRING HARNESS W625	REPAIR		0.4		218, 378	
0914	PANEL, POWER DISTRIBUTION	TEST		0.2		27, 154, 187, 262, 332, 333, 378	
		REMOVE	0.2				
		INSTALL	0.2				
		REPAIR	0.3	0.4			
091401	ELECTRICAL COMPONENT	REPAIR		0.3		378	
091402	WIRING HARNESS W619	REPAIR		0.4		218, 378	
0915	CONTROLLER, DIMMING	TEST	0.3	0.3		218, 378, 437	AN
		REMOVE	0.3				
		INSTALL	0.3				
		REPAIR	0.2	0.3			
091501	CHASSIS ASSEMBLY	REMOVE		0.4		33, 175, 378, 434, 445	
		INSTALL		0.4			
		REPAIR		0.4			
091502	WIRING HARNESS	REMOVE		0.6		218, 378	
		INSTALL		0.6			
		REPAIR			2.3		
091503	PANEL, REAR	REPAIR		0.1		378	
091504	PANEL, FRONT	REPAIR		0.1		378	



(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL			(5) TOOLS & EQUIP REF CODE	(6) REMARKS CODE
			AVUM (O)	AVIM (F)	DEPOT (D)		
091505	BRACKET, FRONT PANEL	REMOVE INSTALL		0.3 0.3		378	
091506	BRACKET, REAR PANEL	REMOVE INSTALL		0.3 0.3		378	
091507	MODULE ASSEMBLY	REMOVE INSTALL		0.3 0.3		33, 175, 208, 378, 444A	
091508	CIRCUIT CARD ASSEMBLY	TEST REMOVE INSTALL REPAIR			0.3  0.8	208	AN
091509	DIMMER ASSEMBLY	REMOVE INSTALL		0.3 0.3		378	
091510	CIRCUIT CARD ASSEMBLY	TEST REMOVE INSTALL REPAIR			0.3  0.8	208	AN
091511	CIRCUIT CARD ASSEMBLY	TEST REMOVE INSTALL REPAIR			0.3  0.8	208	AN
091512	DIMMER ASSEMBLY	REMOVE INSTALL		0.3 0.3		378	
091513	CIRCUIT CARD ASSEMBLY	TEST REMOVE INSTALL REPAIR			0.3  0.8	208	AN
091514	CIRCUIT CARD ASSEMBLY	TEST REMOVE INSTALL REPAIR			0.3  0.8	208	AN
091515	MODULE ASSEMBLY, ADVISOR	REMOVE INSTALL REPAIR		0.3 0.3 0.5		33, 175, 208, 378, 444A	

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			AVUM (O)	AVIM (F)	DEPOT (D)		
0916	LIGHT UNIT, SEARCH	REMOVE INSTALL REPAIR	0.4 0.4 0.3			218, 378	
091601	SEARCH LIGHT	REPAIR	0.8		0.4	378	
091602	COMPONENT INSTL	REMOVE INSTALL	0.3 0.3			27, 154, 218, 262, 333, 378	
0917	LIGHT, NAVIGATIONAL, TAIL	REMOVE INSTALL REPAIR	0.2 0.2 0.4			31, 163, 209, 218, 378, 437	
0918	LIGHT, RECOGNITION ANTI-COLLISION LH	REMOVE INSTALL	0.3 0.3			163, 218, 378	
091801	LIGHT INDICATOR	REMOVE INSTALL REPAIR	0.2 0.2 0.7			378	
091802	LIGHT, NAVIGATIONAL	REMOVE INSTALL	0.5 0.5			378	
0919	LIGHT, NAVIGATIONAL LH	TEST REMOVE INSTALL	0.3 0.3 0.3			31, 163, 209, 218, 378, 437	
0920	LIGHT, NAVIGATIONAL LH	TEST REMOVE INSTALL REPAIR	0.3 0.3 0.3 0.4			31, 163, 209, 218, 378, 437	
0921	LIGHT, NAVIGATIONAL RH	REMOVE INSTALL	0.2 0.2			27, 116, 117, 154, 262, 376, 378, 437	
0922	PANEL ASSEMBLY, CONSOLE	REMOVE INSTALL REPAIR	0.3 0.3 0.6			187, 218, 378	
092201	PANEL, CONTROL, ELECTRIC	REPAIR	0.9			187, 218, 376	
092202	WIRING HARNESS W610	REPAIR	1.0			218, 378	

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL			(5) TOOLS & EQUIP REF CODE	(6) REMARKS CODE
			AVUM (O)	AVIM (F)	DEPOT (D)		
0923	PANEL, FAULT-FUNCTION	TEST REMOVE INSTALL REPAIR	0.2 0.3 0.3 0.3	0.3   0.8	    	27, 154, 208, 218, 262, 332, 378	AN
092301	CIRCUIT CARD ASSEMBLY	TEST REMOVE INSTALL REPAIR	    	 0.3 0.3  	0.3   0.9	208	
092302	CIRCUIT CARD ASSEMBLY	TEST REMOVE INSTALL REPAIR	    	 0.3 0.3  	0.3   0.9	208	AN
0924	PANEL, FAULT-FUNCTION	TEST REMOVE INSTALL REPAIR	 0.2 0.2 0.4	0.3   0.7	    	27, 163, 199, 208, 218, 262, 332, 378	AN
092401	ELECTRIC COMPONENT	TEST REMOVE INSTALL REPAIR	    	  0.1 0.1  	0.3   1.1	378	
092402	CIRCUIT CARD ASSEMBLY	TEST REMOVE INSTALL REPAIR	    	  0.3 0.3  	0.3   0.8	208	AN
092403	CAPACITOR-RESISTOR	REMOVE INSTALL REPAIR	    	  0.2 0.2 0.3	    	27, 154, 262, 332, 378	
0925	PANEL, FAULT-FUNCTION	TEST REMOVE INSTALL REPAIR	0.2 0.4 0.4 0.3	0.3   0.7	    	27, 163, 199, 208, 218, 262, 332, 378	
0926	PROCESSOR, SIGNAL, FLIGHT INSTRUMENT	TEST REMOVE INSTALL REPAIR	 0.8 0.8 1.3	0.8   0.5	    	27, 154, 199, 218, 262, 332, 378	

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL			(5) TOOLS & EQUIP REF CODE	(6) REMARKS CODE
			AVUM (O)	AVIM (F)	DEPOT (D)		
092601	BOX ASSEMBLY, CHASSIS	REPAIR		0.2		378	
092602	CIRCUIT CARD ASSEMBLY	TEST REMOVE INSTALL REPAIR		0.3 0.6 0.6 0.4		208	AN
0927	RELAY ASSEMBLY, STAB	REMOVE INSTALL REPAIR	0.3 0.3 0.8			27, 154, 218, 262, 378	
092701	WIRING HARNESS W651	REPAIR	0.7			27, 154, 218, 262, 378	
0928	MATRIX ASSEMBLY, PILOT	REMOVE INSTALL REPAIR	1.2 1.2 2.0			27, 154, 187, 199, 218, 262, 332, 378	
092801	SUPPORT, DISTRIBUTOR	REPAIR	0.9			378	
092802	WIRING HARNESS W646	REPAIR	2.5			218, 378	
0929	DISTRIBUTION BOX	REMOVE INSTALL REPAIR	0.4 0.4 0.9			27, 154, 187, 218, 258, 262, 337, 378	
092901	WIRING HARNESS W642	REMOVE INSTALL REPAIR	0.6 0.6 1.0			218, 378	
0930	WIRING HARNESS W621	REPAIR	1.7			218, 378	
0931	LIGHT ASSEMBLY, UTILITY	REPAIR	0.2			378	
093101	CABLE ASSEMBLY, MAINTENANCE LIGHT	REPAIR	0.4			215, 332, 378	
0932	FILTER, RADIO FREQUENCY	REMOVE INSTALL REPAIR	0.2 0.2		0.4	27, 154, 187, 218, 258, 262, 332, 378	

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL			(5) TOOLS & EQUIP REF CODE	(6) REMARKS CODE
			AVUM (O)	AVIM (F)	DEPOT (D)		
093201	BOX, FILTER, XFMR	REPAIR		0.4		27, 154, 218, 258, 262, 332, 378	
0933	PANEL, FAULT-FUNCTION, CB1	REMOVE	0.2			27, 154, 218, 258, 262, 332, 378	
		INSTALL	0.2				
		REPAIR	0.5				
0934	PANEL, POWER DISTRIBUTOR, CB2	REMOVE	0.3			27, 154, 218, 258, 262, 332, 378	
		INSTALL	0.3				
		REPAIR	0.3				

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			AVUM (O)	AVIM (F)	DEPOT (D)		
10	FUEL SYSTEM INSTALLATION	TEST	1.0			9, 27, 65, 154, 189, 215, 262, 327, 355, 376, 378, 435	
		CALIBRATE		1.5			
		SERVICE	0.4				
		REPAIR	3.7	1.3			
1001	FUEL CELL INSTALLATION	REPAIR	3.4		8.8	6, 27, 36, 37, 47, 65, 74, 79, 86, 88, 89, 106, 126, 130, 154, 166, 169, 189, 198, 214, 215, 222, 248, 262, 294, 376, 378, 416, 418, 421, 435, 441, 446, 447	
100101	VALVE, SOLENOID	TEST			0.6	27, 154, 262, 376	
		REMOVE	2.4				
		INSTALL OVERHAUL	2.4		1.3		
100102	VALVE, SHUTOFF	TEST			1.0	27, 154, 262, 376	
		REMOVE	2.0				
		INSTALL OVERHAUL	2.0		2.7		
100103	VALVE, AIR, PRESS FWD	TEST			0.7	27, 154, 262, 376	
		REMOVE	2.0				
		INSTALL OVERHAUL	2.0		1.8		
100104	VALVE, FUEL SYSTEM	REMOVE	2.0			27, 37, 129, 154, 262, 376	
		INSTALL	2.0				
		REPAIR	0.3	0.7			

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL			(5) TOOLS & EQUIP REF CODE	(6) REMARKS CODE
			AVUM (O)	AVIM (F)	DEPOT (D)		
100105	TANK, FUEL AIRCRAFT	REMOVE	3.0			7, 27, 65, 79, 154, 189, 215, 262, 327, 376, 378, 435, 446	L
		INSTALL	3.0				
		REPAIR	3.7	0.4			
100106	COVER, FUEL CELL	REMOVE	1.0			27, 79, 154, 215, 262, 376, 378, 446	
		INSTALL	1.0				
100107	TUBE, VENT, FUEL CELL	REMOVAL	2.0			27, 154, 215, 222, 262, 294, 376, 378	
		INSTALL	2.0				
100108	VALVE, SOLENOID	TEST			0.6	27, 154, 262, 376	
		REMOVE	1.4				
		INSTALL OVERHAUL	1.4		1.4		
100109	TANK, FUEL, AIRCRAFT	REMOVE	4.5			27, 65, 92, 154, 189, 215, 262, 376, 378, 406, 416, 417, 418, 420, 421, 441, 446	L
		INSTALL	4.5				
		REPAIR		0.3			
100110	FOAM, BALLISTIC, RIGID, FWD	REPAIR	6.1			27, 65, 129, 154, 197, 262, 337, 376	P
100111	FOAM, BALLISTIC, RIGID, AFT	REPAIR	6.1			27, 65, 129, 154, 197, 262, 337, 376	P
100112	VALVE, RELIEF, PRESSURE	TEST			0.7	27, 154, 215, 262, 333, 376, 378	
		REMOVE	0.5				
		INSTALL	0.5				
		REPAIR OVERHAUL	0.3	0.7	1.8		

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL			(5) TOOLS & EQUIP REF CODE	(6) REMARKS CODE
			AVUM (O)	AVIM (F)	DEPOT (D)		
100113	PANEL ASSEMBLY CONSOLE	REMOVE INSTALL REPAIR	0.4 0.4 0.4	0.7		27, 154, 215, 262, 333, 378	
100114	PANEL ASSEMBLY REFUELING	REMOVE INSTALL REPAIR	0.7 0.7	0.5		27, 154, 215, 262, 333, 376, 378	
100115	VALVE, SHUTOFF, FUEL	INSPECT TEST REMOVE INSTALL OVERHAUL	0.4  2.5 2.5		1.5   4.6	27, 154, 262, 376	
100116	PUMP, SUBMERGED, AIRCRAFT	INSPECT TEST REMOVE INSTALL OVERHAUL	0.2  2.7 2.7		0.7   2.8	27, 154, 215, 262, 376, 378, 412	
100117	VALVE, FUEL TRANSFER	INSPECT TEST REMOVE INSTALL OVERHAUL	0.2  2.4 2.4		0.5   4.7	27, 154, 262, 376, 412	
100118	MANIFOLD, FUEL SERVICE	REMOVE INSTALL REPAIR	2.5 2.5 0.3			9, 27, 129, 154, 215, 262, 376, 378	
10011801	CAP ASSEMBLY, MANIFOLD	REMOVE INSTALL	0.2 0.2			27, 129, 154, 376	
10011802	HOUSING ASSEMBLY, MANIFOLD	REMOVE INSTALL	0.4 0.4			27, 129, 154, 376	
100119	TUBE ASSEMBLY	REMOVE INSTALL	1.8 1.8			27, 154, 262, 376	R
100120	TUBE ASSEMBLY	REMOVE INSTALL	1.8 1.8			27, 154, 262, 376	R



(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL			(5) TOOLS & EQUIP REF CODE	(6) REMARKS CODE
			AVUM (O)	AVIM (F)	DEPOT (D)		
100121	TUBE ASSEMBLY	REMOVE INSTALL	1.8 1.8			27, 154, 262, 376	R
100122	TUBE ASSEMBLY	REMOVE INSTALL	1.9 1.9			27, 154, 262, 376	R
100123	BRACKET ASSEMBLY, PU	REMOVE INSTALL REPAIR	2.4 2.4 0.4			27, 154, 262, 376	E
1002	ENGINE FUEL SYSTEM	REPAIR	3.2			27, 89, 129, 154, 262, 355, 376, 378, 406, 416, 417, 419, 421, 425, 441, 445	
100201	ACTUATOR, ELECTRIC MECHANICAL	INSPECT REMOVE INSTALL OVERHAUL	0.4 0.8 0.8		7.0	27, 154, 262, 376	
100202	PUMP, FUEL BOOSTER	INSPECT TEST REMOVE INSTALL OVERHAUL	0.3  1.8 1.8		0.7  1.4	27, 86, 89, 154, 215, 262, 376, 378, 441, 421	
100203	VALVE, SOLENOID	INSPECT TEST REMOVE INSTALL OVERHAUL	0.3  1.7 1.7		1.5  4.1	27, 154, 262, 376	
100204	PUMP, FUEL BOOSTER, E	INSPECT TEST REMOVE INSTALL REPAIR OVERHAUL	0.1  0.9 0.9	0.2	0.8  1.8	27, 100, 154, 262, 376, 417	

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL			(5) TOOLS & EQUIP REF CODE	(6) REMARKS CODE
			AVUM (O)	AVIM (F)	DEPOT (D)		
10020401	CANISTER ASSEMBLY, PUMP	REMOVE INSTALL	1.4 1.4			27, 154, 262, 376, 417	
10020402	TUBE ASSEMBLY	REMOVE INSTALL	1.8 1.8			27, 154	R
10020403	TUBE ASSEMBLY, METAL	REMOVE INSTALL	1.8 1.8			27, 154	R
1003	NITROGEN INERTING SYSTEM	REPAIR	4.6			27, 92, 154, 262, 376, 402, 441	
100301	PANEL, FAULT-FUNCTION	TEST REMOVE INSTALL REPAIR	0.4 0.4 0.4 0.9			27, 154, 262, 334, 378	
100302	NITROGEN (N2) INERTING UNIT	TEST REMOVE INSTALL OVERHAUL	1.9 1.9		0.7  4.0	215, 376, 378, 441	
10030201	N2 INERTING ASSEMBLY	REPAIR  OVERHAUL	0.5		  3.1	27, 92, 129, 154, 215, 262, 376, 378, 441	
1003020101	FILTER ASSEMBLY, INT	REPAIR	3.6			27, 129, 154, 376	
10030202	TUBE ASSEMBLY	REPAIR	3.6			27, 154	R
10030203	TUBE ASSEMBLY	REPAIR	3.7			27, 154	R
10030204	TUBE ASSEMBLY	REPAIR	3.5			27, 154	R
10030205	TUBE ASSEMBLY	REPAIR	3.5			27, 154	R
10030206	TUBE ASSEMBLY	REPAIR	3.5			27, 154	R
10030207	TUBE ASSEMBLY	REPAIR	4.6			27, 154	R

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL			(5) TOOLS & EQUIP REF CODE	(6) REMARKS CODE
			AVUM (O)	AVIM (F)	DEPOT (D)		
10030208	TUBE ASSEMBLY	REPAIR	10.3			27, 154	R
10030209	TUBE ASSEMBLY	REPAIR	9.7			27, 154	R
10030210	TUBE ASSEMBLY	REPAIR	10.0			27, 154	R
10030211	TUBE ASSEMBLY	REPAIR	10.0			27, 154	R
10030212	TUBE ASSEMBLY	REPAIR	10.1			27, 154	R
100401	INSTALLATION KIT JE (TWO TANK)	REMOVE	2.9			27, 154, 215, 262, 376, 378, 405, 417, 439	
		INSTALL	2.9				
100402	INSTALLATION KIT JE (FOUR TANK)	REMOVE	13.2			27, 154, 215, 262, 376, 378, 405, 417, 439	
		INSTALL	13.2				
1005	FUEL SUBSYSTEM	TEST	1.7			27, 92, 129, 154, 215, 262, 376, 378, 441	
		REPAIR	3.3				
100501	COCK, POPPET DRAIN	REMOVE	0.7			6, 27, 154, 222, 262, 294, 447	
		INSTALL	0.7				
100502	COVER, FUEL CELL AFT	REMOVE	0.6			27, 92, 154, 215, 262, 376, 378, 416, 420, 421, 441	E
		INSTALL	0.6				
		REPAIR	0.4				
100503	BRACKET, FUEL SUBSYSTEM AFT	REMOVE	1.0			376	E
		INSTALL	1.0				
		REPAIR	0.3				
100504	BRACKET, FUEL SUBSYSTEM FWD	REMOVE	2.5			376	E
		INSTALL	2.5				
		REPAIR	0.3				

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			AVUM (O)	AVIM (F)	DEPOT (D)		
			11	CONTROL INSTALLATION	INSPECT		
		ADJUST	4.2				
		REPAIR	2.1				
1101	CONTROL INSTALLATION, UPPER	INSPECT	0.7			27, 75, 80, 138, 145, 154, 267, 262, 376, 433	
1102	CONTROL INSTALLATION, UPPER	REPAIR	1.2			27, 75, 80, 138, 145, 154, 267, 262, 376, 433	
110201	SWASHPLATE, CONTROL	INSPECT	0.1			27, 50, 69, 76, 154, 155, 163, 237, 262, 292, 305, 351, 376, 377, 416, 435, 444, 447	
		REMOVE	4.2				
		INSTALL	4.2				
		REPAIR	0.3		2.4		
110202	BELLCRANK	INSPECT	0.1			307, 376, 422, 438, 443	AD
		REMOVE	1.1				
		INSTALL	1.1				
		REPAIR	0.4	0.8	0.8		
110203	BELLCRANK	INSPECT	0.1			232, 267, 307, 376, 422, 438, 443	F
		REMOVE	0.9				
		INSTALL	0.9				
		REPAIR	0.4	0.7	0.8		

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			AVUM (O)	AVIM (F)	DEPOT (D)		
110204	BELLCRANK	INSPECT	0.1			6, 27, 73, 154, 171, 262, 305, 345, 376, 415, 416, 442, 444	F
		REMOVE	0.5				
		INSTALL	0.5				
		REPAIR	0.4	0.7			
110205	BELLCRANK	INSPECT	0.1			6, 27, 154, 262, 305, 315, 376, 416, 421, 433, 442, 444	F
		REMOVE	0.8				
		INSTALL	0.8				
		REPAIR	0.4	0.7	1.4		
110206	LINK ASSEMBLY LONGITUDINAL	INSPECT	0.1			27, 104, 154, 241, 262, 376, 442, 447	F
		REMOVE	0.8				
		INSTALL	0.8				
		REPAIR	0.4	0.7			
110207	PITCH LINK ASSEMBLY	INSPECT	0.1			6, 7, 95, 138, 305, 376, 416, 419, 433, 444	
		REMOVE	1.7				
		INSTALL	1.7				
		REPAIR	1.1				
11020701	ROD END ASSEMBLY	REMOVE	2.2			17, 95, 104, 138, 241, 376, 419, 433, 444	F
		INSTALL	2.2				
		REPAIR		0.5			
11020702	ROD END ASSEMBLY	REMOVE	2.2			17, 95, 138, 376, 419, 433, 444	F
		INSTALL	2.2				
		REPAIR		0.7			
110208	SCISSORS ASSEMBLY, MAIN	INSPECT	0.1			376, 439, 442, 447	F
		REMOVE	0.5				
		INSTALL	0.5				
		REPAIR	0.7				
11020801	ARM ASSEMBLY, FLIGHT CONTROL	INSPECT	0.1			52, 56, 308, 376, 416, 439	F
		REMOVE	0.4				
		INSTALL	0.4				
		REPAIR		0.8			

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			AVUM (O)	AVIM (F)	DEPOT (D)		
11020802	ARM ASSEMBLY, FLIGHT CONTROL	INSPECT	0.1	0.9		52, 56, 104, 241, 308, 376, 416, 439, 447	F
		REMOVE	0.4				
		INSTALL	0.4				
		REPAIR					
110209	SCISSORS ASSEMBLY, MAIN	INSPECT	0.1			376, 439, 442, 447	
		REMOVE	0.5				
		INSTALL	0.5				
		REPAIR	0.7				
11020901	ARM ASSEMBLY, FLIGHT CONTROL	INSPECT	0.1	0.7		52, 56, 308, 376, 416, 439, 447	F
		REMOVE	0.4				
		INSTALL	0.4				
		REPAIR					
11020902	ARM ASSEMBLY, FLIGHT CONTROL	INSPECT	0.1	0.8	1.0	52, 56, 308, 376, 416, 439, 447	F
		REMOVE	0.4				
		INSTALL	0.4				
		REPAIR					
110210	CONNECTING LINK, RIGGING	INSPECT	0.1	1.1		6, 306, 376, 416, 433, 442, 444	F
		REMOVE	0.8				
		INSTALL	0.8				
		REPAIR	0.4				
110211	LINK ASSEMBLY, MAIN ROTOR	INSPECT	0.1	1.0		6, 27, 73, 104, 154, 171, 241, 262, 305, 345, 376, 415, 416, 442, 444	F
		REMOVE	0.5				
		INSTALL	0.5				
		REPAIR	0.4				
1103	STICK INSTALLATION	INSPECT	0.1			376, 434	
		REPAIR	0.8				
110301	CONTROL STICK, AIRCRAFT	INSPECT	0.1	0.4		27, 54, 129, 154, 267, 232, 272, 376, 446	K
		REMOVE	1.0				
		INSTALL	1.0				
		REPAIR	0.7				
11030101	GRIP ASSEMBLY, CONTROL	REMOVE	0.6			27, 154, 155, 215, 262, 333, 376, 378	
		INSTALL	0.6				
		REPAIR	0.5				

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			AVUM (O)	AVIM (F)	DEPOT (D)		
			11030102	SWITCH, TOGGLE	REMOVE INSTALL		
11030103	TUBE ASSEMBLY, COLLECTIVE	INSPECT REMOVE INSTALL REPAIR	0.1	0.7 0.7 1.5		377	
1103010301	HOUSING ASSEMBLY, ROTOR	REMOVE INSTALL		0.8 0.8		377	L
1103010302	CONTROL ROD	REPAIR		2.0		377	E
11030104	SWITCH ASSEMBLY	REPAIR	0.4			27, 155, 262, 333, 378	AH
11030105	WIRE HARNESS	REPAIR	0.5			378	
110302	CYLINDER ASSEMBLY	REMOVE INSTALL REPAIR	0.9 0.9 1.8	0.7		376	K
11030201	CYLINDER ASSEMBLY, MAIN	INSPECT REPAIR	0.1	0.5		376	F
110303	SUPPORT ASSEMBLY, COLLECTIVE	INSPECT REMOVE INSTALL REPAIR	0.1 1.3 1.3 1.2	0.6		27, 129, 154, 376, 377, 434	F
11030301	ARM ASSEMBLY, COLLECTIVE	INSPECT REMOVE INSTALL REPAIR	0.1	0.4 0.4 0.8		27, 129, 154, 376, 434	F
1103030101	ARM ASSEMBLY, OUTPUT	REMOVE INSTALL REPAIR		0.3 0.3 1.0		27, 129, 154, 376, 377, 434	F
1103030102	ARM ASSEMBLY, INPUT	REMOVE INSTALL REPAIR		0.4 0.4 1.0		27, 129, 154, 376, 377, 434	F

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			AVUM (O)	AVIM (F)	DEPOT (D)		
11030302	ARM ASSEMBLY	REMOVE INSTALL REPAIR		0.4 0.4 0.6		27, 129, 154, 376, 377, 434	F
110304	TRANSDUCER, MOTIONAL	REMOVE INSTALL	0.5 0.5			376	F
11030401	BEARING UNIT, PLAIN	REPAIR	0.3			376	
1104	STICK INSTALLATION, COLLECTIVE	INSPECT REPAIR	0.1 1.0			272, 376, 434	
110401	CONTROL STICK, AIRCRAFT	INSPECT REMOVE INSTALL REPAIR	0.1 1.0 1.0 0.7	0.3		27, 54, 129, 154, 267, 232, 272, 376, 446	K
11040101	GRIP ASSEMBLY, CONTROL	REMOVE INSTALL REPAIR	0.6 0.6 0.5			27, 154, 155, 215, 262, 333, 376, 378	
11040102	SWITCH TOGGLE	REMOVE INSTALL	0.3 0.3			27, 154, 155, 262, 333, 378	
11040103	TUBE ASSEMBLY, COLLECTIVE	INSPECT REMOVE INSTALL REPAIR	0.1	0.7 0.7 1.5		376, 377	
1104010301	HOUSING ASSEMBLY, ROTOR	REMOVE INSTALL		0.8 0.8		376	L
1104010302	CONTROL ROD	REPAIR		2.0		377	E
11040104	SWITCH ASSEMBLY	REPAIR	0.4			27, 155, 262, 333, 378	AH
11040105	HARNESS	REPAIR	0.6			378	



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			AVUM (O)	AVIM (F)	DEPOT (D)		
110402	CYLINDER ASSEMBLY	INSPECT REMOVE INSTALL REPAIR	0.1 0.9 0.9 1.8	0.7		376	K
11040201	CYLINDER ASSEMBLY, MAIN	INSPECT REPAIR	0.1	0.4		376	F
110403	SUPPORT ASSEMBLY, COLLECTIVE	INSPECT REMOVE INSTALL REPAIR	0.1 1.2 1.2 1.1	0.5		27, 129, 154, 376, 377, 434	F
11040301	ARM ASSEMBLY, COLLECTIVE	INSPECT REMOVE INSTALL	0.1	0.4 0.4		27, 129, 154, 376, 434	F
11040302	ARM ASSEMBLY	REMOVE INSTALL		0.4 0.4		27, 129, 154, 376, 377, 434	F
11040303	ARM ASSEMBLY	REPAIR		1.0		27, 129, 154, 376, 377, 434	F
1105	STICK INSTALLATION, CYCLIC	INSPECT REMOVE INSTALL REPAIR	0.1 0.9 0.9 0.7			376, 434	F
110501	CONNECTING LINK, RIGGING	INSPECT REMOVE INSTALL REPAIR	0.1 0.5 0.5 0.7	0.5		376, 434	F
110502	CONTROL STICK, AIRCRAFT	INSPECT REMOVE INSTALL REPAIR	0.1 0.5 0.5 0.1			376, 434	

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			AVUM (O)	AVIM (F)	DEPOT (D)		
			11050201	GRIP ASSEMBLY, CONTROL	INSPECT REMOVE INSTALL REPAIR		
11050202	BASE ASSEMBLY	INSPECT REMOVE INSTALL REPAIR	0.1 0.5 0.5	0.4		376	F
110503	COVER, ACCESS	INSPECT REMOVE INSTALL REPAIR	0.1 0.4 0.4 0.2			376	
110504	HOUSING ASSEMBLY, CYCLIC	INSPECT REMOVE INSTALL REPAIR	0.1 0.8 0.8 0.8	0.7		27, 85, 96, 129, 154, 155, 163, 262, 267, 335, 376, 434, 435, 442	
11050401	SUPPORT ASSEMBLY, CYCLIC	INSPECT REMOVE INSTALL REPAIR	0.1	0.4 0.4 0.8		377	F
11050402	HOUSING ASSEMBLY, CYCLIC	REMOVE INSTALL REPAIR		0.9 0.9 0.8		27, 154, 215, 232, 262, 267, 376, 378, 445, 446	F
11050403	ARM ASSEMBLY, INPUT, CYCLIC	REMOVE INSTALL	0.5 0.5			27, 152, 154, 156, 215, 262, 377, 378, 445	F
11050404	ARM ASSEMBLY, FLIGHT CONTROL	INSPECT REMOVE INSTALL REPAIR	0.2   0.9	0.6 0.6		27, 129, 152, 154, 215, 262, 376, 377, 378, 435, 445	

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL			(5) TOOLS & EQUIP REF CODE	(6) REMARKS CODE
			AVUM (O)	AVIM (F)	DEPOT (D)		
			11050405	ARM ASSEMBLY	INSPECT REPAIR		
11050406	ARM ASSEMBLY	INSPECT REPAIR	0.1	0.4		376	F
1106	STICK INSTALLATION, CYCLIC	INSPECT REPAIR	0.1 1.8			376, 434	
110601	CONTROL STICK, AIRCRAFT	INSPECT REMOVE INSTALL REPAIR	0.2 1.3 1.3 0.7			376, 434, 439	
11060101	BASE ASSEMBLY, CYCLIC	INSPECT REMOVE INSTALL REPAIR	0.2 0.7 0.7	0.4		376	F
11060102	GRIP ASSEMBLY, CONTROL	REMOVE INSTALL REPAIR	0.5 0.5 0.5			27, 154, 155, 262, 333, 378	
11060103	FITTING ASSEMBLY	INSPECT REMOVE INSTALL REPAIR	0.1 0.3 0.3	0.5		376	F
11060104	LOCK ASSEMBLY, CYCLIC, ADJUSTABLE	INSPECT REMOVE INSTALL REPAIR	0.1 0.4 0.4 0.8			27, 154, 182, 262, 376, 377	
110602	HOUSING ASSEMBLY, CYCLIC	INSPECT REMOVE INSTALL REPAIR	0.1 0.8 0.8 0.8	0.8		27, 96, 129, 154, 163, 155, 262, 335, 376, 377, 442	F
11060201	ARM ASSEMBLY, INPUT, CYCLIC	REMOVE INSTALL	0.5 0.5			27, 152, 154, 156, 215, 262, 377, 378, 445	

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			AVUM (O)	AVIM (F)	DEPOT (D)		
11060202	SUPPORT ASSEMBLY, CYCLIC	INSPECT REMOVE INSTALL REPAIR	0.1	0.7 0.7 1.1		377	F, L
11060203	ARM ASSEMBLY, FLIGHT CONTROL	INSPECT REMOVE INSTALL REPAIR	0.1  0.3	0.6 0.6		27, 154, 163, 262, 335, 376, 377, 435, 442	
1106020301	ARM ASSEMBLY	INSPECT REMOVE INSTALL REPAIR	0.1	0.5 0.5 0.3		27, 129, 154, 262, 376, 377, 435	F
1106020302	ARM ASSEMBLY	INSPECT REMOVE INSTALL REPAIR	0.1	0.5 0.5 0.3		27, 129, 154, 262, 376, 377, 435	F
11060204	SPAD ASSEMBLY, CO-PILOT	INSPECT REMOVE INSTALL REPAIR	0.1	0.7 0.7 0.3		27, 152, 154, 156, 215, 262, 377, 378, 445	
1106020401	HOUSING ASSEMBLY, CYCLIC	INSPECT REMOVE INSTALL REPAIR	0.1	0.4 0.4 0.5		377	F, L
1106020402	YOKE ASSEMBLY	INSPECT REMOVE INSTALL	0.1	0.4 0.4		377241, 104,392	F
110603	COVER ASSEMBLY, SUPPORT	INSPECT REMOVE INSTALL REPAIR	0.1 0.4 0.4 0.3			376	E
110604	CONNECTING LINK, RIGGING	INSPECT REMOVE INSTALL REPAIR	0.1 0.2 0.2	0.4		104, 241, 376, 392, 434, 439	F

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL			(5) TOOLS & EQUIP REF CODE	(6) REMARKS CODE
			AVUM (O)	AVIM (F)	DEPOT (D)		
			1107	LINKAGE INSTALLATION	INSPECT REPAIR		
110701	PUSH-PULL ROD ASSEMBLY	INSPECT REMOVE INSTALL REPAIR	0.2 0.3 0.3 0.4			376, 434	F, R
110702	PUSH-PULL ROD ASSEMBLY	REMOVE INSTALL REPAIR	0.4 0.4 0.4			376, 434	F, R
110703	PUSH-PULL ROD ASSEMBLY	INSPECT REMOVE INSTALL REPAIR	0.2 0.4 0.4 0.5			376, 434	F, R
110704	PUSH-PULL ROD ASSEMBLY	INSPECT REMOVE INSTALL REPAIR	0.2 0.4 0.4 0.5			376, 434	F, R
110705	PUSH-PULL ROD ASSEMBLY	INSPECT REMOVE INSTALL REPAIR	0.2 0.4 0.4 0.5			376, 434	F
110706	PUSH-PULL ROD ASSEMBLY	INSPECT REMOVE INSTALL REPAIR	0.2 0.4 0.4 0.5			376, 434	F, R
110707	PUSH-PULL ROD ASSEMBLY	INSPECT REMOVE INSTALL REPAIR	0.2 0.4 0.4 0.7			376, 434	F, R
110708	PUSH-PULL ROD ASSEMBLY	INSPECT REMOVE INSTALL REPAIR	0.2 0.5 0.5 0.8			376, 434	F, R

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL			(5) TOOLS & EQUIP REF CODE	(6) REMARKS CODE
			AVUM (O)	AVIM (F)	DEPOT (D)		
110709	PUSH-PULL ROD ASSEMBLY	INSPECT	0.2			376, 434	F, R
		REMOVE	0.5				
		INSTALL	0.5				
		REPAIR	0.8				
110710	PUSH-PULL ROD ASSEMBLY	INSPECT	0.2			267, 376, 434	F, R
		REMOVE	0.5				
		INSTALL	0.5				
		REPAIR	0.8				
110711	PUSH-PULL ROD ASSEMBLY	INSPECT	0.2			267, 376, 434	F, R
		INSTALL	0.4				
		REPAIR	0.4				
		ADJUST	0.7				
110712	PUSH-PULL ROD ASSEMBLY	INSPECT	0.2			376, 434	F, R
		REMOVE	0.4				
		INSTALL	0.4				
		REPAIR	0.7				
110713	PUSH-PULL ROD ASSEMBLY	REMOVE	3.5			376, 434	F, R
		INSTALL	3.5				
		REPAIR	7.1				
110714	SPAD ASSEMBLY, DIRECTIONAL	INSPECT	0.2			27, 154, 376, 377, 434	F
		REMOVE	0.8				
		INSTALL	0.8				
		REPAIR	0.5	0.4			
11071401	CONNECTING LINK, RIGGING	INSPECT	0.1			376	F
		REMOVE		0.2			
		INSTALL		0.2			
		REPAIR	0.2	0.8			
11071402	ARM ASSEMBLY, DIRECTIONAL	REMOVE		0.3		376	F
		INSTALL		0.3			
		REPAIR		0.6			
1107140201	ARM ASSEMBLY	INSPECT	0.1			376	F
		REPAIR		0.8			
1107140202	ARM ASSEMBLY	INSPECT	0.2			241, 376, 392	F
		REPAIR	0.8	0.7			

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL			(5) TOOLS & EQUIP REF CODE	(6) REMARKS CODE
			AVUM (O)	AVIM (F)	DEPOT (D)		
110715	BRACKET ASSEMBLY, DIRECTIONAL	INSPECT REMOVE INSTALL REPAIR	0.2 0.6 0.6 0.8	0.7		376	F, L
110716	BRACKET ASSEMBLY, CONTROL	INSPECT REMOVE INSTALL REPAIR	0.1 0.8 0.8 1.1			376, 434	F
11071601	BRACKET ASSEMBLY, BELLCRANK	INSPECT REMOVE INSTALL REPAIR	0.2 0.7 0.7 0.8	0.7		376, 434	F
11071602	BELLCRANK	INSPECT REMOVE INSTALL REPAIR	0.2 0.7 0.7 0.8	0.7		376, 434	F
110717	BRACKET ASSEMBLY	INSPECT REMOVE INSTALL REPAIR	0.1 0.4 0.4 0.6	0.7		376, 434	F
110718	BRACKET, SUPPORT, ROTOR	INSPECT REMOVE INSTALL REPAIR	0.1 0.4 0.4 0.6	0.7		104, 241, 376, 392, 434	F
110719	BRACKET ASSEMBLY, LATERAL	INSPECT REMOVE INSTALL REPAIR	0.1 0.4 0.4 0.5	0.7		376, 434	F
110720	BRACKET ASSEMBLY, FLIGHT	INSPECT REMOVE INSTALL REPAIR	0.1 0.5 0.5 0.6	0.7		376, 434	F
110721	BRACKET CONTROL, DIRECTIONAL	INSPECT REMOVE INSTALL REPAIR	0.1 0.5 0.5 0.6	0.7		376, 434	F

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL			(5) TOOLS & EQUIP REF CODE	(6) REMARKS CODE
			AVUM (O)	AVIM (F)	DEPOT (D)		
110722	BRACKET ASSEMBLY, LATERAL	INSPECT	0.2			376, 434	F
		REMOVE	0.4				
		INSTALL	0.4				
		REPAIR	0.2	0.8			
110723	BRACKET, MOUNTING	INSPECT	0.2			376, 434	F
		REMOVE	0.5				
		INSTALL	0.5				
		REPAIR	0.4	0.7			
110724	BRACKET, SUPPORT, ROTOR	INSPECT	0.2			376, 434	F
		REMOVE	0.4				
		INSTALL	0.4				
		REPAIR	0.6	0.7			
110725	BRACKET, SUPPORT, ROTOR	INSPECT	0.1			376, 434	F
		REMOVE	0.4				
		INSTALL	0.4				
		REPAIR	0.6	0.7			
110726	BELLCRANK	INSPECT	0.1			104, 241, 376, 392, 434	F
		REMOVE	0.4				
		INSTALL	0.4				
		REPAIR	0.6	0.7			
110727	BELLCRANK	INSPECT	0.1			104, 241, 376, 392, 434	F
		REMOVE	0.3				
		INSTALL	0.3				
		REPAIR	0.6	0.7			
110728	BELLCRANK	INSPECT	0.1			104, 241, 376, 392, 434	F
		REMOVE	0.3				
		INSTALL	0.3				
		REPAIR	0.6	0.7			
110729	BELLCRANK	INSPECT	0.1			104, 241, 376, 392, 434	F
		REMOVE	0.3				
		INSTALL	0.3				
		REPAIR	0.6	0.7			
110730	BELLCRANK	INSPECT	0.1			104, 241, 376, 392, 434	F
		REMOVE	0.3				
		INSTALL	0.3				
		REPAIR	0.6	0.7			



(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL			(5) TOOLS & EQUIP REF CODE	(6) REMARKS CODE
			AVUM (O)	AVIM (F)	DEPOT (D)		
110731	BELLCRANK	INSPECT REMOVE INSTALL REPAIR	0.1 0.3 0.3 0.6	0.7		104, 241, 376, 392, 434	F
110732	BELLCRANK	INSPECT REMOVE INSTALL REPAIR	0.1 0.3 0.3 0.5	0.7		104, 241, 376, 392, 434	F
110733	BELLCRANK	INSPECT REMOVE INSTALL REPAIR	0.1 0.3 0.3	0.7		104, 241, 376, 392, 434	F
110734	BELLCRANK	INSPECT REMOVE INSTALL REPAIR	0.1 0.3 0.3 0.5	0.7		104, 241, 376, 392, 434	F
1108	LINKAGE INSTALLATION	INSPECT REPAIR	0.1 1.8			376	
110801	BELLCRANK	INSPECT REMOVE INSTALL REPAIR	0.1 3.5 3.5 0.4	0.2		376, 434	
110802	BELLCRANK	INSPECT REMOVE INSTALL REPAIR	0.2 0.7 0.7 0.3	0.4		104, 241, 376, 392, 434	F
110803	BELLCRANK	INSPECT REMOVE INSTALL REPAIR	0.2 0.9 0.9 0.4	0.4		104, 241, 376, 392, 434	F
110804	BELLCRANK	INSPECT REMOVE INSTALL REPAIR	0.2 1.0 1.0 0.4	0.6		104, 241, 376, 392, 434	F

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL			(5) TOOLS & EQUIP REF CODE	(6) REMARKS CODE
			AVUM (O)	AVIM (F)	DEPOT (D)		
110805	BELLCRANK	INSPECT	0.2			376, 434	F
		REMOVE	0.9				
		INSTALL	0.9				
		REPAIR	0.4	0.4			
110806	BRACKET ASSEMBLY, BELLCRANK	INSPECT	0.2			307, 376, 422, 434, 443	F
		REMOVE	0.8				
		INSTALL	0.8				
		REPAIR	0.4	0.8			
110807	BELLCRANK	INSPECT	0.2			376, 110, 434	F
		REMOVE	0.6				
		INSTALL	0.6				
		REPAIR	0.4	0.4			
110808	BRACKET, DIRECTIONAL	INSPECT	0.2			376, 434	F
		REMOVE	1.1				
		INSTALL	1.1				
		REPAIR	0.4	0.7			
110809	BELLCRANK	INSPECT	0.3			376, 434	F
		REMOVE	0.9				
		INSTALL	0.9				
		REPAIR	0.4	0.4			
110810	BELLCRANK	INSPECT	0.2			376, 434	F
		REMOVE	0.9				
		INSTALL	0.9				
		REPAIR	0.4	0.4			
110811	PUSH-PULL ROD ASSEMBLY	INSPECT	0.3			232, 267, 376, 434	F, L
		REMOVE	0.8				
		INSTALL	0.8				
		REPAIR	1.0				
110812	PUSH-PULL ROD ASSEMBLY	INSPECT	0.2			68, 174, 232, 267, 376, 434, 446	F, L
		REMOVE	0.8				
		INSTALL	0.8				
		REPAIR	1.0				
110813	PUSH-PULL ROD ASSEMBLY	INSPECT	0.3			267, 376, 434	F, L
		REMOVE	0.7				
		INSTALL	0.7				
		REPAIR	0.8				

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL			(5) TOOLS & EQUIP REF CODE	(6) REMARKS CODE
			AVUM (O)	AVIM (F)	DEPOT (D)		
110814	PUSH-PULL ROD ASSEMBLY	INSPECT	0.3			376, 434	F, L
		REMOVE	0.7				
		INSTALL	0.7				
		REPAIR	0.7				
110815	PUSH-PULL ROD ASSEMBLY	INSPECT	0.2			376, 434	F, L
		REMOVE	0.9				
		INSTALL	0.9				
		REPAIR	0.2				
110816	PUSH-PULL ROD ASSEMBLY	INSPECT	0.2			232, 267, 376, 434 376, 434	F, L
		REMOVE	1.3				
		INSTALL	1.3				
		REPAIR	1.5				
110817	PUSH-PULL ROD ASSEMBLY	INSPECT	0.2			232, 267, 376, 434 376, 434	F
		REMOVE	3.6				
		INSTALL	3.6				
		REPAIR	3.8				
110818	PUSH-PULL ROD ASSEMBLY	INSPECT	0.2			376, 434	F, L
		REMOVE	0.8				
		INSTALL	0.8				
		REPAIR	0.4				
110819	PUSH-PULL ROD ASSEMBLY	INSPECT	0.2			376, 434	F, L
		REMOVE	0.9				
		INSTALL	0.9				
		REPAIR	1.1				
110820	PUSH-PULL ROD ASSEMBLY	INSPECT	0.2			376, 434	F, L
		REMOVE	0.6				
		INSTALL	0.6				
		REPAIR	0.4				
110821	PUSH-PULL ROD ASSEMBLY	INSPECT	0.2			376, 434	F, L
		REMOVE	1.1				
		INSTALL	1.1				
		REPAIR	1.2				
110822	PUSH-PULL ROD ASSEMBLY	INSPECT	0.2			232, 267, 376, 434	F, L
		REMOVE	0.9				
		INSTALL	0.9				
		REPAIR	0.9				

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL			(5) TOOLS & EQUIP REF CODE	(6) REMARKS CODE
			AVUM (O)	AVIM (F)	DEPOT (D)		
110823	PUSH-PULL ROD ASSEMBLY	INSPECT	0.2			376, 434	F, L
		REMOVE	0.9				
		INSTALL	0.9				
		REPAIR	0.9				
110824	PUSH-PULL ROD ASSEMBLY	INSPECT	0.2			376, 434	F
		REMOVE	1.0				
		INSTALL	1.0				
		REPAIR	0.4				
110825	PUSH-PULL ROD ASSEMBLY	INSPECT	0.3			376, 434	F
		REMOVE	1.0				
		INSTALL	1.0				
		REPAIR	0.4				
110826	PUSH-PULL ROD ASSEMBLY	INSPECT	0.2			376, 434	F, L
		REMOVE	1.0				
		INSTALL	1.0				
		REPAIR	1.2				
110827	PUSH-PULL ROD ASSEMBLY	INSPECT	0.1			27, 154, 262, 376, 442	F
		REMOVE	0.8				
		INSTALL	0.8				
		REPAIR	0.4	0.5			
110828	BRACKET, MOUNTING	INSPECT	0.1			27, 154, 262, 376, 442	F
		REMOVE	0.8				
		INSTALL	0.8				
		REPAIR	0.4	0.5			
110829	BRACKET ASSEMBLY, ACTUATOR	INSPECT	0.1			27, 154, 262, 376, 435, 442	F
		REMOVE	0.8				
		INSTALL	0.8				
		REPAIR	0.2	0.5			
110830	CONTROL ASSEMBLY, Q	INSPECT	0.1			27, 154, 262, 376, 435, 442	
		REMOVE	1.0				
		INSTALL	1.0				
		REPAIR	0.4				
11083001	BRACKET ASSEMBLY	REMOVE		0.1		27, 154, 262, 376, 435, 442	F
		INSTALL		0.1			
		REPAIR		0.8			

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL			(5) TOOLS & EQUIP REF CODE	(6) REMARKS CODE
			AVUM (O)	AVIM (F)	DEPOT (D)		
11083002	BRACKET, CRANK COLLECTIVE	REMOVE INSTALL REPAIR		0.1 0.1 0.4		27, 154, 262, 376, 435, 442	F
110831	BELLCRANK	REMOVE INSTALL REPAIR	0.9 0.9 0.4		0.2	104, 241, 376, 392, 434	F
110832	BRACKET ASSEMBLY, LATERAL	INSPECT REMOVE INSTALL REPAIR	0.1 1.1 1.1 0.4		0.4	376, 434	F
110833	BELLCRANK	INSPECT REMOVE INSTALL REPAIR	0.3 1.1 1.1 0.4		0.1	376, 434	F
110834	BRACKET ASSEMBLY, FLIGHT	INSPECT REMOVE INSTALL REPAIR	0.1 1.1 1.1 0.4		0.7	27, 154, 262, 376	F
110835	BRACKET ASSEMBLY, BELLCRANK	INSPECT REMOVE INSTALL REPAIR	0.1 0.8 0.8 0.4		0.7	376, 434	F
110836	BELLCRANK	INSPECT REMOVE INSTALL REPAIR	0.1 0.9 0.9 0.4		0.2	376, 434	F
110837	BRACKET ASSEMBLY, BELLCRANK	INSPECT REMOVE INSTALL REPAIR	0.2 1.0 1.0 0.4		0.4	27, 154, 262, 376, 434	F
110838	BRACKET ASSEMBLY, BELLCRANK	INSPECT REMOVE INSTALL REPAIR	0.1 0.8 0.8 0.4		0.4	376, 434	

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL			(5) TOOLS & EQUIP REF CODE	(6) REMARKS CODE
			AVUM (O)	AVIM (F)	DEPOT (D)		
110839	BELLCRANK	INSPECT	0.1			376, 434	F
		REMOVE	1.0				
		INSTALL	1.0				
		REPAIR	0.4	0.2			
110840	BRACKET ASSEMBLY, FLIGHT	INSPECT	0.2			376, 434	F
		REMOVE	0.9				
		INSTALL	0.9				
		REPAIR	0.4	0.4			
110841	BRACKET ASSEMBLY, BELLCRANK	INSPECT	0.2			376, 434	F
		REMOVE	1.0				
		INSTALL	1.0				
		REPAIR	0.4	0.4			
110842	BRACKET ASSEMBLY, BELLCRANK	INSPECT	0.1			376	F
		REMOVE	0.9				
		INSTALL	0.9				
		REPAIR	0.4	0.4			
110843	BRACKET ASSEMBLY, BELLCRANK	INSPECT	0.2			376, 434	F
		REMOVE	0.8				
		INSTALL	0.8				
		REPAIR	0.4	0.4			
110844	BELLCRANK	INSPECT	0.2			241, 376, 392, 434	F
		REMOVE	1.2				
		INSTALL	1.2				
		REPAIR	0.4	0.2			
110845	SPAD ASSEMBLY	REMOVE	0.9			27, 129, 154, 267, 376, 377, 434, 445	
		INSTALL	0.9				
		REPAIR	0.6	0.4			
11084501	ARM ASSEMBLY, DIRECTIONAL	REMOVE		0.2		377	F
		INSTALL		0.2			
		REPAIR		0.7			
11084502	BELLCRANK	REMOVE		0.2		377	F
		INSTALL		0.2			
		REPAIR		0.7			

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL			(5) TOOLS & EQUIP REF CODE	(6) REMARKS CODE
			AVUM (O)	AVIM (F)	DEPOT (D)		
1108450201	BELLCRANK ASSEMBLY	REMOVE INSTALL REPAIR		0.2 0.2 0.7		377	F
1108450202	BELLCRANK ASSEMBLY	INSPECT REMOVE INSTALL REPAIR	0.1			377	F
110846	SPAD ASSEMBLY, CONTROL	INSPECT REMOVE INSTALL REPAIR	0.2 1.2 1.2 1.0		0.5	27, 129, 154, 262, 267, 376, 377, 434, 441	
11084601	BRACKET ASSEMBLY, PI	INSPECT REMOVE INSTALL REPAIR	0.1			241, 267, 376, 392, 434	F
11084602	SPAD ASSEMBLY, CONTROL	REMOVE INSTALL	0.4 0.4			267, 376, 434	
11084603	LEVER	REMOVE INSTALL		0.4 0.4		267, 376, 434	F
11084604	LEVER	REMOVE INSTALL		0.4 0.4		267, 376, 434	F
110847	SUPPORT ASSEMBLY, PEDAL	INSPECT REMOVE INSTALL REPAIR	0.1 0.2 0.2 0.4		0.4	104, 241, 376, 392, 434	F
110848	ROD ASSEMBLY, LINKAGE	INSPECT REMOVE INSTALL REPAIR	0.1 0.5 0.5 0.7			376, 434	
1109	BRAKE INSTALLATION, MAGNETIC	INSPECT	0.2			138	

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL			(5) TOOLS & EQUIP REF CODE	(6) REMARKS CODE
			AVUM (O)	AVIM (F)	DEPOT (D)		
110901	BRAKE ASSEMBLY, MAGNETIC	REMOVE	1.2			27, 76, 154, 262, 267, 376, 377, 434, 435, 445	
		INSTALL	1.2				
		REPAIR	0.3	1.4			
110902	SPRING, HELICAL, COMP	INSPECT	0.2			27, 85, 154, 267, 262, 376, 435	F
		REMOVE	1.0				
		INSTALL	1.0				
		REPAIR	0.3	0.3			
11090201	HOUSING ASSEMBLY, FLIGHT	REMOVE		0.2		27, 59, 104, 154, 175, 241, 262, 273, 275, 392, 425, 445	F
		INSTALL		0.2			
		REPAIR		0.3			
11090202	SPRING, HELICAL COMP	REPAIR		0.4		27, 59, 154, 175, 262, 273, 275, 425, 445	
110903	SPRING, HELICAL, COMP	INSPECT	0.2			27, 85, 154, 262, 267, 376, 435	F
		REMOVE	0.9				
		INSTALL	0.9				
		REPAIR	0.3	0.3			
11090301	HOUSING ASSEMBLY, FLIGHT	REMOVE		0.2		27, 59, 154, 175, 262, 273, 275, 425, 445	F
		INSTALL		0.2			
		REPAIR		0.3			
11090302	SPRING HELICAL COMP	REPAIR		0.3		27, 59, 154, 175, 262, 273, 275, 425, 445	
110904	SPRING HELICAL COMP	INSPECT	0.2			27, 85, 154, 262, 267, 376, 434, 435	F
		REMOVE	0.7				
		INSTALL	0.7				
		REPAIR	0.3	0.2			



(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL			(5) TOOLS & EQUIP REF CODE	(6) REMARKS CODE
			AVUM (O)	AVIM (F)	DEPOT (D)		
			11090401	HOUSING ASSEMBLY, FLIGHT	REMOVE		
INSTALL		0.2					
REPAIR		0.3					
11090402	SPRING HELICAL COMP	REPAIR		0.4		27, 52, 104, 141, 142, 143, 144, 154, 163, 235, 241, 262, 341, 372, 376, 392, 434	
110905	BELLCRANK AND SUPPORT	INSPECT	0.2			376, 434	F
		REMOVE	0.7				
		INSTALL	0.7				
		REPAIR	0.2	0.4			
11090501	SUPPORT ASSEMBLY	REMOVE		0.2		27, 52, 104, 141, 142, 143, 144, 154, 163, 235, 241, 262, 341, 372, 376, 392, 434	F
		INSTALL		0.2			
		REPAIR		0.3			
110906	MECHANISM ASSEMBLY	INSPECT	0.2			267, 376, 434	F
		REMOVE	0.9				
		INSTALL	0.9				
		REPAIR	0.5	0.7			
11090601	BELLCRANK	REMOVE		0.2		376, 434	F
		INSTALL		0.2			
		REPAIR		0.7			
11090602	CONNECTING LINK, RIGGING	REMOVE		0.2		376, 434	F
		INSTALL		0.2			
		REPAIR		0.3			

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL			(5) TOOLS & EQUIP REF CODE	(6) REMARKS CODE
			AVUM (O)	AVIM (F)	DEPOT (D)		
			110907	MECHANISM ASSEMBLY, SPRING	INSPECT REMOVE INSTALL REPAIR		
11090701	CONNECTING LINK, RIGGING	REMOVE  INSTALL  REPAIR		0.2  0.2  0.3		27, 52, 104, 141, 142, 143, 144, 154, 163, 235, 241, 262, 341, 376, 392, 434, 445	F
11090702	BELLCRANK	REMOVE  INSTALL  REPAIR		0.2  0.2  0.7		27, 52, 104, 141, 142, 143, 144, 154, 163, 235, 241, 262, 341, 376, 392, 434, 445	F
11090703	HOUSING, MECHANICAL	REMOVE  INSTALL  REPAIR		0.3  0.3  0.7		27, 52, 104, 141, 142, 143, 144, 154, 163, 235, 241, 262, 341, 376, 392, 434, 445	F
1110	COVER, COLLECTIVE STICK	REMOVE INSTALL	0.2 0.2			376	
1111	COVER, COLLECTIVE STICK	REMOVE INSTALL	0.2 0.2			376	
111201	PANEL ASSEMBLY	TEST REMOVE INSTALL REPAIR	1.1 0.7 0.7 0.1		0.5	27, 154, 155, 187, 262, 333, 378	X

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL			(5) TOOLS & EQUIP REF CODE	(6) REMARKS CODE
			AVUM (O)	AVIM (F)	DEPOT (D)		
11120101	CIRCUIT CARD ASSEMBLY	REPAIR		0.2		27, 154, 155, 262, 333, 378	
111202	COMPUTER, STABILIZATION	TEST	1.0			215, 218, 378	
11120201	COVER ASSEMBLY	REMOVE INSTALL REPAIR		0.2 0.2 0.3		27, 154, 199, 262, 376, 378	
11120202	POWER SUPPLY	TEST REMOVE INSTALL REPAIR			0.3  0.4 0.4 0.5	223, 346, 378	X
11120203	CIRCUIT CARD ASSEMBLY	REMOVE INSTALL REPAIR		0.2 0.2		223, 346, 378	X
11120204	HOUSING ASSEMBLY, AUTOMA	REPAIR		0.2	1.2	376	
11120205	COVER ASSEMBLY	REMOVE INSTALL REPAIR		0.1 0.1 0.3		27, 154, 199, 262, 376, 378	E
11120206	CIRCUIT CARD ASSEMBLY	TEST REMOVE INSTALL REPAIR			0.3  0.3 0.3 1.0	223, 346, 378	X
11120207	CIRCUIT CARD ASSEMBLY	TEST REMOVE INSTALL REPAIR			0.3  0.3 0.3 1.0	223, 346, 378	X
11120208	CIRCUIT CARD ASSEMBLY	TEST REMOVE INSTALL REPAIR			0.3  0.3 1.0	223, 346, 378	X

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL			(5) TOOLS & EQUIP REF CODE	(6) REMARKS CODE
			AVUM (O)	AVIM (F)	DEPOT (D)		
11120209	CIRCUIT CARD ASSEMBLY	TEST REMOVE INSTALL REPAIR		0.3 0.3	0.3 1.0	223, 346, 378	X
11120210	CIRCUIT CARD ASSEMBLY	TEST REMOVE INSTALL REPAIR		0.3 0.3	0.3 1.0	223, 346, 378	X
11120211	CIRCUIT CARD ASSEMBLY	TEST REMOVE INSTALL REPAIR		0.3 0.3	0.3 1.0	223, 346, 378	X
111203	CONTROLLER STABILATOR	TEST REMOVE INSTALL REPAIR	1.0 1.0	0.3 0.3		378	X
11120301	CIRCUIT CARD ASSEMBLY	TEST REMOVE INSTALL REPAIR		0.3 0.3	0.3 1.1	32, 108, 175, 346, 378, 437	X
11120302	CIRCUIT CARD ASSEMBLY	TEST REMOVE INSTALL REPAIR		0.3 0.3	0.3 1.1	32, 108, 175, 346, 378, 437	X
11120303	CIRCUIT CARD ASSEMBLY	TEST REMOVE INSTALL REPAIR		0.3 0.3	0.3 1.0	32, 108, 175, 346, 378, 437	X
11120304	CIRCUIT CARD ASSEMBLY	REMOVE INSTALL REPAIR		0.5 0.5	1.1	27, 32, 35, 154, 175, 262, 378, 437	X
11120305	CHASSIS, ELECTRICAL	REPAIR		1.2		27, 152, 154, 155, 208, 221, 262, 377, 378, 437	E

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL			(5) TOOLS & EQUIP REF CODE	(6) REMARKS CODE
			AVUM (O)	AVIM (F)	DEPOT (D)		
11120306	COVER, CONTROL	REMOVE		0.2		27, 154, 199, 262, 346, 376, 378	
		INSTALL		0.2			
		REPAIR		0.2			
111204	BRACKET ASSEMBLY, SENSOR	REMOVE	0.2			68, 174, 232, 376, 378	E
		INSTALL	0.2				
		REPAIR	0.4				
111205	ACTUATOR ASSEMBLY	TEST	1.7			90, 232, 233, 238, 267, 376, 417, 435, 446, 447	
		REMOVE	1.7				
		INSTALL	1.7				
		REPAIR	3.2				
11120501	ACTUATOR, ELECTRICAL-MECHANICAL	TEST			1.9	90, 232, 233, 238, 267, 376, 417, 435, 446, 447	
		REPAIR			5.1		
1113	PEDAL INSTALLATION, PILOT STATION	INSPECT	0.2			171, 376	
		REPAIR	0.5				
111301	PEDAL, CONTROL	INSPECT	0.1			27, 37, 154, 159, 171, 241, 262, 376, 392, 441, 445	F
		REMOVE	0.2				
		INSTALL	0.2				
		REPAIR	0.3	0.5			
111302	PEDAL, CONTROL	INSPECT	0.1			27, 37, 154, 159, 262, 376, 171, 441, 445	F
		REMOVE	0.2				
		INSTALL	0.2				
		REPAIR	0.3	0.5			
111303	SUPPORT ASSEMBLY, PIVOT	INSPECT	0.1			27, 154, 215, 232, 262, 267, 376, 378, 445, 446	F
		REMOVE	0.3				
		INSTALL	0.3				
		REPAIR	0.4	0.7			
111304	SUPPORT ASSEMBLY, PIVOT	INSPECT	0.1			27, 154, 262, 376, 434, 447	F
		REMOVE	0.2				
		INSTALL	0.2				
		REPAIR	0.3	0.7			

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL			(5) TOOLS & EQUIP REF CODE	(6) REMARKS CODE
			AVUM (O)	AVIM (F)	DEPOT (D)		
111305	SHAFT ASSEMBLY, PEDAL RELEASE	INSPECT	0.1			376	F
		REMOVE	0.3				
		INSTALL	0.3				
		REPAIR		0.5			
111306	HOUSING ASSEMBLY, PEDAL	INSPECT	0.1			376	F
		REMOVE	0.8				
		INSTALL	0.8				
		REPAIR	0.3	0.6			
111307	CRANK ASSEMBLY, PEDAL ADJUST	INSPECT	0.1			376	F
		REMOVE	0.7				
		INSTALL	0.7				
		REPAIR	0.3	0.5			
11130701	BELLCRANK	INSPECT	0.1			241, 376, 392	F
		REPAIR		0.5			
11130702	SUPPORT CRANK, PEDAL	REMOVE	0.7			376	L
		REMOVE	0.7				
		INSTALL	0.7				
		REPAIR		0.5			
111308	BRACE ASSEMBLY LH	REPAIR	0.1			376	F
111309	BRACE ASSEMBLY RH	REPAIR	0.1			376	F
111310	SEAT ASSEMBLY, PEDAL SPRING	INSPECT	0.1			376	F
		REMOVE	0.5				
		INSTALL	0.5				
		REPAIR	0.3	0.6			
111311	COVER, PROTECTIVE	INSPECT	0.1			376	F
		REPAIR	0.2				
1114	PEDAL INSTALLATION, CPG	INSPECT	0.2			376	F
		REPAIR	0.4				
111401	PEDAL, CONTROL	INSPECT	0.1			27, 37, 154, 159, 171, 262, 376, 441, 445, 447	
		REMOVE	0.2				
		INSTALL	0.2				
		REPAIR	0.3	0.4			

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL			(5) TOOLS & EQUIP REF CODE	(6) REMARKS CODE
			AVUM (O)	AVIM (F)	DEPOT (D)		
111402	PEDAL, CONTROL	INSPECT	0.1			27, 37, 154, 159, 171, 262, 376, 441, 445, 447	F
		REMOVE	0.2				
		INSTALL	0.2				
		REPAIR	0.3	0.4			
111403	SUPPORT ASSEMBLY, PIVOT	INSPECT	0.1			376, 434, 447	F
		REMOVE	0.3				
		INSTALL	0.3				
		REPAIR	0.3	0.7			
111404	SUPPORT ASSEMBLY, PIVOT	INSPECT	0.1			376, 434, 447	F
		REMOVE	0.2				
		INSTALL	0.2				
		REPAIR	0.3	0.7			
111405	SHAFT ASSEMBLY, PEDAL RELEASE	INSPECT	0.1			376	F
		REMOVE	0.3				
		INSTALL	0.3				
		REPAIR		0.5			
111406	HOUSING ASSEMBLY, PEDAL	INSPECT	0.1			376	F
		REMOVE	0.7				
		INSTALL	0.7				
		REPAIR	0.3	0.7			
111407	CRANK ASSEMBLY, PEDAL ADJUST	INSPECT	0.1			376	F
		REMOVE	0.3				
		INSTALL	0.3				
		REPAIR		0.4			
11140701	BELLCRANK	INSPECT	0.1			376	F
		REMOVE	0.2				
		REPAIR	0.2				
		REPAIR		0.5			
111408	SEAT ASSEMBLY, PEDAL SPRING	INSPECT	0.1			376	F
		REMOVE	0.4				
		INSTALL	0.4				
		REPAIR	0.3	0.6			

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL			(5) TOOLS & EQUIP REF CODE	(6) REMARKS CODE
			AVUM (O)	AVIM (F)	DEPOT (D)		
111409	SUPPORT ASSEMBLY, PEDAL	INSPECT REMOVE INSTALL REPAIR	0.1 0.3 0.3	0.5		104, 241, 376, 392	F
111410	PROTECTIVE COVER	INSPECT REPAIR	0.1 0.2			376	
1115	LINKAGE INSTALLATION	INSPECT REPAIR	0.1 0.9			176, 272, 376	
111501	BELLCRANK	INSPECT REMOVE INSTALL REPAIR	0.1 0.6 0.6 0.3	0.5		104, 109, 241, 376, 392, 434	F
111502	ROD ASSEMBLY, LINKAGE	INSPECT REMOVE INSTALL REPAIR	0.1 0.5 0.5 0.7			376, 434	F
111503	ROD ASSEMBLY, LINKAGE	INSPECT REMOVE INSTALL REPAIR	0.2 0.6 0.6 1.4			376, 434	F
111504	BELLCRANK	INSPECT REMOVE INSTALL REPAIR	0.1 0.7 0.7 0.6	0.5		241, 376, 392, 434, 436	F
1116	LINKAGE INSTALLATION	INSPECT REPAIR	1.0 0.8			376	F
111601	BELLCRANK	INSPECT REMOVE INSTALL REPAIR	0.1 0.5 0.5 0.3	0.5		104, 241, 376, 392, 434	F
111602	BELLCRANK	INSPECT REMOVE INSTALL REPAIR	0.1 0.7 0.7 0.2	0.5		241, 376, 392, 434	F



(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL			(5) TOOLS & EQUIP REF CODE	(6) REMARKS CODE
			AVUM (O)	AVIM (F)	DEPOT (D)		
111603	GUIDE PUSH ROD	REPAIR	0.1			232, 267, 376, 434	L
111604	CONNECTING LINK, RIGGING	REPAIR	0.1			232, 267, 376, 434	F
111605	CONNECTING LINK, RIGGING	INSPECT	0.1			27, 145, 154, 155, 163, 232, 262, 267, 376, 434	F, L
		REMOVE	0.5				
		INSTALL	0.5				
		REPAIR	0.6				
111606	CONNECTING LINK, RIGGING	INSPECT	0.1			232, 267, 376, 434	F, L
		REMOVE	0.8				
		INSTALL	0.8				
		REPAIR	0.8				
1117	ACTUATOR INSTALLATION	INSPECT	0.2			267, 376	
		REPAIR	0.9				
111701	SUPPORT ASSEMBLY, ACTUATOR	INSPECT	0.1			27, 154, 262, 376, 435	F
		REMOVE	2.1				
		INSTALL	2.1				
		REPAIR	0.3	0.7			
111702	BELLCRANK	INSPECT	0.2			27, 154, 156, 262, 376, 435, 447	F
		REMOVE	0.5				
		INSTALL	0.5				
		REPAIR	0.3	0.3			
111703	LEVER, REMOTE CONTROL	INSPECT	0.2			27, 154, 262, 376, 447	F
		REMOVE	0.7				
		INSTALL	0.7				
		REPAIR	0.3	0.3			
111704	LINK ASSEMBLY, TAIL ROTOR	INSPECT	0.2			27, 154, 262, 376, 434	F
		REMOVE	0.5				
		INSTALL	0.5				
		REPAIR	0.4				
111705	BRACKET, TAIL ROTOR	INSPECT	0.2			27, 104, 154, 241, 262, 376, 392, 435	F
		REMOVE	1.0				
		INSTALL	1.0				
		REPAIR	0.4	0.3			

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL			(5) TOOLS & EQUIP REF CODE	(6) REMARKS CODE
			AVUM (O)	AVIM (F)	DEPOT (D)		
111706	BELLCRANK	INSPECT	0.2	0.4		27, 104, 154, 241, 262, 376, 392, 434	F
		REMOVE	0.8				
		INSTALL	0.8				
		REPAIR	0.8				
111707	BELLCRANK	INSPECT	0.2	0.4		27, 104, 154, 241, 262, 376, 392, 434	F
		REMOVE	0.7				
		INSTALL	0.7				
		REPAIR	0.8				
111708	PUSH-PULL ROD ASSEMBLY	INSPECT	0.3	0.8		27, 154, 262, 376, 434	F, L
		REMOVE	0.6				
		INSTALL	0.6				
		REPAIR	1.3				
111709	PUSH-PULL ROD ASSEMBLY	INSPECT	0.3			27, 154, 262, 376, 434	F
		REMOVE	0.7				
		INSTALL	0.7				
1118	CONTROL INSTALLATION, PITCH	INSPECT	0.1			376, 441, 447	
		REPAIR	0.1				
111801	CONNECTING LINK ASSEMBLY	REMOVE	0.2			54, 376, 434	F
		INSTALL	0.2				
		REPAIR	0.4				
11180101	CONNECTING LINK, RIGGING	INSPECT	0.1	0.7		27, 154, 211, 262, 376, 445	F
		REMOVE	0.2				
		INSTALL	0.2				
		REPAIR					
111802	CONNECTING LINK ASSEMBLY	INSPECT	0.1			27, 154, 211, 262, 376, 445	F
		REMOVE	0.2				
		INSTALL	0.2				
		REPAIR	0.4				
11180201	CONNECTING LINK, RIGGING	INSPECT	0.1	0.8		27, 154, 211, 262, 376, 445	F
		REMOVE	0.3				
		INSTALL	0.3				
		REPAIR					

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL			(5) TOOLS & EQUIP REF CODE	(6) REMARKS CODE
			AVUM (O)	AVIM (F)	DEPOT (D)		
111803	CONNECTING LINK, RIGGING	INSPECT	0.1			27, 104, 154, 211, 241, 262, 376, 445	F
		REMOVE	0.5				
		INSTALL	0.5				
		REPAIR	0.8	0.8			
111804	CONNECTING LINK, RIGGING	INSPECT	0.1			27, 154, 211, 262, 376, 445	F
		REMOVE	0.2				
		INSTALL	0.2				
		REPAIR	0.4	0.5			
111805	SWASHPLATE CONTROLLER	INSPECT	0.1			27, 154, 165, 229, 262, 273, 376, 378, 435	L, AG
		REMOVE	1.5				
		INSTALL	1.5				
		REPAIR	0.3	0.4	0.8		
11180501	HOLDER, ELECTRICAL CONNECTOR	REMOVE	0.8			27, 154, 155, 215, 218, 262, 332, 376, 378	AG
		INSTALL	0.8				

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			AVUM (O)	AVIM (F)	DEPOT (D)		
12	UTILITY SYSTEM						
1201	PANEL, POWER DISTRIBUTION	INSPECT TEST REMOVE INSTALL REPAIR	0.2  0.3 0.3 0.8	 0.2  0.7		27, 154, 262, 334, 378	
1202	PANEL ASSEMBLY, COPILOT	INSPECT TEST REMOVE INSTALL REPAIR	  0.2 0.2 0.5	0.1 0.3  0.6		378	
1203	CONTROLLER, DE-ICING	TEST REMOVE INSTALL REPAIR	0.2 0.3 0.3 1.6			10, 27, 154, 215, 218, 261, 262, 378	
1204	RELAY ASSEMBLY	TEST REMOVE INSTALL REPAIR	0.6 0.2 0.2	  0.4		27, 154, 181, 262, 378	
120401	WIRE HARNESS W656	REMOVE INSTALL REPAIR		0.3 0.3 0.7		181, 378	
120402	COVER ASSEMBLY, RELAY BOX	REMOVE INSTALL REPAIR		0.2 0.2 0.4		181, 378	
120403	HOUSING ASSEMBLY, RELAY	REMOVE INSTALL REPAIR		0.2 0.2 0.5		181, 378	
1205	SIGNAL PROCESSOR UNIT	TEST REMOVE INSTALL REPAIR	 0.4 0.4	0.3  0.5		27, 154, 262, 334, 376, 378	
120501	BRACKET, ANGLE	REMOVE INSTALL	0.4 0.4			27, 154, 262, 334, 376, 378	

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			AVUM (O)	AVIM (F)	DEPOT (D)		
120502	HOUSING ASSEMBLY	REMOVE INSTALL	0.4 0.4			27, 154, 262, 334, 376, 378	
1206	WINDSHIELD WIPER INSTALLATION	REPAIR	0.1			376	
120601	ADAPTER ASSEMBLY, CONVERTER	REPAIR	0.1			27, 154, 262, 273, 376, 435	
120602	WINDSHIELD WIPER ASSEMBLY	REMOVE INSTALL REPAIR	0.4 0.4 0.9			273, 376	
12060201	BLADE, WINDSHIELD WIPER	REPAIR	0.8			273, 376	
12060202	BLADE, WINDSHIELD WIPER	REPAIR	0.8			273, 376	
12060203	CONVERTER, WINDSHIELD	REPAIR	0.9			27, 154, 262, 376, 435	
12060204	SHAFT ASSEMBLY FLEX	REPAIR	1.0			376, 435	
12060205	SHAFT ASSEMBLY FLEX	REPAIR	1.0			376, 435	
1207	PANEL ASSEMBLY, COCKPIT	TEST REMOVE INSTALL REPAIR	 0.2 0.2 0.5	0.4  0.7		27, 154, 262, 333, 334, 376, 378	
1208	FIRE EXTINGUISHER SYSTEM INSTL	REPAIR	0.5			376	
120801	SWITCH, PUSH PULL	REPAIR	0.5			27, 154, 163, 262, 334, 378	
120802	SWITCH, PUSH PULL	REPAIR	0.5			27, 154, 163, 262, 334, 378	
120803	INDICATOR, THERMAL DISCHARGE	REMOVE INSTALL REPAIR	0.2 0.2 0.2			376	

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			AVUM (O)	AVIM (F)	DEPOT (D)		
120804	FIRE EXTINGUISHER AIRCRAFT	REPAIR	0.6			93, 376, 406, 416, 417, 435	
120805	WIRE HARNESS W221	REPAIR	2.2			80, 129 376, 416, 441	
120806	EXTINGUISHER AIRCRAFT	INSPECT REMOVE INSTALL REPAIR OVERHAUL	0.3 1.4 1.4 2.6		4.0	93, 376, 406, 416, 417, 435	
120807	TUBE ASSEMBLY	REMOVE INSTALL	0.3 0.3			376	R
120808	TUBE ASSEMBLY	REMOVE INSTALL	0.3 0.3			376	R
120809	TUBE ASSEMBLY, METAL	REMOVE INSTALL	0.3 0.3			376	R
120810	TUBE ASSEMBLY, METAL	REMOVE INSTALL	0.3 0.3			376	R
120811	TUBE ASSEMBLY, METAL	REMOVE INSTALL	0.3 0.3			376	R
120812	TUBE ASSEMBLY, METAL	REMOVE INSTALL	0.3 0.3			376	R
120813	TUBE ASSEMBLY, METAL	REMOVE INSTALL	0.3 0.3			376	R
120814	TUBE ASSEMBLY, METAL	REMOVE INSTALL	0.3 0.3			376	R
120815	TUBE ASSEMBLY, METAL	REMOVE INSTALL	0.3 0.3			376	R
120816	TUBE ASSEMBLY, METAL	REMOVE INSTALL	0.3 0.3			376	R
120817	TUBE ASSEMBLY, METAL	REMOVE INSTALL	0.3 0.3			376	R

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			AVUM (O)	AVIM (F)	DEPOT (D)		
120818	TUBE ASSEMBLY, METAL	REMOVE INSTALL REPAIR	0.3 0.3 0.2			376	R
120819	TUBE ASSEMBLY, METAL	REMOVE INSTALL	0.3 0.3			376	R
120820	TUBE ASSEMBLY	REMOVE INSTALL	0.3 0.3			376	R
1209	BRACKET, MOUNTING LH	REMOVE INSTALL REPAIR	0.3 0.3 0.9			376, 377	
120901	FRAME, FIRE DETECTOR	REMOVE INSTALL REPAIR	0.4 0.4 0.8			376, 377	
12090101	FRAME	REPAIR	0.1			376	
1210	WIRE INSTL	REPAIR	0.2			378	
1211	WIRE HARNESS W149	REPAIR	0.6			378	
1212	FRAME ASSEMBLY RH	REMOVE INSTALL REPAIR	0.3 0.3 0.9			376, 377	
121201	BRACKET, MOUNTING	REMOVE INSTALL REPAIR	0.3 0.3 0.8			376, 377	
12120101	FRAME	REPAIR	0.1			376	
121202	PANEL, STRUCTURAL, AIRCRAFT	REMOVE INSTALL REPAIR	0.2 0.2 1.0			376, 377	
1213	WIRE INSTL	REPAIR	0.2			378	
1214	WIRE HARNESS W164	REPAIR	0.6			378	

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL			(5) TOOLS & EQUIP REF CODE	(6) REMARKS CODE
			AVUM (O)	AVIM (F)	DEPOT (D)		
13	ENVIRONMENTAL CONTROL SYSTEM	REPAIR	0.5			376	
1301	ENVIRONMENTAL CONTROL UNIT INSTALLATION	REPAIR	0.1			27, 129, 154, 158, 163, 262, 334, 376, 378, 418, 434, 435	
130101	DUCT ASSEMBLY, AIR COOLING	REMOVE INSTALL REPAIR	0.3 0.3 1.1			27, 154, 262, 376	
130102	ACCESS	INSPECT SERVICE REMOVE INSTALL OVERHAUL	0.2 0.7 0.4 0.4		5.2	27, 129, 154, 376, 418	
130103	DUCT ASSEMBLY, TEMPERATURE	REMOVE INSTALL REPAIR	1.8 1.8 1.2			27, 129, 154, 376, 435	
130104	CONTROL, TEMPERATURE	INSPECT REMOVE INSTALL OVERHAUL	0.2 0.3 0.3		2.9	376	
1302	DUCT ASSEMBLY, AIR COOLING	REMOVE INSTALL REPAIR	0.3 0.3 0.6			27, 154, 262, 376	
1303	SUPPORT ASSEMBLY, ENVIRONMENTAL	REMOVE INSTALL REPAIR	1.7 1.7 0.2			27, 154, 215, 262, 376, 378, 435	
1304	DUCT ASSEMBLY, AIR COOLING	REMOVE INSTALL REPAIR	0.7 0.7 1.0			376	
1305	DUCT ASSEMBLY	REMOVE INSTALL REPAIR	1.2 1.2 1.4			376	



(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL			(5) TOOLS & EQUIP REF CODE	(6) REMARKS CODE
			AVUM (O)	AVIM (F)	DEPOT (D)		
1306	DUCT ASSEMBLY, AIR COOLING	INSPECT	0.6			376	
		REMOVE	1.3				
		INSTALL	1.3				
		REPAIR	2.0				
1307	HOSE, AIR DUCT	REMOVE	0.5			376	
		INSTALL	0.5				
		REPAIR	2.5				
1308	DUCT ASSEMBLY, AIR COOLING	REMOVE	1.0			376	
		INSTALL	1.0				
		REPAIR	2.9				
1309	DUCT ASSEMBLY, AIR COOLING	REMOVE	1.4			376	
		INSTALL	1.4				
		REPAIR	2.1				
1310	HOSE, AIR DUCT	REMOVE	1.2			27, 154, 262, 376	
		INSTALL	1.2				
		REPAIR	2.0				
1311	DUCT ASSEMBLY, AIR COOLING	REMOVE	1.1			27, 154, 262, 376	
		INSTALL	1.1				
		REPAIR	2.1				
1312	STUB, DUCT ASSEMBLY	REMOVE	1.0			27, 154, 262, 376	
		INSTALL	1.0				
		REPAIR	2.3				
1313	DUCT ASSEMBLY, AIR COOLING	REMOVE	2.3			376	
		INSTALL	2.3				
		REPAIR	3.4				
1314	DUCT ASSEMBLY, AIR COOLING	REMOVE	0.3			27, 154, 199, 262, 376	
		INSTALL	0.3				
		REPAIR	0.8				
1315	DUCT ASSEMBLY, ENVIRONMENTAL	REMOVE	1.2			27, 154, 199, 262, 376	
		INSTALL	1.2				
		REPAIR	1.8				
1316	HOSE ASSEMBLY, NONMETALLIC	REMOVE	0.6			27, 154, 199, 262, 376	
		INSTALL	0.6				
		REPAIR	1.5				

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL			(5) TOOLS & EQUIP REF CODE	(6) REMARKS CODE
			AVUM (O)	AVIM (F)	DEPOT (D)		
1317	DUCT ASSEMBLY, AIR COOLING	REMOVE	0.8			27, 154, 199, 262, 376	
		INSTALL	0.8				
		REPAIR	1.4				
1318	DUCT ASSEMBLY, AIR COOLING	REMOVE	0.7			27, 154, 199, 262, 376	
		INSTALL	0.7				
		REPAIR	4.9				
1319	DUCT ASSEMBLY, AIR COOLING	REMOVE	0.3			27, 154, 199, 262, 376	
		INSTALL	0.3				
		REPAIR	1.4				
1320	HOSE, AIR DUCT	REMOVE	0.9			27, 154, 199, 262, 376	
		INSTALL	0.9				
		REPAIR	3.2				
1321	DUCT ASSEMBLY, AIR COOLING	REMOVE	1.1			27, 154, 199, 262, 376	
		INSTALL	1.1				
		REPAIR	2.5				
1322	DUCT ASSEMBLY, AIR COOLING	REMOVE	1.9			27, 154, 199, 262, 376	
		INSTALL	1.9				
		REPAIR	4.0				
1323	DUCT ASSEMBLY, ENVIRONMENTAL	REMOVE	1.3			27, 154, 199, 262, 376	
		INSTALL	1.3				
		REPAIR	2.3				
1324	DUCT ASSEMBLY, AIR COOLING	REMOVE	0.6			27, 154, 199, 262, 376	
		INSTALL	0.6				
		REPAIR	1.3				
1325	DUCT ASSEMBLY, AIR COOLING	REMOVE	0.8			27, 154, 199, 262, 376	
		INSTALL	0.8				
		REPAIR	3.5				
1326	DUCT ASSEMBLY, AIR COOLING	REMOVE	0.6			27, 154, 199, 262, 376	
		INSTALL	0.6				
		REPAIR	2.7				
1327	DUCT ASSEMBLY, AIR COOLING	REMOVE	0.6			27, 154, 199, 262, 376	
		INSTALL	0.6				
		REPAIR	2.0				

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL			(5) TOOLS & EQUIP REF CODE	(6) REMARKS CODE
			AVUM (O)	AVIM (F)	DEPOT (D)		
1328	DUCT ASSEMBLY, AIR COOLING	REMOVE INSTALL REPAIR	0.6 0.6 1.6			27, 154, 199, 262, 376	
1329	DUCT ASSEMBLY, AIR COOLING	REMOVE INSTALL REPAIR	1.0 1.0 1.8			27, 154, 199, 262, 376	
1330	DUCT ASSEMBLY, AIR COOLING	REMOVE INSTALL REPAIR	0.6 0.6 1.6			27, 154, 199, 262, 376	
1331	DUCT ASSEMBLY, AIR COOLING	REMOVE INSTALL REPAIR	0.6 0.6 1.6			27, 154, 199, 262, 376	
1332	DUCT ASSEMBLY, AIR COOLING	REMOVE INSTALL REPAIR	1.0 1.0 3.2			27, 154, 199, 262, 376	
1333	DUCT ASSEMBLY, AIR COOLING	REMOVE INSTALL REPAIR	0.9 0.9 3.9			27, 154, 199, 262, 376	
1334	DUCT ASSEMBLY, AIR COOLING	REMOVE INSTALL REPAIR	0.6 0.6 2.9			27, 154, 199, 262, 376	
1335	DUCT ASSEMBLY, AIR COOLING	REMOVE INSTALL REPAIR	0.8 0.8 3.1			27, 154, 199, 262, 376	
1336	FAN, VANEAXIAL	REMOVE INSTALL OVERHAUL	0.8 0.8		1.7	27, 154, 262, 376	
133601	DUCT ASSEMBLY, AIR COOLING	REMOVE INSTALL REPAIR	0.7 0.7 2.3			27, 154, 262, 376	
1337	FAN INSTALLATION	REPAIR	0.1			27, 154, 262, 376	

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL			(5) TOOLS & EQUIP REF CODE	(6) REMARKS CODE
			AVUM (O)	AVIM (F)	DEPOT (D)		
1338	ENVIRONMENTAL CONTROL PANEL ASSEMBLY	REMOVE INSTALL REPAIR	0.2 0.2 0.5	0.6		27, 154, 262, 334, 378	
133801	WIRE HARNESS	REMOVE INSTALL REPAIR		0.5 0.5 0.2		378	
133802	SUPPORT PANEL, CONSOLE	REMOVE INSTALL REPAIR		0.7 0.7 0.5		27, 154, 262, 378	
1339	THERMAL SWITCH ASSEMBLY	REPAIR	1.4			27, 154, 163, 262, 334, 378	
1340	THERMAL SWITCH ASSEMBLY	REPAIR	0.9			27, 154, 163, 262, 334, 378	
1341	DEFOGGING SYSTEM INSTALLATION	REPAIR	0.2			27, 154, 262, 378	

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL			(5) TOOLS & EQUIP REF CODE	(6) REMARKS CODE
			AVUM (O)	AVIM (F)	DEPOT (D)		
15	AUXILIARY POWER UNIT						
1501	APU INSTALLATION	TEST	1.0			7, 27, 70, 107, 154, 163, 188, 199, 210, 262, 371, 376, 378, 418, 419, 420, 421, 435, 441, 447	
		REPAIR	0.9				
150101	ENGINE, GAS TURBINE (REFER TO TM 1-2835-213-23)						
150102	WIRING HARNESS (REFER TO TM 1-2835-213-23)						
15010201	WIRING HARNESS W657 (REFER TO TM 1-2835-213-23)						
150103	CLUTCH ASSEMBLY, APU (REFER TO TM 1-2835-213-23)						
15010301	VALVE, SOLENOID (REFER TO TM 1-2835-213-23)						
150104	FUEL CONTROL ASSEMBLY (REFER TO TM 1-2835-213-23)						

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL			(5) TOOLS & EQUIP REF CODE	(6) REMARKS CODE
			AVUM (O)	AVIM (F)	DEPOT (D)		
150105	CONTROL, TEMPERATURE (REFER TO TM 1-2835-213-23)						
150106	COMBUSTION CHAMBER (REFER TO TM 1-2835-213-23)						
150107	STARTER, HYDRAULIC (REFER TO TM 1-2835-213-23)						
1502	MOUNT INSTALLATION, APU	REPAIR	2.1			27, 154, 262, 371, 376, 445	R
150201	DRAIN LINE INSTALLATION	REPAIR	0.3			27, 154, 262, 371	R
150202	TUBE ASSEMBLY	REMOVE INSTALL	0.1 0.1			27, 154, 262, 371	R
1503	EXHAUST SYSTEM INSTALLATION	REPAIR	0.1			27, 219, 154, 262, 371, 376, 377, 378, 435, 446	
150301	DUCT, EXHAUST MIXER	REMOVE INSTALL REPAIR	0.5 0.5 2.4			27, 154, 262, 371, 376, 378, 446	
150302	BULKHEAD, ENCLOSURE	REMOVE INSTALL REPAIR	0.4 0.4 1.1			27, 154, 262, 371, 376, 377, 378, 442, 446	
150303	BRACKET ASSEMBLY, COVER	REMOVE INSTALL REPAIR	1.0 1.0 1.3			27, 61, 154, 155, 163, 232, 262, 377	

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL			(5) TOOLS & EQUIP REF CODE	(6) REMARKS CODE
			AVUM (O)	AVIM (F)	DEPOT (D)		
150304	BRACKET ASSEMBLY, COVER	REMOVE	0.6			27, 61, 154, 155, 163, 232, 262, 377	
		INSTALL	0.6				
		REPAIR	0.6				
150305	BRACKET ASSEMBLY, COVER	REMOVE	2.7			27, 61, 154, 155, 163, 232, 262, 377	
		INSTALL	2.7				
		REPAIR	0.3				
150306	COVER, LOWER, APU	REMOVE	0.2			27, 154, 262, 371, 376, 378, 446	
		INSTALL	0.2				
		REPAIR	0.9				
150307	COVER ASSEMBLY, FRONT ENCLOSURE, APU	REMOVE	1.0			27, 154, 262, 371, 376, 378, 446	
		INSTALL	1.0				
		REPAIR	1.0				
15030701	COVER, AIRCRAFT, GROUND	REMOVE	0.1			27, 154, 262, 371, 376, 378, 446	
		INSTALL	0.1				
15030702	COVER ASSY, TOP ENCLOSURE	REMOVE	0.4			27, 154, 262, 371, 376, 378, 446	
		INSTALL	0.4				
		REPAIR	1.0				

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL			(5) TOOLS & EQUIP REF CODE	(6) REMARKS CODE
			AVUM (O)	AVIM (F)	DEPOT (D)		
16	MISSION EQUIPMENT						
1601	PYLON, AIRCRAFT	REMOVE	0.4			27, 154, 206, 262, 352, 373, 376, 378, 435, 442, 447	E, L
		INSTALL	0.4				
		REPAIR	0.7				
160101	RACK, BOMB EJECTOR, ASSEMBLY	REMOVE	0.8			27, 52, 154, 236, 262, 378, 435, 445, 447	X
		INSTALL	0.8				
		REPAIR		0.7			
16010101	EJECTOR ASSEMBLY, RACK PYLON	REMOVE	1.2			4, 20, 27, 37, 154, 215, 262, 301, 314, 373, 356, 378, 419, 435, 439, 442, 447	X
		INSTALL	1.2				
		REPAIR	1.7				
160102	ACTUATOR & TOP PLATE ASSEMBLY, PYLON	REMOVE	0.5			378, 447	
		INSTALL	0.5				
		REPAIR	0.6				
160103	PLATE STRUCTURAL AIRCRAFT	REPAIR		0.2		100, 378, 447	
160104	CYLINDER ASSEMBLY, ACTUATOR	REMOVE	0.6			378, 447	
		INSTALL	0.6				
		REPAIR			1.6		
160105	BRACKET, ASSEMBLY AIRCRAFT	REMOVE	0.6			227, 378	E, L
		INSTALL	0.6				
		REPAIR	0.8				
160106	BRACKET ASSEMBLY, ACTUATOR	REMOVE	0.3			378, 447	E
		INSTALL	0.3				
		REPAIR	0.7				
160107	BRACKET, MUX BOX	REMOVE	0.6			378	E
		INSTALL	0.6				
		REPAIR	0.4				



(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL			(5) TOOLS & EQUIP REF CODE	(6) REMARKS CODE
			AVUM (O)	AVIM (F)	DEPOT (D)		
160108	BRACKET ASSEMBLY, STOW	REMOVE INSTALL REPAIR	0.4 0.4 1.0			227, 378	
160109	CIRCUIT CARD ASSEMBLY	REMOVE INSTALL REPAIR	0.2 0.2 2.0			27, 154, 258, 262, 333, 378	W, AN
160110	FRAME ASSEMBLY, PYLON	REMOVE INSTALL REPAIR	0.5 0.5 0.7			27, 154, 262, 373, 376, 378, 441, 447	
160111	BRACKET, UPPER STRUT	REMOVE INSTALL	0.5 0.5			378	
1602	WINTERIZATION SYSTEM	REPAIR	1.1			376	
160201	BLANKET, HEATER-BATTERY	REMOVE INSTALL	0.4 0.4			378	
1603	SUPPORT, CHAFF DISPENSER	REPAIR		0.1		376	

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE CATEGORY			(5) TOOLS & EQUIP REF CODE	(6) REMARKS CODE
			AVUM (O)	AVIM (F)	DEPOT (D)		
17	EMERGENCY EQUIPMENT						
1701	SEVERANCE DEVICE INSTALLATION	INSPECT REMOVE INSTALL REPAIR	0.3 0.3 0.3 0.5			27, 77, 155, 262, 376, 417, 435	
1702	BRACKET ASSEMBLY	REPAIR	0.2			376	E
1703	CLIP ASSEMBLY	REPAIR	0.1			376	E

SECTION III. TOOLS AND TEST EQUIPMENT REQUIREMENTS  
FOR  
AH-64A HELICOPTER

Tool or Test Equipment Reference Code	Maintenance Level	Nomenclature	National Stock Number	Tool Number
1	O	Adapter, fuselage jack	1560-01-226-7551	7-262120027-9
2	O	Adapter, socket wrench, 1/2 x 3/4-inch drive	5120-00-227-8088	A-A-2172
3	O	Adapter, socket wrench, 1/2 x 3/8-inch drive	5120-00-240-8702	A-A-2172
4	O	Adapter, socket wrench, 1/4 x 3/8-inch drive	5120-00-227-8095	A-A-2172
5	O	Adapter, socket wrench, 3/4 x 1/2-inch drive	5120-00-144-5207	A-A-2172
6	O	Adapter, socket wrench, 3/8 x 1/2-inch drive	5120-00-240-8703	A-A-2172
7	O	Adapter, socket wrench, 3/8 x 1/4-inch drive	5120-00-224-9219	A-A-2172
8	O	Adapter, static port		99801-5
9	O	Adapter, test	4920-01-082-9216	70700-20602-042
10	O	Adapter, test	4920-01-357-2019	140054
11	O	Adapter, torque wrench, box end, 1/4 x 3/8-inch drive	5120-01-065-3237	FRES-8
12	O	Adapter, torque wrench, box end, 5/16 x 3/8-inch drive	5120-01-112-4496	AS954
13	O	Adapter, torque wrench, box end, 5/8 x 1/2-inch drive	5120-01-173-6252	SRES-20
14	O	Adapter, torque wrench, box end, 5/8 x 3/8-inch drive	5120-01-076-2388	FRES20

Tool or Test Equipment Reference Code	Maintenance Level	Nomenclature	National Stock Number	Tool Number
15	O	Adapter, torque wrench, box end, 9/16 x 1/2-inch drive	5120-01-173-6253	SRES-18
16	O	Adapter, torque wrench, tail rotor	5120-01-307-4127	7-262110046
17	O	Adapter, torque wrench, #16 spline x 3/8-inch drive	5120-00-867-5517	FRES-16
18	O	Adapter, torque wrench, #22 spline x 1/2-inch drive	5120-01-173-6251	SRES22
19	O	Adapter, torque wrench, 3/4 x 3/4-inch drive	5120-01-337-8686	7-362110085
20	O	Adapter, torque wrench, 3/4 x 3/8-inch drive	5120-01-076-5814	FRES24
21	O	Adapter, torque wrench, 5/16 x 3/8-inch drive	5120-00-867-5514	XWS2149TYPE4SIZE1
22	O	Adapter, torque wrench, 7/16 x 3/8-inch drive	5120-00-867-5516	XWS2149TYPE4SIZE3
23	O	Adapter assembly	5130-00-099-3685	102463
24	O	Adapter assembly, rotor blades	1730-01-249-4008	7-262110028
25	O	Adapter kit, airframe	4920-01-240-6743	7-262100011-605
26	O	Adjuster assembly, tension	1670-00-212-1149	A300A
27	O	Apron, laboratory, light duty	8415-00-234-9253	MC111
28	O	Balancing kit, blade	4920-01-040-7816	B4591
29	O	Bar, telescopic, 44-inch x 3/4-inch drive	5120-00-490-3762	AN8507
30	O	Bead breaker, tire	4910-00-856-0586	5372-010
31	O	Bit, screwdriver, flat tip, 3/16-inch	5120-00-293-2057	445-1
32	O	Bit, screwdriver, flat tip, 9/32-inch	5120-00-293-2053	SDM213

Tool or Test Equipment Reference Code	Maintenance Level	Nomenclature	National Stock Number	Tool Number
33	O	Bit, screwdriver, phillips, #2	5120-00-595-8197	SDM222
34	O	Bit, screwdriver, torque set cross, #4	5120-00-888-5829	EX212-4
35	O	Bit, screwdriver, #1 phillips	5120-00-223-6971	440-1
36	O	Bit, screwdriver, #2 torque set, cross tip	5120-00-082-8529	212-2
36A	O	Bit, screwdriver, torque set cross, 3/8	5130-00-511-0210	TS170-3/8
37	O	Bit set, screwdriver, 3/16 - 5/8-inch hexagon x 1/2-inch drive	5120-00-678-5057	SKA311S
38	O	Blade, hand hacksaw, 10-inch, 32 teeth per inch	5110-00-277-4589	HSS1032
38A	O	Blade, thickness guage	5120-00-720-6497	667-3
39	O	Bolt, eye	5306-01-181-8356	7-262110020
40	O	Bolt, shear, 1 1/8-inch x 1/4-20	5306-00-818-7516	NAS1304-18
41	O	Bolt, shear, 1 9/16-inch x 1/4-20	5306-00-826-5338	NAS1304-25
42	O	Bottle, applicator	8125-00-488-7952	Z/1306016/07952/ NPT/2
42A	O	Bridge, capacitance-resistance	6625-01-297-5303	PSD 60-1AF
43	O	Brush, cleaning aircraft	7920-00-685-3969	MILB23958
44	O	Brush, wire, scratch	7920-00-291-5815	D-1416
45	O	Brush, wire, tube, 1-inch diameter x 2-inch	7920-00-900-3587	84S-1000
46	O	Cable assembly, power, electrical, 8-inch, 2-wire	6150-00-937-0520	01700-61607
47	O	Cable assembly, power, electrical, 20-foot	6150-01-147-0359	NFGC-500
48	O	Cable assembly, power, electrical, 50-foot	6150-00-682-3460	11647741

Tool or Test Equipment Reference Code	Maintenance Level	Nomenclature	National Stock Number	Tool Number
49	O	Cage, tire inflation	4910-00-204-3170	A-A-1726
50	O	Caliper, micrometer, inside, 0.20 - 1.00-inch	5210-00-221-1918	GGG-C-105
51	O	Caliper, micrometer, outside, 0.000 - 0.100-inch	5210-00-540-2973	T230R
52	O	Caliper set, micrometer, outside, 0.000 - 6.000-inch	5210-00-554-7134	GGG-C-105
53	O	Caliper, micrometer, outside, 6.000 - 7.000-inch	5210-00-790-1899	1947V
54	O	Caliper, vernier, inside/outside, 0.300 - 24/0 - 24-inch	5210-00-234-8017	GGG-C-111
55	O	Caliper, inside, 8-inch	5210-00-229-3060	42
56	O	Caliper, micrometer, inside, 2 - 12-inch	5210-00-221-1921	GGG-C-105
57	O	Cap, tube, 1/4-inch	4730-00-640-0632	AFP241-04
58	O	Cap, tube, 3/8-inch	4730-00-618-3572	MS21914-6
59	O	Caps, vise jaw, 4-inch	5120-00-221-1506	GGG-C-137
60	O	C clamp, 3-inch	5120-00-180-0907	A-A-429
61	O	C clamp, 6-inch	5120-00-203-6431	A-A-431
62	O	Chain assembly, single leg	4010-00-516-8405	627728A
63	O	Charger, battery	6130-01-286-0607	100000
63A	O	Chip breaker	3455-01-227-9580	AT511
64	O	Cleaner, vacuum, electric	7910-00-526-1959	306
65	O	Cleaner, vacuum, pneumatic	7910-00-807-3704	15-A1080
66	O	Cleaning gun, pneumatic	4940-01-225-1502	3306K76
67	O	Compressor unit, reciprocating	4310-00-075-3311	LP832ENG1

Tool or Test Equipment Reference Code	Maintenance Level	Nomenclature	National Stock Number	Tool Number
68	O	Cord assembly, electrical	5995-01-304-8149	7-262100009-601
69	O	Crane, aircraft mounted	1730-01-246-1351	7-262100002-603
70	O	Crowfoot attachment, socket wrench, open end box, 11/16 x 3/8-inch drive	5120-00-236-2261	GGG-C-1507
71	O	Crowfoot attachment, socket wrench, open end box, 1 1/16 x 3/8-inch drive	5120-00-181-6764	GGG-C-1507
72	O	Crowfoot attachment, socket wrench, open end box, 1 1/2 x 1/2-inch drive	5120-00-181-6755	AF-48
73	O	Crowfoot attachment, socket wrench, open end box, 1 13/16 x 1/2-inch drive	5120-00-181-6752	GGG-C-1507
74	O	Crowfoot attachment, socket wrench, open end box, 1 1/4 x 1/2-inch drive	5120-00-181-6759	AF-40
75	O	Crowfoot attachment, socket wrench, open end box, 1 1/8 x 1/2-inch drive	5120-00-229-2773	AF-36
76	O	Crowfoot attachment, socket wrench, open end box, 13/16 x 3/8-inch drive	5120-00-189-7895	AN8508-13A
77	O	Crowfoot attachment, socket wrench, open end box, 1 x 3/8-inch drive	5120-00-229-2772	AN8508-16A
78	O	Crowfoot attachment, socket wrench, open end box, 1 3/8 x 1/2-inch drive	5120-00-181-6757	AF-44
79	O	Crowfoot attachment, socket wrench, open end box, 1 3/16 x 1/2-inch drive	5120-00-229-2774	AN8508-19

Tool or Test Equipment Reference Code	Maintenance Level	Nomenclature	National Stock Number	Tool Number
80	O	Crowfoot attachment, socket wrench, open end box, 15/16 x 3/8-inch drive	5120-00-935-7391	
81	O	Crowfoot attachment, socket wrench, open end box, 3/4 x 3/8-inch drive	5120-00-189-7898	AN8508-12A
82	O	Crowfoot attachment, socket wrench, open end box, 3/8 x 1/4-inch drive	5120-00-541-4072	AN8508-6A
83	O	Crowfoot attachment, socket wrench, open end box, 5/16 x 1/4-inch drive	5120-00-888-8000	TMRX10
84	O	Crowfoot attachment, socket wrench, open end box, 7/16 x 1/4-inch drive	5120-00-541-4073	GGG-C-1507
85	O	Crowfoot attachment, socket wrench, open end box, 9/16 x 1/4-inch drive	5120-00-541-4074	AN8508-9A
86	O	Crowfoot attachment, socket wrench, open end box, 7/8 x 3/8-inch drive	5120-00-181-6765	AN8508-14A
87	O	Crowfoot attachment, socket wrench, open end, 1 1/16 x 3/8-inch drive	5120-00-184-8405	FC34
88	O	Crowfoot attachment, socket wrench, open end, 1 1/2 x 3/8-inch drive	5120-00-184-8412	GGG-C-1507
89	O	Crowfoot attachment, socket wrench, open end, 1 1/4 x 3/8-inch drive	5120-00-293-2567	GGG-C-1507
90	O	Crowfoot attachment, socket wrench, open end, 1 1/8 x 3/8-inch drive	5120-00-517-7021	FC-36



Tool or Test Equipment Reference Code	Maintenance Level	Nomenclature	National Stock Number	Tool Number
91	O	Crowfoot attachment, socket wrench, open end, 1/2 x 3/8-inch drive	5120-00-184-8384	T7
92	O	Crowfoot attachment, socket wrench, open end, 13/16 x 3/8-inch drive	5120-00-184-8401	GGG-C-1507
93	O	Crowfoot attachment, socket wrench, open end, 1 x 3/8-inch drive	5120-00-595-8213	AN8506-10
94	O	Crowfoot attachment, socket wrench, open end, 1 3/8 x 3/8-inch drive	5120-00-222-7970	TRX12
95	O	Crowfoot attachment, socket wrench, open end, 1 5/16 x 3/8-inch drive	5120-00-184-8409	GGG-C-1507
96	O	Crowfoot attachment, socket wrench, open end, 2 3/4 x 3/8-inch drive	5120-00-184-8432	GGG-C-1507
97	O	Crowfoot attachment, socket wrench, open end, 3/4 x 3/8-inch drive	5120-00-184-8400	FC24A
98	O	Crowfoot attachment, socket wrench, open end, 5/8 x 3/8-inch drive	5120-00-184-8398	GGG-C-1507
99	O	Crowfoot attachment, socket wrench, open end, 7/16 x 3/8-inch drive	5120-00-184-8383	FC14
100	O	Crowfoot attachment, socket wrench, open end, 7/8 x 3/8-inch drive	5120-00-541-4071	FC28A
101	O	Crowfoot attachment, socket wrench, open end, 9/16 x 3/8-inch drive	5120-00-184-8397	FC24A
102	O	Cup, paint, spray gun	4940-00-190-5164	81-500

Tool or Test Equipment Reference Code	Maintenance Level	Nomenclature	National Stock Number	Tool Number
103	O	Cup, viscosity	6605-01-073-7107	1052551
104	O	Cutter assembly, fly	5120-00-159-8853	6470-70102-041
105	O	Cylinder, graduated, laboratory, 100-milliliters	6640-00-420-6000	NNN-C-9410
105A	O	Demagnetizer	5950-00-633-7247	50651
106	O	Detector kit, chemical agent	6665-01-294-8859	51-8073
107	O	Die set, metal stamping	5110-00-289-0002	GGGD280
108	O	Discharger, electrostatic, 8-inch	5920-01-154-4719	5020-8 INCHES
109	O	Dowel, 1/4 x 1 7/16-inch		
110	O	Dowel, 1/4 x 1.92-inch	5510-00-240-0067	A-A-1975
111	O	Dowel, 3/16 x 5/16-inch		
112	O	Driftpin, 1/2 x 4-inch long	5120-00-239-0036	TGGX2TY1
113	O	Driftpin, 3/4 x 6-inch long	5120-00-239-0037	TCGX2TY1
114	O	Driftpin, 7/8 x 7 3/4-inch long, brass	5120-00-505-5918	15-5-47AC
115	O	Drill, pneumatic, portable, 1/2-inch	5130-00-640-6343	00D691
116	O	Drill, pneumatic, portable, 3/8-inch	5130-00-862-2832	CP3008LA1250-100JAANDC94339
117	O	Drill, twist, # 40	5133-00-189-9285	11397
118	O	Drill, twist, # 41	5133-00-189-9286	R18
119	O	Drill, twist, # 51	5133-00-189-9296	DBE51
120	O	Drill, twist, 11/32-inch	5133-00-227-9665	10023
120A	O	Drill, twist, 13/16-inch	5133-00-917-3911	CSE525A

Tool or Test Equipment Reference Code	Maintenance Level	Nomenclature	National Stock Number	Tool Number
121	O	Driver, stud, locking	5120-01-257-5771	S131D24
121A	O	Etcher, Electric	5130-00-596-8404	MIL-E-3118
122	O	Extension, socket wrench, 16-inch x 3/4-inch drive	5120-00-227-8079	A-A-2170
123	O	Extension, socket wrench, 3-inch x 3/4-inch drive	5120-00-273-9208	A-A-2170
124	O	Extension, socket wrench, 5-inch x 1/2-inch drive	5120-00-243-7326	A-A-2170
125	O	Extension, socket wrench, 5-inch x 3/4-inch drive	5120-01-193-8537	47163
126	O	Extinguisher, fire, carbon dioxide	4210-00-270-4512	CS4210-0007ACLH
127	O	Extractor, circuit	5120-00-758-6653	1731
128	O	Extractor set, screw	5120-00-610-1888	A-A-283 SZ1-9
129	O	Faceshield, industrial	4240-00-056-0014	H3-WB5
130	O	Fan, centrifugal	4140-01-105-6326	NF17-8T
131	O	Filler and bleeder	4910-00-245-1832	AF5
132	O	Fixture, aircraft maintenance	4920-01-339-1225	140065
133	O	Fixture, aircraft maintenance	4920-01-339-1226	140036
134	O	Fixture, aircraft maintenance	4920-01-355-3383	140125
135	O	Fixture, mount		7-362110029
136	O	Fixture, tail rotor	4920-01-226-7423	7-262100002
137	O	Fluid service unit	1730-00-102-8665	E159-1000
138	O	Fluorescent inspection kit	6635-00-566-5198	FMI
138A	O	Foam cleaning kit	4940-01-041-5680	9388-1027
139	O	Frame, hand hacksaw, 10 - 12-inch blade	5110-00-289-9657	163-20
140	O	Funnel, 1-quart	7240-00-404-9793	A-A-1663

Tool or Test Equipment Reference Code	Maintenance Level	Nomenclature	National Stock Number	Tool Number
141	O	Gage, cylinder, 0.3700 - 0.6300-inch	5210-01-016-5851	B1-12100
142	O	Gage, cylinder, 0.6300 - 1.0000-inch	5210-01-016-5852	B1-12101
143	O	Gage, cylinder, 1.0000 - 1.5300-inch	5210-01-019-0814	B1-12102
144	O	Gage, cylinder, 1.5000 - 2.1600-inch	5210-01-016-5853	B1-12103
145	O	Gage, depth, dial indicator, 0.000 - 0.125-inch	5210-00-710-4359	643J
146	O	Gage, depth, micrometer, 0 - 12-inch	5210-00-826-5368	GGG-C-105
147	O	Gage, gap setting, 0.002 - 0.040-inch	5210-00-031-1504	28
148	O	Gage, gap setting, 0.010 - 0.030-inch	5210-01-053-2571	FB359
149	O	Gage, height, 0 - 18-inch	5210-00-067-7118	599-586-18
150	O	Gage, inspection, tail rotor antiflail		743E04
151	O	Gage, small hole, 0.400 - 0.500-inch	5210-00-221-2083	GGG-G-17
152	O	Gage, thickness, 0.0015 - 0.0250-inch	5210-00-221-1999	F71371
153	O	Generator set, gasoline engine	6115-00-156-0306	B6B
154	O	Gloves, chemical protective, size 10	8415-00-266-8677	ZZ-G-381
155	O	Gloves, heat protective, large	8415-00-929-8112	G7202-11
156	O	Goggles, industrial	4240-00-052-3776	A-A-1110
157	O	Grinder, hand, die, pneumatic	5130-00-005-8717	136GLF-240

Tool or Test Equipment Reference Code	Maintenance Level	Nomenclature	National Stock Number	Tool Number
158	O	Gun, air blow	4940-00-333-5541	DGA520
159	O	Gun, sealant, hand, 4-ounce	5120-00-952-3507	221830
160	O	Gun, sealant, hand, 8-ounce	5120-00-165-4013	221832
161	O	Handle, socket wrench, 18 - 30-inch telescoping x 3/4-inch drive	5120-00-099-8544	FAC01022
162	O	Heater, duct type, portable	4520-01-071-7191	MODELFC-400-1
163	O	Heater, gun type, electric	4940-00-785-1162	MIL-H-45193
164	O	Heating tool kit, compressed air/nitrogen	4940-01-037-1413	975096/HT900-B
165	O	Holder, sheet metal, edge grip	5120-00-197-5344	GGG-H-575
166	O	Hose assembly, air duct	4720-01-324-0233	NFRA-8X
167	O	Hose assembly, air duct, air breathing	4240-01-061-9321	469713
168	O	Hose assembly, nonmetallic	4720-00-356-8577	V2130D
169	O	Hose, compressed air, inline	4240-01-251-8159	ED1313B-50
170	O	Handle, socket wrench, hinged, 14-inch x 1/2-inch drive	5120-00-236-7590	A-A-2164
171	O	Handle, socket wrench, hinged, 9-inch x 1/2-inch drive	5120-00-221-7958	A-A-2164
172	O	Handle, socket wrench, ratchet, 1/2-inch drive	5120-00-230-6385	A-A-2165
173	O	Handle, socket wrench, hinged, 3/4-inch drive	5120-00-221-7959	A-A-2164
174	O	Headset, microphone	5965-01-128-1410	MIL-H-83511/2
175	O	Holder, screwdriver bit, 1/4-inch drive	5120-00-528-2891	825

Tool or Test Equipment Reference Code	Maintenance Level	Nomenclature	National Stock Number	Tool Number
176	O	Indicator, dial, 0.001 - 0.200-inch	5210-00-277-8840	A-A-234B
177	O	Insert, wrench	5120-00-473-7702	7082136
178	O	Insert, seal	5120-01-344-1016	140004
179	O	Insert, seal	5120-01-344-1315	140008
180	O	Installation tool	4920-01-175-5934	70700-20129-041
181	O	Installation tool, captive	5120-00-169-3003	H8603-10
182	O	Installation tool, plastic strap	5120-00-781-7891	GS2B
183	O	Jack, aircraft landing gear, 5-ton	1730-00-516-2018	53D22020
184	O	Jack, hydraulic, tripod, 3-ton	1730-00-734-9382	2010-25
185	O	Jack, hydraulic, tripod, 7.5-ton	1730-00-391-7921	982S
186	O	Jackscrew, transmission	1730-01-181-9271	7-262110015
187	O	Key set, socket head, L-style	5120-00-935-4641	AW1020K
188	O	Key, socket head screw, L-handle, 9/64-inch	5120-00-889-2163	AW4 1/2
188A	O	Kit, aircraft cleaning	7920-00-490-6046	251M
189	O	Kit, fuel cell	1730-01-181-9274	7-262100016-601
190	O	Kit, identification	6630-00-831-5932	61B25042
191	O	Kit, gun, rivet pin	5130-00-596-4506	353-53
192	O	Kit, lube drain	1730-01-193-9858	7-262100007
193	O	Kit, repair, rachem	4920-01-252-0361	CE-1603200
194	O	Kit, sling set	1730-01-246-6781	7-262100005-607
195	O	Kit, spreader bar	5180-01-345-6602	140098
196	O	Kit, weighting	6670-00-148-9395	155800-03

Tool or Test Equipment Reference Code	Maintenance Level	Nomenclature	National Stock Number	Tool Number
197	O	Knife, craftsman's	5110-00-293-1585	GGG-K-00450
198	O	Knife, pocket, 2-blade	5110-00-240-5943	GGG-K-484
199	O	Knife, putty, 1-1/4-inch blade	5120-00-221-1536	GGG-K-0481
200	O	Lead, electrical, 6-inch	5995-00-810-6536	MS25083
201	O	Lead, test, connector plug & terminal clip	6625-00-878-3600	1959-72-0
202	O	Level, precision, master, 15-inch	5220-00-241-3609	199
202A	O	Light, ultraviolet, metals examining	6635-00-760-5448	B14N-RB1400-3B156
203	O	Locks, strut		7-362110078
204	O	Lubricant packer, bearing	4930-01-353-8520	140145
205	O	Lubricating gun, hand	4930-00-253-2478	1142
205A	O	Magnetometer	6635-00-391-0058	2480
206	O	Magnifier, monocular, 5X & 12X	6650-00-133-7743	11728227
207	O	Maintenance kit, aircraft	4920-01-311-1130	7-262110013
208	O	Maintenance kit, electronic equipment	6625-01-023-8009	17794PRC350CLHA
209	O	Maintenance platform	1730-00-624-0684	A108
210	O	Maintenance platform	4940-01-188-2773	7-262100010
211	O	Maintenance platform, aircraft	1730-00-294-8883	54J6345
212	O	Mallet, rawhide	5120-00-222-2220	GGG-H-33
213	O	Mallet, rubber, 1 3/4 & 2 3/4-inch	5120-00-293-3399	GGG-H-33
214	O	Mask, air line	4240-01-251-9403	RA-100

Tool or Test Equipment Reference Code	Maintenance Level	Nomenclature	National Stock Number	Tool Number
215	O	Multimeter	6625-01-139-2512	T00377
216	O	Nipple, tube, 3/16-inch	4730-00-866-1834	MS24392D3
217	O	Nose assembly	5130-00-847-8422	99-614
218	O	Ohmmeter	6625-01-125-3471	24700
219	O	Ohmmeter assembly	6625-01-102-0052	102282
220	O	Oiler, hand	4930-00-262-8870	A-A-50477A
221	O	Oven precision		MODEL 28
222	O	Pail, utility, 14-quart	7240-00-160-0455	A-A-1273
223	O	PC Shunt bar	1005-01-241-4925	5020 4IN
224	O	Pin set, rigging	1730-01-165-0957	7-262110001
225	O	Pilot, body seal		AT 2290-4-1 (CAGEC 08844)
226	O	Plate, surface, 10 x 12-inch	5220-00-293-3556	10539031-1
227	O	Pliers, retaining ring	5120-00-088-9393	PRS34
228	O	Pliers, retaining ring	5120-01-280-4703	2011
229	O	Pliers, slip jointing, slotted jaw, camloc	5120-00-321-4507	4P3
230	O	Plug, expansion		140057
231	O	Power supply	6130-00-148-1796	6269B
232	O	Power unit, aircraft	1730-01-144-1897	83-360A
233	O	Protractor fixture	1730-01-220-8033	A3012559
234	O	Press, arbor, hand operated,	3444-00-243-2654	0



Tool or Test Equipment Reference Code	Maintenance Level	Nomenclature	National Stock Number	Tool Number
235	O	Press, arbor, hand operated, hydraulic, 2-ton	3444-00-223-8359	1 1-2
236	O	Press, arbor, hand operated, hydraulic, 10-ton	3444-00-163-4338	A-A-51195 SIZE 10
237	O	Press, hydraulic, portable	4940-00-181-3206	28623
238	O	Protractor assembly	5220-00-212-8747	F7710
239	O	Puller, mechanical	5120-01-165-5544	1106769-4
240	O	Puller attachment, mechanical	5120-00-355-6220	1151
241	O	Puller kit, universal	5180-00-009-5048	CG2545AB
242	O	Puller kit, universal	5180-00-027-7651	GGG-P-643
243	O	Puller kit, universal	5180-00-089-3660	A57QB
244	O	Puller kit, universal	5180-00-423-1596	PE12
245	O	Puller kit, universal	5180-00-945-0186	679641
245A	O	Puller kit, universal	5180-01-122-8378	CG-40C-B
246	O	Puller set, gear and seal	5120-00-146-9621	CJ105AB
247	O	Puller set, oil seal	5120-00-566-2845	PWA3762
248	O	Pump unit, breathable	4310-01-084-9665	ADP-3-CA
249	O	Punch, drift pin, 3/16 x 3 1/2-inch long	5120-00-223-1015	GGG-P-831
250	O	Punch, drive pin, 1/16-inch	5120-00-240-6082	41P4009
251	O	Punch, drive pin, 3/32-inch	5120-00-242-3435	3 1-TOOL3
252	O	Punch set, drive pin	5120-00-883-3003	GGG-P-831
253	O	Reamer, hand, adjustable, 17/32 - 19/32-inch	5110-00-260-1706	610HS SIZE B

Tool or Test Equipment Reference Code	Maintenance Level	Nomenclature	National Stock Number	Tool Number
253A	O	Reamer, hand, adjustable, 25/32 - 27/32-inch	5110-00-260-1717	610HS SIZE F
254	O	Reducer, tube	4730-01-015-5878	4RU1-316
255	O	Removal tool, bearing		SK-101590-601
256	O	Removal tool, bearing		SK-101590-603
257	O	Removal tool, bearing		SK-101590-605
257A	O	Removal/Installation tool, bearing		AH64-0013
258	O	Removal tool, socket	5120-01-097-5219	CTJ-R06
259	F	Repair kit, bulkhead bushing 35.5		140081
260	O	Repair tool, pneumatic tire valve	5120-00-308-3809	3522
261	O	Resistor, thermal, temperature probe	5905-01-085-1580	80T-150U
262	O	Respirator, air filtering, adjustable	4240-00-883-6519	85556
263	O	Respirator, air filtering, large	4240-01-248-8057	471373
264	O	Respirator, air filtering, medium	4240-01-248-8054	485220
265	O	Respirator, air filtering, small	4240-01-248-8055	485222
266	O	Retainer assembly	5120-00-693-8070	220928
267	O	Rigging kit, aircraft maintenance, flight control	4920-01-360-9612	7-262100003-605
268	O	Riveter, blind, hand	5120-00-224-9296	C6000-10-32
269	O	Riveter, blind, pneumatic	5130-00-178-9980	G715
270	O	Roller, hand, 2-inch wide	5120-00-243-9401	6523520
271	O	Rope, fibrous	4020-00-630-4873	MIL-R-30500
272	O	Scale, weighting, 0.0 - 10.0-pound	6670-00-240-5821	IN10

Tool or Test Equipment Reference Code	Maintenance Level	Nomenclature	National Stock Number	Tool Number
273	O	Scale, weighting, 0.0 - 50.0-pound	6670-00-254-4634	IN10
274	O	Screw, cap, socket head, 1/4-20	5305-01-PAD-7756	NAS1352-4H36P
275	O	Screwdriver bit set and handle	5120-00-870-6928	CRA 180 BK
276	O	Screwdriver, offset, phillips, #1 & #2	5120-00-256-9014	ST012A
277	O	Screws	5305-00-637-1125	MS35214-29
278	O	Scriber, machinist's	5120-00-221-7063	68WITHOUTKNIFEPOINT
279	O	Set, driver, bushing	5120-00-150-7761	27795
280	O	Set, driver, bushing	5120-00-150-7762	27794
280A	O	Set, file hand	5110-00-204-2685	
281	O	Set, jackscrew	4920-01-395-5208	140052
282	O	Set, test lead	6625-01-213-8840	6-112092
283	O	Setscrew, 5/16-24	5305-01-191-3114	NAS1081C5A5
284	O	Shears, bent trimmers, 12-inch	5110-00-203-9642	GGG-S-00278
285	O	Shears, metal cutting, hand, 10-inch	5110-00-273-0128	GGG-S-291
286	O	Shears, metal cutting, hand, 12-inch	5110-00-293-0089	012
287	O	Shears, pinking, 9-inch	5110-00-162-2202	CB9
288	O	Shot bag	4935-01-148-6170	78071
289	O	Sling, aircraft maintenance	1730-01-220-8476	7-267310016
290	O	Sling assembly, air vehicle	1730-01-165-6861	7-262110009-601
291	O	Sling, lifting, engine	4920-01-108-3484	21C7081G02
292	O	Sling, universal, rotor	1730-01-166-3543	FDC-5850-1

Tool or Test Equipment Reference Code	Maintenance Level	Nomenclature	National Stock Number	Tool Number
293	O	Socket, socket wrench, deep, 1 x 1/2-inch drive	5120-00-935-7453	AL-32
294	O	Socket, socket wrench, deep, 1 1/8 x 1/2-inch drive	5120-00-935-7454	AL-36
295	O	Socket, socket wrench, deep, 1 1/8 x 3/4-inch drive	5120-00-239-0021	A-A-1394
296	O	Socket, socket wrench, deep, 1/4 x 1/4-inch drive	5120-00-817-1187	AS954
297	O	Socket, socket wrench, deep, 15/16 x 1/2-inch drive	5120-00-935-7452	AL-30
298	O	Socket, socket wrench, deep, 3/4 x 1/2-inch drive	5120-00-242-3349	A-A-1398
299	O	Socket, socket wrench, deep, 3/4 x 3/8-inch drive	5120-00-935-7444	AS954
300	O	Socket, socket wrench, deep, 3/8 x 3/8-inch drive	5120-00-142-5152	AS954
301	O	Socket, socket wrench, deep, 5/16 x 1/4-inch drive	5120-00-104-1735	AS954
302	O	Socket, socket wrench, deep, 5/16 x 3/8-inch drive	5120-00-935-7472	AS954
302A	O	Socket, socket wrench, deep, 7/16 x 1/4-inch drive	5120-01-366-8316	MD-146
303	O	Socket, socket wrench, thin wall		742F004
304	O	Socket, socket wrench, 11/16 x 1/2-inch drive	5120-00-935-7421	A-22
305	O	Socket, socket wrench, 1 1/16 x 1/2-inch drive	5120-00-935-7427	A-34
306	O	Socket, socket wrench, 1 1/2 x 1/2-inch drive	5120-00-277-1465	B107.1 CL1STA

Tool or Test Equipment Reference Code	Maintenance Level	Nomenclature	National Stock Number	Tool Number
307	O	Socket, socket wrench, 1 13/16 x 3/4-inch drive	5120-00-199-7768	A-A-1394
308	O	Socket, socket wrench, 1 1/4 x 1/2-inch drive	5120-00-189-7917	A-A-1399
309	O	Socket, socket wrench, 1 1/4 x 3/4-inch drive	5120-00-235-5871	A-A-1394
310	O	Socket, socket wrench, 1 1/8 x 1/2-inch drive	5120-00-189-7914	A-A-1399
311	O	Socket, socket wrench, 13/16 x 1/2-inch drive	5120-00-935-7423	A-26
312	O	Socket, socket wrench, 1 3/4 x 3/4-inch drive	5120-00-199-7767	A-A-1394
312A	O	Socket, socket wrench, 1 3/4 x 3/4-inch drive	5120-01-378-5400	LDH562
313	O	Socket, socket wrench, 1 3/8 x 3/4-inch drive	5120-00-189-7930	A-A-1394
314	O	Socket, socket wrench, 1 5/16 x 3/4-inch drive	5120-00-232-5681	A-A-1394
315	O	Socket, socket wrench, 1 7/16 x 1/2-inch drive	5120-00-189-7931	A-A-1399
315A	O	Socket, socket wrench, 5/8 x 1/2-inch drive	5120-00-935-7447	A-A-1397
316	O	Socket, socket wrench, 9/16 x 1/2-inch drive	5120-00-935-7420	A-18
317	O	Socket, wrench, face spanner, nose gearbox shaft locknut	5120-01-314-7145	T-114095
318	O	Socket set, locknut	5120-01-344-2644	140079
319	O	Socket wrench, face spanner	5120-01-339-1841	140012-1
320	O	Socket wrench attachment, screwdriver, hi-torque, 1/4-inch	5130-01-009-1219	HTS-3

Tool or Test Equipment Reference Code	Maintenance Level	Nomenclature	National Stock Number	Tool Number
321	O	Socket wrench attachment, screwdriver, 1/2-inch hexagon x 1/2-inch drive	5120-00-243-1676	VA1676
322	O	Socket wrench attachment, screwdriver, 3/16-inch hexagon x 1/4-inch drive	5120-00-935-4612	TMA6
323	O	Socket wrench attachment, screwdriver, 3/16-inch hexagon x 3/8-inch drive	5120-00-683-8597	FA6A
324	O	Socket wrench attachment, screwdriver, 5/32-inch hexagon x 1/4-inch drive	5120-00-596-0940	VA0940
325	O	Socket wrench attachment, screwdriver, 5/32-inch hexagon x 1/4-inch drive, 5-inch blade	5120-00-104-1732	TMA5MOD5IN-BLADE
326	O	Socket wrench attachment, screwdriver, 5/8-inch hexagon x 1/2-inch drive	5120-00-105-8955	SA20A
327	O	Socket wrench attachment, screwdriver, 7/32-inch hexagon x 3/8-inch drive	5120-00-596-8511	VA8511
328	O	Socket wrench attachment, screwdriver, 7/64-inch hexagon x 1/4-inch drive	5120-00-761-2015	VA2015
329	O	Socket wrench attachment, screwdriver, 9/64-inch hexagon x 1/4-inch drive	5120-00-044-1718	SM105-753
330	O	Socket wrench attachment, screwdriver, 9/64-inch hexagon x 3/8-inch drive	5120-00-935-7474	FA4.5A
331	O	Soldering iron, electric	3439-00-585-6057	WS570
332	O	Soldering iron, electric, 25-watt	3439-00-277-6577	WS570
333	O	Soldering iron, electric, 5-watt	3439-00-853-8760	TL905U

Tool or Test Equipment Reference Code	Maintenance Level	Nomenclature	National Stock Number	Tool Number
334	O	Soldering gun	3439-00-542-0396	8200G3
335	O	Spanner attachment set, socket wrench, 1 3/4 - 4-inch, 1/2-inch drive	5120-00-513-1754	AN8515-1
336	O	Spanner attachment set, socket wrench, 3/4 - 2-inch, 3/8-inch drive	5120-00-596-8652	AN8514-1
337	O	Spatula set, 3-piece	5120-00-056-3237	TS1275-K
338	O	Spectacles, vision	4240-01-301-8711	AV-40
339	O	Spray gun, paint	4940-00-203-5639	
340	O	Square, combination, 12-inch	5210-00-078-8949	GGG-S-656
341	O	Staking tool, roller	5110-01-163-0258	RST1013
342	O	Stopwatch	6645-00-250-4680	A-A-2580
343	O	Strainer, paint	5120-00-541-2028	2831162
344	O	Stand, aircraft tail, tripod	1730-00-257-5353	K12402
344A	O	Stencil set, marking	7520-00-298-7043	A-A-130
345	O	Strap assembly	1670-01-100-6161	FDC-1730-254
345A	O	Strap pack inspection kit	6650-01-289-8505	IF8C5-10
346	O	Strap, wrist grounding, large	4240-01-165-8865	CP407/C6-L
347	O	Tap, thread cutting, 1/4-inch - 28 UNF	5136-00-227-8609	A-A-625
348	O	Tape, measuring, 100-foot	5210-00-221-1882	GGGT106TYPE2 CLASSBCASEV
348A	O	T cable	5995-01-390-6986	PSDAF-113
349	O	Tester, hydraulic hose assembly	4940-00-868-6991	MIL-T-25456B

Tool or Test Equipment Reference Code	Maintenance Level	Nomenclature	National Stock Number	Tool Number
350	O	Tester, pitot and static systems	4920-01-030-7569	S6-21312
351	O	Tester, pyrometer and thermocouple	6695-01-149-5810	5500
352	O	Tester, spring resiliency, 0 - 100-pound	6635-00-578-5285	PPT00
353	O	Tester, spring resiliency, 0 - 25-pound	6635-00-242-1451	MST25
353A	O	Test equipment, helicopter rotor head balance and blade track run	4920-01-180-7610	7-262100008
354		Deleted		
354A	O	Test fixture, hydraulic	4920-00-619-8114	T3430
354B	O	Test set, Aviation Vibration Analysis	6625-01-282-3746	29313100
355	O	Test set, indicator, fuel quantity	4920-00-109-5066	TF579
356	O	Test set, pylon ejector	4920-01-226-7552	2952D24393
357	O	Test stand, hydraulic	4920-01-119-8795	79009-100
358	O	Test stand, hydraulic. portable	4920-00-141-8801	MIL-T-7612D
359	O	Test stand, hydraulic system components	4920-00-144-5581	7454
360	O	Thermometer, self indicating, liquid, 20 - 110 °C	6685-00-851-4577	14-985B
361	O	Threading set, screw	5180-00-698-7972	41-8789-930-100
362	O	Tie down kit, aircraft mooring	1730-00-089-7806	AA1730-1301
363	O	Tie down kit, aircraft mooring	1730-01-350-6733	7-262100004-609
364	O	Tire inflator assembly	6685-00-124-4336	M83352/1
365	O	Tool, adjusting, rod and link		140188
366	O	Tool, cork stopper removal		743F263
367	O	Tool, insert installation		TK0101032



Tool or Test Equipment Reference Code	Maintenance Level	Nomenclature	National Stock Number	Tool Number
368	O	Tool, removal, lockring	3455-00-318-5494	BT-1567
369	O	Tool, rotor brake	4920-01-397-4094	140034
370	O	Tool, special purpose	5120-01-135-3072	AD1494
370A	O	Tool, spar debond repair, AH-64-Apache		RTI-SP-01-696
371	O	Tool kit, aircraft maintenance	5180-00-323-4944	SC518099CLA07
372	O	Tool kit, aircraft maintenance	5180-00-003-5267	SC518099CLA13
373	O	Tool kit, aircraft maintenance	5180-00-987-9816	SC518095CLB09
374	O	Tool kit, aircraft maintenance, tail rotor strap pack centering		140016
375	O	Tool kit, aircraft maintenance, upper seal removal/installation	5180-01-320-2908	64-001-1234
376	O	Tool kit, aircraft mechanic's	5180-00-323-4692	SC518099CLA01
377	O	Tool kit, airframe repairman's	5180-00-323-4876	SC518099CLA02
378	O	Tool kit, electrical	5180-00-323-4915	SC518099CLA06
379	O	Tool kit, electronic	5180-00-064-5178	TK101GISSUE6
380	O	Tool kit, fluid adapter	5180-00-008-5658	KM9RF9806
381	O	Tool kit, fluid adapter	5180-00-008-5659	KM9RF9808
382	O	Tool kit, fluid adapter	5180-00-008-5660	KM9RF9810
383	O	Tool kit, fluid adapter	5180-00-008-5661	KM9RF9812
384	O	Tool kit, hydraulic	5180-00-323-4891	SC518099CLA03
385	O	Tool kit, installation	5180-00-008-5637	KM9RF9816
386	O	Tool kit, installation	5180-00-008-5657	KM9RF9804
387	O	Tool kit, installing, #5 & #6 stud	5180-00-739-7031	TTA5/TTA6
387A	O	Tool kit, pin-plug removal	5180-01-039-4919	CUTA2180103B

Tool or Test Equipment Reference Code	Maintenance Level	Nomenclature	National Stock Number	Tool Number
388	O	Tool kit, resilient mount, tail rotor fork		140048
389	O	Tool kit, riveter	5180-01-089-1229	G-704BCMR
390	O	Tool kit, special	4920-01-180-7613	7-267300001-613
391	O	Tool kit, special		7-263100001-601
391A	O	Tool kit, special		7-263100001-603
392	O	Tool kit, staking		140151
393	O	Tool kit, swaging	5180-01-115-7008	D12102C-15-H10
394	O	Tool set, bushing, vertical stabilizer		140166
395	O	Towbar, aircraft	1730-00-967-9556	AA1730-1251
396	O	Trailer, rail type	1730-00-435-7818	22142
397	O	Transmission kit, removal	1730-01-183-4432	7-262100006-601
398	O	Truck, hand, nitrogen	1740-01-327-6831	FPNC-01
399	O	Tube, bleeder, hydraulic brake	4910-00-490-3773	47A6141
400	O	Universal joint, socket, 3/8 x 3/8-inch drive	5120-00-224-9215	A-A-2169
401	O	V-block	3460-01-093-0129	9130
402	O	Vise, machinist's, 4-inch	5120-00-967-1565	10608335-1
403	O	Washer, flat	5310-01-121-5534	AN960JD416L
404	O	Weight, scale, turbine	6635-00-451-3742	PWA16600-104
405	O	Wrench, adjustable, 10-inch	5120-00-449-8083	A-A-2344
406	O	Wrench, adjustable, 15-inch	5120-00-423-6728	A-A-2344

Tool or Test Equipment Reference Code	Maintenance Level	Nomenclature	National Stock Number	Tool Number
407	O	Wrench, bearing nut, engine nose gearbox		140069
408	O	Wrench, box & open, 11/16-inch	5120-00-895-9572	GGG-W-645
409	O	Wrench, box & open, 15/16-inch	5120-00-895-9575	GGG-W-645
410	O	Wrench, box, 1 1/16 & 1 1/8-inch	5120-00-228-9521	A-A-1342
411	O	Wrench, box, 1 1/4 & 1 5/16-inch	5120-00-184-8676	A-A-1342
412	O	Wrench, box, 15/16 & 1-inch	5120-00-204-2670	A-A-1342
413	O	Wrench, mast support	4920-01-249-4003	7-263110003
413A	O	Wrench, mast support		7-263110003-601
414	O	Wrench, open end, single head, 11/16-inch	5120-00-081-9075	A-A-1354
415	O	Wrench, open end, 1 11/16 & 1 7/8-inch	5120-00-081-9100	ANSI B107.6
416	O	Wrench, open end, 1 1/16 & 1 1/4-inch	5120-00-187-7134	A-A-1356
417	O	Wrench, open end, 1 & 1 1/8-inch	5120-00-187-7133	A-A-1356
418	O	Wrench, open end, 1 1/2 & 1 5/8-inch	5120-00-184-8439	A-A-1356
419	O	Wrench, open end, 1 1/4 & 1 5/16-inch	5120-00-277-2321	A-A-1356
420	O	Wrench, open end, 1 3/16 & 1 1/4-inch	5120-00-155-9367	A-A-1351
421	O	Wrench, open end, 1 3/8 & 1 7/16-inch	5120-00-277-2324	A-A-1356
422	O	Wrench, open end, 1 5/8 & 1 13/16 inch	5120-00-081-9099	ANSI B107.6

Tool or Test Equipment Reference Code	Maintenance Level	Nomenclature	National Stock Number	Tool Number
423	O	Wrench, open end, 5/8 & 11/16-inch	5120-00-277-8301	A-A-1356
424	O	Wrench, open end, 7/8 & 15/16-inch	5120-00-187-7131	A-A-1356
425	O	Wrench, pipe, strap, 12-inch	5120-00-242-3249	D170X
426	O	Wrench, pipe, strap, 18-inch	5120-00-262-8491	318M0016P001
427	O	Wrench set, spanner, 0 - 5-inch	5120-00-215-1882	STC 80117-1
428	O	Wrench, socket	5120-01-351-3464	7-263110002
428A	O	Wrench, socket		7-263110002-601
429	O	Wrench, spanner		MS8516-7
430	O	Wrench, spanner		140144
431	O	Wrench, spanner		7-363100021
432	O	Wrench, spanner, socket, rotor brake		140017
433	O	Wrench, torque, click type, 1/2-inch drive, 700 - 1600 inch-pound	5120-00-270-3121	TCI-1600
434	O	Wrench, torque, click type, 1/4-inch drive, 10 - 50 inch-pound	5120-00-902-9436	GGG-W-686
435	O	Wrench, torque, click type, 1/4-inch drive, 30 - 150 inch-pound	5120-00-542-4489	GGG-W-00686
436	O	Wrench, torque, click type, 1/4-inch drive, 30 - 200 inch-pound	5120-01-112-4843	QJ117B
437	O	Wrench, torque, click type, 1/4-inch hexagon drive, 1 - 100 inch-ounce	5120-00-943-0941	A-A-2414

Tool or Test Equipment Reference Code	Maintenance Level	Nomenclature	National Stock Number	Tool Number
438	O	Wrench, torque, click type, 3/4-inch drive, 100 - 500 foot-pound	5120-00-902-3550	GGG-W-00686
439	O	Wrench, torque, click type, 3/8-inch drive, 0 - 300 inch-pound	5120-00-776-1841	TE25A
440	O	Wrench, torque, click type, 3/8-inch drive, 15 - 75 foot-pound	5120-00-554-7292	GGG-W-00686
441	O	Wrench, torque, click type, 3/8-inch drive, 30 - 150 inch-pound	5120-00-133-4098	TCI-150RA 3/Q
442	O	Wrench, torque, click type, 3/8-inch drive, 150 - 750 inch-pound	5120-00-821-3441	GGG-W-00686
443	O	Wrench, torque, deflecting frame, 3/4-inch drive, 0 - 600 foot-pound	5120-00-996-0019	A-A-1274
444	O	Wrench, torque, dial indicator, 1/2-inch drive, 0 - 175 foot-pound	5120-00-640-6364	
444A	O	Wrench, torque, dial indicator, 1/4-inch drive, 0 - 10 inch-pound	5120-00-618-4433	A-A-1274
445	O	Wrench, torque, dial indicator, 1/4-inch drive, 0 - 30 inch-pound	5120-00-117-4832	A-A-2411
446	O	Wrench, torque, dial indicator, 1/4-inch drive, 0 - 75 inch-pound	5120-00-585-8434	A-A-2411
447	O	Wrench, torque, dial indicator, 3/8-inch drive, 0 - 600 inch-pound	5120-00-288-8865	A-A-2411

## SECTION IV. REMARKS FOR AH-64A HELICOPTER

Remarks Code	Remarks
A	Limited to airframe repairman's tool kit and portable hand tools.
B	Normally a DEPOT function. However, where facilities, skills, equipment and test capabilities are available, function can be performed at AVIM.
C	When the maintenance function cannot be accomplished at AVUM because of skills and equipment, evacuate to AVIM.
D	Repair by removing surface corrosion.
E	Repair by replacing camloc or nutplate fasteners.
F	Repair by replacing bushings or bearings.
G	Honeycomb construction repair.
H	Repair by replacing bracket.
I	Repair cracks.
J	Repair Scratches (Blending).
K	Repair by replacing ring.
L	Repair by replacing inserts.
M	Repair by resurfacing anti-skid.
N	Fiberglass repair.
O	Repair leakage.
P	Repair by stitching or patching.
Q	Repair by replacing friction lining or disk.
R	Repair by replacing or repairing tube.
S	Repair by replacing pins.
T	IAW TM 1-1520-238-23-5.
U	Repair by removing surface nicks and scratches.
V	Track and balance.
W	Troubleshoot in accordance with TM 11 or TM 9 Series Manuals.

Remarks Code	Remarks
X	Maintenance functions will be performed by Ordnance, Avionics or Electrical personnel.
Y	Repair by replacing seals, packings, or "O" rings.
Z	Obtain grease samples for analysis.
AA	When the maintenance function cannot be accomplished at AVIM because of skills and equipment, evacuate to DEPOT.
AB	Repair broken chain.
AC	Repair stuck valve.
AD	Minor repairs as prescribed by applicable technical manual.
AE	Major repairs not requiring jigs and fixtures.
AF	Major repairs requiring jigs and fixtures.
AG	Repair plug connector.
AH	Repair by replacing cable.
AI	Weight test only.
AJ	(METS) Modular Engine Test Stand.
AK	Refer to TM 55-2840-248-23.
AL	Replacements requiring jigs and fixtures.
AM	Tube assemblies coded XC will be repaired in place.
AN	ATE available at maintenance level indicated.

## APPENDIX C AIRCRAFT INVENTORY MASTER GUIDE

### SECTION I. INTRODUCTION

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#### **C.1. AIRCRAFT INVENTORY MASTER GUIDE**

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Appendix C lists those items of installed or loose equipment required by and authorized for using organizations to accomplish their primary or alternate mission. This list will serve to standardize present inventory procedures by using the inventory master guide to determine inventoriable items of installed and loose equipment. Items are listed in the sequence of their location in the aircraft.

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#### **C.2. AIRCRAFT INVENTORY**

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Aircraft inventory is subject to change as a result of authorized changes (MWOs) and additions or deletions of property for special missions requirements; the selection of items of inventory from the inventory master guide may or may not provide a complete inventory list. When it is known that the master guide does not provide a complete inventory list, research authorized changes (MWOs) and local command directives to compile an accurate and exact inventory list.

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#### **C.3. FORMS AND RECORDS**

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Refer to DA PAM 738-751 for applicable forms and records.

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#### **C.4. SECURITY**

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Aircraft inventory records are usually unclassified. Security classification of those records shall be changed in accordance with existing regulations if secret or confidential equipment is installed in the aircraft.



## SECTION II. INVENTORIAL ITEMS

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### C.5. INVENTORIAL ITEMS

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The selection of inventoriable items is without regard to the agency, governmental or contractual, furnishing the items.

a. Items listed are:

(1) Items essential to the execution of the designated mission of the aircraft, such as electronic, photographic, armament, special mission instruments, and safety and comfort.

(2) Loose equipment delivered with the aircraft and items subject to pilferage or readily converted to personal use.

(3) Modification kits which are issued or distributed to using organizations for installation and which are not immediately placed in work, shall be recorded on the affected aircraft DA Form 2408-17, Aircraft Inventory Record, and identified as loose equipment until modification is complete.

(4) Equipment required for operation in a specific environment.

b. Items excluded are:

(1) Nonaccountable items coded as expendable in the applicable stock lists.

(2) Personal issue or furnished on unit allowance or other authority.

(3) Items or components considered to be basic or integral parts of the airframe, or basic to the aircraft, such as engines, propellers, wheels, and standard instruments.

(4) Equipment publications, checklists, and aircraft forms.

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### C.6. PERIODS OF INVENTORY

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Inventoriable items shall be checked against aircraft inventory record, DA Form 2408-17, at the following periods:

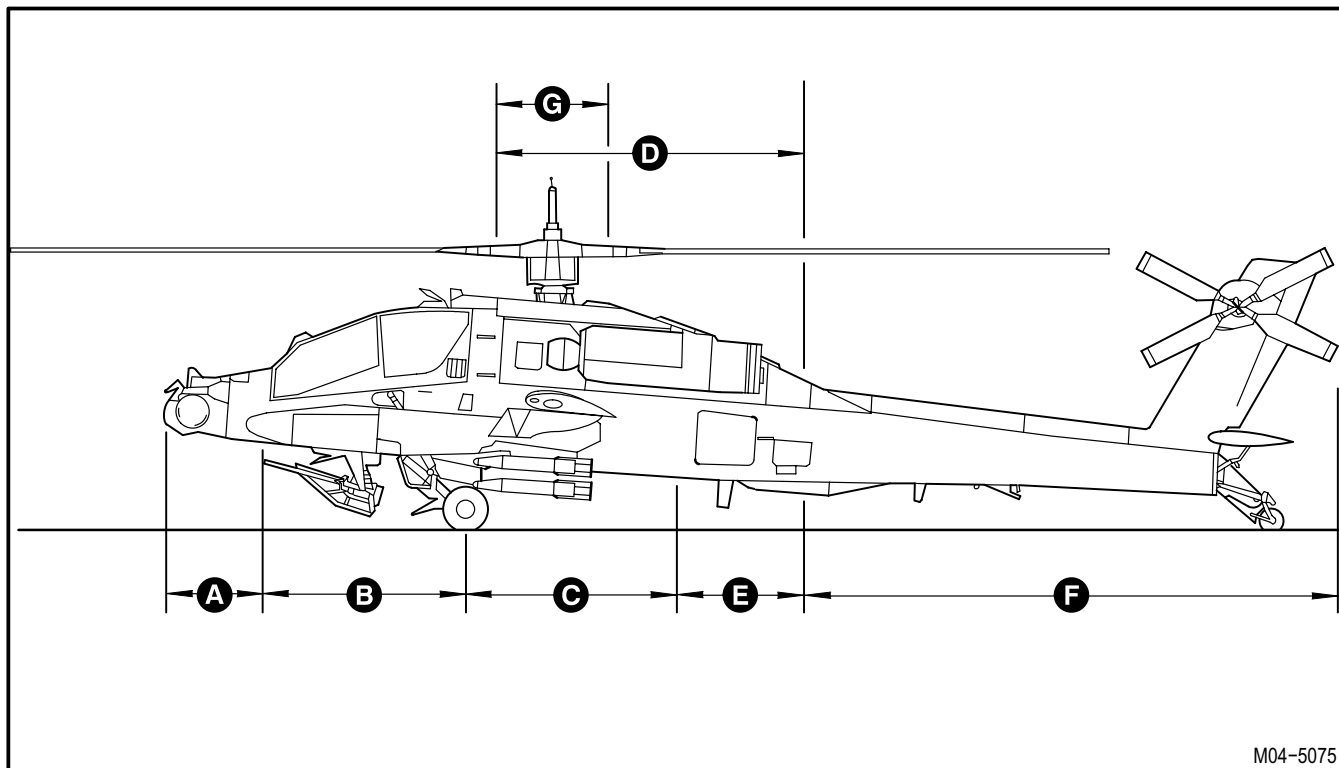
a. Upon receipt.

b. Prior to transfer of the aircraft to another organization.

c. Upon placing aircraft in storage and upon removal from storage. Aircraft need not be inventoried while in storage.

d. Twelve months after last inventory.

e. Loose equipment shipped under separate cover is inventoried when transferred by the sending activity and immediately when received by the receiving activity.



Nomenclature	F.S.	B.L.	W.L.	Part Number	NSN	Qty Rqd
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**SECTION A – NOSE ELECTRONICS**

TADS Turret .....	20.0	0.00	116.7	13076290	1270-01-188-4138	1
PNVS Turret and Fairing ..	20.0	0.00	140	13080001	1270-01-169-9415	1
Multiplex Terminal – Type 3	41.5	R13.3	135.15	4032299-958	7025-01-248-3157	1
Multiplex Terminal – Type 3	41.5	R13.3	135.15	4032299-959	7025-01-263-1815	1
Signal Data Converter – Eng. ....	41.5	L13.3	135.15	7-311C20019-3	6625-01-239-1616	1
Radar Jammer Transmit Antenna .....	115.0	0.00	189	AS-3711/ALQ-136V	5985-01-186-3343	1
Power Transformer .....	50.0	L10.5	128	7-219510089	5950-01-186-8032	1
Power Transformer .....	50.0	L10.5	128	7-219510089-3	5950-01-340-3361	1
Laser Tracker .....	30.0	0.00	125	13077510	1270-01-171-6187	1
Pin, Quick Release Jettison	50.0	0.00	144	MS17984C412	5315-00-723-2463	1
Radar Warning Receiver (ADN) .....	154.3	R29.50	117	R1838/APR-39(V)	5841-01-031-5890	1
Radar Warning Receiver (ADO) .....	154.3	R29.50	117	R2218/APR-39(V)	5841-01-204-8266	1

Nomenclature	F.S.	B.L.	W.L.	Part Number	NSN	Qty Rqd
<b>SECTION B – RIGHT FORWARD AVIONICS BAY</b>						
Gun Control Box . . . . .	80.13	R34.2	119.9	7-217222500-601	1005-01-211-4165	1
Gun Control Box . . . . .	80.13	R34.2	119.9	7-217222500-609	1005-01-250-1334	1
Gun Control Box . . . . .	80.13	R34.2	119.9	7-217222500-611	1005-01-329-4861	1
Multiplex Terminal –						
Type 1 . . . . .	64.5	R34.2	119.9	4032297-955	7025-01-218-1780	1
Multiplex Terminal – Type 1	64.5	R34.2	119.9	4032297-956	7025-01-210-7767	1
Turret Control Box . . . . .	74.1	R34.2	119.9	7-317222004-21	5930-01-239-2391	1
Turret Control Box . . . . .	74.1	R34.2	119.9	7-317222004-23	5930-01-250-3083	1
Turret Control Box . . . . .	74.1	R34.2	119.9	7-317222004-25	5930-01-261-4444	1
PNVS Electronic Unit . . . . .	77.14	34.2	110	13080274	4931-01-169-9369	1
Display Electronics –						
IHADSS . . . . .	83.0	R34.2	110	7-319430041	1270-01-183-0518	1
Sight Electronics – IHADSS	91.1	R34.5	110	7-319430031	1270-01-183-0519	1
Fire Control Computer . . . . .	92.0	R34.2	119.9	7-319200001	1430-01-211-0023	1
Fire Control Computer . . . . .	92.0	R34.2	119.9	7-319200001-31	1270-01-256-6931	1
HMMS Remote Electronic						
Unit . . . . .	111.0	R34.2	114	7-317141001	1270-01-187-5778	1
HMMS Remote Electronic						
Unit . . . . .	111.0	R34.2	114	6225646-003	1270-01-234-9784	1
HMMS Remote Electronic						
Unit . . . . .	111.0	R34.2	114	62256465-005	1270-01-259-0154	1
Battery Box						
CY-8515/ARC-201(V)						
(ADI) . . . . .	113.9	R30.8	118.3	B4041380-1	6160-01-266-7596	1
Dimmer Control Assembly						
(ADI) . . . . .	113.9	R32.9	118.3	90197098-501	6160-01-266-7596	1
BBC In Control Detector						
Unit (ADD) . . . . .	115.0	R28.33	115	7-314200011		1
Portable Fire Bottle . . . . .	154	R34.2	116	10916537	4210-00-555-8837	1
Electromagnet Relay . . . . .	97.1	R34.2	114.6	7-211B12033	5945-01-160-5639	1
Radar Warning Antenna						
(ADN) . . . . .	49.4	R25.2	113.5	AS-2892/APR-39(V)	5985-01-035-5970	1
Radar Warning Antenna						
(ADN) . . . . .	49.4	R25.2	113.5	AS-2892A/APR-39(V)	5985-01-126-2099	1
Radar Warning Antenna						
(ADO) . . . . .	49.4	R25.2	113.5	AS-3549A/APR-39(V)	5941-01-358-6775	1
GPS Power Splitter (ADD) .	207.25	R24.5	121.66	7-514200053		1
Embedded GPS-Inertial						
(ADD) . . . . .	214.5	R24.5	120.5	CN-1689(V)1/ASN		1

Nomenclature	F.S.	B.L.	W.L.	Part Number	NSN	Qty Rqd
<b>SECTION B – LEFT FORWARD AVIONICS BAY</b>						
Multiplex Terminal – Type 1	64.5	L32.2	117	4032297-955	7025-01-218-1780	1
Multiplex Terminal – Type 1	64.5	L32.2	117	4032297-956	7025-01-210-7767	1
TADS Power Supply . . . . .	74.5	L32.2	108	13074409	6130-01-170-0865	1
TADS Power Supply . . . . .	74.5	L32.2	108	13075523	6130-01-187-5812	1
TADS Power Supply . . . . .	74.5	L32.2	108	13075523-19	6130-01-268-1722	1
TADS Power Supply . . . . .	74.5	L32.2	108	13075523-29	6130-01-232-6613	1
TADS Power Supply . . . . .	74.5	L32.2	108	13075523-39	6130-01-299-6100	1
TADS Electronics Unit . . . .	85.0	L32.2	117	13076077	5988-01-187-5792	1
TADS Electronics Unit . . . .	85.0	L32.2	117	13076362-069	5988-01-232-2075	1
TADS Electronics Unit . . . .	85.0	L32.2	117	13076362-089	5988-01-250-6660	1
TADS Electronics Unit . . . .	85.0	L32.2	117	13076362-119	5988-01-260-1723	1
TADS Electronics Unit . . . .	85.0	L32.2	117	13076362-129	5988-01-298-8522	1
TADS Electronics Unit . . . .	85.0	L32.2	117	13076362-139	5988-01-334-2630	1
Symbol Generator . . . . .	83.25	L32.2	108	7-319800002-7	5820-01-172-2886	1
Laser Electronics Unit . . . . .	95.5	L32.2	117	13079400	4931-01-171-6470	1
Laser Electronics Unit . . . . .	95.5	L32.2	117	13079400-019	4931-01-232-6720	1
Radar Jammer-ALQ 136 . .	95.5	L32.2	108	7-367520000	5895-01-209-6678	1
Dimming, Multi-Channel Cntlr . . . . .	110	L32.2	117	7-311B12036-3	1680-01-226-7509	1
Dimming, Multi-Channel Cntlr . . . . .	110	L32.2	117	7-311B12036	1680-01-160-3495	1
Radar Jammer Fan & Supt	115	L32.2	108.8	7-367520003	1560-01-203-4951	1
Rounds Counter/Mag. Cntlr	120	L32.2	114	7-217231706-601	1005-01-211-3656	1
Rounds Counter/Mag. Cntlr	120	L32.2	114	7-217231706-603	1005-01-324-6826	1
Controller, External Stores .	160	L22.5	114	7-317400210-11	1005-01-239-2359	1
Bias Upload Rounds Counter . . . . .	135	L23.4	116	7-317231783	1005-01-236-0191	1
Radar Warning Antenna (ADN) . . . . .	49.4	L25.2	113	AS-2891/APR-39(V)	5985-01-026-3926	1
Radar Warning Antenna (ADN) . . . . .	49.4	L25.2	113	AS-2891A/APR-39(V)	5985-01-126-2100	1
Radar Warning Antenna (ADO) . . . . .	49.4	L25.2	113	AS-3548A/APR-39(V)	5941-01-358-6774	1

Nomenclature	F.S.	B.L.	W.L.	Part Number	NSN	Qty Rqd
<b>SECTION B – CPG COMPARTMENT</b>						
Door Key . . . . .	88	R24.5	144	7-311112121	2925-01-177-9979	1
Restraint System . . . . .	95	0.00	140	100796C	1680-01-244-5054	1
Optical Relay Tube W/Grips	61.73	0.00	135	13074259	1270-01-187-3439	1
Remote Attitude Gyro						
Indicator . . . . .	57.5	R10.0	140	7-214200028	6610-01-158-2988	1
Radio Magnetic Indicator . .	57.5	R12.0	135	127680	5826-01-183-5499	1
Pressure Altimeter . . . . .	57.5	R12.0	133	MIL-A-81851	6610-00-005-9151	1
				Type AAU-31A		
Pressure Altimeter . . . . .	57.5	R12.0	133	3252010-0101	6610-00-010-3368	1
Pressure Altimeter . . . . .	57.5	R12.0	133	10450-31327	6610-00-091-3702	1
Fire Control Panel . . . . .	57.5	L10.0	135	7-319510011	1270-01-184-9247	1
Fire Control Panel . . . . .	57.5	L10.0	135	7-319510011-5	1270-01-210-7632	1
Fire Control Panel . . . . .	57.5	L10.0	135	7-319510011-9	1270-01-233-2775	1
Fire Control Panel (ADD) . .	57.5	L10.0	135	7-319510011-11		1
Interphone Control . . . . .	57.5	R14.6	129.7	C-10414/ARC	5895-01-133-6600	1
Interphone Control . . . . .	57.5	R14.6	129.7	C-11746(V)4/ARC	5895-01-233-2919	1
Transceiver VHF-AM/FM						
(ADC) . . . . .	61.25	R14.6	128.7	RT-1354/ARC-186V	5821-01-092-4907	1
Transceiver VHF-AM/FM						
(ADD) . . . . .	66.1	R14.6	126.7	RT-1354/ARC-186V	5821-01-092-4907	1
Video Recorder Panel . . . .	61.7	L11.1	128.7	7-319510400	5836-01-183-5498	1
Computer Display, Doppler	66.1	R14.6	126.7	CP-1252/ASN-128	5841-01-328-2266	1
Computer Display, Doppler						
(ADC) . . . . .	66.1	R14.6	126.7	IP-1552A/G	5821-01-237-8098	1
Computer Display, Doppler						
(ADD) . . . . .	61.25	R14.6	128.7	IP-1552A/G	5821-01-237-8098	1
Data Entry Keyboard . . . . .	58	L11.1	129.7	7-219510034-603	7025-01-210-7710	1
Data Transfer Unit (ADD) . .	69.75	R14.66	124.7	622-9309-001		1
Computer Display, Doppler	66.1	R14.6	126.7	IP-1552/G	7025-01-237-8098	1
First Aid Kit . . . . .	60	L10.0	128	RR102	6545-00-919-6650	1
CPG Seat Cushion . . . . .	83	R1.5	135	100795	1680-01-235-5920	1
Display Adjust Panel –						
IHADSS . . . . .	98.4	R8.0	140	CG1082AB01	1270-01-211-6346	1
Display Adjust Panel –						
IHADSS . . . . .	98.4	R8.0	140	CG1082AB01	1270-01-221-0419	1
				SERIES 2		
CPG Seat . . . . .	83	R1.5	130	100800-3	1680-01-244-5054	1
CPG Seat . . . . .	83	R1.5	130	100800-5	1680-01-352-3847	1
Sensor Surveying Unit –						
IHADSS . . . . .	105	R18	151	LG1127AB01	1270-01-159-7994	2
Boresight Reticle Unit . . . .	64.7	0.00	147	JGD099AB01	1240-01-168-7598	1
Missile Control Panel . . . . .	58	L14.6	129.7	622-6151-001	1270-01-186-8957	1
Utility Light . . . . .	83	L22.5	131	MS 17245-5A	6220-00-349-9294	1

Nomenclature	F.S.	B.L.	W.L.	Part Number	NSN	Qty Rqd
<b>SECTION B – CPG COMPARTMENT – continued</b>						
Utility Light .....	83	L22.5	131	15 0007-25	6220-00-997-9074	1
Clock .....	57.5	R18	135	ABU-11A	6645-00-076-3050	1
Clock .....	57.5	R18	135	86000-1113	6645-00-415-9018	1
Clock .....	57.5	R18	135	400086	6645-00-793-5794	1
Clock .....	57.5	R18	135	22118	6645-00-814-1706	1
Helmet Display Unit .....	80.5	R14	127	BG1113AB01	1270-01-183-0518	1
Failure Processor Unit .....	80.5	R7.75	120.4	7-211E10004-5	1270-01-224-4838	1
Electronic Control .....	98.5	R12	136	11167-1	1660-01-160-3539	1
CPG Seat Armor Panel ...	88	R8.0	140	RF 30833-1	1560-01-181-9269	1
CPG Seat Armor Panel ...	88	L8.0	140	RF 30834-1	1560-01-153-2277	1
Pin, Quick Release Jettison	57.5	L16	140	MS17984C412	5315-00-723-2463	1
<b>SECTION B – PILOT COMPARTMENT</b>						
Video Display Unit .....	119.5	R1.5	155	7-311C10025	6625-01-163-7135	1
Pressure Altimeter .....	119.5	R7.8	155	MIL-A-81851 Type AAU-31A	6610-00-110-3368	1
Pressure Altimeter .....	119.5	R7.8	155	3252010-0101	6610-00-110-3368	1
Pressure Altimeter .....	119.5	R7.8	155	MIL-A-81851	6610-00-110-3368	1
Standby Attitude Gyro Indicator .....	119.5	L3.4	155	7-211C10008	6610-01-163-7061	1
Horizontal Situation Display	119.5	R1.5	150	ID-2278A/A	6605-01-155-8326	1
Interphone Control .....	119.5	R1.5	144	C-10414/ARC	5895-01-133-6600	1
Interphone Control .....	119.5	R1.5	144	C-11746(V)4/ARC	5895-01-233-2919	1
Vertical Speed Indicator ...	119.5	R6.8	150.6	7-211C10002	6610-01-165-2104	1
Radar Warning Control Panel (ADN) .....	119.5	R10.30	151	C-9326/APR-39(V)	5841-01-025-378	1
Radar Warning Control Panel (ADO) .....	119.5	R10.30	151	C-11308/APR-39A(V)	5841-01-205-0658	1
Radar Warning Display (ADN) .....	119.5	R10.30	155	IP-1150/APR-39(V)	5855-00-116-6607	1
Radar Warning Display (ADO) .....	119.5	R10.30	155	IP-1150A/APR-39(V)	5841-01-274-4939	1
Transceiver VHF-AM/FM ... (ADH) .....	130.9	R14.25	139	RT-1354/ARC-186V	5821-01-092-4907	1
Transceiver VHF/FM (ADI)	130.06	R14.25	120.2	RT-1476A/ARC-201A	5821-01-306-4654	1
Fire Control Panel .....	119.5	L14.25	147	7-319510006	1270-01-184-9246	1
Fire Control Panel .....	119.5	L14.25	147	7-319510006-3	1270-01-237-5490	1
Auto Stabilization Panel ...	119.5	L11.05	143.5	7-311D00015	1680-01-171-3871	1
Rocket Control Panel .....	121.45	L14	143.5	7-317310000-3	1005-01-220-8571	1
Rocket Control Panel .....	121.45	L14	143.5	7-317310000-5	1005-01-237-9045	1

Nomenclature	F.S.	B.L.	W.L.	Part Number	NSN	Qty Rqd
<b>SECTION B – PILOT COMPARTMENT – continued</b>						
Jammer Control Panel . . . .	119.5	R15.5	151.5	C-9576/ALQ-136	5865-01-100-0380	1
Transceiver UHF (ARC-164)	126	R14.25	139.2	RT-1167/ARC-164(V)	5821-00-138-7990	1
Voice Controller (KY-58) . . .	135.8	R14.25	139.2	KY-58	5831-01-223-7599	1
Receiver-Transmitter						
APX100 . . . . .	138.5	R14.25	139.2	RT1296/APX100V	5895-01-063-4020	1
Auto Direction Finder Cont	143.8	R14.25	139.2	C7392A/ARN89	5826-00-001-4076	1
Auto Direction Finder Cont	143.8	R14.25	139.2	C-12192/ARN-149(V)	5826-01-341-5089	1
Pilot Seat Cushion . . . . .	150	0.00	155	100795-1	1680-01-237-9404	1
First Aid Kit . . . . .	144.37	R42	155	RR102	6545-00-919-6650	1
Pilot Seat . . . . .	150	0.00	150	100800-3	1680-01-244-5054	1
Pilot Seat . . . . .	150	0.00	150	100800-5	1680-01-352-3847	1
Display Adjust Panel –						
IHADSS . . . . .	158.66	R15.36	155	CG1082AB01	1270-01-211-6346	1
Sensor Surveying Unit –						
IHADSS . . . . .	158.67	R45	171	LG1127AB01	1270-01-159-7994	2
Free Air Temperature						
Indicator . . . . .	136.5	L23.35	144	7-311C10010	6695-01-203-2047	1
Magnetic Compass . . . . .	119.5	L3.5	163	AQU-5/A	6605-00-059-2702	1
Pilot Seat Armor Panel . . . .	148.5	R10.5	157	RF 30833-1	1560-01-181-9269	1
Pilot Seat Armor Panel . . . .	148.5	L12	157	RF 30834-1	1560-01-153-2277	1
Clock . . . . .	119.5	R13.6	150	MC7545	6645-00-076-3050	1
Clock . . . . .	119.5	R13.6	150	86400-1168	6645-01-114-3607	1
Clock . . . . .	119.5	R13.6	150	86000-1113	6645-00-415-9018	1
Clock . . . . .	119.5	R13.6	150	400086	6645-00-793-5794	1
Clock . . . . .	119.5	R13.6	150	22118	6645-00-814-1706	1
Radar Altimeter . . . . .	119.5	R1.5	158	1D-1917A/APN-209V	5841-01-137-8445	1
Radar Altimeter . . . . .	119.5	R1.5	158	1D-1917C/APN-209V	5841-01-245-9093	1
Utility Light . . . . .	147.45	L23.35	152.4	MS 17245-5A	6220-00-349-9294	1
Utility Light . . . . .	147.45	L23.35	152.4	15 0007-25	6220-00-997-9074	1
Utility Light . . . . .	147.45	L23.35	152.4	S1210	6220-00-232-9977	1
Missile Control Panel . . . . .	119.5	L14.6	144	622-6150-001	1270-01-186-8956	1
Boresight Reticle Unit . . . . .	119.5	R1.5	158	JG1099AB01	1240-01-168-7598	1
Helmet Display Unit . . . . .	130.25	R14.25	134.8	BG1113AB01	1270-01-183-0518	1
Restraint System . . . . .	158	R1.5	157	100796C	1680-01-154-7117	1
Ignition Key . . . . .	135.66	L19	139	7-311112121	2925-01-177-9979	1
Aircraft Manufacturer Data						
Plate . . . . .	119.5	R13	148	7-310000013		1
Chaff Dispenser Control						
Panel . . . . .	119.5	R15.5	151	9272533	1095-01-057-4592	1
Pin, Quick Release . . . . .	119.5	L12	155	MS17984C412	5315-00-723-2463	1

Nomenclature	F.S.	B.L.	W.L.	Part Number	NSN	Qty Rqd
<b>SECTION B – 30MM GUN SYSTEM</b>						
30mm Chain Gun . . . . .	105	0.00	84.75	387-3000-615	1005-01-219-7599	1
<b>SECTION C – FUEL AND AMMO BAY</b>						
Ammunition Magazine . . . .	199.75	0.00	112	7-317236501	1005-01-207-5683	1
Carrier Drive Assembly . . .	176.5	0.00	115	7-317236502-5	1005-01-221-7602	1
<b>SECTION D – UPPER DECK</b>						
De-Ice System Controller . .	187.85	R13.8	145	7-311A10023-5	1650-01-229-1590	1
De-Ice System Controller . .	187.85	R13.8	145	7-311A10023-7	1650-01-257-1432	1
Power Supply Strobe . . . . .	167.25	L22.05	165.6	60-3782-5	6130-01-160-3520	1
Stabilator Control Unit 1 . . .	300	L10	145	7-211D10001-11	6615-01-161-2803	1
Auto. Direct. Finder Rcvr . .	306	L10	145	R1496A/ARN89	5826-01-021-3288	1
Auto. Direct. Finder Rcvr . .	306	L10	145	R-2382/ARN-149(V)	5826-01-340-0449	1
Stabilator Control Unit 2 . . .	315	L4.0	145	7-211D10001-11	6615-01-161-2803	1
Signal Data Convtr. Doppler	326	L3.87	145	CV3338/AN128	5895-01-064-1841	1
Signal Data Convtr. Doppler	326	L3.87	145	CV3699/AN-137	5895-01-099-6161	1
Radar Warn. Comparator . .	340	L10	145	CM440/APR-39(V)	5841-01-024-7739	1
Relay Box, Eng. Start . . . . .	175	0.00	164	7-311B25134-601	5945-01-253-2886	1
Winter Hydr. Gas Bottle . . .	350	R12	145	7-311810015	1650-01-209-4888	1
IR Jammer Support Assembly . . . . .	225	0.00	189.4	7-267540001-5	1560-01-203-7966	1
Upper IFF Antenna . . . . .	176	0.00	189.4	AT-741/A	5985-00-538-7464	1
Upper IFF Antenna . . . . .	176	0.00	189.4	AT-741/C	6120-01-161-1185	1
Rectifier No. 1 . . . . .	170	R20.5	157.3	9B40-15D	6120-01-245-9884	1
Rectifier No. 2 . . . . .	175	L18.5	147.5	9B40-15D	6120-01-245-9884	1
Stabilator Airspeed Transducer . . . . .	218	R22	155	7-211D10009	6695-01-165-6856	2
Stabilator Airspeed Transducer . . . . .	218	L22	155	7-211D10009-3	6695-01-356-6013	2
Laser Detecting Sensor Unit (ADP) . . . . .	230	L23	189	SU-130A/AVR-2A(V)	5865-01-346-2246	1
Laser Detecting Sensor Unit (ADP) . . . . .	230	R23	189	SU-130A/AVR-2A(V)	5865-01-346-2246	1
Hydraulic Pump Handle . . .	320	R19	157.3	236749-1	3040-01-171-3972	1



Nomenclature	F.S.	B.L.	W.L.	Part Number	NSN	Qty Rqd
<b>SECTION E – RIGHT AFT AVIONICS BAY</b>						
Communication Security	286.5	R15.5	130.8	TSEC/KY-58	5810-00-449-0154	1
KY-28 Mount	286.5	R15.5	130.8	MT3802/ARC	5810-00-937-1036	1
Chaff Control Module	286.5	R14.5	127	9311431	1095-01-057-0027	1
Air Data Processor	290	R5.75	134.2	02584-11	1270-01-238-4412	1
Kit-1A/TSEC Transponder (17493)	292	R15.5	130.85	ES-D-217493	1680-01-207-2697	1
Kit-1A[1C]/TSEC Mount	292	R15.5	130.85	MT3949A/U	5975-00-935-9582	1
Battery, N-Cad, 13Ah	300	R15.5	112	30637-001	6140-01-185-4217	1
Battery, N-Cad, 13Ah	300	R15.5	112	21881	6140-01-307-1326	1
Battery Heater Control Box	290	R22.5	120	7-367210000	6130-01-286-0607	1
Battery Heater Blanket	290	R22.5	120	7-367220000-3	1680-01-275-7923	1
DASE Computer	300	R6.5	122	7-211D00005-13	6615-01-221-3326	1
DASE Computer	300	R6.5	122	7-211D00005-15	6615-01-236-9703	1
DASE Computer	300	R6.5	122	7-211D00005-19	6615-01-275-7924	1
DASE Computer	300	R6.5	122	7-211D00005-21	6615-01-285-0339	1
DASE Computer	300	R6.5	122	7-211D00005-23	5841-01-352-0218	1
Video Recorder	305	R15.13	130.85	V1000AB-F Type 2	5836-01-212-3797	1
Radar Altimeter Transceiver	306	R15.64	112	RT-1411/ APN-209A(V)	5841-01-140-1700	1
Radar Altimeter Transceiver	306	R15.64	112	RT-1411A/ APN-209A(V)	5841-01-245-9094	1
Video Recorder Mount	308	R14.5	130.7	7-311C10039	5895-01-329-2209	1
Battery Charger	308	R12	125	7-311B11116	6130-01-186-8799	1
Battery Charger	308	R12	125	709410-1	6130-01-324-3562	1
Attitude Heading Reference Set (AN/ASN-143)	286	R12	113.8	7-314200034-13	6605-01-161-3919	1
Power Monitor	288.8	R5.75	129	7-116122089	1680-01-161-0299	1

**SECTION E – AFT STORAGE BAY/LEFT AFT AVIONICS BAY**

Main Rotor Blade Tiedown	290	L22.5	120	1680-AH64-009-1	1730-01-323-0306	4
Main Rotor Blade Tiedown Pole	290	L22.5	120	7-262110004	1730-01-183-6672	1
Pitot Tube Cover	188.3	R/L95.0	134.5	7-262120005	6610-01-189-3001	2
Canopy Cover	290	L22.5	120	7-362120008-87	1730-01-395-7300	1
Main Rotor Aperture Cover	290	L22.5	120	7-362120009-603	1730-01-396-7779	1
TADS Dayside Cover	290	L22.5	120	13075913	1270-01-199-2057	1
TADS Nightside Cover	290	L22.5	120	13075914	1270-01-199-2058	1
Boresight Window Protective Cover	290	L22.5	120	13075915	1270-01-199-2056	1

Nomenclature	F.S.	B.L.	W.L.	Part Number	NSN	Qty Rqd
<b>SECTION E – AFT STORAGE BAY/LEFT AFT AVIONICS BAY – continued</b>						
PNVS Cover . . . . .	290	L22.5	120	13080328	1270-01-199-2059	1
PNVS Cover Window . . . . .	290	L22.5	120	13080277	4540-01-328-1286	1
Cover IFF Antenna PGSE, AVUM				7-362120179-1	1730-01-396-7780	1
Aircraft Ground Covers, Eng. Nacelle . . . . .	290	L22.5	120	7-262120013	1730-01-183-4508	2
Aircraft Ground Cover, Air Speed Sensor . . . . .	290	L22.5	120	7-262120030	1730-01-183-4507	1
Protective Cover, TADS/PNVS . . . . .	290	L22.5	120	7-362120006	1730-01-211-6928	1
Aircraft Ground Cover Eng. Exhaust . . . . .	310	R/L38	164	7-362120016	1730-01-183-4501	6
Aircraft Ground Cover, NGB Protective Inlet Shield, ENCU . . . . .	214	R/L38	164	7-262120011	1730-01-183-4502	2
Engine Inlet Shield . . . . .	312	L30	164	7-262120012-9	1560-01-211-6950	1
Protective Shield, APU . . . . .	220	R/L38	164	7-262120014-601	1730-01-193-4761	2
Protective Cover, Area Weapon/Turret . . . . .	269.2	R14.14	161.3	7-362120015-11	1560-01-211-6941	1
Protective Exhaust Shield, ENCU . . . . .	88	0.00	84.75	7-262120017-57		1
Gun Muzzle Cover . . . . .	312	L30	164	7-262120018	1730-01-187-8509	1
Chaff Dispenser Cover . . . . .	57.5	0.00	95	7-362300026	1680-01-247-2431	1
Pouch ASE Storage . . . . .	500	L20	129	7-262120029	1560-01-271-6463	1
Maintenance Light with Cord . . . . .	290	L22.5	120	7-311113426		1
Avionics Bay Cover L/H . . .	290	L22.5	120	7-116122072		1
Avionics Bay Cover R/H . . .	290	L22.5	120	1680-AH64-002-1	1730-01-324-0300	1
Left Engine Cover . . . . .	290	L22.5	120	1680-AH64-002-2	1730-01-324-0299	1
Right Engine Cover . . . . .	290	L22.5	120	1680-AH64-001-1	1730-01-324-0298	1
Pouch BUCS Lock . . . . .	290	L22.5	120	1680-AH64-001-2	1730-01-324-0297	1
Pedal Lock Assembly . . . . .	290	L22.5	120	PP6431		1
Stowage Pouch-Safety Pins (4 external stores, 1 tailwheel, 1 chaff dispenser) . . . . .	290	L22.5	120	7-362120178-1	1680-01-357-4918	4
Tail Wheel Lock Pin . . . . .	290	L22.5	120	7-362110006	1560-01-187-8510	1
Tail Wheel Lock Pin . . . . .	579.5	0.00	120	MS17984-C412	5315-00-723-2463	1
Pin, Ground Safety Chaff Dispenser . . . . .	579.5	0.00	120	BLS4B12S	5315-00-904-5213	1
Pin, Quick Release Pylon . .	500	L20	129	9311511	1730-01-067-3673	1
Streamer, Warning . . . . .	290	L22.5	120	MS17984C530	5315-01-137-7191	4
	290	L22.5	120	NAS1091A30H	8345-00-995-7806	6

Nomenclature	F.S.	B.L.	W.L.	Part Number	NSN	Qty Rqd
<b>SECTION E – AFT STORAGE BAY/LEFT AFT AVIONICS BAY – continued</b>						
Pin, Quick Release For Ext Stores . . . . .	290	L22.5	120	MS17985C510	5340-01-105-7351	4
Fitting For Ext Stores . . . . .	290	L22.5	120	7-318000227	1560-01-203-7970	4
Nut For Ext Stores . . . . .	290	L22.5	120	7-318000228	1560-01-203-7971	4
Laser Detecting Set Interface unit comparator (ADP) . . . . .	290	L22.5	120	CM-493A/AVR-2A(V)	5865-01-345-1264	1
Radar Warning Digital Processor (ADP) . . . . .	290	L22.5	120	CP-1597/APR-39A(V)	5841-01-259-0807	1
<b>SECTION E – SURVIVAL KIT BAY</b>						
<b>SECTION F – AFT FUSELAGE AREA</b>						
Doppler Antenna . . . . .	315	R8.0	100	RT1193/ASN128	5841-01-063-1919	1
Doppler Antenna . . . . .	315	R8.0	100	RT1193A/ASN137	5841-01-318-0654	1
VHF AM/FM Antenna . . . . .	550	0.00	151.5	AS-4278/ARC	5985-01-370-4757	1
Antenna, ADF . . . . .	392	R8.5	100	AS3833/ARN-149	5985-01-217-5881	1
Loop Antenna, ADF . . . . .	365	R3.5	108	AS2108A/ARN89	5826-00-001-4077	1
Impedance Amplifier . . . . .	355	R8.5	112	AM4859/ARN89	5826-00-883-1621	1
Impedance Amplifier . . . . .	355	R8.5	112	AM4859A/ARN89	5826-01-001-4074	1
Impedance Amplifier . . . . .	355	R8.5	112	AM4859A/ARN89	5826-01-135-2140	1
Laser Detecting Sensor Unit (ADP) . . . . .	383	L20	124	SU-130A/AVR-2A(V)	5865-01-346-2246	1
Laser Detecting Sensor Unit (ADP) . . . . .	383	R20	124	SU-130A/AVR-2A(V)	5865-01-346-2246	1
VHF AM/FM Antenna No. 2	563	R1.5	232	7-313200031	5985-01-196-4785	1
Kit/Chaff Dispenser . . . . .	496.2	L17.2	121.9	9311434	1095-01-065-9028	1
VHF AM/FM Antenna No. 1	391.8	R2.25	111.6	7-311122630	1560-01-176-0028	1
Radar Alt Antenna . . . . .	345	R12.5	100	AS-2595/APN194(V)	5985-00-181-0330	2
Radar Warning Antenna (ADN) . . . . .	547	R3.0	242.2	AS-2891/APR-39(V)	5985-01-026-3926	1
Radar Warning Antenna (ADN) . . . . .	547	R3.0	242.2	AS-2891A/APR-39(V)	5985-01-126-2100	1
Radar Warning Antenna (ADN) . . . . .	547	L3.0	242.2	AS-2892/APR-39(V)	5985-01-035-5970	1
Radar Warning Antenna (ADN) . . . . .	547	R3.0	242.2	AS-2892A/APR-39(V)	5985-01-126-2099	1
Radar Warning Antenna (ADO) . . . . .	547	R3.0	242.2	AS-3548A/APR-39(V)	5841-01-358-6774	1

Nomenclature	F.S.	B.L.	W.L.	Part Number	NSN	Qty Rqd
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**SECTION F – AFT FUSELAGE AREA – continued**

Radar Warning Antenna (ADO) .....	547	L3.0	242.2	AS-3549A/APR-39(V)	5841-01-358-6775	1
Lower IFF UHF Antenna ..	472.2	L2.25	112	7-313200030	5985-01-196-4784	1
Radar Warning Blade Antenna .....	426	0.00	104	AS-2890/APR-39(V)	5985-01-026-3927	1
Radar Warning Blade Antenna .....	426	0.00	104	AS-2890/APR-39(V)	5985-01-310-3293	1
Alarm Control .....	543	R10	120	7-211E10002	6340-01-178-0068	2
Alarm Control .....	543	R10	120	7-211E10002-3	6340-01-352-0080	2
Radar Warning Receiver ..	572	0.00	232.2	R1838/APR-39(V)	5841-01-031-5890	1
EGI Antenna (ADD) .....	582.59	L0.18	232.26	7-514200052		1

**SECTION G – MAIN ROTOR HEAD**

Omnidirectional Airspeed Sensor .....	299.75	0.00	256.06	02585	1270-01-197-8017	1
Omnidirectional Airspeed Sensor .....	299.75	0.00	256.06	02585-3	1270-01-211-5639	1



## APPENDIX D ILLUSTRATED FIELD MANUFACTURE ITEMS LIST

### SECTION I. INTRODUCTION

- a. This appendix contains complete instructions for manufacturing parts in the field.
- b. Section I contains the field manufacture items part number index. Section II contains the field manufacture parts that are listed in tables. Section III contains the field manufacture parts that are shown in an illustration or figure. Section IV contains the field manufacture tools.
- c. Field manufactured parts are listed in TM 1-1520-238-23P. The parts have an MO or MF source code. The source code is the first two positions of the source maintenance and recoverability (SMR) code. Refer to TM 1-1520-238-23P for more information.
- d. The part number index lists all items in alpha-numerical order. Each line contains the item part number, nomenclature, and figure or table that describes the item. The applicable table or figure gives the information needed to manufacture the part or tool.
- e. Unless otherwise noted:
  - (1) All measurements are in inches.
  - (2) Angular measurements are  $\pm 1/2$  degree.
  - (3) Three place dimensions are  $\pm 0.010$  INCH.
  - (4) Two place dimensions are  $\pm 0.030$  INCH.

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## SECTION II. AVUM AND AVIM LOCALLY MANUFACTURED ITEMS

**Table D-1. Pad PN AM2881**

Dash number	Thickness	Notes
-3 &-5	0.25	1, 2, 3

**NOTES:**

1. All dimensions in inches
2. Make from rubber sheet, PN MIL-R-6855, NSN 9320-00-241-9750
3. Cut to size

**Table D-2. Seal PN HS162**

Dash number	Thickness	Length	Notes
-0304	0.062	3.125	1, 2, 3
-0424	0.062	4.750	1, 2, 3

**NOTES:**

1. All dimensions in inches
2. Make from synthetic rubber-weather-resistant-chloroprene, AMS3240 TY35-45, NSN 9320-00-202-1926
3. Cut to size

**Table D-3. Seal PN HS2018**

Dash number	Thickness	Width	Length	Notes
-1322	0.062	0.438	13.22	1, 2
-1800	0.062	0.438	18.00	1, 2

**NOTES:**

1. All dimensions in inches
2. Make from low-temp resistant synthetic rubber, NSN 5330-01-173-5839

**Table D-4. Seal PN HS4028**

Dash number	Thickness	Width	Length	Notes
-2724	0.062	0.50	27.75	1, 2
-5000	0.062	0.50	50.00	1, 2

**NOTES:**

1. All dimensions in inches
2. Make from rubber, synthetic, NSN 9390-00-641-3368

**Table D-5. Rubber Strip PN HS5215B027**

Dash number	Thickness	Width	Length	Notes
-0360	0.125	0.80	36.00	1, 2

**NOTES:**

1. All dimensions in inches
2. Make from extruded strip, AMS 3195, NSN 9320-00-069-5175

**Table D-6. Rubber Strip PN HS5215C118, PN HS5215E103**

Part number	Thickness	Width	Length	Notes
HS5215E103	0.030	1.00	Cut to length	1, 2
C118-1000	0.031	0.75	Cut to length	1, 3

**NOTES:**

1. All dimensions in inches
2. Make from extruded strip, PN ZZ-R-765, CL2A, GR50, NSN 9320-01-150-5531
3. Make from extruded strip, MIL-L-46852, TY1, NSN 9320-01-190-5531

**Table D-7. Flexible Tubing PN HS5268**

Dash number	Size	I.D.	O.D.	Notes
-2001	9/32	0.281	0.395	1, 2
-2004	1/2	0.500	0.630	1, 3

**NOTES:**

1. All dimensions in inches
2. Make from modified polyvinylidene fluoride composition; 2001 NSN 4720-00-117-0002
3. Make from modified polyvinylidene fluoride composition; 2004 NSN 9330-01-189-0116

**Table D-8. Seal PN HS5300**

Dash number	Thickness	Width	Length	Notes
-1-0410	0.062	0.250	41.00	1, 2

**NOTES:**

1. All dimensions in inches
2. Make from chloroprene per MIL-R-6855, CL2, TYB, GR40, NSN 5330-01-370-0092

**Table D-9. Extrusion PN HS5318**

Dash number	Thickness	Width	Length	Notes
-2216	0.375	0.750	22.50	1, 2,3

**NOTES:**

1. All dimensions in inches
2. Make from extrusion, synthetic rubber-chloroprene, AMS3240, NSN 9390-00-810-5344
3. Dash number indicates length in inches and 32nds

**Table D-10. EMI Gasket PN HS5550**

Dash number	Thickness	Width	Length	Notes
-10-0620	0.062	0.750	62.00	1, 2

**NOTES:**

1. All dimensions in inches
2. Make from fluorosilicone elastomer, silver plated per MIL-G-83528, TY D, NSN 5999-01-283-6899

**Table D-11. EMI Gasket PN HS5551**

Dash number	Thickness	Width	Length	Notes
-02-0800	0.280	0.890	80.00	1, 2

**NOTES:**

1. All dimensions in inches
2. Make from fluorosilicone elastomer, silver plated per MIL-G-83528, TY D



**Table D-12. EMI Gasket PN HS5552**

Dash number	Thickness	Width	Length	Notes
-02-380	0.090	0.600	38.00	1, 2
-03-375	0.090	0.900	37.50	1, 2
-03-540	0.090	0.900	54.00	1, 2

**NOTES:**

1. All dimensions in inches
2. Make from extruded open angle gasket, fluorosilicone elastomer, silver plated per MIL-G-83528, TY D, NSN 5999-01-372-4064

**Table D-13. Conductive Adhesive Tape PN HS5553**

Dash number	Thickness	Width	Length	Notes
-05-0025	0.0035	0.50	2.50	1, 2
-05-0030	0.0035	0.50	3.00	1, 2
-05-0034	0.0035	0.50	3.40	1, 2
-05-0065	0.0035	0.50	6.50	1, 2
-05-0104	0.0035	0.50	10.40	1, 2
-05-0110	0.0035	0.50	11.00	1, 2
-05-0138	0.0035	0.50	13.80	1, 2
-05-0180	0.0035	0.50	18.00	1, 2
-05-0240	0.0035	0.50	24.00	1, 2
-05-0340	0.0035	0.50	34.00	1, 2
-05-0375	0.0035	0.50	37.50	1, 2
-05-0472	0.0035	0.50	47.20	1, 2
-10-0012	0.0035	1.00	1.20	1, 2

**NOTES:**

1. All dimensions in inches
2. Make from conductive adhesive tape, NSN 8135-01-068-7040

**Table D-13A. EMI Gasket PN M83528/010B001**

Thickness	Width	Length	Notes
0.100	0.100	28.00	1, 2

**NOTES:**

1. All dimensions in inches
2. Make from extruded channel gasket, silicone elastomer, silver plated per MIL-G-83528, TY B

**Table D-14. Silver Coated EMI Tape PN HS5620**

Dash number	Thickness	Width	Length	Notes
-05-0045	0.010	0.50	4.50	1, 2
-05-0190	0.010	0.50	19.00	1, 2
-05-0210	0.010	0.50	21.00	1, 2
-05-0250	0.010	0.50	25.00	1, 2
-05-0442	0.010	0.50	44.20	1, 2
-05-3500	0.010	0.50	350.00	1, 2
-10-0045	0.010	1.00	4.50	1, 3
-10-0130	0.010	1.00	13.00	1, 3
-10-1000	0.010	1.00	100.00	1, 3

**NOTES:**

1. All dimensions in inches
2. Make from EMI Tape P/N HS 5620-05-6480 NSN 5999-01-342-8403
3. Make from EMI Tape P/N HS 5620-10-6480 NSN 5999-01-343-0871

**Table D-15. Die Cut Laminated Formed EMI Tape PN HS5621**

Thickness	Width	Length	Notes
0.010	1.00	6.00	1, 2

**NOTES:**

1. All dimensions in inches
2. Make from EMI Tape P/N HS 5621 NSN 5999-01-343-0871

**Table D-16. Butt Hinge PN MS20001**

Dash number	Pin Diameter	Width	Length	Notes
-3-500	0.090	1.250	5.00	1, 2, 3, 4
-4-838	0.090	1.500	8.38	1, 2, 3, 5
-C3-500	0.090	1.250	5.00	1, 2, 3, 4
-PH4-400	0.090	1.500	4.00	1, 2, 3, 6
-PH5-400	0.090	1.750	4.00	1, 2, 3, 7
-P5-0248	0.090	1.750	2.48	1, 2, 3, 8
-P5-400	0.090	1.750	4.00	1, 2, 3, 8

**NOTES:**

1. All dimensions in inches
2. "A" for 7075-T73511 AL-ALY hinge; Omission of "A" will indicate AL-ALY 2024-T3511 hinge
3. P = anodized finish, C = chemical surface treatment, H = half hinge
4. Make from hinge material NSN 5340-00-664-8140
5. Make from hinge material NSN 5340-00-664-8141
6. Make from hinge material NSN 5340-00-949-8274
7. Make from hinge material NSN 5340-00-582-3721
8. Make from hinge material NSN 5340-00-550-5036

**Table D-17. Hinge Pin PN MS20253**

Dash number	Diameter	Length	Notes
-P2-0256	0.089	2.56	1, 2, 7
-P2-0525	0.089	5.25	1, 3, 7
-P2-4000	0.089	40.00	1, 4, 7
-P2-4500	0.089	45.00	1, 5, 7
-P5-4167	0.129	41.67	1, 6, 7

**NOTES:**

1. All dimensions in inches
2. Make from straight steel pin, NSN 5315-01-043-6029
3. Make from straight steel pin, NSN 5315-00-259-9328
4. Make from straight steel pin, NSN 5340-00-329-9649
5. Make from straight steel pin, NSN 5340-01-256-6442
6. Make from straight steel pin, NSN 5340-00-177-4128
7. "P" indicates cadmium plated

**Table D-18. Continuous Hinge PN MS20257**

Dash number	Pin Diameter	Width	Length	Notes
P3-450	0.090	1.250	4.50	1, 2, 4
C4-350	0.090	1.500	3.50	1, 3, 4
P4-1056	0.090	1.500	10.56	1, 2, 4
P4-1425	0.090	1.500	14.25	1, 2, 4
P4-2500	0.090	1.500	25.00	1, 2, 4
P4-2650	0.090	1.500	26.50	1, 2, 4
P4-3250	0.090	1.500	32.50	1, 2, 4

**NOTES:**

1. All dimensions in inches
2. Make from anodized AL-ALY, MIL-A-8625, TY2, NSN 5340-00-051-9133
3. Make from unanodized corrosion resistant steel NSN 5340-00-173-8177
4. Cut to length

**Table D-19. Grommet PN MS21266**

Dash number	Sheet Thickness	Notes
-1N	0.015-0.052	1, 2, 5
-1T	0.015-0.052	1, 3, 5
-2N	0.052-0.085	1, 4, 5

**NOTES:**

1. All dimensions in inches
2. Make from nylon plastic edging material, MIL-M-20693, TY1, NSN 5325-00-220-5576
3. Make from polytetrafluoroethylene (TFE) edging material, L-P-403, TY1, NSN 5325-00-714-3261
4. Make from nylon plastic edging material, MIL-M-20693, TY1, NSN 5325-00-074-3301
5. Cut to size

**Table D-20. Seal PN ZZ-R-765**

Dash number	Thickness	Length	Notes
-7	0.062	Cut to size	1, 2
-9	0.062	Cut to size	1, 2

**NOTES:**

1. All dimensions in inches
2. Make from silicone rubber sheet, PN ZZ-R-765, CL2, GR50, NSN 9320-00-202-1322

**Table D-20A. Hose PN 2203011**

Dash number	Inner Diameter	Length	Notes
-20	0.25	Cut to size	1, 2
-21	0.25	Cut to size	1, 2
-22	0.25	Cut to size	1, 2

**NOTES:**

1. All dimensions in inches
2. Make from non metallic hose, PN 399-013-9001, NSN 4720-01-233-0776

**Table D-21. Seal PN 7-111210133**

Dash number	Thickness	Width	Length	Notes
-13	0.032	7.00	7.00	1, 2
-37	0.125	7.00	7.00	1, 2

**NOTES:**

1. All dimensions in inches
2. Make from rubber synthetic sheet, MIL-R-6855, CL2, GR40, NSN 9320-00-057-9820

**Table D-22. Shim PN 7-111210226**

Dash number	Thickness	Width	Length	Notes
-10	0.050	1.80	5.70	1, 2
-23	0.050	0.070	3.30	1, 2
-25	0.050	0.070	5.50	1, 2
-27	0.050	1.80	5.70	1, 2
-35	Peel as required	2.53	5.55	1, 3, 4

**NOTES:**

1. All dimensions in inches
2. Make from AL ALY sheet 2024-T3, NSN 9535-00-236-7000
3. Make from AL ALY laminated shim stock, NSN 9535-01-064-7264
4. Shim thickness to maintain a gap of less than 0.015 between 7-111201226-5, 7-111213226-6, and 7-311113158, shim thickness not to exceed 0.032

**Table D-23. Seal PN 7-211A21231**

Dash number	Thickness	Width	Length	Notes
-5	0.031	0.50	6.50	1, 2, 3

**NOTES:**

1. All dimensions in inches
2. Make from silicon rubber PN ZZ-R-765, CL2B, GR50, NSN 9320-00-061-1976
3. Bond seal to duct using TY1, CL1 NSN 1680-01-196-8355

**Table D-24. Tube PN 7-211111201**

Dash number	Wall Thickness	Diameter	Length	Notes
-3	0.060	0.38	25.00	1, 2

**NOTES:**

1. All dimensions in inches
2. Make from chloroprene rubber tubing, AMS3208, TY 45-55 NSN 9330-01-355-8056

**Table D-25. Shim PN 7-211112088**

Dash number	Thickness	Width	Length	Notes
-11	0.125	0.69	1.57	1, 2, 3
-23	0.125	0.69	1.30	1, 2, 3

**NOTES:**

1. All dimensions in inches
2. Make from AL ALY shim laminated,, MIL-S-22499, COMP1, TY2, CL1, NSN 9535-00-811-1867
3. Remove laminates as required to satisfy requirements of datum

**Table D-26. Deleted**

**Table D-27. Seal PN 7-211123612**

Dash number	Thickness	Width	Length	Notes
-7	0.12	0.38	65.00	1, 2

**NOTES:**

1. All dimensions in inches
2. Make from rubber chloroprene sponge, AMS3197, NSN 9320-01-004-6189

**Table D-28. Hook Tape PN 7-211653005**

Dash number	Width	Length	Notes
-39	1.00	5.00	1, 2

**NOTES:**

1. All dimensions in inches
2. Make from hook fastener tape, NSN 8315-00-935-6761

**Table D-29. Seal PN 7-211654002**

Dash number	Thickness	Width	Length	Notes
-23	0.062	0.075	6.00	1, 2
-25	0.13	2.00	6.00	1, 3
-27	0.062	0.075	6.00	1, 2
-37	0.13	1.10	6.00	1, 3

**NOTES:**

1. All dimensions in inches
2. Make from elastomer extrusion, MIL-R-83248, TY2, CL1, NSN 5330-01-241-2794
3. Make from silicon rubber, AMS3195-MR13, NSN 9320-00-069-5175

**Table D-30. Seal/Strap/Grommet PN 7-211654005**

Dash number	Width	Length	Notes
-17	0.062	1.50	1, 2
-67	1.00	4.50	1, 3
-69	1.00	5.00	1, 3
-83	0.062	4.25	1, 2
-87	0.062	4.00	1, 4

**NOTES:**

1. All dimensions in inches
2. Seal – Make from elastomer extrusion, MIL-R-83248, TY2, CL1, P/N HS4332-2B-1006 NSN 5330-01-195-1843
3. Strap – Make from hook fastener tape, NSN 8315-00-935-6761
4. Grommet – Make from grommet material, MS21266-2N, NSN 5325-00-074-3301

**Table D-31. Pad PN 7-217222588**

Part number	Thickness	Width	Length	Notes
7-217222588	0.50	0.35	4.00	1, 2

**NOTES:**

1. All dimensions in inches
2. Make from extruded ethylene propylene terpolymer, NSN 6810-01-188-4522

**Table D-32. Pad/Bumper Bar PN 7-262110028**

Dash number	Thickness	Width	Length	Notes
-65	0.250	2.70	14.00	1, 2
-67	0.125	1.50	13.00	1, 3
-69	0.125	1.50	3.30	1, 3
-71	0.125	1.50	7.80	1, 3
-73	0.125	1.50	15.00	1, 3

**NOTES:**

1. All dimensions in inches
2. Pad – Make from silicone rubber, PN ZZ-R-765, CL2B, GR40, NSN 9320-00-143-8189
3. Bumper Bar – Make from silicone rubber, NSN 9320-00-069-5175



**Table D-33. Pad PN 7-262110030**

Dash number	Thickness	Width	Length	Notes
-19	0.125	7.50	7.50	1, 2

**NOTES:**

1. All dimensions in inches
2. Make from silicone rubber NSN 9320-00-069-5175

**Table D-34. Pad PN 7-262110033**

Dash number	Thickness	Width	Length	Notes
-23	0.125	4.50	4.50	1, 2

**NOTES:**

1. All dimensions in inches
2. Make from silicone rubber NSN 9320-00-069-5175

**Table D-35. Gasket PN 7-262110045**

Dash number	Thickness	Diameter	Notes
-9	0.062	5.00	1, 2, 3
-13	0.062	5.00	1, 2, 3

**NOTES:**

1. All dimensions in inches
2. Make from synthetic rubber, MIL-R-6855, CL2, TYB, GR40, NSN 9320-00-241-9741
3. Bond to plate assembly using adhesive NSN 8040-00-145-0019

**Table D-36. Gasket PN 7-262110056**

Dash number	Thickness	Diameter	Notes
-9	0.062	5.00	1, 2, 3

**NOTES:**

1. All dimensions in inches
2. Make from synthetic rubber, MIL-R-6855, CL2, TYB, GR40, NSN 9320-00-241-9741
3. Bond to plate assembly using adhesive NSN 8040-00-145-0019

**Table D-37. Gasket PN 7-262111058**

Dash number	Thickness	Width	Length	Notes
-9	0.062	3.00	3.00	1, 2, 3

**NOTES:**

1. All dimensions in inches
2. Make from synthetic rubber, MIL-R-6855, CL2, TYB, GR40, NSN 9320-00-241-9741
3. Bond to plate assembly using adhesive NSN 8040-00-145-0019

**Table D-38. Hook Tape PN 7-262110061**

Dash number	Width	Length	Notes
-9	1.00	3.12	1, 2, 3
-11	1.00	3.12	1, 2, 3
-13	1.00	3.37	1, 2, 3
-15	1.00	2.37	1, 2, 3

**NOTES:**

1. All dimensions in inches
2. Make from hook fastener tape, MIL-F-21840, TY2, NSN 8315-00-935-6761
3. Thickness as received

**Table D-39. Pad PN 7-262110062**

Dash number	Thickness	Width	Length	Notes
-27	0.125	6.60	6.60	1, 2, 3

**NOTES:**

1. All dimensions in inches
2. Make from silicone rubber, NSN 9520-00-069-5175
3. Bond pad to AL-ALY using adhesive NSN 8040-00-165-8614

**Table D-40. Gasket PN 7-262120004**

Dash number	Thickness	Width	Length	Notes
-13	0.062	12.50	18.50	1, 2, 3

**NOTES:**

1. All dimensions in inches
2. Make from synthetic rubber, MIL-R-6855, CL2, TYB, GR40, NSN 9320-00-241-9741
3. Bond gasket to plate using adhesive NSN 8040-00-145-0019

**Table D-41. Tape PN 7-262120017**

Dash number	Width	Length	Notes
-37	2.00	4.00	1, 3
-47	2.00	4.00	1, 2
-49	2.00	6.00	1, 2
-51	2.00	6.00	1, 3

**NOTES:**

1. All dimensions in inches
2. Make from pile tape, black, MIL-F-21840,
3. Make from hook fastener tape, black, MIL-F-21840, NSN 8315-01-066-5856

**Table D-42. Gasket PN 7-262120020**

Dash number	Thickness	Width	Length	Notes
-7	0.062	8.50	12.50	1, 2, 3

**NOTES:**

1. All dimensions in inches
2. Make from synthetic rubber, MIL-R-6855, CL2, TYB, GR40, NSN 9320-00-241-9741
3. Bond gasket to plate using adhesive NSN 8040-00-145-0019

**Table D-43. Wire Rope PN 7-262120027**

Dash number	Diameter	Length	Notes
-5	0.062	18.00	1, 2

**NOTES:**

1. All dimensions in inches
2. Make from cres, nylon coated, MIL-W-83470, TY2, COMP B, NSN 4010-00-575-6233

**Table D-44. Wire Cable PN 7-267110084**

Dash number	Diameter	Length	Notes
-5	0.062	6.00	1, 2

**NOTES:**

1. All dimensions in inches
2. Make from MIL-W-83420, TY2, COMP B, NSN 4010-01-044-3175

**Table D-45. Wire Cable PN 7-267300002**

Dash number	Diameter	Length	Notes
-3	0.062	9.00	1, 2

**NOTES:**

1. All dimensions in inches
2. Make from cres, nylon coated, MIL-W-83470, TY2, COMP B, NSN 4010-00-575-6233. Requires MS51844-62 sleeve, NSN 4030-01-088-2952, to attach cable

**Table D-46. Pad PN 7-267310017**

Dash number	Thickness	Width	Length	Notes
-19	0.25	2.20	9.50	1, 2, 4
-31	0.31	2.20	4.50	1, 3, 4

**NOTES:**

1. All dimensions in inches
2. Make from rubber sheet, PN ZZ-R-765, CL1B, GR40, NSN 9320-00-143-8189
3. Make from rubber sheet, PN ZZ-R-765, CL1A, GR70, NSN 9320-00-143-6975
4. Bond pads using adhesive TY1, CL2, NSN 8040-00-938-1535

**Table D-47. Shim/Seal PN 7-267521007**

Dash number	Thickness	Width	Length	Notes
-19	0.025	0.50	0.75	1, 2
-21	0.031	1.0	10.0	1, 3, 5
-23	0.063	1.0	12.0	1, 4, 5

**NOTES:**

1. All dimensions in inches
2. Make from AL ALY sheet 2024-T3, NSN 9535-00-167-2174
3. Make from silicone rubber, PN ZZ-R-765, NSN 9320-00-061-1976
4. Make from silicone rubber, PN ZZ-R-765, CL1, GR40, NSN 9320-00-241-9741
5. Bond seals using adhesive NSN 8040-00-833-9653

**Table D-48. Seal PN 7-311A21103**

Dash number	Thickness	Width	Length	Notes
-7	0.031	0.50	10.00	1, 2, 3
-9	0.031	0.50	13.00	1, 2, 3

**NOTES:**

1. All dimensions in inches
2. Make from silicone rubber sheet, PN ZZ-R-765, CL2B, GR50, NSN 9320-00-061-1976
3. Bond to cover using adhesive NSN 8040-00-181-7111

**Table D-49. Seal PN 7-311A21106**

Dash number	Thickness	Width	Length	Notes
-15	0.031	0.50	10.00	1, 2, 3
-17	0.031	0.50	13.00	1, 2, 3

**NOTES:**

1. All dimensions in inches
2. Make from silicone rubber sheet, PN ZZ-R-765, CL2B, GR40, NSN 9320-00-061-1976
3. Bond to cover using adhesive NSN 8040-00-181-7111

**Table D-50. Rubber Seal PN 7-311A21110**

Dash number	Thickness	Width	Length	Notes
-9	0.031	0.50	8.00	1, 2, 3
-11	0.031	0.50	10.00	1, 2, 3

**NOTES:**

1. All dimensions in inches
2. Make from silicone rubber sheet, PN ZZ-R-765, CL2B, GR50, NSN 9320-00-061-1976
3. Bond seal to duct using adhesive NSN 5970-01-223-8946

**Table D-51. Rubber Seal PN 7-311A21203**

Dash number	Thickness	Width	Length	Notes
-7	0.031	0.50	7.00	1, 2, 3
-9	0.031	0.50	8.00	1, 2, 3

**NOTES:**

1. All dimensions in inches
2. Make from silicone rubber sheet, PN ZZ-R-765, CL2B, GR50, NSN 9320-00-061-1976
3. Bond using RTV silicone compound NSN 8040-01-189-1284

**Table D-52. Rubber Seal PN 7-311A21223**

Dash number	Thickness	Width	Length	Notes
-7	0.031	0.50	4.87	1, 2, 3
-9	0.031	0.50	8.13	1, 2, 3
-11	0.031	0.50	9.75	1, 2, 3

**NOTES:**

1. All dimensions in inches
2. Make from silicone rubber sheet, PN ZZ-R-765, CL2B, GR50, NSN 9320-00-061-1976
3. Bond using RTV silicone compound NSN 8040-01-189-1284

**Table D-53. Rubber Seal PN 7-311A21240**

Dash number	Thickness	Width	Length	Notes
-5	0.031	0.50	9.60	1, 2, 3
-9	0.031	0.50	5.00	1, 2, 3

**NOTES:**

1. All dimensions in inches
2. Make from silicone rubber sheet, PN ZZ-R-765, CL2B, GR50, NSN 9320-00-061-1976
3. Bond using RTV silicone compound NSN 8040-01-189-1284

**Table D-54. Rubber Seal PN 7-311A21258**

Dash number	Thickness	Width	Length	Notes
-7	0.031	0.50	9.75	1, 2, 3

**NOTES:**

1. All dimensions in inches
2. Make from silicone rubber sheet, PN ZZ-R-765, CL2B, GR50, NSN 9320-00-061-1976
3. Bond using RTV silicone compound NSN 8040-01-189-1284

**Table D-55. Rubber Seal PN 7-311A21261**

Dash number	Thickness	Width	Length	Notes
-5	0.031	0.50	10.00	1, 2, 3

**NOTES:**

1. All dimensions in inches
2. Make from silicone rubber sheet, PN ZZ-R-765, CL2B, GR50, NSN 9320-00-061-1976
3. Bond using RTV silicone compound NSN 8040-01-189-1284

**Table D-56. Rubber Seal PN 7-311A21262**

Dash number	Thickness	Width	Length	Notes
-5	0.031	0.50	6.50	1, 2, 3
-7	0.031	0.50	9.00	1, 2, 3

**NOTES:**

1. All dimensions in inches
2. Make from silicone rubber sheet, PN ZZ-R-765, CL2B, GR50, NSN 9320-00-061-1976
3. Bond using RTV silicone compound NSN 8040-01-189-1284

**Table D-57. Rubber Seal PN 7-311A21263**

Dash number	Thickness	Width	Length	Notes
-5	0.031	0.50	8.00	1, 2, 3
-7	0.031	0.50	6.50	1, 2, 3

**NOTES:**

1. All dimensions in inches
2. Make from silicone rubber sheet, PN ZZ-R-765, CL2B, GR50, NSN 9320-00-061-1976
3. Bond using RTV silicone compound NSN 8040-01-189-1284

**Table D-58. Rubber Seal PN 7-311A21264**

Dash number	Thickness	Width	Length	Notes
-5	0.031	0.50	8.50	1, 2, 3
-7	0.031	0.50	9.50	1, 2, 3

**NOTES:**

1. All dimensions in inches
2. Make from silicone rubber sheet, PN ZZ-R-765, CL2B, GR50, NSN 9320-00-061-1976
3. Bond using RTV silicone compound NSN 8040-01-189-1284

**Table D-59. Rubber Seal PN 7-311A21265**

Dash number	Thickness	Width	Length	Notes
-5	0.031	0.50	8.00	1, 2, 3

**NOTES:**

1. All dimensions in inches
2. Make from silicone rubber sheet, PN ZZ-R-765, CL2B, GR50, NSN 9320-00-061-1976
3. Bond using RTV silicone compound NSN 8040-01-189-1284

**Table D-60. Rubber Seal PN 7-311A21266**

Dash number	Thickness	Width	Length	Notes
-5	0.031	0.50	5.00	1, 2, 3

**NOTES:**

1. All dimensions in inches
2. Make from silicone rubber sheet, PN ZZ-R-765, CL2B, GR50, NSN 9320-00-061-1976
3. Bond using RTV silicone compound NSN 8040-01-189-1284

**Table D-61. Rubber Seal PN 7-311A21267**

Dash number	Thickness	Width	Length	Notes
-5	0.031	0.50	8.00	1, 2, 3

**NOTES:**

1. All dimensions in inches
2. Make from silicone rubber sheet, PN ZZ-R-765, CL2B, GR50, NSN 9320-00-061-1976
3. Bond using RTV silicone compound NSN 8040-01-189-1284



**Table D-62. Rubber Seal PN 7-311A21268**

Dash number	Thickness	Width	Length	Notes
-5	0.031	0.50	6.50	1, 2, 3

**NOTES:**

1. All dimensions in inches
2. Make from silicone rubber sheet, PN ZZ-R-765, CL2B, GR50, NSN 9320-00-061-1976
3. Bond using RTV silicone compound NSN 8040-01-189-1284

**Table D-63. Rubber Seal PN 7-311A21269**

Dash number	Thickness	Width	Length	Notes
-5	0.031	0.50	5.00	1, 2, 3
-7	0.031	0.50	8.00	1, 2, 3

**NOTES:**

1. All dimensions in inches
2. Make from silicone rubber sheet, PN ZZ-R-765, CL2B, GR50, NSN 9320-00-061-1976
3. Bond using RTV silicone compound NSN 8040-01-189-1284

**Table D-64. Rubber Seal PN 7-311A21270**

Dash number	Thickness	Width	Length	Notes
-5	0.031	0.50	8.00	1, 2, 3
-7	0.031	0.50	6.50	1, 2, 3

**NOTES:**

1. All dimensions in inches
2. Make from silicone rubber sheet, PN ZZ-R-765, CL2B, GR50, NSN 9320-00-061-1976
3. Bond using RTV silicone compound NSN 8040-01-189-1284

**Table D-65. Rubber Seal PN 7-311A21272**

Dash number	Thickness	Width	Length	Notes
-5	0.031	1.12	8.00	1, 2, 3
-7	0.031	1.12	3.25	1, 2, 3

**NOTES:**

1. All dimensions in inches
2. Make from silicone rubber sheet, PN ZZ-R-765, CL2B, GR50, NSN 9320-00-061-1976
3. Bond using RTV silicone compound NSN 8040-01-189-1284

**Table D-66. Rubber Seal PN 7-311A21273**

Dash number	Thickness	Width	Length	Notes
-5	0.031	0.50	3.50	1, 2, 3

**NOTES:**

1. All dimensions in inches
2. Make from silicone rubber sheet, PN ZZ-R-765, CL2B, GR50, NSN 9320-00-061-1976
3. Bond using RTV silicone compound NSN 8040-01-189-1284

**Table D-67. Rubber Seal PN 7-311A21274**

Dash number	Thickness	Width	Length	Notes
-5	0.031	0.50	3.60	1, 2, 3

**NOTES:**

1. All dimensions in inches
2. Make from silicone rubber sheet, PN ZZ-R-765, CL2B, GR50, NSN 9320-00-061-1976
3. Bond using RTV silicone compound NSN 8040-01-189-1284

**Table D-68. Rubber Seal PN 7-311A21277**

Dash number	Thickness	Width	Length	Notes
-5	0.031	0.50	5.00	1, 2, 3
-7	0.031	0.50	7.00	1, 2, 3

**NOTES:**

1. All dimensions in inches
2. Make from silicone rubber sheet, PN ZZ-R-765, CL2B, GR50, NSN 9320-00-061-1976
3. Bond using RTV silicone compound NSN 8040-01-189-1284

**Table D-69. Rubber Seal PN 7-311A21280**

Dash number	Thickness	Width	Length	Notes
-5	0.031	0.50	6.28	1, 2, 3

**NOTES:**

1. All dimensions in inches
2. Make from silicone rubber sheet, PN ZZ-R-765, CL2B, GR50, NSN 9320-00-061-1976
3. Bond using RTV silicone compound NSN 8040-01-189-1284

**Table D-70. Rubber Seal PN 7-311A23114**

Dash number	Thickness	Width	Length	Notes
-5	0.031	0.50	6.28	1, 2, 3

**NOTES:**

1. All dimensions in inches
2. Make from silicone rubber sheet,, PN ZZ-R-765, CL2B, GR50, NSN 9320-00-061-1976
3. Bond gasket to duct using RTV silicone compound NSN 8040-01-189-1284

**Table D-71. Rubber Seal PN 7-311A23116**

Dash number	Thickness	Width	Length	Notes
-5	0.031	0.50	6.28	1, 2, 3

**NOTES:**

1. All dimensions in inches
2. Make from silicone rubber sheet, PN ZZ-R-765, CL2B, GR50, NSN 9320-00-061-1976
3. Bond gasket to duct using RTV silicone compound NSN 8040-01-189-1284

**Table D-72. Seal PN 7-311B11081**

Dash number	Thickness	Width	Length	Notes
-25	0.090	0.50	19.0	1, 2, 3

**NOTES:**

1. All dimensions in inches
2. Make from low-temp rubber sheet, PN 5008, NSN 5330-01-216-4267
3. Bond seal to panel using adhesive NSN 8040-00-833-9653

**Table D-73. Gasket PN 7-311B11089**

Dash number	Thickness	Width	Length	Notes
-13	0.090	0.90	6.50	1, 2, 3
-15	0.090	1.50	12.50	1, 2, 3

**NOTES:**

1. All dimensions in inches
2. Make from low-temp rubber sheet, P/N 5008, NSN 5330-01-216-4267
3. Bond gasket to cover using adhesive NSN 8040-00-165-8614

**Table D-74. Shim PN 7-31111006**

Dash number	Thickness	Width	Length	Notes
-3	0.062	0.69	0.82	1, 2
-5	0.190	0.69	0.82	1, 3

**NOTES:**

1. All dimensions in inches
2. Make from AL ALY,Laminated shim stock COMP1 TY1 CL1 MIL-S-22499, NSN 9535-01-064-7264
3. Make from AL ALY,Laminated shim stock COMP1 TY1 CL1 MIL-S-22499, NSN 9535-01-354-0928

**Table D-75. Shim/Seal PN 7-31111010**

Dash number	Thickness	Width	Length	Notes
-43	0.121	0.70	7.00	1, 2
-49	0.16	20.00	30.00	1, 3, 4

**NOTES:**

1. All dimensions in inches
2. Make from AL ALY, MIL-S-22499, COMP1, TY2, CL1, NSN 9535-00-811-1867
3. Make from closed cell sponge rubber, cloroprene, AMS 3197, NSN 9320-00-171-6422
4. Bond seal to frame using adhesive NSN 8040-00-833-9563

**Table D-76. Strap/Shim PN 7-31111020**

Dash number	Thickness	Width	Length	Notes
-19	0.040	0.88	2.88	1, 2, 4
-21	0.080	0.75	0.88	1, 3

**NOTES:**

1. All dimensions in inches
2. Make from AL ALY 2024-T3, QQ-A-250/4, NSN 9535-00-086-9930
3. Make from AL ALY, MIL-S-22499, NSN 9535-01-064-7264
4. Finish – Chemically film treat per MIL-C-5541, CL1A

**Table D-77. Shim PN 7-311111030**

Dash number	Thickness	Width	Length	Notes
-21	0.080	0.62	0.75	1, 2, 3

**NOTES:**

1. All dimensions in inches
2. Make from AL ALY,Laminated shim stock MIL-S-22499, NSN 9535-01-064-7264
3. Surface will be prepared for electrical bond at time of installation

**Table D-78. Shim PN 7-311111040**

Dash number	Thickness	Width	Length	Notes
-19	0.080	0.62	0.75	1, 2

**NOTES:**

1. All dimensions in inches
2. Make from AL ALY laminated, shim stock MIL-S-22499, NSN 9535-01-064-7264

**Table D-79. Shim PN 7-311111050**

Dash number	Thickness	Width	Length	Notes
-19	0.080	0.62	0.75	1, 2

**NOTES:**

1. All dimensions in inches
2. Make from AL ALY laminated,shim stock MIL-S-22499, NSN 9535-01-064-7264

**Table D-80. Filler PN 7-311111110**

Dash number	Thickness	Width	Length	Notes
-107	0.063	0.60	1.46	1, 2, 3

**NOTES:**

1. All dimensions in inches
2. Make from AL ALY 2024-T3, QQ-A-250/4, NSN 9535-00-084-4370
3. Finish – Chemically film treat per MIL-C-5541, CL1A

**Table D-81. Seal PN 7-31111127**

Dash number	Thickness	Width	Length	Notes
-7	0.062	0.75	17..25	1, 2, 4
-9	0.062	0.75	3.25	1, 2, 4
-15	0.062	0.75	20.00	1, 3, 4

**NOTES:**

1. All dimensions in inches
2. Make from silicone rubber sheet, ZZ-R-765, CL2B, GR50, NSN 9320-00-547-2175
3. Make from silicone extrusion NSN 5330-01-269-2721
4. Bond seals to assembly using adhesive NSN 8040-00-833-9563

**Table D-82. Shim PN 7-31111150**

Dash number	Thickness	Width	Length	Notes
-3	0.070	0.62	0.88	1, 2

**NOTES:**

1. All dimensions in inches
2. Make from AL ALY, Laminated shim stock COMP1, TY1, CL1, MIL-S-22499  
NSN 9535-00-006-8545

**Table D-83. Shim/Filler PN 7-31111151**

Dash number	Thickness	Width	Length	Notes
-17	Peel as required	0.56	5.20	1, 2
-29	0.063	0.56	5.37	1, 3
-39	0.040	1.19	2.05	1, 4

**NOTES:**

1. All dimensions in inches
2. Make from AL ALY Laminated shim stock COMP1 TY1 CL1 NSN 9535-01-064-7264
3. Make from AL ALY 2024-T3, QQ-A-250/4, NSN 9535-00-084-4370
4. Make from AL ALY 2024-T3, QQ-A-250/4, NSN 9535-00-086-9930

**Table D-84. Seal PN 7-31111160**

Dash number	Thickness	Width	Length	Notes
-5	0.032	6.80	9.00	1, 2

**NOTES:**

1. All dimensions in inches
2. Make from ethylene propylene terpolymer sheet, NSN 6810-01-188-4522

**Table D-85. Seal PN 7-31111168**

Dash number	Thickness	Width	Length	Notes
-9	0.063	1.5	5.00	1, 2, 4
-23	0.030	0.75	28.3125	1, 3, 4
-25	0.030	0.75	28.3125	1, 3, 4
-27	0.063	1.0	44.00	1, 2, 4
-29	0.063	1.0	16.70	1, 2, 4
-31	0.063	1.0	6.80	1, 2, 4
-33	0.063	1.0	18.00	1, 2, 4

**NOTES:**

1. All dimensions in inches
2. Make from rubber chloroprene strip, black, AMS3207, NSN 9320-00-074-2948
3. Make from rubber extrusion, NSN 9320-00-817-5855
4. Bond to fairing assembly using adhesive, MIL-A-46050, TY2, CL2, NSN 8040-01-233-0057

**Table D-86. Strip PN 7-31111173**

Dash number	Thickness	Width	Length	Notes
-5	0.050	0.57	11.0	1, 2, 3, 4

**NOTES:**

1. All dimensions in inches
2. Make from AL ALY 2024-T3, QQ-A-250/4, NSN 9535-00-236-7000
3. Form to fit beam
4. Finish – Chemically film treat per MIL-C-5541, CL1A

**Table D-87. Seal PN 7-31111223**

Dash number	Thickness	Width	Length	Notes
-25	0.062	0.75	57.0	1, 2, 3
-26	0.062	0.75	57.0	1, 2, 3
-27	0.062	0.75	62.0	1, 2, 3
-28	0.062	0.75	62.0	1, 2, 3
-31	0.062	0.75	62.0	1, 2, 3
-32	0.062	0.75	62.0	1, 2, 3

**NOTES:**

1. All dimensions in inches
2. Make from cellular sponge rubber, AMS3195, NSN 9320-00-889-7788
3. Seal may consist of one or more pieces before bonding to fairing, use adhesive NSN 8040-01-189-1284

**Table D-88. Leaf Hinge/Rivet Retainer PN 7-31111224**

Dash number	Thickness	Width	Length	Notes
-33	0.040	1.250 open	46.00	1, 2
-34	0.040	1.250 open	46.00	1, 2
-43	0.063	0.40	42.90	1, 3, 4

**NOTES:**

1. All dimensions in inches
2. Make from MS20257HP3-7200, QQ-A-250/8, NSN 5340-00-819-5563
3. Make from AL ALY ALCD, 2024-T3, QQ-A-250/5, NSN 9535-00-232-0378
4. Finish – Chemically film treat per MIL-C-5541, CL1A



**Table D-89. Hinge/Seal/Shim Retainer PN 7-311111230**

Dash number	Thickness	Width	Length	Notes
-111	0.040	1.500 open	45.50	1, 4
-117	0.032	0.42	6.64	1, 2, 3
-119	0.032	0.42	11.70	1, 2, 3
-121	0.032	0.42	1.93	1, 2, 3
-129	0.032	0.42	7.81	1, 2, 3
-131	0.032	0.42	7.02	1, 2, 3
-133	0.032	0.42	4.00	1, 2, 3
-135	0.032	0.42	7.65	1, 2, 3
-137	0.032	0.42	3.68	1, 2, 3
-139	0.032	0.42	4.05	1, 2, 3
-141	0.032	0.42	2.30	1, 2, 3
-143	0.032	0.42	6.70	1, 2, 3
-145	0.032	0.42	5.73	1, 2, 3
-149	0.032	0.42	5.87	1, 2, 3
-165	0.032	0.42	4.37	1, 2, 3
-167	0.032	0.42	6.00	1, 2, 3
-99	0.040	0.70	45.00	1, 3, 5

**NOTES:**

1. All dimensions in inches
2. Make from AL ALY 2024-T3, QQ-A-250/4, NSN 9535-00-084-4395
3. Finish – Chemically film treat per MIL-C-5541, CL1A
4. Make from MS20257HP4-7200, NSN 5340-00-838-2787
5. Make from AL ALY, 2024-T3, QQ-A-250/4, NSN 9535-00-086-9930

**Table D-90. Hook Tape PN 7-31111234**

Dash number	Width	Length	Notes
-37	2.00	4.90	1, 2
-38	2.00	4.90	1, 2
-39	2.00	3.40	1, 2

**NOTES:**

1. All dimensions in inches
2. Make from hook fastener tape, MIL-F-21840, TY1, CL1, NSN 8315-00-926-4931

**Table D-91. Shim PN 7-31111250**

Dash number	Thickness	Width	Length	Notes
-11	0.060	0.88	1.50	1, 2

**NOTES:**

1. All dimensions in inches
2. Make from AL ALY, MIL-S-22499, COMP1, CL1, TY1, NSN 9535-01-064-7264

**Table D-92. Shim/Spacer PN 7-31111255**

Dash number	Thickness	Width	Length	Notes
-35	0.060	0.75	1.44	1, 2
-49	0.040	0.50	0.62	1, 3

**NOTES:**

1. All dimensions in inches
2. Make from AL ALY, Laminated shim stock MIL-S-22499, COMP1, TY1, CL1, NSN 9535-01-064-7264
3. Make from AL ALY, Laminated shim stock MIL-S-22499, COMP1, TY2, CL1, NSN 5365-00-158-1360

**Table D-93. Shim PN 7-31111262**

Dash number	Thickness	Width	Length	Notes
-59	0.025	1.00	9.65	1, 2

**NOTES:**

1. All dimensions in inches
2. Make from AL ALY, 2024-T3, QQ-A-250/4, NSN 9535-00-167-2174

**Table D-94. Strip PN 7-311112008**

Dash number	Thickness	Width	Length	Notes
-611	0.040	2.00	16.00	1, 2
-621	0.040	2.00	22.00	1, 2
-631	0.040	1.00	12.00	1, 2
-641	0.040	2.00	26.00	1, 2
-651	0.040	6.00	36.00	1, 2
-663	0.040	1.00	18.00	1, 2
-667	0.040	1.00	24.00	1, 2
-671	0.040	1.00	16.00	1, 2

**NOTES:**

1. All dimensions in inches
2. Make from AL ALY sheet, 2024-T3, QQ-A-250/4, NSN 9535-00-086-9930

**Table D-95. Seal Retainer/Shim PN 7-31112009**

Dash number	Thickness	Width	Length	Notes
-95	0.10	0.80	1.00	1, 4
-111	0.78	0.50	2.00	1, 5
-673	0.040	1.00	15.50	1, 2, 3
-675	0.040	1.00	12.00	1, 2, 3
-677	0.040	1.00	10.00	1, 2, 3
-679	0.040	6.00	40.00	1, 2, 3
-681	0.040	1.00	13.00	1, 2, 3
-683	0.040	1.50	22.50	1, 2, 3
-685	0.040	6.00	40.00	1, 2, 3

**NOTES:**

1. All dimensions in inches
2. Seal Retainer - Make from AL ALY sheet, 2024-T3, QQ-A-250/4, NSN 9535-00-086-9930
3. Finish – Chemically film treat per MIL-C-5541, CL1A
4. Shim – Make from laminated shim, MIL-S-22499, COMP1, TY3, CL2, NSN 9535-00-593-3593
5. Shim – Make from laminated shim, MIL-S-22499, COMP1, TY1, CL2, NSN 9535-01-276-1767

**Table D-96. Shim PN 7-311113120**

Dash number	Thickness	Width	Length	Notes
-19	0.050	1.00	1.00	1, 2, 3

**NOTES:**

1. All dimensions in inches
2. Make from AL ALY sheet, 2024-T3, QQ-A-250/4, NSN 9535-00-236-7000
3. Finish – Chemically film treat per MIL-C-5541, CL1A

**Table D-97. Shim PN 7-311113136**

Dash number	Thickness	Width	Length	Notes
-61	0.060	0.050	3.90	1, 2, 3
-63	0.060	0.75	1.09	1, 2, 3

**NOTES:**

1. All dimensions in inches
2. Make from AL ALY, Laminated shim stock MIL-S-22499, COMP1, TY1, CL1, NSN 9535-01-064-7264
3. Remove laminates as required

**Table D-98. Shim PN 7-311113140**

Dash number	Thickness	Width	Length	Notes
-9	0.060	0.75	1.90	1, 2, 3
-31	0.060	0.67	0.70	1, 2, 3

**NOTES:**

1. All dimensions in inches
2. Make from AL ALY, Laminated shim stock MIL-S-22499, COMP1, TY1, CL1, NSN 9535-01-064-7264
3. Remove laminates as required

**Table D-99. Shim PN 7-311113160**

Dash number	Thickness	Width	Length	Notes
-41	0.050	0.60	0.80	1, 2

**NOTES:**

1. All dimensions in inches
2. Make from AL ALY, Laminated shim stock MIL-S-22499, COMP1, TY2, CL2, NSN 9535-01-368-8670

**Table D-100. Shim PN 7-311113180**

Dash number	Thickness	Width	Length	Notes
-3	0.021	2.00	3.20	1, 2, 3, 4

**NOTES:**

1. All dimensions in inches
2. Make from AL ALY,Laminated shim stock MIL-S-22499, COMP1, TY1, CL1, NSN 9535-01-277-2433
3. Identify with indelible ink, minimum height 0.125
4. Remove laminates as required to maintain top surface of  $-0.002/+0.010$

**Table D-101. Shim PN 7-311113220**

Dash number	Thickness	Width	Length	Notes
-3	0.020	2.00	3.25	1, 2, 3

**NOTES:**

1. All dimensions in inches
2. Make from AL ALY,Laminated shim stock MIL-S-22499,COMP1, TY2, CL1, NSN 5365-00-158-1360
3. Add shim as required to maintain top surface of longeron

**Table D-102. Shim PN 7-311113230**

Dash number	Thickness	Width	Length	Notes
-11	0.062	0.65	1.58	1, 2
-13	0.062	0.65	1.32	1, 2

**NOTES:**

1. All dimensions in inches
2. Make from AL ALY,Laminated shim stock MIL-S-22499, COMP1, TY1, CL2, NSN 9535-01-064-7264

**Table D-103. Spacer/Shim PN 7-31113270**

Dash number	Thickness	Width	Length	Notes
-319	0.063	0.70	2.70	1, 2
-349	0.032	1.25	3.20	1, 3
-355	0.080	1.00	1.20	1, 4

**NOTES:**

1. All dimensions in inches
2. Spacer - Make from AL ALY sheet, 2024-T3, QQ-A-250/4, NSN 9535-00-084-4370
3. Shim - Make from shim laminate, MIL-S-22499, COMP1, TY1, CL1, NSN 9535-01-013-1559
4. Shim - Make from AL ALY shim, MIL-S-22499, COMP1, TY1, CL1, NSN 9535-00-811-1867

**Table D-104. Grommet PN 7-31113285**

Dash number	Length	Notes
-15	19.00	1, 2

**NOTES:**

1. All dimensions in inches
2. Make from grommet material, MS21266-1N, NSN 5325-00-960-2410

**Table D-105. Panel PN 7-31113470**

Dash number	Thickness	Width	Length	Notes
-129	0.016	7.92	18.80	1, 2, 3
-130	0.016	7.92	18.80	1, 2, 3

**NOTES:**

1. All dimensions in inches
2. Make from AL-ALY sheet, 2024-T3, QQ-A-250/4, NSN 9535-00-084-4484 or NSN 9535-00-167-2172
3. Finish – Chemically film treat per MIL-C-5541, CL1A

**Table D-106. Seal PN 7-311113503**

Dash number	Thickness	Width	Length	Notes
-101	0.062	0.625	14.00	1, 2

**NOTES:**

1. All dimensions in inches
2. Make from extrusion seal, NSN 5330-01-241-5124

**Table D-107. Spacer PN 7-311113513**

Dash number	Thickness	Width	Length	Notes
-69	.050	0.81	1.80	1, 2

**NOTES:**

1. All dimensions in inches
2. Make from AL ALY sheet, 2024-T3, NSN 9535-00-236-7000

**Table D-108. Seal PN 7-311113602**

Dash number	Thickness	Width	Length	Notes
-39	0.125	1.00	10.00	1, 2

**NOTES:**

1. All dimensions in inches
2. Seal door assembly with adhesive-coated foam tape, NSN 9330-00-984-5834

**Table D-109. Spacer PN 7-311122616**

Dash number	Thickness	Width	Length	Notes
-11	0.160	0.70	3.90	1, 2, 3

**NOTES:**

1. All dimensions in inches
2. Make from AL ALY sheet, 2024-T3, QQ-A-250/4, NSN 9535-00-508-8626
3. Finish – chemically film treat per MIL-C-5541, CL1A



**Table D-110. Strip PN 7-311122621**

Dash number	Thickness	Width	Length	Notes
-33	0.008	1.12	AR	1, 2

**NOTES:**

1. All dimensions in inches
2. Make from epoxy resin preimpregnated nylon, NSN 1680-01-196-8355

**Table D-111. Skin/Strip/Doubler PN 7-311122622**

Dash number	Thickness	Width	Length	Notes
-3	3 Ply	41.00	46.00	1, 2, 3
-19	0.008	1.00	AR	1, 4
-21	0.008	1.00	AR	1, 4
-23	0.008	1.00	AR	1, 4
-47	0.050	2.50	46.00	1, 5
-49	0.050	2.50	46.00	1, 5

**NOTES:**

1. All dimensions in inches
2. Skin – Make from kevlar fiber, 3 ply, TY3, NSN 8030-01-284-3943
3. Fabricate kevlar components – bonding materials with structural epoxy adhesive. The adhesive shall be free of foreign material and noncorrosive
4. Strip – Make from epoxy resin preimpregnated nylon, NSN 1680-01-196-8355
5. Doubler – Make from AL ALY sheet, 2024-T3, QQ-A-250/4, NSN 9535-00-236-7000

**Table D-112. Strip PN 7-311122645**

Dash number	Thickness	Width	Length	Notes
-13	0.008	1.12	AR	1, 2

**NOTES:**

1. All dimensions in inches
2. Make from epoxy resin preimpregnated nylon, NSN 1680-01-196-8355

**Table D-113. Filler/Chafing Strip/Seal PN 7-311122654**

Dash number	Thickness	Width	Length	Notes
-5	9 Ply	1.25	14.00	1, 2
-7	0.008	1.25	14.00	1, 3
-9	0.063	0.55	26.50	1, 4

**NOTES:**

1. All dimensions in inches
2. Filler - Make from kevlar fiber 9 ply, TY 3 NSN 8030-01-284-3943
3. Chafing Strip - Make from epoxy resin preimpregnated nylon, NSN 1680-01-196-8355
4. Seal - Make from silicon sponge rubber, AMS 3195, NSN 9720-00-069-5175

**Table D-114. Shim PN 7-311130038**

Dash number	Thickness	Width	Length	Notes
-5	0.048	6.00	1.04	1, 2

**NOTES:**

1. All dimensions in inches
2. Make from AL ALY shim laminated, MIL-S-22499, COMP1, TY1, CL2, NSN 9535-00-575-7183

**Table D-115. Shim PN 7-311130060**

Dash number	Thickness	Width	Length	Notes
-7	0.048	0.68	1.25	1, 2
-9	0.048	0.86	1.50	1, 2
-11	0.048	0.72	1.06	1, 2

**NOTES:**

1. All dimensions in inches
2. Make from AL ALY shim laminated, MIL-S-22499, COMP1, TY1, CL2, NSN 9535-00-575-7183

**Table D-116. Shim PN 7-311130078**

Dash number	Thickness	Width	Length	Notes
-9	0.048	0.65	0.68	1, 2
-11	0.048	0.77	0.90	1, 2

**NOTES:**

1. All dimensions in inches
2. Make from AL ALY shim laminated, MIL-S-22499, COMP1, TY1, CL2, NSN 9535-00-575-7183

**Table D-117. Shim PN 7-311130090**

Dash number	Thickness	Width	Length	Notes
-9	0.048	0.70	1.20	1, 2

**NOTES:**

1. All dimensions in inches
2. Make from AL ALY shim laminated, MIL-S-22499, COMP1, TY1, CL2, NSN 9535-00-575-7183

**Table D-118. Seal PN 7-311130115**

Dash number	Thickness	Width	Length	Notes
-5	0.250	0.50	34.00	1, 2, 4
-6	0.250	0.50	34.00	1, 2, 4
-11	0.070	1.00	8.00	1, 3, 4
-13	0.070	1.00	9.00	1, 3, 4
-15	0.070	1.00	31.00	1, 3, 4
-17	0.070	1.00	4.00	1, 3, 4

**NOTES:**

1. All dimensions in inches
2. Make from silicon rubber closed cell medium, AMS3195, NSN 9320-01-296-6174
3. Make from silicon rubber closed cell medium, AMS3195
4. Bond seals to -21 and -22 fairings using adhesive, NSN 8040-01-189-1284

**Table D-119. Seal PN 7-311130116**

Dash number	Thickness	Width	Length	Notes
-13	0.250	0.50	29.00	1, 2, 4
-14	0.250	0.50	29.00	1, 2, 4
-15	0.070	1.00	8.00	1, 3, 4
-17	0.070	1.00	20.00	1, 3, 4
-19	0.070	1.00	9.00	1, 3, 4

**NOTES:**

1. All dimensions in inches
2. Make from silicon rubber closed cell medium, AMS3195, NSN 9320-01-296-6174
3. Make from silicon rubber closed cell medium, AMS3195
4. Bond seals to -21 and -22 fairings using adhesive, NSN 8040-01-189-1284

**Table D-120. Shim PN 7-311130233**

Dash number	Thickness	Width	Length	Notes
-9	0.048	0.70	1.40	1, 2
-11	0.048	0.80	0.80	1, 2
-13	0.071	1.40	1.70	1, 3

**NOTES:**

1. All dimensions in inches
2. Make from AL ALY shim laminate, MIL-S-22499, COMP1, TY1, CL2, NSN 9535-00-575-7183
3. Make from AL ALY sheet, 2024-T3, NSN 9535-00-230-7570

**Table D-121. Shim/Filler PN 7-311130266**

Dash number	Thickness	Width	Length	Notes
-9	0.040	1.50	2.40	1, 2
-11	0.040	1.07	1.46	1, 2
-13	0.040	1.50	1.50	1, 2
-15	0.050	1.00	1.60	1, 3

**NOTES:**

1. All dimensions in inches
2. Shim - Make from AL ALY sheet, 2024-0 NSN 9535-00-167-2249
3. Filler - Make from AL ALY sheet, 2024- T3 NSN 9535-00-236-7000

**Table D-122. Hinge/Spacer PN 7-311130290**

Dash number	Thickness	Width	Length	Notes
-59	0.051	2.00 Open	3.87	1, 2, 3
-60	0.051	2.00 Open	3.87	1, 2, 3
-79	0.063	0.75 dia	0.75 dia	1, 4
-87	0.016	0.80	0.80	1, 5, 7, 9
-89	0.032	0.70	1.50	1, 6, 8, 9
-113	0.025	0.80	3.40	1, 7, 8, 9
-115	0.025	0.80	3.60	1, 7, 8, 9

**NOTES:**

1. All dimensions in inches
2. Hinge - Make from MS20257-5-450 NSN 5340-01-281-7984
3. 7-311130290-60 opposite 7-311130290-59
4. Spacer - Make from AL ALY sheet, 2024-T3, NSN 9535-00-084-4370
5. Spacer - Make from AL ALY sheet, 2024-T3, NSN 9535-00-167-2172
6. Spacer - Make from AL ALY sheet, 2024-T3, NSN 9535-00-084-4395
7. Spacer - Make from AL ALY sheet, 2024-T3, NSN 9535-00-167-2174
8. Prebond aluminum for nonstructural bonding
9. Use epoxy primer, MIL-P-23377, NSN 8040-00-823-7944

**Table D-123. Seal PN 7-311140081**

Dash number	Thickness	Width	Length	Notes
-15	0.062	0.625	Cut to length	1, 2, 3

**NOTES:**

1. All dimensions in inches
2. Make from rubber extrusion, AMS3209, NSN 5330-01-241-5124
3. Bond using adhesive, NSN 8040-00-165-8614

**Table D-124. Seal PN 7-311140082**

Dash number	Thickness	Width	Length	Notes
-15	0.062	0.625	Cut to length	1, 2, 3

**NOTES:**

1. All dimensions in inches
2. Make from rubber extrusion, AMS3209, NSN 5330-01-241-5124
3. Bond using adhesive, NSN 8040-00-165-8614

**Table D-125. Pad PN 7-311140128**

Dash number	Thickness	Width	Length	Notes
-3	0.125	0.125	1.25	1, 2, 3

**NOTES:**

1. All dimensions in inches
2. Make from silicon rubber sheet, glass cloth reinforced, AMS3337, NSN 9320-01-276-2585
3. Bond pad using adhesive, NSN 8040-00-833-9653

**Table D-126. Seal PN 7-311140130**

Dash number	Thickness	Width	Length	Notes
-81	0.093	1.50	40.00	1, 2
-82	0.093	1.50	40.00	1, 2, 3
-83	0.093	1.50	10.00	1, 2
-84	0.093	1.50	10.00	1, 2, 4
-85	0.093	1.50	21.80	1, 2
-87	0.093	1.50	18.50	1, 2

**NOTES:**

1. All dimensions in inches
2. Make from ethylene strip, NSN 6810-01-188-4522
3. 7-311140130-82 is opposite of 7-311140130-81
4. 7-311140130-84 is opposite of 7-311140130-83

**Table D-127. Seal PN 7-311140155**

Dash number	Thickness	Width	Length	Notes
-5	0.125	8.10	8.10	1, 2, 3

**NOTES:**

1. All dimensions in inches
2. Make from silicon rubber, closed cell, medium, AMS3195, NSN 9320-00-069-5175
3. Bond to inner surfaces of door using adhesive NSN 8040-00-833-9653

**Table D-128. Shim/Seal/Rubber Strip PN 7-311140160**

Dash number	Thickness	Width	Length	Notes
-9	0.063	0.75	2.00	1, 2
-13	0.062	0.50	100.00	1, 3, 5
-15	0.062	0.50	15.63	1, 3, 5
-17	0.062	0.50	17.00	1, 3, 5
-24	0.125	0.50	4.25	1, 4, 5
-26	0.125	0.50	2.00	1, 4, 5

**NOTES:**

1. All dimensions in inches
2. Shim - Make from AL ALY shim, MIL-S-22499, COMP1, TY1, CL2, NSN 9535-00-084-4370
3. Seal - Make from rubber extrusion, ethylene propylene terpolymer, NSN 6810-01-188-4522
4. Rubber Strip - Make from silicon rubber closed cell medium, P/N HS5215A025  
NSN 9320-00-069-5175
5. Bond all seals using adhesive, NSN 8040-01-189-1284

**Table D-129. Strap PN 7-311150110**

Dash number	Thickness	Width	Length	Notes
-15	0.032	1.60	41.00	1, 2, 3
-47	0.032	1.60	41.00	1, 2, 3

**NOTES:**

1. All dimensions in inches
2. Make from AL-ALY sheet, 2024-T3, QQ-A-250/4, NSN 9535-00-084-4395
3. Finish – Chemically film treat per MIL-C-5541, CL1A

**Table D-130. Pad PN 7-311150111**

Dash number	Thickness	Width	Length	Notes
-33	0.050	0.82	4.80	1, 2, 3

**NOTES:**

1. All dimensions in inches
2. Make from AL-ALY sheet, 2024-T3, QQ-A-250/4, NSN 9535-00-236-7000
3. Finish – Chemically film treat per MIL-C-5541, CL1A



**Table D-131. Chafing Strip PN 7-311150112**

Dash number	Thickness	Width	Length	Notes
-29	0.012	0.45	21.80	1, 2
-35	0.008	0.80	1.30	1, 3
-30	0.012	0.45	23.10	1, 2
-31	0.008	0.80	200.00	1, 3

**NOTES:**

1. All dimensions in inches
2. Make from pressure sensitive tape NSN 7510-01-248-7514
3. Make from epoxy preimpregnated nylon fabric, NSN 1680-01-196-8355

**Table D-132. Seal PN 7-311150113**

Dash number	Thickness	Width	Length	Notes
-17	0.062	0.625	8.00	1, 2

**NOTES:**

1. All dimensions in inches
2. Make from synthetic rubber seal extrusion NSN 5330-01-241-5124
3. Bond to angle using neoprene cement NSN 8040-00-165-8614

**Table D-133. Shim/Pad PN 7-311150117**

Dash number	Thickness	Width	Length	Notes
-9	0.063	0.70	1.70	1, 2, 4
-21	0.125	0.70	0.70	1, 3
-23	0.125	0.80	3.40	1, 3

**NOTES:**

1. All dimensions in inches
2. Shim – Make from AL ALY shim, MIL-S-22499, COMP1, TY1, CL2, NSN 9535-00-084-4370
3. Pad – Make from chloroprene rubber, weather resistant, AMS3206, NSN 9320-00-074-4014
4. Finish – Chemically film treat per MIL-S-5541, CL1A

**Table D-134. Hinge/Shim PN 7-311150122**

Dash number	Thickness	Width	Length	Notes
-41	0.62	0.40	1.0	1, 2
-45	0.125	1.50	4.0	1, 3
-47	0.125	0.9	4.0	1, 3
-49	0.103	3.375 open	3.88	1, 4
-57	0.125	0.61	0.62	1, 5

**NOTES:**

1. All dimensions in inches
2. Shim – Make from AL ALY shim, MIL-S-22499, NSN 9535-01-064-7264
3. Shim – Make from AL ALY shim, MIL-S-22499, COMP1, TY1, CL2, NSN 9535-00-230-7646
4. Hinge – Make from MS20001P12-388, NSN 5340-00-664-8138
5. Shim – Make from CRES 302, MIL-S-22499, COMP3, TY1, CL2, NSN 5365-01-343-2780

**Table D-135. Chafing Strip PN 7-311150126**

Dash number	Thickness	Width	Length	Notes
-15	0.008	1.00	100.0	1, 2

**NOTES:**

1. All dimensions in inches
2. Make from epoxy preimpregnated nylon fabric, NSN 1680-01-196-8355

**Table D-136. Hinge/Seal/Chafing Strip PN 7-311150130**

Dash number	Thickness	Width	Length	Notes
-15	0.044	1.50 open	40.10	1, 2
-17	0.050	0.88	24.00	1, 3
-19	0.008	0.75	80.00	1, 4
-25	0.050	0.880	14.00	1, 5
-29	0.044	1.50 open	39.80	1, 2

**NOTES:**

1. All dimensions in inches
2. Hinge – Make from MS20001P4, NSN 5340-00-664-8141
3. Seal – Make from, NSN 9390-00-420-7896
4. Chafing Strip – Make from epoxy preimpregnated nylon fabric, NSN 1680-01-196-8355
5. Seal – Make from NSN 5330-01-255-7421

**Table D-137. Hinge/Seal/Chafing Strip/Gasket PN 7-311150131**

Dash number	Thickness	Width	Length	Notes
-15	0.044	1.50 open	52.00	1, 2,
-17	0.050	0.88	28.00	1, 3
-21	0.008	0.75	53.00	1, 4
-65	0.060	0.89	47.40	1, 5

**NOTES:**

1. All dimensions in inches
2. Hinge – Make from, MS20001P4, NSN 5340-00-664-8141
3. Seal – Make from seal, NSN 9390-00-420-7896
4. Chafing strip – Make from epoxy preimpregnated nylon fabric, NSN 1680-01-196-8355
5. Gasket – Make from gasket material, P/N HS5551-02-0474 may be trimmed as required on installation

**Table D-138. Grommet PN 7-311150140**

Dash number	Length	Notes
-83	21.00	1, 2

**NOTES:**

1. All dimensions in inches
2. Grommet – Make from grommet material MS21266-1N, NSN 5325-00-960-2410

**Table D-139. Chafing Strip PN 7-311150142**

Dash number	Thickness	Width	Length	Notes
-9	0.008	1.25	4 sq. ft.	1, 2

**NOTES:**

1. All dimensions in inches
2. Make from laminating epoxy preimpregnated nylon, TY1, NSN 1680-01-196-8355

**Table D-140. Seal PN 7-311150145**

Dash number	Thickness	Width	Length	Notes
-49	0.062	0.80	68.00	1, 2
-51	0.062	0.80	4.30	1, 2
-53	0.062	0.80	6.40	1, 2

**NOTES:**

1. All dimensions in inches
2. Make from silicone rubber, black, AMS 3195, NSN 9320-00-313-9275

**Table D-141. Hinge/Shim PN 7-311150146**

Dash number	Thickness	Width	Length	Notes
-57	0.103	3.375 open	3.38	1, 2
-65	0.125	1.50	3.15	1, 3
-83	0.103	3.375 open	3.38	1, 2
-85	0.103	3.375 open	3.38	1, 2
-93	0.125	0.61	0.62	1, 4

**NOTES:**

1. All dimensions in inches
2. Hinge – Make from MS20001P12-500, NSN 5340-00-664-8138
3. Shim – Make from AL ALY shim, MIL-S-22499, COMP1, TY1, CL2, NSN 9535-00-230-7646
4. Shim – Make from CRES 302, MIL-S-22499, COMP3, TY1, CL2, NSN 5365-01-343-2780

**Table D-142. Grommet PN 7-311150147**

Dash number	Thickness	Width	Length	Notes
-55	0.050	0.15	6.31	1, 2
-57	0.050	0.15	6.25	1, 2
-65	0.050	0.15	3.50	1, 2
-67	0.050	0.15	4.90	1, 2

**NOTES:**

1. All dimensions in inches
2. Grommet – Make from grommet material, MS21266-1N, NSN 5325-00-960-2410

**Table D-143. Grommet Seal/Bumper PN 7-311150148**

Dash number	Thickness	Width	Length	Notes
-15	0.125	0.80	125.00	1, 2
-55	0.06	1.00	15.84	1, 3
-57	0.06	1.00	17.125	1, 3

**NOTES:**

1. All dimensions in inches
2. Seal – Make from rubber chloroprene sponge, AMS 3198, NSN 9320-01-014-6887
3. Bumper – Make from extrusion, bulb section-elastic, NSN 5330-01-274-4515

**Table D-144. Grommet Seal PN 7-311150149**

Dash number	Thickness	Width	Length	Notes
-7	0.125	0.80	82.00	1, 2
-29	0.125	0.80	28.00	1, 2

**NOTES:**

1. All dimensions in inches
2. Make from rubber chloroprene sponge, AMS 3198, NSN 9320-01-014-6887

**Table D-145. Chafing Strip/Seal PN 7-311150150**

Dash number	Thickness	Width	Length	Notes
-19	0.008	A/R	A/R	1, 2
-23	0.125	0.88	33.00	1, 3
-24	0.125	0.88	43.00	1, 3
-25	0.125	0.88	11.50	1, 3

**NOTES:**

1. All dimensions in inches
2. Make from preimpregnated nylon fabric, NSN 1680-01-196-8355
3. Make from rubber strip, NSN 9320-00-171-4346

**Table D-146. Receptacle Strip PN 7-311171020**

Dash number	Length	Notes
-115	10.47	1, 2
-117	12.00	1, 2
-119	9.75	1, 2
-155	6.75	1, 2

**NOTES:**

1. All dimensions in inches
2. Make from receptacle strip, NSN 5325-00-036-9305

**Table D-147. Chafing Strip/Hook Tape PN 7-311171141**

Dash number	Thickness	Width	Length	Notes
-15	0.0065	8.00	17.00	1, 2
-17	0.0065	2.50	12.00	1, 2
-19	N/A	1.00	13.00	1, 3
-21	N/A	1.00	13.00	1, 3

**NOTES:**

1. All dimensions in inches
2. Chafing Strip – Make from epoxy preimpregnated nylon fabric, NSN 1680-01-196-8355
3. Hook Tape – Make from hook fastener tape, black, MIL-F-21840, TY2, CL1, NSN 8315-00-935-6761

**Table D-148. Bumper/Felt/Hook Tape PN 7-311171147**

Dash number	Thickness	Width	Length	Notes
-19	0.375	0.375	9.00	1, 2
-21	0.375	0.375	11.00	1, 2
-41	N/A	1.00	2.00	1, 4
-55	N/A	0.50	12.00	1, 3
-57	N/A	0.50	12.00	1, 3

**NOTES:**

1. All dimensions in inches
2. Bumper – Make from bulb, rubber extrusion, AMS 3240, NSN 9390-00-810-5344
3. Felt – Make from pile tape, black, MIL-F-21840, TY2, CL1, NSN 8315-01-278-6993
4. Hook Tape – Make from hook fastener tape, black, MIL-F-21840, TY2, CL1, NSN 8315-00-935-6761

**Table D-149. Hook Tape PN 7-311171159**

Dash number	Width	Length	Notes
-3	1.00	1.50	1, 2, 3

**NOTES:**

1. All dimensions in inches
2. Make from hook fastener tape, black, MIL-F-21840, TY2, CL1, NSN 8315-00-935-6761
3. Trim as required

**Table D-150. Grommet PN 7-311172010**

Dash number	Length	Notes
-27	8.90	1, 2
-55	2.50	1, 2

**NOTES:**

1. All dimensions in inches
2. Grommet – Make from grommet material, MS21266-IN, NSN 5325-00-960-2410.



**Table D-151. Grommet PN 7-311172016**

Dash number	Thickness	Length	Notes
-5	0.008	2.50	1, 2
-7	0.008	11.50	1, 2

**NOTES:**

1. All dimensions in inches
2. Grommet – Make from grommet material, MS21266-IN, NSN 5325-00-960-2410

**Table D-152. Shim PN 7-311172020**

Dash number	Thickness	Width	Length	Notes
-31	0.125	0.62	5.25	1, 2
-41	0.060	0.75	1.50	1, 3
-45	0.125	0.62	1.50	1, 2
-71	0.033	0.62	0.62	1, 4
-73	0.033	0.62	1.20	1, 4

**NOTES:**

1. All dimensions in inches
2. Make from laminated shim stock, MIL-S-22494, COMP1, CL1, TY2, QQ-A-250/4, NSN 9535-00-811-1867
3. Make from laminated shim stock, MIL-S-22494, COMP1, CL1, TY2, QQ-A-250/4, NSN 9535-01-064-7264
4. Make from laminated shim stock, MIL-S-22494, COMP1, CL1, TY2, QQ-A-250/4, NSN 9535-00-575-7183

**Table D-153. Grommet/Hook Tape PN 7-311172022**

Dash number	Width	Length	Notes
-7	1.00	15.00	1, 2
-41	1.00	2.60	1, 3
-43	1.00	6.30	1, 3
-45	1.00	2.36	1, 3
-47	1.00	6.00	1, 3
-49	1.00	6.30	1, 3
-61	1.00	2.36	1, 3

**NOTES:**

1. All dimensions in inches
2. Grommet – Make from grommet material, MS21266-IN, NSN 5325-00-960-2410
3. Hook Tape – Make from hook fastener tape, MIL-F-21840, TY2, CL1, NSN 8315-00-935-6761

**Table D-154. Shim/Filler PN 7-311172030**

Dash number	Thickness	Width	Length	Notes
-21	0.050	0.050	0.050	1, 2
-93	0.020	0.64	0.76	1, 3
-95	0.040	0.56	1.00	1, 4
-97	0.040	0.56	0.60	1, 4

**NOTES:**

1. All dimensions in inches
2. Shim – Make from AL ALY sheet, 2024-T3, QQ-A-250/4, NSN 9535-00-272-0569
3. Shim – Make from AL ALY sheet, 2024-T3, QQ-A-250/4, NSN 9535-00-167-2173
4. Filler – Make from AL ALY sheet, 2024-T3, QQ-A-250/4, NSN 9535-00-086-9930

**Table D-155. Strip/Hook Tape/Seal PN 7-311172141**

Dash number	Thickness	Width	Length	Notes
-11	0.0065	1.00	cut to fit	1, 2
-13	N/A	1.00	8.00	1, 3
-59	0.250	0.375	19.00	1, 4
-60	0.250	0.375	20.00	1, 4

**NOTES:**

1. All dimensions in inches
2. Strip – Make from epoxy preimpregnated nylon fabric, NSN 1680-01-196-8355
3. Hook Tape – Make from hook fastener tape, black, MIL-F-21840, TY2, CL1, NSN 8315-00-935-6761
4. Seal – Make from cellular rubber sheet, black, AMS3195, NSN 9320-01-284-3969

**Table D-156. Seal/Filler/Hook Tape/Pile Tape PN 7-311172143**

Dash number	Thickness	Width	Length	Notes
-11	0.375	0.375	20.00	1, 2
-17	0.050	0.40	14.00	1, 3
-21	N/A	1.00	8.50	1, 4
-41	N/A	1.00	2.00	1, 4
-43	N/A	0.50	12.00	1, 5

**NOTES:**

1. All dimensions in inches
2. Seal – Make from rubber extrusion bulb, NSN 5330-01-241-5125
3. Filler – Make from silicone rubber, PN ZZ-R-765, CL1A, GR40, NSN 9320-01-160-3822
4. Hook Tape – Make from hook fastener tape, black, MIL-F-21840, TY2, CL1, NSN 8315-00-935-6761
5. Pile Tape – Make from pile tape, black, MIL-F-21840, TY2, CL1, NSN 8315-01-278-6993

**Table D-157. Hook Tape PN 7-311172151**

Dash number	Width	Length	Notes
-7	1.0	8.0	1, 2
-9	0.62	8.0	1, 2, 3

**NOTES:**

1. All dimensions in inches
2. Make from hook fastener tape, black, MIL-F-21840, TY1, CL1, NSN 8315-00-935-6761
3. -9, order 1 inch tape, trim to size NSN 8315-00-935-6761

**Table D-158. Hook Tape PN 7-311721161**

Dash number	Width	Length	Notes
-3	0.75	1.00	1, 2, 3

**NOTES:**

1. All dimensions in inches
2. Make from hook fastener tape, black, MIL-F-21840, TY1, CL1, NSN 8315-00-066-5054
3. Trim as required

**Table D-159. Hook Tape PN 7-311172162**

Dash number	Width	Length	Notes
-9	0.56	2.00	1, 2, 3
-11	0.56	1.00	1, 2, 3

**NOTES:**

1. All dimensions in inches
2. Make from hook fastener tape, black, MIL-F-21840, TY2, CL1, NSN 8315-00-935-6761
3. Order 1 inch tape, trim to size NSN 8315-00-935-6761

**Table D-160. Hook Tape PN 7-311180042**

Dash number	Width	Length	Notes
-3	1.00	1.00	1, 2
-5	1.00	2.50	1, 2
-7	1.00	6.50	1, 2
-9	1.00	7.00	1, 2
-11	1.00	8.00	1, 2
-13	1.00	17.20	1, 2
-15	1.00	23.00	1, 2
-17	1.00	19.70	1, 2
-19	1.00	15.00	1, 2
-21	1.00	0.45	1, 2

**NOTES:**

1. All dimensions in inches
2. Make from hook fastener tape, black, MIL-F-21840, TY2, CL1, NSN 8315-00-935-6761

**Table D-161. Hinge PN 7-311180080**

Dash number	Width	Length	Notes
-25	0.750	11.00	1, 2

**NOTES:**

1. All dimensions in inches
2. Make from hinge material, MS35822-11A, NSN 5340-01-054-4936

**Table D-162. Fastener Tapes PN 7-311180105**

Dash number	Width	Length	Notes
-9	0.75	Cut to length	1, 2

**NOTES:**

1. All dimensions in inches
2. Make from fastener tapes, hook and loop, NSN 8315-01-260-9521

**Table D-163. Shim PN 7-311300005**

Dash number	Thickness	Width	Length	Notes
-3	0.062	1.0	2.8	1, 2
-9	0.062	2.0	4.22	1, 2

**NOTES:**

1. All dimensions in inches
2. Make from laminated shim stock, MIL-S-22499, COMP1, TY1, CL1, NSN 9535-01-064-7264

**Table D-164. Insulation PN 7-311632206**

Dash number	Thickness	Width	Length	Notes
-7	0.062	0.90	2.25	1, 2
-9	0.062	2.00	4.22	1, 2

**NOTES:**

1. All dimensions in inches
2. Make from plastic laminated shim stock, MIL-S-22499, COMP1, TY1, CL1, NSN 9535-01-064-7264

**Table D-164A. Insert PN 7-311642102**

Dash number	Inner Diameter	Length	Notes
-7	1.50	1.50	1, 2

**NOTES:**

1. All dimensions in inches
2. Make from cellular plastic material (yellow), MIL-B-83054, NSN 9330-01-034-4779

**Table D-165. Seal Gasket PN 7-311642517**

Dash number	Thickness	Width	Length	Notes
-5	1/3	6.00	5.50	1, 2

**NOTES:**

1. All dimensions in inches
2. Make from solid rubber sheet, AMS3240 35-45, NSN 9320-00-0741-2891

**Table D-166. Seal/Hook Tape/Grommet PN 7-311654001**

Dash number	Width	Length	Notes
-37	0.81	12.00	1, 4
-71	1.00	2.00	1, 2
-73	0.175	3.22	1, 3

**NOTES:**

1. All dimensions in inches
2. Hook Fastener – Make from hook fastener tape, PN 192758 NSN 8315-00-935-6761
3. Grommet – Make from grommet material MS21266-2N NSN 5325-00-074-3301
4. Seal – Make from elastomer extrusion, NSN 5330-01-242-0779

**Table D-167. Seal/Grommet PN 7-311654003**

Dash number	Notes
-45	1, 2
-47	1, 2
-75	1, 3, 4

**NOTES:**

1. All dimensions in inches
2. Seal – Make from elastomer extrusion, NSN 5330-01-242-0779
3. Grommet – Make from plastic edging, MS21266-4T NSN 5325-01-043-5941
4. Bond grommet using adhesive epoxy paste NSN 8040-01-189-1284

**Table D-168. Filler PN 7-311660001**

Dash number	Thickness	Width	Length	Notes
-3	0.125	1.5	Cut to length	1, 2, 3

**NOTES:**

1. All dimensions in inches
2. Filler – Make from rubber sheet, AMS3195, NSN 9320-00-069-5175
3. Bond to mast support using adhesive NSN 8040-00-833-9563

**Table D-169. Spacer PN 7-311920100**

Dash number	Thickness	Diameter	Notes
-3	0.063	1.00	1, 2, 3, 4, 5

**NOTES:**

1. All dimensions in inches
2. Make from rubber sheet, AMS3195, NSN 9320-00-069-5176
3. Cut to size
4. Center hole cut to 0.28 diameter
5. Bond spacer to seal using adhesive NSN 8040-00-938-1535

**Table D-170. Bumper PN 7-318000036**

Dash number	Notes
-7	1, 3, 4
-9	1, 2

**NOTES:**

1. All dimensions in inches
2. Make from preimpregnated aramid fabric, PN CYCOM 950/220 NSN 1560-01-182-8806
3. Make from urethane foam, Uthane 190, NSN 5640-01-064-4385.
4. Urethane Foam NSN 5640-01-064-4385 to be used as a fill and co-cure with Kevlar NSN 8030-01-284-3943 to create 7-318000036-7

**Table D-171. Edge PN 7-362110014**

Dash number	Thickness	Width	Length	Notes
-5	0.188	0.50	9.2	1, 2
-7	0.188	0.50	19.1	1, 2
-9	0.188	0.50	20.0	1, 2
-13	0.188	0.50	48.7	1, 2
-15	0.188	0.50	18.3	1, 2
-17	0.188	0.50	5.0	1, 2
-19	0.188	0.50	2.8	1, 2
-23	0.188	0.50	16.7	1, 2
-25	0.188	0.50	5.2	1, 2

**NOTES:**

1. All dimensions in inches
2. Make from AL ALY sheet, 2024-T4, NSN 9530-00-162-6361

**Table D-172. Gasket PN 7-362110087**

Dash number	Thickness	Width	Length	Notes
-5	0.06	2.00	3.20	1, 2, 3

**NOTES:**

1. All dimensions in inches
2. Make from synthetic rubber, NSN 9320-00-241-9741
3. Bond to plate using adhesive NSN 8040-00-145-0432



**Table D-173. Pad PN 7-362110224**

Dash number	Thickness	Width	Length	Notes
-29	0.125	0.60	3.00	1, 3
-35	0.062	0.34	3.00	1, 2
-55	0.062	0.60	3.00	1, 2

**NOTES:**

1. All dimensions in inches
2. Make from rubber sheet, GRF, NSN 9320-00-241-9741
3. Make from rubber sheet, GRF, NSN 9320-00-069-5175

**Table D-174. Pile/Hook Tape PN 7-362120006**

Dash number	Width	Length	Notes
-37	2.0	14.5	1, 3, 4
-39	2.0	14.5	1, 3, 4
-41	2.0	13.0	1, 2, 3
-43	2.0	9.0	1, 2, 3,

**NOTES:**

1. All dimensions in inches
2. Make from nylon tape, green, OG106, MIL-F-21840, TY2, CL1, NSN 8315-01-086-9635
3. Cut to size
4. Make from nylon webbing color O D MIL-W-4088 TY2, CL2, NSN 8305-00-082-2142

**Table D-175. Boot/Tape PN 7-362120008**

Dash number	Width	Length	Notes
-77	15.00	24.00	1, 2, 3
-85	1.00	6.00	1, 4

**NOTES:**

1. All dimensions in inches
2. Make from vinyl-nylon cloth Laminated, color OD, MIL-C-43006, TY2, CL1, NSN 8305-01-087-8578
3. Cut to size
4. Make from hook fastener tape, MIL-F-21840 TY2, CL1, NSN 8315-00-935-6761

**Table D-176. Pad PN 7-362120043**

Dash number	Thickness	Width	Length	Notes
-5	0.25	1.50	19.0	1, 2

**NOTES:**

1. All dimensions in inches
2. Make from silicone rubber, PN ZZ-R-765, CL2B, GR40, NSN 9320-00-143-8189

**Table D-177. Pad PN 7-362120044**

Dash number	Thickness	Width	Length	Notes
-5	0.25	1.5	10.5	1, 2

**NOTES:**

1. All dimensions in inches
2. Make from silicone rubber, PN ZZ-R-765, CL2B, GR40, NSN 9320-00-143-8189

**Table D-178. Pad PN 7-367310010**

Dash number	Thickness	Width	Length	Notes
-7	0.25	2.50	8.00	1, 2
-19	0.50	0.75	4.50	1, 3

**NOTES:**

1. All dimensions in inches
2. Make from silicone rubber, NSN 9320-00-143-8189
3. Make from silicone rubber, PN ZZ-R-765, CL1B, GR40

**Table D-179. Cushion Pad PN 7-367311002**

Dash number	Thickness	Width	Length	Notes
-13	0.38	8.20	12.40	1, 2

**NOTES:**

1. All dimensions in inches
2. Make from silicone rubber, PN ZZ-R-765, CL1B, GR40, NSN 5330-01-092-4053

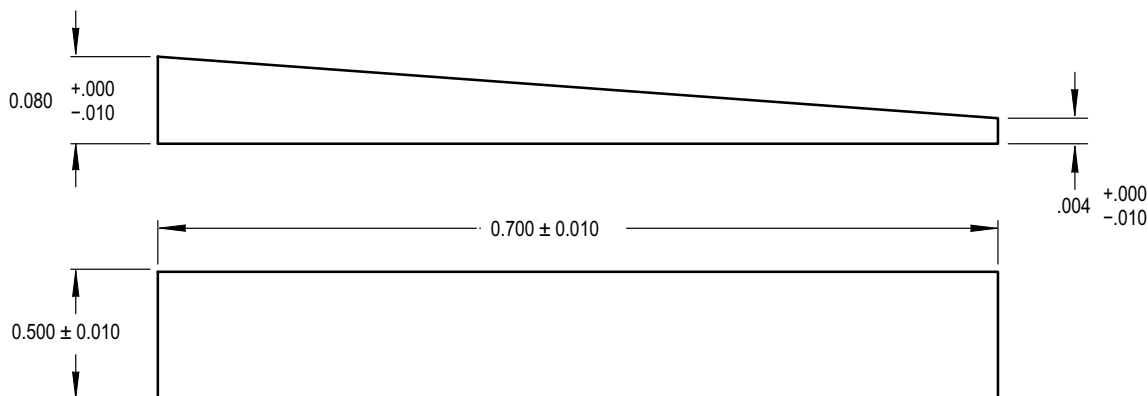
**Table D-180. Weather Resistant Rubber PN 72502**

Dash number	Thickness	Width	Notes
72502	0.06	N/A	1, 2, 3

**NOTES:**

1. All dimensions in inches
2. Make from weather-resistant chloroprene rubber, NSN 9320-00-313-9275
3. Cut to size

SECTION III. ILLUSTRATED FIELD MANUFACTURE ITEMS

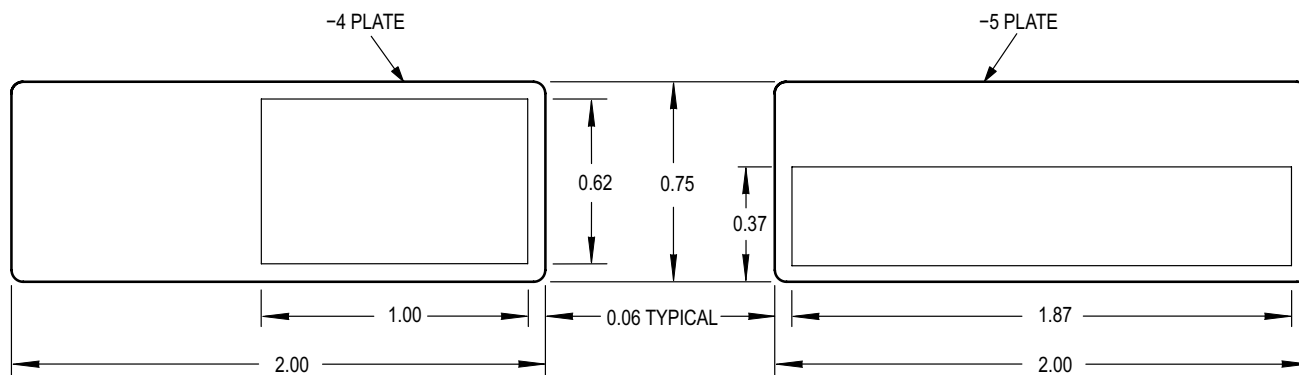


NOTES:

- SHIM TAPERED - MAKE FROM AL-ALY 2024-T3 0.080 THICK
- ANODIZED PER MIL-A-8625 TYPE 1, CLASS 1
- ALL DIMENSIONS ARE IN INCHES

M04-5076

Figure D-1. Shim, Tapered P/N HS195-080001



NOTES:

- PLATE IDENTIFICATION - MAKE FROM ALUMINUM FOIL 1100, TEMPER 0 PER QQ-A250/1, 0.005 THICK, NSN 4905-01-221-0504
- FINISH - ANODIZE PER MIL-A-8625, TYPE 2 CLASS 2
- ADHESIVE - IDENTIFICATION PLATE SHALL HAVE A LAYER OF PRESSURE SENSITIVE ADHESIVE ON BACK SIDE, PROTECTED BY A FILM MATERIAL PER MIL-P-19834, TYPE 1
- FACE - LOGO, LETTERS AND BLOCK SHALL BE ALUMINUM; BACKGROUND TO BE DARK BLUE
- FORM - IDENTIFICATION PLATE SHALL BE SUPPLIED ON A TYPEWRITER STRIP
- LETTERING TO BE UNIVERSAL MEDIUM, 8 POINT
- ALL DIMENSIONS ARE IN INCHES

M04-5050

Figure D-2. Plate, Identification PN HS4367-4/5

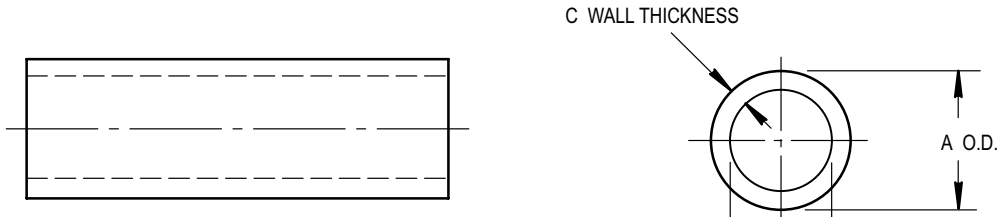
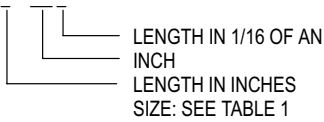


TABLE 1

PART NUMBER	A O.D.	B I.D.	C WALL THICKNESS
HS4546 - 1 - ( )	0.312	0.187	0.062
HS4546 - 2 - ( )	0.375	0.250	0.062
HS4546 - 3 - ( )	0.687	0.500	0.093

NOTES:

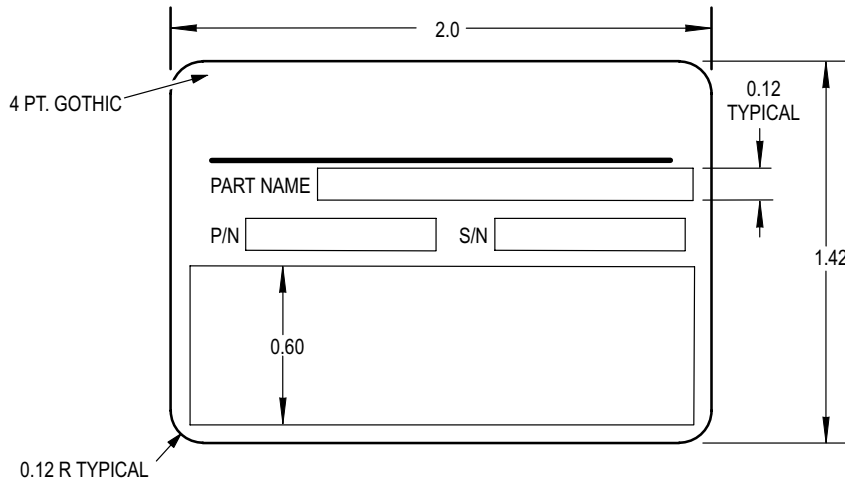
- TUBING, FLEXIBLE, PLASTIC: (TYGON) P/N HS4546-1, NSN 4720-01-179-4377; P/N HS4546-2, NSN 4720-01-179-4378; P/N HS4546-3, NSN 4720-01-179-4381, AND P/N 7 - 311113478 - 7
- PART NUMBER EXAMPLE:  
HS4546 - 1 - 0363 = .312 O.D. X I.D. X .062 WALL X 36 3/16 LONG



- ALL DIMENSIONS ARE IN INCHES

M04-4724

Figure D-3. Tubing PN HS4546, PN 7-311113478-7



NOTES:

- PLATE IDENTIFICATION - 0.004 INCH 1100 ALUMINUM, TEMPER 0 PER QQ-A250/1, NSN 9905-01-314-3516
- LETTERS AND NUMBERS TO BE AMERICAN TYPE FOUNDERS GOTHIC, 6 POINT EXCEPT AS OTHERWISE SHOWN
- LETTERS, NUMBERS AND BLOCKS SHALL BE ALUMINUM; BACKGROUND TO BE FLAT BLACK
- ADHESIVE BACKING SHALL BE PRESSURE SENSITIVE CONFORMING TO MIL-P-19834, TYPE 1, OR MIL-P-6906
- FINISH - ANODIZE PER MIL-A-8625, TYPE II CLASS 2
- ALL DIMENSIONS ARE IN INCHES

M04-5049

Figure D-4. Plate, Identification PN HS4709

KEY POSITION  
★CODE

RECEPTACLE	LETTER	PLUG
	A	
	B	
	C	
	D	
	E	
	F	
	G	
	H	
	J	
	K	
	L	
	M	
	N	
	P	
	R	
	S	

(DARK AREA - KEY POSITION)

PLUG ASSEMBLY				MATES WITH	RECEPTACLE ASSEMBLY			
SIZE	PART NUMBER	WAFER			PART NUMBER	WAFER		
		A	B			A	B	
1"	HS5239K1110	PIN	PIN	→	HS5239K2210	SOC	SOC	
1"	HS5239K1111	PIN	SOC		HS5239K2211	SOC	PIN	
1"	HS5239K1112	PIN	DUM		HS5239K2212	SOC	DUM	
1"	HS5239K1113	DUM	PIN		HS5239K2213	DUM	SOC	
1"	HS5239K1210	SOC	SOC		HS5239K2110	PIN	PIN	
1"	HS5239K1211	SOC	PIN		HS5239K2111	PIN	SOC	
1"	HS5239K1212	SOC	DUM		HS5239K2112	PIN	DUM	
1"	HS5239K1213	DUM	SOC		HS5239K2113	DUM	PIN	
2"	HS5239K1120	PIN	PIN		→	HS5239K2220	SOC	SOC
2"	HS5239K1121	PIN	SOC			HS5239K2221	SOC	PIN
2"	HS5239K1122	PIN	DUM			HS5239K2222	SOC	DUM
2"	HS5239K1123	DUM	PIN			HS5239K2223	DUM	SOC
2"	HS5239K1120	SOC	SOC			HS5239K2120	PIN	PIN
2"	HS5239K1121	SOC	PIN	HS5239K2121		PIN	SOC	
2"	HS5239K1122	SOC	DUM	HS5239K2122		PIN	DUM	
2"	HS5239K1123	DUM	SOC	HS5239K2123	DUM	PIN		

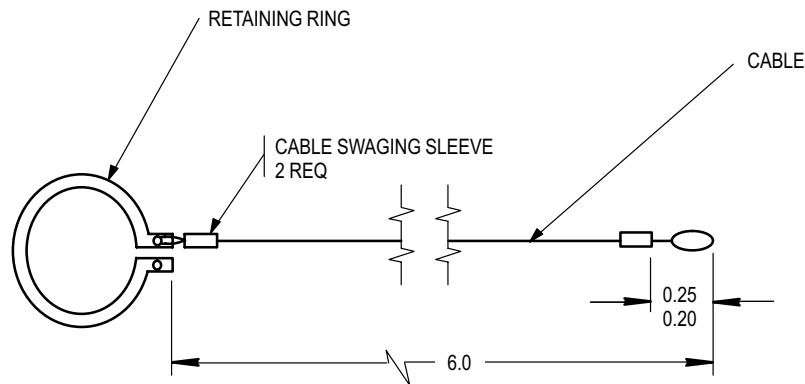
★ INSERT LETTER CODE FROM KEYING CHART TO COMPLETE PART NUMBER FOR ASSEMBLED CONNECTOR  
USE DASH (-) IN PLACE OF LETTER CODE TO IDENTIFY KIT

NOTES:

- CONNECTOR, RECTANGULAR; MTC ROUND WIRE, 0.100" CENTERS
- P/N CTA-0023, NSN 5935-01-176-7035

M04-4681

Figure D-5. Connector, Receptacle/Plug PN HS5239\*

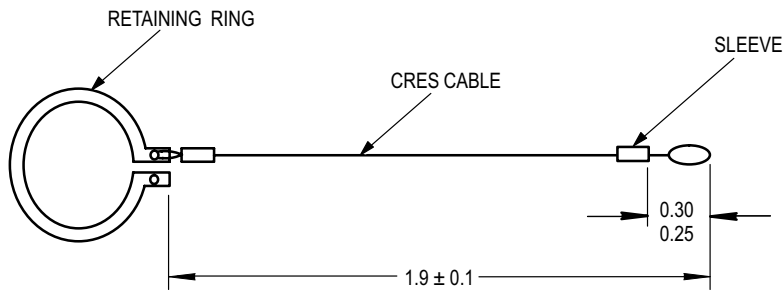


NOTES:

- FOOT, TETHER - MAKE FROM CRES 0.030 DIA. 7 x 7 x 8.0, NSN 4010-01-286-8859, RETAINING RING, NSN 5365-00-804-7651, AND SLEEVE, NSN 4030-01-143-2527
- ALL DIMENSIONS ARE IN INCHES

M04-4571

Figure D-6. Tether, Foot PN 120073

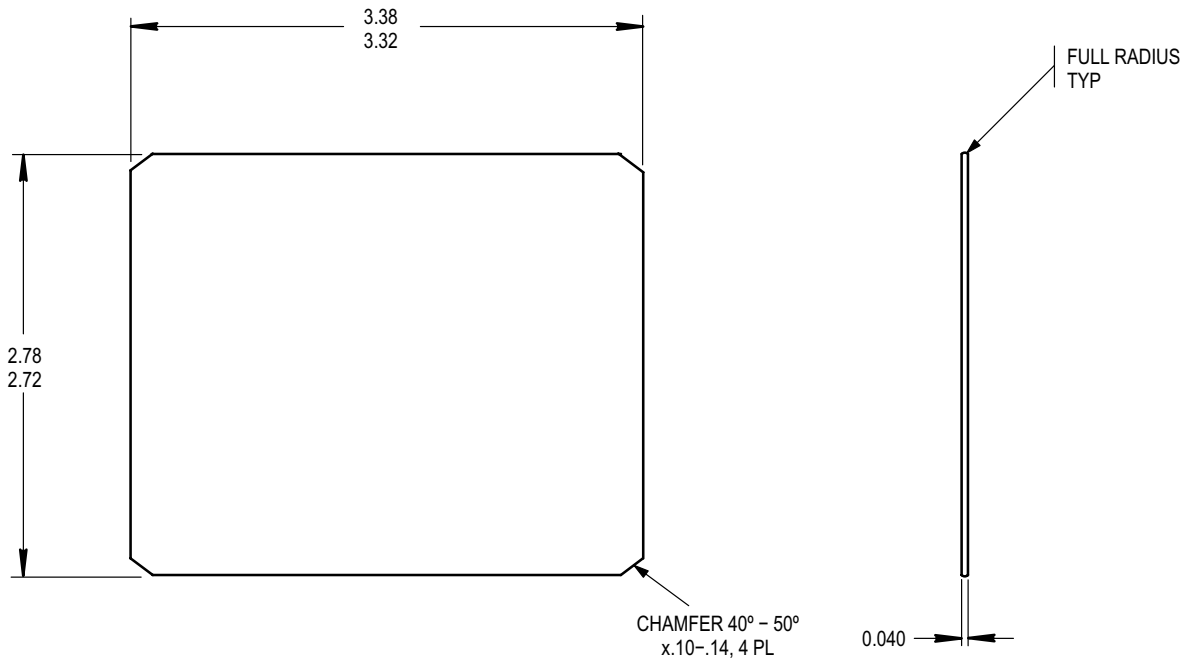


NOTES:

- TETHER - MAKE FROM CRES 0.030 DIAMETER MIL-C-5424, NSN 4010-01-286-8859, RETAINING RING, NSN 5365-00-298-6564, AND SLEEVE, NSN 4010-01-286-8859
- ALL DIMENSIONS ARE IN INCHES

M04-4570

Figure D-7. Tether PN 120104

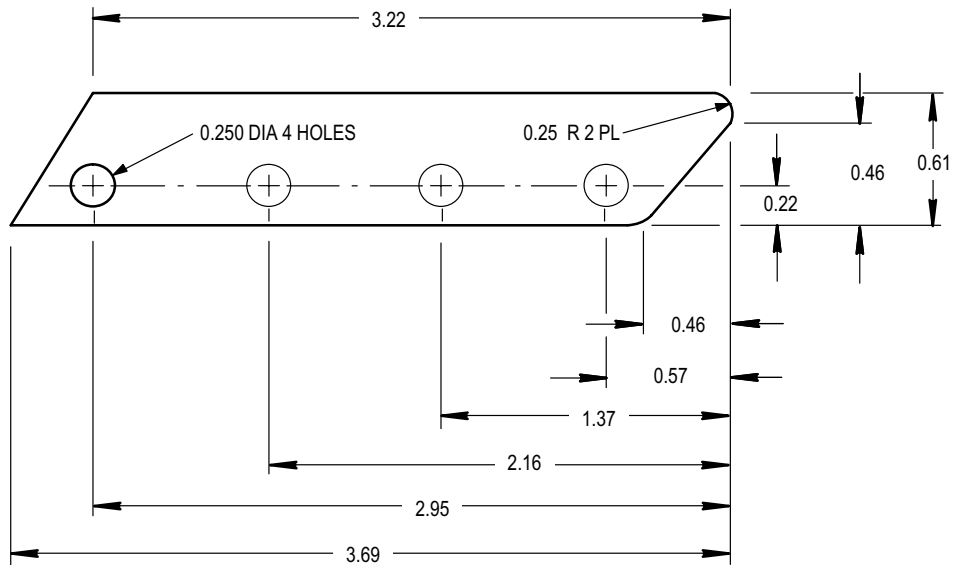


NOTES:

- PLATE - MAKE FROM AL-ALY SHEET 0.040 THICKNESS, 6061-T6 QQ-A-250/11 NSN 9535-00-085-4408
- ALL DIMENSIONS ARE IN INCHES

M04-4567

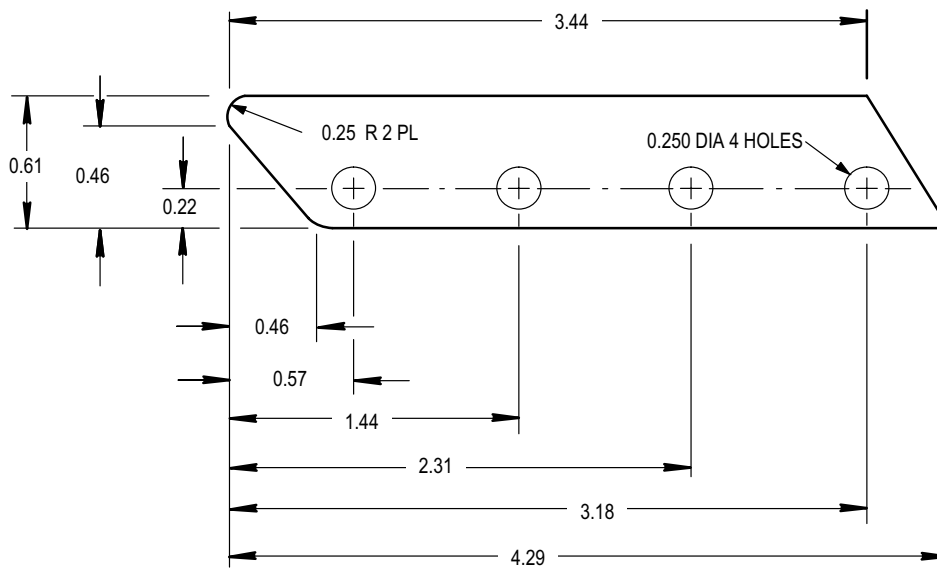
Figure D-8. Plate PN 2202758-5



- NOTES:
- SHIM, CUTTER ASSEMBLY - MAKE FROM AL-ALY SHEET 2024-T3, 0.016 THICK, QQ-A-250/5, NSN 9535-00-232-0543
  - FINISH - CHEMICALLY FILM TREAT PER MIL-C-5541 CLASS 1A
  - ALL DIMENSIONS ARE IN INCHES

M04-4578

Figure D-9. Shim, Cutter Assembly PN 342-83028-1

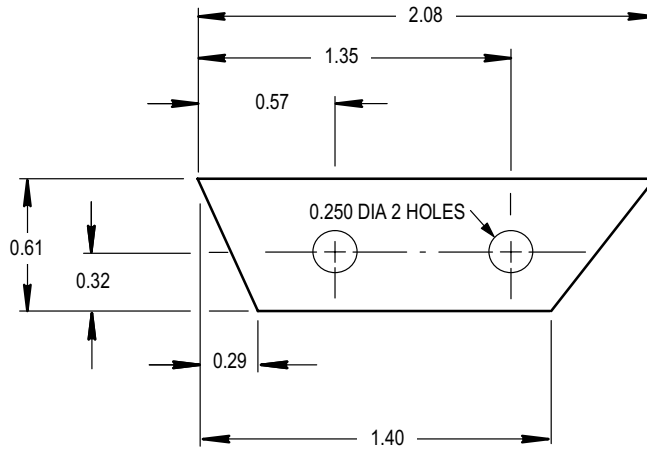


- NOTES:
- SHIM, CUTTER ASSEMBLY - MAKE FROM AL-ALY SHEET 2024-T3, 0.016 THICK, QQ-A-250/5, NSN 9535-00-232-0543
  - FINISH - CHEMICALLY FILM TREAT PER MIL-C-5541, CLASS 1A
  - ALL DIMENSIONS ARE IN INCHES

M04-4579

Figure D-10. Shim, Cutter Assembly PN 342-83028-3



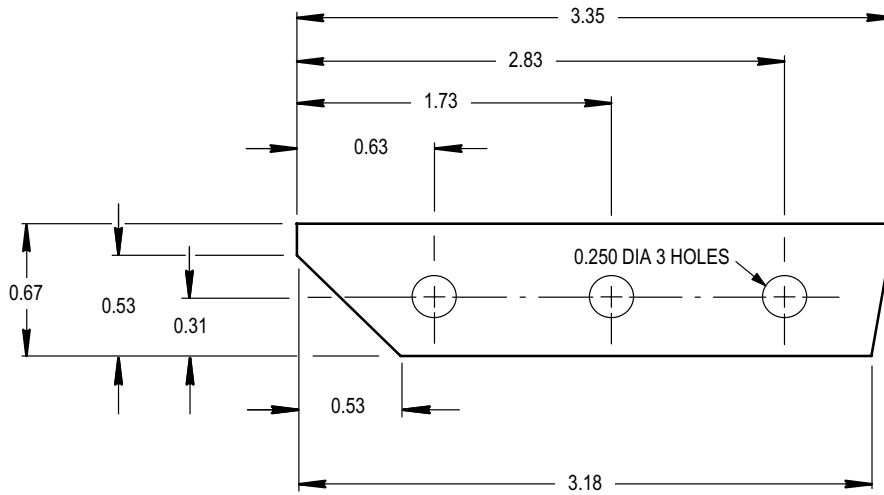


NOTES:

- SHIM, BLADE - MAKE FROM AL-ALY SHEET 2024-T3, 0.016 THICK  
QQ-A-250/5, NSN 9535-00-232-0543
- FINISH - CHEMICALLY FILM TREAT PER MIL-C-5541 CLASS 1A
- ALL DIMENSIONS ARE IN INCHES

M04-4575

Figure D-11. Shim, Blade PN 366-83019-3

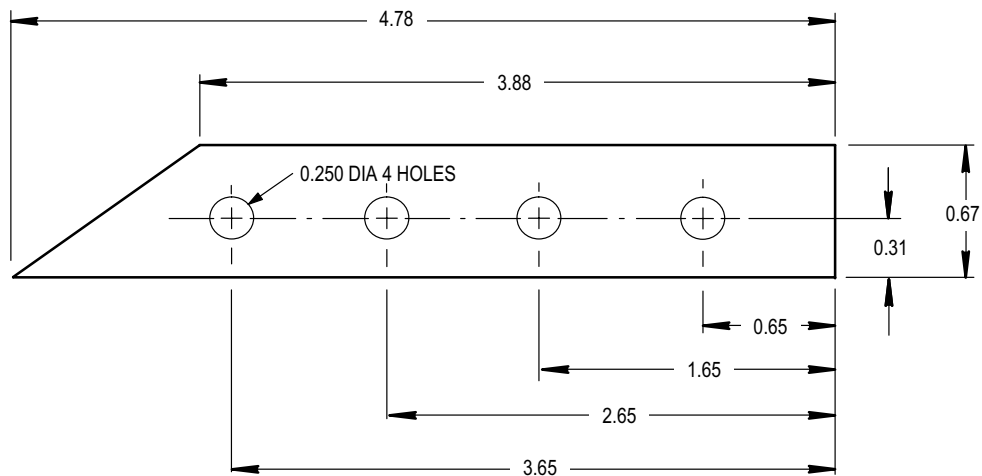


NOTES:

- SHIM, BLADE - MAKE FROM AL-ALY SHEET 2024-T3, 0.016 THICK  
QQ-A-250/5, NSN 9535-00-232-0543
- FINISH - CHEMICALLY FILM TREAT PER MIL-C-5541 CLASS 1A
- ALL DIMENSIONS ARE IN INCHES

M04-4576

Figure D-12. Shim, Blade PN 366-83019-5

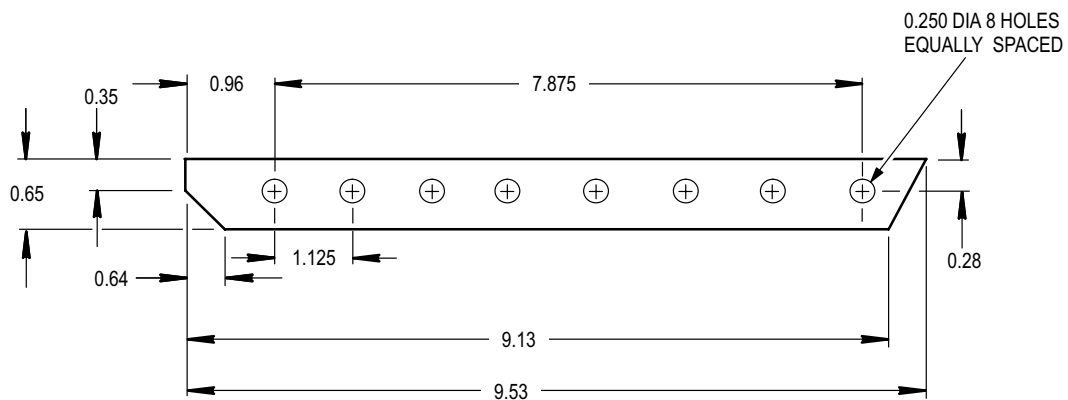


NOTES:

- SHIM, BLADE-MAKE FROM AL-ALY SHEET 2024-T3, 0.016 THICK  
QQ-A-250/5, NSN 9535-00-232-0543
- FINISH - CHEMICALLY FILM TREAT PER MIL-C-5541 CLASS 1A
- ALL DIMENSIONS ARE IN INCHES

M04-4577

Figure D-13. Shim, Blade PN 366-83019-7

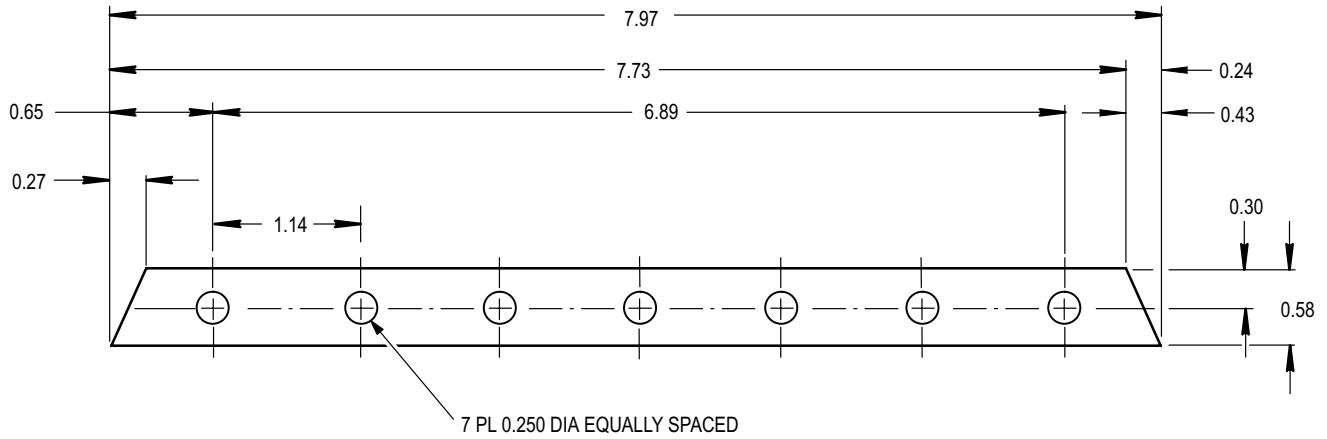


NOTES:

- SHIM, CHEEK PLATE - MAKE FROM AL-ALY SHEET 2024-T3,  
0.016 THICK, QQ-A-250/5, NSN 9535-00-232-0543
- FINISH - CHEMICALLY FILM TREAT PER MIL-C-5541 CLASS 1A
- ALL DIMENSIONS ARE IN INCHES

M04-4574

Figure D-14. Shim, Cheek Plate PN 366-83029-1

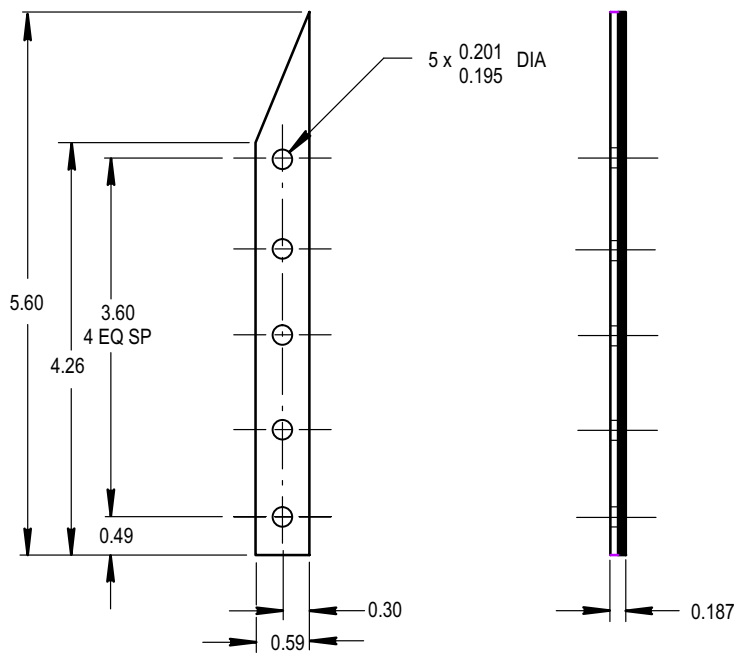


NOTES:

- SHIM, ANGLE - MAKE FROM AL-ALY SHEET 2024-T3, 0.016 THICK  
QQ-A-250/5 NSN 9535-00-232-0543
- ALL DIMENSIONS ARE IN INCHES

M04-4568

Figure D-15. Shim, Angle PN 443-83065-1

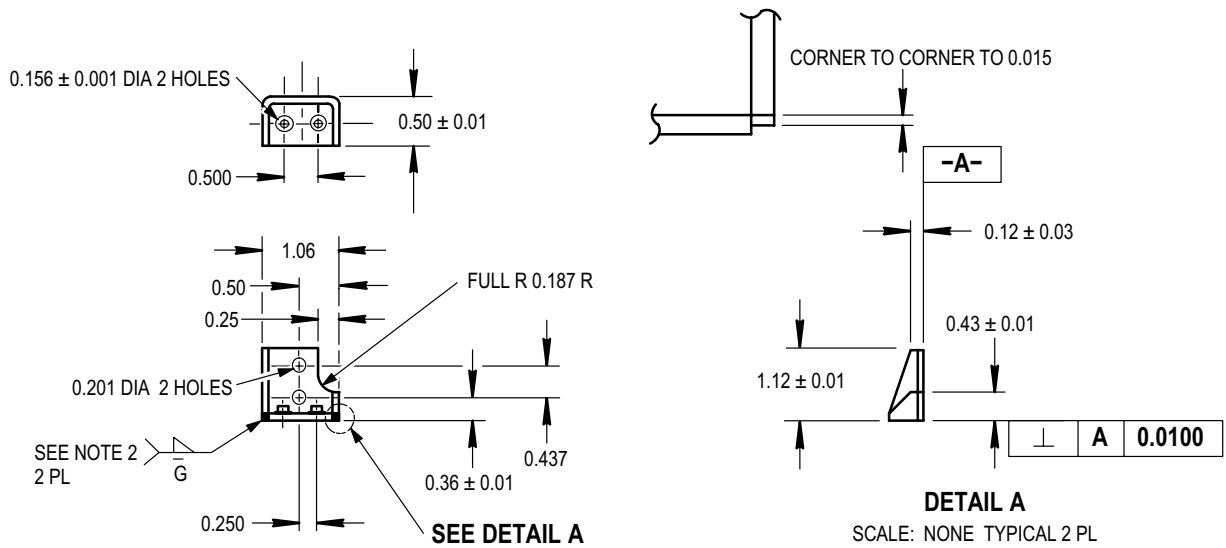


NOTES:

- SHIM, BRACKET - MAKE FROM AL-ALY SHEET 0.187 THICKNESS  
NSN 9535-00-188-1574
- ALL DIMENSIONS ARE IN INCHES

M04-4569

Figure D-16. Shim, Bracket PN 443-83088-1



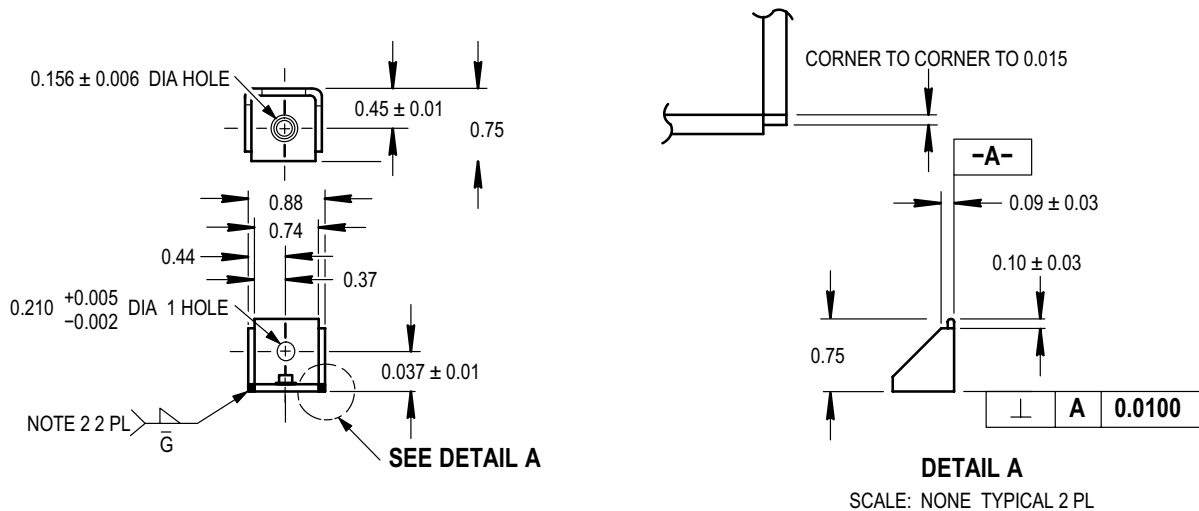
NOTES:

- 1 BRACKET, FRONT PANEL SUPPORT - MAKE FROM AL-ALY 6061-0 0.063 THICK, QQ-A-250-11 NSN 9535-01-361-8000
- 2 WELD BOTTOM CORNERS AS SHOWN (2 PLACES) WELD FILLET TO BE 0.015 TO NONINTERFERENCE WITH HARDWARE. BOTTOM AND SIDE SURFACES MUST BE MACHINED FLUSH AFTER WELDING

- 3 HEAT TREAT TO T6 AFTER WELDING
- 4 FINISH - CONVERSION COAT PER MIL-C-5541, CLASS 3, COLOR YELLOW, FORM 2 METHOD B NSN 8030-01-018-2838
- 5 ALL DIMENSIONS ARE IN INCHES

M04-4572

**Figure D-17. Bracket, Front Panel PN 62023078-000**



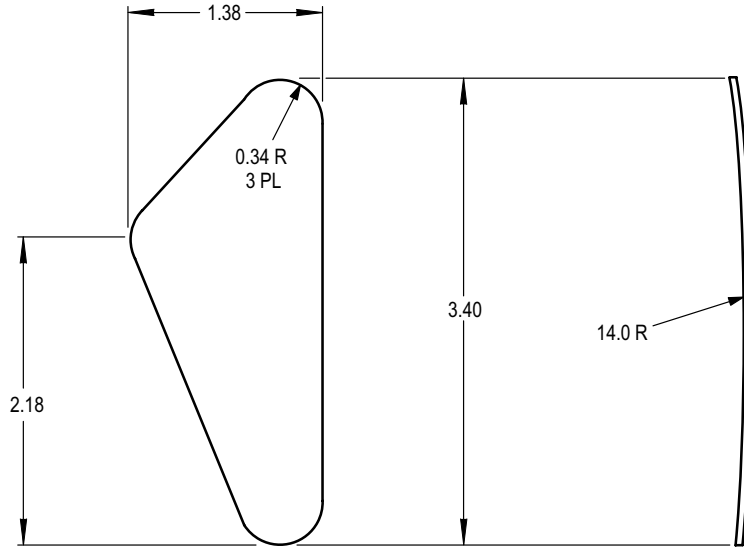
NOTES:

- 1 BRACKET, REAR PANEL SUPPORT - MAKE FROM AL-ALY SHEET 6061-0 QQ-A-250/11, 0.063 THICK, NSN 9535-01-361-8000
- 2 WELD CORNERS AS SHOWN (2 PLACES). WELD FILLET TO BE 0.015 TO NONINTERFERENCE WITH HARDWARE. BOTTOM AND SIDE SURFACES MUST BE MACHINED FLUSH AFTER WELDING

- 3 HEAT TREAT TO T6 AFTER WELDING
- 4 FINISH - CONVERSION COAT PER MIL-C-5541, CLASS I, COLOR YELLOW, FORM 3 METHOD B CLASS 1A NSN 8030-00-823-8039
- 5 ALL DIMENSION ARE IN INCHES

M04-4573

**Figure D-18. Bracket, Rear Panel PN 62023079-000**

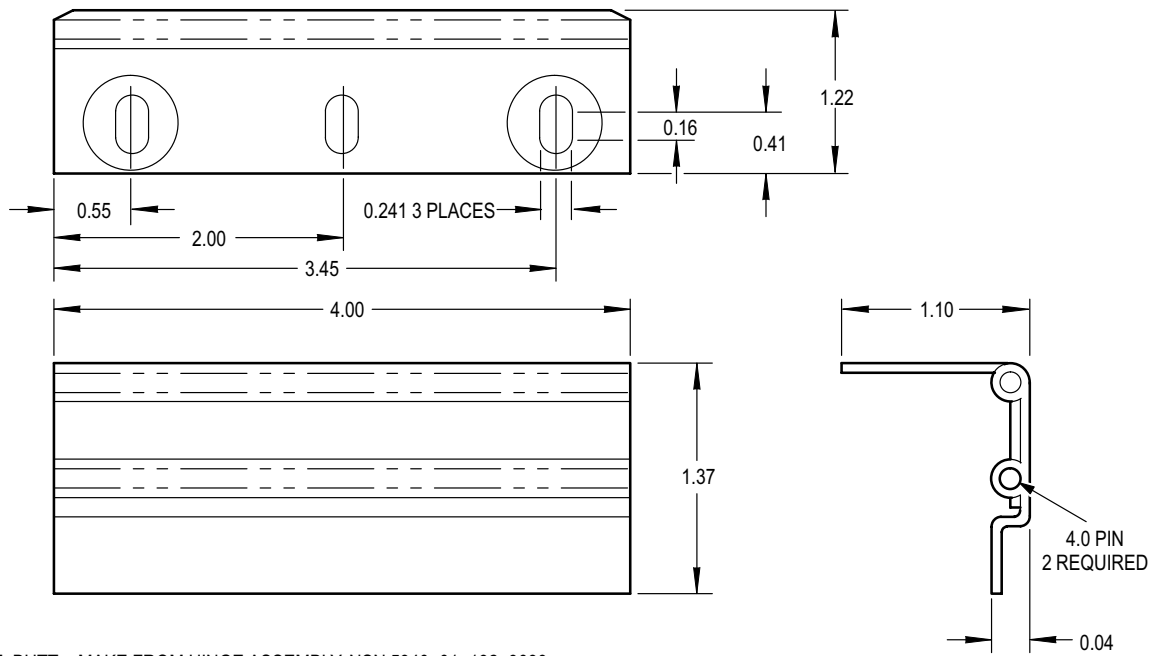


NOTES:

- PLATE, SPLICE - MAKE FROM AL-ALY SHEET, 2024-T3, 0.040 THICK QQ-A-250/4 NSN 9535-00-086-9930
- P/N 7-111120129-3 SHOWN  
P/N 7-111120129-4 OPPOSITE
- FINISH - CHEMICALLY FILM TREAT PER MIL-C-5341, CLASS IA
- ALL DIMENSIONS ARE IN INCHES

M04-4927

**Figure D-19. Plate, Splice PN 7-111120129-3  
Splice PN 7-111120129-4**

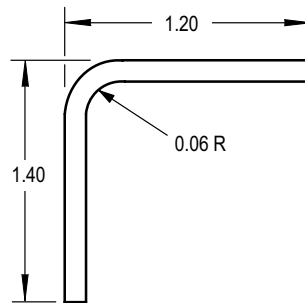


NOTES:

- HINGE, BUTT - MAKE FROM HINGE ASSEMBLY, NSN 5340-01-182-9039
- ALL DIMENSIONS ARE IN INCHES

M04-4692

**Figure D-20. Hinge, Butt PN 7-111210133-33**

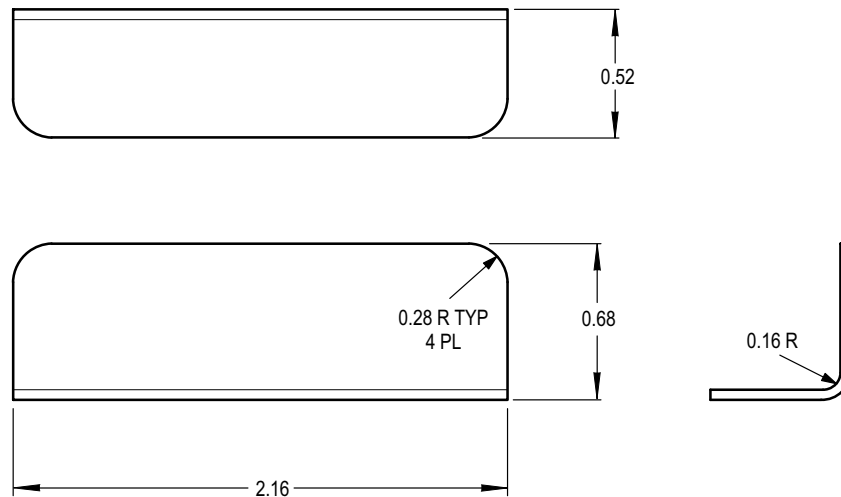


NOTES:

- CLIP - MAKE FROM AL-ALY SHEET, 2024-0, 0.40 THICK, NSN 9535-00-167-2249
- ALL DIMENSIONS ARE IN INCHES

M04-4693

Figure D-21. Clip PN 7-111210133-7

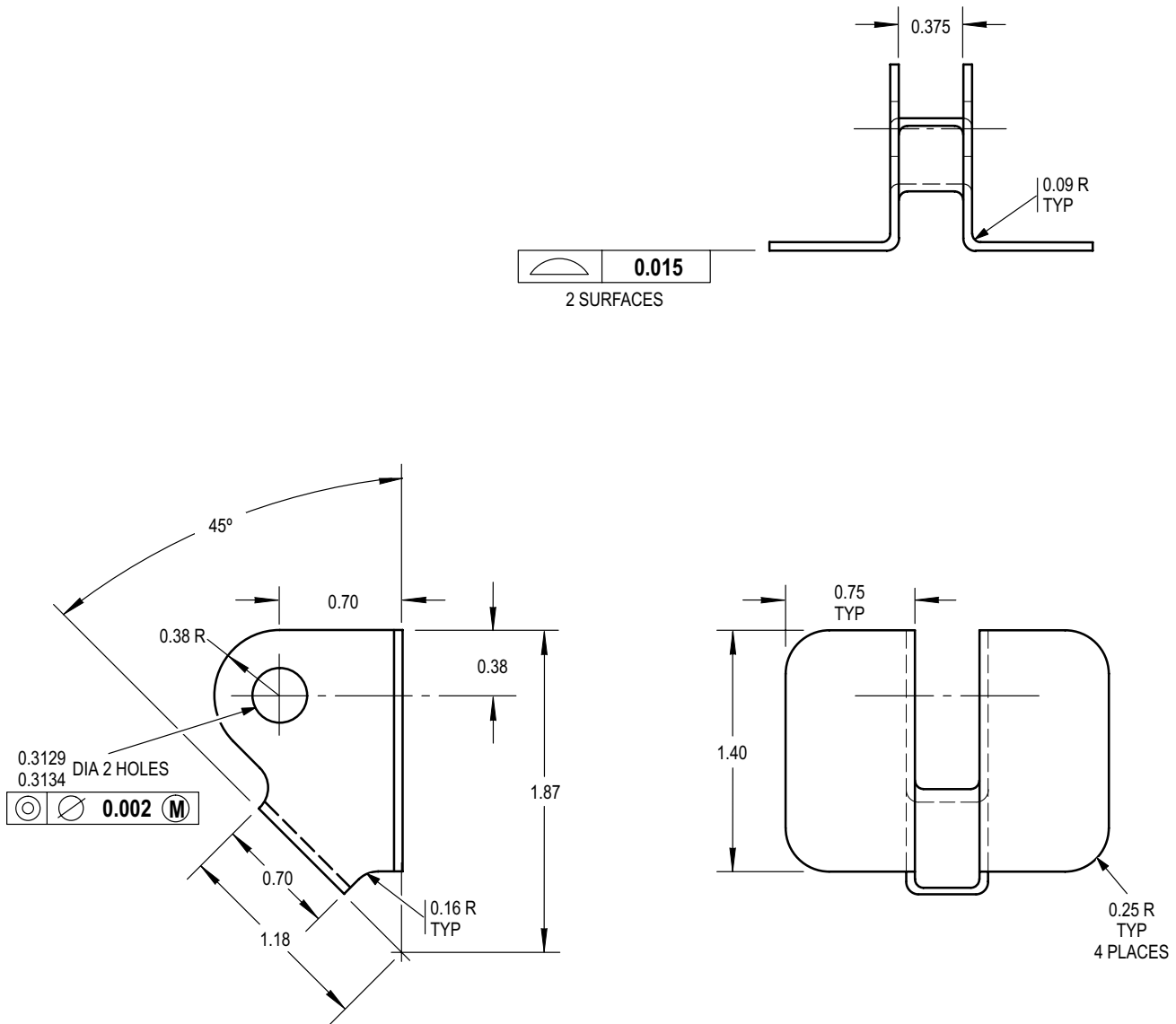


NOTES:

- CLIP - MAKE FROM AL-ALY SHEET 2024-T3, 0.040 THICK QQ-A-250/4 NSN 9535-00-086-9930
- FINISH - CHEMICALLY FILM TREAT PER MIL-C-5541 CLASS IA
- ALL DIMENSIONS ARE IN INCHES

M04-4924

Figure D-22. Clip PN 7-111210196-11

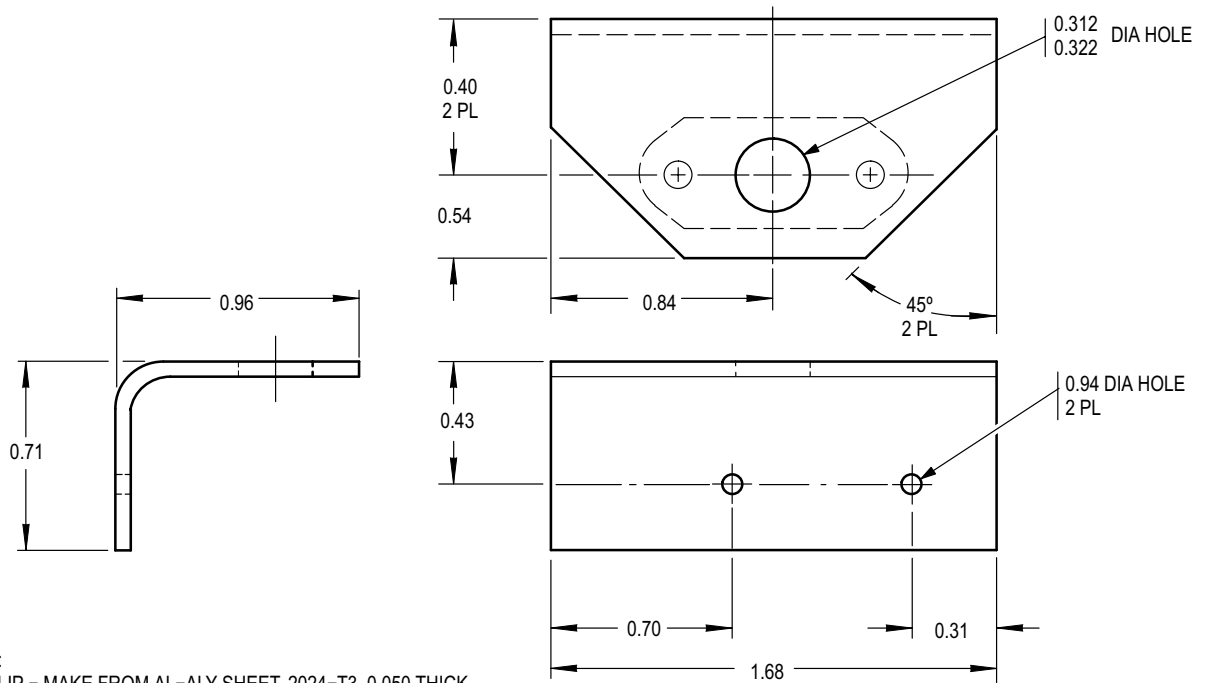


NOTES:

- BRACKET - MAKE FROM AL-ALY SHEET 2024-0, 0.50 THICK QQ-A-250-4 NSN 9535-00-229-0917
- FINISH - CHEMICALLY FILM TREAT PER MIL-C-5541, CLASS 1A
- HEAT TREAT TO T42 AFTER FORMING
- ALL DIMENSIONS ARE IN INCHES

M04-4894

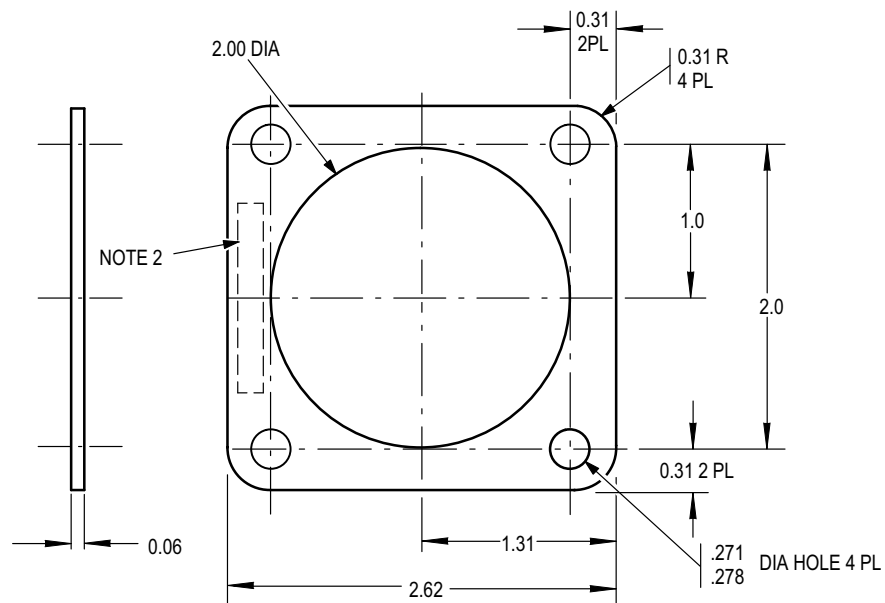
Figure D-23. Bracket PN 7-111210277-3



- NOTES:
- CLIP - MAKE FROM AL-ALY SHEET, 2024-T3, 0.050 THICK  
NSN 9535-00-236-7000
  - ALL DIMENSIONS ARE IN INCHES

M04-4627

Figure D-24. Clip PN 7-111260243-3

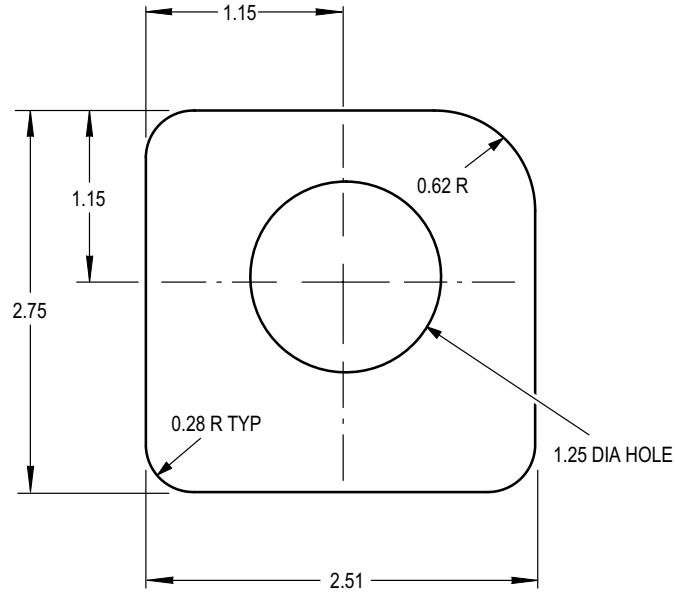


- NOTES:
- 1 GASKET - MAKE FROM 0.06 NEOPRENE COATED FABRIC PER AMS3783  
NSN 5330-00-618-4616
  - 2 IDENTIFY WITH INDELIBLE INK, MINIMUM HEIGHT 0.125 INCHES
  - 3 ALL DIMENSIONS ARE IN INCHES

M04-4625

Figure D-25. Gasket PN 7-117420064



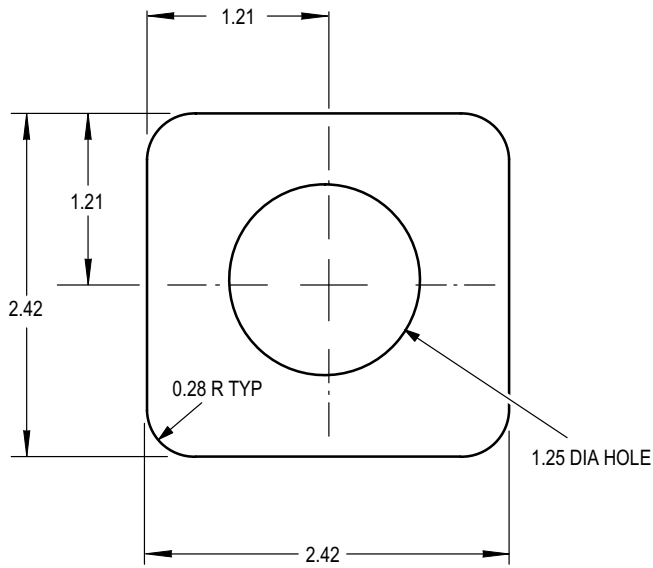


NOTES:

- DOUBLER - MAKE FROM AL-ALY SHEET, 2024-T3, 0.040 THICK  
NSN 9535-00-084-4551
- FINISH - CHROMIC ANODIZE ALUMINUM ALLOYS PER MIL-A-8625  
TYPE I, CLASS I
- ALL DIMENSIONS ARE IN INCHES

M04-4882

Figure D-26. Doubler PN 7-211113545-13

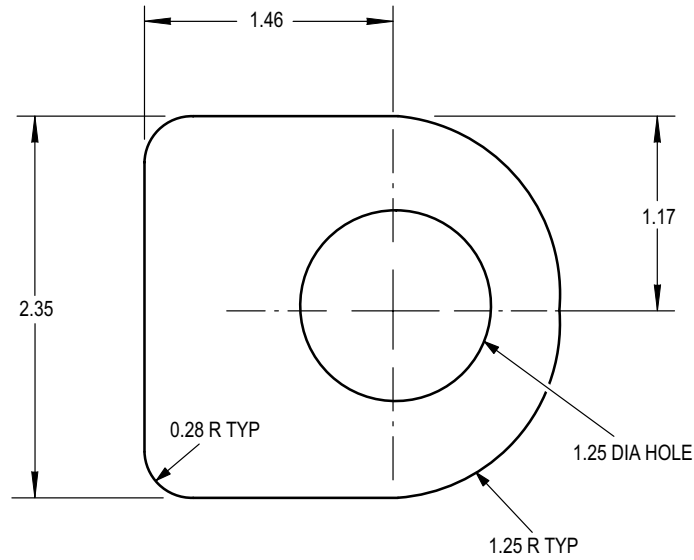


NOTES:

- DOUBLER - MAKE FROM AL-ALY SHEET, 2024-T3, 0.040 THICK  
NSN 9535-00-084-4551
- FINISH - CHROMIC ANODIZE ALUMINUM ALLOYS PER MIL-A-8625  
TYPE I, CLASS I
- ALL DIMENSIONS ARE IN INCHES

M04-4883

Figure D-27. Doubler PN 7-211113545-15

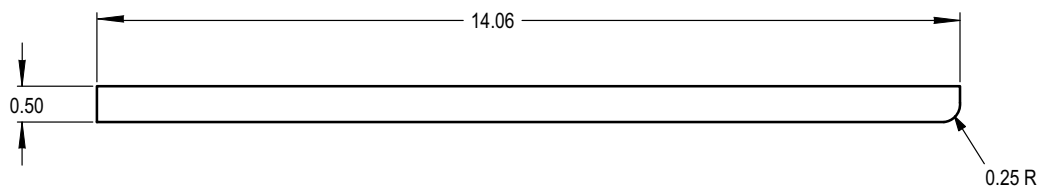


NOTES:

- DOUBLER - MAKE FROM AL-ALY SHEET, 2024-T3, 0.040 THICK  
NSN 9535-00-084-4551
- FINISH - CHROME ANODIZE ALUMINUM ALLOYS PER MIL-A-8625  
TYPE I, CLASS I
- ALL DIMENSIONS ARE IN INCHES

M04-4881

Figure D-28. Doubler PN 7-211113545-9

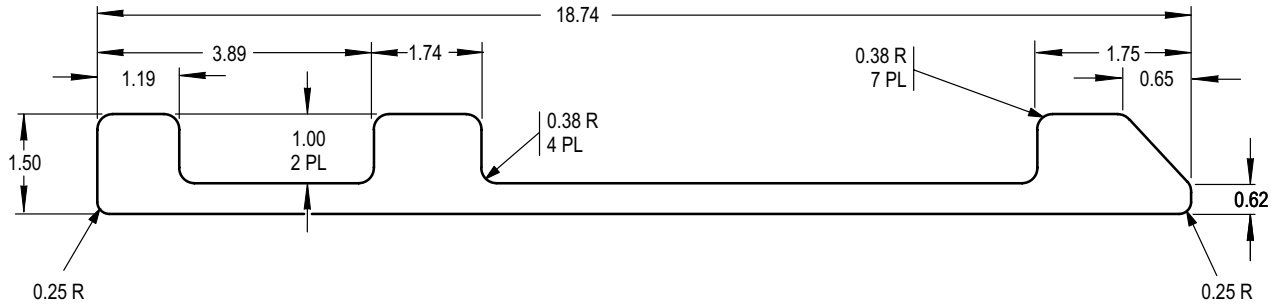


NOTES:

- FILLER - MAKE FROM AL-ALY SHEET 2024-T4, 0.025 THICK  
NSN 9535-00-084-4533
- ALL DIMENSIONS ARE IN INCHES

M04-4767

Figure D-29. Filler PN 7-211123612-11

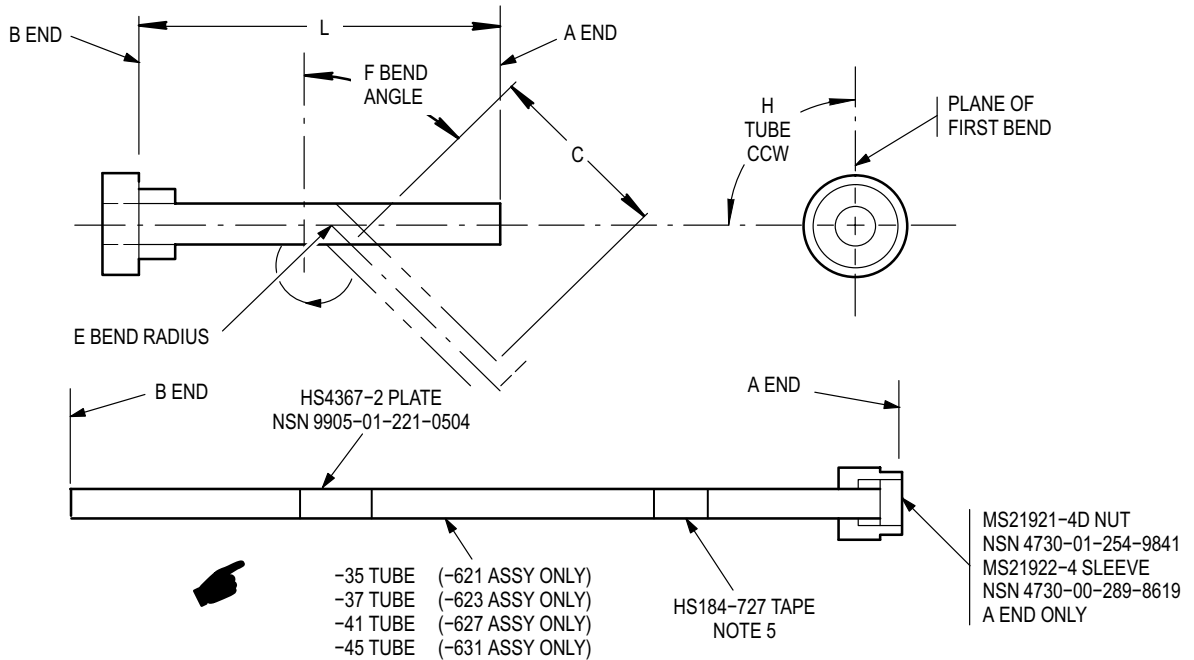


NOTES:

- STRAP - MAKE FROM AL-ALY SHEET 2024-T3, 0.050 THICK  
NSN 9535-00-236-7000J
- ALL DIMENSIONS ARE IN INCHES

M04-4766

Figure D-30. Strap PN 7-211123612-9



BEND NUMBER	DIMENSIONS				
	C	E	F	H	L
PART NUMBER 7-211310218-621					
1	0.97	0.75	69.8	0.0°	38.81
2	5.46	0.75	63.5	175.2	38.81
3	21.33	0.75	63.3	-19.3	38.81
4	6.07	0.75	86.3	-109.9	38.81
	1.28				

BEND NUMBER	DIMENSIONS				
	C	E	F	H	L
PART NUMBER 7-211310218-627					
1	8.18	0.75	75.2	0.0°	53.39
2	4.89	0.75	5.0	102.6	53.39
3	4.89	0.75	77.1	168.1	53.39
4	24.67	0.75	61.0	82.6	53.39
5	5.28	0.75	80.3	114.8	53.39
	1.57				

BEND NUMBER	DIMENSIONS				
	C	E	F	H	L
PART NUMBER 7-211310218-623					
1	7.50	0.75	90.0	0.0°	50.48
2	3.50	0.75	6.0	-90.0	50.48
3	3.50	0.75	80.4	-180.0	50.48
4	25.25	0.75	62.4	-90.0	50.48
5	5.26	0.75	84.6	-105.6	50.48
	1.24				

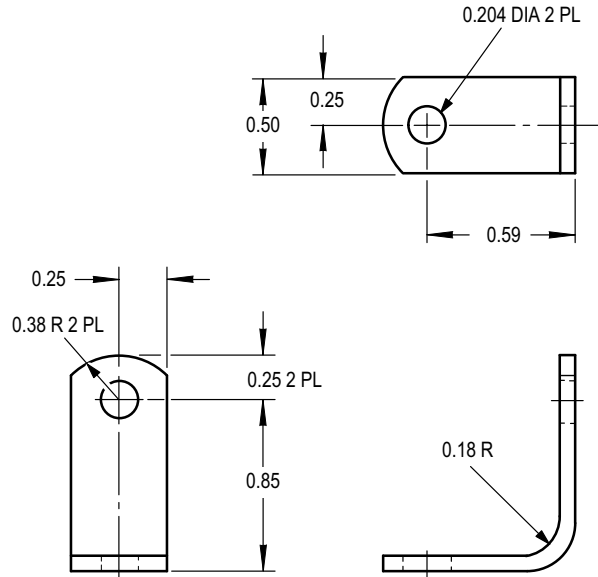
BEND NUMBER	DIMENSIONS				
	C	E	F	H	L
PART NUMBER 7-211310218-631					
1	0.97	0.75	90.0	0.0°	2.75
	1.00				

NOTES:

- 1 TUBE ASSY, METAL - MAKE FROM AL-ALY TUBING, 6061-T6, TUBE SIZE 0.250 OD X 0.028 WALL THICKNESS, NSN 4710-00-289-2780
- 2 DIMENSION C IS DISTANCE BETWEEN BENDS
- 3 DIMENSION L IS PREPARED LENGTH BEFORE BENDING
- 4 FIRST BEND STARTS FROM END A
- 5 TAPE ARROW \* POINTS TO END B
- 6 INSTALL END FITTINGS (TM 1-1500-204-23)
- 7 CHEMICALLY FILM TREAT PER MIL-C-5541
- 8 ALL DIMENSIONS ARE IN INCHES

M04-5056A

Figure D-31. Tube Assembly PN 7-211310218-621/-623/-627/-631

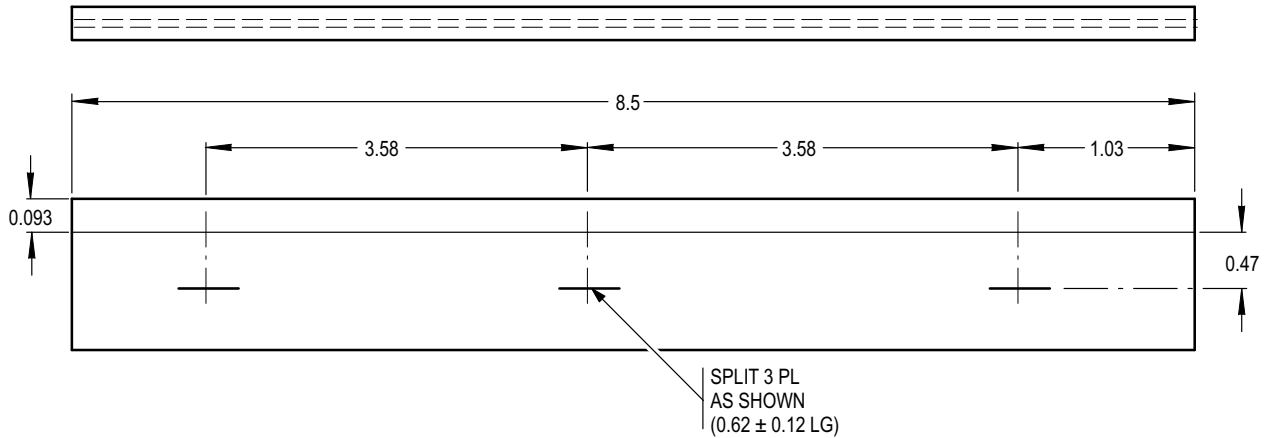


NOTES:

- CLIP - MAKE FROM AL-ALY SHEET, 2024-T3, 0.050 THICK  
NSN 9535-00-236-7000
- ALL DIMENSIONS ARE IN INCHES

M04-4626

Figure D-32. Clip PN 7-211670409

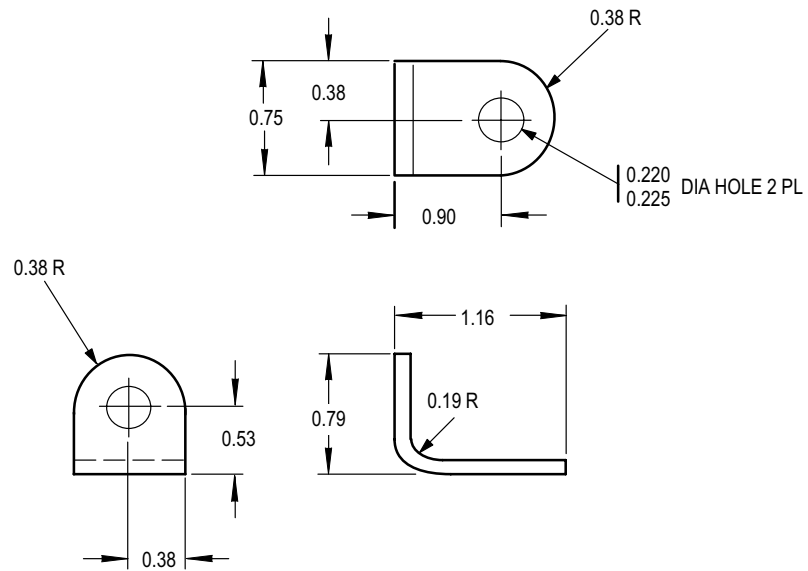


NOTES:

- SEAL - MAKE FROM EXTERNAL SEAL EXTRUDED RUBBER - SILICONE NSN 9320-00-069-5175
- BOND SEAL TO DUCT ASSEMBLY USING ADHESIVE NSN 5330-01-259-0770
- ALL DIMENSIONS ARE IN INCHES

M04-4886

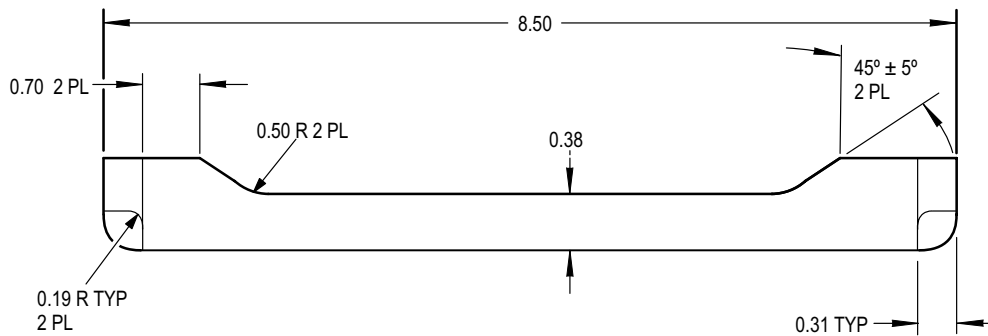
Figure D-33. Seal PN 7-211710032-11



- NOTES:
- BRACKET, TUBE SUPPORT - MAKE FROM AL-ALY SHEET, 2024-T3, 0.040 THICK, NSN 9535-00-086-9930
  - ALL DIMENSIONS ARE IN INCHES

M04-4619

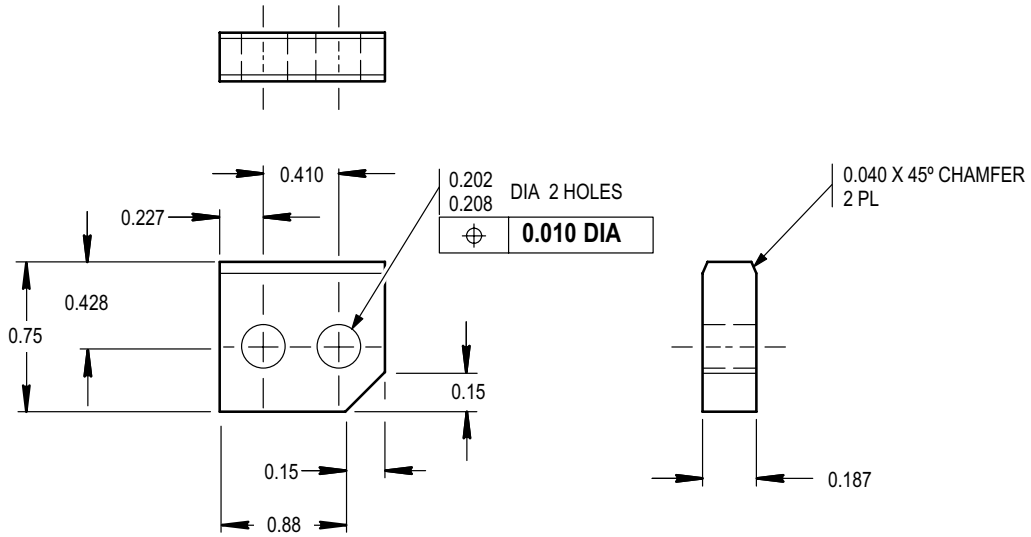
Figure D-34. Bracket PN 7-211710068-3



- NOTES:
- CLIP - MAKE FROM AL-ALY SHEET, 2024-T3, 0.050 THICK NSN 9535-00-236-7000
  - ALL DIMENSIONS ARE IN INCHES

M04-4616

Figure D-35. Clip PN 7-211830049-5

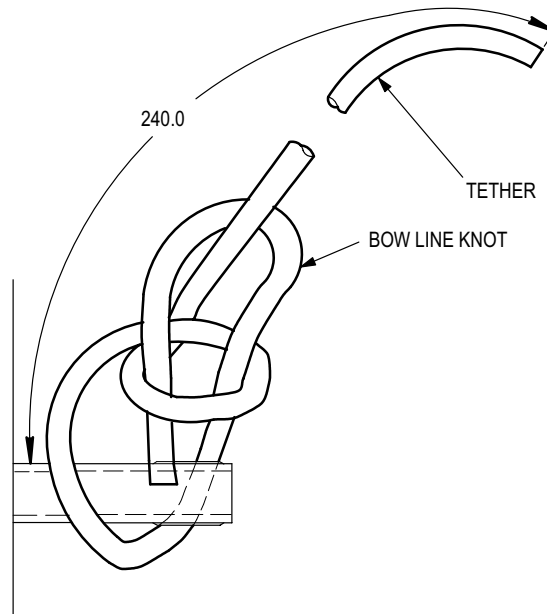


NOTES:

- SPACER PLATE - MAKE FROM AL-ALY SHEET 2024-T3, 0.187 THICK
- FINISH - CHEMICALLY FILM TREAT PER MIL-C-5541 CLASS 1A
- ALL DIMENSIONS ARE IN INCHES

M04-4613

Figure D-36. Spacer, Plate PN 7-211910011

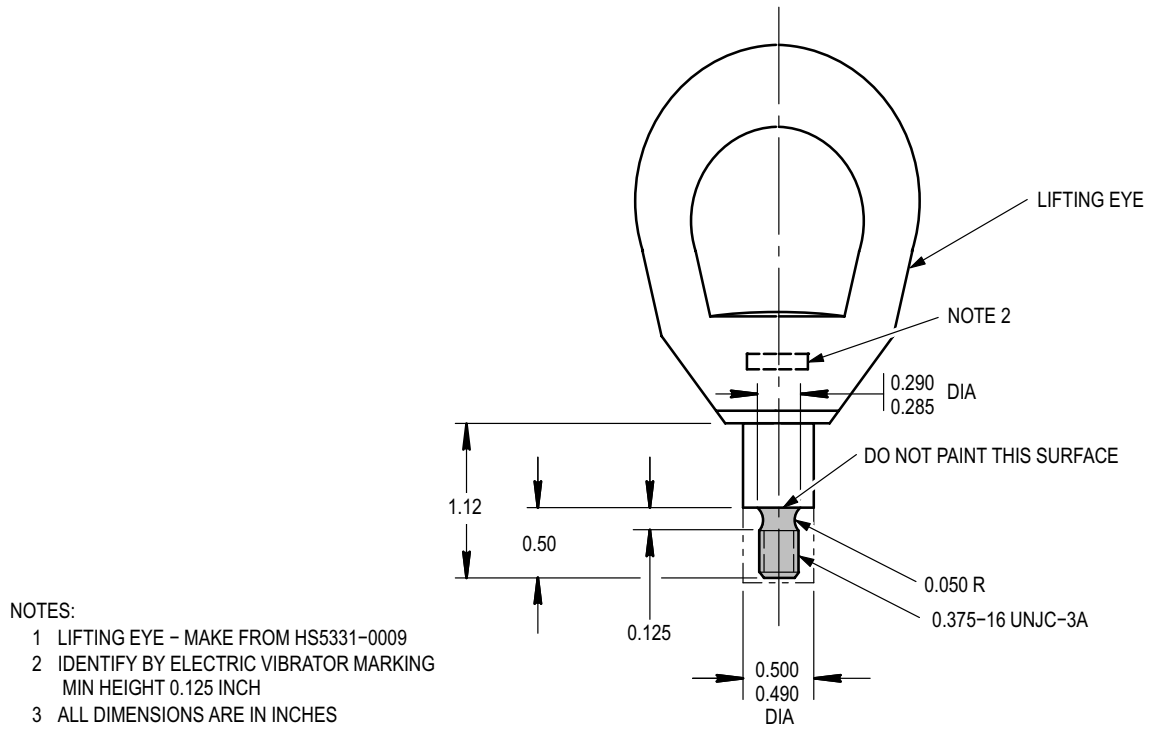


NOTES:

- TETHER - MAKE FROM NYLON CORD 0.31 DIA, 248 INCHES  
NSN 4020-00-641-8898
- SEAR ENDS OF ROPE
- ALL DIMENSIONS ARE IN INCHES

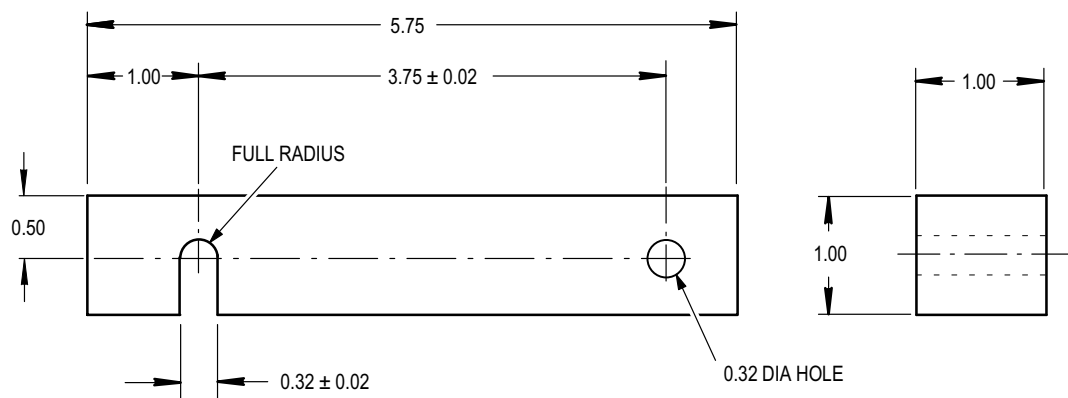
M04-4580

Figure D-37. Tether PN 7-262110002-17



M04-4609

Figure D-38. Lifting Eye, Tail Rotor Gearbox PN 7-262110020-3

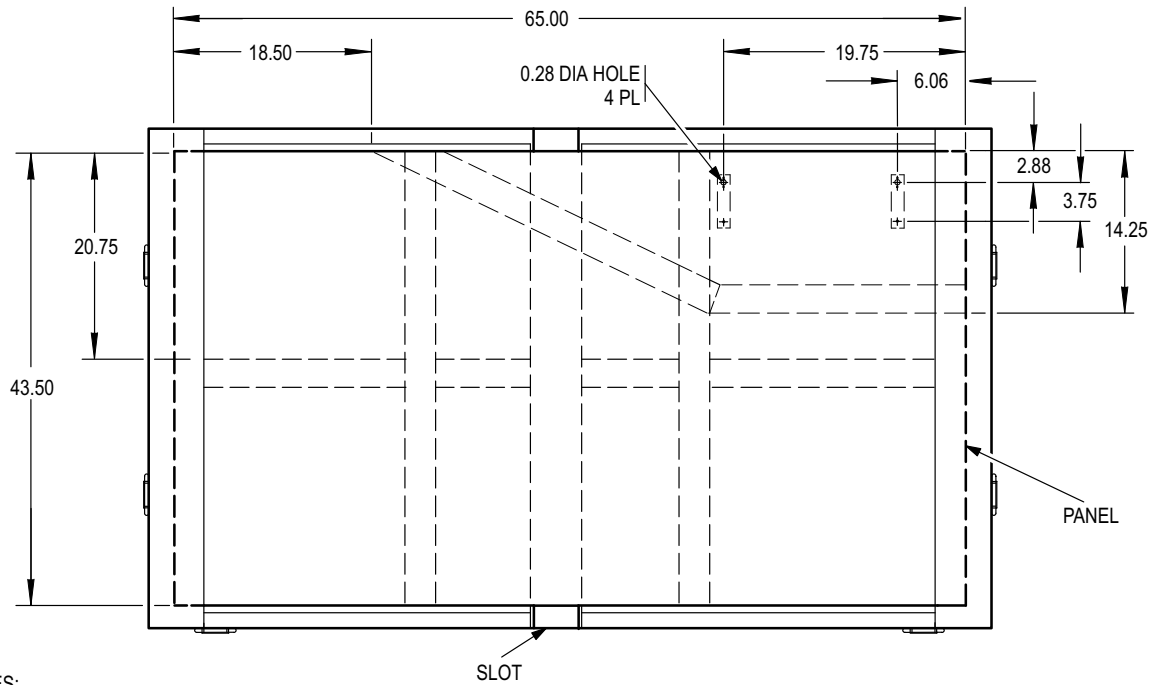


- NOTES:
- LATCH - MAKE FROM PINE 1.0 x 1.0 x 5.75
  - ALL DIMENSIONS ARE IN INCHES

M04-4605

Figure D-39. Latch PN 7-262110026-49



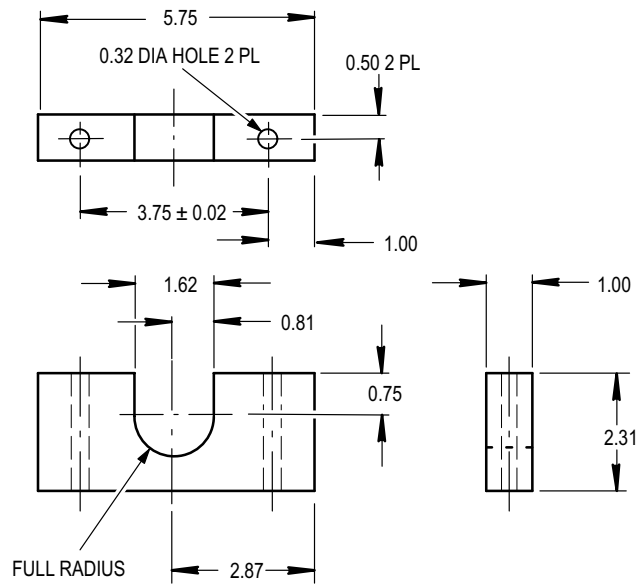


NOTES:

- PANEL, BOTTOM - MAKE FROM DOUGLAS FIR PLYWOOD - 0.375 x 43.5 x 65.0
- ALL DIMENSIONS ARE IN INCHES

M04-4604

Figure D-40. Panel PN 7-262110026-5

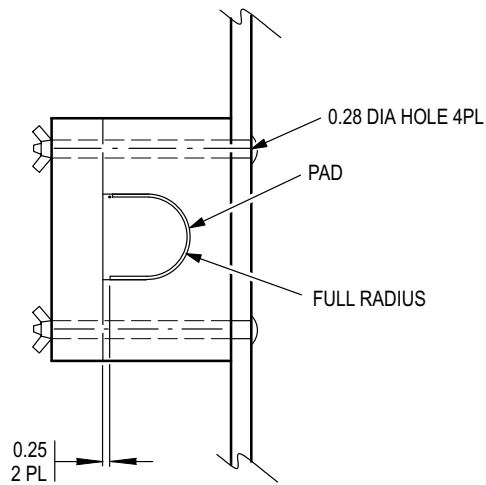


NOTES:

- BLOCK BASE - MAKE FROM PINE 1.00 x 2.31 x 5.75
- ALL DIMENSIONS ARE IN INCHES

M04-4606

Figure D-41. Block, Base PN 7-262110026-53

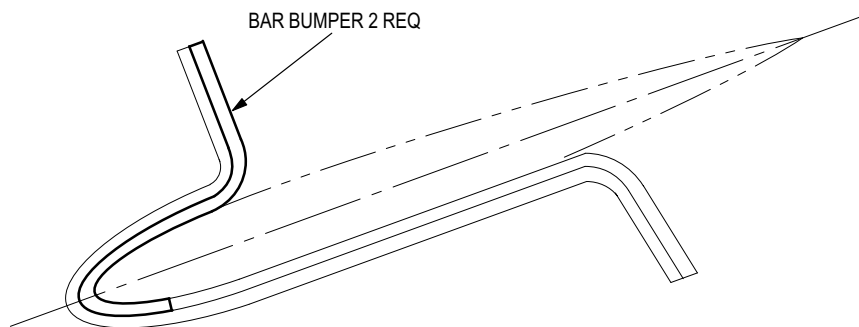


NOTES:

- PAD, RUBBER - MAKE FROM SILICONE RUBBER ZZ-R-765 CLASS 1B, GR 40  
0.06 x 1.00 x 3.50  
NSN 9320-01-103-0196
- ALL DIMENSIONS ARE IN INCHES

M04-4607

Figure D-42. Pad, Rubber PN 7-262110026-57

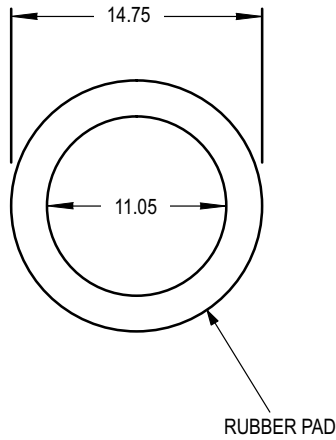


NOTES:

- BAR BUMPER - MAKE FROM SILICONE RUBBER,  
ZZ-R-765 CLASS 1B, GRADE 40, DIM 0.125 X 2.70 X 7.50  
NSN 9320-00-241-9741
- BOND TO M/R BLADE RACK USING ADHESIVE  
NSN 5330-01-259-0770
- ALL DIMENSIONS ARE IN INCHES

M04-4595

Figure D-43. Bar, Bumper PN 7-262110028-77

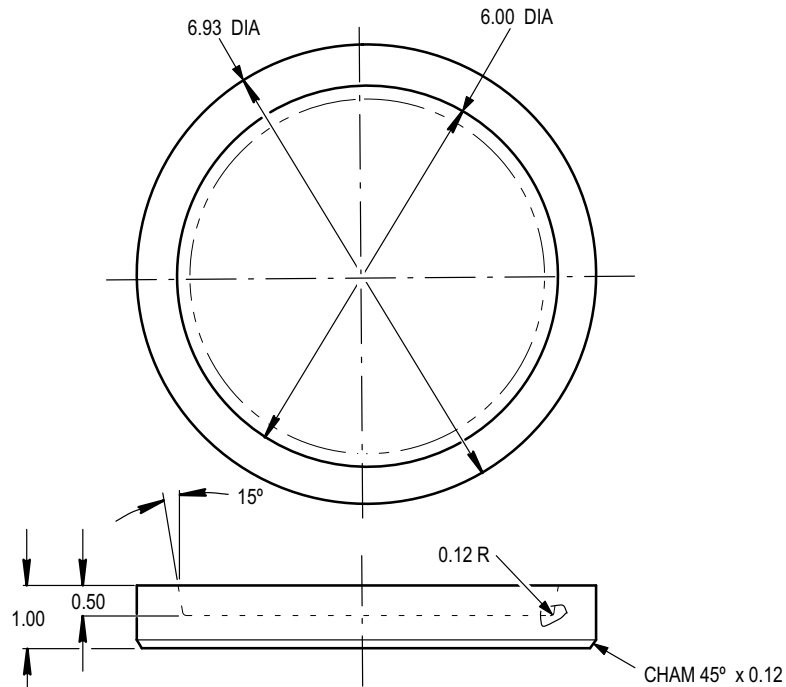


NOTES:

- PAD - MAKE FROM SILICONE RUBBER, ZZ-R-765 CLASS 1B, GRADE 40, 0.062 THICK  
NSN 9320-00-069-5175
- BOND-11 PAD TO-5 PLATE USING ADHESIVE  
NSN 5330-01-259-0770
- ALL DIMENSIONS ARE IN INCHES

M04-4594

Figure D-44. Pad PN 7-262110032-11

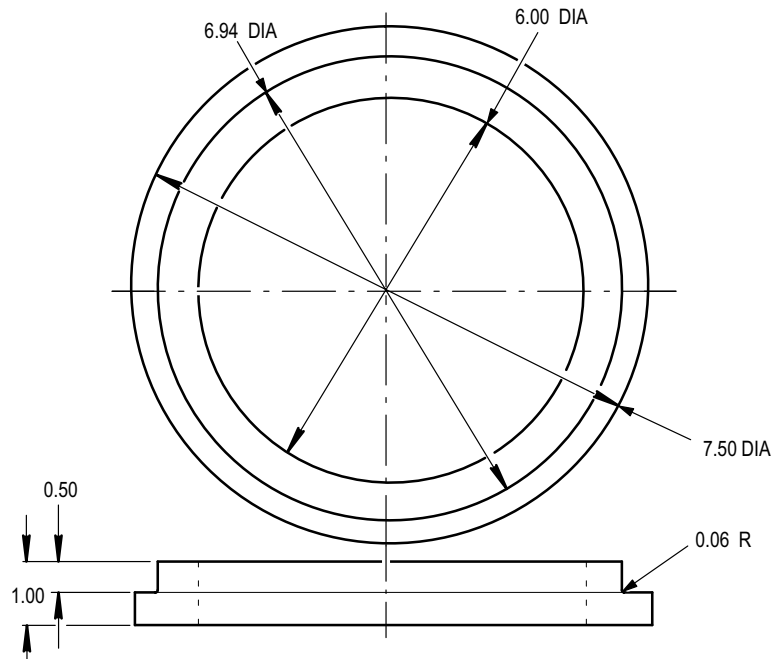


NOTES:

- PAD - MAKE FROM PLASTIC SHEET, LP 410 TYPE 66, 1.0 INCH DIA  
NSN 9330-00-341-8367
- ALL DIMENSIONS ARE IN INCHES

M04-4596

Figure D-45. Pad PN 7-262110064-43

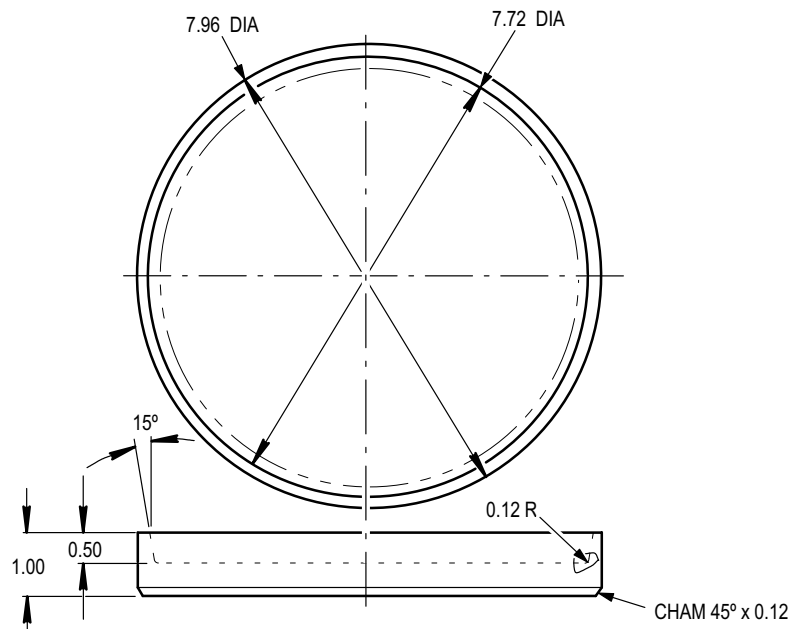


NOTES:

- PAD - MAKE FROM PLASTIC SHEET, LP 410 TYPE 66  
1.0 INCH DIA  
NSN 9330-01-341-8367
- ALL DIMENSIONS ARE IN INCHES

M04-4597

Figure D-46. Pad PN 7-262110064-45

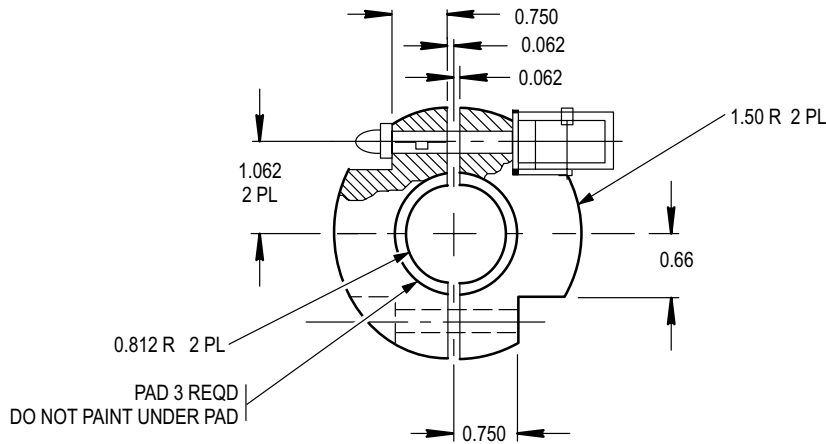


NOTES:

- PAD - MAKE FROM PLASTIC SHEET, LP 410 TYPE 66  
1.0 INCH DIA  
NSN 9330-01-341-8367
- ALL DIMENSIONS ARE IN INCHES

M04-4598

Figure D-47. Pad PN 7-262110064-47

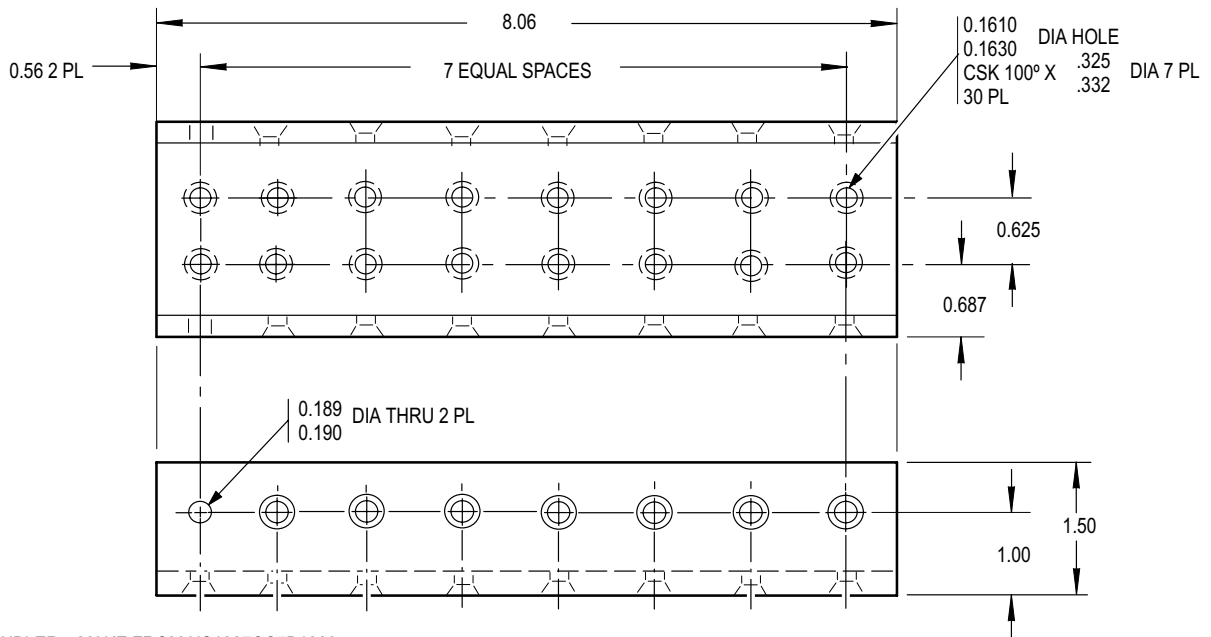


NOTES:

- PAD - MAKE FROM SILICONE RUBBER, ZZ-R-765 CLASS 1B, GRADE 40, 0.062 THICK NSN 9320-00-241-9741
- BOND TO COLLAR USING ADHESIVE NSN 5330-01-259-0770
- ALL DIMENSIONS ARE IN INCHES

M04-4588

Figure D-48. Pad PN 7-267310006-7

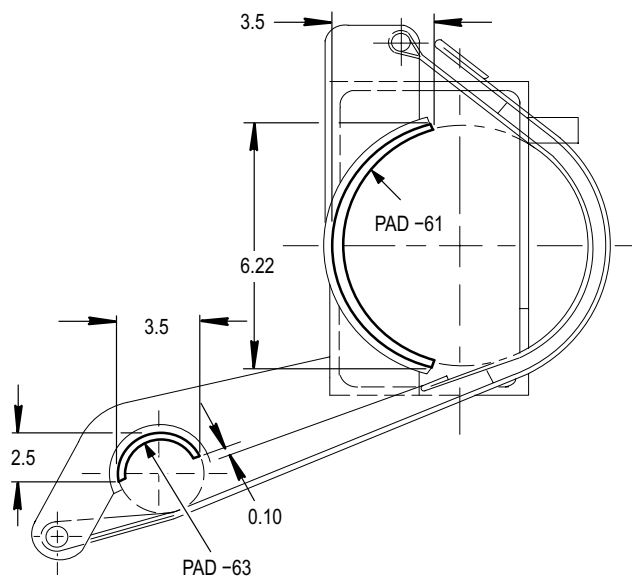


NOTES:

- DOUBLER - MAKE FROM HS1007CC5B1000 MAKE FROM AL-ALY 6061-T6 EXTRUDED CHANNEL - EQUAL LEGS EQUAL LENGTH
- ALL DIMENSIONS ARE IN INCHES

M04-4587

Figure D-49. Doubler PN 7-267311018-51

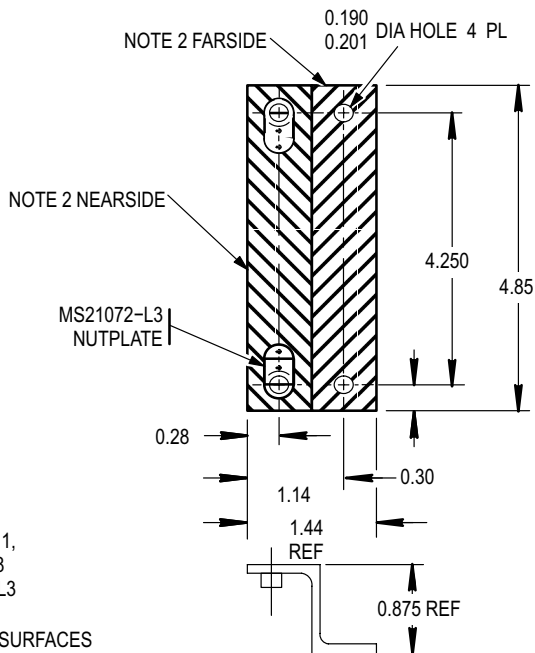


NOTES:

- PAD, SHAFT - MAKE FROM SILICONE RUBBER, ZZ-R-765, CLASS 1B, GRADE 40, 0.062 THICK  
NSN 9320-00-241-9741
- BOND PAD TO SHAFT USING ADHESIVE  
NSN 8040-00-117-8510
- ALL DIMENSIONS ARE IN INCHES

M04-4586

**Figure D-50. Pad, Shaft PN 7-267311020-61  
Pad, Linkage PN 7-267311020-63**



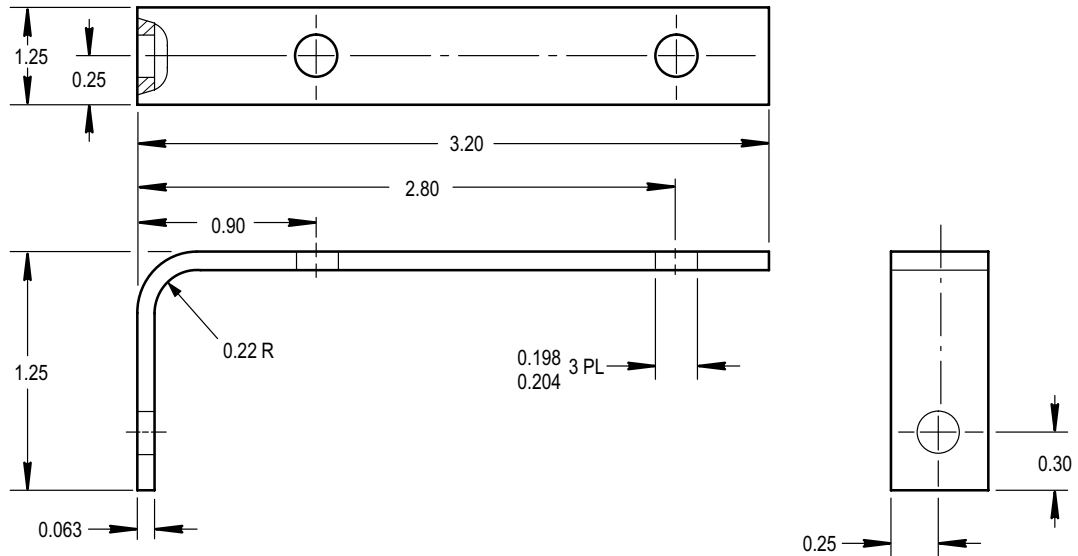
NOTES:

- 1 BRACKET ASSEMBLY - MAKE FROM 6061-T6511, AND 10136-0704, EXTRUDED TEE, QQ-A-200/8  
NSN 9540-01-086-0584 USING TWO MS21072-L3 NUTPLATES AND FOUR MS20426AD3 RIVETS
- 2 FINISH - CHEMICALLY FILM TREAT INDICATED SURFACES PER MIL-C-5541 CLASS 1A
- 3 FINISH - CHEMICALLY FILM TREAT ALL REMAINING SURFACES FOR ELECTRICAL CONDUCTIVITY PER MIL-C-5541 CLASS 3
- 4 ALL DIMENSIONS ARE IN INCHES

M04-4612

**Figure D-51. Bracket, Signal Processor PN 7-311A11105-9**



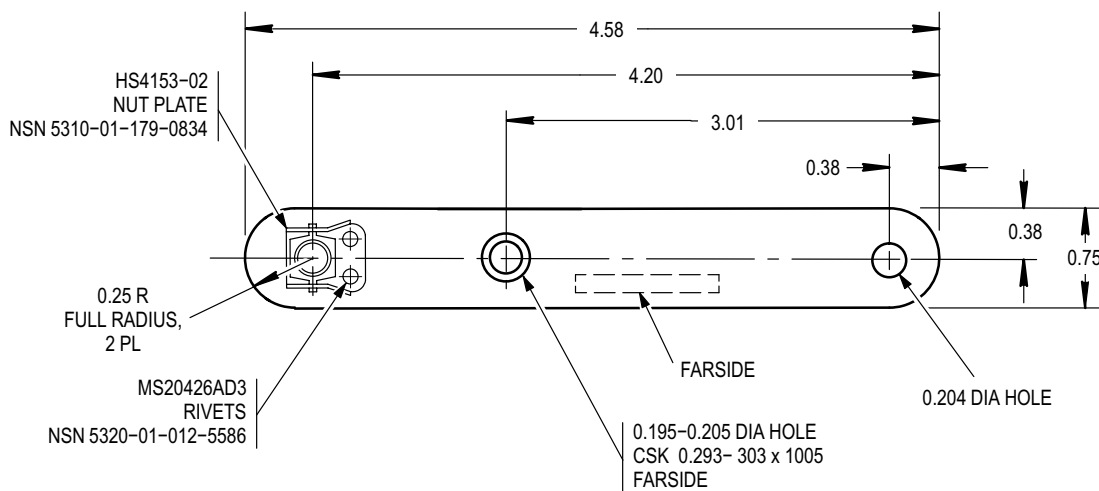


NOTES:

- BRACKET, ANGLE - MAKE FROM AL-ALY SHEET  
2024-T3, 0.063 THICK  
NSN 9535-00-232-0378
- FINISH - CHEMICALLY FILM TREAT PER MIL-C-5541 CLASS 1A
- ALL DIMENSIONS ARE IN INCHES

M04-4906

Figure D-54. Bracket, Angle PN 7-311B25125-15



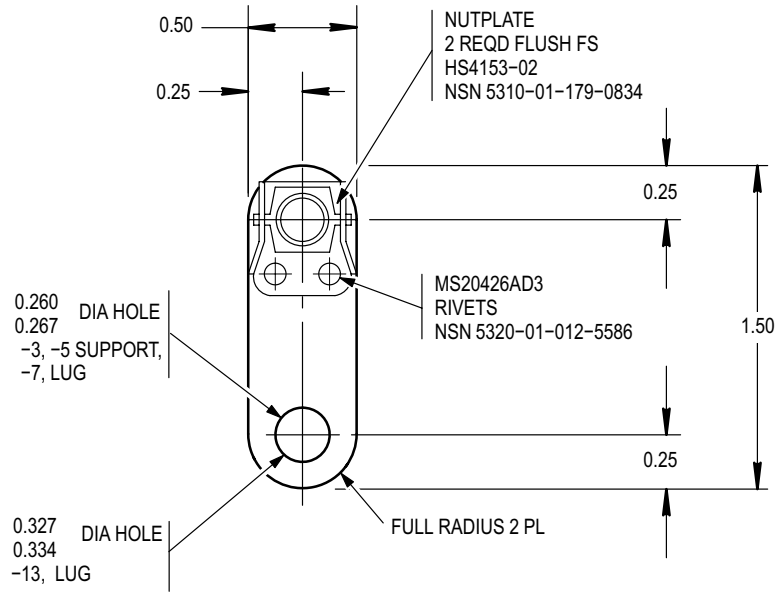
NOTES:

- SUPPORT - MAKE FROM AL-ALY SHEET  
2024-T3, 0.090 THICK, NSN 9535-00-084-4551
- FINISH - CHEMICALLY FILM TREAT PER  
MIL-C-5541 CLASS 1A
- ALL DIMENSIONS ARE IN INCHES

M04-4908

Figure D-55. Support PN 7-311B25125-23



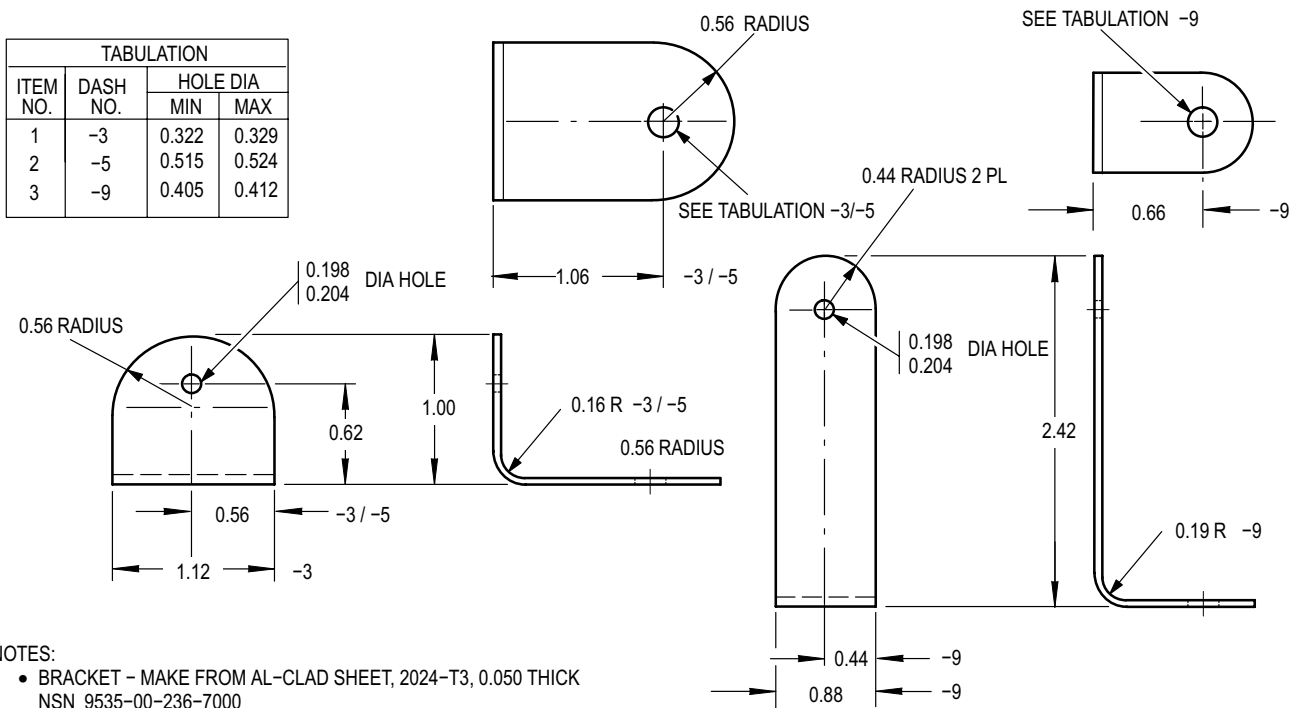


NOTES:

- SUPPORT WIRE - MAKE FROM AL-ALY SHEET 2024-T3, 0.040 THICK  
NSN 9535-00-084-4551
- PN 7-311B25125-11, 7-311B25125-13
- ALL DIMENSIONS ARE IN INCHES

M04-4905

**Figure D-56. Support, Wire PN 7-311B25125-3/-5 Lug PN 7-311B25125-7/11/-13**



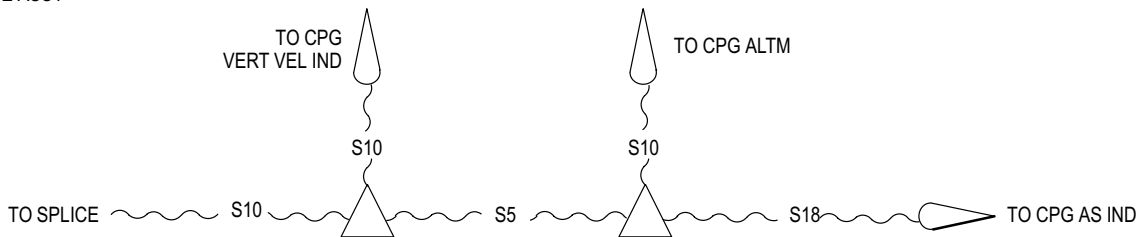
NOTES:

- BRACKET - MAKE FROM AL-CLAD SHEET, 2024-T3, 0.050 THICK  
NSN 9535-00-236-7000
- FINISH - CHEMICALLY FILM TREAT PER MIL-C-5541, CLASS 1A
- ALL DIMENSIONS ARE IN INCHES

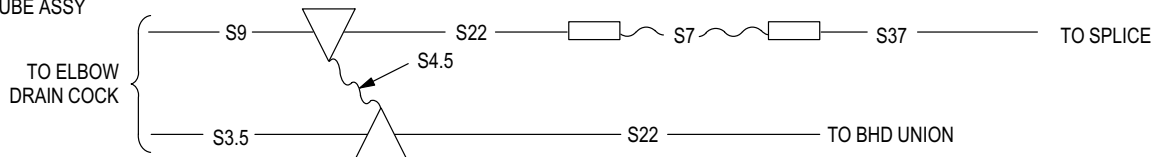
M04-4630

**Figure D-57. Bracket PN 7-311B26083-3/-5/-9**

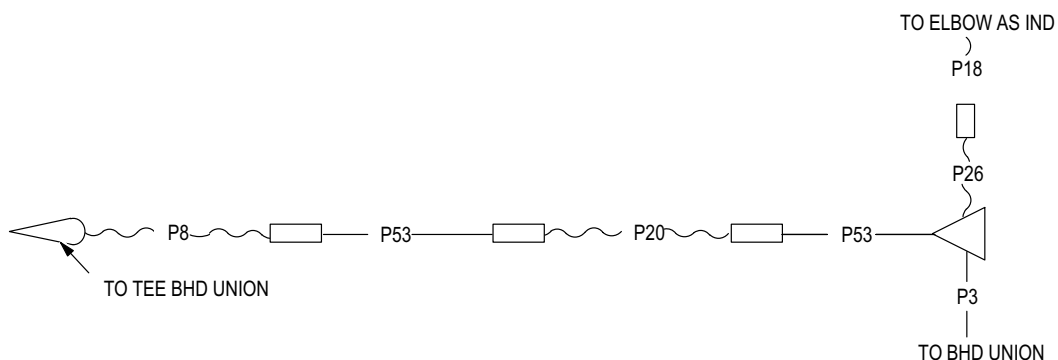
-111 TUBE ASSY



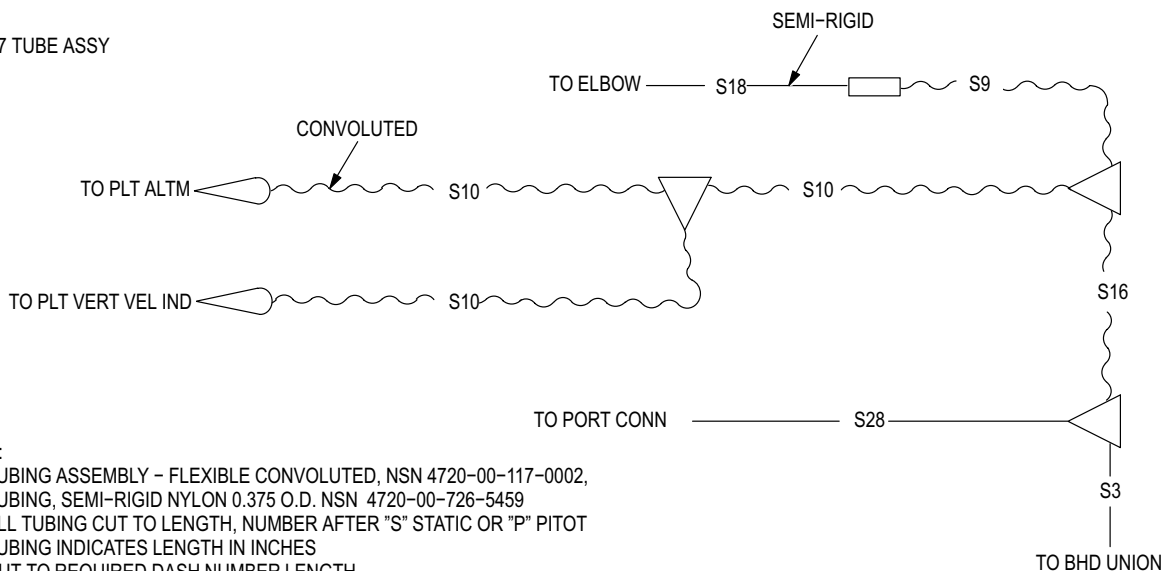
-81 TUBE ASSY



-103 TUBE ASSY



-17 TUBE ASSY

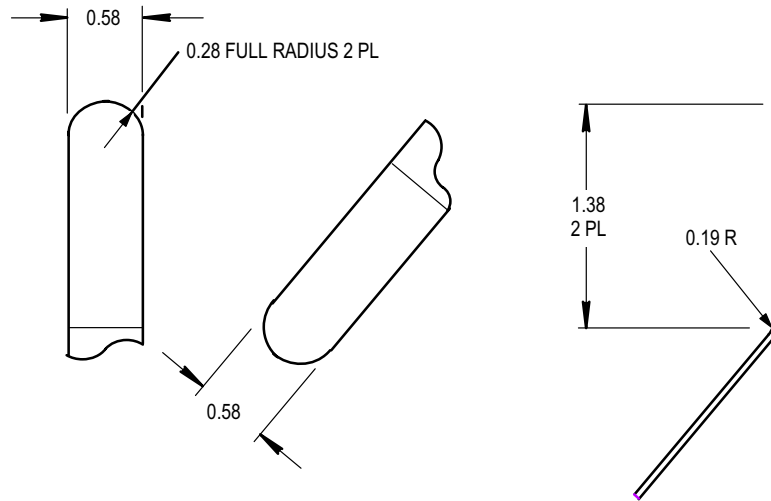


NOTES:

- TUBING ASSEMBLY - FLEXIBLE CONVOLUTED, NSN 4720-00-117-0002, TUBING, SEMI-RIGID NYLON 0.375 O.D. NSN 4720-00-726-5459
- ALL TUBING CUT TO LENGTH, NUMBER AFTER "S" STATIC OR "P" PITOT TUBING INDICATES LENGTH IN INCHES
- CUT TO REQUIRED DASH NUMBER LENGTH
- ALL DIMENSIONS ARE IN INCHES

M04-4917

Figure D-58. Tube Assembly PN 7-311C10030-15/-17/-81/-103/-111

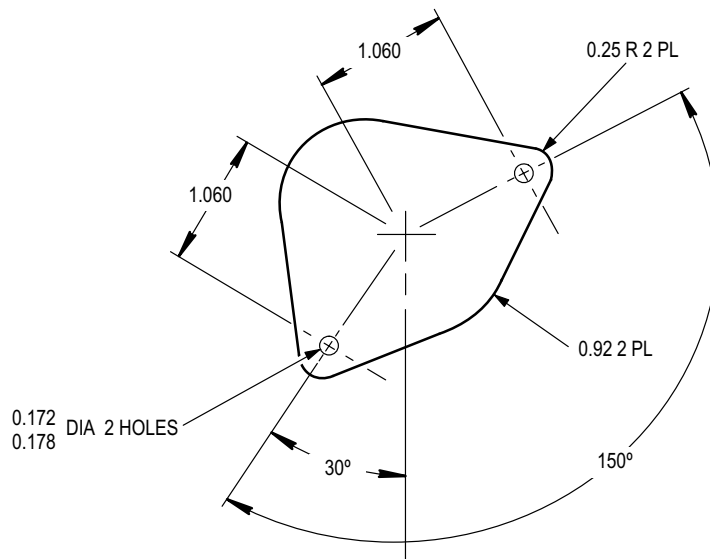


NOTES:

- CLIP - MAKE FROM AL-ALY SHEET 2024-T3, 0.050 THICK, QQ-A-250/4, NSN 9535-00-236-7000
- FINISH - CHEMICALLY FLIM TREAT PER MIL-C-5541 CLASS 1A
- ALL DIMENSIONS ARE IN INCHES

M04-4561

Figure D-59. Clip PN 7-31111010-15

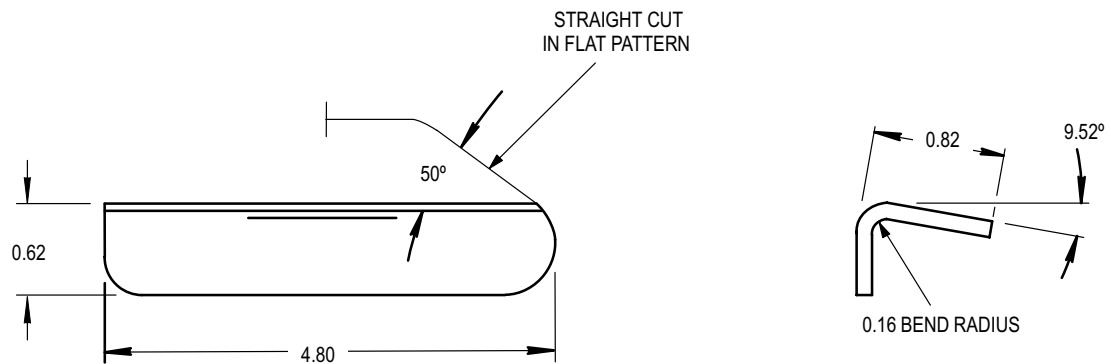


NOTES:

- COVER - MAKE FROM AL-ALY SHEET, 2024-T3, 0.032 THICK QQ-A-250/4, NSN 9535-00-084-4395
- FINISH - CHEMICALLY FILM TREAT PER MIL-C-5541, CLASS 1A AND CHROMIC ANODIZE WITH EPOXY ADHESIVE PRIMER MIL-P-23377 NSN 8010-00-314-6077
- ALL DIMENSIONS ARE IN INCHES

M04-4562

Figure D-60. Cover PN 7-311110010-19

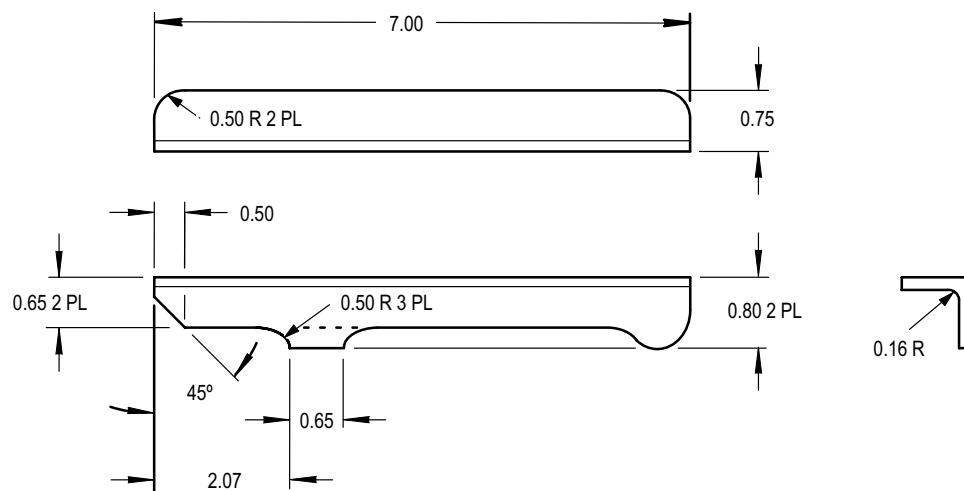


NOTES:

- ANGLE - MAKE FROM AL-ALY SHEET 2024-T3, 0.040 THICK  
QQ-A-250/4, NSN 9535-00-086-9930
- 7-311111010 -23 SHOWN, 7-311111010 -24 OPPOSITE
- FINISH - CHEMICALLY FILM TREAT PER MIL-C-5541 CLASS 1A
- ALL DIMENSIONS ARE IN INCHES

M04-4563

Figure D-61. Angle PN 7-311111010-23/-24

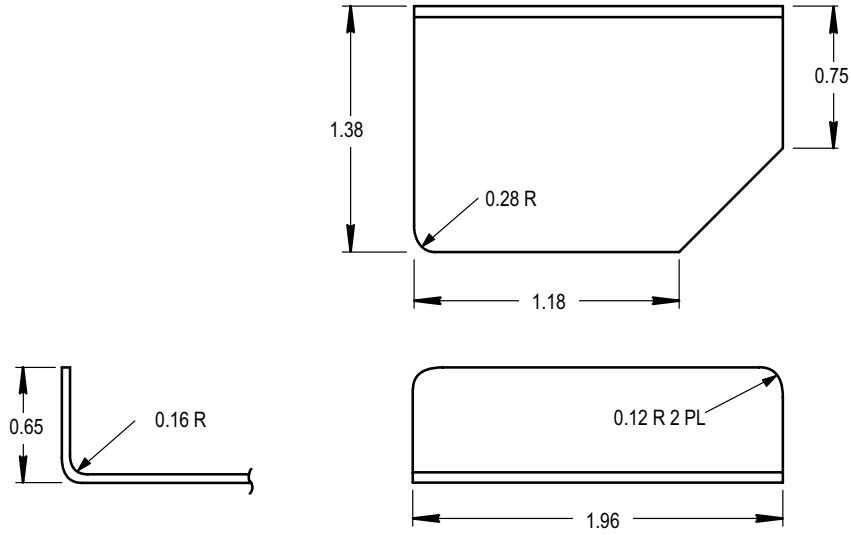


NOTES:

- CAP - MAKE FROM AL-ALY SHEET 2024-T3, 0.040 THICK  
QQ-A-250/4, NSN 9535-00-086-9930
- 7-311111010 -27 CLIP SHOWN, 7-311111010 -28 OPPOSITE
- FINISH - CHEMICALLY FILM TREAT PER MIL-C-5541 CLASS 1A
- ALL DIMENSIONS ARE IN INCHES

M04-4566

Figure D-62. Cap PN 7-311111010-27/-28

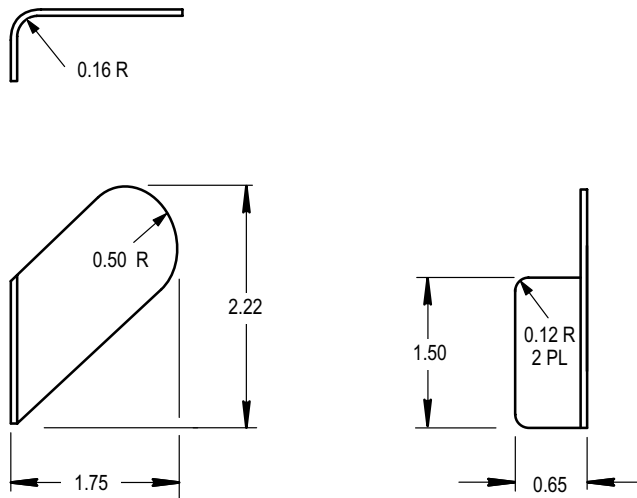


NOTES:

- CLIP - MAKE FROM AL-ALY SHEET 2024-T3, 0.040 THICK QQ-A-250/4 NSN 9535-00-086-9930
- 7-311111010 -35 CLIP SHOWN, 7-311111010 -36 OPPOSITE
- FINISH - CHEMICALLY FILM TREAT PER MIL-C-5541 CLASS 1A
- ALL DIMENSIONS ARE IN INCHES

M04-4564

Figure D-63. Clip PN 7-311111010-35/36

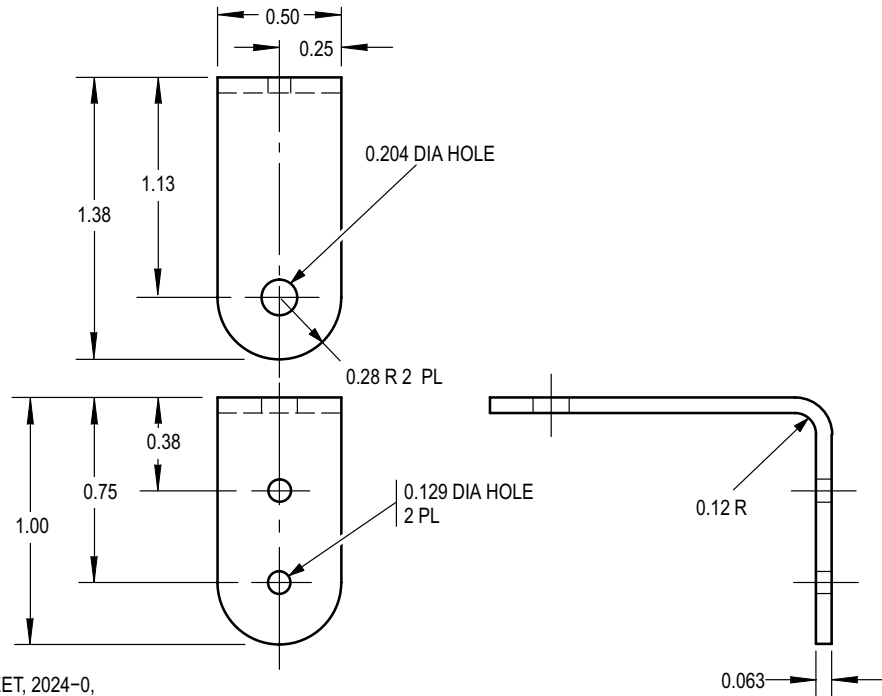


NOTES:

- CLIP - MAKE FROM AL-ALY SHEET 2024-T3, 0.040 THICK, QQ-A-250/4 NSN 9535-00-086-9830
- ALL DIMENSIONS ARE IN INCHES

M04-4560

Figure D-64. Clip PN 7-311111010-47

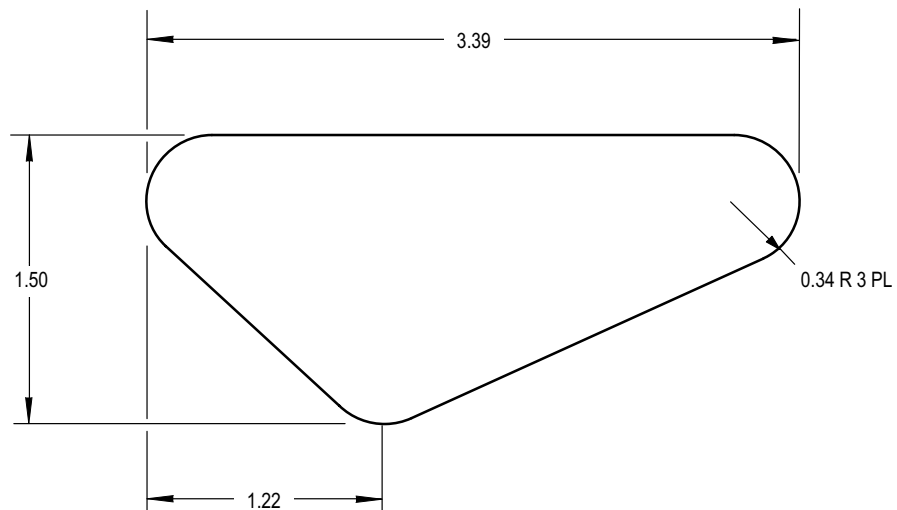


NOTES:

- BRACKET - MAKE FROM AL-ALY SHEET, 2024-0, 0.063 THICK, NSN 9530-00-230-7552  
HEAT TREAT TO T-42
- FINISH - CHEMICALLY FILM TREAT PER MIL-C-5541 CLASS 1A
- ALL DIMENSIONS ARE IN INCHES

M04-4751

Figure D-65. Bracket PN 7-31111020-35

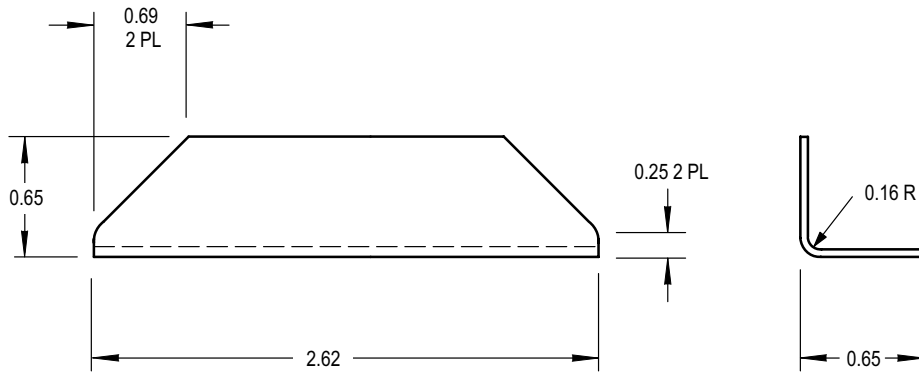


NOTES:

- DOUBLER - MAKE FROM AL-ALY SHEET, 2024-0, 0.040 THICK, NSN 9530-00-167-2249
- HEAT TREAT AFTER FORMING TO T42
- FINISH - CHEMICALLY FILM TREAT PER MIL-C-5541 CLASS 1A
- ALL DIMENSIONS ARE IN INCHES

M04-4752

Figure D-66. Doubler PN 7-31111030-25/-26

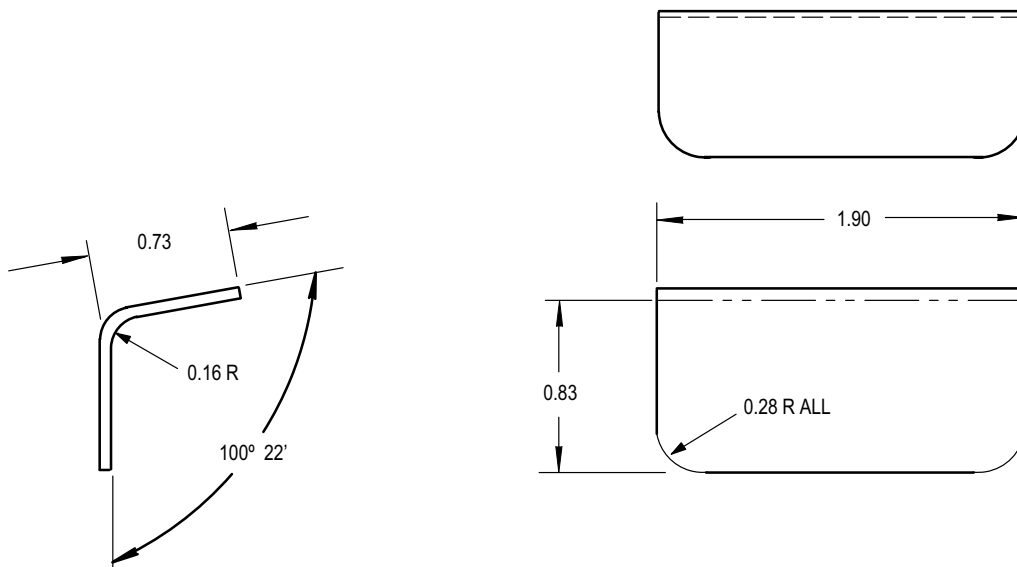


NOTES:

- SUPPORT - MAKE FROM AL-ALY SHEET 2024-0, 0.040 THICK  
NSN 9535-00-167-2249
- ALL DIMENSIONS ARE IN INCHES

M04-4814

Figure D-67. Support PN 7-31111040-7

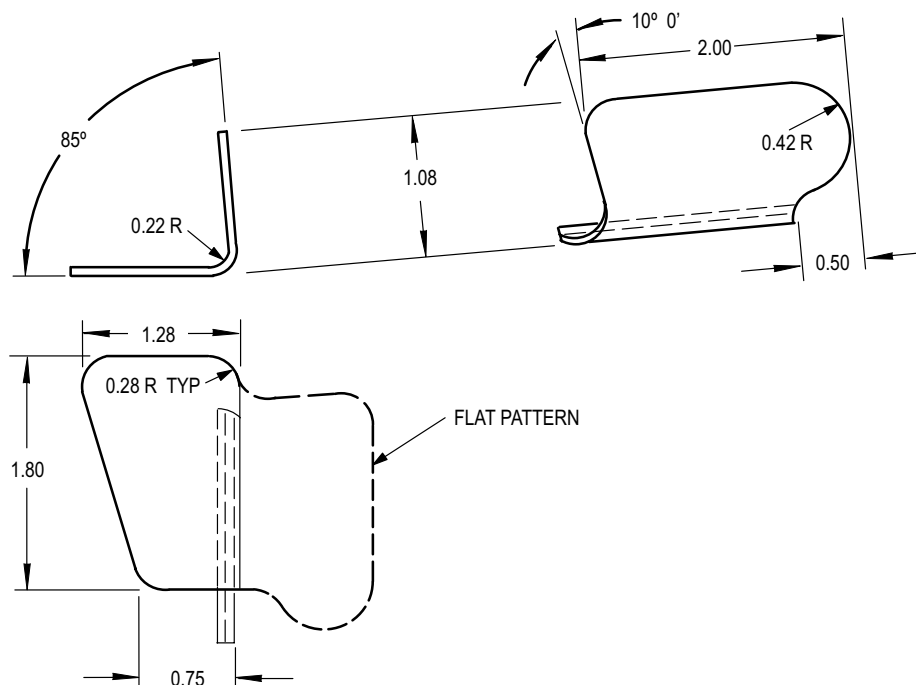


NOTES:

- CLIP - MAKE FROM AL-ALY SHEET 2024-T3, 0.040 THICK  
NSN 9535-00-086-9930
- FINISH - CHEMICALLY FILM TREAT PER MIL-C-5541 CLASS 1A
- ALL DIMENSIONS ARE IN INCHES

M04-4753

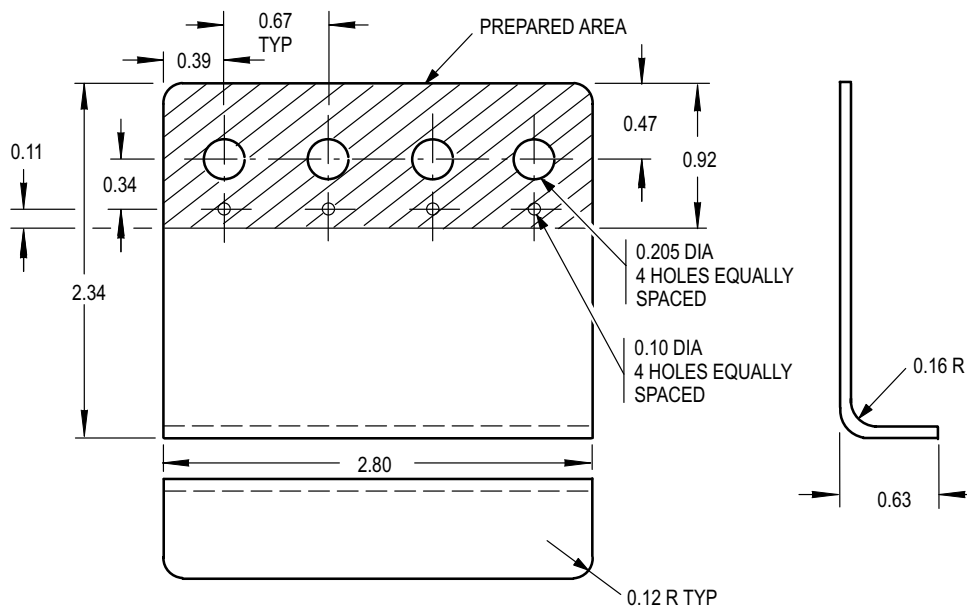
Figure D-68. Clip PN 7-31111050-15



- NOTES:
- SUPPORT - MAKE FROM AL-ALY SHEET 2024-T3, 0.063 THICK  
NSN 9535-00-084-4370
  - ALL DIMENSIONS ARE IN INCHES

M04-4754

Figure D-69. Support PN 7-31111050-31

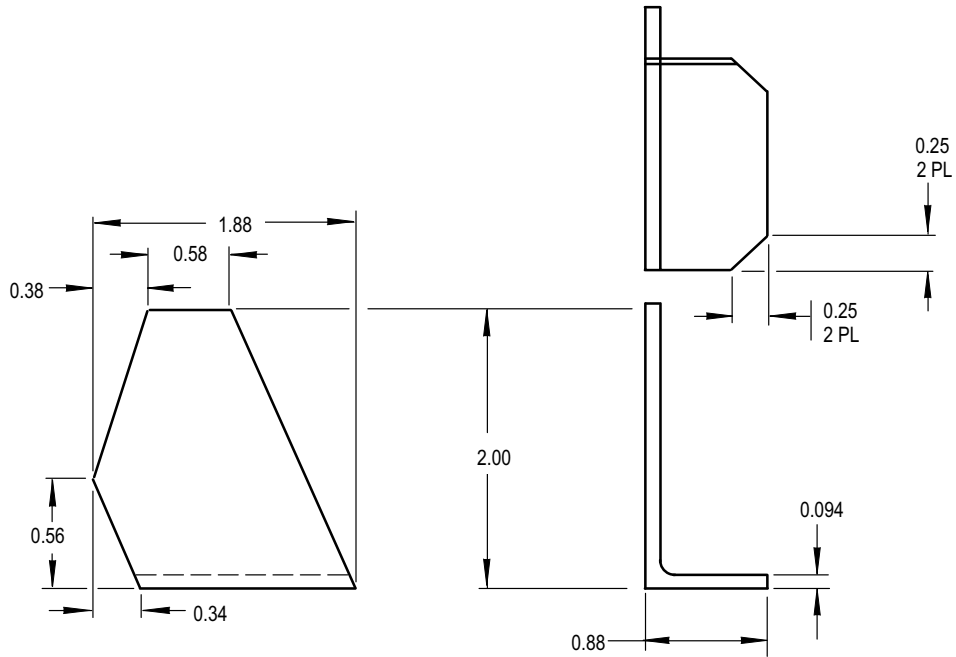


- NOTES:
- BRACKET - MAKE FROM AL-ALY SHEET 2024-0, 0.040 THICK NSN 9535-00-167-2249
  - FINISH - CHEMICALLY FILM TREAT FOR ELECTRICAL CONDUCTIVITY PER MIL-C-5541 CLASS 3
  - PREPARE INDICATED SURFACE FOR ELECTRICAL BOND (TM 55-1500-323-24)
  - ALL DIMENSIONS ARE IN INCHES

M04-4755

Figure D-70. Bracket PN 7-31111050-37



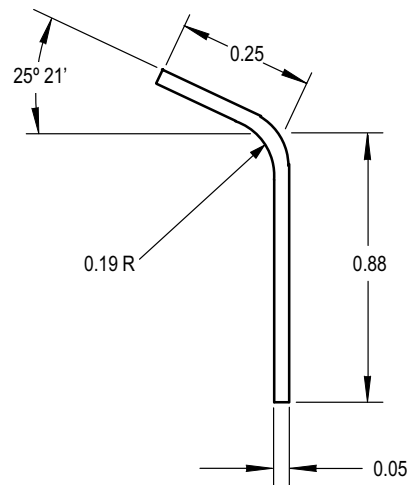
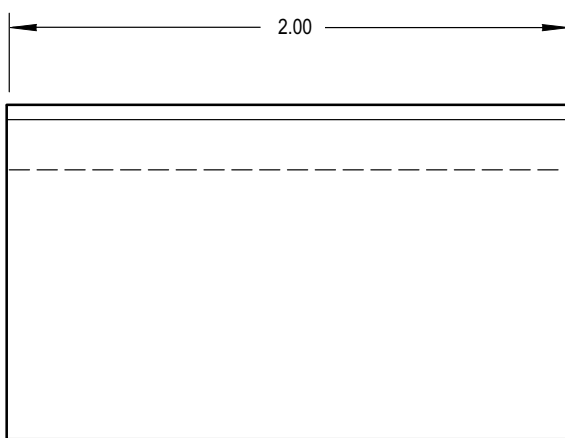


NOTES:

- CLIP - MAKE FROM EXTRUDED ANGLE-UNEQUAL LENGTH, AL-ALY 2024-0, 0.094 THICK  
P/N HS1004 DD55200 NSN 9540-01-300-2870
- FINISH - CHEMICALLY FILM TREAT PER MIL-C-5541 CLASS 1A
- ALL DIMENSIONS ARE IN INCHES

M04-4749

Figure D-71. Clip PN 7-311111060-13

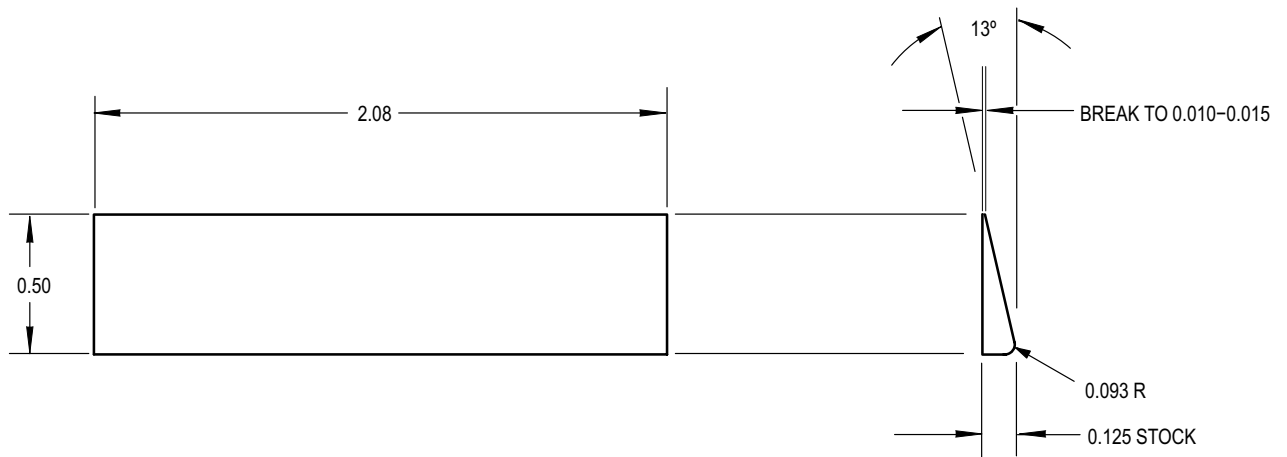


NOTES:

- CLIP - MAKE FROM AL-ALY SHEET 2024-T3, 0.050 THICK  
NSN 9535-00-236-7000
- FINISH - CHEMICALLY FILM TREAT PER MIL-C-5541 CLASS 1A
- ALL DIMENSIONS ARE IN INCHES

M04-4750

Figure D-72. Clip PN 7-311111060-15

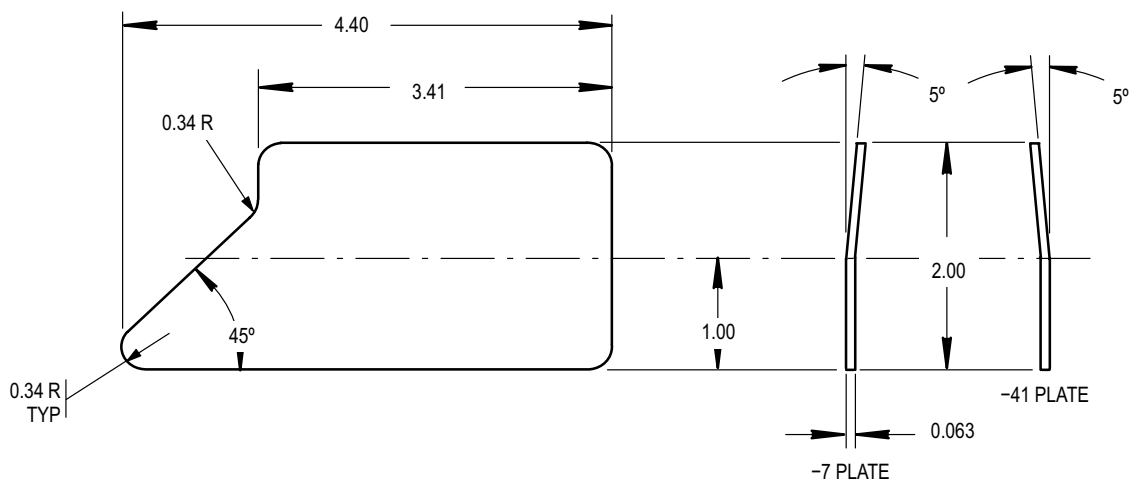


NOTES:

- FILLER - MAKE FROM AL-ALY SHEET 2024-T3, 0.125 THICK  
NSN 9535-00-230-7646
- FINISH - CHEMICALLY FILM TREAT PER MIL-C-5541 CLASS 1A
- ALL DIMENSIONS ARE IN INCHES

M04-4748

Figure D-73. Filler PN 7-311111060-25

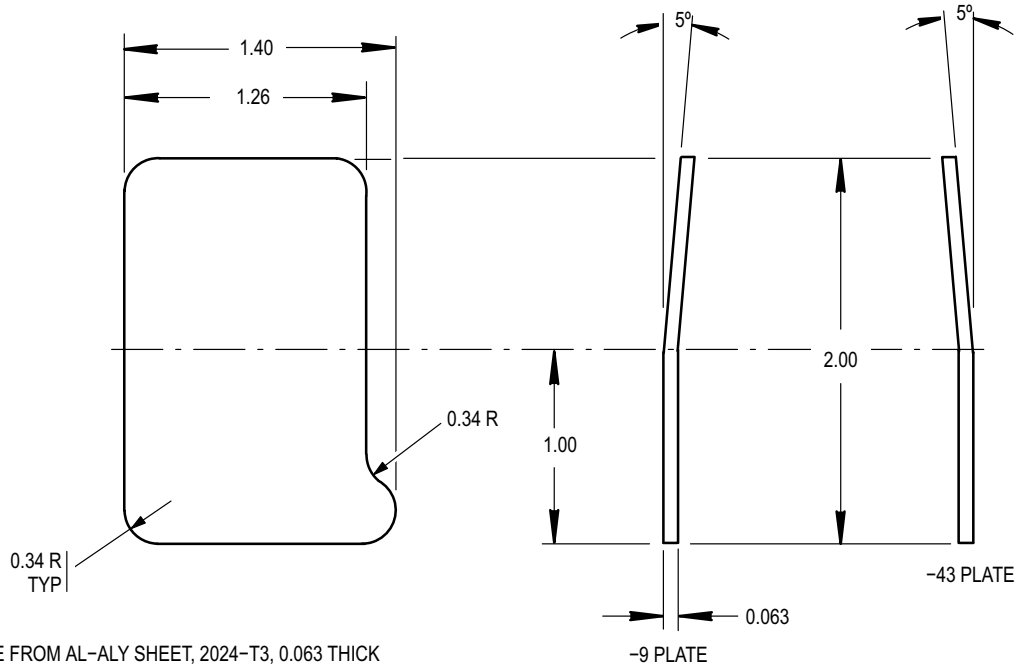


NOTES:

- PLATE - MAKE FROM AL-ALY SHEET, 2024-T3, 0.063 THICK  
NSN 9535-00-084-4370
- FINISH - CHEMICALLY FILM TREAT PER MIL-C-5541 CLASS 1A
- ALL DIMENSIONS ARE IN INCHES

M04-4746

Figure D-74. Plate PN 7-311111060-41

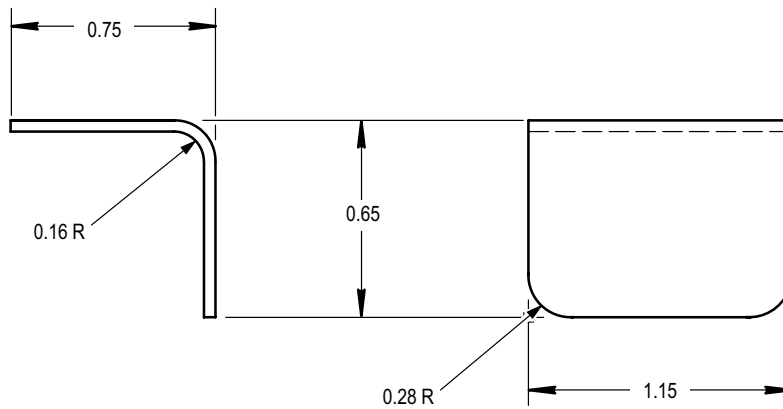


NOTES:

- PLATE - MAKE FROM AL-ALY SHEET, 2024-T3, 0.063 THICK  
NSN 9535-00-084-4370
- FINISH - CHEMICALLY FILM TREAT PER MIL-C-5541 CLASS 1A
- ALL DIMENSIONS ARE IN INCHES

M04-4747

Figure D-75. Plate PN 7-31111060-43

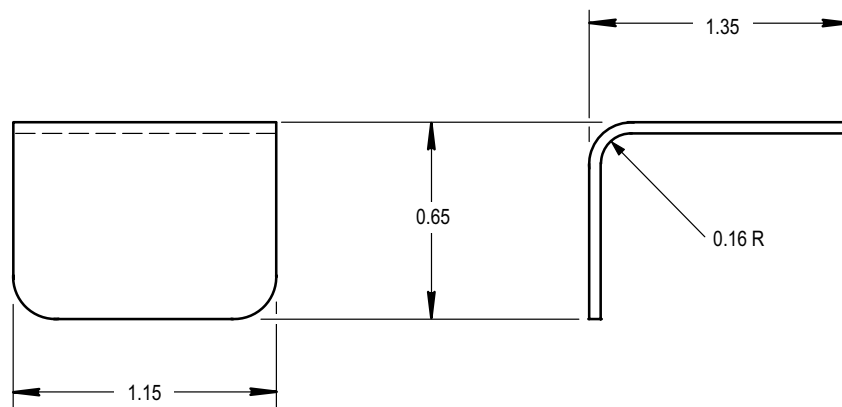


NOTES:

- BRACKET, ANGLE - MAKE FROM AL-ALY SHEET, 2024-T3, 0.040 THICK  
NSN 9535-00-086-9930
- ALL DIMENSIONS ARE IN INCHES

M04-4744

Figure D-76. Bracket, Angle PN 7-31111070-11

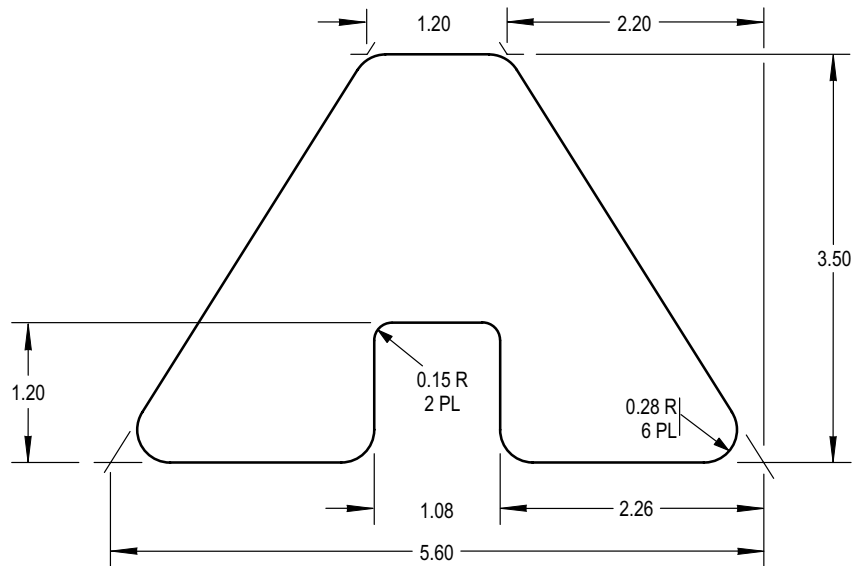


NOTES:

- BRACKET, ANGLE - MAKE FROM AL-ALY SHEET, 2024-T3, 0.040 THICK  
NSN 9535-00-086-9930
- ALL DIMENSIONS ARE IN INCHES

M04-4745

Figure D-77. Bracket, Angle PN 7-31111070-13

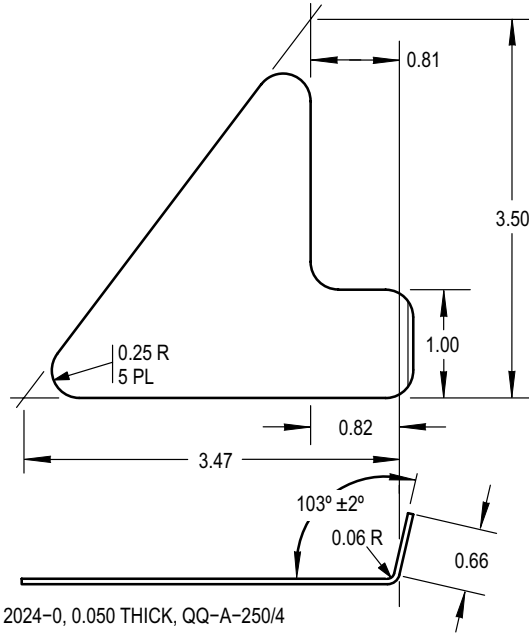


NOTES:

- GUSSETT - MAKE FROM AL-ALY SHEET 2024-T3, 0.050 THICK, QQ-A-250/4  
NSN 9535-00-236-7000
- FINISH - CHEMICALLY FILM TREAT PER MIL-C-5541, CLASS 1A
- ALL DIMENSIONS ARE IN INCHES

M04-4901

Figure D-78. Gusset PN 7-31111100-31

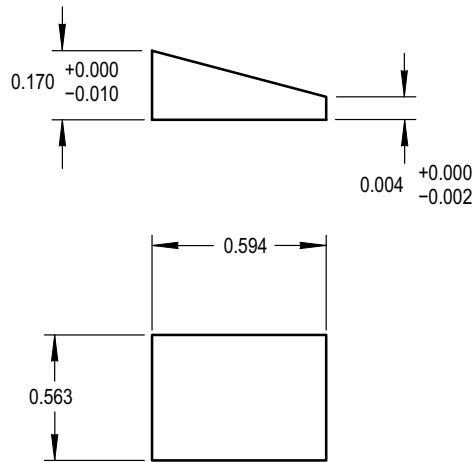


NOTES:

- GUSSETT - MAKE FROM AL-ALY SHEET 2024-0, 0.050 THICK, QQ-A-250/4  
NSN 9535-00-229-0917
- 7-31111100-96 OPPOSITE
- FINISH - CHEMICALLY FILM TREAT PER MIL-C-5541, CLASS 1A
- HEAT TREAT TO T42 AFTER FORMING
- ALL DIMENSIONS ARE IN INCHES

M04-4902

Figure D-79. Gusset PN 7-31111100-95/96

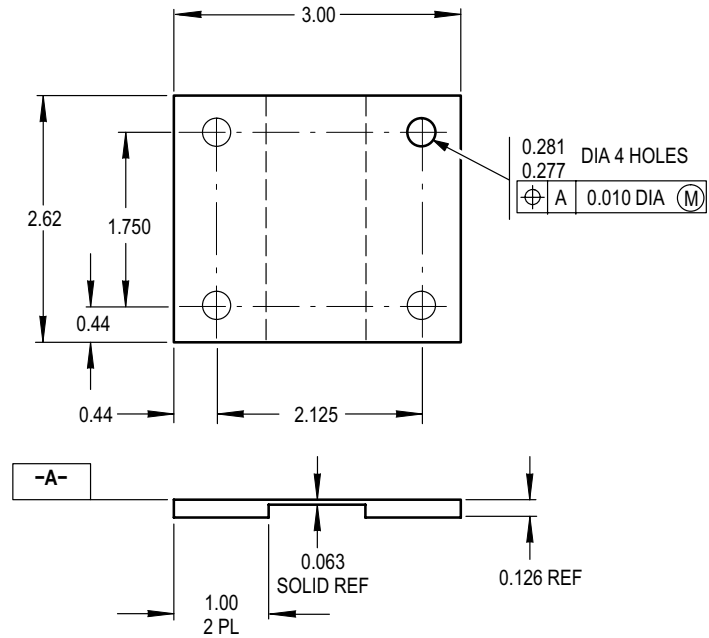


NOTES:

- SHIM - MAKE FROM AL-ALY SHEET 2024-T3, 0.125 THICK  
NSN 9535-00-230-7646
- ALL DIMENSIONS ARE IN INCHES

M04-4765

Figure D-80. Shim PN 7-31111110-109

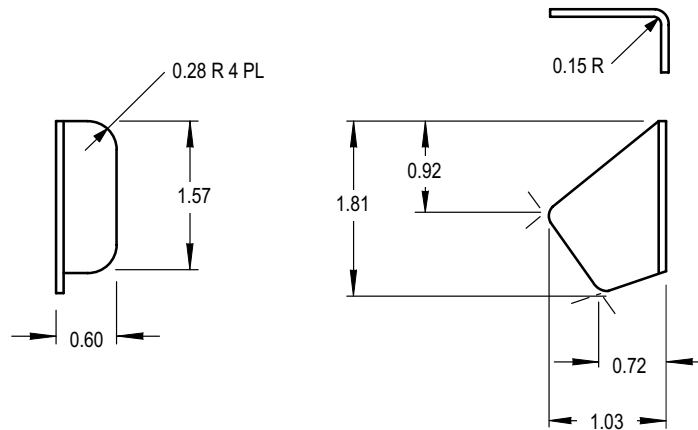


NOTES:

- SHIM - AL-ALY SHEET 2024-T3, 0.126 THICK  
MIL-S-22499, COMPOSITION 1, TYPE II CLASS 2  
NSN 9535-00-230-7646
- ALL DIMENSIONS ARE IN INCHES

M04-4764

Figure D-81. Shim PN 7-31111110-39

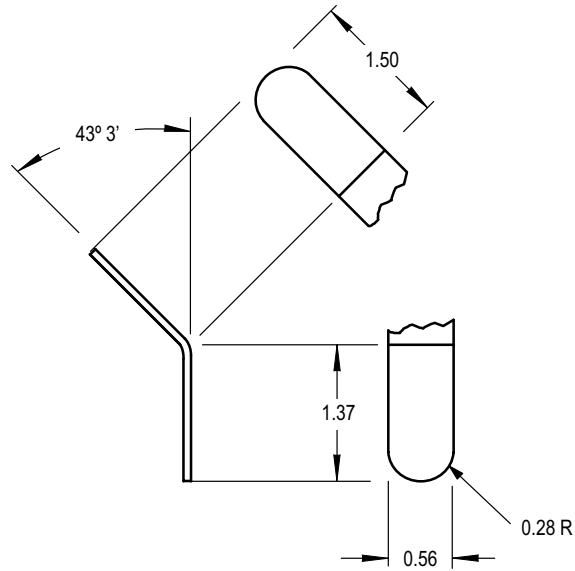


NOTES:

- CLIP - MAKE FROM AL-ALY SHEET 2024-T3, 0.040 THICK  
NSN 9535-00-086-9930
- FINISH - CHEMICALLY FILM TREAT PER MIL-C-5541, CLASS 1A
- 7-311111143-35 SHOWN, 7-311111143-36 OPPOSITE
- ALL DIMENSIONS ARE IN INCHES

M04-4820

Figure D-82. Clip PN 7-311111143-35/-36

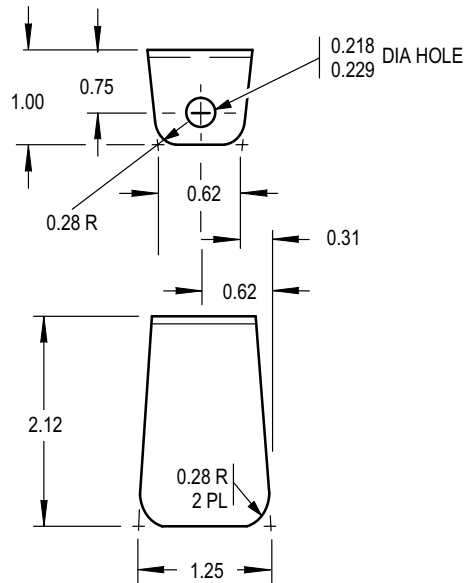


NOTES:

- SUPPORT - MAKE FROM AL-ALY SHEET 2024-T3, 0.032 THICK  
NSN 9535-00-084-4395
- FINISH - CHEMICALLY FILM TREAT PER MIL-C-5541, CLASS 1A
- ALL DIMENSIONS ARE IN INCHES

M04-4823

Figure D-83. Support PN 7-31111143-37

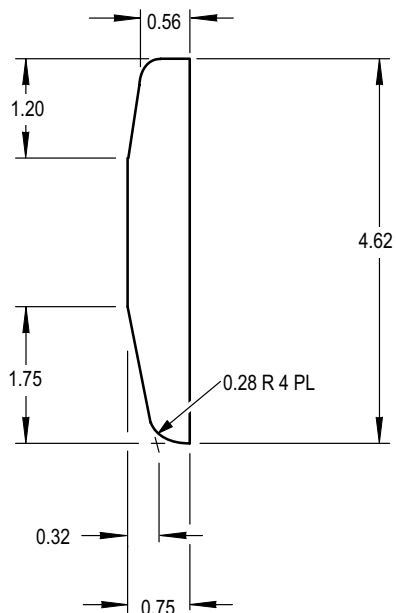


NOTES:

- BRACKET - MAKE FROM AL-ALY SHEET 2024-T3, 0.050 THICK  
NSN 9535-00-236-7000
- FINISH - CHEMICALLY FILM TREAT PER MIL-C-5541, CLASS 1A
- ALL DIMENSIONS ARE IN INCHES

M04-4822

Figure D-84. Bracket PN 7-31111143-43

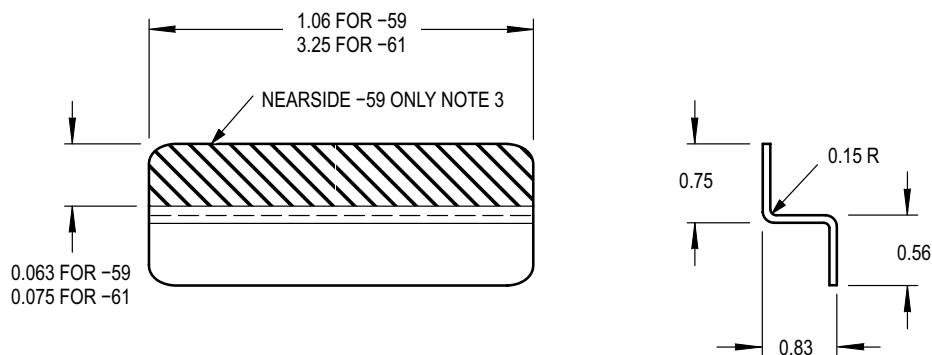


NOTES:

- CLIP - MAKE FROM AL-ALY SHEET 2024-T3, 0.032 THICK, NSN 9535-00-084-4395
- FINISH - CHEMICALLY FILM TREAT PER MIL-C-5541, CLASS 1A 7-311111143-56 SHOWN, 7-311111143-55 OPPOSITE
- ALL DIMENSIONS ARE IN INCHES

M04-4825

Figure D-85. Clip PN 7-311111143-55/-56



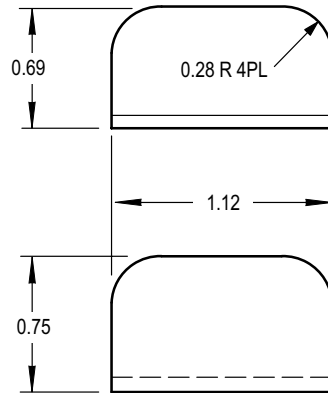
NOTES:

- 1 CLIP - MAKE FROM AL-ALY SHEET 2024-T3, 0.050 THICK NSN 9535-00-236-7000
- 2 FINISH - CHEMICALLY FILM TREAT PER MIL-C-5541, CLASS 1A
- 3 PREPARE INDICATED SURFACE FOR ELECTRICAL BOND (TM 55-1500-323-24)
- 4 ALL DIMENSIONS ARE IN INCHES

M04-4821

Figure D-86. Clip PN 7-311111143-59/-61



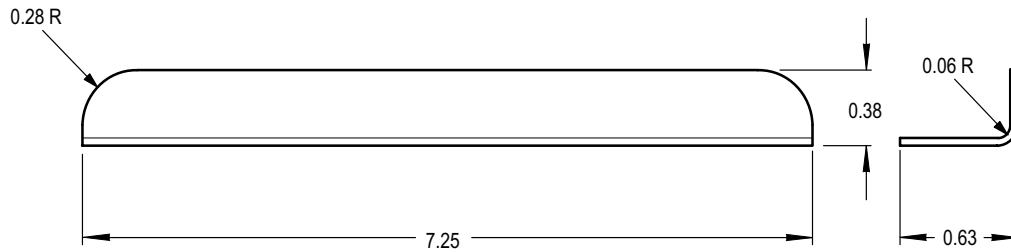


NOTES:

- SUPPORT - MAKE FROM AL-ALY SHEET 2024-T3, 0.032 THICK  
NSN 9535-00-084-4395
- FINISH - CHEMICALLY FILM TREAT PER MIL-C-5541, CLASS 1A
- ALL DIMENSIONS ARE IN INCHES

M04-4824

Figure D-87. Support PN 7-31111143-63

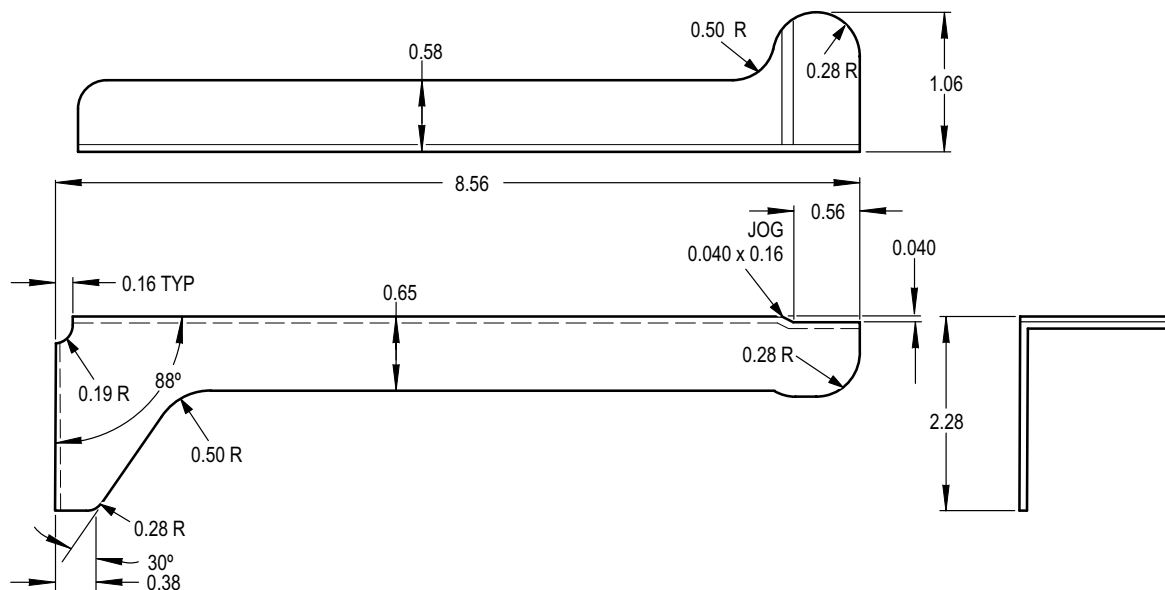


NOTES:

- STIFFENER - MAKE FROM AL-ALY SHEET 2024-0, 0.040 THICK  
NSN 9535-00-596-3788
- HEAT TREAT AFTER FORMING TO T42
- FINISH - CHEMICALLY FILM TREAT PER MIL-C-5541  
CLASS 1A
- ALL DIMENSIONS ARE IN INCHES

M04-5042

Figure D-88. Stiffener PN 7-31111146-11

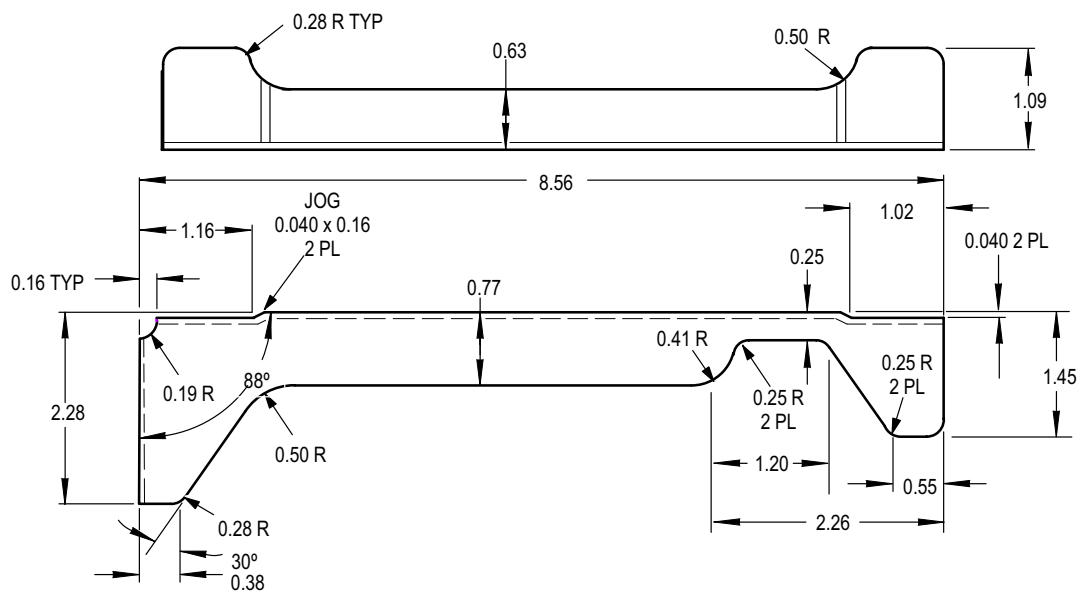


NOTES:

- STIFFENER - MAKE FROM AL-ALY SHEET 2024-0, 0.040 THICK NSN 9535-00-596-3788
- HEAT TREAT AFTER FORMING TO T42
- FINISH - CHEMICALLY FILM TREAT PER MIL-C-5541 CLASS IA
- ALL DIMENSIONS ARE IN INCHES

M04-5043

Figure D-89. Stiffener PN 7-31111146-13

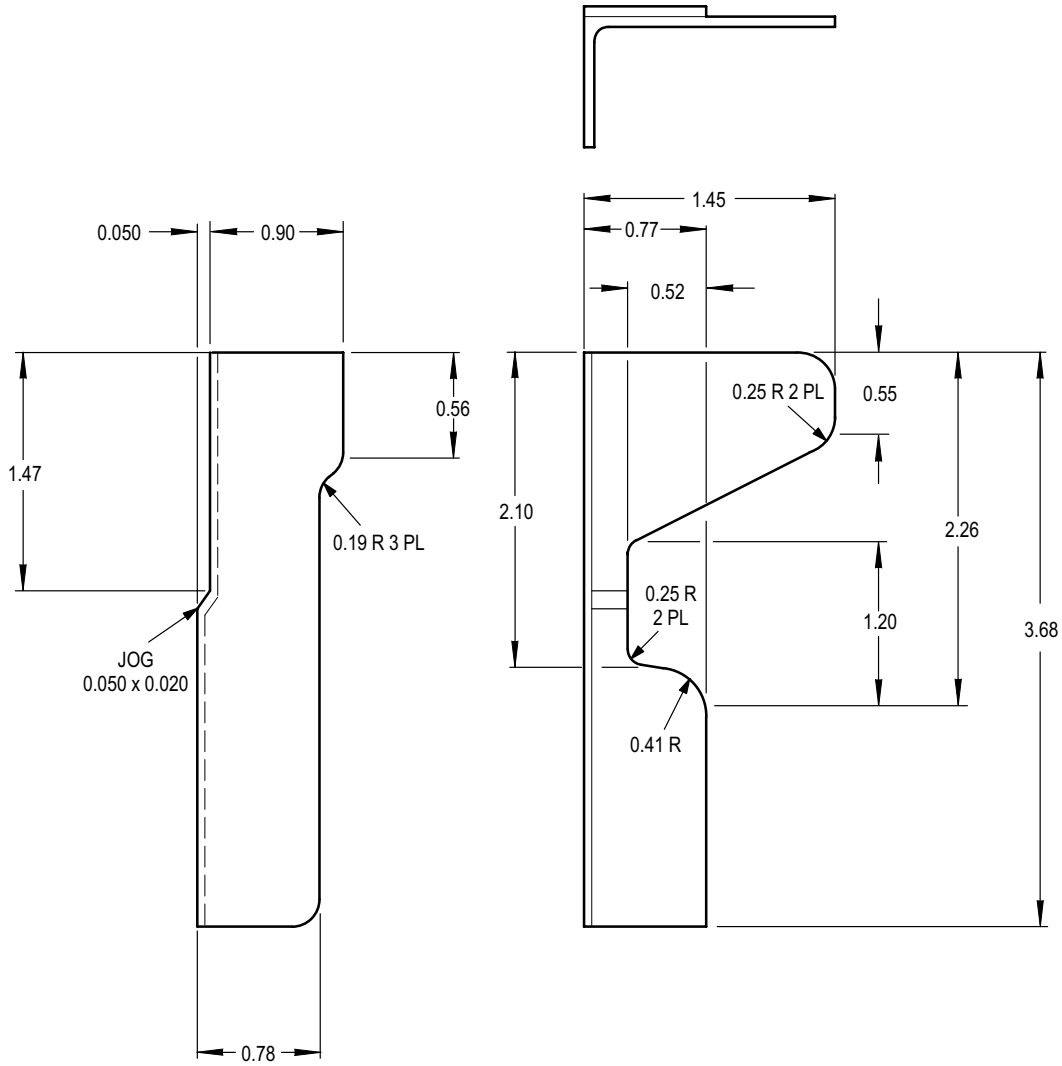


NOTES:

- STIFFENER - MAKE FROM AL-ALY SHEET 2024-0, 0.050 THICK NSN 9535-00-229-0917
- HEAT TREAT AFTER FORMING TO T42
- IDENTIFY WITH INDELIBLE INK MINIMUM HEIGHT 0.125 INCHES
- ALL DIMENSIONS ARE IN INCHES

M04-5044

Figure D-90. Stiffener PN 7-31111146-43

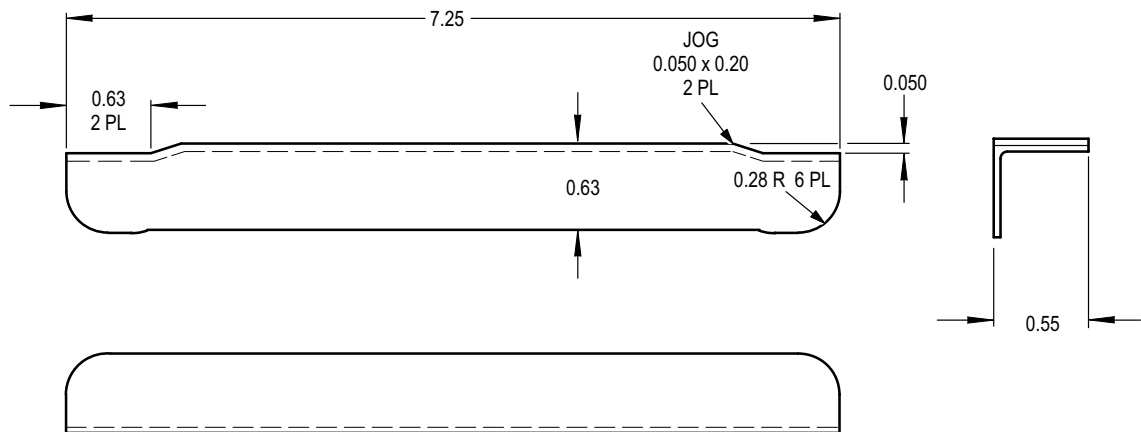


NOTES:

- ANGLE- MAKE FROM AL-ALY EXTRUDED ANGLE UNEQUAL LENGTH 2024-T4, HS1004DD63-0322
- IDENTIFY WITH INDELIBLE INK MINIMUM HEIGHT 0.125 INCHES PER MIL-STD-130
- FINISH - CHEMICALLY FILM TREAT PER MIL-C-5541 CLASS IA
- ALL DIMENSIONS ARE IN INCHES

M04-5045

Figure D-91. Angle PN 7-311111146-47

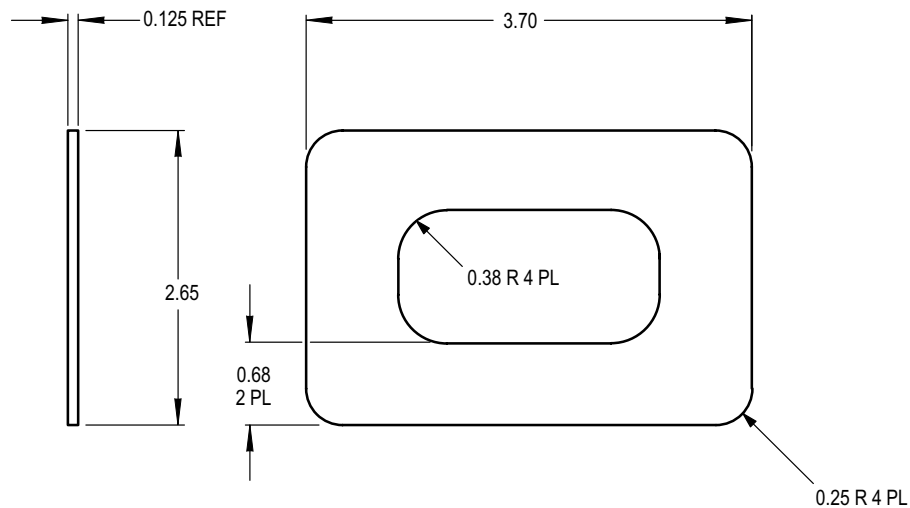


NOTES:

- ANGLE - MAKE FROM AL-ALY SHEET 2024-0, 0.040 THICK  
NSN 9535-00-596-3788
- HEAT TREAT AFTER FORMING TO T42
- FINISH - CHEMICALLY FILM TREAT PER MIL-C-5541  
CLASS IA
- ALL DIMENSIONS ARE IN INCHES

M04-5041

Figure D-92. Angle PN 7-31111146-9

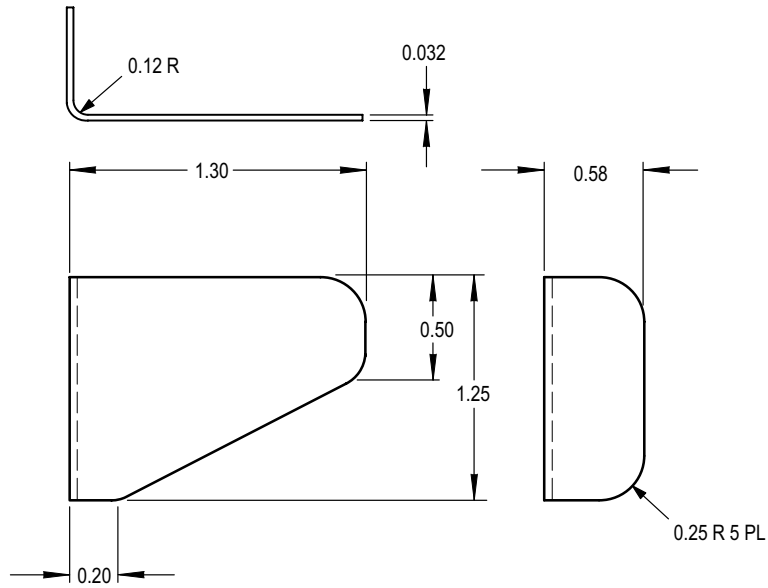


NOTES:

- SHIM - MATERIAL AL-ALY SHEET LAMINATED, COMPOSITION I,  
TYPE II, CLASS I, 0.125 THICK MIL-S-22499  
NSN 9535-00-811-1867
- ALL DIMENSIONS ARE IN INCHES

M04-4686

Figure D-93. Shim PN 7-31111149-11

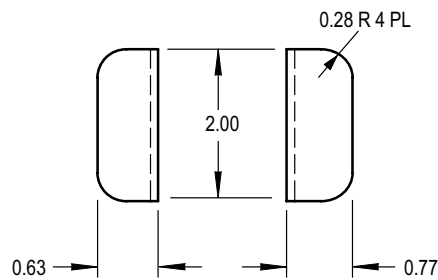


NOTES:

- CLIP - MAKE FROM AL-ALY SHEET 2024-T3, 0.032 THICK  
 QQ-A-250/4 NSN 9535-00-084-4395  
 7-31111149-5 CLIP SHOWN, 7-31111149-6 OPPOSITE
- FINISH - CHEMICALLY FILM TREAT PER MIL-C-5541, CLASS IA

M04-4687

Figure D-94. Clip PN 7-31111149-5/6

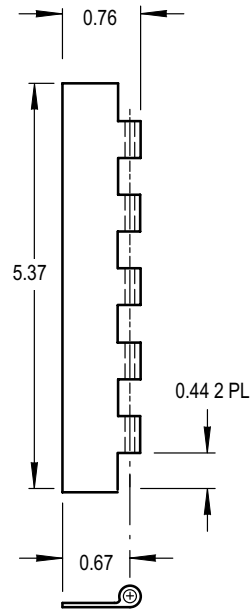


NOTES:

- ANGLE - MAKE FROM AL-ALY SHEET 2024-T3, 0.040 THICK  
 NSN 9535-00-086-9930
- ALL DIMENSIONS ARE IN INCHES

M04-4827

Figure D-95. Angle PN 7-31111151-15

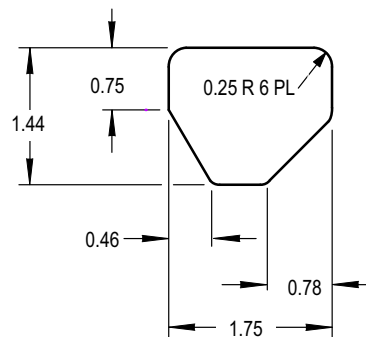


NOTES:

- HINGE HALF - MAKE FROM AL-ALY SHEET CONT. HINGE, HALF HINGE ANODIZED  
NSN 5340-00-069-5124
- ALL DIMENSIONS ARE IN INCHES

M04-4828

Figure D-96. Leaf, Butt Hinge PN 7-31111151-19

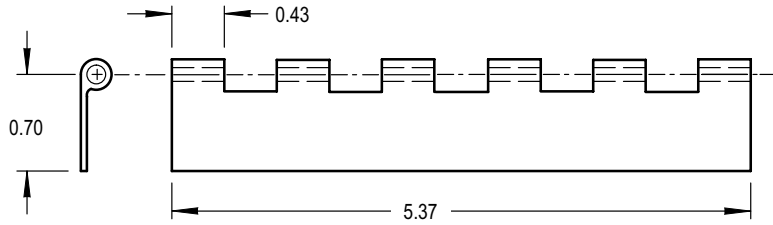


NOTES:

- CLIP - MAKE FROM AL-ALY SHEET 2024-T3, 0.040 THICK  
NSN 9535-00-086-9930
- ALL DIMENSIONS ARE IN INCHES

M04-4829

Figure D-97. Clip PN 7-31111151-31

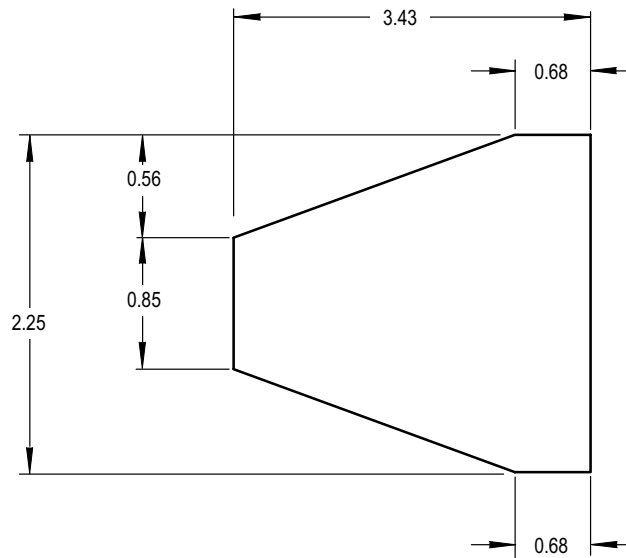


NOTES:

- HINGE - MAKE FROM AL-ALY, CONT, HINGE, HALF HINGE ANODIZED  
NSN 5340-00-069-5124
- FINISH - APPLY EPOXY PRIMER PER MIL-P-23377
- ALL DIMENSIONS ARE IN INCHES

M04-4826

Figure D-98. Hinge PN 7-311111160-7

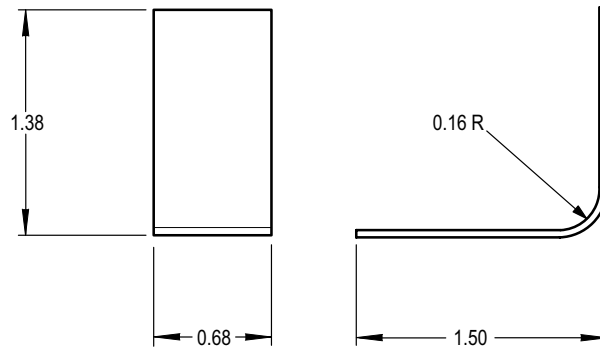


NOTES:

- PLATE, FLOOR - MAKE FROM AL-ALY SHEET, 7075-0, 0.063 THICK  
NSN 9535-01-011-9304
- FINISH - CHEMICALLY FILM TREAT PER MIL-C-5541 CLASS IA
- ALL DIMENSIONS ARE IN INCHES

M04-4777

Figure D-99. Plate, Floor PN 7-311111171-5/-6

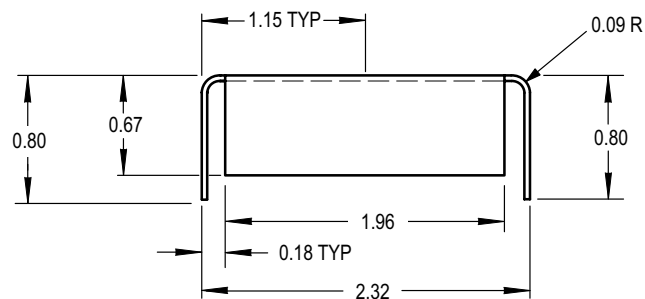


NOTES:

- CLIP - MAKE FROM AL-ALY SH, 2024-O, 0.040 THICK  
NSN 9535-00-167-2249
- FINISH - CORROSION RESISTANT COATING PER
- HEAT TREAT AFTER FORMING TO T42  
MIL-C-5541, CLASS IA
- ALL DIMENSIONS ARE IN INCHES

M04-4770

Figure D-100. Clip PN 7-311111180-11



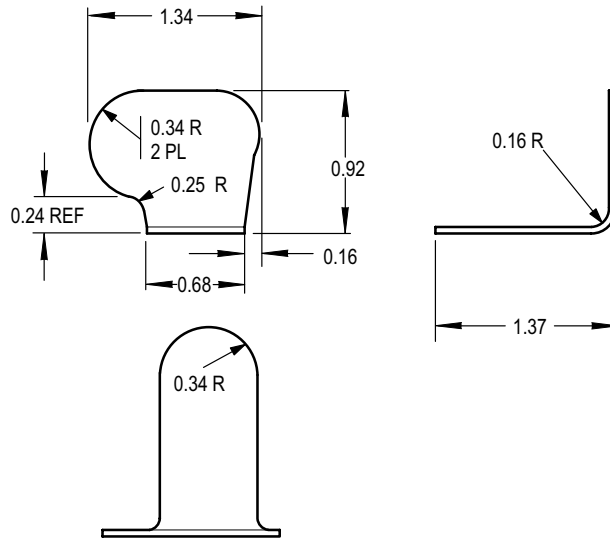
NOTES:

- CLIP - MAKE FROM AL-ALY SHEET 2024-T0, 0.032 THICK  
NSN 9535-00-084-4395
- FINISH - CHEMICALLY FILM TREAT PER MIL-C-5541,  
CLASS IA
- HEAT TREAT AFTER FORMING TO T42
- ALL DIMENSIONS ARE IN INCHES

M04-4768

Figure D-101. Clip PN 7-311111180-7



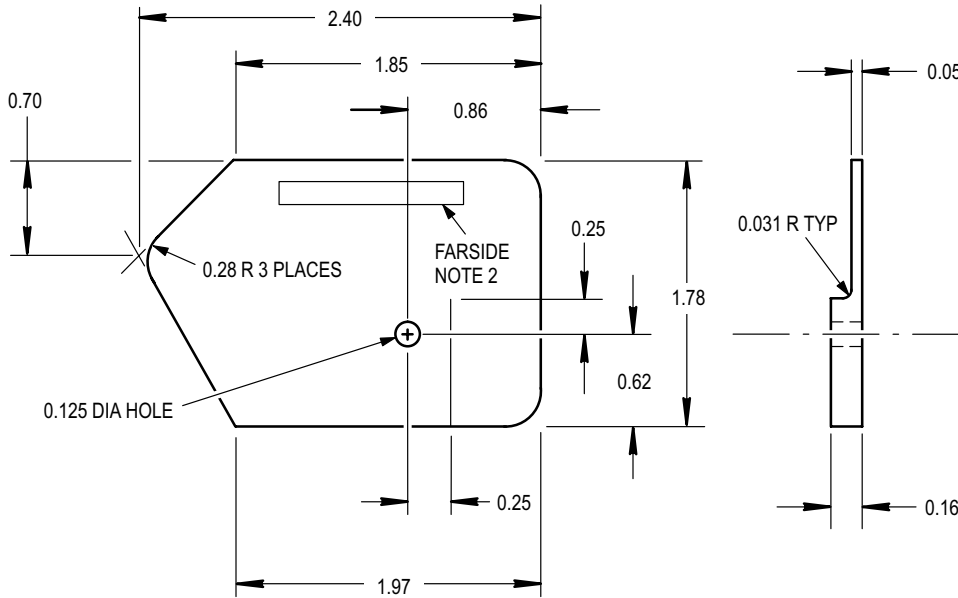


NOTES:

- CLIP - MAKE FROM AL-ALY SHEET, 2024-T3. 0.040 THICK  
NSN 9535-00-086-9930
- FINISH - CHEMICALLY FILM TREAT PER MIL-C-5541,  
CLASS IA
- ALL DIMENSIONS ARE IN INCHES

M04-4769

Figure D-102. Clip PN 7-31111180-9

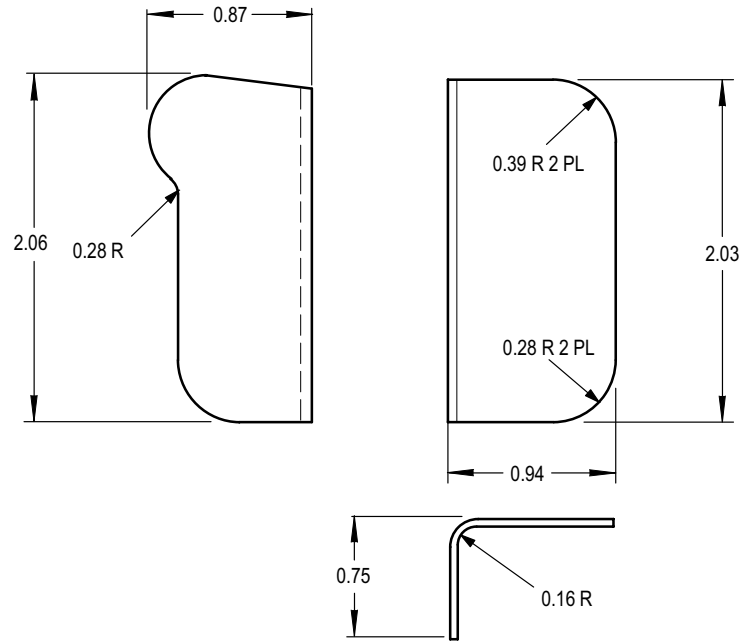


NOTES:

- 1 FITTING - BORESIGHT, LOWER. MAKE FROM AL-ALY SHEET, 2024-T3,  
0.190 THICK, NSN 9535-00-640-4326
- 2 IDENTIFY WITH INDELIBLE INK LETTERING, MINIMUM HEIGHT 0.125
- 3 ALL DIMENSIONS ARE IN INCHES

M04-4743

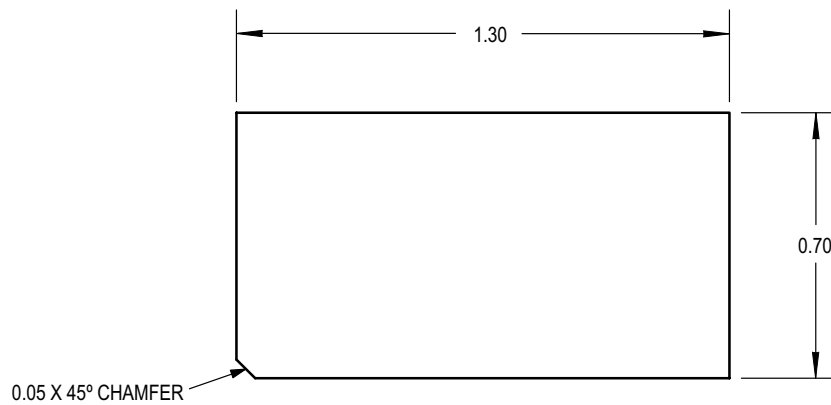
Figure D-103. Fitting, Boresight PN 7-31111182



- NOTES:
- CLIP - MATERIAL AL-ALY SHEET 2024-T3, 0.040 THICKNESS  
NSN 9535-00-086-9930
  - ALL DIMENSIONS ARE IN INCHES

M04-4685

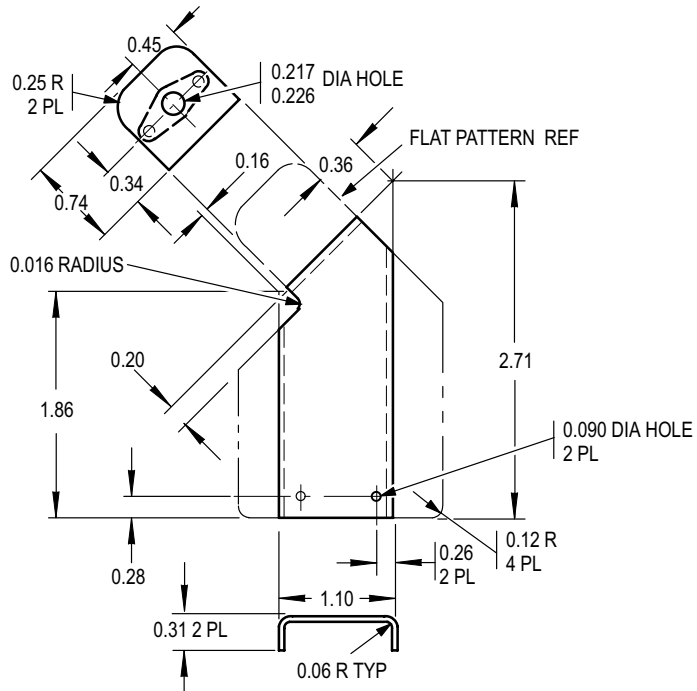
**Figure D-104. Clip PN 7-31111183-7**



- NOTES:
- SHIM - MAKE FROM AL-ALY SHIM, COMPOSITION 1, TYPE1, CLASS 2, 0.093 THICK MIL-S-22499  
NSN 5365-00-484-3618
  - ALL DIMENSIONS ARE IN INCHES

M04-4895

**Figure D-105. Shim PN 7-31111184-13**

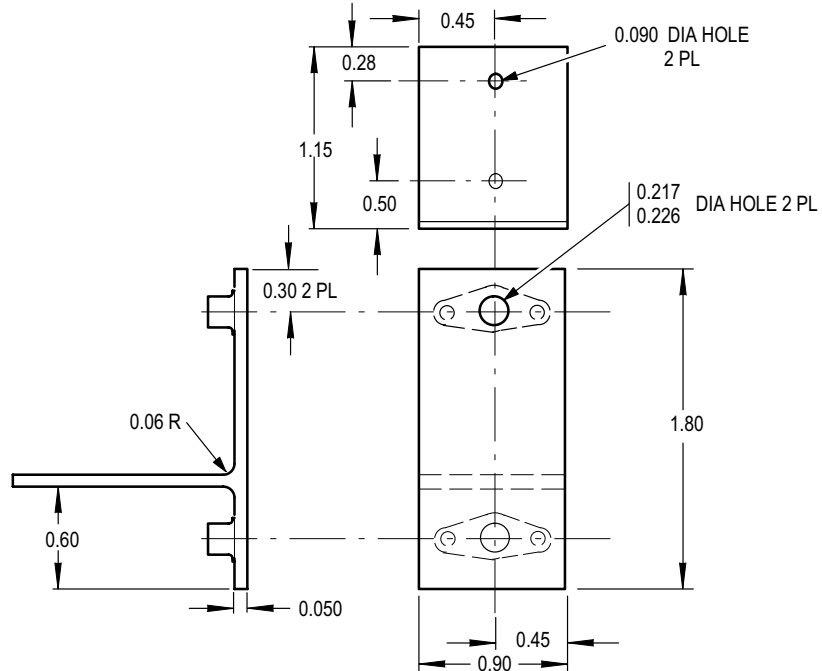


NOTES:

- BRACKET ASSEMBLY - MAKE FROM AL-ALY SHEET, 2024-0, 0.040 THICK NSN 9535-00-596-3788
- INSTALL MS21075L3 NUTPLATE NSN 5310-00-772-3720 USING TWO MS20426AD3 RIVETS NSN 5310-01-012-5586
- FINISH - CHEMICALLY FILM TREAT PER MIL-C-5541, CLASS 1A
- ALL DIMENSIONS ARE IN INCHES

M04-4774

Figure D-106. Bracket, Assembly PN 7-31111184-31

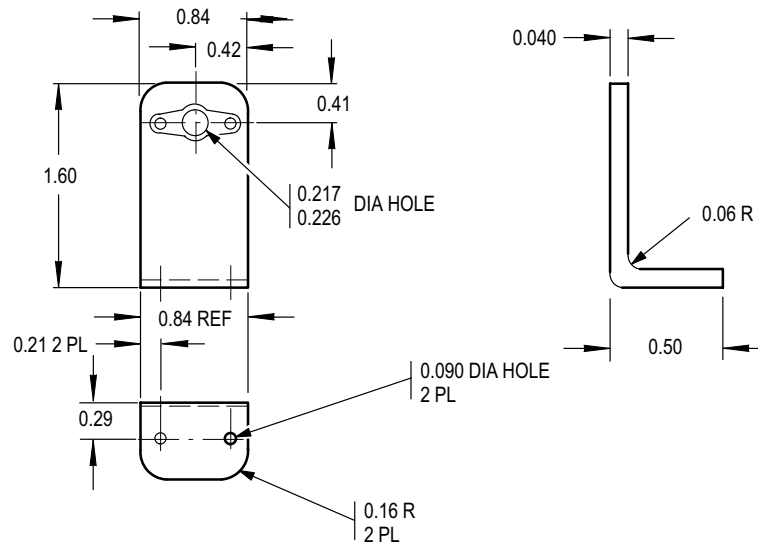


NOTES:

- CLIP ASSEMBLY-MAKE FROM EXTRUDED TEE AL-ALY, 0.050 THICK NSN 9540-00-408-1741
- INSTALL TWO MS21075L3 NUT PLATES NSN 5310-00-772-3720 USING FOUR MS 20426AD3 RIVETS NSN 5320-01-012-5586
- FINISH-CHEMICALLY FILM TREAT PER MIL-5541 CLASS 1A
- ALL DIMENSIONS ARE IN INCHES

M04-4773

Figure D-107. Clip, Assembly PN 7-31111184-37

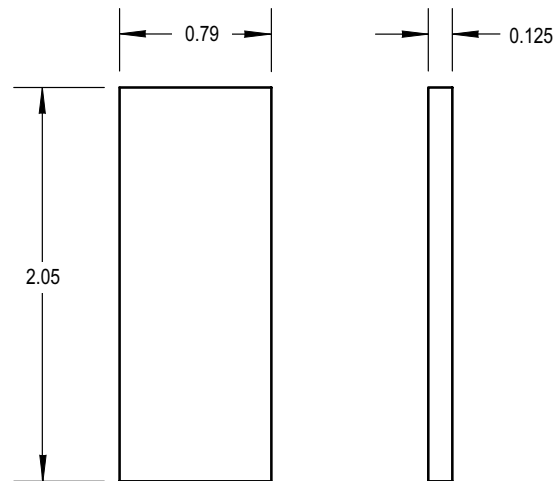


NOTES:

- CLIP ASSEMBLY - MAKE FROM AL-ALY SHEET, 2024-O 0.040 THICK  
 QQ-A-250/4 NSN 9535-00-167-2249  
 INSTALL ONE MS21075 L3 NUTPLATE USING TWO MS20426 AD3 RIVETS
- HEAT TREAT TO T42 AFTER FORMING
- ALL DIMENSIONS ARE IN INCHES

M04-4775

Figure D-108. Clip, Assembly PN 7-31111184-39

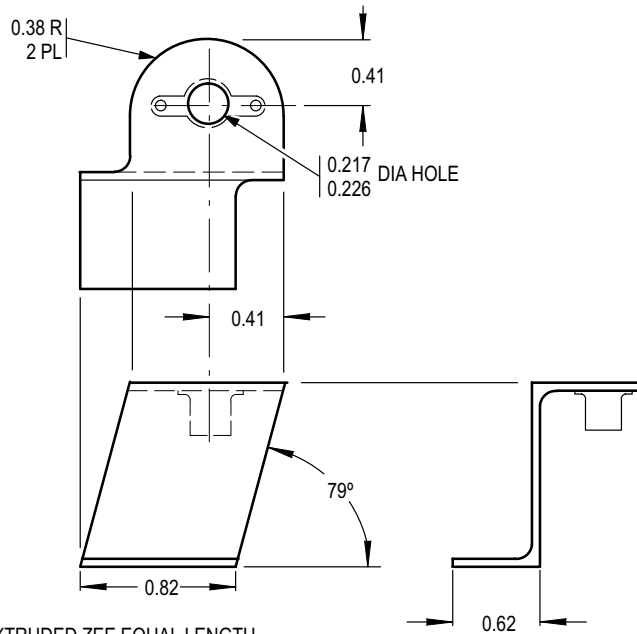


NOTES:

- SHIM - MAKE FROM LAMINATED SHIM STOCK, ML-S-22499, COMPOSITION 1, TYPE 2, CLASS 2,  
 0.125 THICK NSN 9535-00-811-1867  
 BOND TO INTERCOSTAL USING ADHESIVE NSN 8040-01-189-1284
- ALL DIMENSIONS ARE IN INCHES

M04-4899

Figure D-109. Shim PN 7-31111184-41

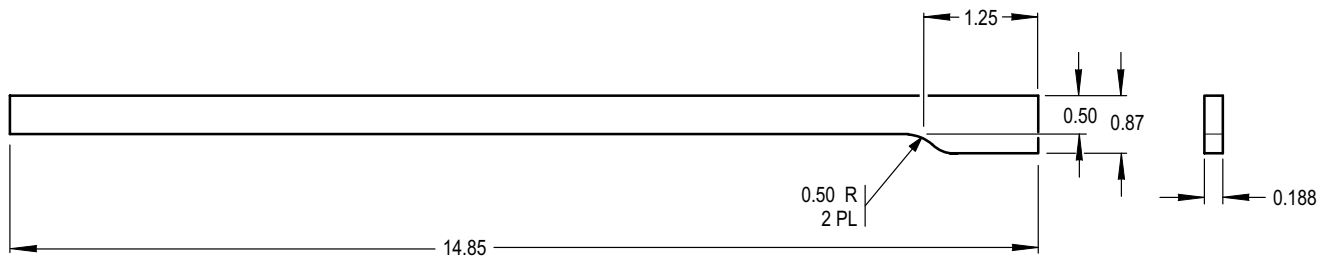


NOTES:

- CLIP ASSEMBLY - MAKE FROM AL-ALY EXTRUDED ZEE EQUAL LENGTH 2024-T4/T3511 NSN 5340-01-255-9388, INSTALL ONE MS21075L3 NUTPLATE USING TWO HS5435-0303 RIVETS
- FINISH - CHEMICALLY FILM TREAT PER MIL-C-5541, CLASS 1A P/N 7-311111184-435 SHOWN, P/N 7-311111184-44 OPPOSITE
- ALL DIMENSIONS ARE IN INCHES

M04-4776

Figure D-110. Clip PN 7-311111184-43/-44

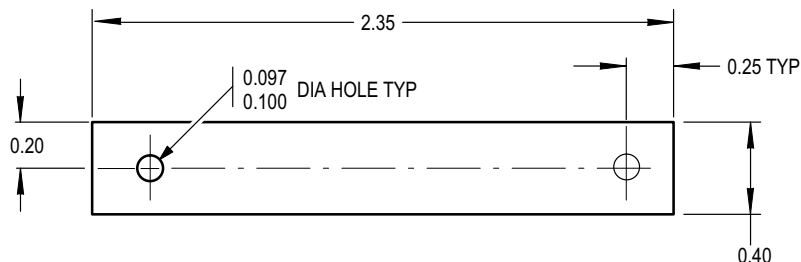


NOTES:

- SILICONE RUBBER SPONGE, CLOSED CELL NSN 9320-00-069-5175
- COLOR BLACK
- TRIM AS REQUIRED
- BOND USING ADHESIVE TYPE 2, CLASS B 1/2 NSN 8030-00-080-1549
- ALL DIMENSIONS ARE IN INCHES

M04-4771

Figure D-111. Silicone Rubber, Sponge PN 7-311111220-3



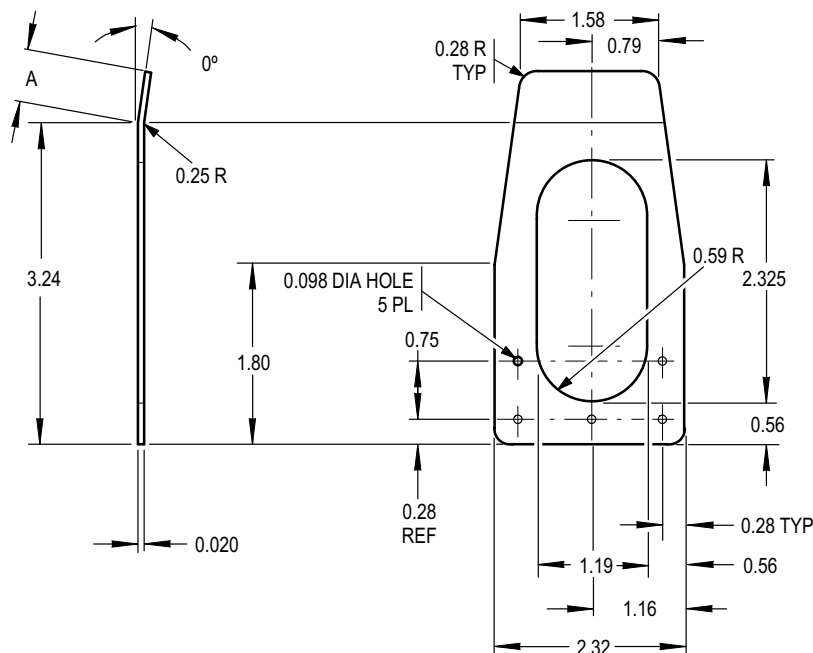
NOTES:

- RIVET STRIP MAKE FROM AL-ALY SHEET ALCD. 2024-T3, 0.032 THICK  
NSN 9535-00-167-2279
- FINISH - CHEMICALLY FILM TREAT PER MIL-C-5541 CLASS 1A
- ALL DIMENSIONS ARE IN INCHES

M04-4763

Figure D-112. Rivet Strip PN 7-31111223-33

PART NO.	A	0°
-19	0.53	7°
-21	0.53	16°
-23	0.60	16°
-25	0.53	19°
-27	0.53	21°
-35	0.54	16°

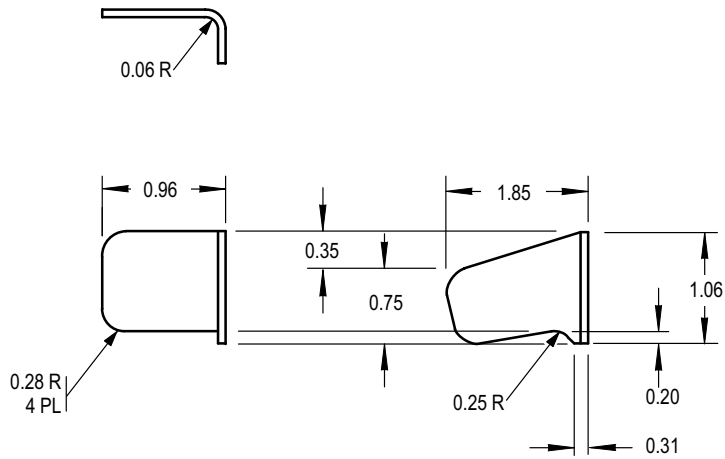


NOTES:

- PLATE - MAKE FROM AL-ALY SHEET 2024-T3, 0.020 THICK  
NSN 9535-00-084-4484
- FINISH - CHEMICALLY FILM TREAT PER MIL-C-5541 CLASS 1A
- ALL DIMENSIONS ARE IN INCHES

M04-4761

Figure D-113. Plate PN 7-31111224-19/-21/-23/-25/-27/-35

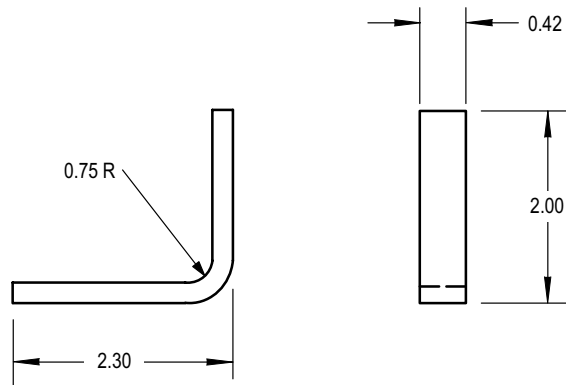


NOTES:

- CLIP - MAKE FROM AL-ALY SHEET 2024-0, 0.040 THICK  
NSN 9535-00-086-9930
- HEAT TREAT TO T42 AFTER FORMING
- FINISH - CHEMICALLY FILM TREAT PER MIL-C-5541 CLASS 1A
- ALL DIMENSIONS ARE IN INCHES

M04-4803

Figure D-114. Clip PN 7-31111230-105

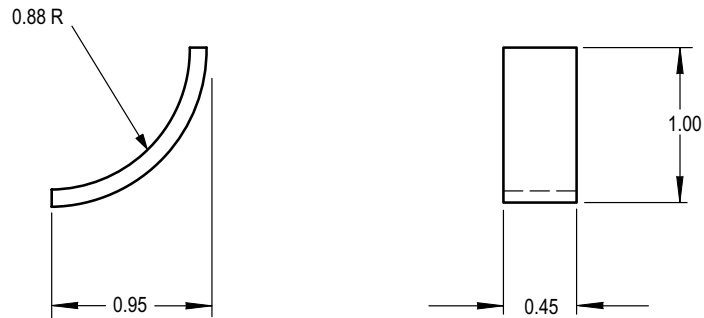


NOTES:

- SEAL RETAINER - MAKE FROM AL ALY SHEET 2024-0, 0.032 THICK  
NSN 9535-00-084-4395.
- HEAT TREAT TO T42 AFTER FORMING
- FINISH - CHEMICALLY FILM TREAT PER MIL-C-5541 CLASS 1A
- ALL DIMENSIONS ARE IN INCHES.

M04-4797

Figure D-115. Seal, Retainer PN 7-31111230-133

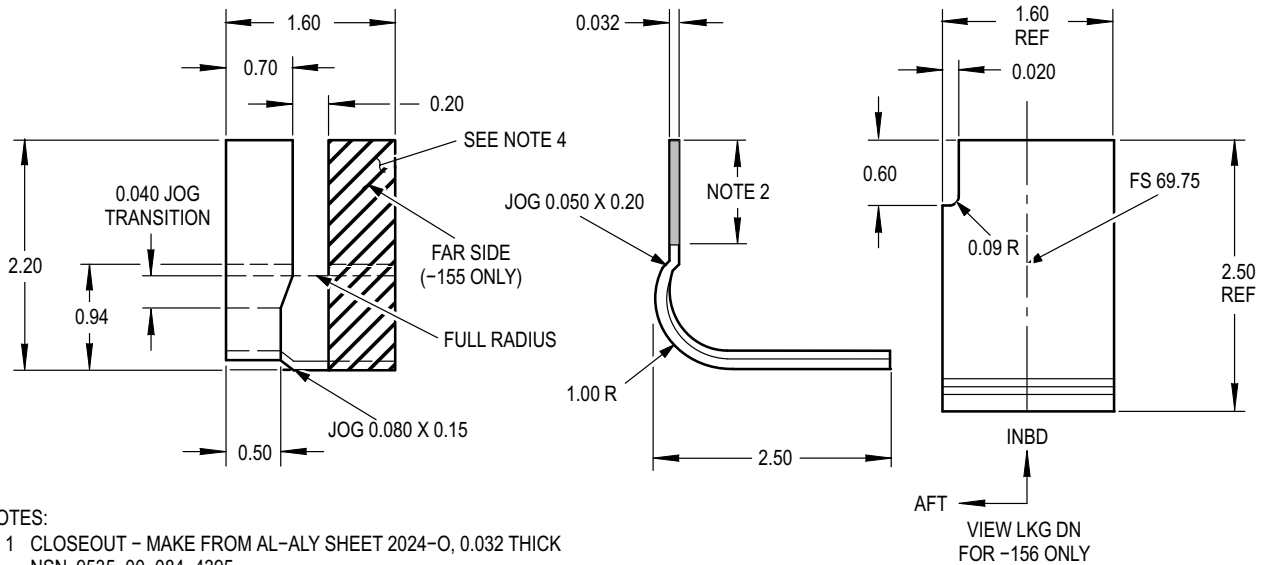


NOTES:

- FILLER - MAKE FROM AL-ALY SHEET 2024.0, 0.050 THICK  
NSN 9535-00-229-0917
- HEAT TREAT TO T42 AFTER FORMING
- FINISH - CHEMICALLY FILM TREAT FOR ELECTRICAL CONDUCTIVITY  
PER MIL-C-5541 CLASS 3A
- ALL DIMENSIONS ARE IN INCHES

M04-4804

Figure D-116. Filler PN 7-31111230-153



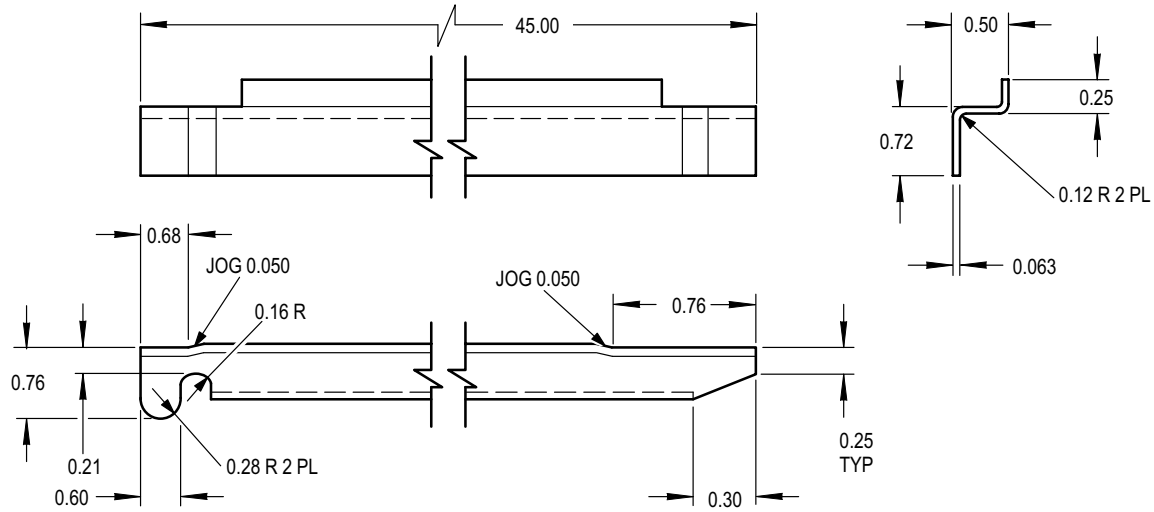
NOTES:

- 1 CLOSEOUT - MAKE FROM AL-ALY SHEET 2024-O, 0.032 THICK  
NSN 9535-00-084-4395
- 2 FINISH-CHEMICALLY FILM TREAT FOR ELECTRICAL  
CONDUCTIVITY PER MIL-C-5541, CLASS 3A
- 3 HEAT TREAT TO T-42 AFTER FORMING
- 4 SEAL FAYING SURFACE USING ADHESIVE TYPE 2 CLASS B 1/2  
NSN 8030-00-080-1549
- 5 ALL DIMENSIONS ARE IN INCHES

M04-4798

Figure D-117. Closeout PN 7-31111230-155/-156





NOTES:

- HINGE SUPPORT - MAKE FROM AL-ALY SHEET 2024-0, 0.063, THICK  
NSN 9535-00-084-4370.
- HEAT TREAT TO T-42 AFTER FORMING
- FINISH - CHEMICALLY FILM TREAT FOR ELECTRICAL CONDUCTIVITY  
PER MIL-C-5541 CLASS 3A
- ALL DIMENSIONS ARE IN INCHES

M04-4799

Figure D-118. Hinge, Support PN 7-31111230-157

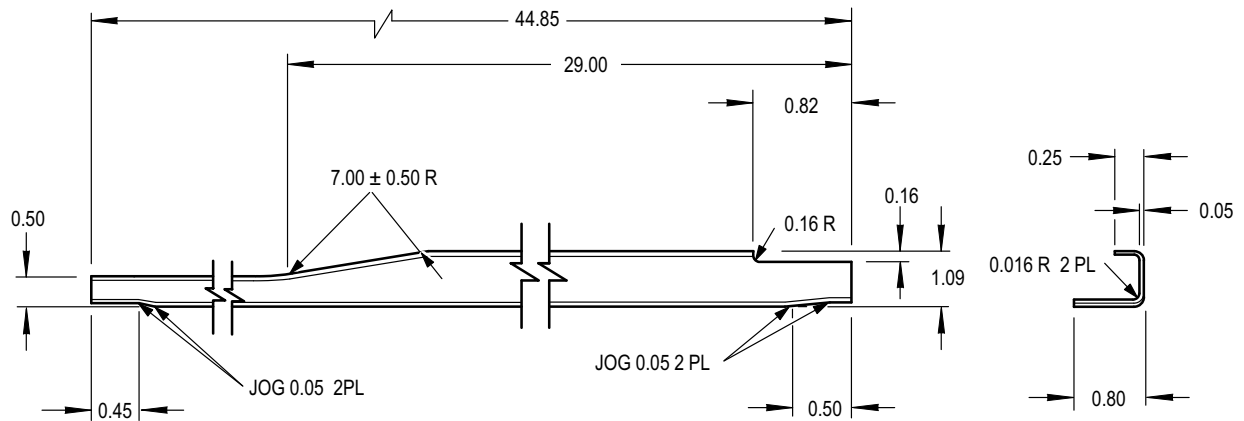


NOTES:

- FILLER - MAKE FROM AL-ALY SHEET 2024-0, 0.050 THICK  
NSN 9535-00-229-0917
- HEAT TREAT TO T-42 AFTER FORMING
- FINISH - CHEMICALLY FILM TREAT FOR ELECTRICAL CONDUCTIVITY  
PER MIL-C-5541 CLASS 1A
- ALL DIMENSIONS ARE IN INCHES

M04-4800

Figure D-119. Filler PN 7-31111230-159

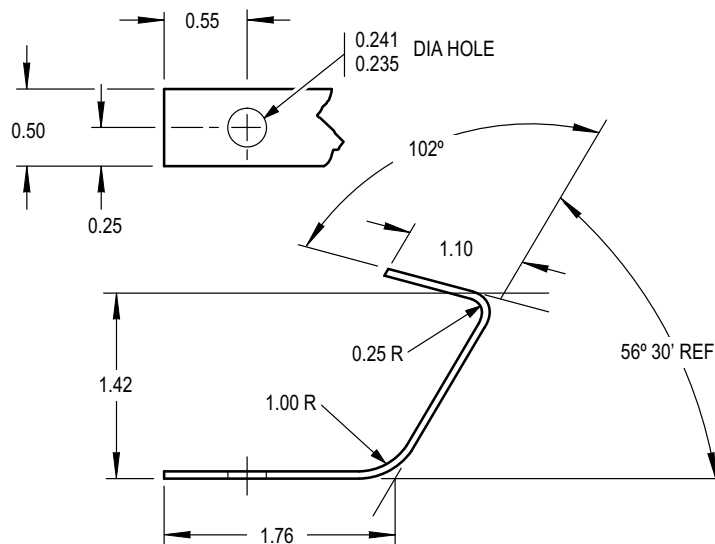


NOTES:

- HINGE SUPPORT - MAKE FROM AL-ALY SHEET 2024-0, 0.050, THICK  
NSN 9535-00-229-0917
- HEAT TREAT TO T42 AFTER FORMING
- FINISH - CHEMICALLY FILM TREAT FOR ELECTRICAL CONDUCTIVITY PER MIL-C-5541, CLASS 3A
- ALL DIMENSIONS ARE IN INCHES

M04-4805

Figure D-120. Hinge, Support PN 7-31111230-161

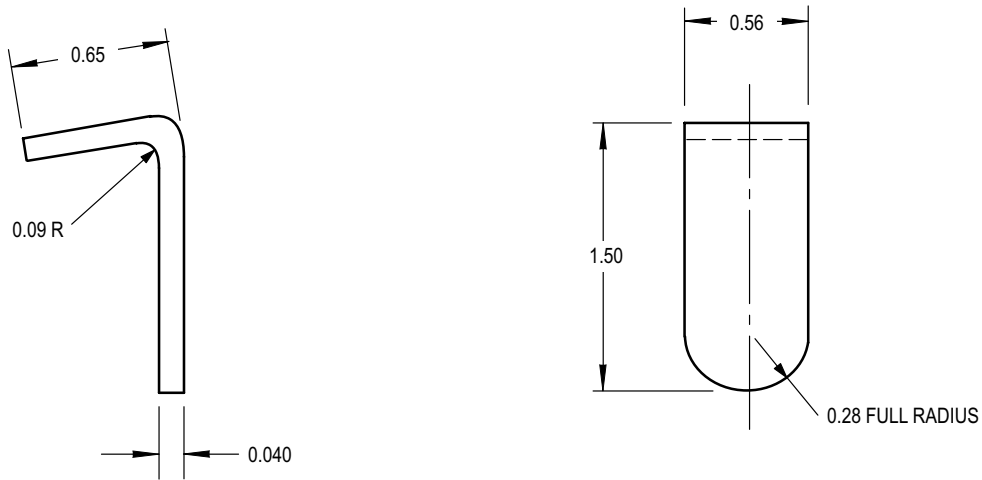


NOTES:

- CLOSE OUT - MAKE FROM AL-ALY SHEET 2024-0, 0.063 THICK  
NSN 9535-00-084-4370
- HEAT TREAT TO T42 AFTER FORMING
- FINISH - CHEMICALLY FILM TREAT FOR ELECTRICAL CONDUCTIVITY PER MIL-C-5541, CLASS 3A
- ALL DIMENSIONS ARE IN INCHES

M04-4801

Figure D-121. Closeout PN 7-31111230-169

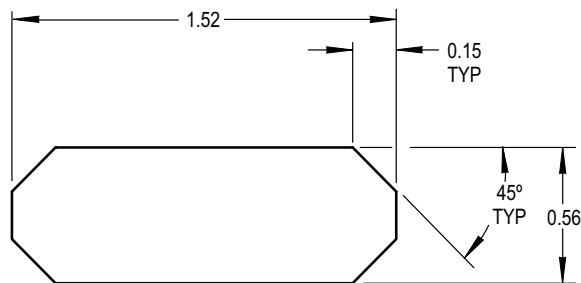


NOTES:

- CLIP - MAKE FROM AL-ALY SHEET 2024-0, 0.040 THICK  
NSN 9535-00-167-2249
- HEAT TREAT TO T42 AFTER FORMING
- FINISH - CHEMICALLY FILM TREAT PER MIL-C-5541, CLASS 1A
- ALL DIMENSIONS ARE IN INCHES

M04-4802

Figure D-122. Clip PN 7-311111230-63

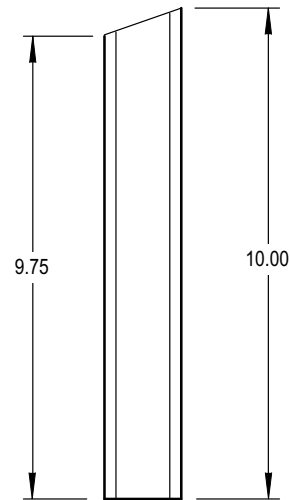


NOTES:

- STRIP - MAKE FROM AL-ALY SHEET 2024-T3, 0.032 THICK  
NSN 9535-00-084-4395
- ALL DIMENSIONS ARE IN INCHES

M04-4772

Figure D-123. Strip PN 7-311111234-35

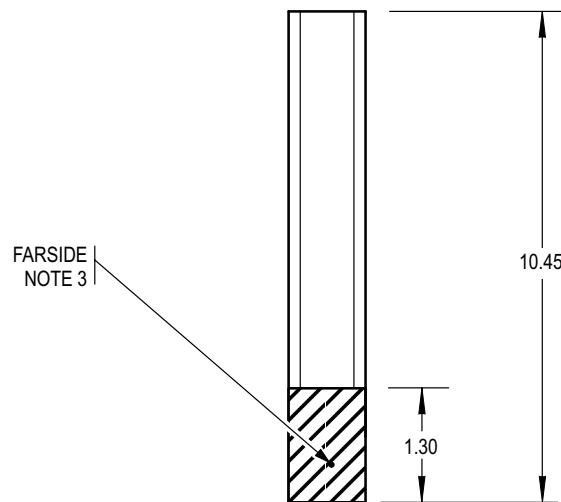


NOTES:

- STRUT - MAKE FROM AL-ALY CHANNEL, 2024-T42, 0.040 THICK  
HS 5246 DD-2G1000, NSN 9535-00-167-2249
- FINISH - CHEMICALLY FILM TREAT FOR ELECTRICAL  
CONDUCTIVITY PER MIL-C-5541, CLASS 3A
- ALL DIMENSIONS ARE IN INCHES

M04-4808

Figure D-124. Strut PN 7-311111250-13

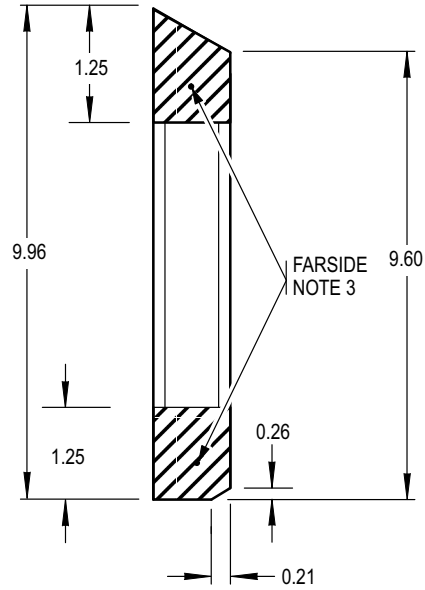


NOTES:

- 1 STRUT - MAKE FROM AL-ALY CHANNEL, 2024-T42, 0.040 THICK,  
HS5246 DD-2G0900, NSN 9535-00-167-2249
- 2 FINISH - CHEMICALLY FILM TREAT FOR ELECTRICAL  
CONDUCTIVITY PER MIL-C-5541, CLASS 3A
- 3 PREPARE FAYING SURFACES FOR ELECTRICAL BONDING  
0.0025 OHMS OR LESS (TM 55-1500-323-24)
- 4 ALL DIMENSIONS ARE IN INCHES

M04-4809

Figure D-125. Strut PN 7-311111250-15

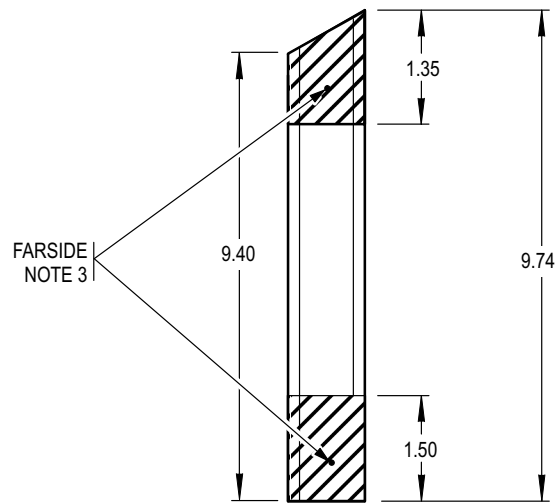


NOTES:

- 1 STRUT - MAKE FROM AL-ALY CHANNEL, 2024-T42, 0.040 THICK, HS5246 DD-2G1009, NSN 9535-00-167-2249
- 2 FINISH - CHEMICALLY FILM TREAT FOR ELECTRICAL CONDUCTIVITY PER MIL-C-5541, CLASS 3A
- 3 PREPARE FAYING SURFACES FOR ELECTRICAL BONDING 0.0025 OHMS OR LESS (TM 55-1500-323-24)
- 4 ALL DIMENSIONS ARE IN INCHES

M04-4810

Figure D-126. Strut PN 7-31111250-17

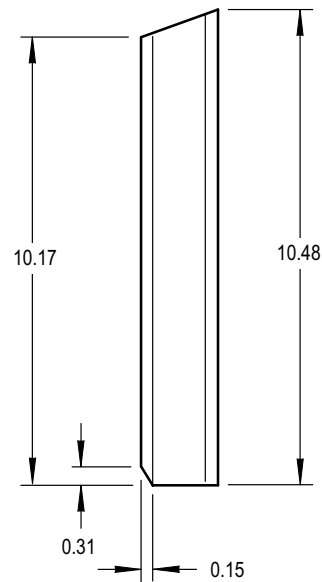


NOTES:

- 1 STRUT - MAKE FROM AL-ALY CHANNEL, 2024-T42, 0.040 THICK HS5246 DD-2G1004, NSN 9535-00-167-2249
- 2 FINISH - CHEMICALLY FILM TREAT FOR ELECTRICAL CONDUCTIVITY PER MIL-C-5541, CLASS 3A
- 3 PREPARE FAYING SURFACES FOR ELECTRICAL BONDING 0.0025 OHMS OR LESS (TM 55-1500-323-24)
- 4 ALL DIMENSIONS ARE IN INCHES

M04-4811

Figure D-127. Strut PN 7-31111250-19

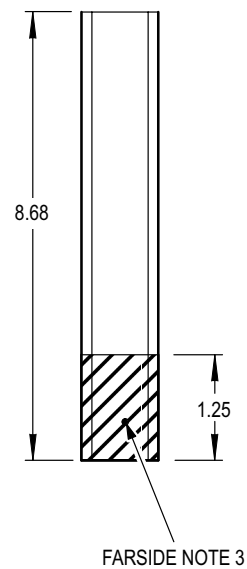


NOTES:

- STRUT - MAKE FROM AL-ALY CHANNEL, 2024-T42, 0.040 THICK HS5246 DD-2G1016, NSN 9535-00-167-2249
- FINISH - CHEMICALLY FILM TREAT FOR ELECTRICAL CONDUCTIVITY PER MIL-C-5541, CLASS 3A
- ALL DIMENSIONS ARE IN INCHES

M04-4812

Figure D-128. Strut PN 7-31111250-21



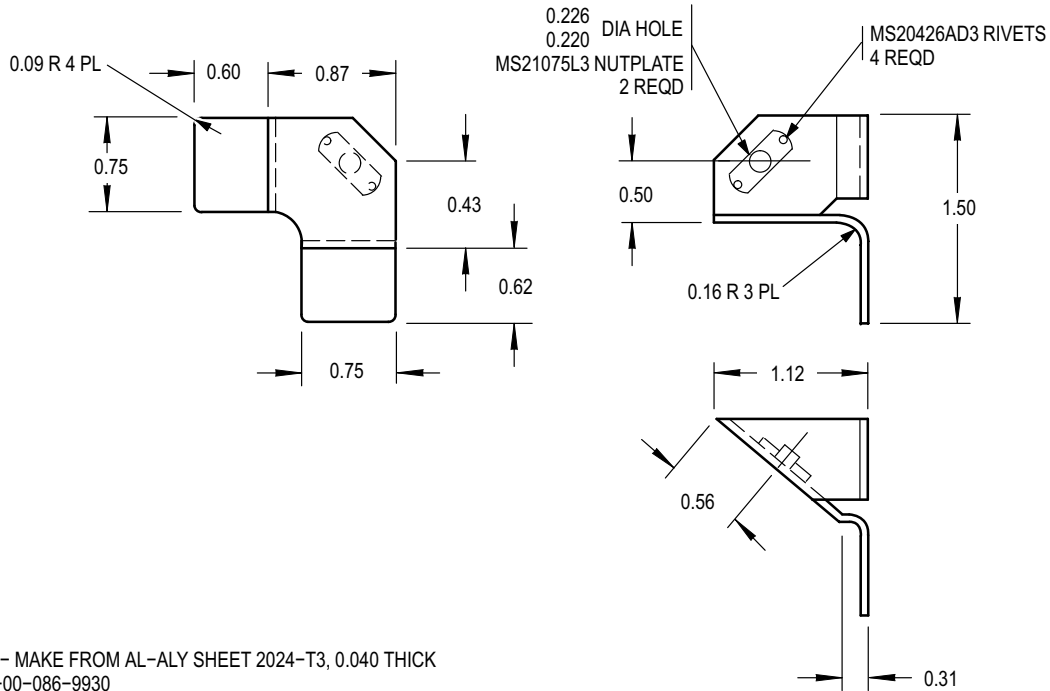
NOTES:

- 1 STRUT - MAKE FROM AL-ALY CHANNEL, 2024-T42, 0.040 THICK HS5246 DD-2G0811, NSN 9535-00-167-2249
- 2 FINISH - CHEMICALLY FILM TREAT FOR ELECTRICAL CONDUCTIVITY PER MIL-C-5541, CLASS 3A
- 3 PREPARE FAYING SURFACES FOR ELECTRICAL BONDING 0.0025 OHMS OR LESS (TM 55-1500-323-24)
- 4 ALL DIMENSIONS ARE IN INCHES

FAR SIDE NOTE 3

M04-4813

Figure D-129. Strut PN 7-31111250-27

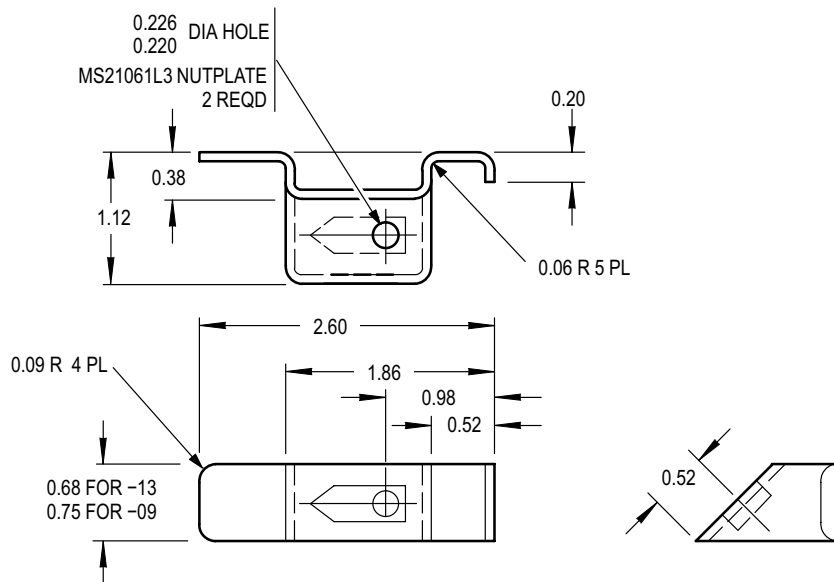


NOTES:

- BRACKET - MAKE FROM AL-ALY SHEET 2024-T3, 0.040 THICK  
NSN 9535-00-086-9930
- FINISH - CHEMICALLY FILM TREAT PER MIL-C-5541, CLASS 1A
- ALL DIMENSIONS ARE IN INCHES

M04-4806

Figure D-130. Bracket PN 7-31111251-7

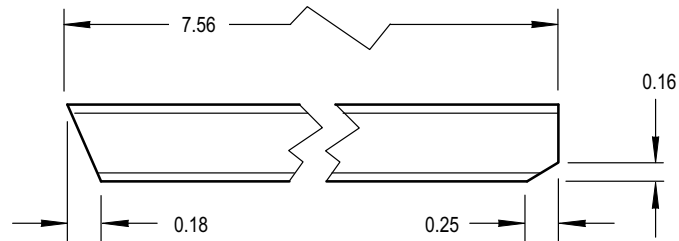


NOTES:

- BRACKET - MAKE FROM AL-ALY SHEET 2024-T0, 0.040 THICK  
NSN 9535-00-086-9930
- HEAT TREAT AFTER FORMING TO T42
- FINISH - CHEMICALLY FILM TREAT  
PER MIL-C-5541, CLASS 1A
- ALL DIMENSIONS ARE IN INCHES

M04-4807

Figure D-131. Bracket PN 7-31111251-9/13

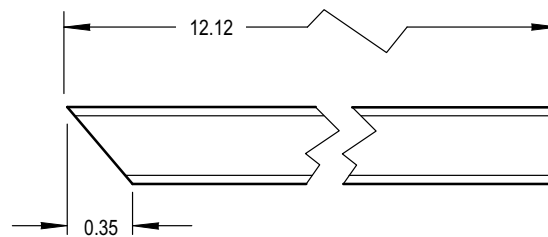


NOTES:

- STRUT - MAKE FROM HS5246DD2G0717, CHANNEL FORMED.
- FINISH - CHEMICALLY FILM TREAT FOR ELECTRICAL CONDUCTIVITY PER MIL-C-5541, CLASS 3A
- ALL DIMENSIONS ARE IN INCHES

M04-4815

Figure D-132. Strut PN 7-311111255-23



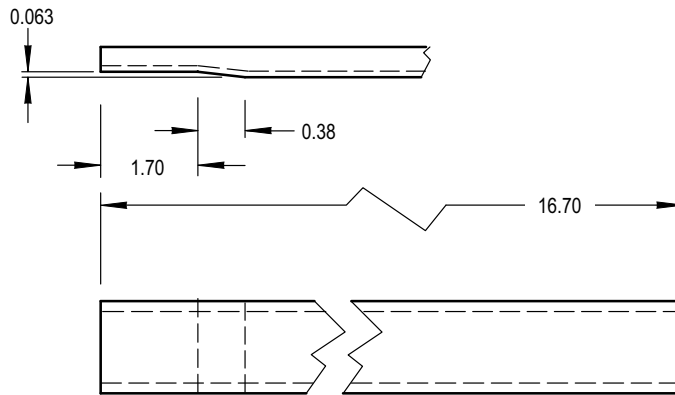
NOTES:

- STRUT - MAKE FROM HS5246DD2G1204, CHANNEL FORMED.
- FINISH - CHEMICALLY FILM TREAT FOR ELECTRICAL CONDUCTIVITY PER MIL-C-5541, CLASS 3A
- ALL DIMENSIONS ARE IN INCHES

M04-4816

Figure D-133. Strut PN 7-311111255-25



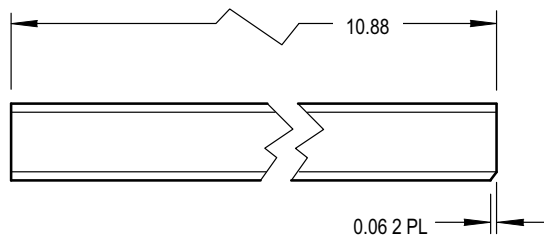


NOTES:

- STRUT - MAKE FROM HS5246DD2G1204, CHANNEL FORMED
- FINISH - CHEMICALLY FILM TREAT FOR ELECTRICAL CONDUCTIVITY PER MIL-C-5541, CLASS 3A
- ALL DIMENSIONS ARE IN INCHES

M04-4817

Figure D-134. Strut PN 7-311111255-27

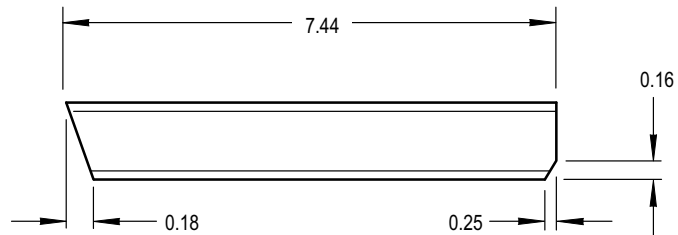


NOTES:

- STRUT - MAKE FROM HS5246DD2G016, CHANNEL FORMED.
- FINISH - CHEMICALLY FILM TREAT FOR ELECTRICAL CONDUCTIVITY PER MIL-C-5541, CLASS 3A
- ALL DIMENSIONS ARE IN INCHES

M04-4818

Figure D-135. Strut PN 7-311111255-29

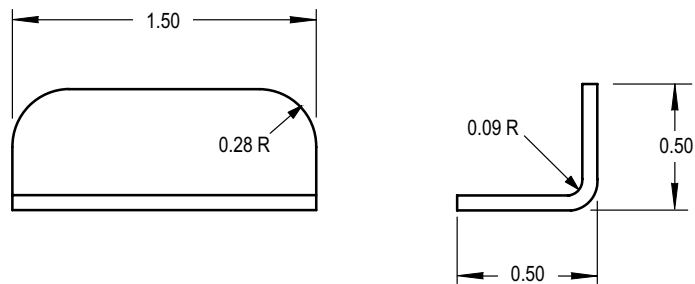


NOTES:

- STRUT - MAKE FROM HS5246DD2G0714, CHANNEL FORMED.
- FINISH - CHEMICALLY FILM TREAT FOR ELECTRICAL CONDUCTIVITY PER MIL-C-5541, CLASS 3A
- ALL DIMENSIONS ARE IN INCHES

M04-4819

**Figure D-136. Strut PN 7-311111255-31**

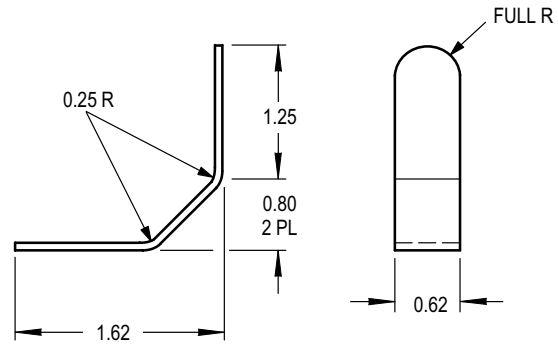


NOTES:

- CLIP - MAKE FROM AL-ALY SHEET 2024-T3, 0.016 THICK, NSN 9535-00-167-2172
- FINISH - CHEMICALLY FILM TREAT PER MIL-C-5541, CLASS 1A
- ALL DIMENSIONS ARE IN INCHES

M04-4831

**Figure D-137. Clip PN 7-311111263-33**

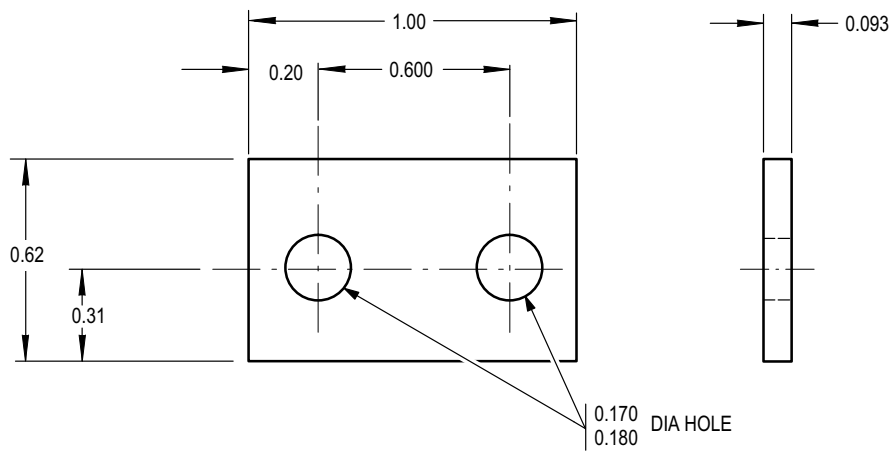


NOTES:

- CLIP - MAKE FROM AL-ALY SHEET 2024-T3, 0.040 THICK  
NSN 9535-00-086-9930
- PREPARE SURFACE FOR BONDING - PRE BOND PREP OF ALUMINUM FOR  
NON-STRUCTURAL BONDING
- ALL DIMENSIONS ARE IN INCHES

M04-4832

Figure D-138. Clip PN 7-311111263-55

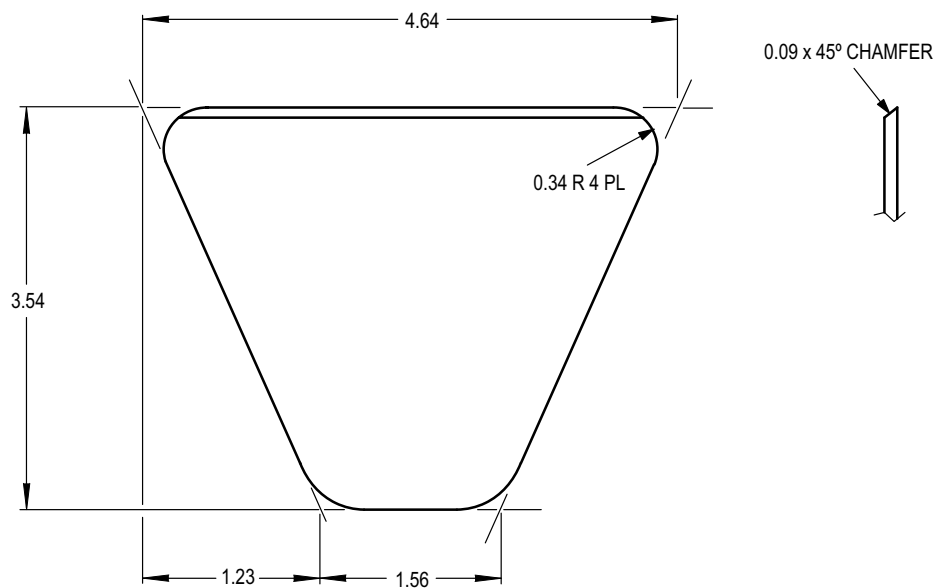


NOTES:

- SHIM - MAKE FROM BRASS SHIM LAMINATED, TYPE I, CLASS I 0.093 THICK  
NSN 9535-00-222-3867
- ALL DIMENSIONS ARE IN INCHES

M04-4664

Figure D-141. Shim PN 7-31112105

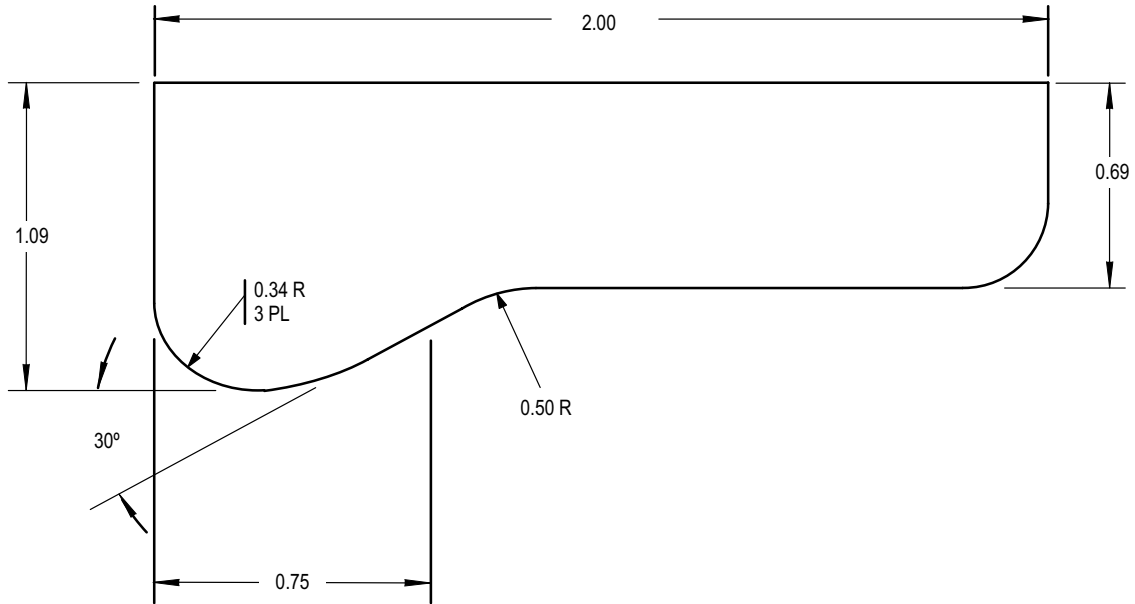


NOTES:

- DOUBLER - MAKE FROM AL-ALY SHEET ALUMINUM CLAD  
2024-T3, 0.125 THICK QQ-A-250/5  
NSN 9535-01-341-8304
- FINISH - CHEMICALLY FILM TREAT PER MIL-C-5541  
CLASS IA
- ALL DIMENSIONS ARE IN INCHES

M04-4925

Figure D-142. Doubler, Skin Panel PN 7-31112123-3

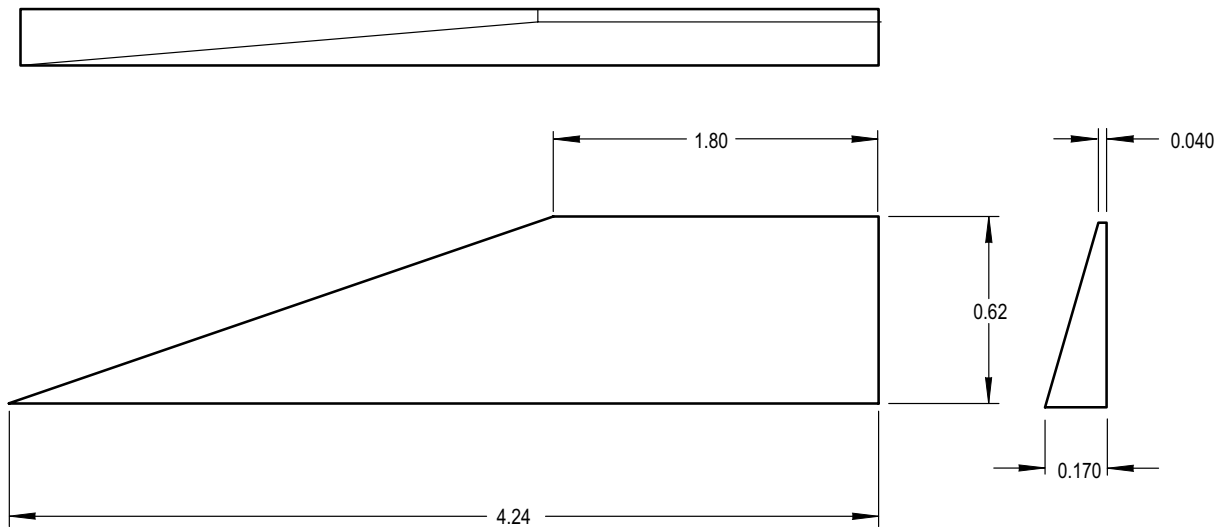


NOTES:

- SHIM - MAKE FROM AL-ALY SHEET 2024-T3, QQ-A-250 / 0.032 THICK  
NSN 9535-00-084-4395
- FINISH - CHEMICALLY FILM TREAT PER MIL-C-5541, CLASS 1A
- ALL DIMENSIONS ARE IN INCHES

M04-5057

Figure D-143. Shim PN 7-311113106-19

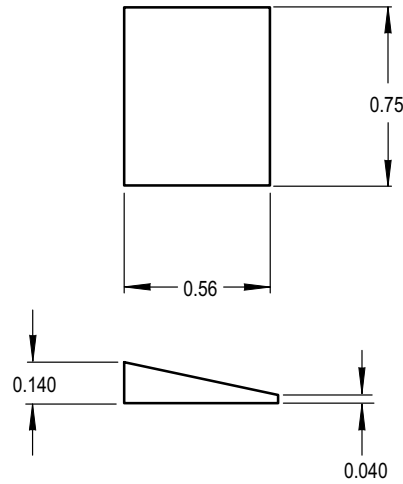


NOTES:

- SHIM - MAKE FROM AL-ALY SHEET 2024-T3, 0.188 THICK, QQ-A-250/4  
NSN 9535-01-012-9930
- 7-311113106-50 IS OPPOSITE OF -49
- FINISH - CHEMICALLY FILM TREAT PER MIL-C-5541, CLASS 1A
- ALL DIMENSIONS ARE IN INCHES

M04-4795

Figure D-144. Shim PN 7-311113106-49/-50

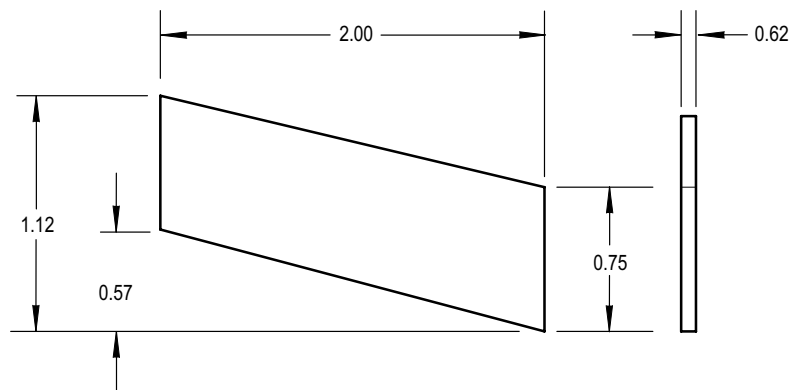


NOTES:

- SHIM - MAKE FROM AL-ALY SHEET 2024-T3, 0.188 THICK, QQ-A-250/4  
NSN 9935-01-012-9930
- FINISH - CHEMICALLY FILM TREAT PER MIL-C-5541, CLASS IA
- ALL DIMENSIONS ARE IN INCHES

M04-4794

Figure D-145. Shim PN 7-311113106-51

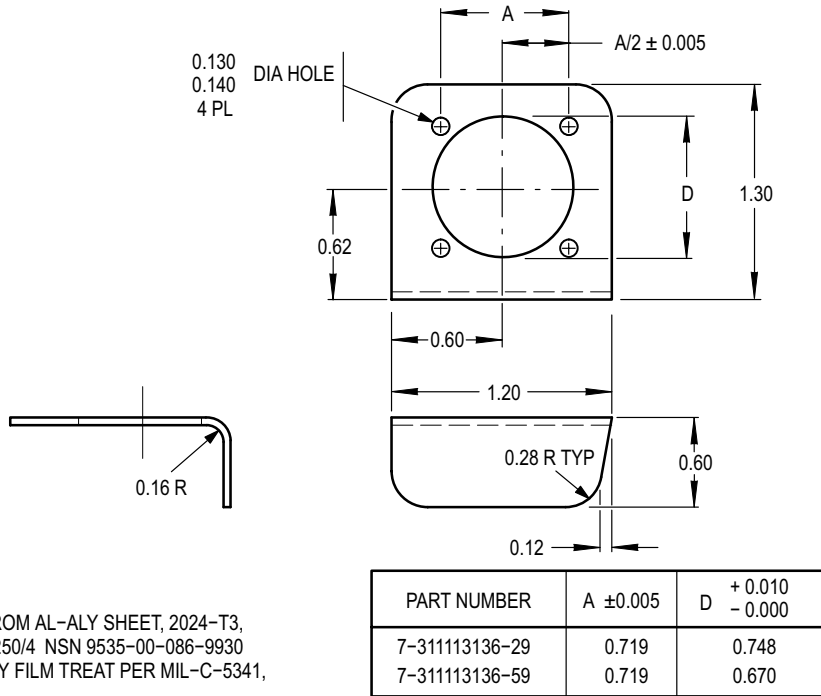


NOTES:

- SHIM - MAKE FROM AL-ALY SHIM, COMPOSITION 1, TYPE 2, CLASS 1  
0.062 THICK NSN 9535-01-064-7264
- REMOVE LAMINATES AS REQUIRED
- ALL DIMENSIONS ARE IN INCHES

M04-4893

Figure D-146. Shim PN 7-311113120-13

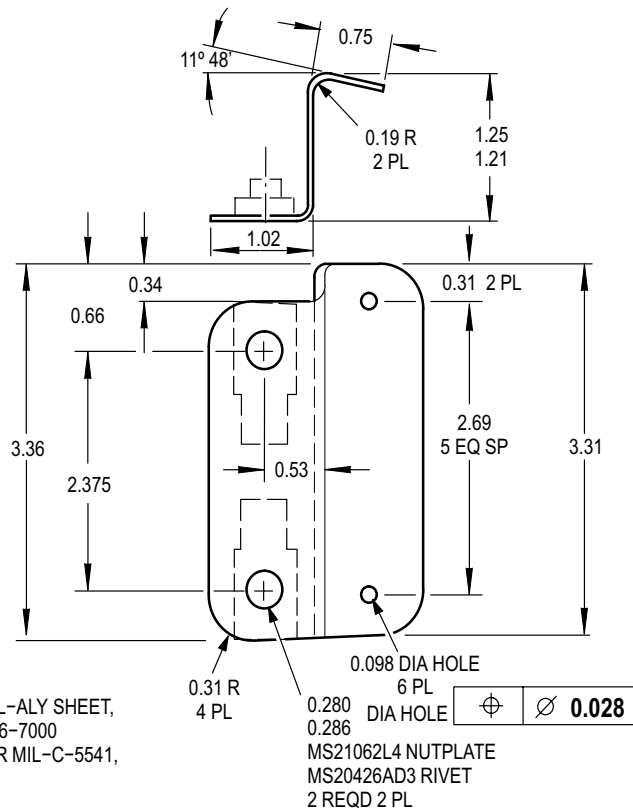


NOTES:

- BRACKET - MAKE FROM AL-ALY SHEET, 2024-T3, 0.040 THICK QQ-A-250/4 NSN 9535-00-086-9930
- FINISH - CHEMICALLY FILM TREAT PER MIL-C-5341, CLASS IA
- ALL DIMENSIONS ARE IN INCHES

M04-4928

Figure D-147. Bracket PN 7-311113136-29/-59



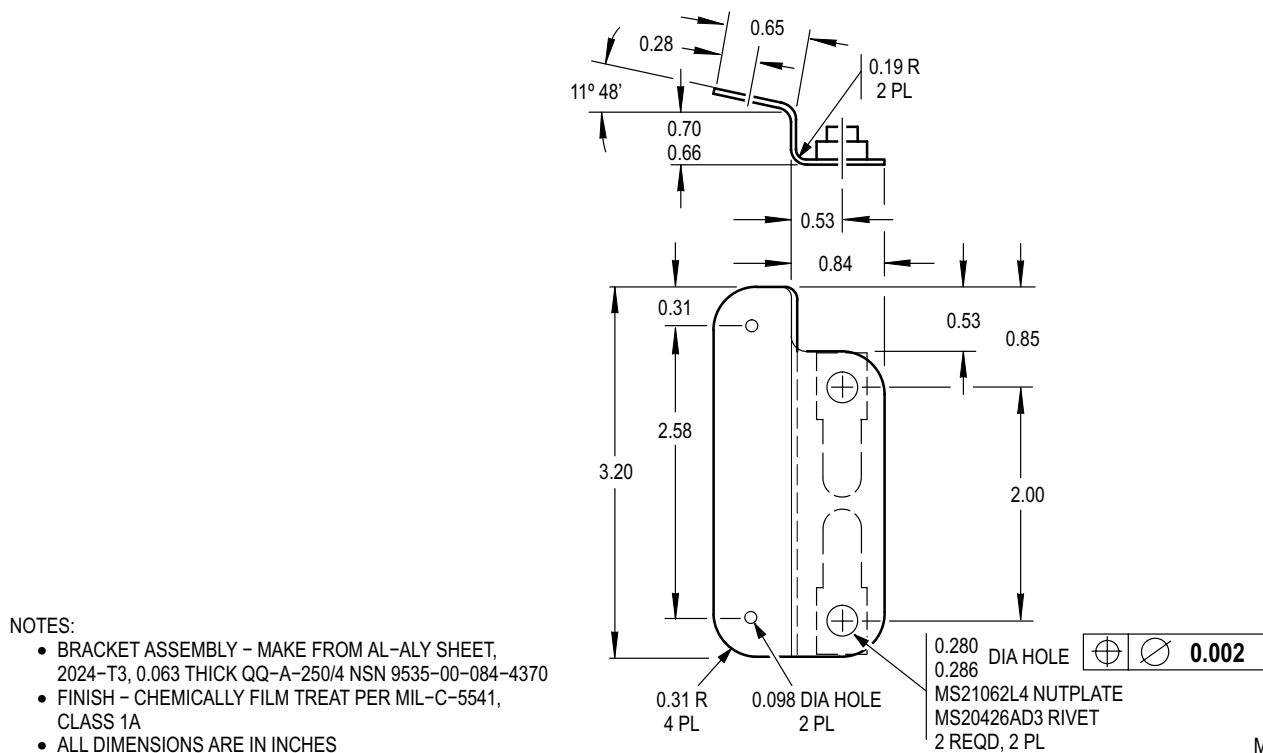
NOTES:

- BRACKET ASSEMBLY - MAKE FROM AL-ALY SHEET, 2024-T3, 0.050 THICK NSN 9535-00-236-7000
- FINISH - CHEMICALLY FILM TREAT PER MIL-C-5541, CLASS 1A
- ALL DIMENSIONS ARE IN INCHES

- MS21062L4 NUTPLATE
- MS20426AD3 RIVET
- 2 REQD 2 PL

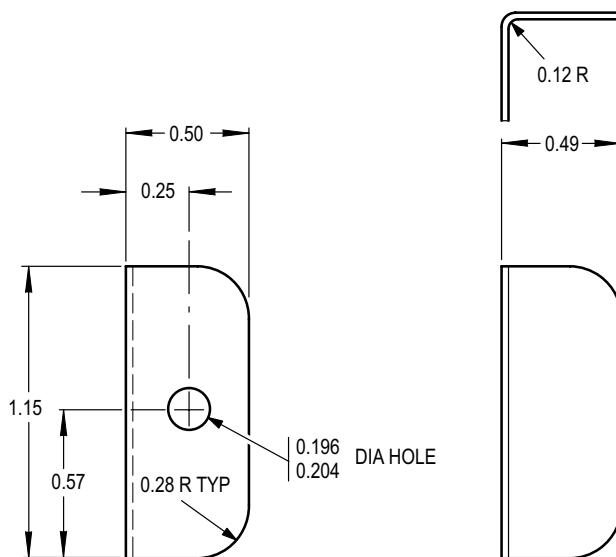
M04-4929

Figure D-148. Bracket PN 7-311113136-51/-53



M04-4930

Figure D-149. Bracket Assembly PN 7-311113136-55/-57

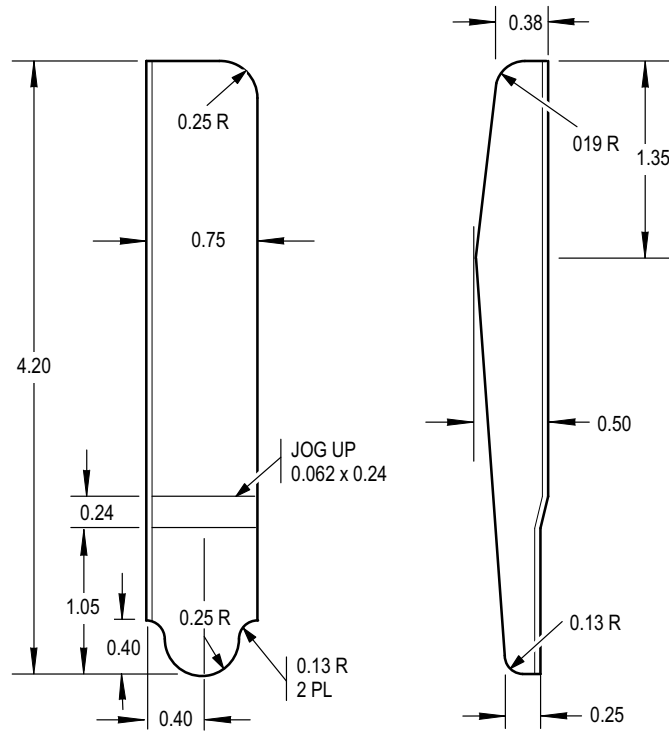


- NOTES:
- SHIM - MAKE FROM AL-ALY SHEET 2024-T3, 0.040 THICK NSN 9535-00-086-9930
  - FINISH - CHEMICALLY FILM TREAT PER MIL-C-5541, CLASS 1A
  - ALL DIMENSIONS ARE IN INCHES

M04-4933

Figure D-150. Clip PN 7-311113136-91



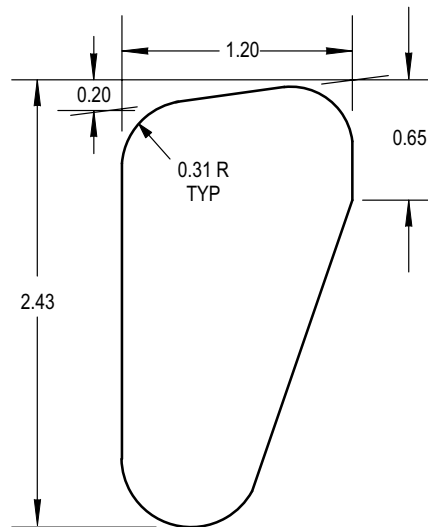


NOTES:

- STIFFENER - MAKE FROM AL-ALY SHEET 2024-0, 0.040 THICK NSN 9535-00-167-2249.
- HEAT TREAT AFTER FORMING TO T42
- FINISH - CHEMICALLY FILM TREAT PER MIL-C-5541, CLASS 1A
- ALL DIMENSIONS ARE IN INCHES

M04-4910

Figure D-151. Stiffener PN 7-311113140-17

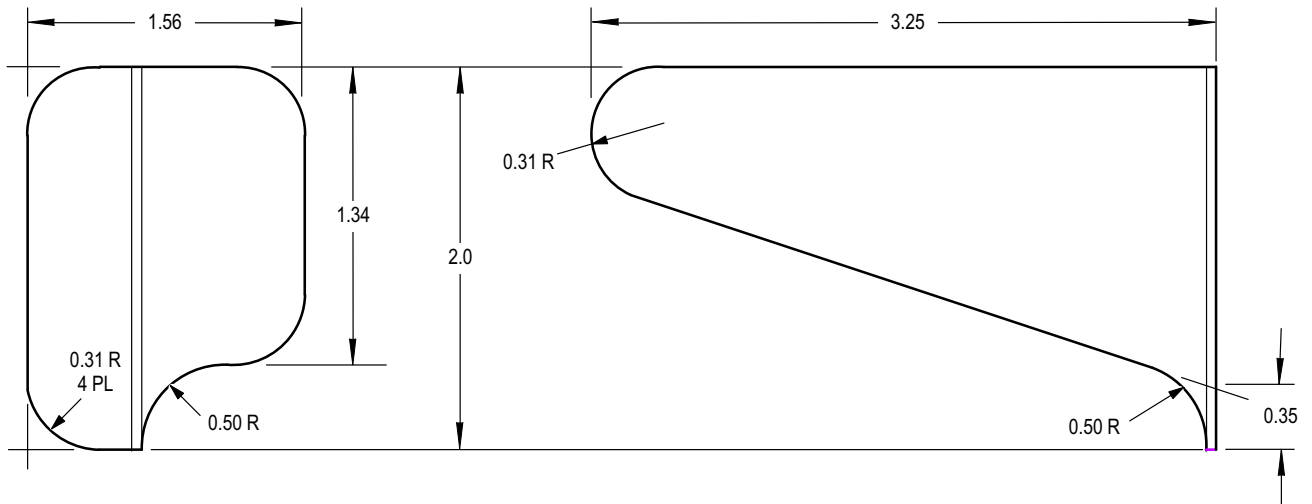


NOTES:

- GUSSET - MAKE FROM AL-ALY SHEET 2024-T3, 0.063 THICK NSN 9535-00-084-4370.
- FINISH - CHEMICALLY TREAT PER MIL-C-5541, CLASS 1A
- ALL DIMENSIONS ARE IN INCHES

M04-4912

Figure D-152. Gusset PN 7-311113140-23

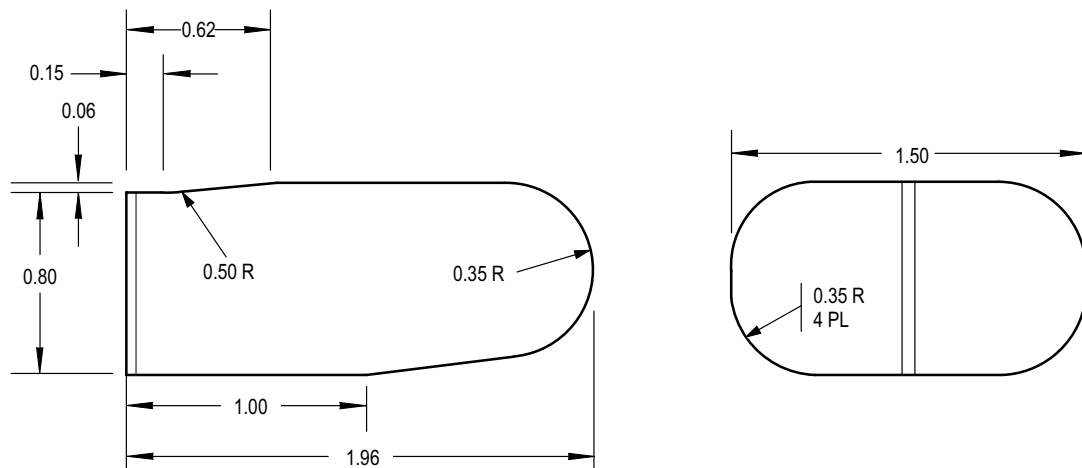


NOTES:

- GUSSET - MAKE FROM EXTRUDED TEE ALUMINUM ALLOY P/N HS1006 AA63B0200 NSN 9540-00-689-4231
- FINISH - CHROMIC ANODIZE WITH EPOXY ADHESIVE PRIMER, NO BEND TEST REQUIRED
- ALL DIMENSIONS ARE IN INCHES

M04-4913

Figure D-153. Gusset PN 7-311113140-25

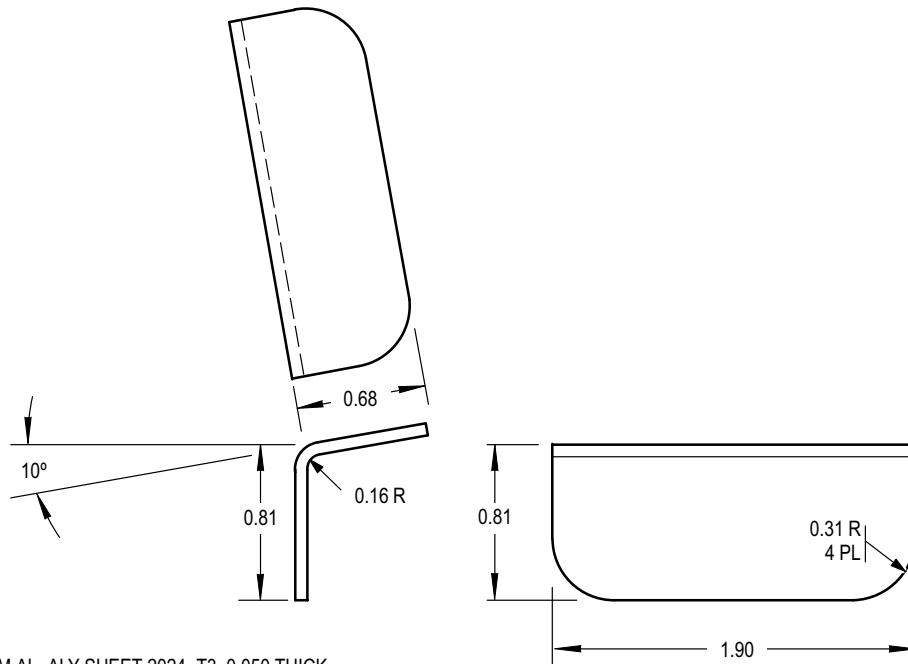


NOTES:

- BRACKET - MAKE FROM EXTRUDED TEE AL-ALY, P/N HS1006AA41B0027 NSN 9540-00-720-3801
- FINISH - CHEMICALLY FILM TREAT PER MIL-C-5541, CLASS 1A
- ALL DIMENSIONS ARE IN INCHES

M04-4911

Figure D-154. Bracket PN 7-311113140-27

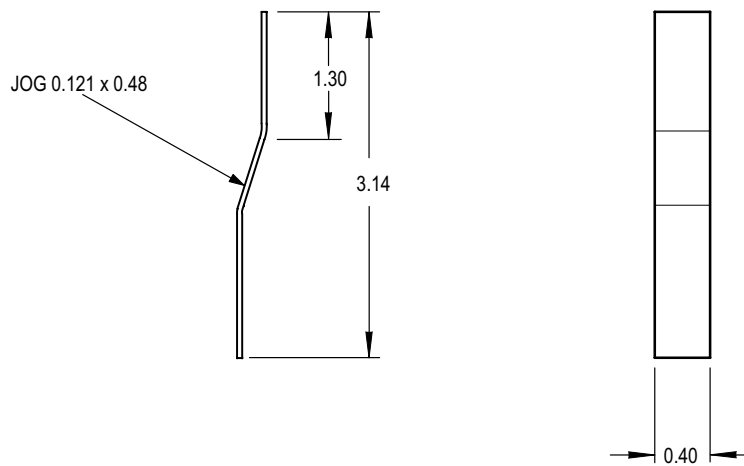


NOTES:

- CLIP - MAKE FROM AL-ALY SHEET 2024-T3, 0.050 THICK  
NSN 9535-00-236-7000
- FINISH - CHEMICALLY TREAT PER MIL-C-5541, CLASS 1A
- ALL DIMENSIONS ARE IN INCHES

M04-4909

Figure D-155. Clip PN 7-311113140-7

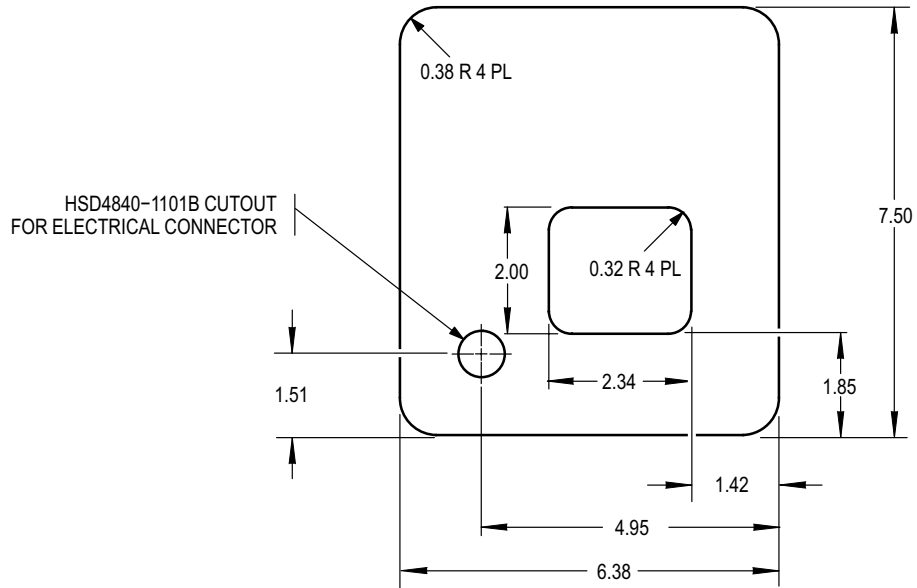


NOTES:

- STRAP - MAKE FROM AL-ALY SHEET, 2024-T3, 0.040 THICKNESS  
NSN 9535-00-086-9930
- FINISH - CHEMICALLY FILM TREAT PER MIL-C-5541 CLASS IA
- ALL DIMENSIONS ARE IN INCHES

M04-4875

Figure D-156. Strap PN 7-311113160-15

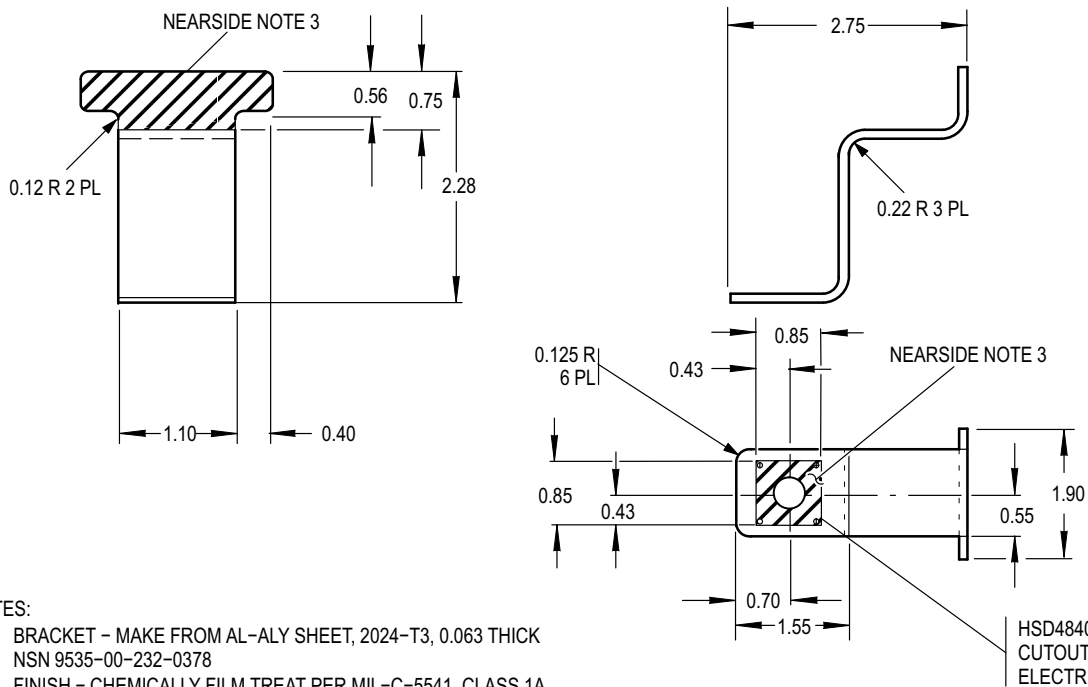


NOTES:

- COVER - MAKE FROM AL-ALY SHEET, 2024-T3, 0.050 THICK  
NSN 9535-00-232-0569
- FINISH - CHEMICALLY FILM TREAT PER MIL-C-5541 CLASS IA
- ALL DIMENSIONS ARE IN INCHES

M04-4874

Figure D-157. Cover PN 7-311113160-51

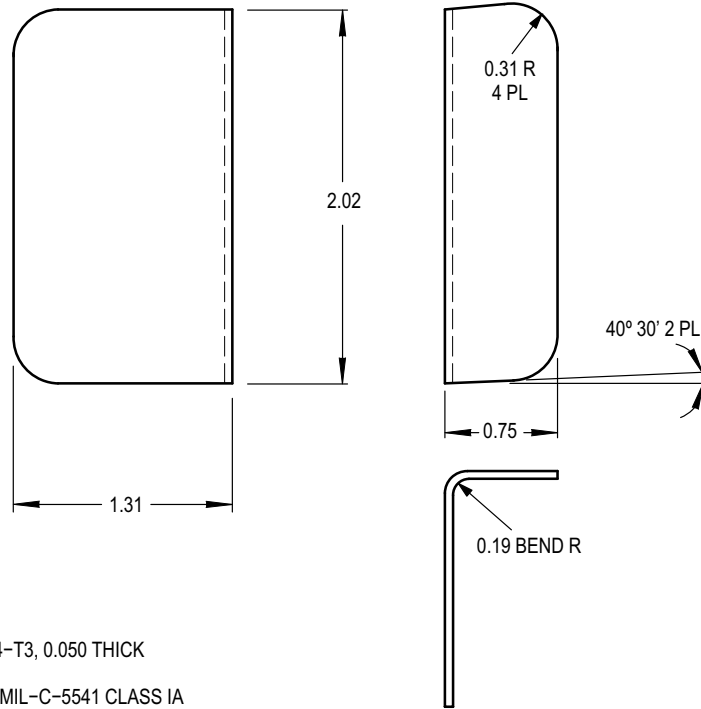


NOTES:

- 1 BRACKET - MAKE FROM AL-ALY SHEET, 2024-T3, 0.063 THICK  
NSN 9535-00-232-0378
- 2 FINISH - CHEMICALLY FILM TREAT PER MIL-C-5541, CLASS 1A
- 3 PREPARE SURFACE FOR ELECTRICAL BONDING, 0.0025 OHMS OR LESS
- 4 ALL DIMENSIONS ARE IN INCHES

M04-4876

Figure D-158. Bracket PN 7-311113160-61

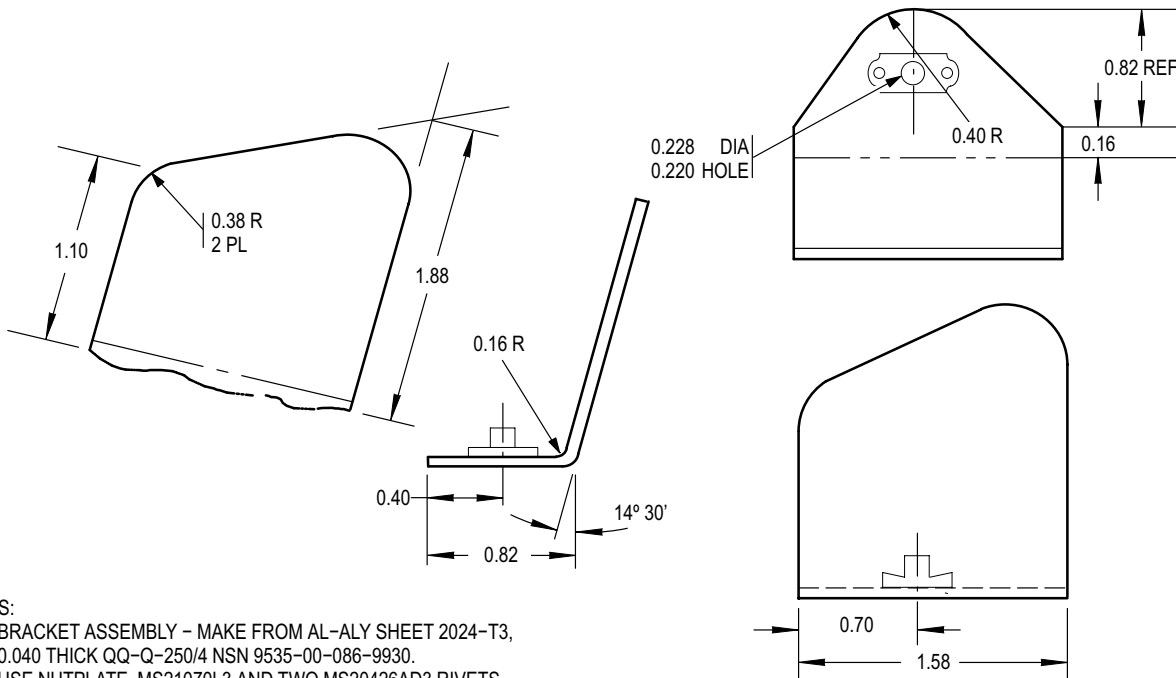


NOTES:

- CLIP - MAKE FROM AL-ALY SHEET, 2024-T3, 0.050 THICK  
NSN 9535-00-232-0569
- FINISH - CHEMICALLY FILM TREAT PER MIL-C-5541 CLASS IA
- ALL DIMENSIONS ARE IN INCHES

M04-4873

Figure D-159. Clip PN 7-311113160-9

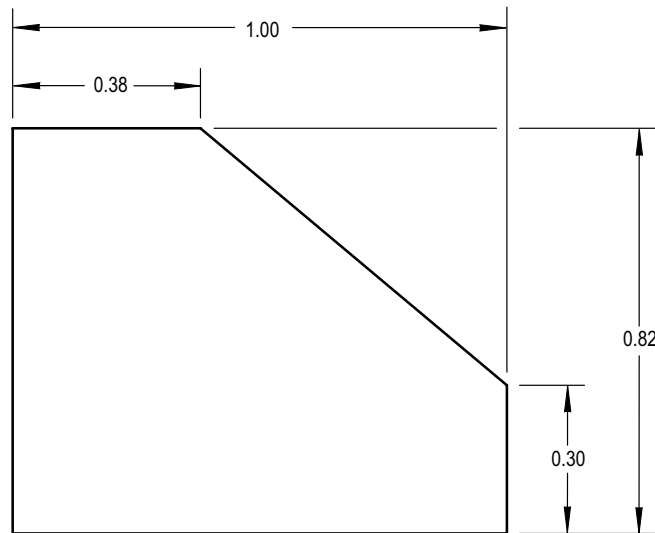


NOTES:

- BRACKET ASSEMBLY - MAKE FROM AL-ALY SHEET 2024-T3, 0.040 THICK QQ-Q-250/4 NSN 9535-00-086-9930.
- USE NUTPLATE, MS21070L3 AND TWO MS20426AD3 RIVETS
- FINISH - CHEMICALLY FILM TREAT PER MIL-C-5541, CLASS A1
- ALL DIMENSIONS ARE IN INCHES

M04-4892

Figure D-160. Bracket Assembly PN 7-311113170-25

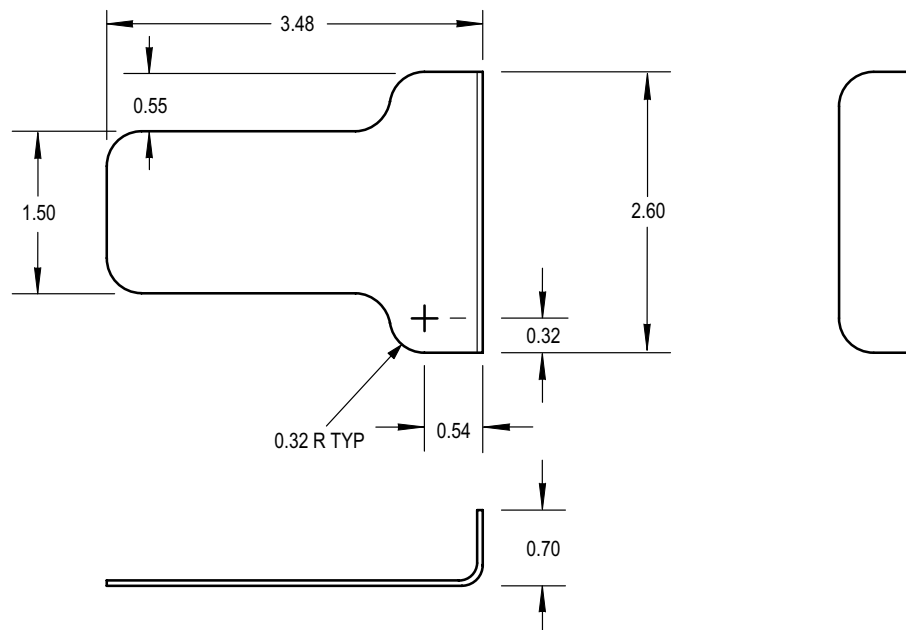


NOTES:

- SHIM - MAKE FROM AL-ALY SHIM, COMPOSITION 1 TYPE 1 CLASS 2, 0.125 THICK  
NSN 9535-00-811-1867
- ALL DIMENSIONS ARE IN INCHES

M04-4903

Figure D-161. Shim PN 7-311113183-5

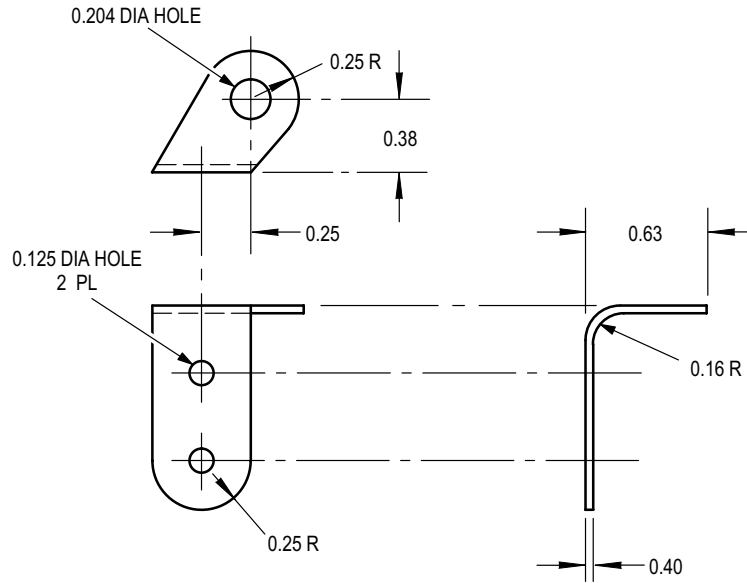


NOTES:

- SPLICE - MAKE FROM AL-ALY SH 2024-0, 0.050 THICK, QQ-A-250/4  
NSN 9535-00-229-0917
- HEAT TREAT TO T42 AFTER FORMING
- FINISH - CHEMICALLY FILM TREAT PER MIL-C-5541, CLASS 1A
- ALL DIMENSIONS ARE IN INCHES

M04-4890

Figure D-162. Splice PN 7-311113190-13

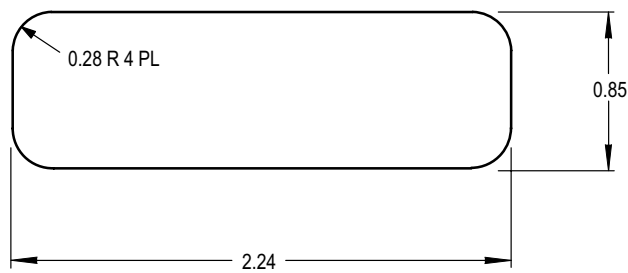


NOTES:

- BRACKET - MAKE FROM AL-ALY SH 2024-T3, 0.040 THICK, QQ-A-250/4  
NSN 9535-00-086-9930
- FINISH - CHEMICALLY FILM TREAT PER MIL-C-5541, CLASS 1A
- 7-31113190-24 IS OPPOSITE OF 7-31113190-23
- ALL DIMENSIONS ARE IN INCHES

M04-4891

Figure D-163. Bracket PN 7-31113190-23/-24

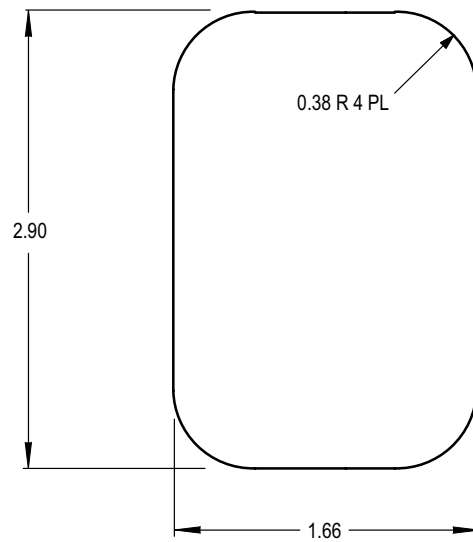


NOTES:

- SHIM - MAKE FROM AL-ALY SHIM LAMINATED, COMPOSITION 1 TYPE 1  
CLASS 1, 0.062 THICK MIL-S-22499 NSN 9535-01-064-7264
- REMOVE LAMINATES AS REQUIRED
- ALL DIMENSIONS ARE IN INCHES

M04-4872

Figure D-164. Shim PN 7-31113200-3

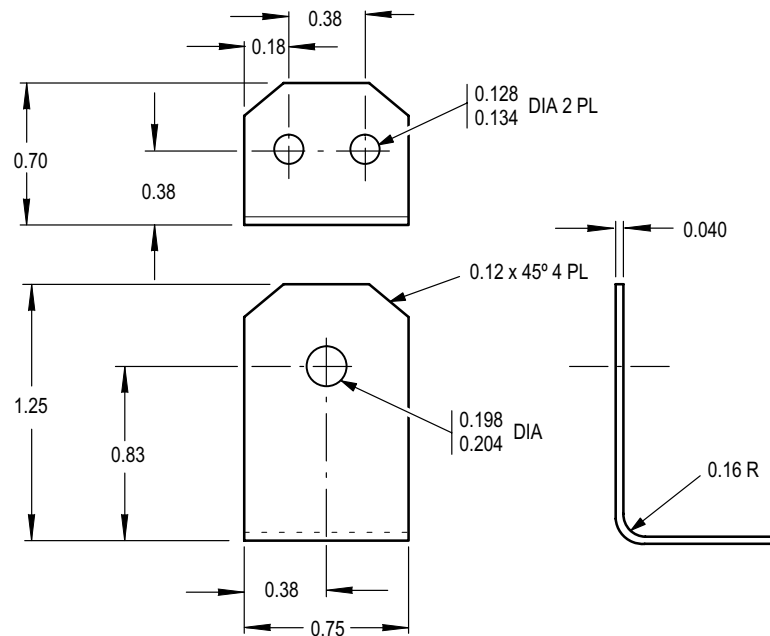


NOTES:

- PLATE - MAKE FROM AL-ALY SHEET 2024-T3, 0.050 THICK  
NSN 9535-00-236-7000
- FINISH - CHEMICALLY FILM TREAT PER MIL-C-5541 CLASS IA
- ALL DIMENSIONS ARE IN INCHES

M04-4871

Figure D-165. Plate, Support PN 7-311113205-3



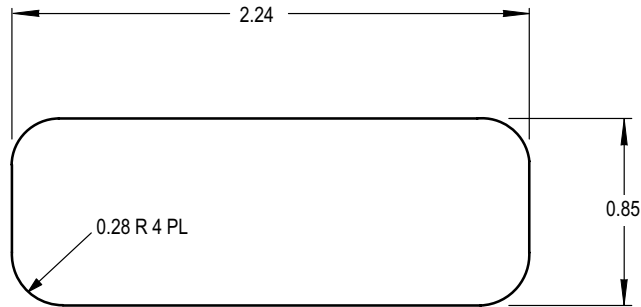
NOTES:

- BRACKET - MAKE FROM AL-ALY SHEET 2024-T3, 0.040 THICK  
NSN 9535-00-086-9930
- FINISH - CHEMICALLY FILM TREAT PER MIL-C-5541, CLASS 1A
- ALL DIMENSIONS ARE IN INCHES

M04-4870

Figure D-166. Bracket PN 7-311113210-13



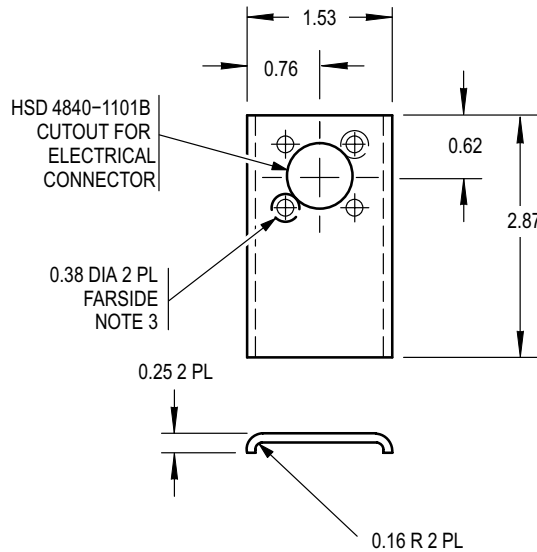


NOTES:

- SHIM - MAKE FROM AL-ALY LAMINATED SHIM STOCK, MIL-S-22499, COMPOSITION I, TYPE I, CLASS I, 0.062 THICK NSN 9535-01-064-7264
- IT IS PERMISSABLE TO SHIM AS REQUIRED TO 0.062 MAXIMUM
- ALL DIMENSIONS ARE IN INCHES

M04-4869

Figure D-167. Shim PN 7-31113210-3

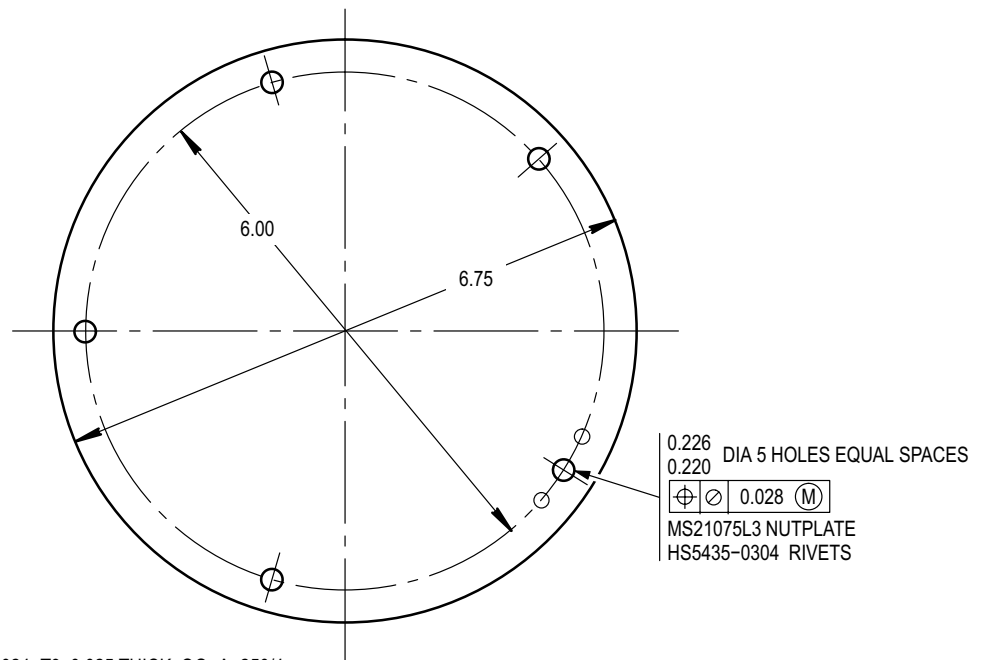


NOTES:

- 1 BRACKET - MAKE FROM AL-ALY SHEET 2024-T3, 0.040 THICK NSN 9535-00-086-9930
- 2 FINISH - CHEMICALLY FILM TREAT FOR ELECTRICAL CONDUCTIVITY PER MIL-C-5541, CLASS 3A
- 3 PREPARE INDICATED SURFACES FOR ELECTRICAL BOND (TM 55-1500-343-24)
- 4 ALL DIMENSIONS ARE IN INCHES

M04-4830

Figure D-168. Bracket, Double Angle PN 7-31113260-25

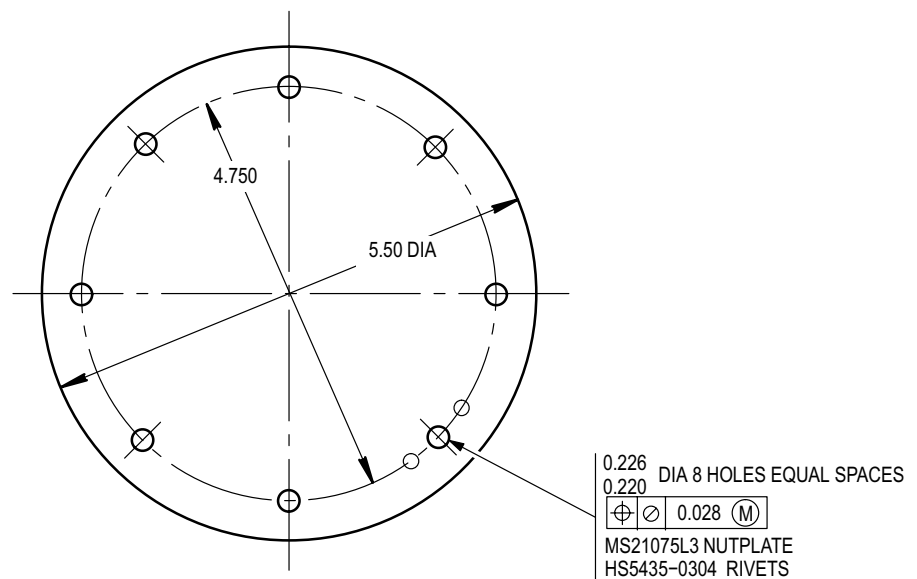


NOTES:

- DOOR - MAKE FROM AL-ALY 2024-T3, 0.025 THICK. QQ-A-250/4  
NSN 9535-00-167-2174
- FINISH - CHEMICALLY FILM TREAT PER MIL-C-5541 CLASS 1A
- ALL DIMENSIONS ARE IN INCHES

M04-4833

Figure D-169. Door PN 7-311113270-165

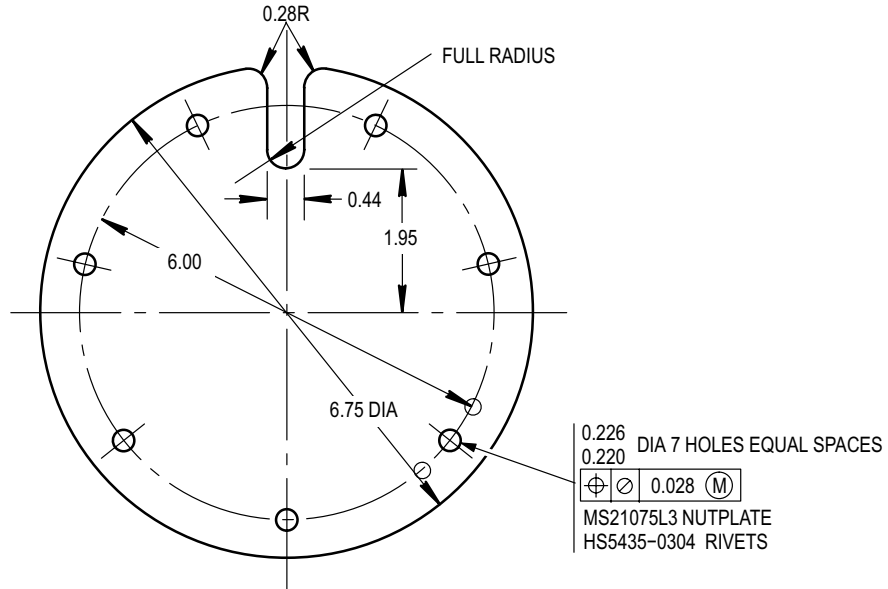


NOTES:

- DOOR - MAKE FROM AL-ALY 2024-T3, 0.025 THICK QQ-A-250/4  
NSN 9535-00-167-2174
- FINISH - CHEMICALLY FILM TREAT PER MIL-C-5541 CLASS 1A
- ALL DIMENSIONS ARE IN INCHES

M04-4835

Figure D-170. Door PN 7-311113270-169

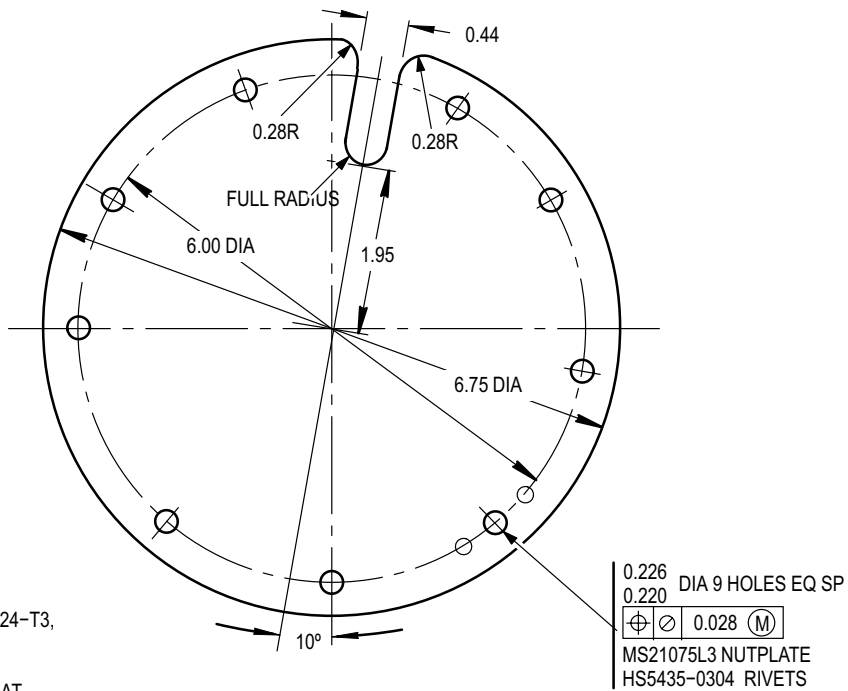


NOTES:

- DOOR - MAKE FROM AL-ALY 2024-T3, 0.025 THICK  
QQ-A-250/4 NSN 9535-00-167-2174
- FINISH - CHEMICALLY FILM TREAT PER MIL-C-5541 CLASS 1A
- ALL DIMENSIONS ARE IN INCHES

M04-4836

Figure D-171. Door PN 7-31113270-171

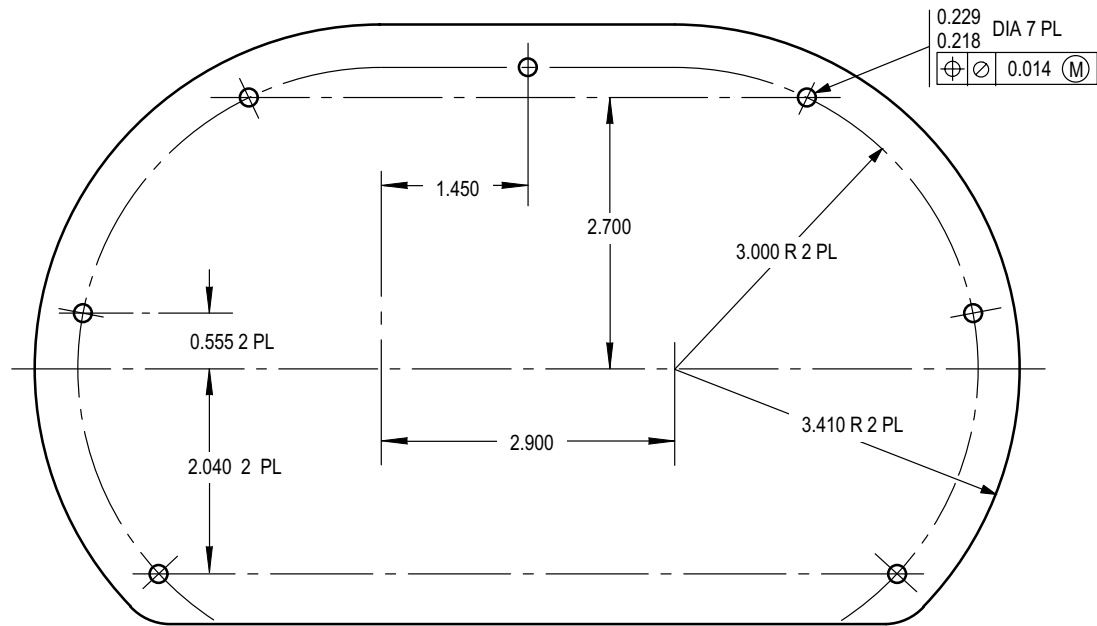


NOTES:

- DOOR - MAKE FROM AL-ALY 2024-T3, 0.025 THICK, QQ-A-250/4 NSN 9535-00-167-2174
- FINISH - CHEMICALLY FILM TREAT PER MIL-C-5541, CLASS 1A
- ALL DIMENSIONS ARE IN INCHES

M04-4837

Figure D-172. Door PN 7-31113270-175

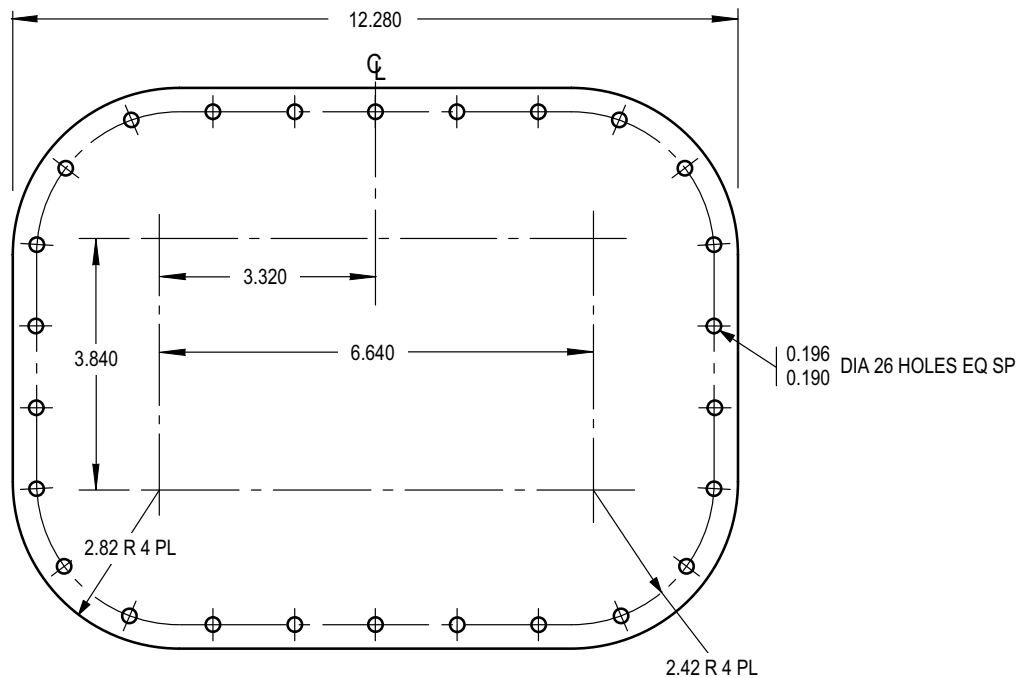


NOTES:

- DOOR - MAKE FROM AL-ALY 2024-T3, 0.025 THICK, QQ-A-250/4 NSN 9535-00-167-2174
- FINISH - CHEMICALLY FILM TREAT PER MIL-C-5541, CLASS 1A
- ALL DIMENSIONS ARE IN INCHES

M04-4838

Figure D-173. Door, Access PN 7-31113270-177

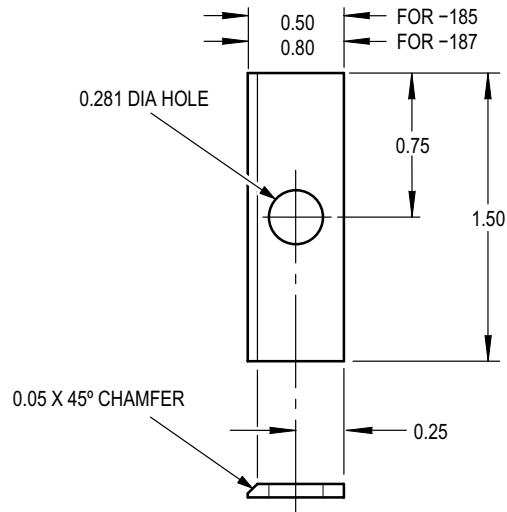


NOTES:

- DOOR - MAKE FROM AL-ALY 2024-T3, 0.040 THICK, QQ-A-250/4 NSN 9535-00-086-9930
- FINISH - CHEMICALLY FILM TREAT PER MIL-C-5541, CLASS 1A
- ALL DIMENSIONS ARE IN INCHES

M04-4839

Figure D-174. Door PN 7-31113270-179

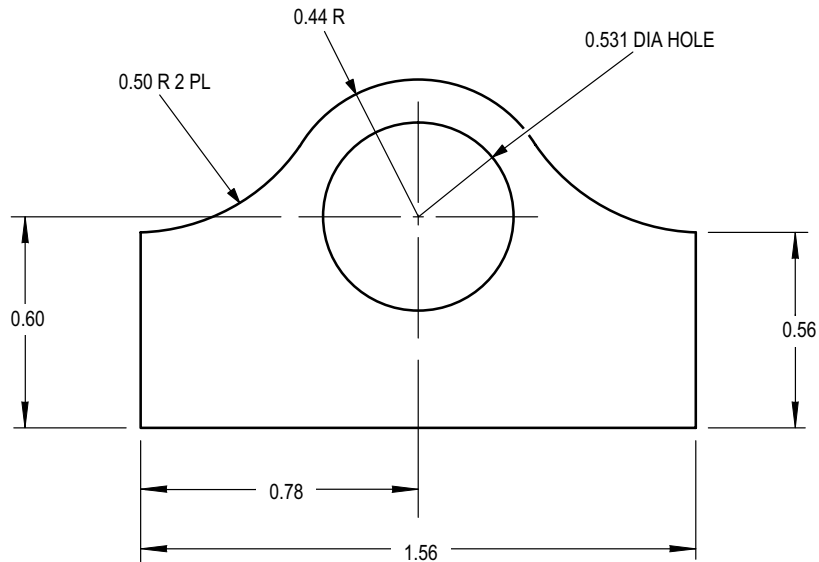


NOTES:

- SPACER - MAKE FROM AL-ALY 2024-T3, 0.070 THICK QQ-A-250/4 NSN 9535-00-230-7570
- FINISH - CHEMICALLY FILM TREAT PER MIL-C-5541, CLASS 1A
- ALL DIMENSIONS ARE IN INCHES

M04-4844

Figure D-175. Spacer PN 7-311113270-185

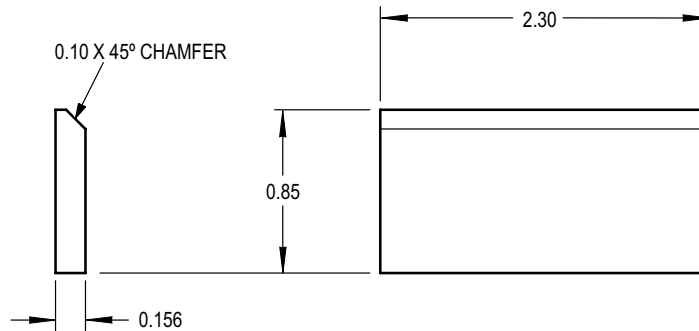


NOTES:

- SPACER - MAKE FROM AL-ALY 2024-T3, 0.100 THICK QQ-A-250/4 NSN 9535-00-580-6779
- FINISH - CHEMICALLY FILM TREAT PER MIL-C-5541, CLASS 1A
- ALL DIMENSIONS ARE IN INCHES

M04-4840

Figure D-176. Spacer PN 7-311113270-189

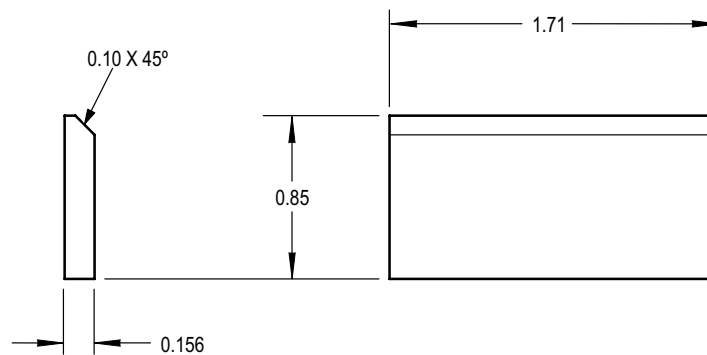


NOTES:

- SPACER - MAKE FROM AL-ALY 2024-T3, 0.156 THICK QQ-A-250/4
- FINISH - CHEMICALLY FILM TREAT PER MIL-C-5541, CLASS 1A
- ALL DIMENSIONS ARE IN INCHES

M04-4841

**Figure D-177. Spacer PN 7-31113270-191**

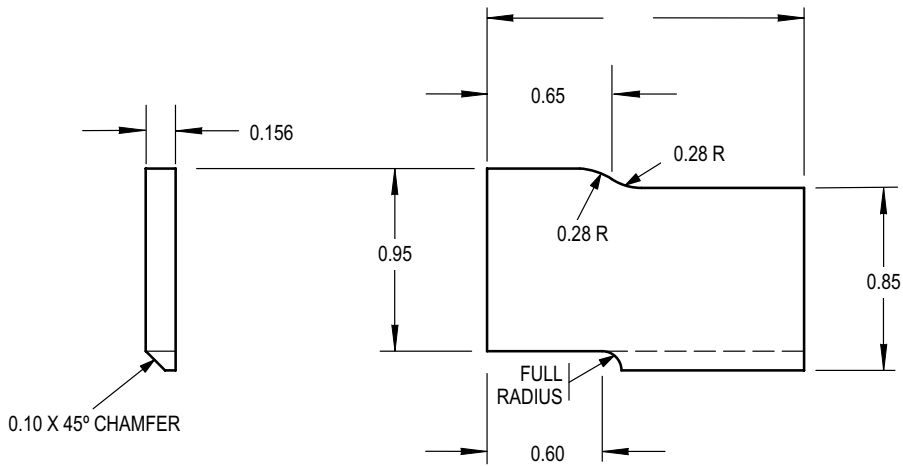


NOTES:

- SPACER - MAKE FROM AL-ALY 2024-T3, 0.156 THICK QQ-A-250/4
- FINISH - CHEMICALLY FILM TREAT PER MIL-C-5541 CLASS 1A
- ALL DIMENSIONS ARE IN INCHES

M04-4843

**Figure D-178. Spacer PN 7-31113270-193**

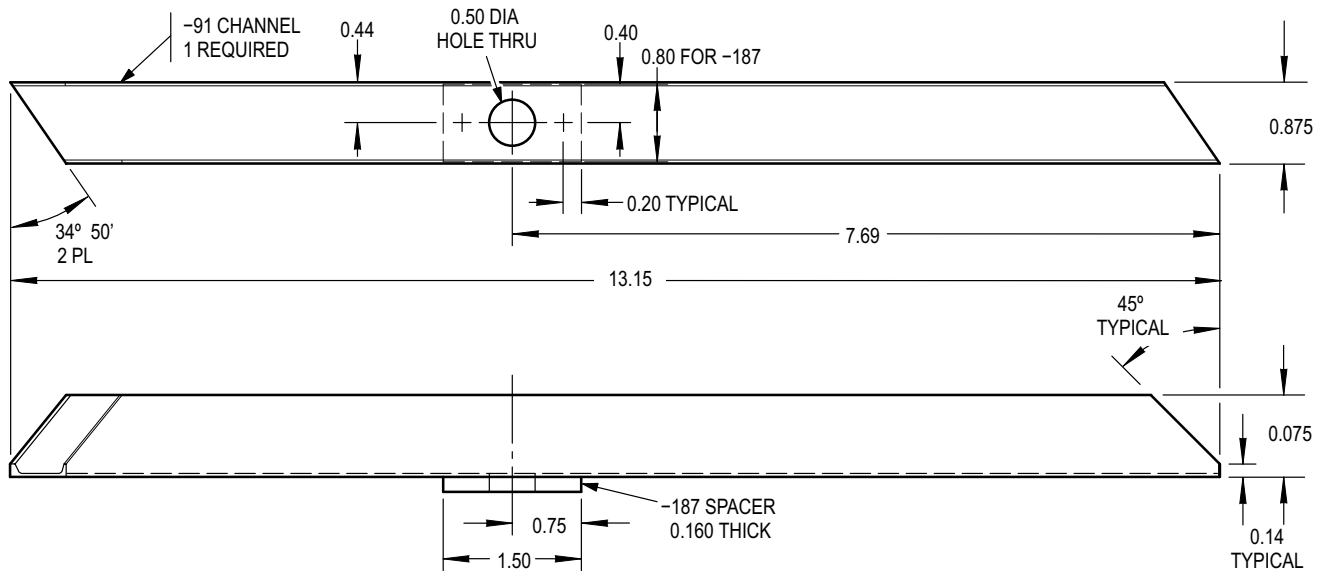


NOTES:

- SPACER - MAKE FROM AL-ALY 2024-T3, 0.156 THICK QQ-A-250/4
- FINISH - CHEMICALLY FILM TREAT PER MIL-C-5541, CLASS 1A
- ALL DIMENSIONS ARE IN INCHES

M04-4842

Figure D-179. Spacer PN 7-31113270-195

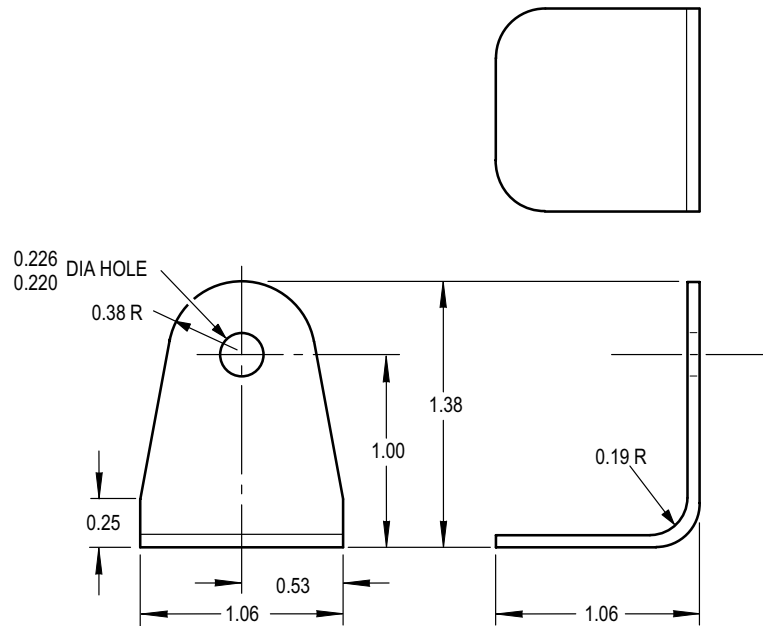


NOTES:

- CHANNEL ASSEMBLY - MAKE FROM AL-ALY EXTRUDED CHANNEL, 2024/T3511, QQ-A-200/3 F AND 10137-0707HT351 NSN 9450-01-125-5798
- SPACER - MAKE FROM AL-ALY 2024-T3, 0.160 THICK, QQ-A-250/4
- USE MS20426AD3 COUNTERSUNK 100 DEGREE RIVETS (DO NOT INTERMIX PRIMARY AND ALTERNATE RIVETS)
- ALL DIMENSIONS IN INCHES

M04-4845

Figure D-180. Channel Assembly PN 7-31113270-257

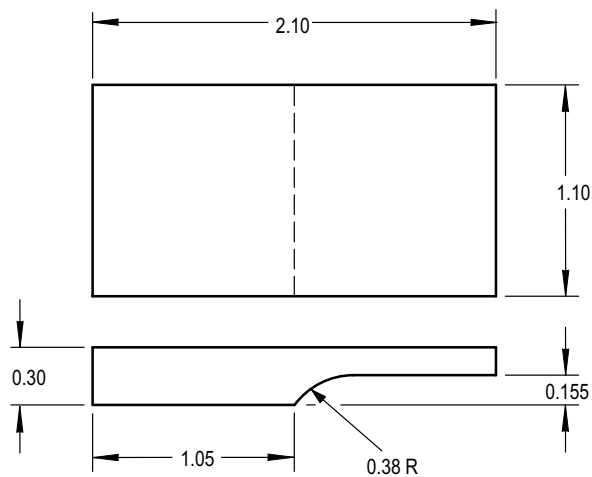


NOTES:

- ANGLE - MAKE FROM AL-ALY 2024-T3, 0.063 THICK QQ-A-250/4  
NSN-9535-00-084-4370
- FINISH - CHEMICALLY FILM TREAT PER MIL-C-5541, CLASS 1A
- ALL DIMENSIONS ARE IN INCHES

M04-4846

Figure D-181. Angle PN 7-31113270-297



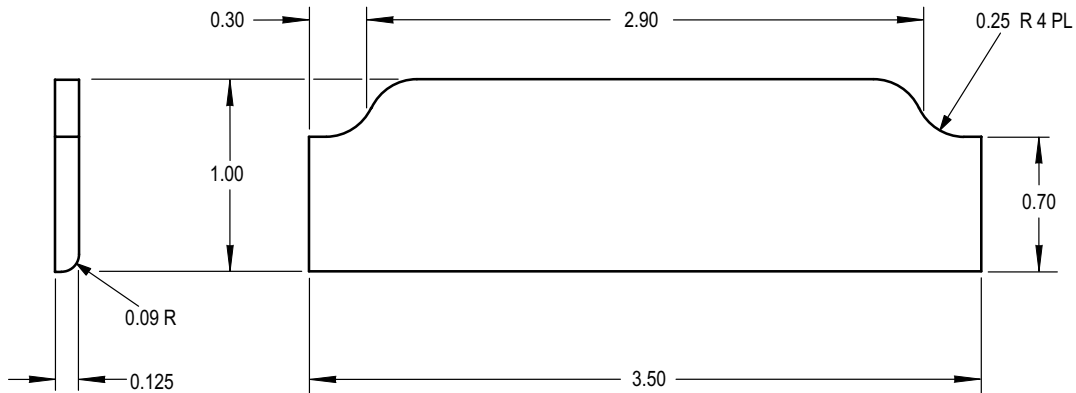
NOTES:

- DOUBLER - MAKE FROM AL-ALY SHEET 2024-T351, 0.312 THICK QQ-A-250/4
- FINISH - CHEMICALLY FILM TREAT FOR ELECTRICAL CONDUCTIVITY PER MIL-C-5541, CLASS 3A
- ALL DIMENSIONS ARE IN INCHES

M04-4847

Figure D-182. Doubler PN 7-31113270-357



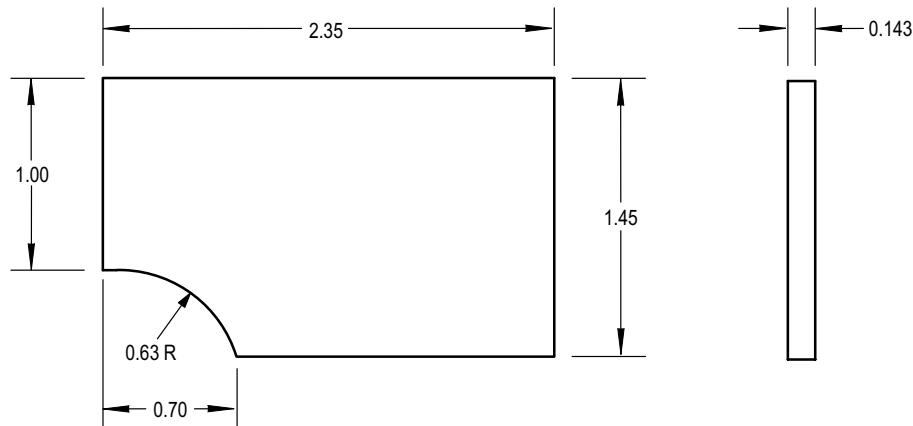


NOTES:

- DOUBLER - MAKE FROM AL-ALY 2024-T3, 0.125 THICK QQ-A-250/4  
NSN-9535-00-230-7646
- FINISH - CHEMICALLY FILM TREAT PER MIL-C-5541, CLASS 1A
- ALL DIMENSIONS ARE IN INCHES

M04-4848

Figure D-183. Doubler PN 7-311113270-359

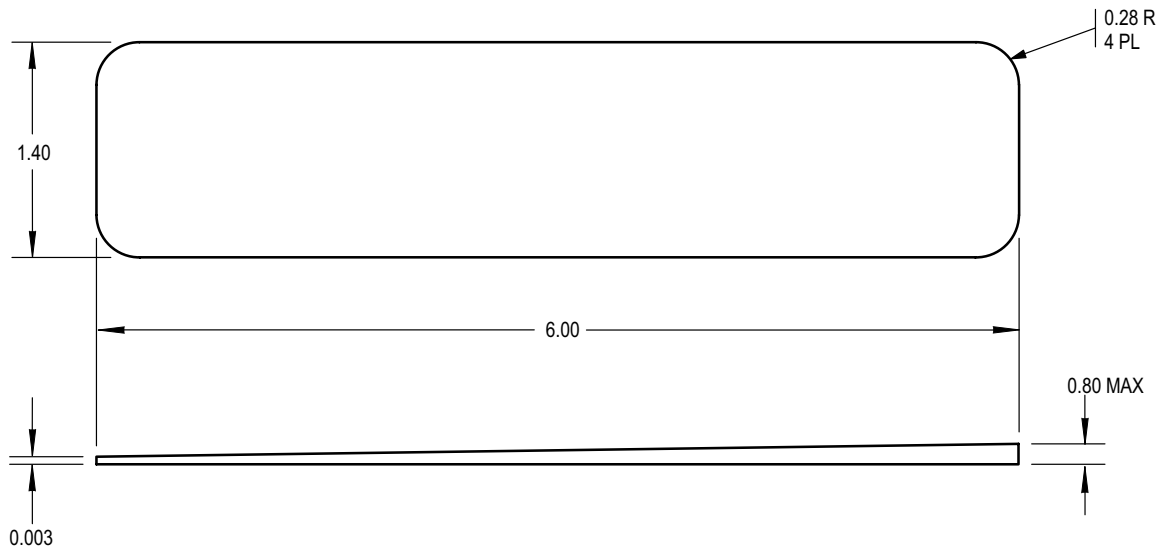


NOTES:

- DOUBLER - MAKE FROM AL-ALY SHEET 2024-T3, 0.160 THICK QQ-A-250/4
- FINISH - CHEMICALLY FILM TREAT FOR ELECTRICALLY CONDUCTIVITY PER MIL-C-5541, CLASS 1A
- ALL DIMENSIONS ARE IN INCHES

M04-4849

Figure D-184. Doubler PN 7-311113270-361

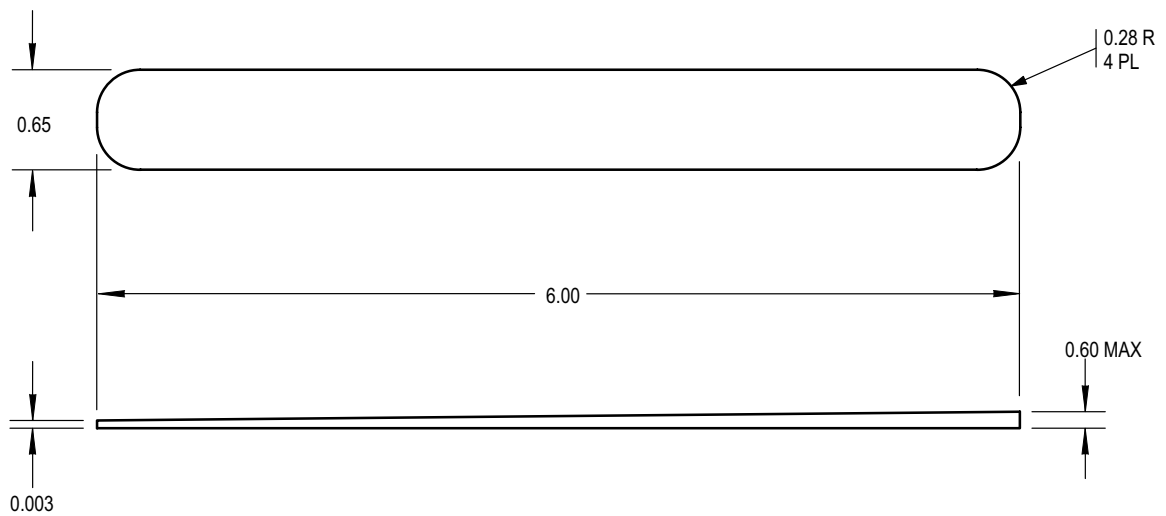


NOTES:

- SHIM - MAKE FROM AL-ALY 2024-T3, 0.080 THICK QQ-A-250/4 NSN 9535-01-341-8298
- FINISH - CHEMICALLY FILM TREAT PER MIL-C-5541 CLASS 1A
- ALL DIMENSIONS ARE IN INCHES

M04-4850

Figure D-185. Shim PN 7-311113270-373

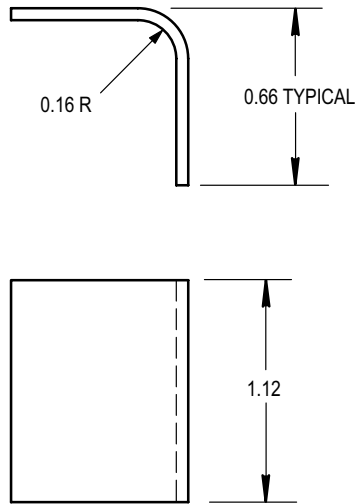


NOTES:

- SHIM - MAKE FROM AL-ALY 2024-T3, 0.063 THICK QQ-A-250/4 NSN-9535-00-084-4370
- FINISH - CHEMICALLY FILM TREAT PER MIL-C-5541 CLASS 1A
- ALL DIMENSIONS ARE IN INCHES

M04-4851

Figure D-186. Shim PN 7-311113270-375

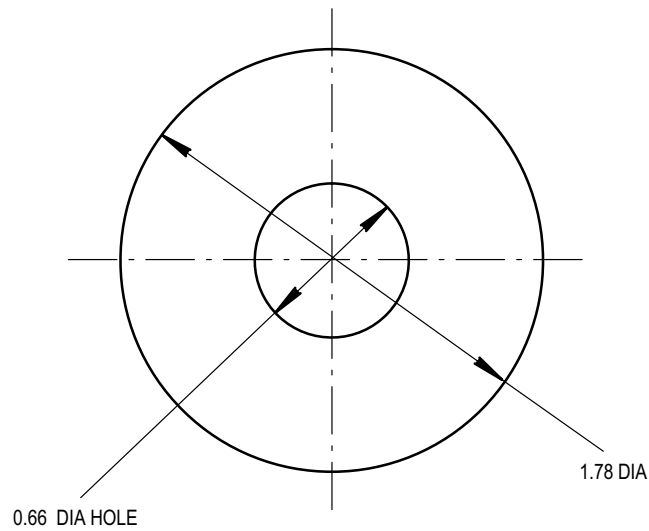


NOTES:

- ANGLE - MAKE FROM AL-ALY 2024-T3, 0.040 THICK  
QQ-A-250/4, NSN 9535-00-086-9930
- FINISH - CHEMICALLY FILM TREAT PER MIL-C-5541 CLASS 1A
- ALL DIMENSIONS IN INCHES

M04-4834

Figure D-187. Angle PN 7-311113270-77

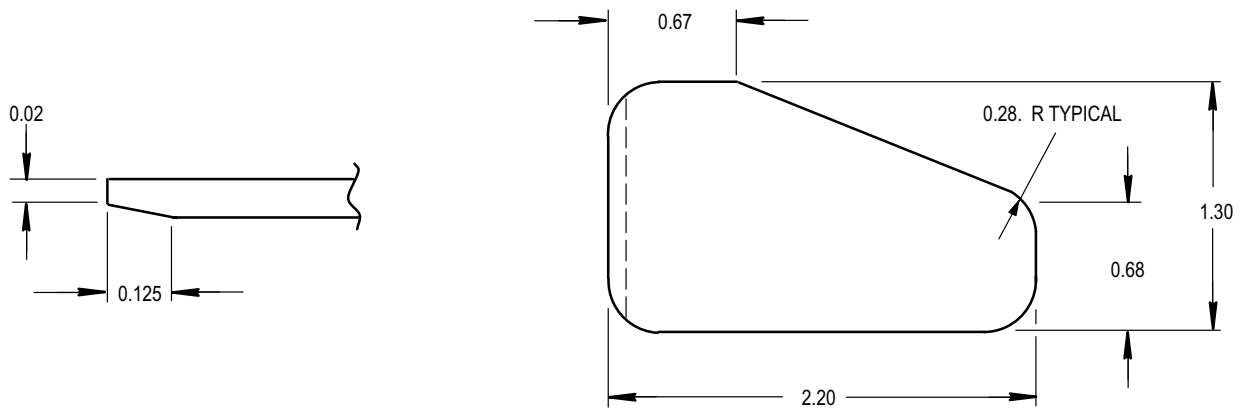


NOTES:

- DOUBLER - MAKE FROM AL-ALY 2024-T3, 0.080 THICK, QQ-A-250/5  
NSN 9535-01-341-8298
- ALL DIMENSIONS ARE IN INCHES

M04-4857

Figure D-188. Doubler PN 7-311113280-103

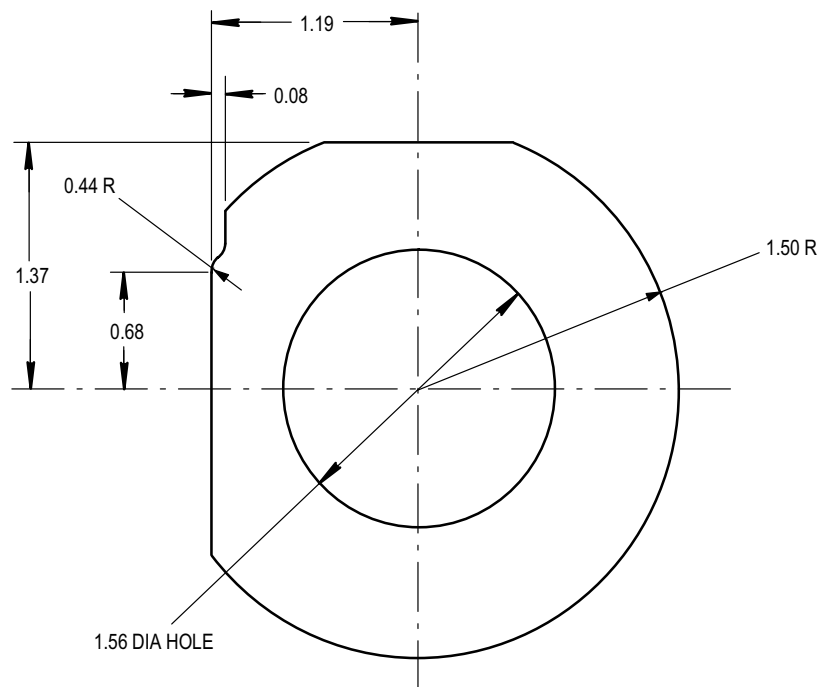


NOTES:

- GUSSET-MAKE FROM AL-ALY 2024-T3, 0.063 THICK, QQA-250/5  
NSN 9535-00-084-4370
- FINISH-CHEMICALLY FILM TREAT PER MIL-C-5541 CLASS 1A
- P/N 7-31113280-159 OPPOSITE
- DIMENSIONS ARE IN INCHES

M04-4858

Figure D-189. Gusset PN 7-31113280-158/159

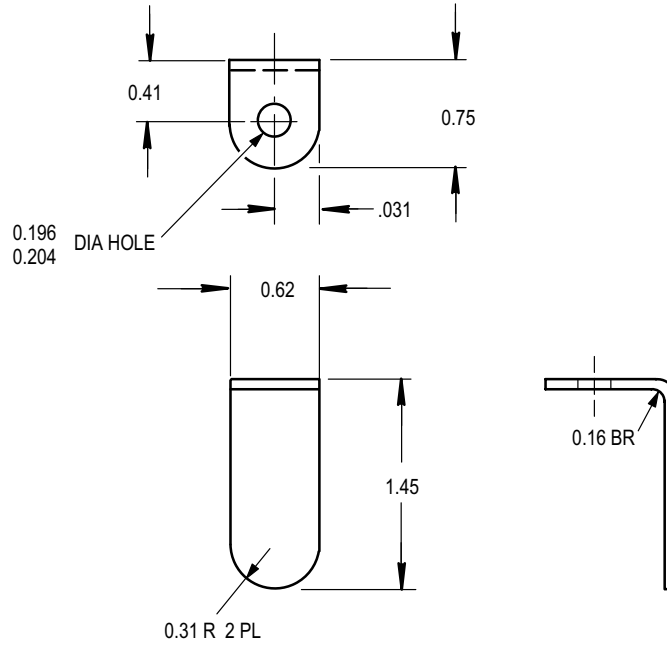


NOTES:

- SEAL - MAKE FROM RUBBER-CHLOROPRENE 0.060 THICK, AMS3207  
NSN 9320-01-276-2584
- ALL DIMENSIONS ARE IN INCHES

M04-4852

Figure D-190. Seal PN 7-31113280-59

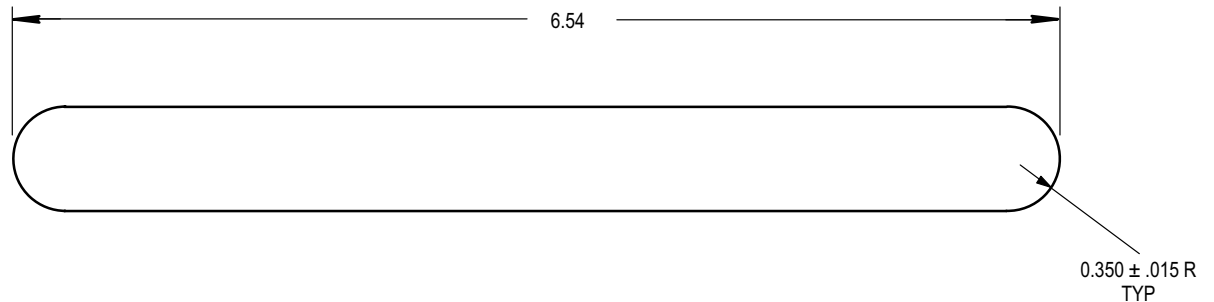


NOTES:

- BRACKET - MAKE FROM AL-ALY 2024-T3, 0.040 THICK  
NSN 9535-00-086-9930
- FINISH - CHEMICALLY FILM TREAT PER MIL-C-5541, CLASS 1A
- ALL DIMENSIONS ARE IN INCHES

M04-4853

Figure D-191. Bracket PN 7-311113280-73

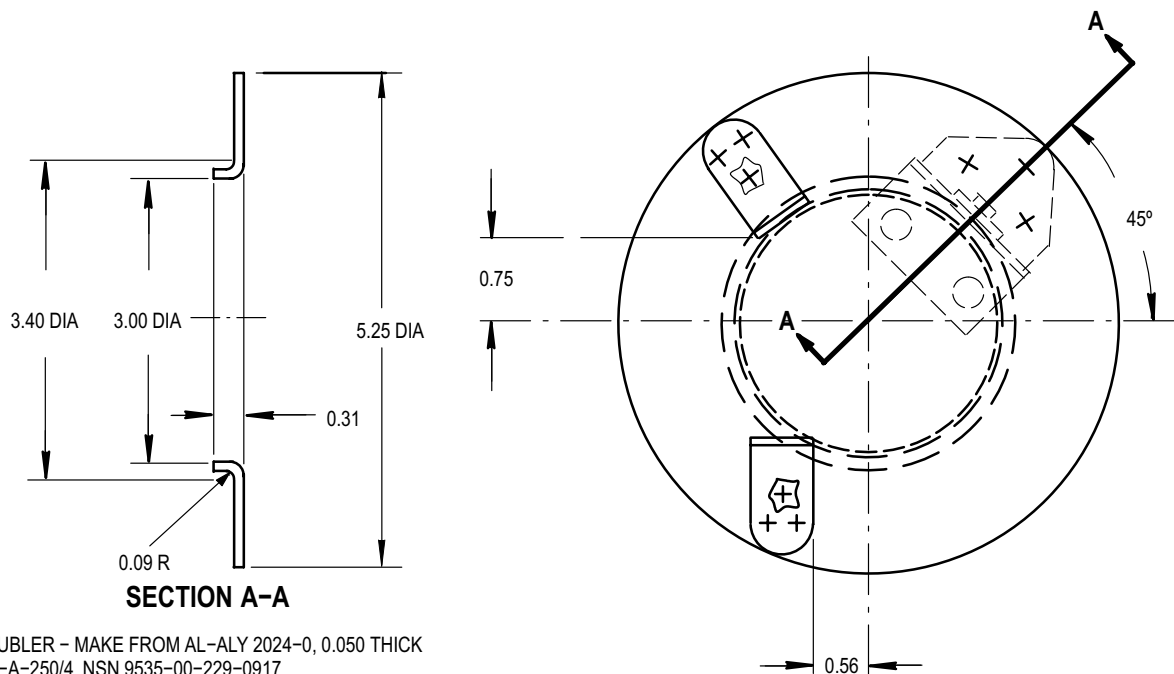


NOTES:

- STRAP - MAKE FROM AL-ALY 7075-T6, 0.080 THICK, QQA-250/12  
NSN 9535-00-528-9816
- FINISH - CHROMIC ANODIZE WITH EPOXY ADHESIVE, NO BOND TEST  
REQUIRED
- ALL DIMENSIONS ARE IN INCHES

M04-4854

Figure D-192. Strap PN 7-311113280-75

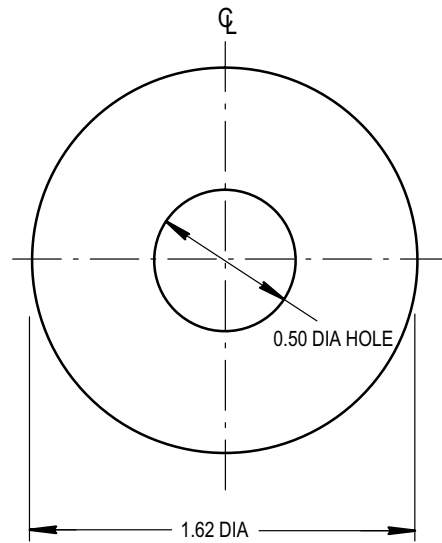


NOTES:

- DOUBLER - MAKE FROM AL-ALY 2024-0, 0.050 THICK  
QQ-A-250/4 NSN 9535-00-229-0917
- HEAT TREAT AFTER FORMING TO T42
- FINISH - CHEMICALLY FILM TREAT PER MIL-C-5541 CLASS 1A
- ALL DIMENSIONS ARE IN INCHES

M04-4855

Figure D-193. Doubler PN 7-311113280-77

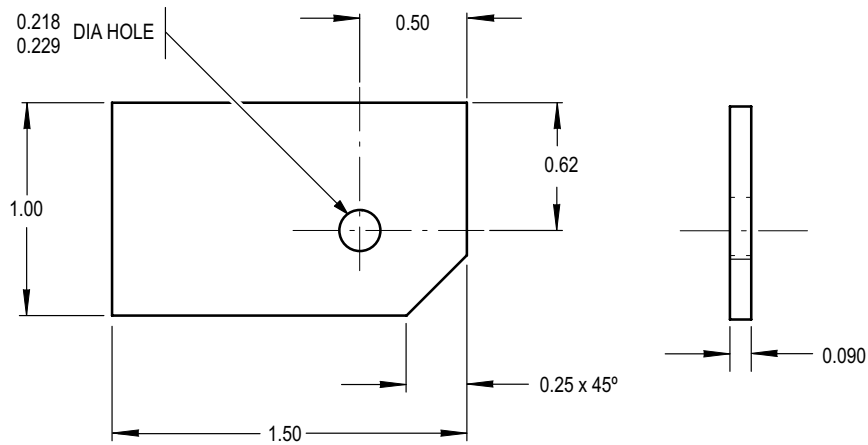


NOTES:

- DOUBLER - MAKE FROM AL-ALY 2024-T3 0.032 THICK, QQ-A-250/5  
NSN 535-00-167-2279
- FINISH - CHEMICALLY FILM TREAT PER MIL-C-5541 CLASS 1A
- ALL DIMENSIONS ARE IN INCHES

M04-4856

Figure D-194. Doubler PN 7-311113280-79

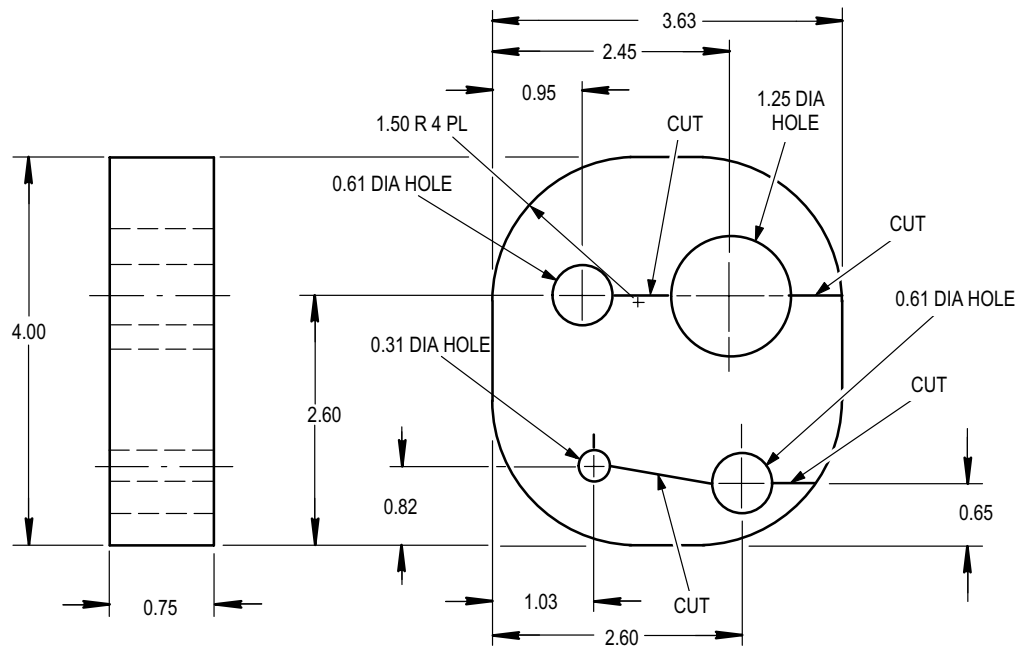


NOTES:

- DOUBLER - MAKE FROM AL-ALY SHEET, 2024-T3, 0.090 THICK  
NSN 9535-00-084-4469
- ALL DIMENSIONS ARE IN INCHES

M04-4665

Figure D-195. Doubler PN 7-311113302-161

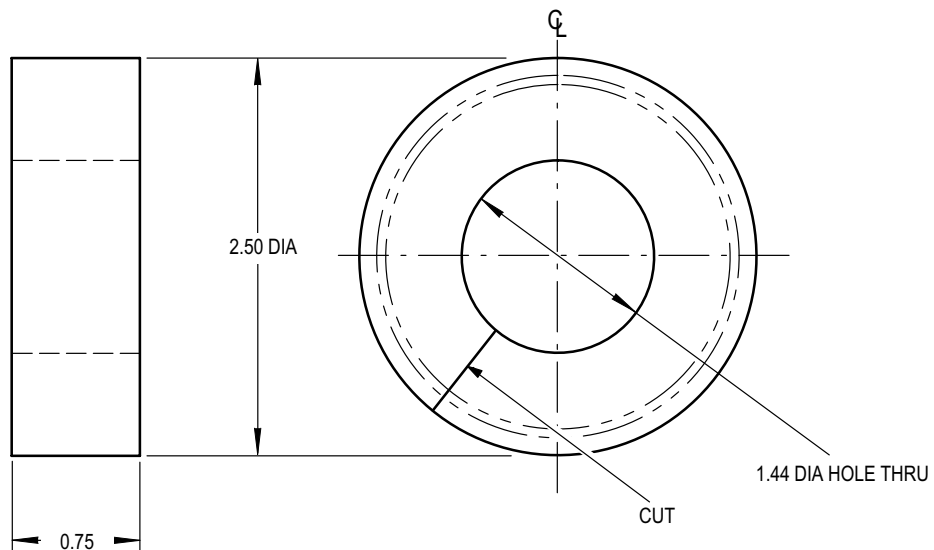


NOTES:

- SEAL - MAKE FROM RUBBER-CELLULAR, SOFT TYPE II GRADE A, 0.75 THICK NSN 9300-00-814-4583, MIL-R-6130
- TOLERANCE OF SEAL DIMENSIONS  $\pm 0.06$
- BOND SEAL USING NEOPRENE CEMENT NSN 8040-00-165-8614
- ALL DIMENSIONS ARE IN INCHES

M04-4864

Figure D-196. Seal PN 7-311113341-11



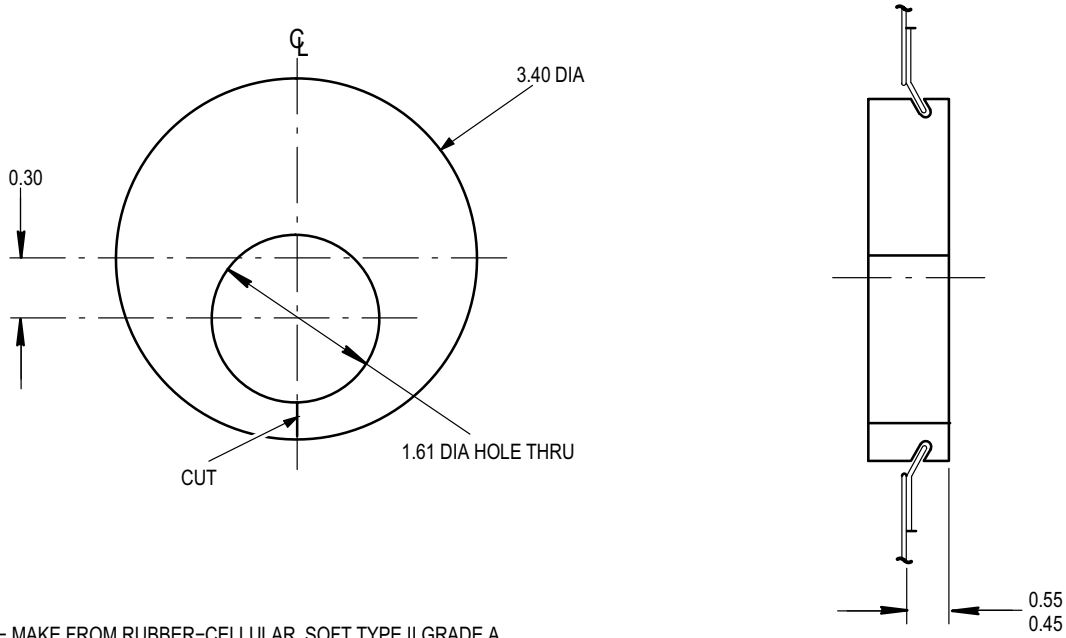
NOTES:

- SEAL - MAKE FROM RUBBER-CELLULAR, SOFT TYPE II GRADE A, 0.75 THICK NSN 9300-00-814-4583, MIL-R-6130
- TOLERANCE OF SEAL DIMENSIONS  $\pm 0.06$
- BOND SEAL USING NEOPRENE CEMENT NSN 8040-00-165-8614
- ALL DIMENSIONS ARE IN INCHES

M04-4865

Figure D-197. Seal PN 7-311113341-13



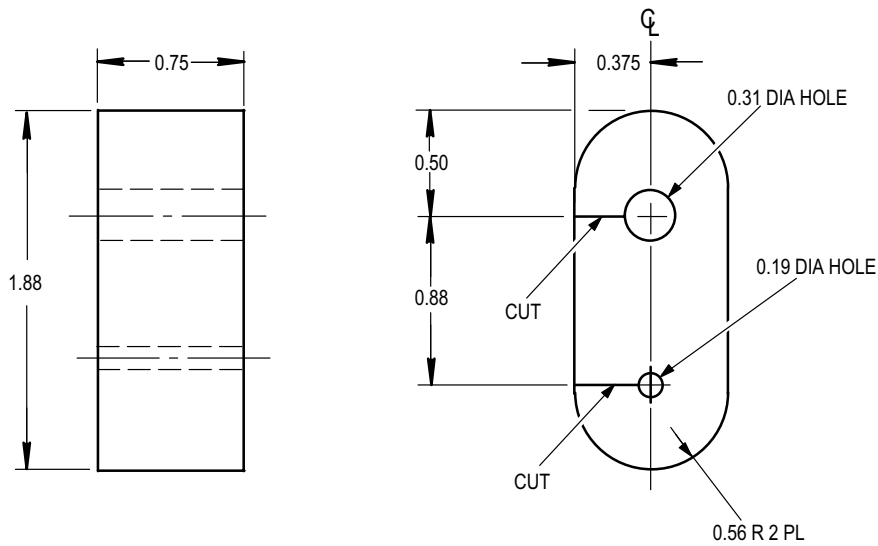


NOTES:

- SEAL - MAKE FROM RUBBER-CELLULAR, SOFT TYPE II GRADE A, 0.75 THICK NSN 9320-00-814-4583, MIL-R-6130
- TOLERANCE OF SEAL DIMENSIONS  $\pm 0.06$
- BOND SEAL USING NEOPRENE CEMENT NSN 8040-00-165-8614
- ALL DIMENSIONS ARE IN INCHES

M04-4866

Figure D-198. Seal PN 7-311113341-15

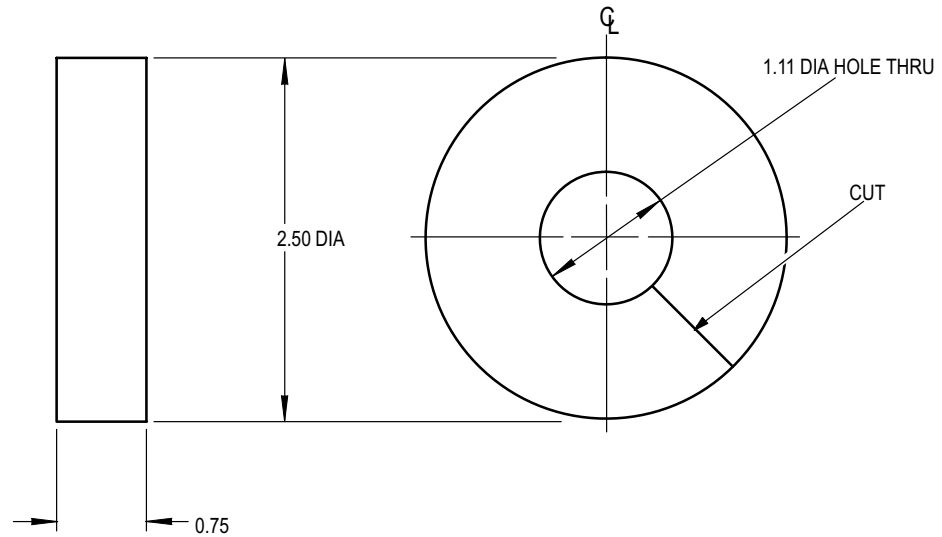


NOTES:

- SEAL - MAKE FROM RUBBER-CELLULAR, SOFT TYPE II GRADE A, 0.75 THICK NSN 9320-00-814-4583, MIL-R-6130
- TOLERANCE OF SEAL DIMENSIONS  $\pm 0.06$
- BOND SEAL USING NEOPRENE CEMENT NSN 8040-00-165-8614
- ALL DIMENSIONS ARE IN INCHES

M04-4860

Figure D-199. Seal PN 7-311113341-3

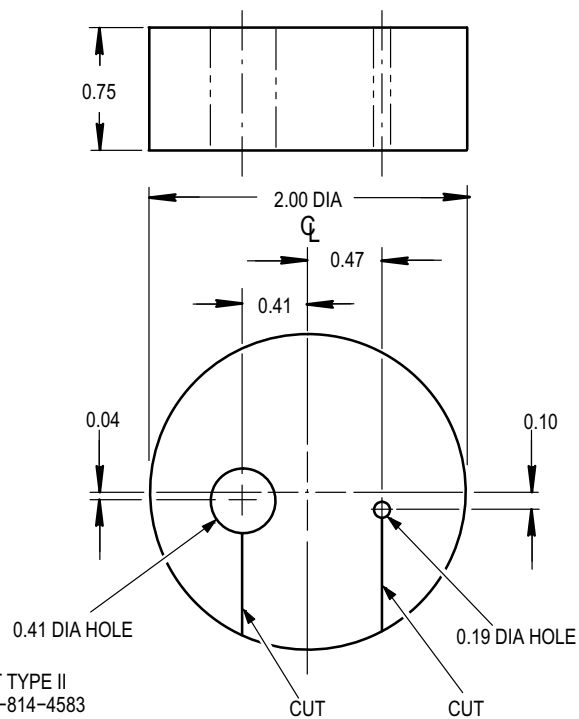


NOTES:

- SEAL - MAKE FROM RUBBER-CELLULAR, SOFT TYPE II GRADE A, 0.75 THICK NSN 9320-00-814-4583, MIL-R-6130
- TOLERANCE OF SEAL DIMENSIONS  $\pm 0.06$
- BOND SEAL USING NEOPRENE CEMENT NSN 8040-00-165-8614
- ALL DIMENSIONS ARE IN INCHES

M04-4861

Figure D-200. Seal PN 7-311113341-5

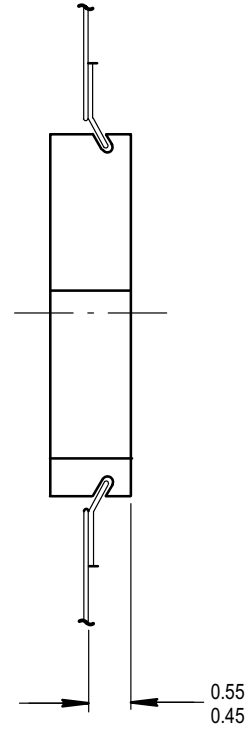
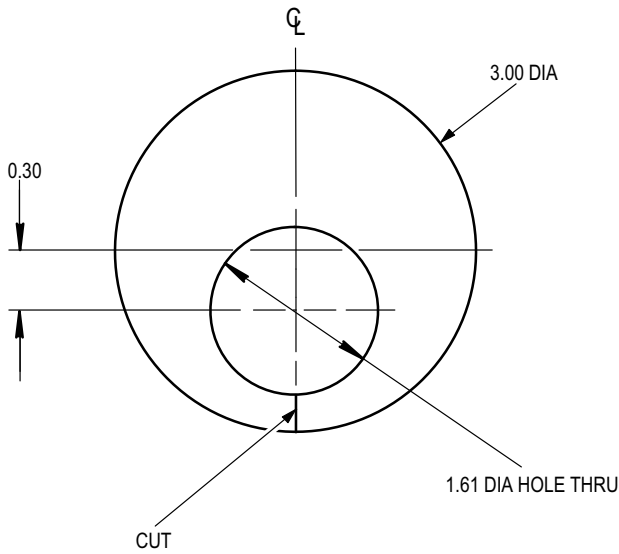


NOTES:

- SEAL - MAKE FROM RUBBER-CELLULAR, SOFT TYPE II GRADE A, 0.75 THICK MIL-R-6130 NSN 9320-00-814-4583
- TOLERANCE OF SEAL DIMENSIONS  $\pm 0.06$
- BOND SEAL USING NEOPRENE CEMENT NSN 8040-00-165-8614
- ALL DIMENSIONS ARE IN INCHES

M04-4862

Figure D-201. Seal PN 7-311113341-7

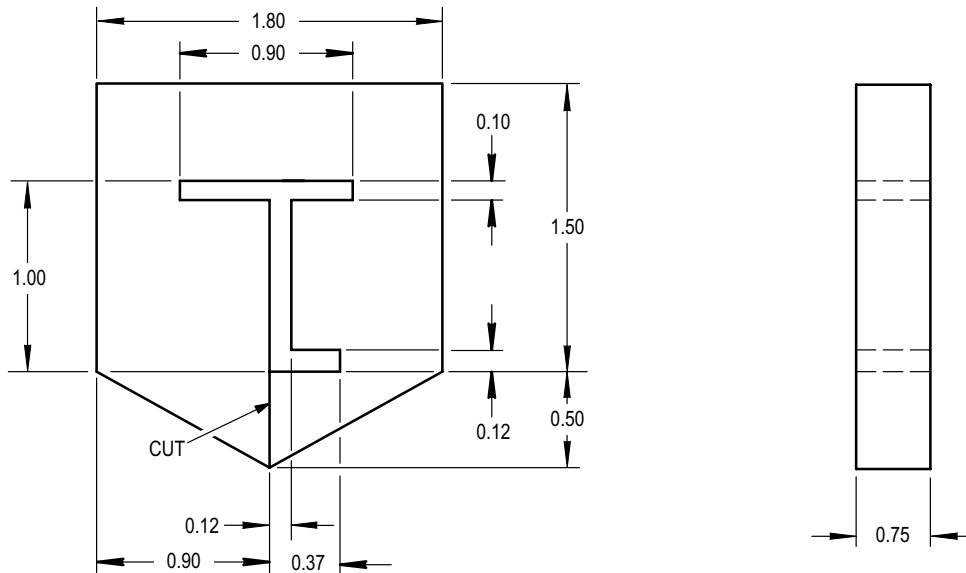


NOTES:

- SEAL - MAKE FROM RUBBER-CELLULAR, SOFT TYPE II GRADE A, 0.75 THICK MIL-R-6130 NSN 9320-00-814-4583
- TOLERANCE OF SEAL DIMENSIONS  $\pm 0.06$
- BOND SEAL USING NEOPRENE CEMENT NSN 8040-00-165-8614
- ALL DIMENSIONS ARE IN INCHES

M04-4863

Figure D-202. Seal PN 7-311113341-9

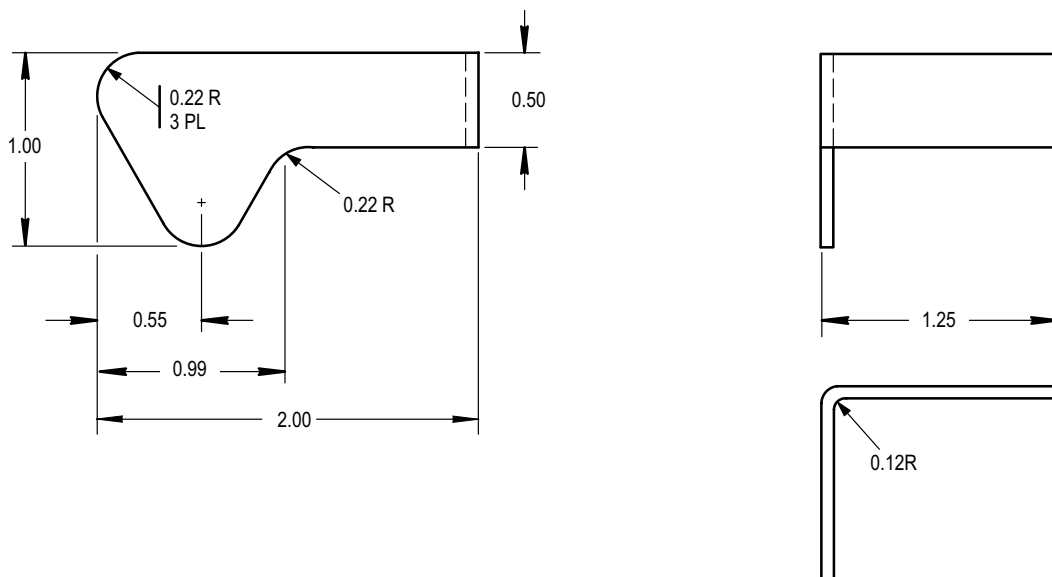


NOTES:

- STOP - MAKE FROM MIL-R-6130 SOFT OR MEDIUM CELLULAR RUBBER SHEET TYPE 2, GRADE A, NSN 9320-00-814-4583
- BOND FAYING SURFACES AND FILLET SEAL - USE SEALING COMPOUND NSN 8030-00-080-1549
- ALL DIMENSIONS ARE IN INCHES

M04-4689

Figure D-203. Stop PN 7-311113478-17

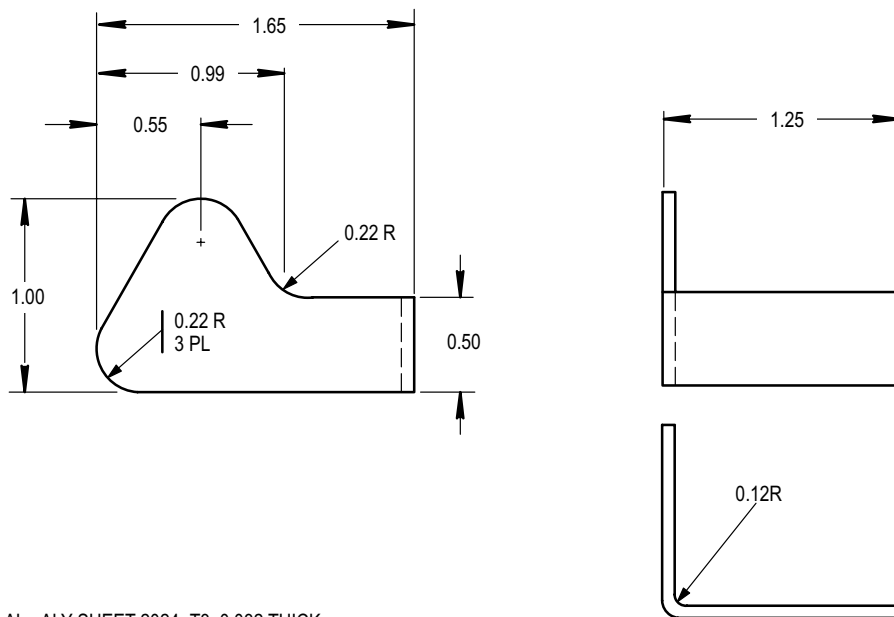


NOTES:

- CLIP - MAKE FROM AL - ALY SHEET 2024-T3, 0.032 THICK  
NSN 9535-00-084-4395, PER FS QQ-A-250/4
- FINISH - CHEMICALLY FILM TREAT FOR ELECTRICAL CONDUCTIVITY PER MIL-C-5541, CLASS 1A
- ALL DIMENSIONS ARE IN INCHES

M04-4690

Figure D-204. Clip PN 7-31113478-19

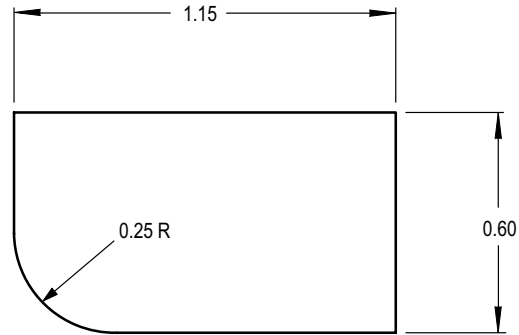


NOTES:

- CLIP - MAKE FROM AL- ALY SHEET 2024-T3, 0.032 THICK  
NSN 9535-00-084-4395, PER FS QQ-A-250/4
- FINISH - CHEMICALLY FILM TREAT FOR ELECTRICAL CONDUCTIVITY  
PER MIL-C-5541, CLASS 1A
- ALL DIMENSIONS ARE IN INCHES

M04-4691

Figure D-205. Clip PN 7-31113478-20

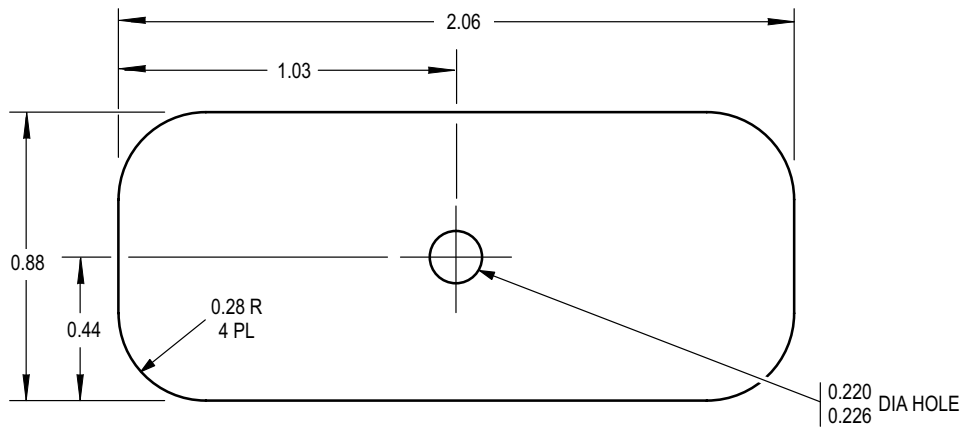


NOTES:

- SHIM, LAMINATED - MAKE FROM AL-ALY SHIM COMPOSITION I, TYPE 1, CLASS 1  
0.094 THICK, MIL-S-22499 NSN 9535-01-081-5124
- FINISH - CHEMICALLY FILM TREAT FOR ELECTRICAL CONDUCTIVITY PER MIL-C-5541, CLASS 1A
- ALL DIMENSIONS ARE IN INCHES

M04-4792

Figure D-206. Shim, Laminated PN 7-311113503-79

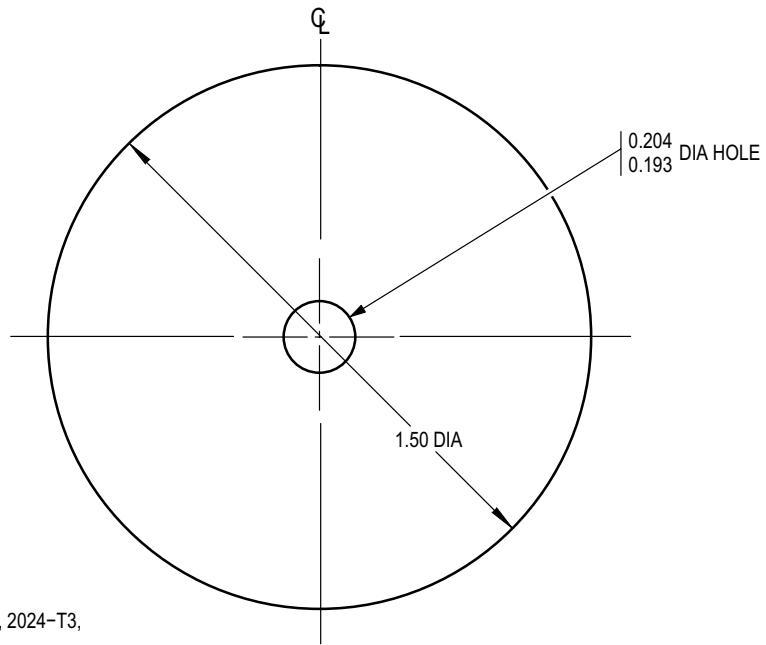


NOTES:

- SPACER - MAKE FROM AL-ALY SHEET, ALCD,  
2024-T3, 0.063 THICK, NSN 9535-00-232-0378
- FINISH - CHEMICALLY FILM TREAT FOR ELECTRICAL CONDUCTIVITY PER MIL-C-5541, CLASS 1A
- ALL DIMENSIONS ARE IN INCHES

M04-4759

Figure D-207. Spacer PN 7-311113507-35

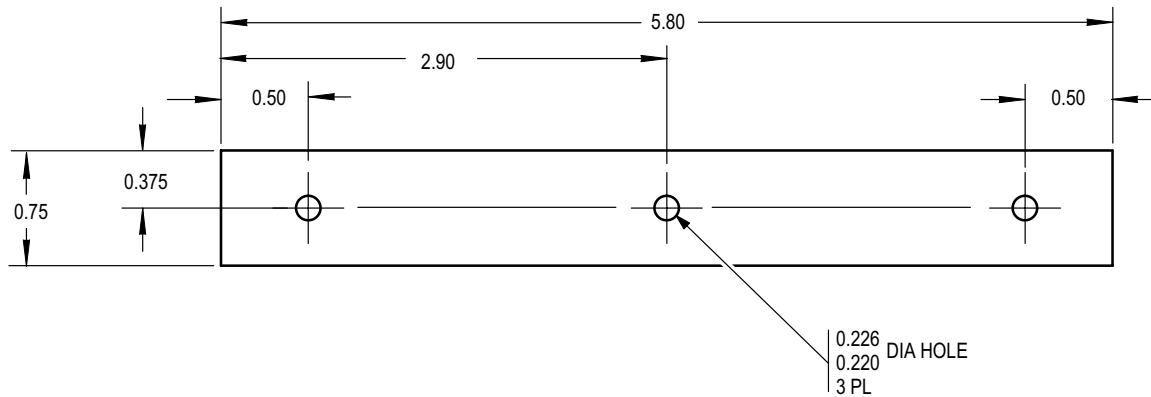


NOTES:

- DOUBLER - 45 MAKE FROM AL-ALY SHEET, 2024-T3, 0.072 THICK, NSN 9535-00-230-7570
- DOUBLER - 47 MAKE FROM AL-ALY SHEET, 2024-T3, 0.040 THICK, NSN 9535-00-086-9930
- FINISH - CHEMICALLY FILM TREAT FOR ELECTRICAL CONDUCTIVITY PER MIL-C-5541, CLASS 1A
- ALL DIMENSIONS ARE IN INCHES

M04-4760

Figure D-208. Doubler PN 7-311113507-45/-47

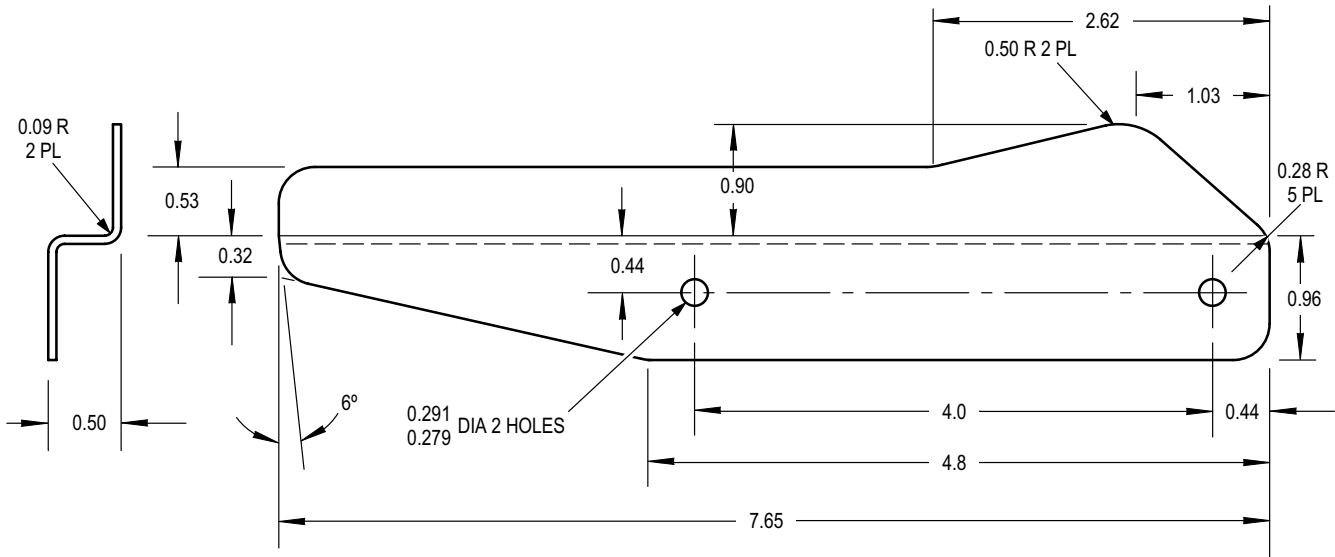


NOTES:

- SHIM - MAKE FROM AL-ALY SHEET, 2024-T3, 0.050 THICK, NSN 9535-00-236-7000
- PRSBOND PREPARATION OF ALUMINUM FOR NEW STRUCTURAL BONDING
- BOND SHIM USING ADHESIVE NSN 8040-00-145-0019
- ALL DIMENSIONS ARE IN INCHES

M04-4756

Figure D-209. Shim PN 7-311113513-167

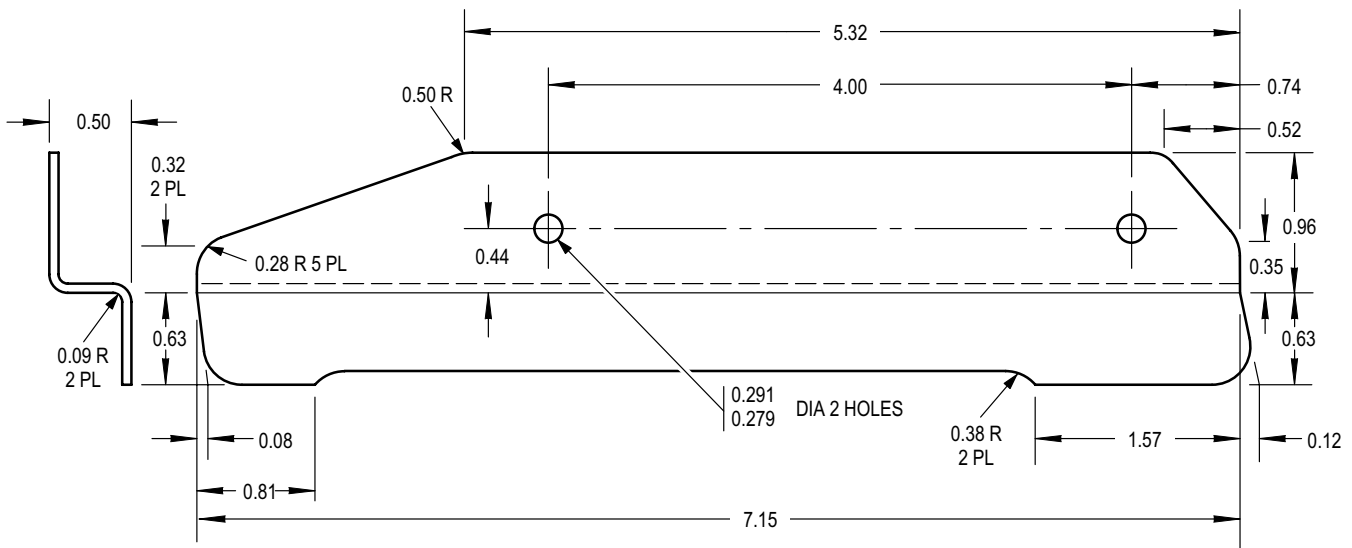


NOTES:

- BRACKET - MAKE FROM AL-ALY SHEET, 2024-0, 0.063 THICK, NSN 9535-00-084-4370
- FINISH - CHEMICALLY FILM TREAT FOR ELECTRICAL CONDUCTIVITY PER MIL-C-5541, CLASS 1A
- HEAT TREAT TO T-42 AFTER FORMING
- ALL DIMENSIONS ARE IN INCHES

M04-4757

Figure D-210. Bracket PN 7-31113513-187

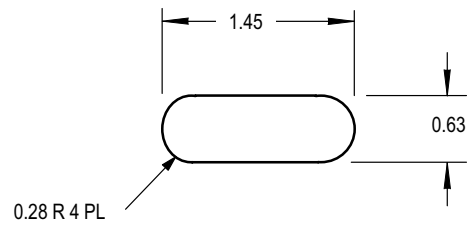


NOTES:

- BRACKET - MAKE FROM AL-ALY SHEET, 2024-0, 0.063 THICK, NSN 9535-00-084-4370
- FINISH - CHEMICALLY FILM TREAT FOR ELECTRICAL CONDUCTIVITY PER MIL-C-5541, CLASS 1A
- HEAT TREAT TO T-42 AFTER FORMING
- ALL DIMENSIONS ARE IN INCHES

M04-4758

Figure D-211. Bracket PN 7-31113513-189

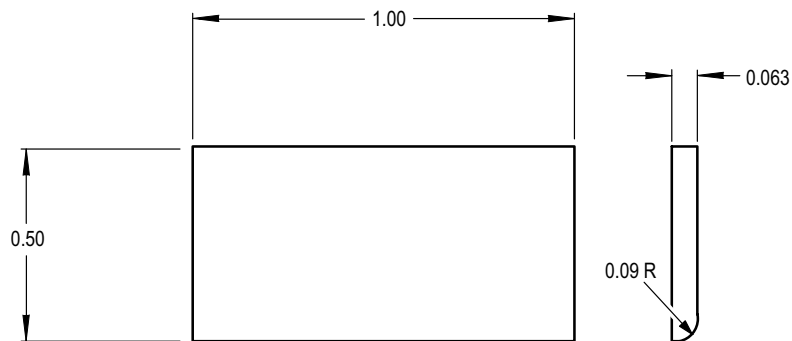


NOTES:

- SHIM - MAKE FROM AL-ALY LAMINATED SHIM STOCK 0.032 THICK  
COMPOSITION 1 TYPE 1 CLASS 1 MIL-S-22499  
NSN 5365-00-158-1360
- ALL DIMENSIONS ARE IN INCHES

M04-4723

**Figure D-212. Shim PN 7-311113516-5**



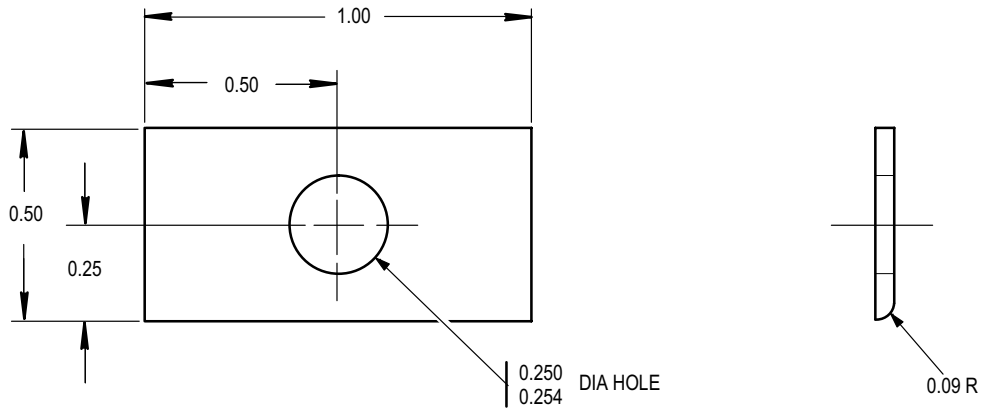
NOTES:

- SPACER - MAKE FROM AL-ALY SHEET 2024-T3, 0.063 THICK  
NSN 9535-00-084-4370
- FINISH - CHEMICALLY FILM TREAT PER MIL-C-5541, CLASS IA
- ALL DIMENSIONS ARE IN INCHES

M04-4796

**Figure D-213. Spacer PN 7-311113550-11**



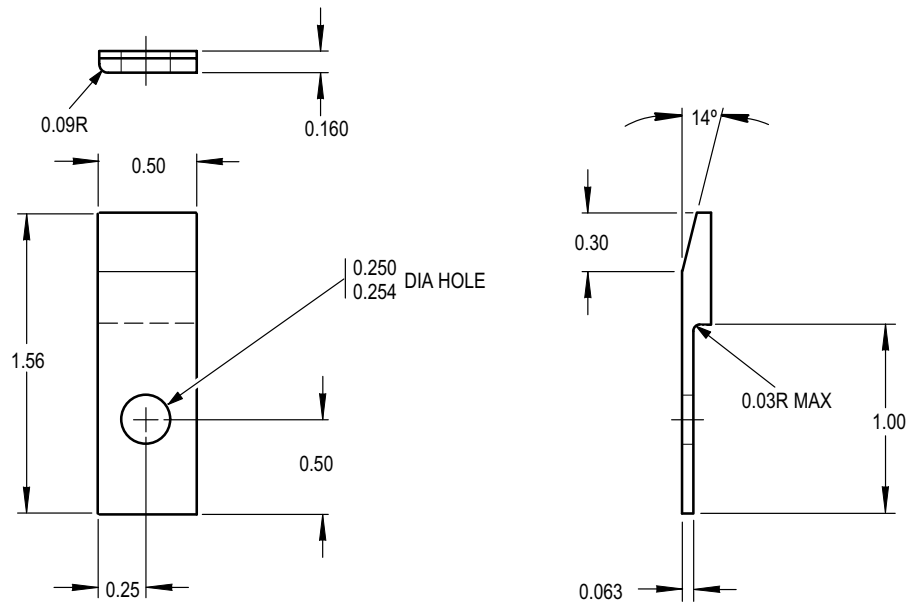


NOTES:

- SPACER - MAKE FROM AL-ALY SHEET 2024-T3, 0.063 THICK  
 QQ-A-250/4 NSN 9535-00-084-4370
- FINISH - CHEMICALLY FILM TREAT PER MIL-C-5541, CLASS 1A
- ALL DIMENSIONS ARE IN INCHES

M04-4867

Figure D-214. Spacer PN 7-311113560-5

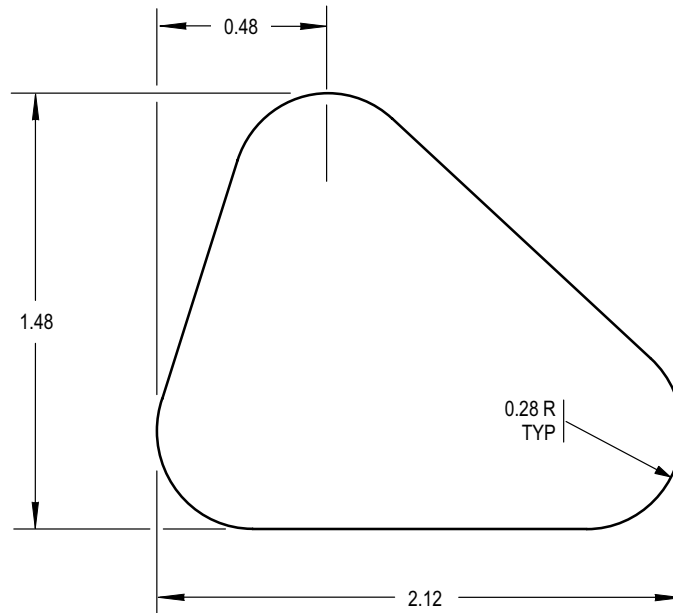


NOTES:

- SPACER - MAKE FROM AL-ALY SHEET 2024-T3, 0.160 THICK,  
 QQ-A-250/4 NSN 9535-00-508-8626
- FINISH - CHEMICALLY FILM TREAT PER MIL-C-5541 CLASS 1A
- ALL DIMENSIONS ARE IN INCHES

M04-4868

Figure D-215. Spacer PN 7-311113560-7

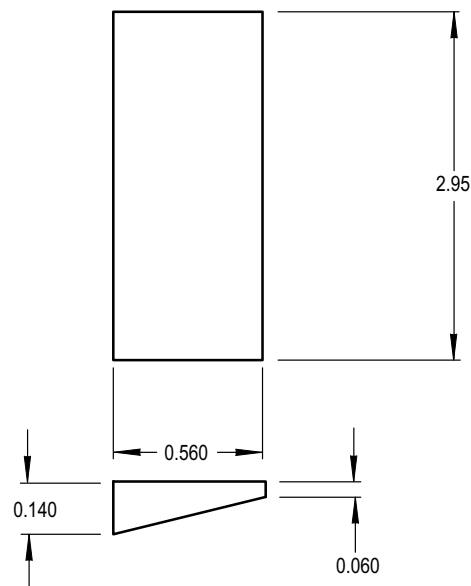


NOTES:

- GUSSETT - MAKE FROM AL-ALY SHEET 2024-T3, 0.040 THICK, QQ-A-250-4, NSN 9535-00-086-9930
- FINISH - CHEMICALLY FILM TREAT PER MIL-C-5541, CLASS 1A
- ALL DIMENSIONS ARE IN INCHES

M04-4904

Figure D-216. Gusset PN 7-31113570-11

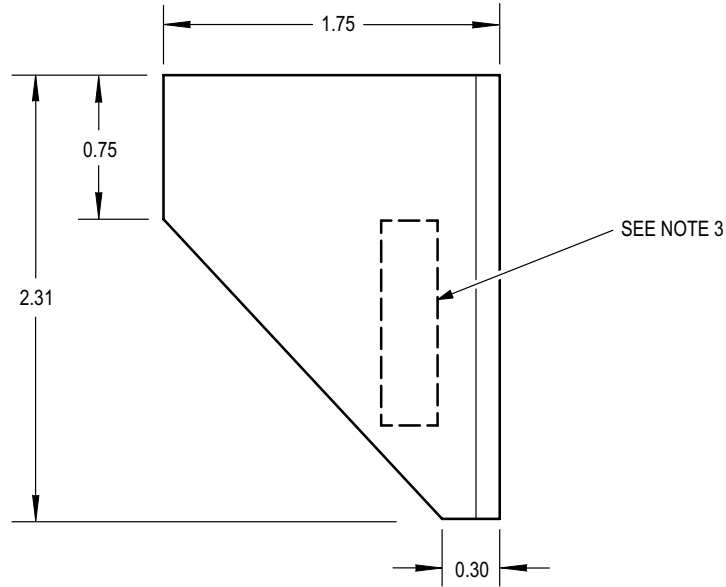


NOTES:

- SHIM - MAKE FROM AL-ALY SHEET 2024-T3, 0.140 THICK QQ-A-250/4, NSN 9535-01-049-0761
- FINISH - CHEMICALLY FILM TREAT PER MIL-C-5541, CLASS 1A
- ALL DIMENSIONS ARE IN INCHES

M04-4791

Figure D-217. Shim PN 7-31113602-19

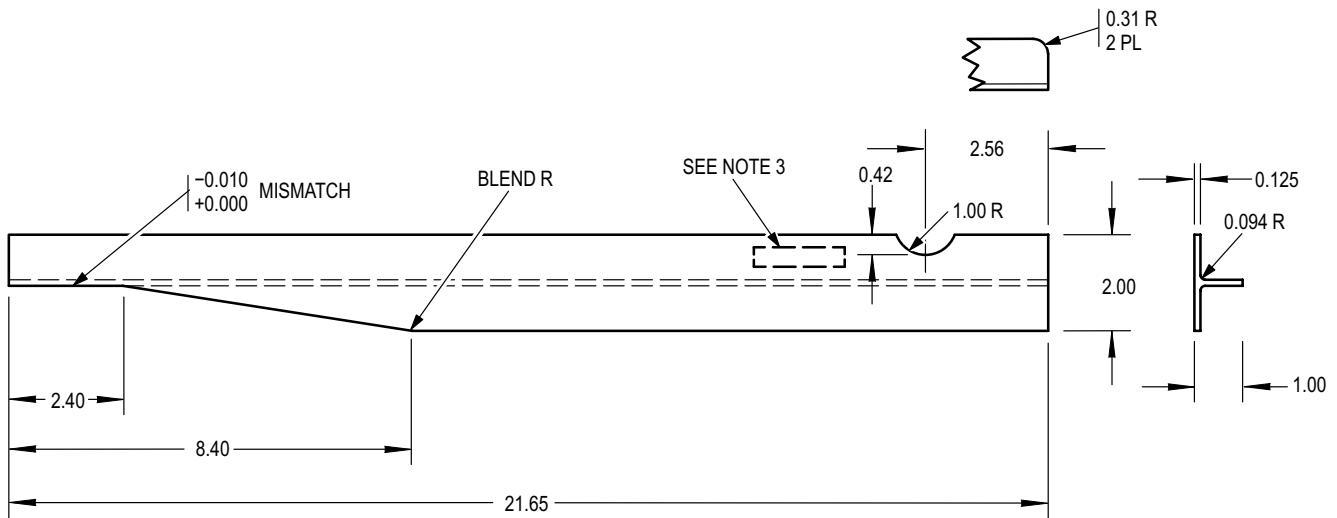


NOTES:

- 1 ANGLE - MAKE FROM EXTRUDED ANGLE - UNEQUAL LENGTH, AL-ALY HS1004DD48-0210, NSN 9540-00-251-1898
- 2 FINISH - CHEMICALLY FILM TREAT PER MIL-C-5541, CLASS 1A
- 3 IDENTIFY WITH INDELIBLE INK, MINIMUM HEIGHT 0.125 INCHES
- 4 ALL DIMENSIONS ARE IN INCHES

M04-4887

Figure D-218. Angle PN 7-311113623-23

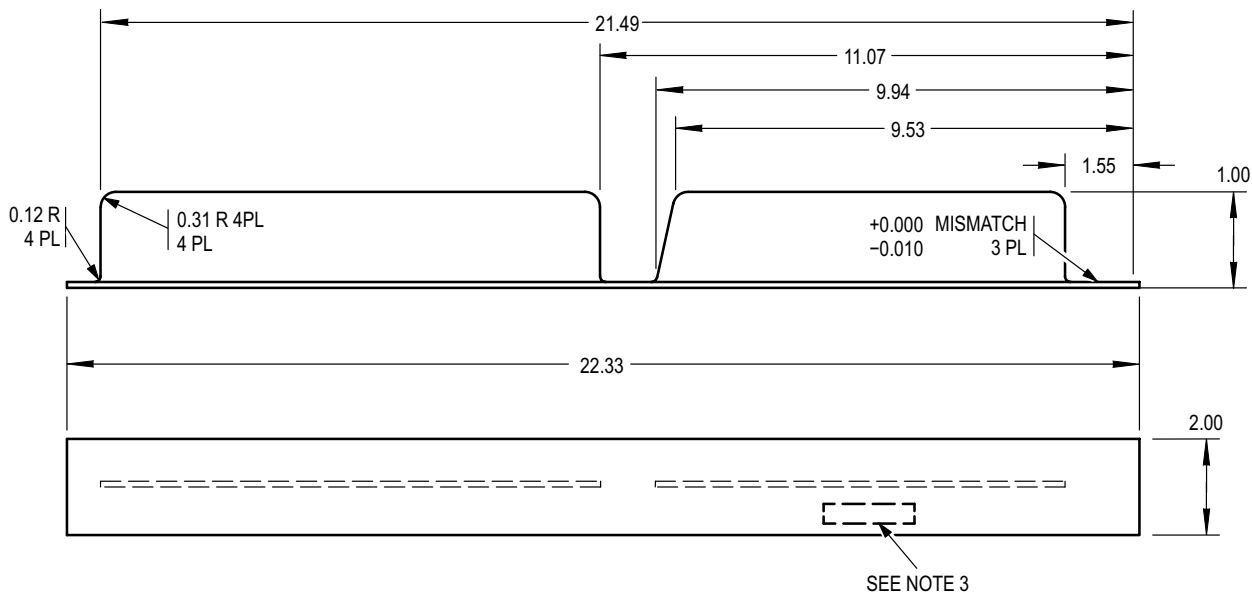


NOTES:

- 1 CAP - MAKE FROM EXTRUDED TEE - AL-ALY, HS1006DD15-2121 NSN 9540-00-640-4226
- 2 FINISH - CHEMICALLY FILM TREAT PER MIL-C-5541, CLASS 1A
- 3 IDENTIFY WITH INDELIBLE INK, MINIMUM HEIGHT 0.125 INCHES
- 4 ALL DIMENSIONS ARE IN INCHES

M04-4888

Figure D-219. Cap PN 7-311113623-29

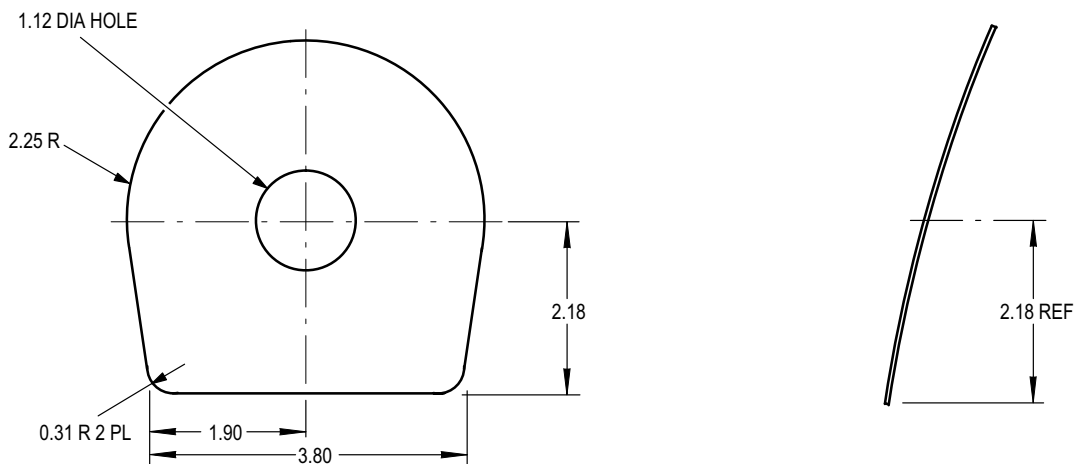


NOTES:

- 1 CAP - MAKE FROM EXTRUDED TEE - AL-ALY, HS1006DD15-2211  
NSN 9540-00-640-4226
- 2 FINISH - CHEMICALLY FILM TREAT PER MIL-C-5541, CLASS 1A
- 3 IDENTIFY WITH INDELIBLE INK, MINIMUM HEIGHT 0.125 INCHES
- 4 ALL DIMENSIONS ARE IN INCHES

M04-4889

Figure D-220. Cap PN 7-311113623-31

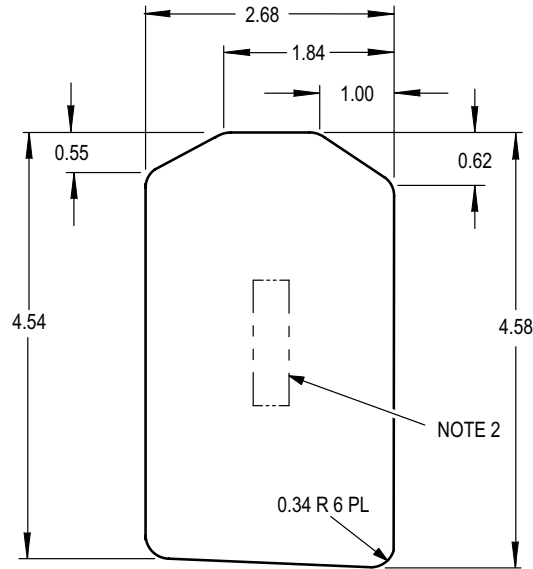


NOTES:

- DOUBLER - MAKE FROM AL-ALY CLAD 2024-T3, QQ-A-250/5, 0.050 THICK  
NSN 9535-00-236-7000
- FINISH - CHEMICALLY FILM TREAT PER MIL-C-5541
- ALL DIMENSIONS ARE IN INCHES

M04-4790

Figure D-221. Doubler PN 7-311114180-49

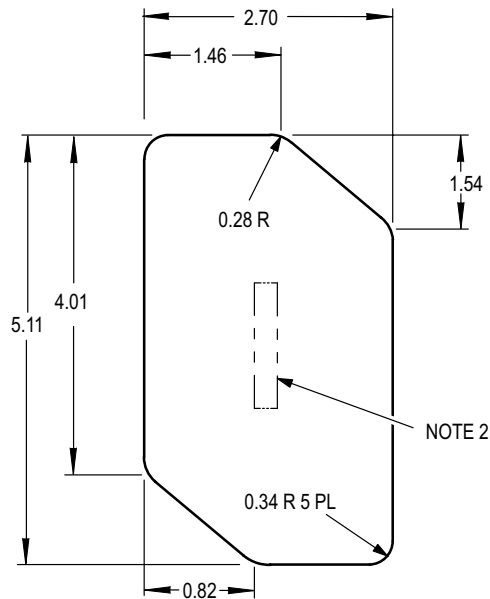


NOTES:

- 1 DOUBLER - MAKE FROM AL-ALY SH. CLAD 2024-T3, 0.040 THICK  
QQ-A-250/5, NSN 9535-00-084-4551
- 2 FINISH - CHEMICALLY FILM TREAT PER MIL-C-5541, CLASS IA
- 3 IDENTIFY WITH INDELIBLE INK, MINIMUM HEIGHT 0.125 INCH
- 4 ALL DIMENSIONS ARE IN INCHES

M04-4786

Figure D-222. Doubler PN 7-311114186-39

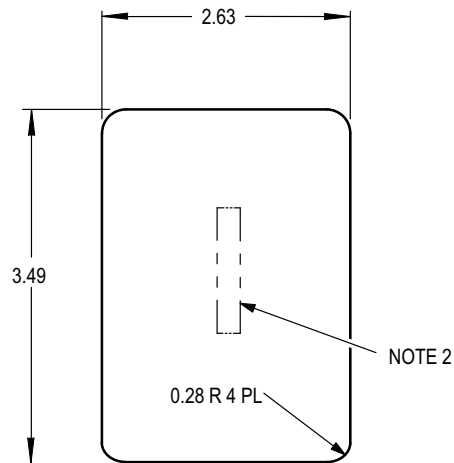


NOTES:

- 1 DOUBLER - MAKE FROM AL-ALY SHEET CLAD 2024-T3, 0.040 THICK  
QQ-A-250/5, NSN 9535-00-084-4551
- 2 FINISH - CHEMICALLY FILM TREAT PER MIL-C-5541, CLASS 1A
- 3 IDENTIFY WITH IDELIBLE INK, MINIMUM HEIGHT 0.125 INCH
- 4 ALL DIMENSIONS ARE IN INCHES

M04-4787

Figure D-223. Doubler PN 7-311114186-41

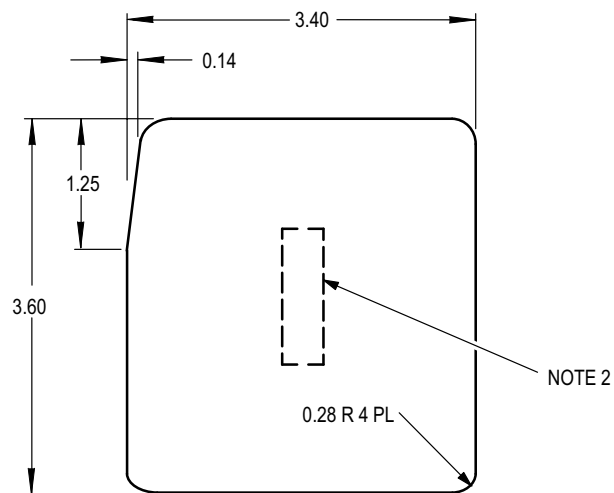


NOTES:

- 1 DOUBLER - MAKE FROM AL-ALY SHEET CLAD 2024-T3, 0.040 THICK  
QQ-A-250/5, NSN 9535-00-084-4551
- 2 FINISH - CHEMICALLY FILM TREAT PER MIL-C-5541, CLASS IA
- 3 IDENTIFY WITH INDELIBLE INK MINIMUM HEIGHT 0.125 INCH
- 4 ALL DIMENSIONS ARE IN INCHES

M04-4788

**Figure D-224. Doubler PN 7-311114186-43**

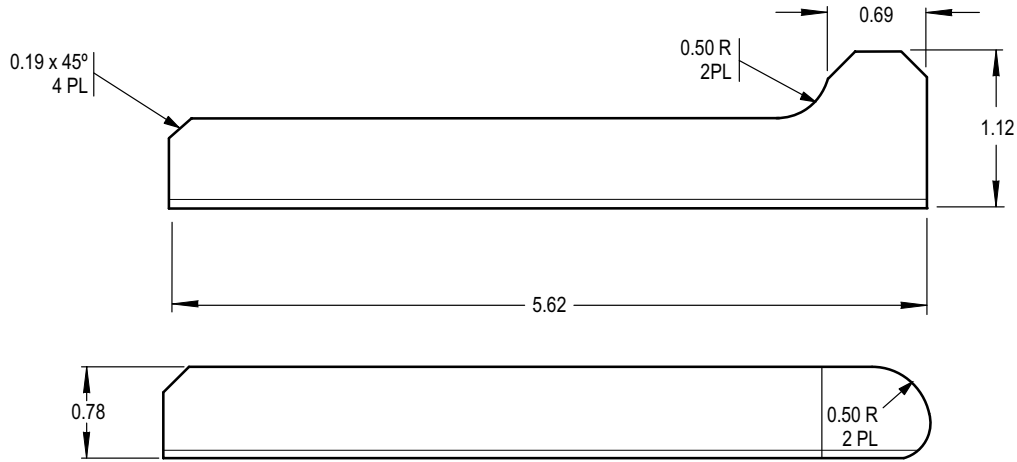


NOTES:

- 1 DOUBLER - MAKE FROM AL-ALY SHEET CLAD 2024-T3, 0.040 THICK  
QQ-A-250/5, NSN 9535-00-084-4551
- 2 FINISH - CHEMICALLY FILM TREAT PER MIL-C-5541, CLASS IA
- 3 IDENTIFY WITH INDELIBLE INK MINIMUM HEIGHT 0.125 INCH
- 4 ALL DIMENSIONS ARE IN INCHES

M04-4789

**Figure D-225. Doubler PN 7-311114186-45**

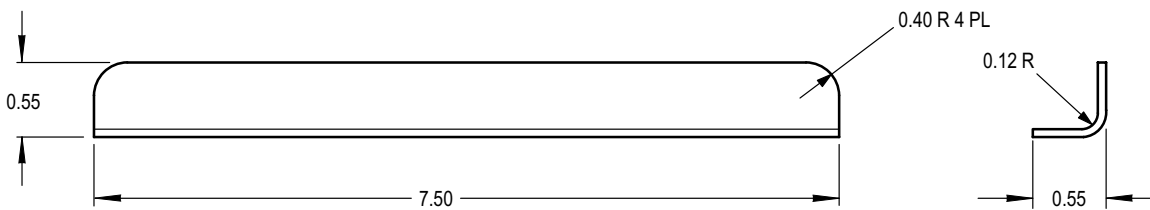


NOTES:

- BRACKET, ANGLE - MAKE FROM AL-ALY 2024-0, 0.050 THICK QQ-A-250/4, NSN 9535-00-229-0917
- HEAT TREAT TO T42 AFTER FORMING
- 7-311122616-15 IS OPPOSITE OF -13
- FINISH - CHEMICALLY FILM TREAT PER MIL-C-5541, CLASS IA
- ALL DIMENSIONS ARE IN INCHES

M04-4784

Figure D-226. Bracket, Angle PN 7-311122616-13/-15

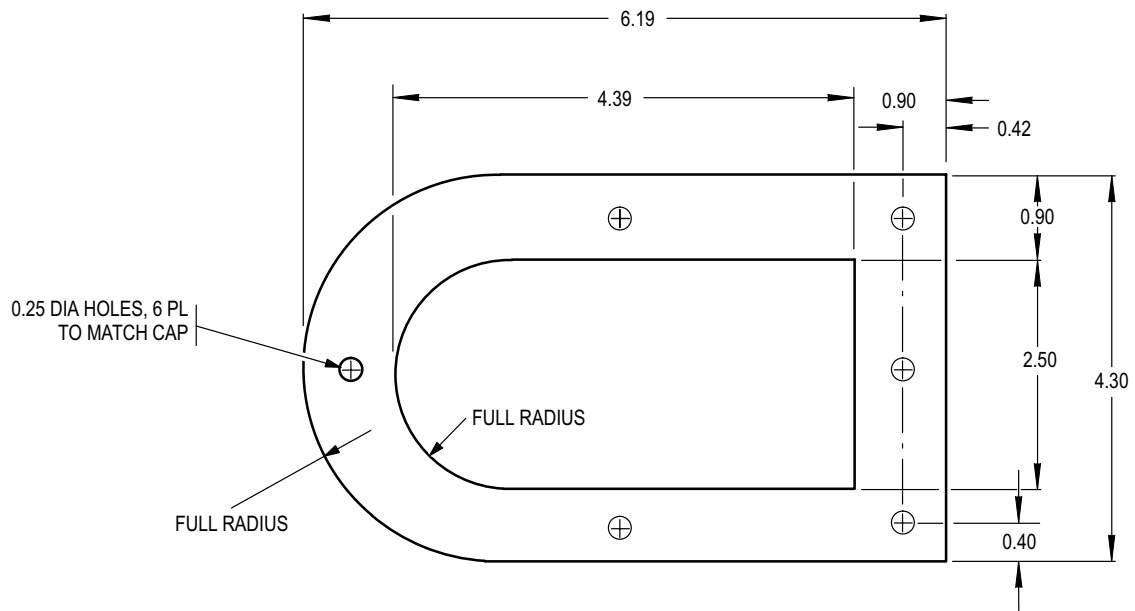


NOTES:

- ANGLE - MAKE FROM AL-ALY 2024-0, 0.040 THICK QQ-A-250/4, NSN 9535-00-86-9930
- HEAT TREAT TO T42 AFTER FORMING
- FINISH - CHEMICALLY FILM TREAT PER MIL-C-5541, CLASS IA
- ALL DIMENSIONS ARE IN INCHES

M04-4783

Figure D-227. Angle PN 7-311122620-45

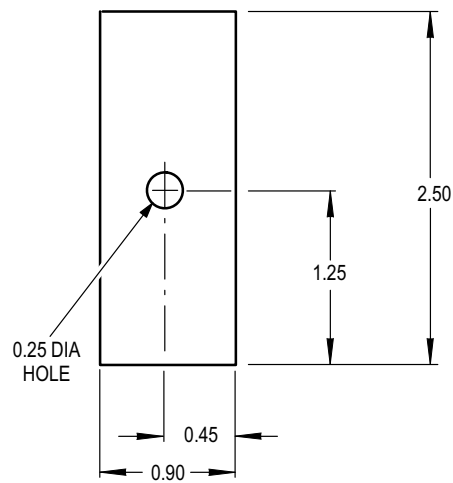


NOTES:

- SEAL - MAKE FROM RUBBER-SILICON, AMS3195 0.125 THICK  
NSN 9320-00-069-5175
- ALL DIMENSIONS ARE IN INCHES

M04-4782

Figure D-228. Seal PN 7-311122640-121



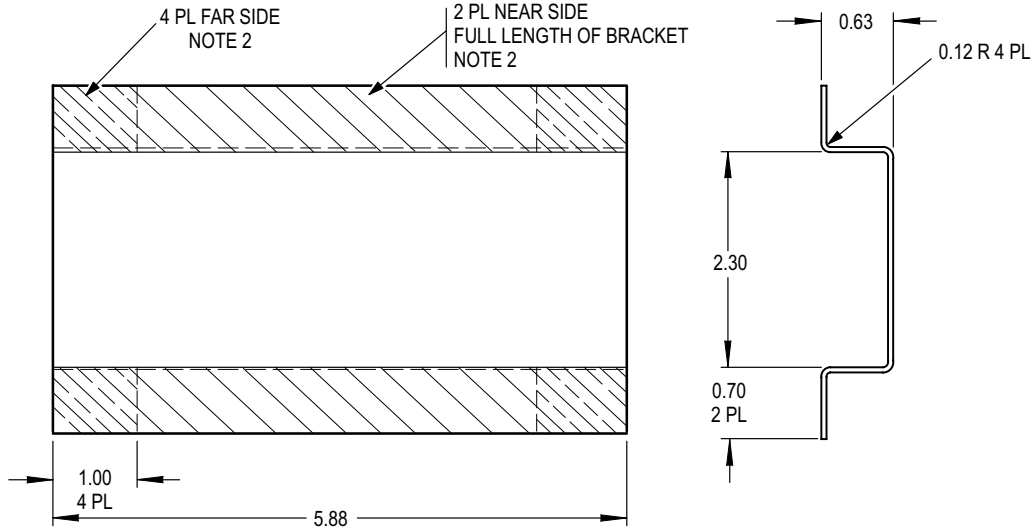
NOTES:

- SEAL - MAKE FROM SILICONE RUBBER, AMS3195 0.093 THICK  
NSN 9320-00-069-5175
- ALL DIMENSIONS ARE IN INCHES

M04-4780

Figure D-229. Seal PN 7-311122640-123



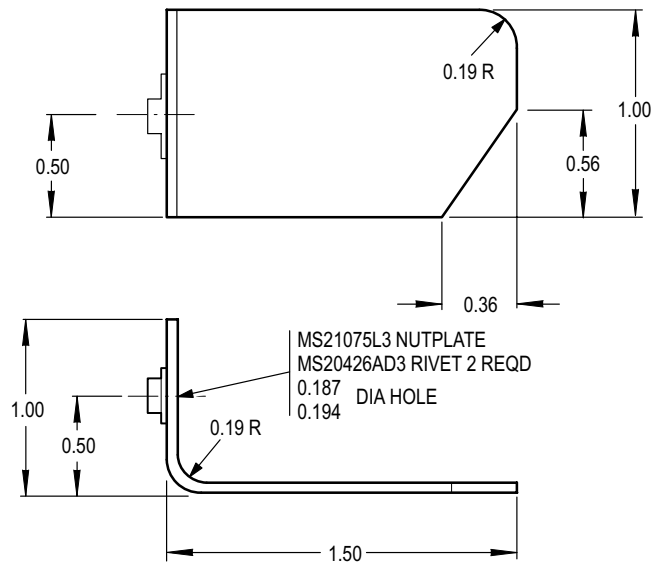


NOTES:

- 1 BRACKET - MAKE FROM AL-ALY 2024-T3, 0.032 THICK QQ-A-250/4  
NSN 9535-00-084-4395
- 2 PREPARE INDICATED SURFACES FOR ELECTRICAL BOND PER  
TM 55-1500-323-24 (SHADED)
- 3 FINISH - CHEMICALLY FILM TREAT FOR ELECTRICAL CONDUCTIVITY PER MIL-C-5541
- 4 ALL DIMENSIONS ARE IN INCHES

M04-4781

Figure D-230. Bracket PN 7-311122640-69

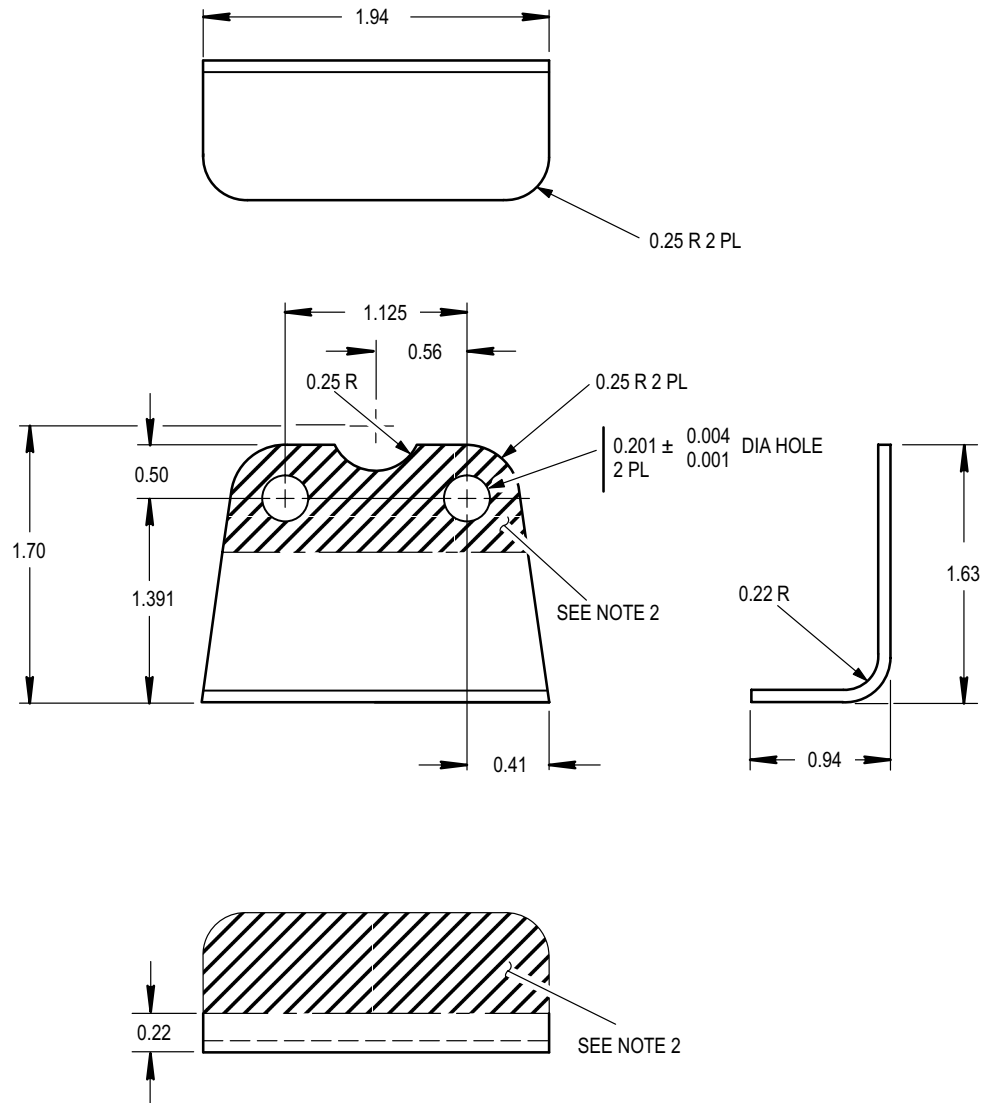


NOTES:

- CLIP ASSEMBLY - MAKE FROM AL-ALY 2024-T3, 0.050 THICK QQ-A-250/4  
NSN 9535-00-236-7000
- FINISH - CHEMICALLY FILM TREAT FOR ELECTRICAL CONDUCTIVITY PER MIL-C-5541, CLASS 1A
- ALL DIMENSIONS ARE IN INCHES

M04-4779

Figure D-231. Clip Assembly PN 7-311123602-31

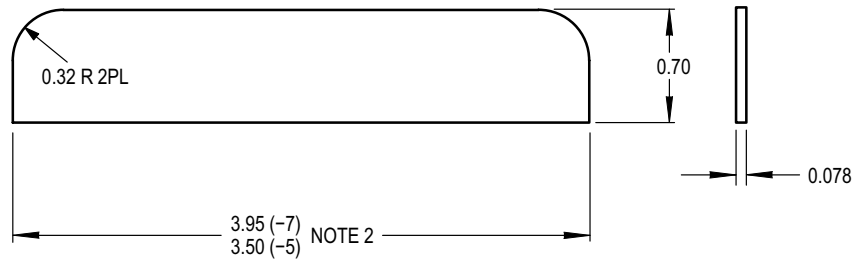


NOTES:

- 1 BRACKET, SENSOR - MAKE FROM AL-ALY SHEET 2024-T3, 0.063 THICK  
NSN 9535-00-232-0378
- 2 PREPARE FAYING SURFACES FOR ELECTRICAL BONDING  
0.0025 OHMS OR LESS
- 3 ALL DIMENSIONS ARE IN INCHES

M04-4688

Figure D-232. Bracket PN 7-311123624

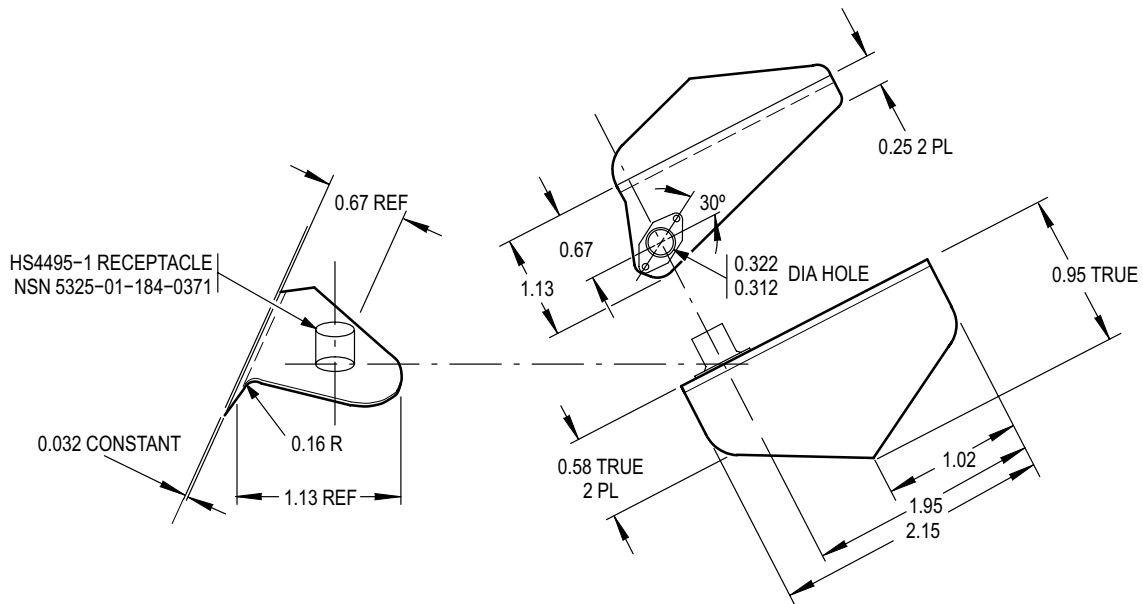


NOTES:

- 1 SHIM - MAKE FROM AL-ALY LAMINATED SHIM STOCK 0.078 THICK  
COMPOSITION 1 TYPE 1 CLASS 1 MIL-S-22499  
NSN 9535-00-006-8545
- 2 7-311130280-5 AND 7-311130280-7 ARE THE SAME EXCEPT AS NOTED
- 3 ALL DIMENSIONS ARE IN INCHES

M04-4722

Figure D-233. Shim PN 7-311130280-5/7

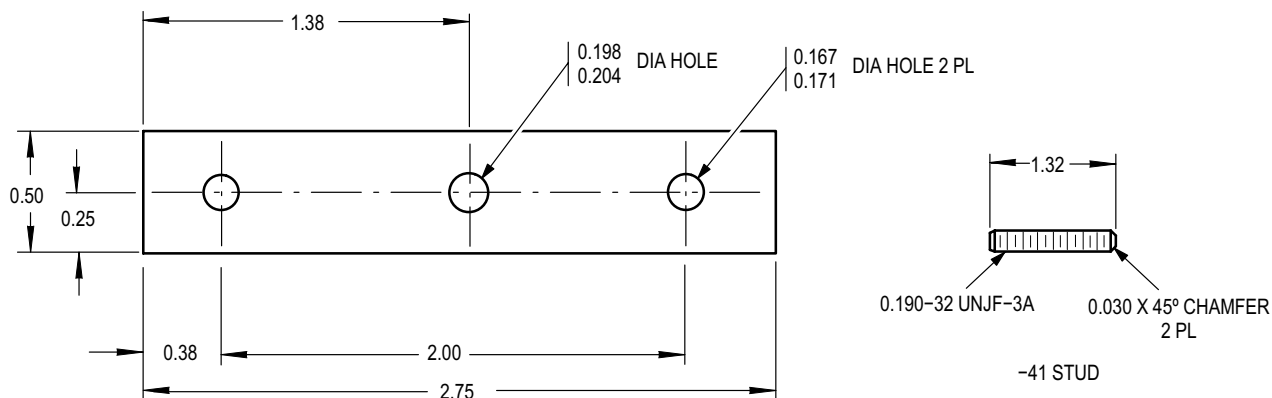


NOTES:

- CLIP - MAKE FROM AL-ALY SHEET, 2024-0, 0.040 THICK  
NSN 9535-00-596-3788
- 7-311140160-21 SHOWN, 7-311140160-22 OPPOSITE
- FINISH - CHEMICALLY FILM TREAT FOR ELECTRICAL CONDUCTIVITY PER MIL-C-5541, CLASS 1A
- ALL DIMENSIONS ARE IN INCHES

M04-4628

Figure D-234. Clip PN 7-311140160-21/-22

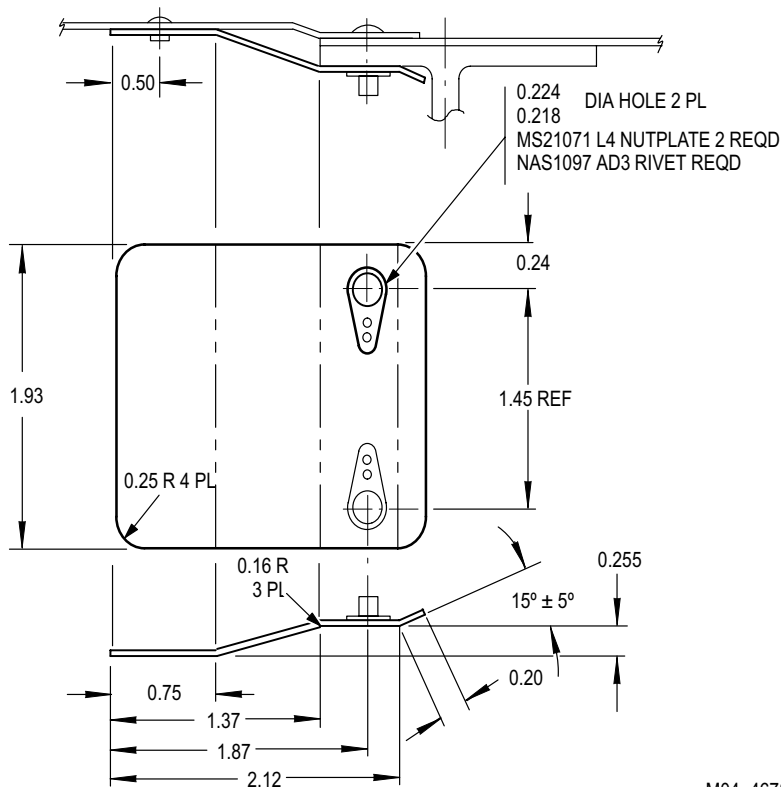


NOTES:

- MOUNTING STRIP - MAKE FROM CRES 301, 1/2 HARD, 0.050 THICK  
NSN 9515-00-580-5475 MIL-S-5059
- STUD - MAKE FROM 4130 STEEL BAR, MIL-S-6758
- ALL DIMENSIONS ARE IN INCHES

M04-4629

Figure D-235. Mounting Strip/Stud PN 7-311140160-37/-41

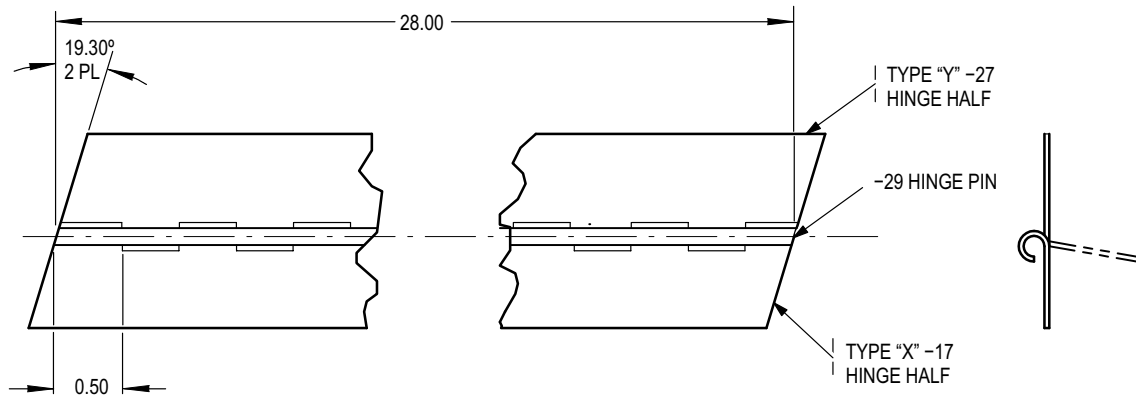


NOTES:

- CLIP - MAKE FROM AL-ALY SHEET, 2024-T3, QQ-A-250/5 0.025 THICK NSN 9535-00-084-4533
- FINISH - CHEMICALLY FILM TREAT FOR ELECTRICAL CONDUCTIVITY PER MIL-C-5541, CLASS 1A
- ALL DIMENSIONS ARE IN INCHES

M04-4678

Figure D-236. Clip PN 7-311150119-7

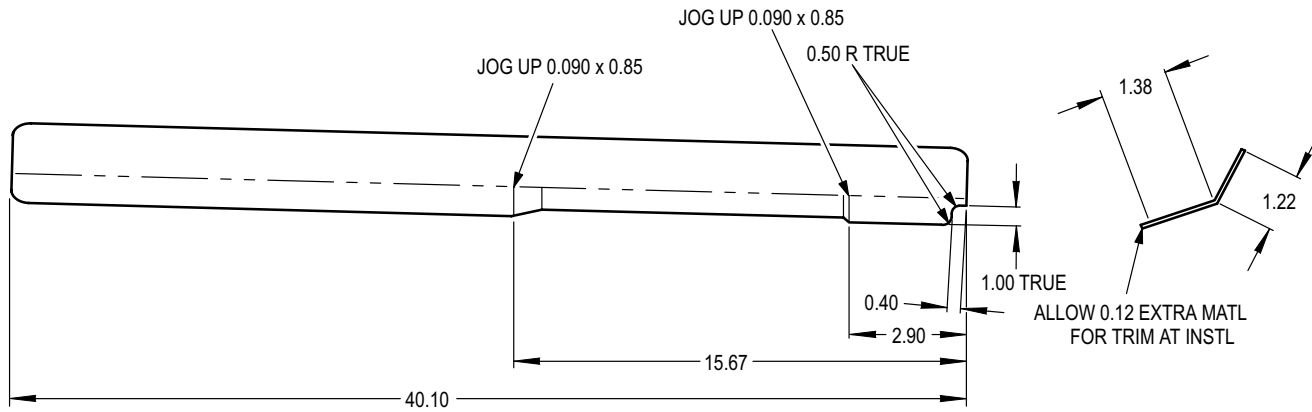


NOTES:

- HINGE HALVES - MAKE FROM MS20257X P4-2900 -17  
NSN 5340-00-051-9133 AND MS20257Y P4-2900  
NSN5340-00-069-5124-27
- HINGE PIN - MAKE FROM MS20253 P2-2900 NSN 5315-00-460-3291-29
- ALL DIMENSIONS ARE IN INCHES

M04-4877

Figure D-237. Hinge, Half PN 7-311150125-17I-27I-29

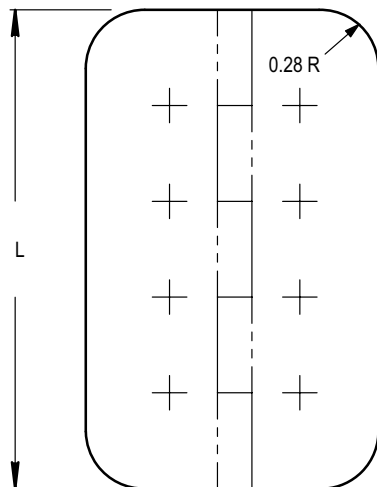


NOTES:

- ANGLE - MAKE FROM AL-ALY SHEET, 2024-0, 0.032 THICK  
NSN 9535-00-582-1435
- HEAT TREAT TO T-42 AFTER FORMING
- FINISH - CHROMIC ANODIZE ALUMINUM ALLOY PER MIL-A-8625 CLASS 1
- ALL DIMENSIONS ARE IN INCHES

M04-4682

Figure D-238. Angle PN 7-311150133-1



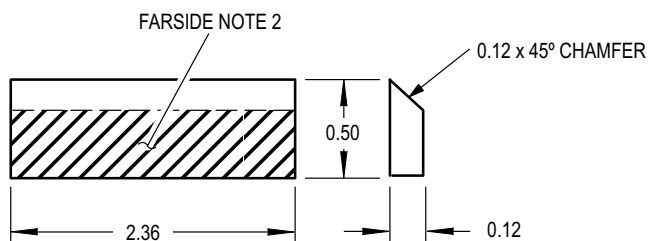
PART NUMBER	LENGTH
7-311150140-63	5.00
7-311150140-65	7.00
7-311150140-67	2.50
7-311150140-64	5.00

NOTES:

- HINGE - MAKE FROM AL-ALY HINGE STOCK  
NSN 5340-00-051-9132
- ALL DIMENSIONS ARE IN INCHES

M04-4879

Figure D-239. Hinge PN 7-311150140-63/-64/-65/-67

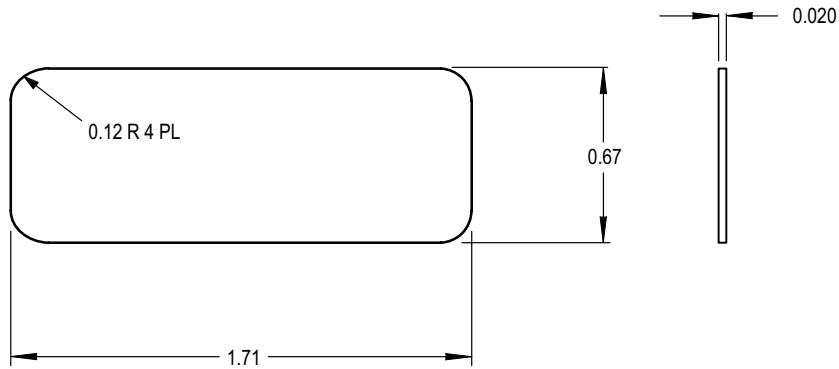


NOTES:

- 1 BLOCK, RADIUS - MAKE FROM AL ALY SHEET, 2024-0, 0.125 THICK  
QQ-A-250/4, NSN 9535-00-492-6523
- 2 PREPARE FOR ELECTRICAL BOND (TM 55-1500-323-24)
- 3 FINISH - CHEMICALLY FILM TREAT PER MIL-C-5541, CLASS 1A
- 4 ALL DIMENSIONS ARE IN INCHES

M04-4675

Figure D-240. Block, Radius PN 7-311150141-79

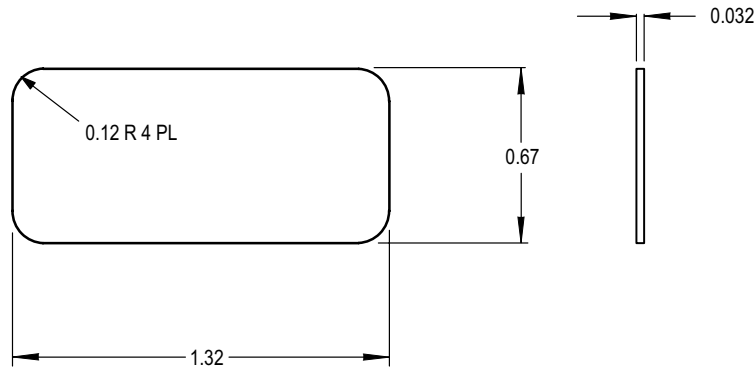


NOTES:

- SCUFF PLATE - MAKE FROM 301, 1/2 HD CRES, MIL-S-5059, 0.020 THICK
- FINISH - BOND PREPARATION OF AUSTENITIC CORROSION RESISTANT STEEL PER MIL- S-5059
- ALL DIMENSIONS ARE IN INCHES

M04-4677

Figure D-241. Scuff Plate PN 7-311150146-66

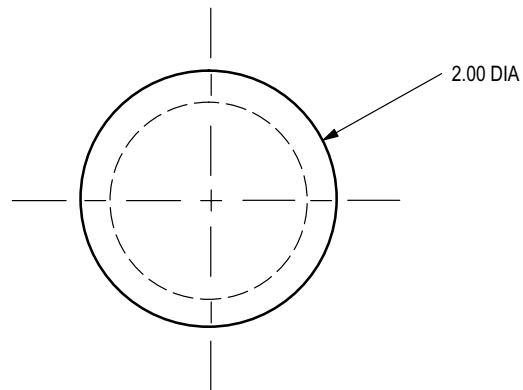


NOTES:

- SCUFF PLATE - MAKE FROM 301, 1/2 HD CRES, MIL-S-5059, 0.032 THICK
- FINISH - BOND PREPARATION OF AUSTENITIC CORROSION RESISTANT STEEL PER MIL-S-5059
- ALL DIMENSIONS ARE IN INCHES

M04-4676

Figure D-242. Scuff Plate PN 7-311150146-67

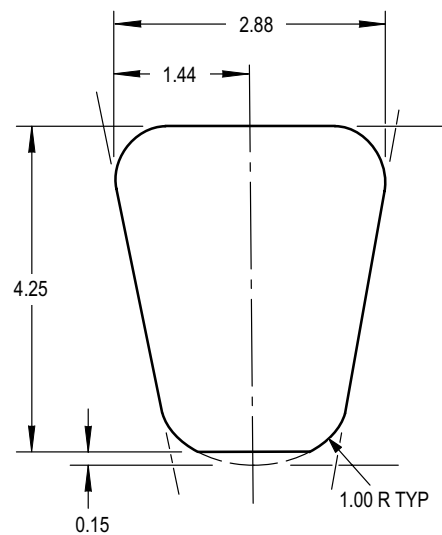


NOTES:

- COVER - MAKE FROM AL ALY SHEET, 6061-T6, 0.032 THICK  
NSN 9535-00-084-4395
- ANODIZE WITH PRIMER AND TOPCOAT
- ALL DIMENSIONS IN INCHES

M04-4674

Figure D-243. Cover PN 7-311160030-3



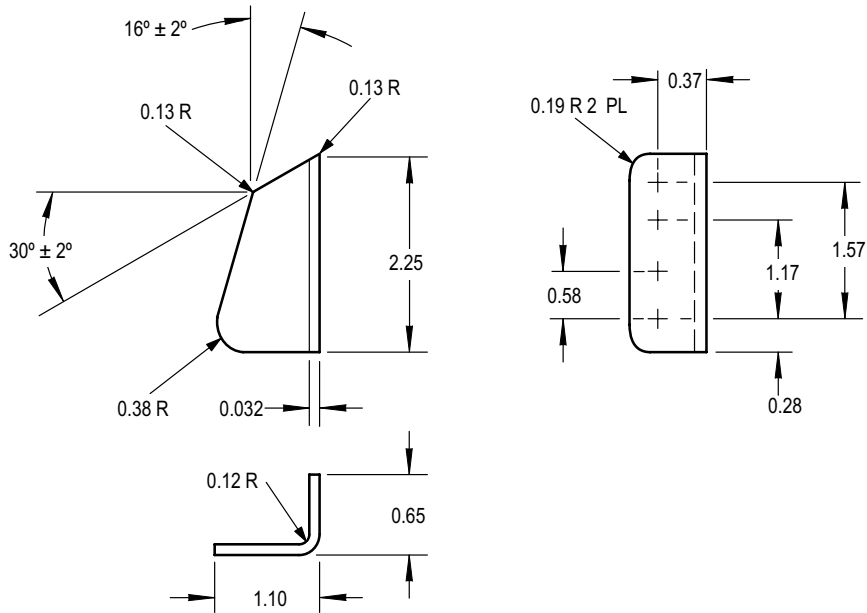
NOTES:

- COVER - MAKE FROM AL ALY SHEET, 6061-T6, 0.032 THICK  
NSN 9535-00-084-4395
- ANODIZE WITH PRIMER AND TOPCOAT
- ALL DIMENSIONS IN INCHES

M04-4673

Figure D-244. Cover PN 7-311160030-5



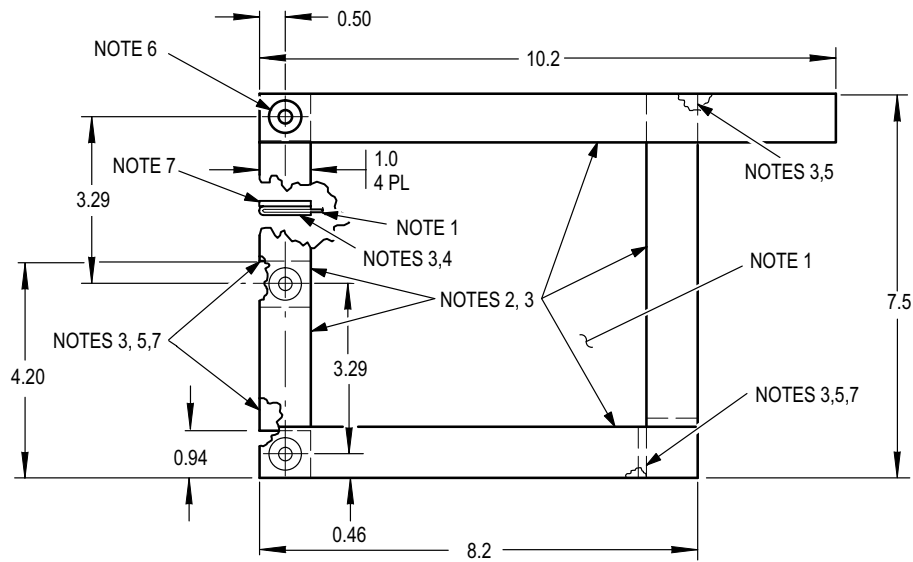


NOTES:

- BRACKET - MAKE FROM AL ALY SHEET, 2024-T3, .032 THICK  
NSN 9535-00-084-4395
- FINISH - CHEMICALLY FILM TREAT PER MIL-C-5541 CLASS 1A
- ALL DIMENSIONS ARE IN INCHES

M04-4672

Figure D-245. Bracket PN 7-311171141-65

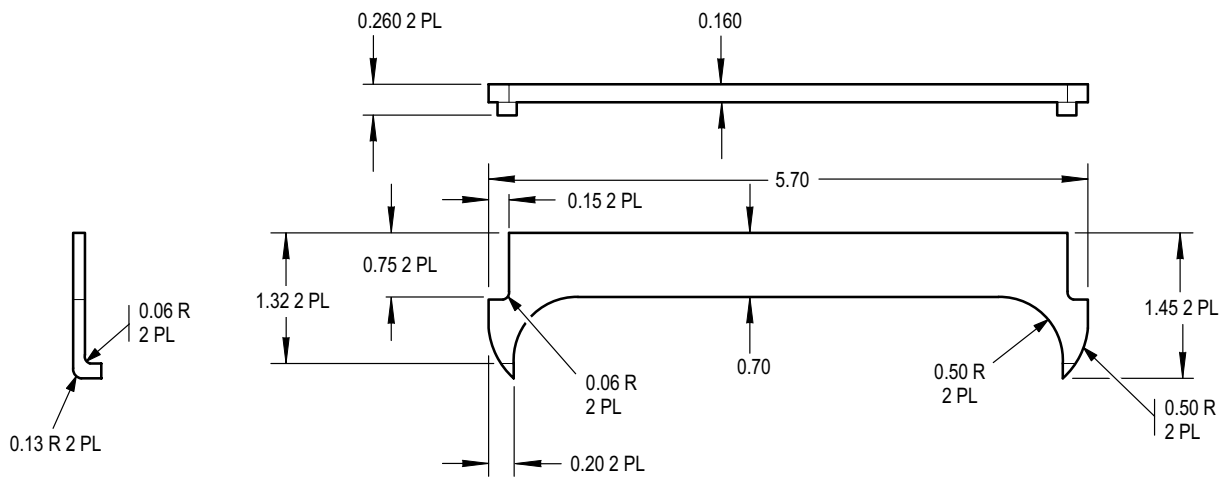


NOTES:

- |   |   |
|---|---|
| <ul style="list-style-type: none"> <li>1 COVER - MAKE FROM NYLON CLOTH, MIL-C-8061, BLACK,</li> <li>2 FINISH HEM 1.00</li> <li>3 7-9 STITCHES PER INCH, V-T-295 TYPE 1 CLASS A SIZE AA BLACK THREAD</li> <li>4 NON-POROUS NEOPRENE COATED NYLON CLOTH, MIL-C-20696 TYPE 2 CLASS 3 BLACK NO. 37038 NSN 8305-00-082-2373</li> </ul> | <ul style="list-style-type: none"> <li>5 BOND USING ADHESIVE TYPE 2 OR 7 NSN 8040-00-165-8614</li> <li>6 GROMMET HS4874-3B2A NSN 5325-01-177-3111</li> <li>7 PILE TAPE 1 INCH WIDE MIL-F-21840 TYPE 2 CLASS 1, BLACK (VELCRO) NSN 8315-00-935-6761</li> <li>8 ALL DIMENSIONS ARE IN INCHES</li> </ul> |
|---|---|

M04-4785

Figure D-246. Cover Assembly PN 7-311172022-53

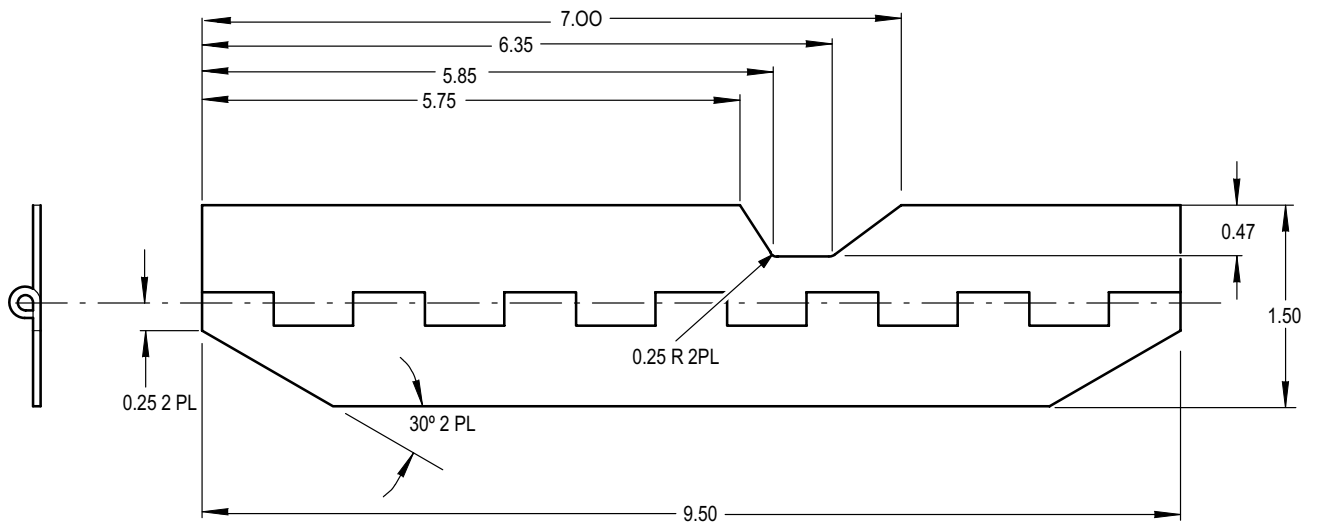


NOTES:

- BRACKET, PLASTIC - MAKE FROM BLACK PLASTIC ABS 662 OR ABS 6602 BLACK PLASTIC SHEET STOCK OR ABS CONFORMING TO L-P-1183, TYPE 1 AND FAR 25.853 B
- ALL DIMENSIONS ARE IN INCHES

M04-4671

Figure D-247. Bracket, Plastic PN 7-311180040-23

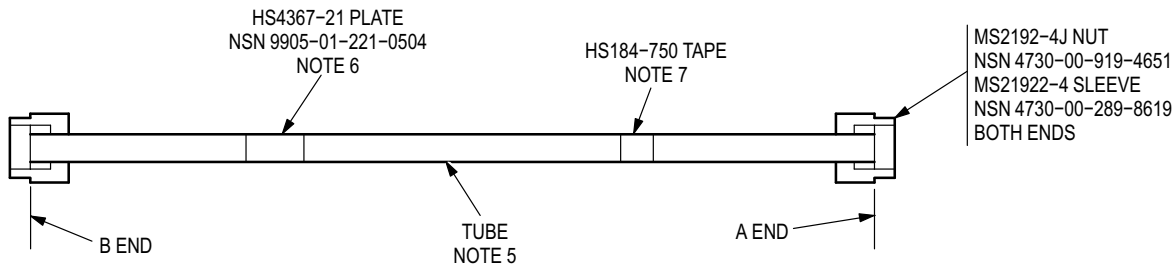
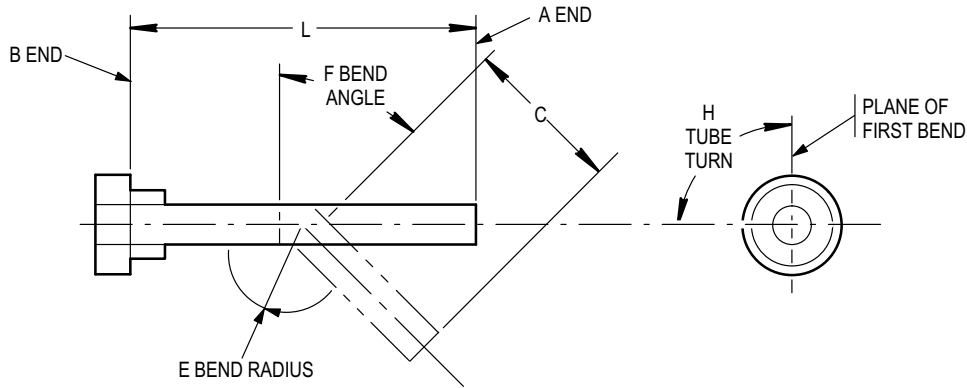


NOTES:

- HINGE, CONTINUOUS - MAKE FROM MS2057P4-950 NSN 5340-00-051-9133
- ALL DIMENSIONS ARE IN INCHES

M04-4667

Figure D-248. Hinge PN 7-311180105-7



BEND NUMBER	DIMENSIONS				
	C	E	F	H	L
PART NUMBER 7-311210201					
1	7.37	0.75	92.10	0.0	24.56
2	2.48	0.75	61.60	88.60	24.56
3	3.72	0.75	67.80	-179.80	24.56
4	2.51	0.75	47.40	177.90	24.56
5	1.81	0.75	133.70	0.30	
	1.80				

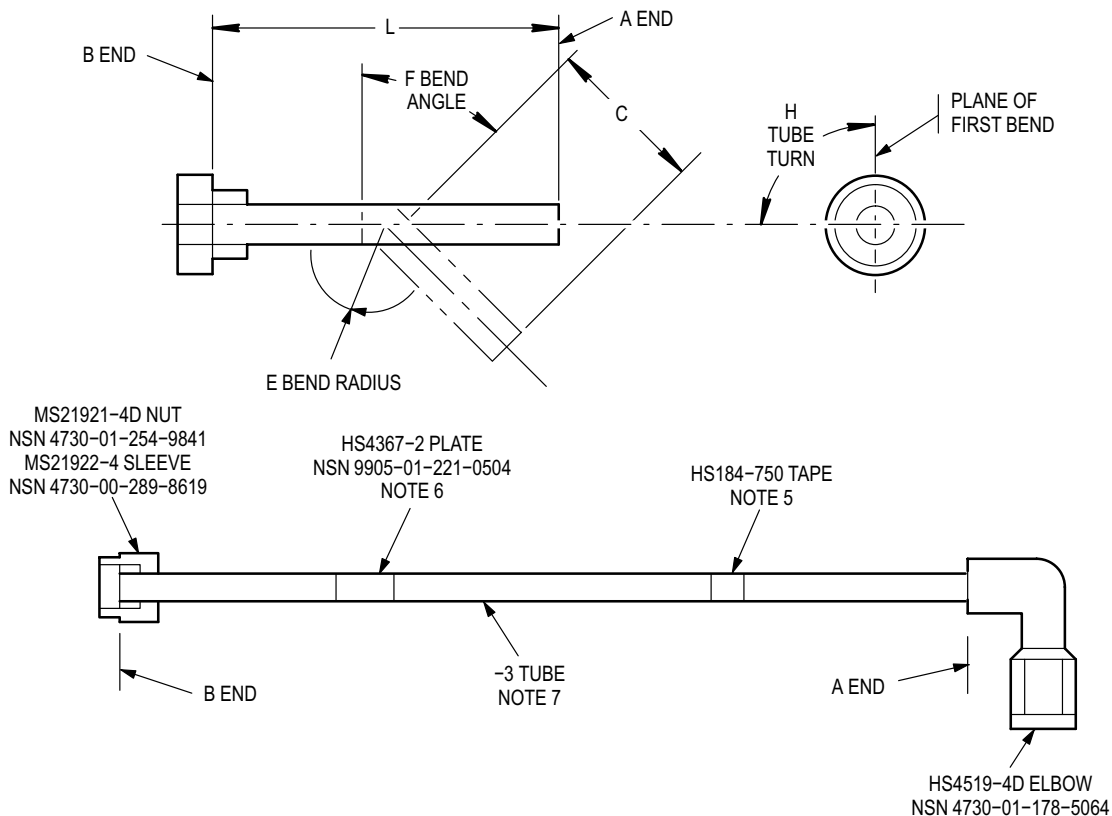
BEND NUMBER	DIMENSIONS				
	C	E	F	H	L
PART NUMBER 7-311210205					
1	11.07 0.88	0.75	49.60	0.0	12.60
PART NUMBER 7-311210206					
1	0.88	0.75	97.00	0.0	10.64
2	3.10 5.38	0.75	6.80	-139.40	10.64
PART NUMBER 7-311210221					
1	1.35	0.75	35.90	0.0	21.03
2	1.84	0.75	38.60	-173.80	21.03
3	12.47	0.75	39.80	-56.90	21.03
4	1.62	0.75	34.10	-175.50	21.03
	1.80				

NOTES:

- TUBE ASSEMBLY, METAL - MAKE FROM AL-ALY TUBING 6061-T6 PER MIL-T-7081, TUBE SIZE 0.250 O.D x 0.020 WALL THICKNESS, NSN 4710-00-683-9034
- DIMENSION C IS DISTANCE BETWEEN BENDS
- FIRST BEND STARTS FROM A END
- DIMENSION L IS PREPARED LENGTH BEFORE BENDING
- FINISH - CHROMIC ANODIZE PER MIL-A-8625 TYPE I, CLASS I
- IDENTIFY AND APPLY MIL-V-173 PROTECTIVE COATING
- TAPE ARROW → POINTS TO B END
- ALL DIMENSIONS ARE IN INCHES

M04-4934

Figure D-249. Tube Assembly, Metal PN 7-311210201, PN 7-311210205, PN 7-311210206, PN 7-311210221-7



BEND NUMBER	DIMENSIONS				
	C	E	F	H	L
PART NUMBER 7-311210202					
1	6.05	0.75	99.0	0.0	22.36
2	1.46	0.75	64.7	91.3	22.36
3	4.24	0.75	29.7	-179.1	22.36
4	2.83	0.75	29.0	-178.2	22.36
5	1.65	0.75	130.2	-2.2	22.36
	1.51				

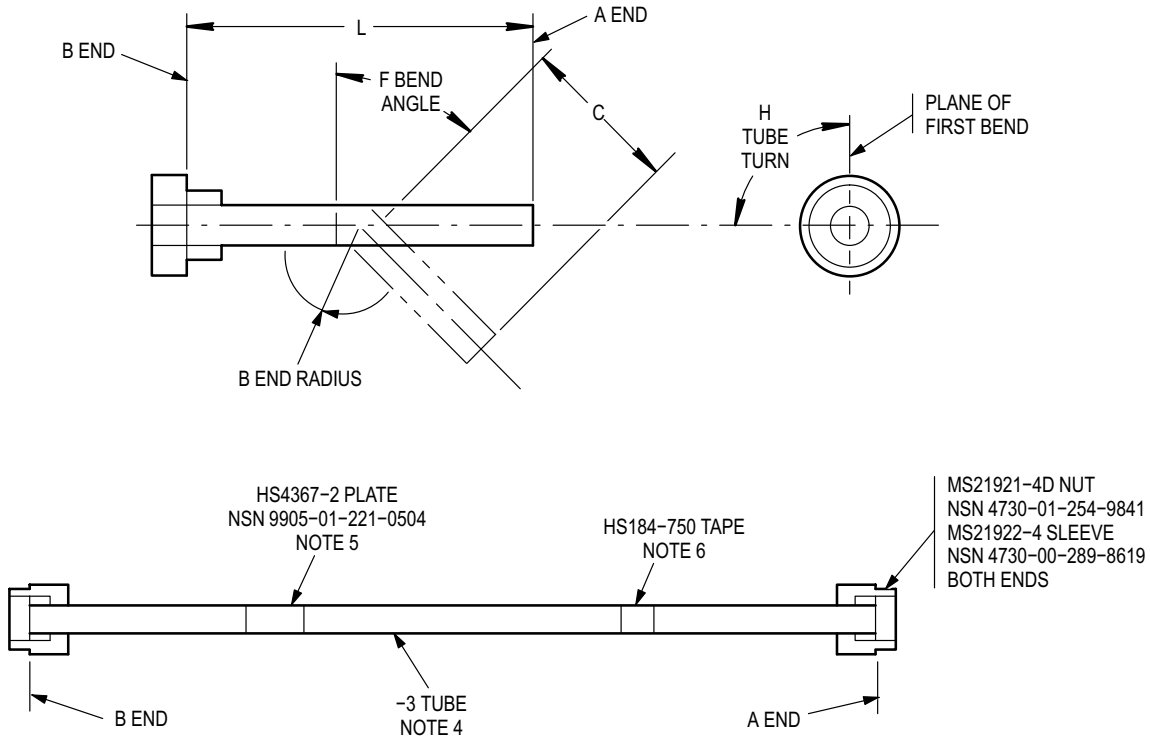
BEND NUMBER	DIMENSIONS				
	C	E	F	H	L
PART NUMBER 7-311210219					
1	3.20	0.75	77.00	0.0	28.32
2	3.00	0.75	39.90	-2.80	28.32
3	0.75	0.75	38.90	178.60	28.32
4	0.75	0.75	83.40	89.10	28.32
5	2.00	0.75	86.30	-178.20	28.32
6	10.85	0.75	51.40	12.10	28.32
7	0.89	0.75	83.50	-173.00	28.32
	0.85				

NOTES:

- |   |   |
|---|---|
| <p>1 TUBE ASSEMBLY, METAL - MAKE FROM AL-ALY 6061 T6 PER MIL-T-7081, TUBE SIZE 0.250 O.D x 0.020 WALL THICKNESS, NSN 4710-00-683-9034</p> <p>2 DIMENSION C IS DISTANCE BETWEEN BENDS</p> <p>3 DIMENSION L IS PREPARED LENGTH BEFORE BENDING</p> <p>4 FIRST BEND STARTS FROM A END</p> | <p>5 TAPE ARROW " POINTS TO B END</p> <p>6 IDENTIFY WITH METAL TAPE AND APPLY MIL-V-173 PROTECTIVE COATING</p> <p>7 FINISH - CHEMICALLY FILM TREAT FOR ELECTRICAL CONDUCTIVITY PER MIL-C-5541, CLASS 3A</p> <p>8 ALL DIMENSIONS ARE IN INCHES</p> |
|---|---|

M04-4922

**Figure D-250. Tube Assembly, Metal PN 7-311210202  
Tube Assembly, Metal PN 7-311210219**



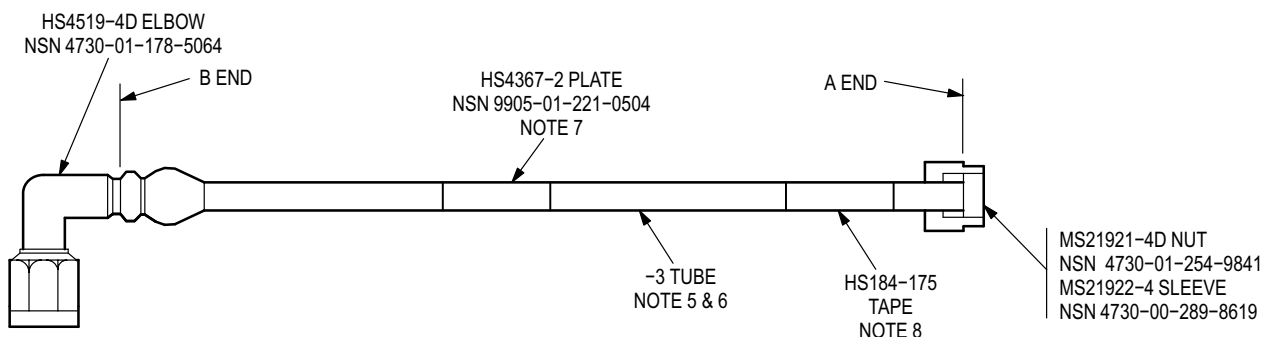
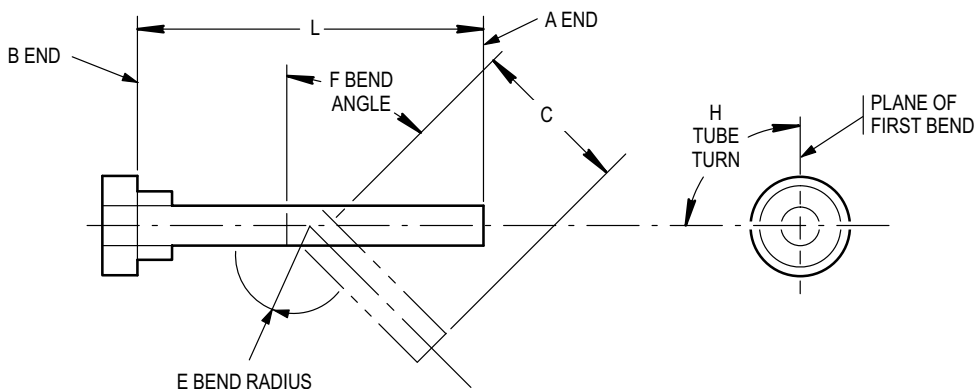
BEND NUMBER	DIMENSIONS				
	C	E	F	H	L
PART NUMBER 7-311210203					
1	0.94	0.75	85.0	0.0	6.78
2	2.27 2.15	0.75	23.1	-154.2	6.78
PART NUMBER 7-311210204					
1	0.94	0.75	85.0	0.0	6.78
2	2.27 2.5	0.75	23.1	54.2	6.78
PART NUMBER 7-311210222					
1	6.12	0.75	27.2	0.0	20.94
2	1.89	0.75	27.2	-180.0	20.94
3	7.54	0.75	41.0	17.4	20.94
4	2.10 1.54	0.75	39.1	-178.0	20.94

NOTES:

- 1 TUBE ASSEMBLY, METAL - MAKE FROM AL-ALY TUBING 6061-T6, TUBE SIZE 0.250 O.D x 0.020 WALL THICKNESS NSN 4710-00-683-9034
- 2 DIMENSION C IS DISTANCE BETWEEN BENDS
- 3 DIMENSION L IS PREPARED LENGTH BEFORE BENDING
- 4 FINISH - CHEMICALLY FILM TREAT FOR ELECTRICAL CONDUCTIVITY PER MIL-C-5541, CLASS 3A
- 5 IDENTIFY WITH METAL TAPE AND APPLY MIL-V-173 PROTECTIVE COATING
- 6 TAPE ARROW → POINTS TO B END
- 7 ALL DIMENSIONS ARE IN INCHES

M04-4944

**Figure D-251. Tube Assembly, Metal PN 7-311210203, PN 7-311210204, PN 7-311210222**



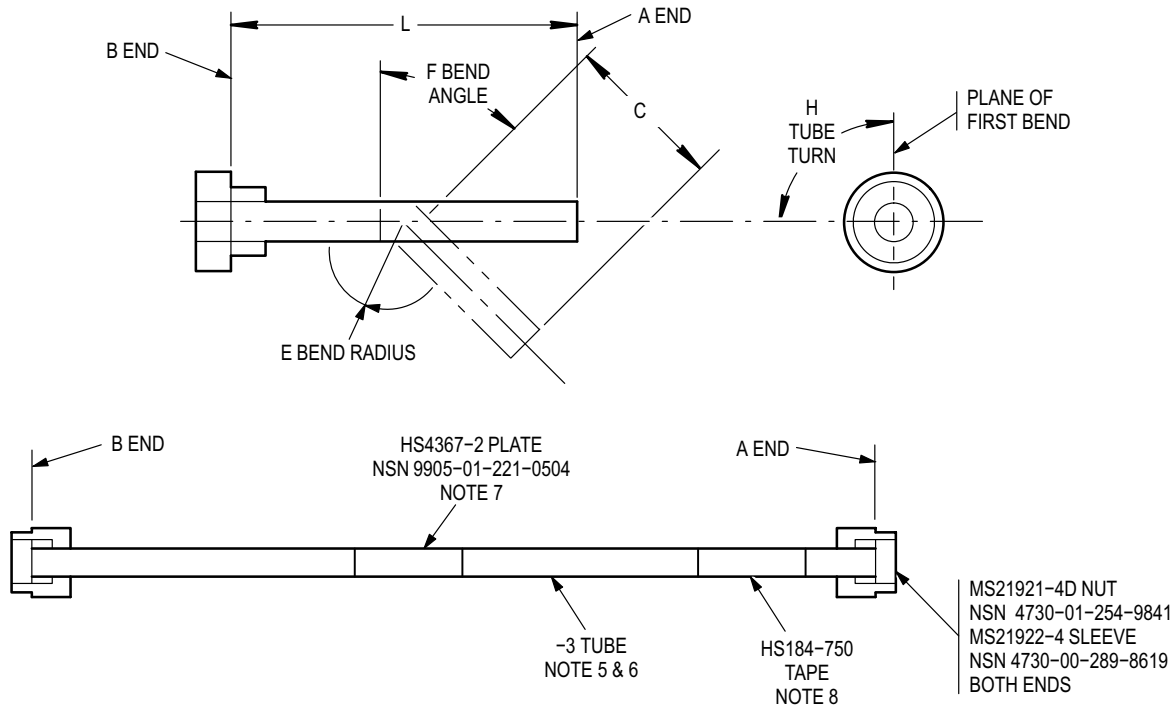
NOTES:

- 1 TUBE ASSEMBLY, METAL - MAKE FROM AL-ALY TUBING 6061 T6 PER MIL-T-7081, TUBE SIZE 0.250 O.D x 0.020 WALL THICKNESS NSN 4710-00-683-9034
- 2 DIMENSION C IS DISTANCE BETWEEN BENDS
- 3 FIRST BEND STARTS FROM A END
- 4 DIMENSION L IS PREPARED LENGTH BEFORE BENDING
- 5 FINISH - CHROMIC ANODIZE PER MIL-A-8625 TYPE I CLASS I
- 6 FINISH - CHEMICALLY FILM TREAT FOR ELECTRICAL CONDUCTIVITY PER MIL-C-5541 CLASS 3A FOR 0.050 INCH FROM EACH END, EXTERNAL SURFACES ONLY
- 7 IDENTIFY AND APPLY MIL-V-173 PROTECTIVE COATING
- 8 TAPE ARROW → POINTS TO B END
- 9 ALL DIMENSIONS ARE IN INCHES

BEND NUMBER	DIMENSIONS				
	C	E	F	H	L
PART NUMBER 7-311710207					
1	0.80	0.75	104.40	0.0	27.11
2	3.50	0.75	16.90	150.60	27.11
3	8.38	0.75	52.00	150.50	27.11
4	1.40	0.75	52.30	-177.30	27.11
5	5.17	0.75	77.80	38.90	27.11
	3.89				
PART NUMBER 7-311210208					
1	0.84	0.75	102.40	0.0	23.74
2	2.01	0.75	10.40	164.60	23.74
3	2.93	0.75	4.50	-82.40	23.74
4	8.48	0.75	33.50	-147.80	23.74
5	1.77	0.75	34.50	178.90	23.74
6	4.75	0.75	77.40	50.60	23.74
	4.36				

M04-4935

**Figure D-252. Tube Assembly, Metal PN 7-311210207  
Tube Assembly, Metal PN 7-311210208**



BEND NUMBER	DIMENSIONS				
	C	E	F	H	L
PART NUMBER 7-311210209					
1	1.50	0.75	14.10	0.0	27.04
2	2.36	0.75	3.50	-107.90	27.04
3	13.37	0.75	12.80	-79.20	27.04
4	3.39	0.75	15.50	-93.10	27.04
5	4.05	0.75	4.30	152.90	27.04
	1.72				
PART NUMBER 7-311210210					
1	1.65	0.75	14.60	0.0	23.81
2	19.48	0.75	18.60	177.20	23.81
3	2.89	0.75	11.00	-115.90	23.81
	2.44				

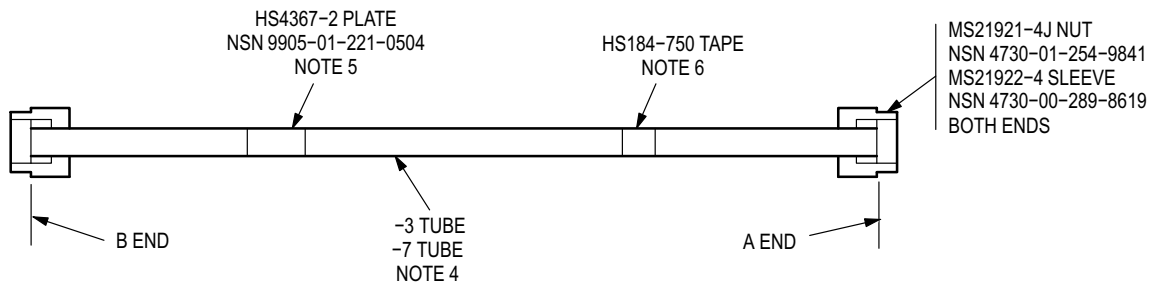
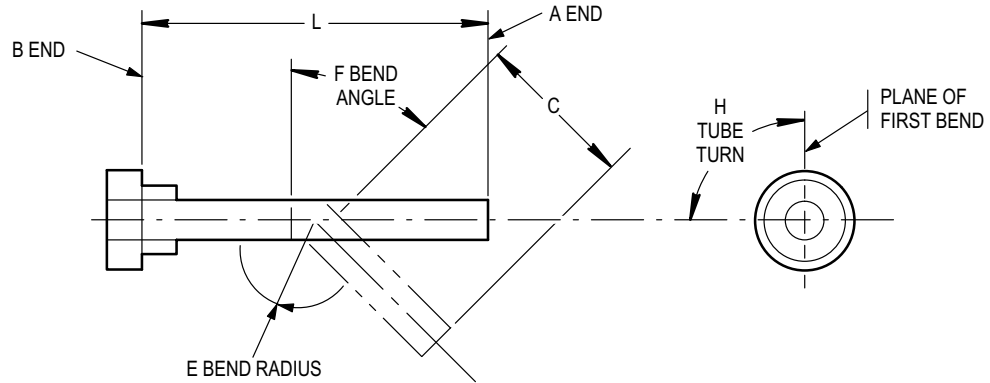
BEND NUMBER	DIMENSIONS				
	C	E	F	H	L
PART NUMBER 7-311210217					
-7 ONLY					
1	1.35	0.75	52.00	0.0	23.32
2	10.30	0.75	5.00	80.00	23.32
3	5.65	0.75	69.20	84.20	23.32
4	1.44	0.75	66.00	179.90	23.32
	2.20				
-11 ONLY					
1	1.50	0.75	52.00	0.0	23.81
2	10.80	0.75	5.00	80.00	23.81
3	5.65	0.75	69.20	84.20	23.81
4	1.44	0.75	66.00	179.90	23.81
	1.90				
PART NUMBER 7-311210218					
1	6.55	0.75	15.70	0.0	22.77
2	1.89	0.75	19.90	-180.00	22.77
3	7.54	0.75	59.50	17.40	22.77
4	2.10	0.75	51.70	-178.00	22.77
	1.54				

NOTES:

- 1 TUBE ASSEMBLY, METAL - MAKE FROM AL-ALY TUBING 6061 T6 PER MIL-T-7081, TUBE SIZE 0.250 O.D x 0.020 WALL THICKNESS NSN 4710-00-683-9034
- 2 DIMENSION C IS DISTANCE BETWEEN BENDS
- 3 FIRST BEND STARTS FROM A END
- 4 DIMENSION L IS PREPARED LENGTH BEFORE BENDING
- 5 FINISH - CHROMIC ANODIZE PER MIL-A-8625 TYPE I CLASS I
- 6 FINISH - CHEMICALLY FILM TREAT FOR ELECTRICAL CONDUCTIVITY PER MIL-C-5541 CLASS 3A FOR 0.050 INCH FROM EACH END, EXTERNAL SURFACES ONLY
- 7 IDENTIFY AND APPLY MIL-V-173 PROTECTIVE COATING
- 8 TAPE ARROW → POINTS TO B END
- 9 ALL DIMENSIONS ARE IN INCHES

M04-4936

**Figure D-253. Tube Assembly, Metal PN 7-311210209, PN 7-311210210, PN 7-311210217, PN 7-311210218**



BEND NUMBER	DIMENSIONS				
	C	E	F	H	L
PART NUMBER 7-311210211 (-3 TUBE)					
1	22.27	0.75	75.2	0.0	44.19
2	1.48	0.75	35.8	91.30	44.19
3	1.35	0.75	78.3	96.60	44.19
4	12.19	0.75	25.5	136.60	44.19
5	2.82	0.75	41.2	-173.20	44.19
	0.80				
PART NUMBER 7-31121211 (-7 TUBE)					
1	22.25	0.75	0.0	0.0	22.25
PART NUMBER 7-311210212					
1	22.05	0.75	73.4	0.0	48.03
2	1.84	0.75	34.0	-94.2	48.03
3	1.21	0.75	74.2	-96.2	48.03
4	12.11	0.75	29.9	-144.9	48.03
5	2.87	0.75	47.5	179.9	48.03
	0.79				

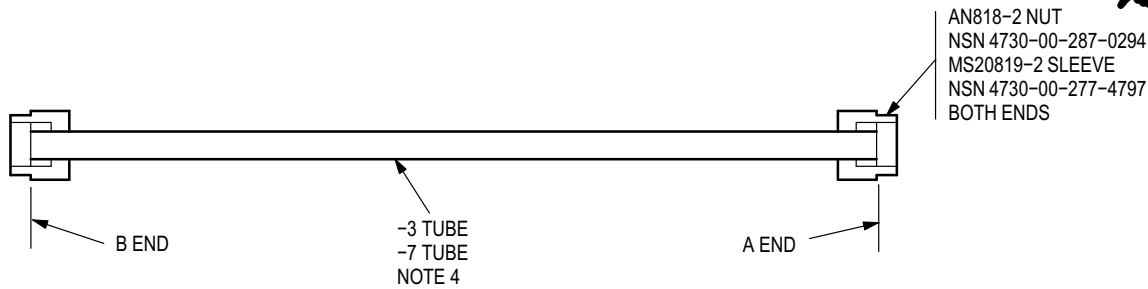
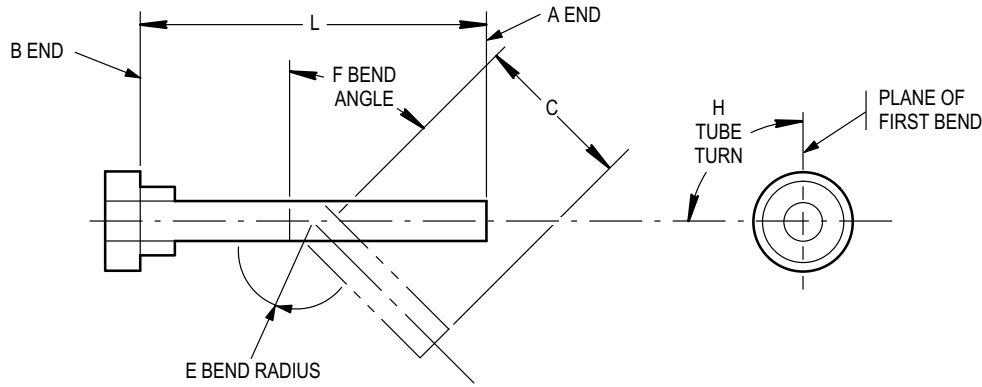
NOTES:

- 1 TUBE ASSEMBLY, METAL - MAKE FROM 21 CR-6 N1-9 MN CRES, TUBE SIZE 0.250 O.D x 0.020 WALL THICKNESS NSN 4710-00-825-5894
- 2 DIMENSION C IS DISTANCE BETWEEN BENDS
- 3 DIMENSION L IS PREPARED LENGTH BEFORE BENDING
- 4 FINISH - PASSIVATE FOR CORROSION RESISTANT STEEL
- 5 IDENTIFY AND APPLY MIL-V-173 PROTECTIVE COATING
- 6 TAPE ARROW → POINTS TO B END
- 7 ALL DIMENSIONS ARE IN INCHES

M04-4942

Figure D-254. Tube Assembly, Metal PN 7-311210211, PN 7-311210212





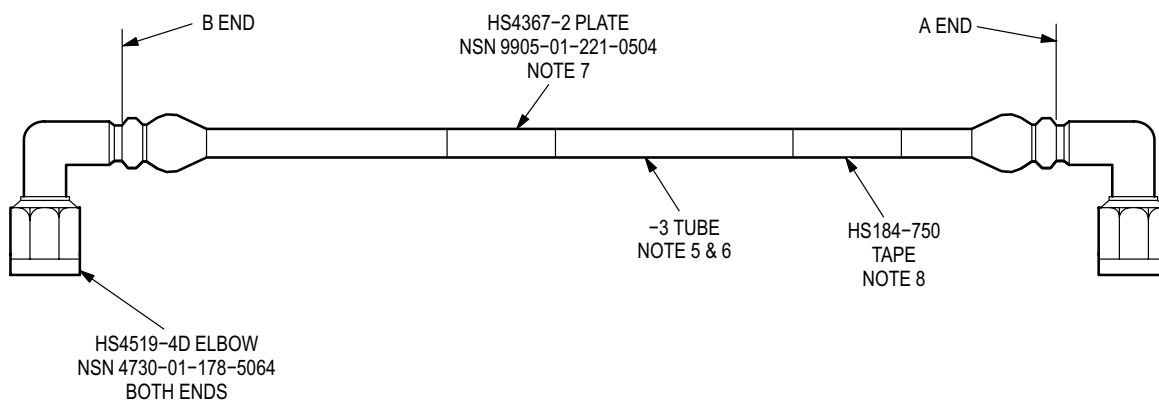
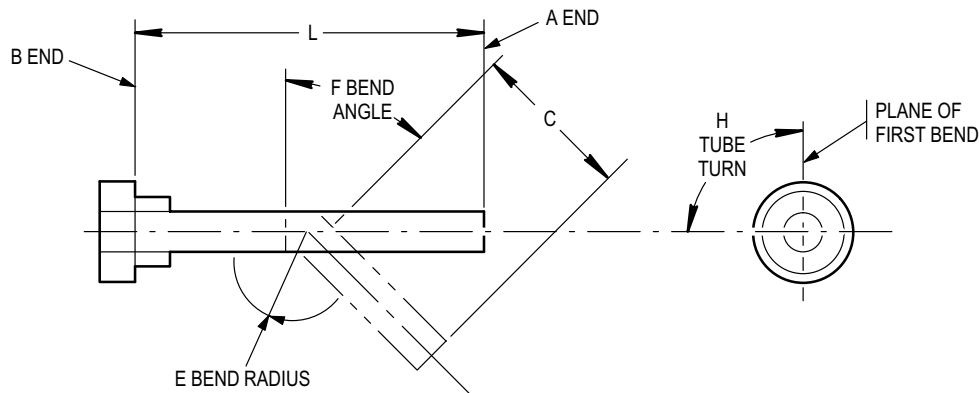
BEND NUMBER	DIMENSIONS				
	C	E	F	H	L
PART NUMBER 7-311210215					
-3 ONLY					
1	0.75	0.50	30.0	0.0	8.13
2	0.51	0.50	160.0	-97.0	8.13
3	2.27	0.50	80.0	-0.0	8.13
4	0.39	0.50	32.0	180.0	8.13
	1.57				
-7 ONLY					
1	0.75	0.50	30.0	0.0	8.13
2	0.51	0.50	160.0	-97.0	8.13
3	2.27	0.50	80.0	-0.0	8.13
4	0.39	0.50	32.0	180.0	8.13
	0.89				
PART NUMBER 7-311210216					
1	0.75	0.50	30.0	0.0	8.13
2	0.51	0.50	160.0	-97.0	8.13
3	2.27	0.50	80.0	-0.0	8.13
4	0.39	0.50	32.0	180.0	8.13
	0.89				

NOTES:

- 1 TUBE ASSEMBLY, METAL - MAKE FROM STEEL 304  
CRES MIL-T-8504 DR125P028 TUBING  
TUBE SIZE 0.125 O.D x 0.028 WALL THICKNESS  
NSN 4710-00-454-8005
- 2 DIMENSION C IS DISTANCE BETWEEN BENDS
- 3 DIMENSION L IS PREPARED LENGTH BEFORE BENDING
- 4 FINISH - CHEMICALLY FILM TREAT FOR ELECTRICAL  
CONDUCTIVITY PER MIL-C-5541, CLASS 3A
- 5 ALL DIMENSIONS ARE IN INCHES

M04-4943A

Figure D-255. Tube Assembly, Metal PN 311210215, PN 311210216



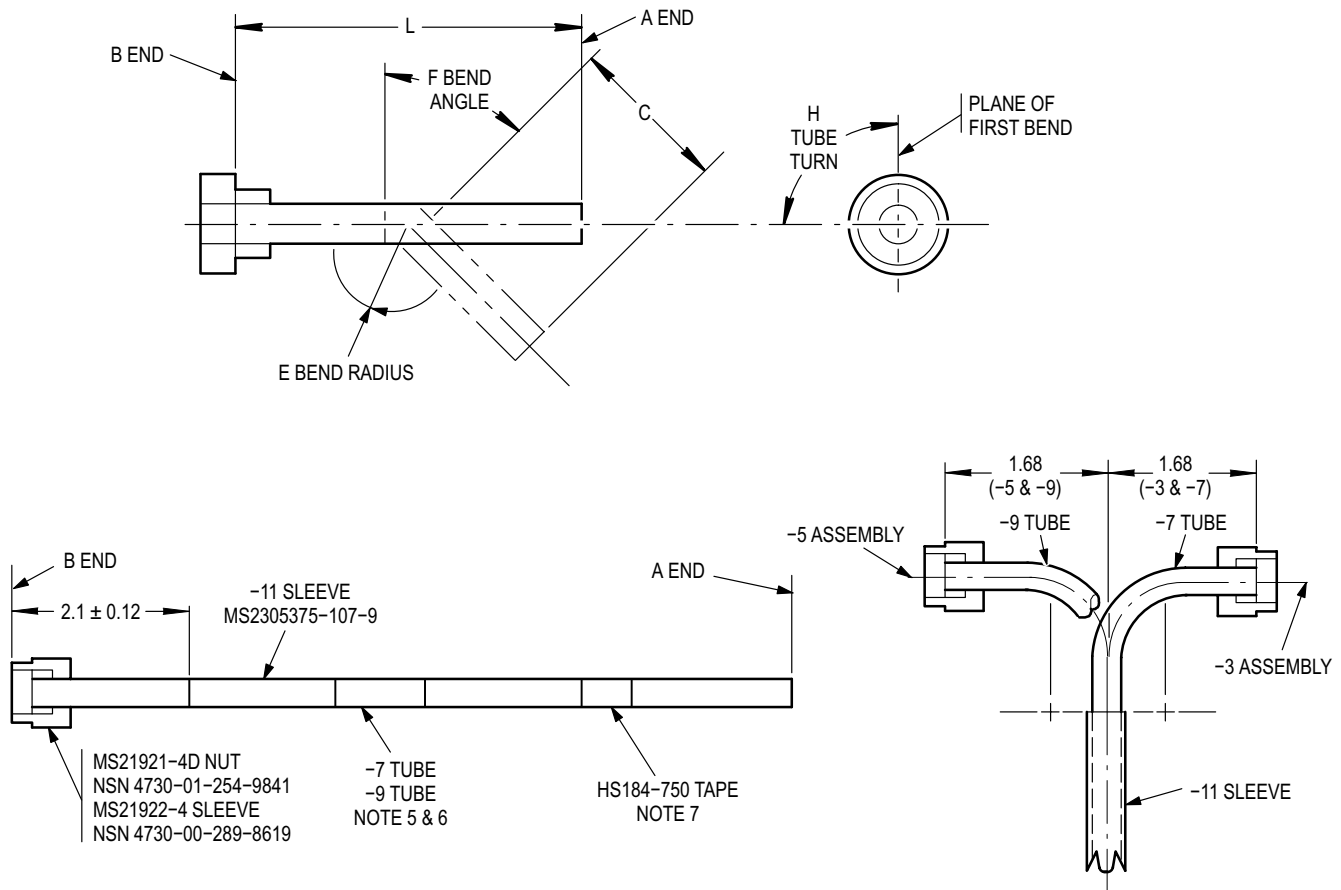
NOTES:

- 1 TUBE ASSEMBLY, METAL - MAKE FROM AL-ALY TUBING 6061 T6 PER MIL-T-7081, TUBE SIZE 0.250 O.D x 0.020 WALL THICKNESS NSN 4710-00-683-9034
- 2 DIMENSION C IS DISTANCE BETWEEN BENDS
- 3 FIRST BEND STARTS FROM A END
- 4 DIMENSION L IS PREPARED LENGTH BEFORE BENDING
- 5 FINISH - CHROMIC ANODIZE PER MIL-A-8625 TYPE I CLASS I
- 6 FINISH - CHEMICALLY FILM TREAT FOR ELECTRICAL CONDUCTIVITY PER MIL-C-5541 CLASS 3A FOR 0.050 INCH FROM EACH END, EXTERNAL SURFACES ONLY
- 7 IDENTIFY AND APPLY MIL-V-173 PROTECTIVE COATING
- 8 TAPE ARROW → POINTS TO B END
- 9 ALL DIMENSIONS ARE IN INCHES

BEND NUMBER	DIMENSIONS				
	C	E	F	H	L
PART NUMBER 7-311710220					
1	2.10	0.75	81.20	0.0	24.14
2	3.65	0.75	14.10	-139.90	24.14
3	7.55	0.75	5.30	-167.70	24.14
4	3.60	0.75	15.50	77.60	24.14
5	3.24	0.75	82.90	138.70	24.14
	1.40				

M04-4937

Figure D-256. Tube Assembly, Metal PN 7-311210220



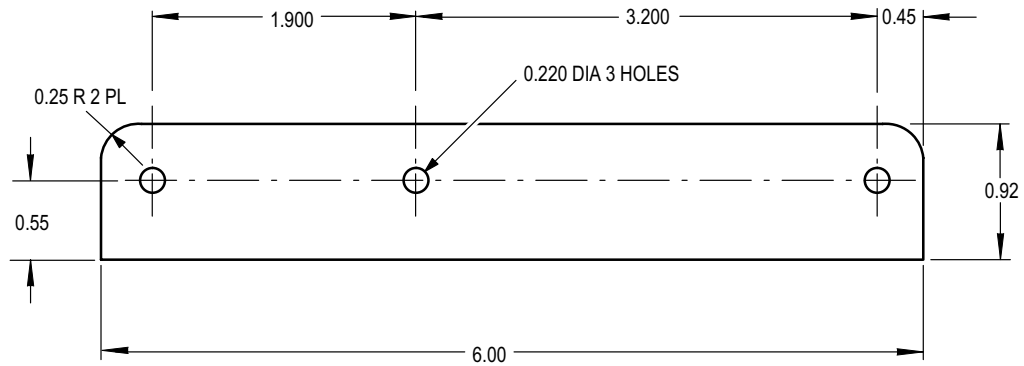
NOTES:

- 1 TUBE ASSEMBLY, METAL - MAKE FROM STL-CRES TUBING, TUBE SIZE 0.250 O.D x 0.020 WALL THICKNESS, NSN 4710-00-683-9034
- 2 DIMENSION C IS DISTANCE BETWEEN BENDS
- 3 FIRST BEND STARTS FROM A END
- 4 DIMENSION L IS PREPARED LENGTH BEFORE BENDING
- 5 FINISH - PASSIVATE FOR CORROSION RESISTANT STEEL
- 6 IDENTIFY AND APPLY MIL-V-173 PROTECTIVE COATING
- 7 TAPE ARROW → POINTS TO B END
- 8 ALL DIMENSIONS ARE IN INCHES

BEND NUMBER	DIMENSIONS				
	C	E	F	H	L
PART NUMBER 7-311210223-7					
1	0.85	0.75	91.0	0.0	10.84
2	0.72	0.75	108.1	-28.6	10.84
3	1.53	0.75	27.81	-135.7	10.84
4	2.69	0.75	90.3	138.3	10.84
	0.89				
PART NUMBER 7-311210223-9					
1	0.88	0.75	89.7	0.0	10.80
2	0.73	0.75	108.1	-30.2	10.80
3	1.54	0.75	27.2	-133.0	10.80
4	2.66	0.75	89.9	-41.6	10.80
	0.88				

M04-4938

Figure D-257. Tube Assembly PN 7-311210223

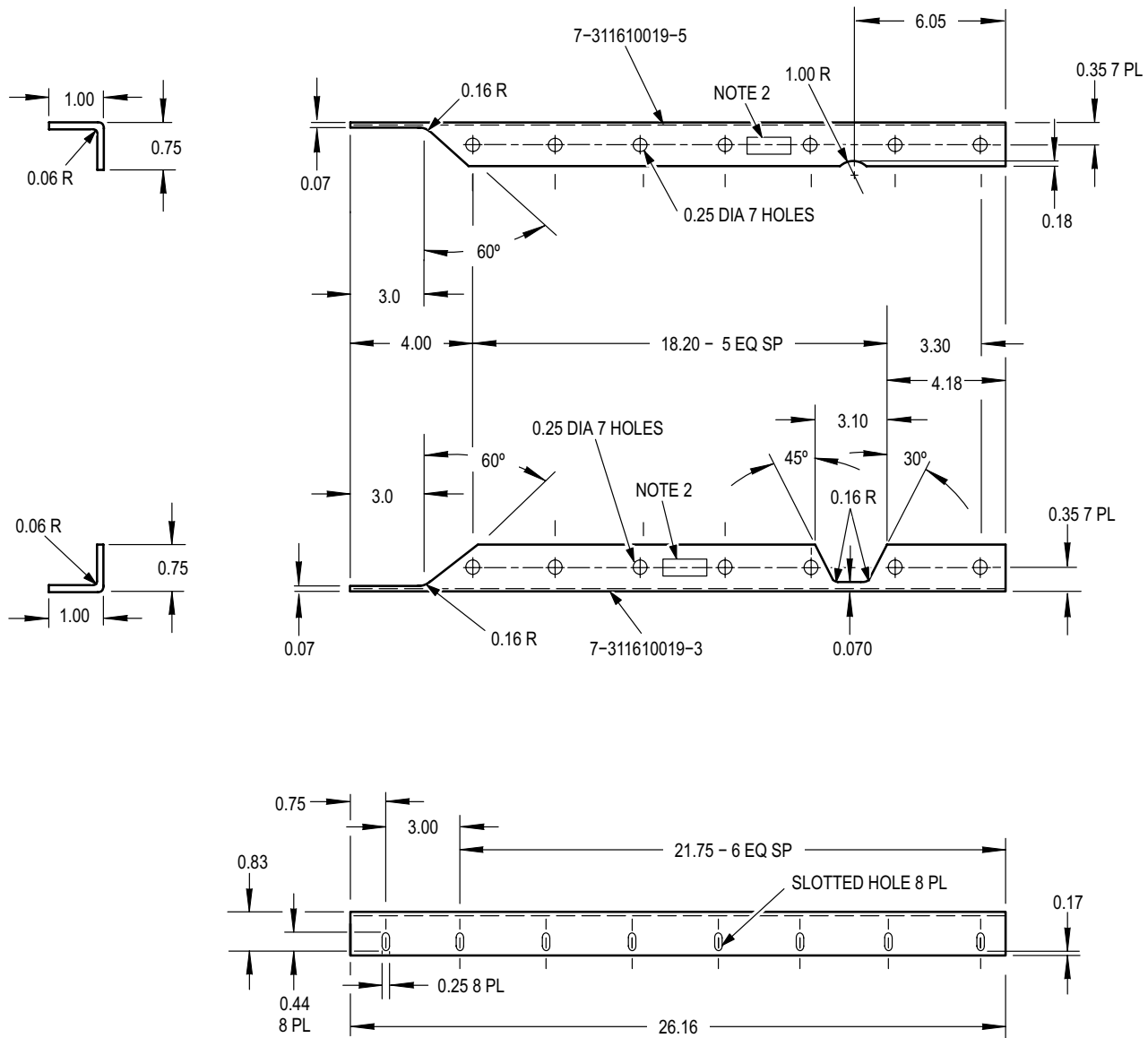


NOTES:

- SHIM - MAKE FROM AL-ALY SHIM LAMINATED 0.062 THICK  
NSN 9535-01-064-7264
- ALL DIMENSIONS ARE IN INCHES

M04-4631

Figure D-258. Shim PN 7-311300005-5

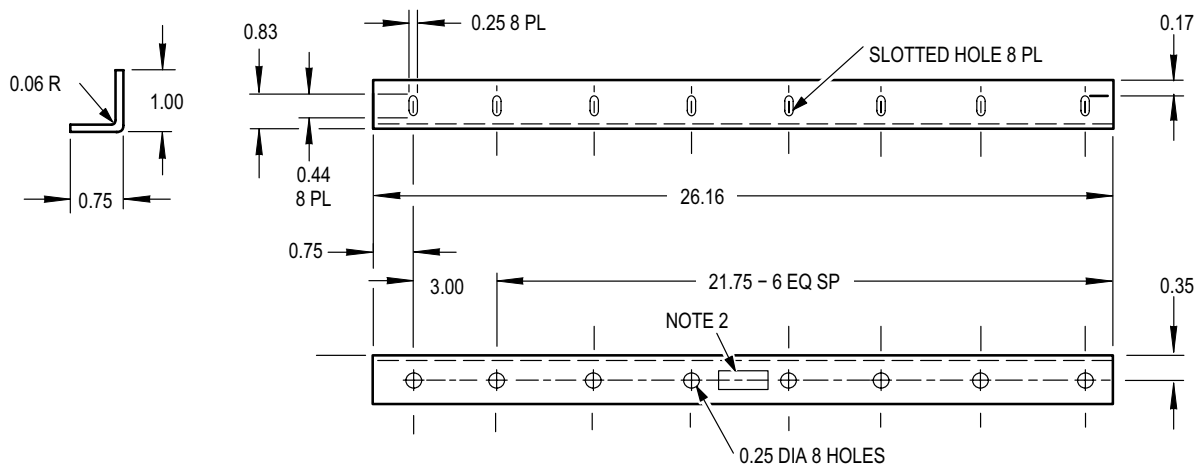


NOTES:

- 1 ANGLE-MAKE FROM TITANIUM ALY SHEET, LAC1-582, 0.0250 THICK  
NSN 9535-00-022-8797
- 2 IDENTIFY WITH INDELIBLE INK, MINIMUM HEIGHT 0.125 INCHES
- 3 FINISH - CLEANING AND GENERAL TREATING OF TITANIUM (NO COATING)
- 4 ALL DIMENSIONS ARE IN INCHES

M04-4620

Figure D-259. Angle PN 7-311610019-3/5

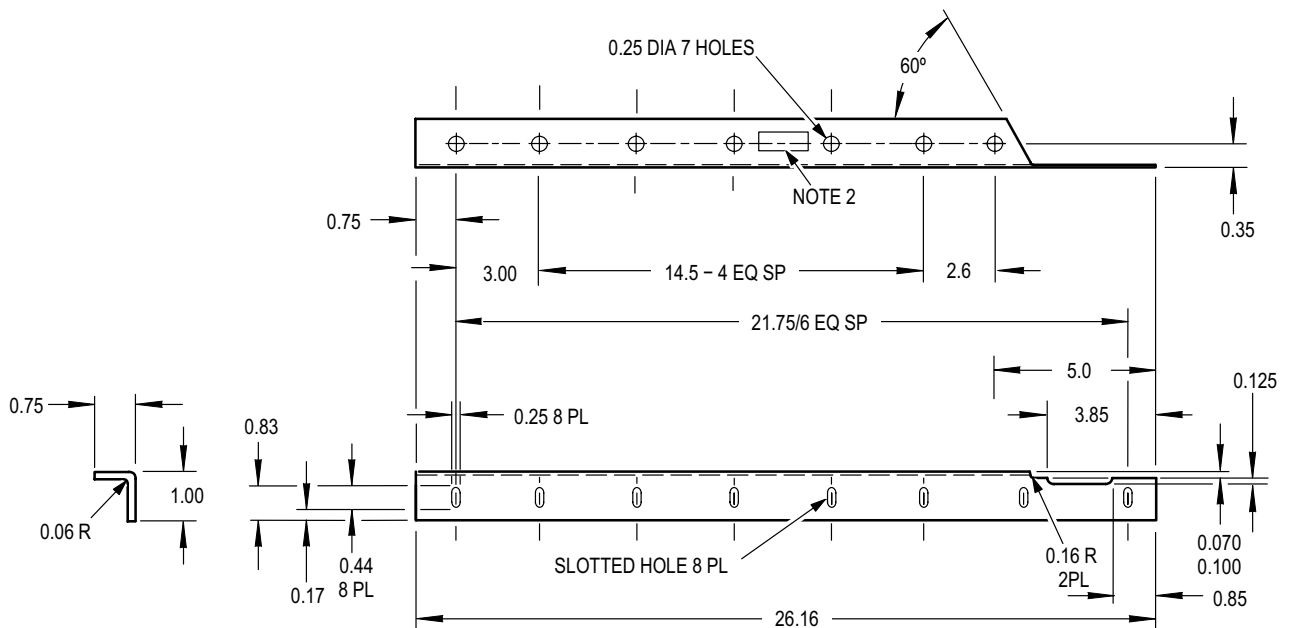


NOTES:

- 1 ANGLE-MAKE FROM TITANIUM ALY SHEET, 5AL-2.5SN, 0.016 THICK  
NSN 9530-00-022-8797
- 2 IDENTIFY WITH INDELIBLE INK, MINIMUM HEIGHT 0.125 INCHES
- 3 FINSH - CLEANING AND GENRAL TREATING OF TITANINM ( NO COATING)
- 4 ALL DIMENSIONS ARE IN INCHES

M04-4621

Figure D-260. Angle PN 7-311610019-7

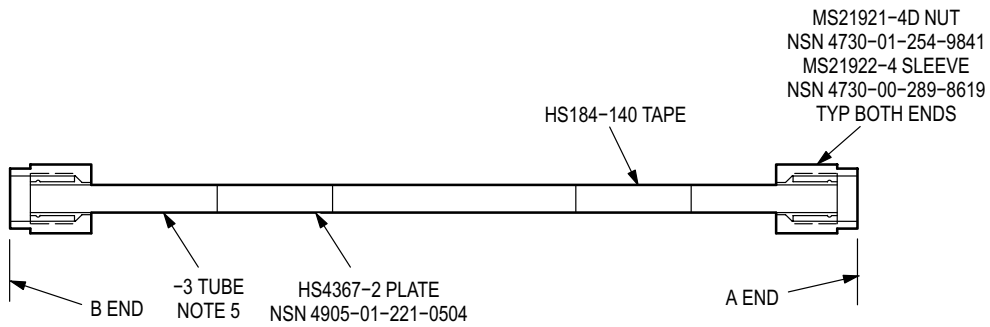
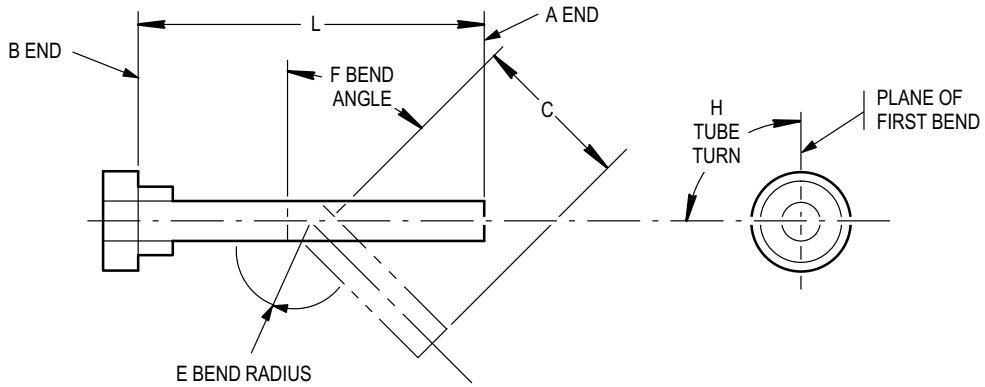


NOTES:

- 1 ANGLE-MAKE FROM TITANIUM ALY SHEET, 5AL-2.5SN, 0.016 THICK  
NSN 9535-00-022-8797
- 2 IDENTIFY WITH INDELIBLE INK, MINIMUM HEIGHT 0.125 INCHES
- 3 FINSH - CLEANING AND GENERAL TREATING OF TITANIUM ( NO COATING)
- 4 ALL DIMENSIONS ARE IN INCHES

M04-4622

Figure D-261. Angle PN 7-311610019-9



BEND NUMBER	DIMENSIONS				
	C	E	F	H	L
PART NUMBER 7-311620501					
1	1.08	0.75	116.4	0.0	19.06
2	1.57	0.75	46.5	-88.2	19.06
3	3.06	0.75	62.6	-83.0	19.06
4	6.42	0.75	88.0	-80.9	19.06
	2.83				

BEND NUMBER	DIMENSIONS				
	C	E	F	H	L
PART NUMBER 7-311620502					
1	1.05	0.75	106.6	0.0	20.85
2	1.80	0.75	45.0	-59.3	20.85
3	2.75	0.75	70.3	-105.2	20.85
4	4.74	0.75	14.2	-18.7	20.85
5	2.75	0.75	91.1	95.0	
	3.48				

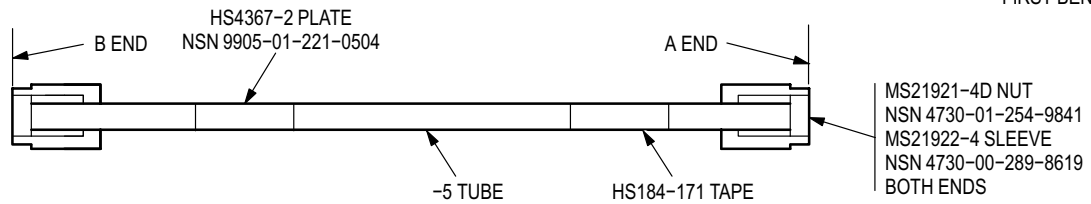
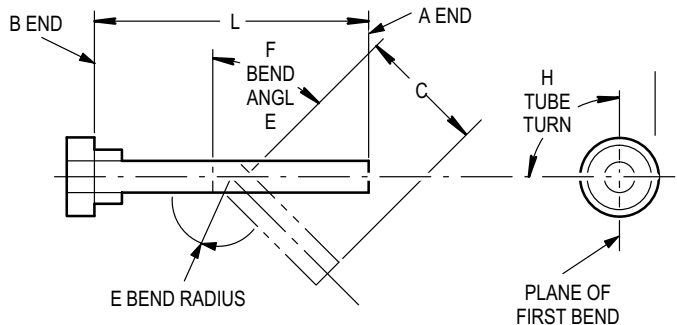
NOTES:

- 1 TUBE ASSEMBLY METAL - MAKE FROM AL-ALY TUBING, 6061-T6, TUBE SIZE 0.250 O.D x 0.020 WALL THICKNESS, NSN 4710-00-683-9034
- 2 DIMENSION C IS DISTANCE BETWEEN BENDS
- 3 DIMENSION L IS PREPARED LENGTH BEFORE BENDING
- 4 FIRST BEND STARTS FROM A END
- 5 FINISH - CHEMICALLY FILM TREAT PER MIL-C-5541, CLASS 1A
- 6 ALL DIMENSIONS ARE IN INCHES

M04-4915

**Figure D-262. Tube Assembly PN 7-311620501  
Tube Assembly PN 7-311620502**

BEND NUMBER	DIMENSIONS				
	C	E	F	H	L
PART NUMBER 7-311620514					
-5 TUBE	5.02	075	67.0	0.0	10.65
-3 TUBE	5.42	0.75	63.9	0.0	10.20
-5 TUBE	2.60	0.75	100.0	90.0	10.65
-3 TUBE	1.60	0.75	114.8	100.0	10.20

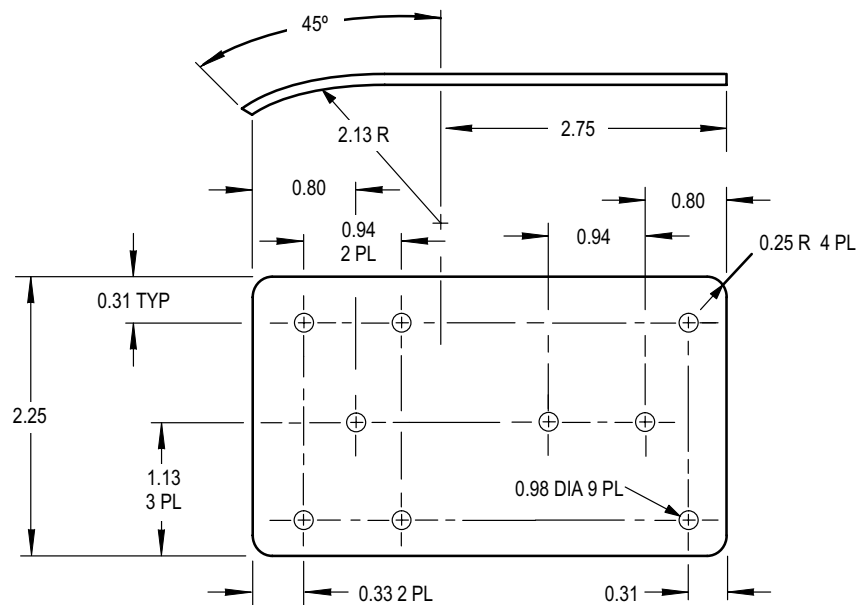


NOTES:

- TUBE ASSEMBLY, METAL - MAKE FROM AL-ALY TUBING 6061-T6, 0.250 O. D. 0.028 WALL THICKNESS NSN 4710-00-289-2780
- FINISH - CHEMICALLY FILM TREAT FOR ELECTRICAL CONDUCTIVITY PER MIL-C-5541 CLASS 3A
- DIMENSION C IS DISTANCE BETWEEN BENDS
- P/N 7-311620514-7 TUBE SAME DIMENSIONS AS -5 TUBE
- -7 TUBE SAME AS -5 E.O. CHANGE
- ALL DIMENSIONS ARE IN INCHES

M04-4916

Figure D-263. Tube Assembly PN 7-311620514-7



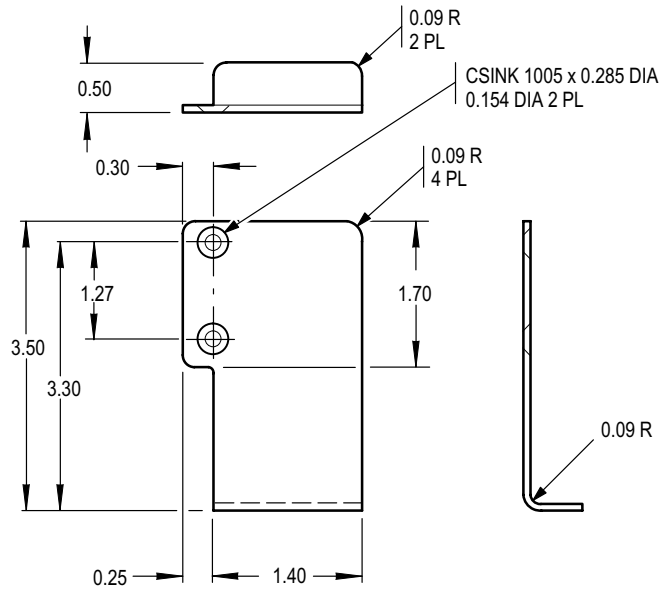
NOTES:

- DOUBLER PLATE - MAKE FROM AL-ALY SHEET, 6061-T4, 0.040 THICK NSN 9535-00-084-4413
- ALL DIMENSIONS ARE IN INCHES

M04-4623

Figure D-264. Doubler Plate PN 7-311632207-7



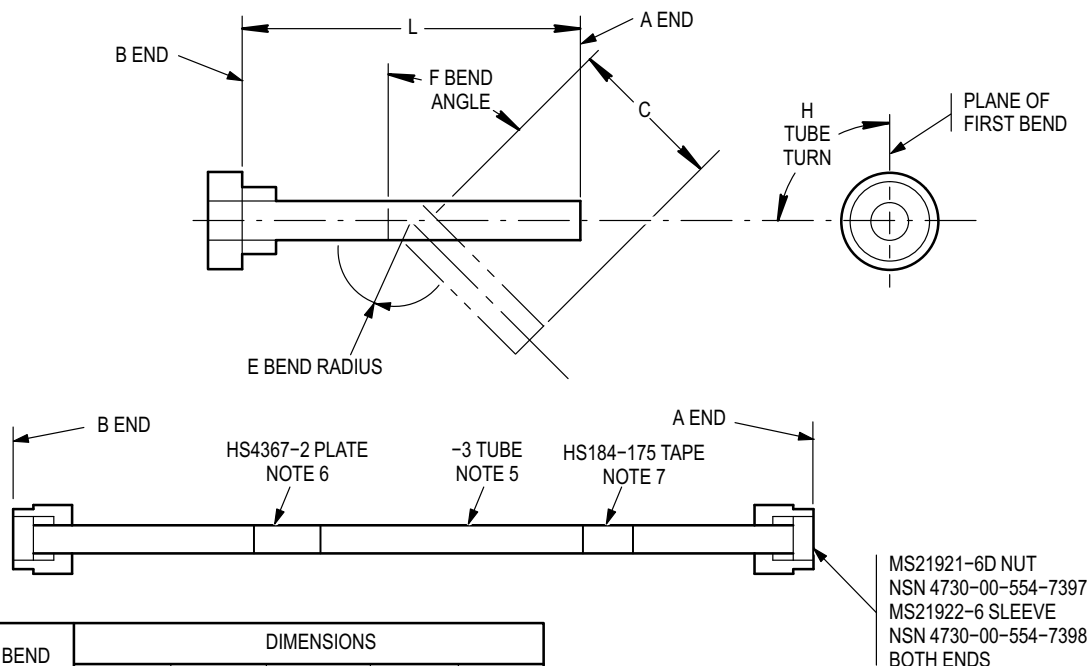


NOTES:

- BRACKET - MAKE FROM AL-ALY SHEET 2024-0, 0.063 THICK
- NSN 9535-00-230-7552
- HEAT TREAT TO T-42 AFTER FORMING
- ALL DIMENSIONS ARE IN INCHES

M04-4624

Figure D-265. Bracket PN 7-311642302-13



BEND NUMBER	DIMENSIONS				
	C	E	F	H	L
PART NUMBER 7-311642412					
1	2.56	1.12	36.00	0.0	32.49
2	3.55	1.12	2.10	-94.70	32.49
3	10.51	1.12	86.40	99.20	32.49
4	11.31	1.12	9.30	53.10	32.49
	1.93				
PART NUMBER 7-311642413					
1	2.07	1.12	54.10	0.0	16.70
2	2.47	1.12	33.30	-109.00	16.70
3	3.37	1.12	10.30	-98.30	16.70
	6.87				
PART NUMBER 7-311642415					
1	2.04	1.12	36.70	0.0	14.76
2	2.60	1.12	36.70	180.00	14.76
3	1.93	1.12	37.20	-10.30	14.76
4	2.59	1.12	38.80	-177.00	14.76
	2.67				

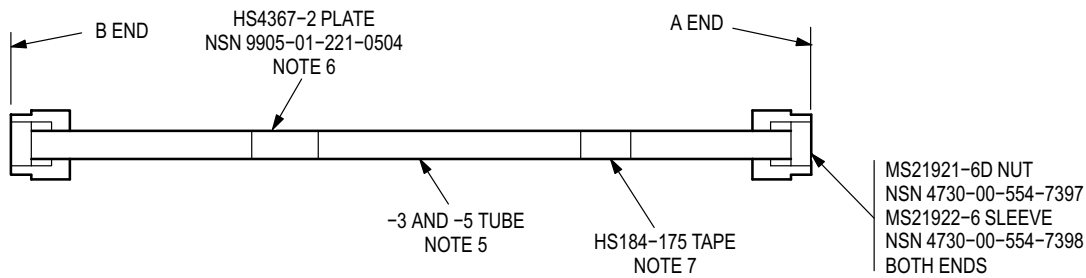
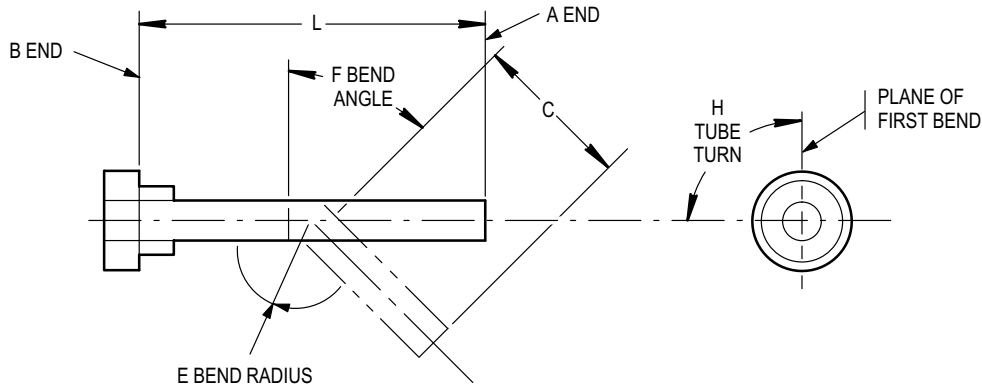
BEND NUMBER	DIMENSIONS				
	C	E	F	H	L
PART NUMBER 7-311642416					
1	1.47	1.12	40.20	0.0	25.27
2	2.76	1.12	38.00	174.70	25.27
3	3.97	1.12	10.60	72.30	25.27
4	4.57	1.12	9.00	-178.30	25.27
5	4.45	1.12	89.40	125.90	25.27
6	2.41	1.12	27.40	-90.60	25.27
	1.43				
PART NUMBER 7-311642417					
1	2.19	1.12	33.40	0.0	28.36
2	1.70	1.12	91.00	-83.40	28.36
3	13.97	1.12	23.10	129.80	28.36
4	3.16	1.12	22.20	171.30	28.36
	4.00				
PART NUMBER 7-311642418					
1	1.59	1.12	24.30	0.0	16.34
2	1.57	1.12	47.00	-178.90	16.34
3	2.18	1.12	11.20	13.10	16.34
4	3.57	1.12	36.10	172.60	16.34
	5.30				
PART NUMBER 7-311642419					
1	16.30	1.12	51.50	0.0	29.70
2	7.67	1.12	53.50	180.00	29.70
	3.67				

NOTES:

- 1 TUBE ASSEMBLY, METAL - MAKE FROM AL-ALY TUBING 6061 T-6, TUBE SIZE 0.375 O.D x 0.028 WALL THICKNESS, NSN 4710-01-167-6979
- 2 DIMENSION C IS DISTANCE BETWEEN BENDS
- 3 FIRST BEND STARTS FROM A END
- 4 DIMENSION L IS PREPARED LENGTH BEFORE BENDING
- 5 FINISH - CHEMICALLY FILM TREAT FOR ELECTRICAL CONDUCTIVITY PER MIL-C-5541 CLASS 3A
- 6 IDENTIFY AND APPLY MIL-V-173 PROTECTIVE COATING
- 7 TAPE ARROW → POINTS TO B END
- 8 ALL DIMENSIONS ARE IN INCHES

M04-4939

**Figure D-266. Tube Assembly PN 7-311642412, PN 7-311642413, PN 7-311642415, PN 7-311642416, PN 7-311642417, PN 7-311642418, PN 7-311642419**



BEND NUMBER	DIMENSIONS				
	C	E	F	H	L
PART NUMBER 7-311642420					
1	2.12	1.12	5.50	0.0	24.85
2	15.69	1.12	2.00	0.0	24.85
3	4.43	1.12	5.50	180.00	24.85
	2.75				
PART NUMBER 7-311642424					
1	2.86	1.12	90.00	0.0	11.92
2	4.00	1.12	20.00	90.00	11.92
	2.90				

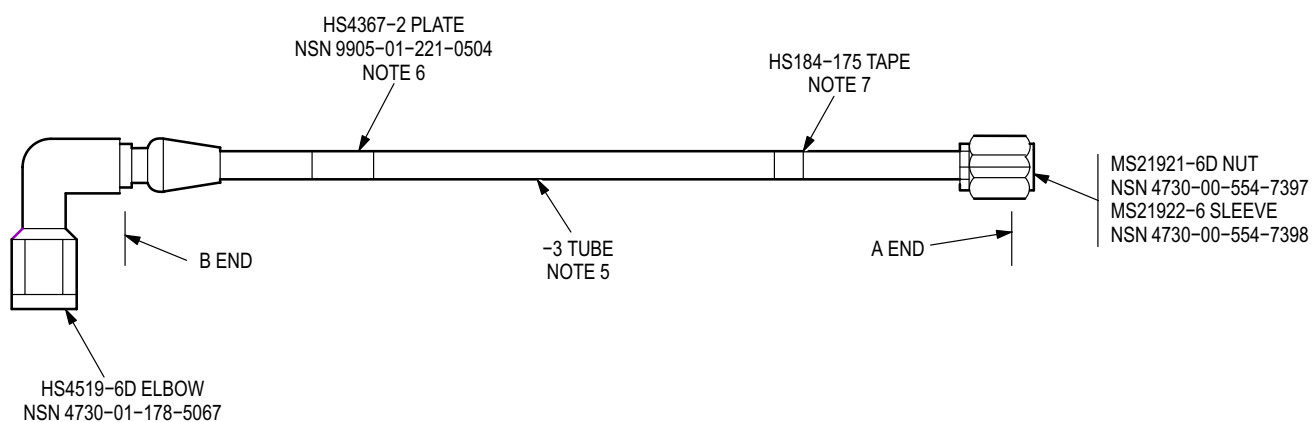
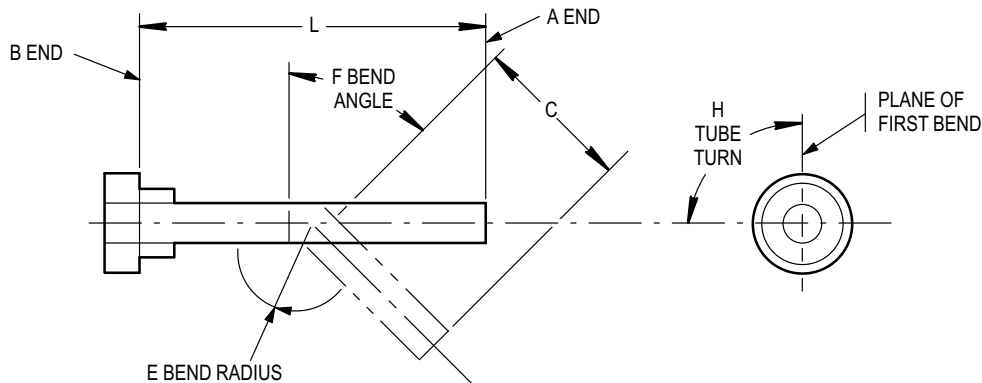
BEND NUMBER	DIMENSIONS				
	C	E	F	H	L
PART NUMBER 7-311642426-3					
1	1.46	1.12	26.80	0.0	8.45
2	1.94	1.12	38.30	180.00	8.45
3	2.03	1.12	17.00	-180.00	8.45
	1.41				
PART NUMBER 7-311642426-5					
1	1.56	1.12	26.80	0.0	
2	1.94	1.12	38.30	180.00	
3	2.03	1.12	17.00	-180.00	
	1.51				
PART NUMBER 7-311642426-11					
1	1.56	1.12	26.8	0.0	
2	1.94	1.12	38.3	180.0	
3	2.03	1.12	17.0	-180.0	
	1.51				

NOTES:

- 1 TUBE ASSEMBLY, METAL - MAKE FROM AL-ALY TUBING 6061 T-6, TUBE SIZE 0.375 O.D x 0.028 WALL THICKNESS, NSN 4710-01-167-6979
- 2 DIMENSION C IS DISTANCE BETWEEN BENDS
- 3 FIRST BEND STARTS FROM A END
- 4 DIMENSION L IS PREPARED LENGTH BEFORE BENDING
- 5 FINISH - CHEMICALLY FILM TREAT FOR ELECTRICAL CONDUCTIVITY PER MIL-C-5541 CLASS 3A
- 6 IDENTIFY AND APPLY MIL-V-173 PROTECTIVE COATING
- 7 TAPE ARROW → POINTS TO B END
- 8 ALL DIMENSIONS ARE IN INCHES

M04-4940

Figure D-267. Tube Assembly PN 7-311642420, PN 7-311642424, PN 7-311642426



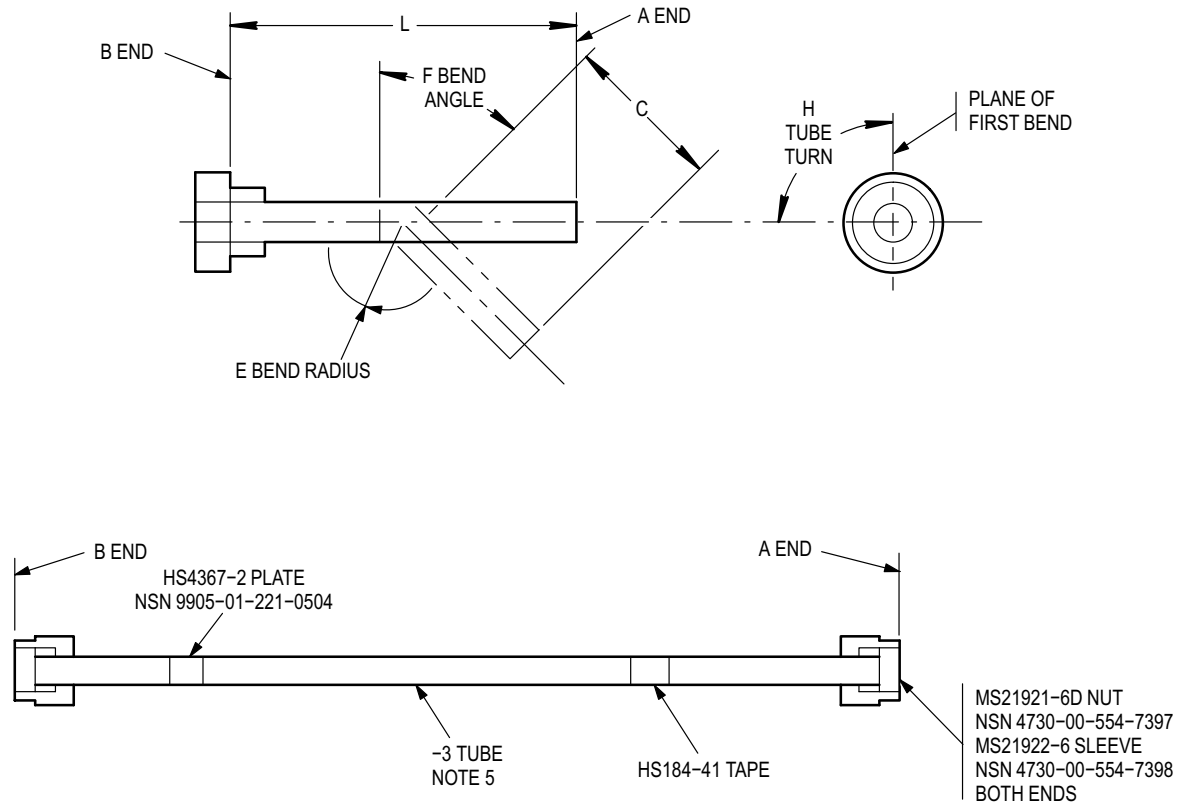
BEND NUMBER	DIMENSIONS				
	C	E	F	H	L
PART NUMBER 7-311642422					
1	1.34	1.12	9.40	0.0	4.53
2	1.47	1.12	12.60	-56.90	4.53
	1.29				

NOTES:

- 1 TUBE ASSEMBLY, METAL - MAKE FROM AL-ALY TUBING  
6061 T-6, TUBE SIZE 0.375 O.D x 0.028 WALL THICKNESS,  
NSN 4710-01-167-6979
- 2 DIMENSION C IS DISTANCE BETWEEN BENDS
- 3 FIRST BEND STARTS FROM A END
- 4 DIMENSION L IS PREPARED LENGTH BEFORE BENDING
- 5 FINISH - CHEMICALLY FILM TREAT FOR ELECTRICAL  
CONDUCTIVITY PER MIL-C-5541 CLASS 3A
- 6 IDENTIFY AND APPLY MIL-V-173 PROTECTIVE  
COATING
- 7 TAPE ARROW → POINTS TO B END
- 8 ALL DIMENSIONS ARE IN INCHES

M04-4941

Figure D-268. Tube Assembly PN 7-311642422



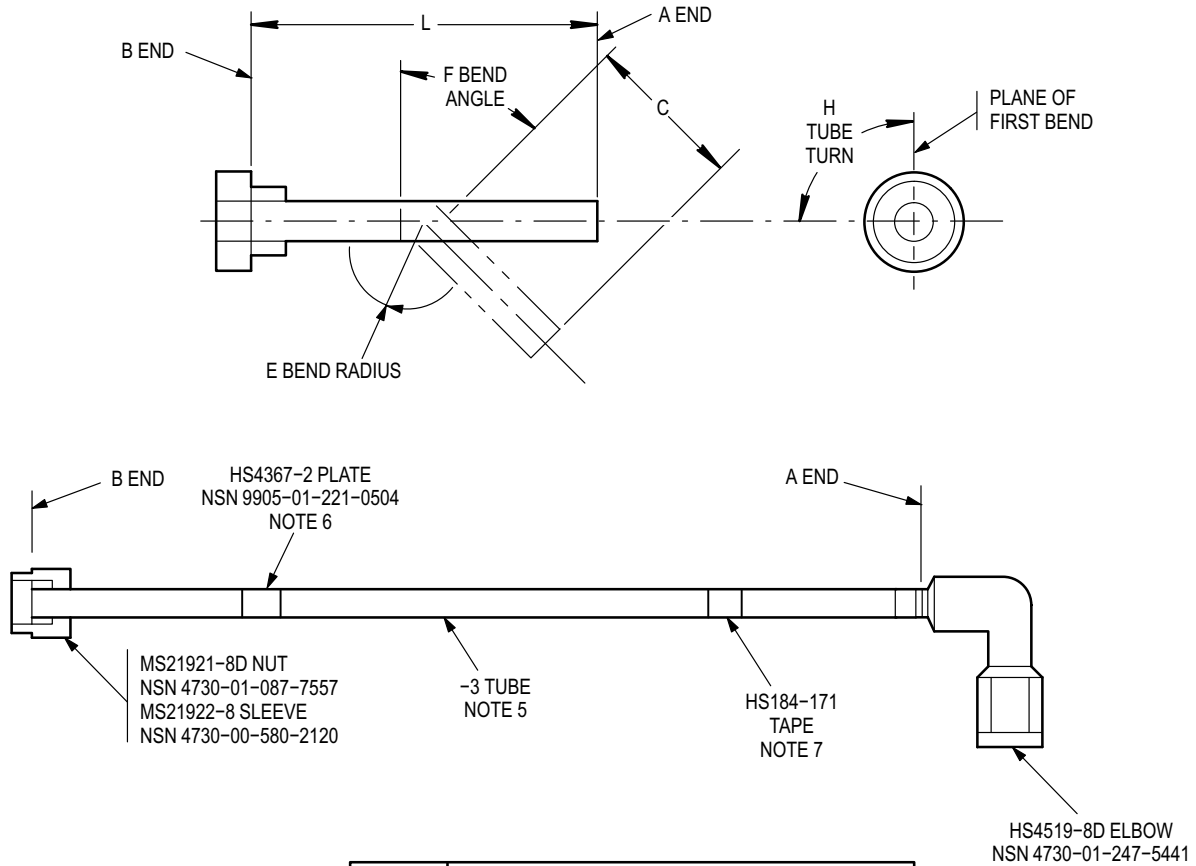
BEND NUMBER	DIMENSIONS				
	C	E	F	H	L
PART NUMBER 7-311642502					
1	1.21	1.12	36.6	0.0	21.90
2	4.08	1.12	35.8	179.4	21.90
3	12.33	1.12	48.3	-102.0	21.90
	1.91				

NOTES:

- 1 TUBE ASSEMBLY, METAL - MAKE FROM AL-ALY TUBING 6061-T6, TUBE SIZE 0.375 O.D x 0.028 WALL THICKNESS NSN 4710-01-167-6979
- 2 DIMENSION C IS DISTANCE BETWEEN BENDS
- 3 DIMENSION L IS PREPARED LENGTH BEFORE BENDING
- 4 FIRST BEND STARTS FROM A END
- 5 FINISH - CHEMICALLY FILM TREAT FOR ELECTRICAL CONDUCTIVITY PER MIL-C-5541, CLASS 3A
- 6 IDENTIFY AND APPLY MIL-V-173 PROTECTIVE COATING
- 7 ALL DIMENSIONS ARE IN INCHES

M04-4948

Figure D-269. Tube Assembly, Metal PN 7-311642502



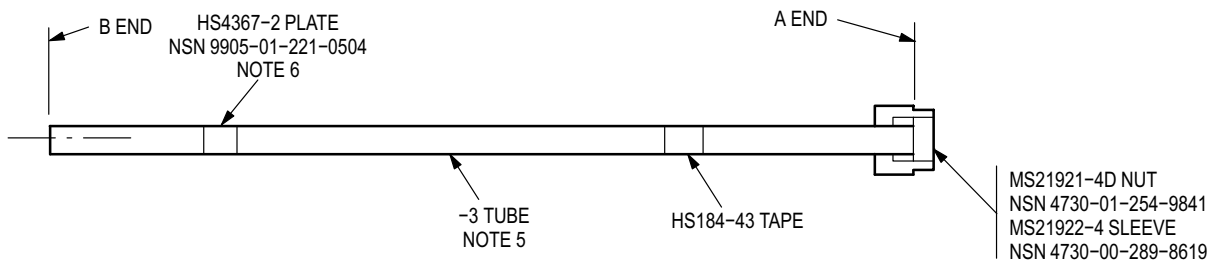
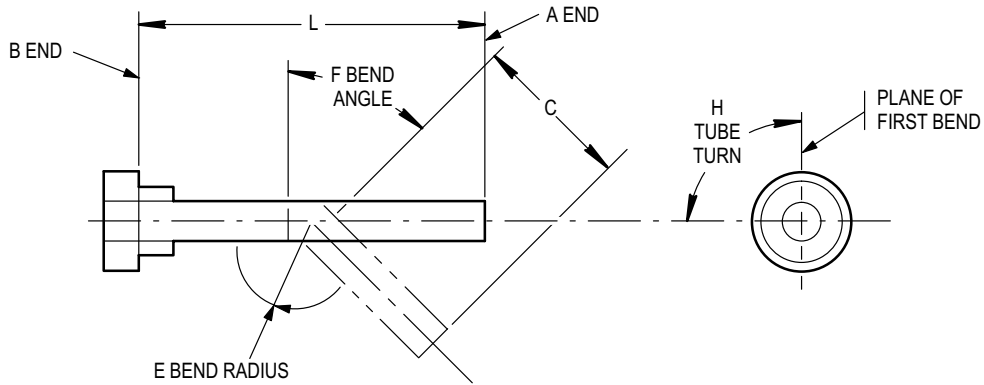
BEND NUMBER	DIMENSIONS				
	C	E	F	H	L
PART NUMBER 7-311642509					
1	2.70	1.5	4.00	0.0	7.99
2	3.04	1.5	23.00	95.70	7.99
	1.54				
PART NUMBER 7-311642510					
1	2.61	1.5	3.00	0.0	7.93
2	3.10	1.5	23.00	-87.00	7.93
	1.54				

NOTES:

- 1 TUBE ASSEMBLY, METAL - MAKE FROM AL-ALY TUBING  
6061-T6, TUBE SIZE 0.500 O.D x 0.028 WALL THICKNESS  
NSN 4710-01-009-9770
- 2 DIMENSION C IS DISTANCE BETWEEN BENDS
- 3 DIMENSION L IS PREPARED LENGTH BEFORE BENDING
- 4 FIRST BEND STARTS FROM A END
- 5 FINISH - CHEMICALLY FILM TREAT FOR ELECTRICAL  
CONDUCTIVITY PER MIL-C-5541, CLASS 3A
- 6 IDENTIFY AND APPLY MIL-V-173 PROTECTIVE COATING
- 7 TAPE ARROW → POINTS TO B END
- 8 ALL DIMENSIONS ARE IN INCHES

M04-4945

Figure D-270. Tube Assembly PN 7-311642509, PN 7-311642510



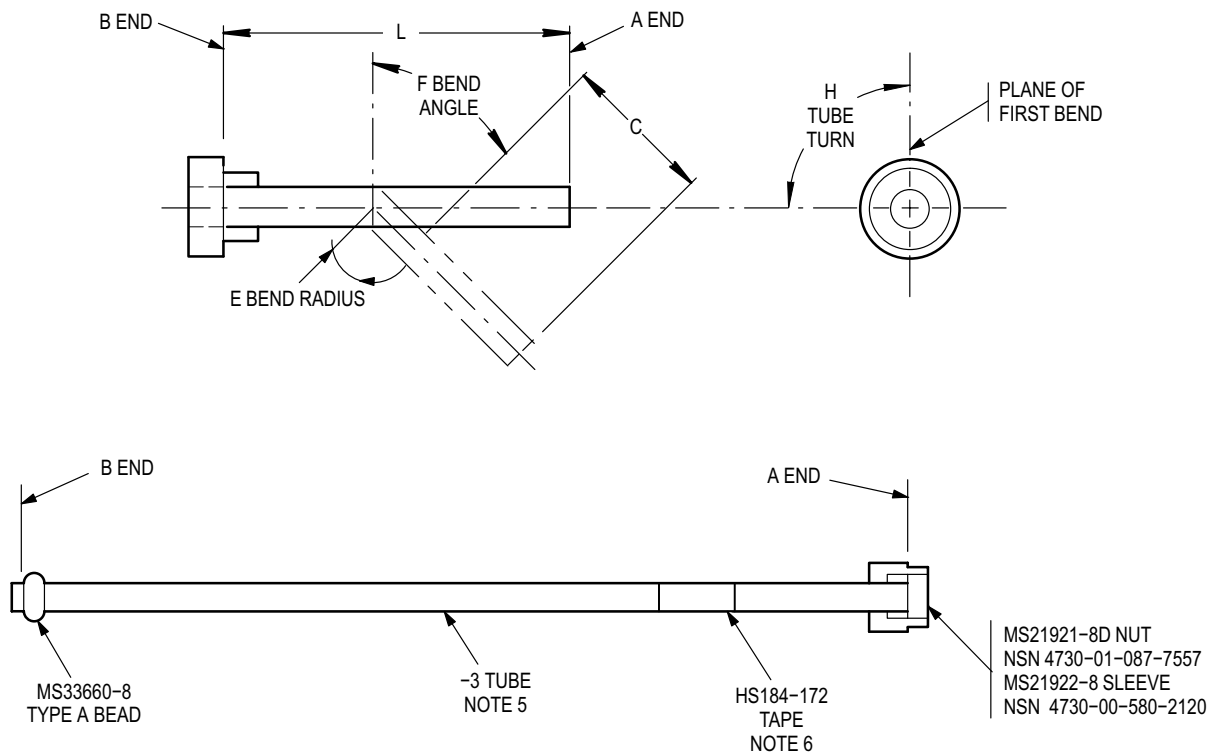
BEND NUMBER	DIMENSIONS				
	C	E	F	H	L
PART NUMBER 7-311642511					
1	2.49	0.75	33.0	0.0	38.38
2	4.83	0.75	14.4	-93.9	38.38
3	2.85	0.75	17.8	10.0	38.38
4	6.23	0.75	19.9	-7.3	38.38
5	7.92	0.75	23.0	4.7	38.38
6	7.68	0.75	13.8	91.4	38.38
7	2.46	0.75	59.5	94.3	38.38
	1.54				
PART NUMBER 7-311642512					
1	4.01	0.75	33.0	0.0	29.06
2	0.79	0.75	33.0	-176.5	29.06
3	5.06	0.75	4.4	59.8	29.06
4	12.36	0.75	20.5	-90.0	29.06
5	4.25	0.75	83.5	-90.0	29.06
	0.30				

NOTES:

- 1 TUBE ASSEMBLY, METAL - MAKE FROM AL-ALY TUBING 6061-T6, TUBE SIZE 0.250 O.D x 0.020 WALL THICKNESS NSN 4710-00-683-9034
- 2 DIMENSION C IS DISTANCE BETWEEN BENDS
- 3 DIMENSION L IS PREPARED LENGTH BEFORE BENDING
- 4 FIRST BEND STARTS FROM A END
- 5 FINISH - CHEMICALLY FILM TREAT FOR ELECTRICAL CONDUCTIVITY PER MIL-C-5541, CLASS 3A
- 6 IDENTIFY AND APPLY MIL-V-173 PROTECTIVE COATING PER MIL-STD-130
- 7 ALL DIMENSIONS ARE IN INCHES

M04-4947

Figure D-271. Tube Assembly PN 7-311642511, PN 7-311642512



BEND NUMBER	DIMENSIONS				
	C	E	F	H	L
PART NUMBER 7-311642513					
1	2.11 2.57	1.5	52.90	0.05	6.07

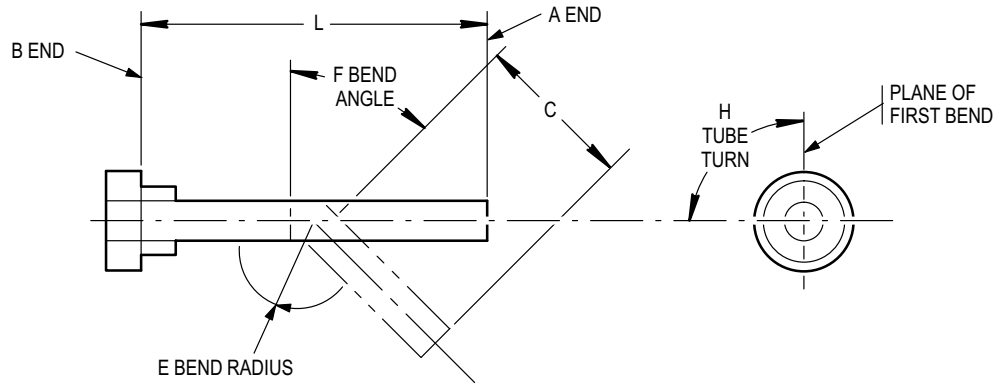
NOTES:

- 1 TUBE ASSEMBLY, METAL - MAKE FROM AL-ALY  
TUBING 6061-T6, TUBE SIZE 0.500 O.D x 0.028 WALL THICKNESS  
NSN 4710-00-340-3466
- 2 DIMENSION C IS DISTANCE BETWEEN BENDS
- 3 DIMENSION L IS PREPARED LENGTH BEFORE BENDING
- 4 FIRST BEND STARTS FROM A END
- 5 FINISH - CHEMICALLY FILM TREAT FOR ELECTRICAL  
CONDUCTIVITY PER MIL-C-5541, CLASS 3A
- 6 TAPE ARROW → POINTS TO B END
- 7 ALL DIMENSIONS ARE IN INCHES

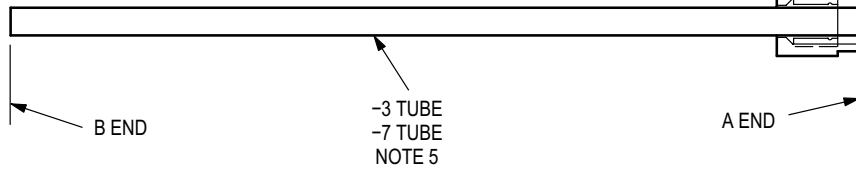
M04-4946

Figure D-272. Tube Assembly PN 7-311642513





MS21921-4J NUT  
 NSN 4730-00-919-4651  
 MS21922-4 SLEEVE  
 NSN 4730 00-289-8619



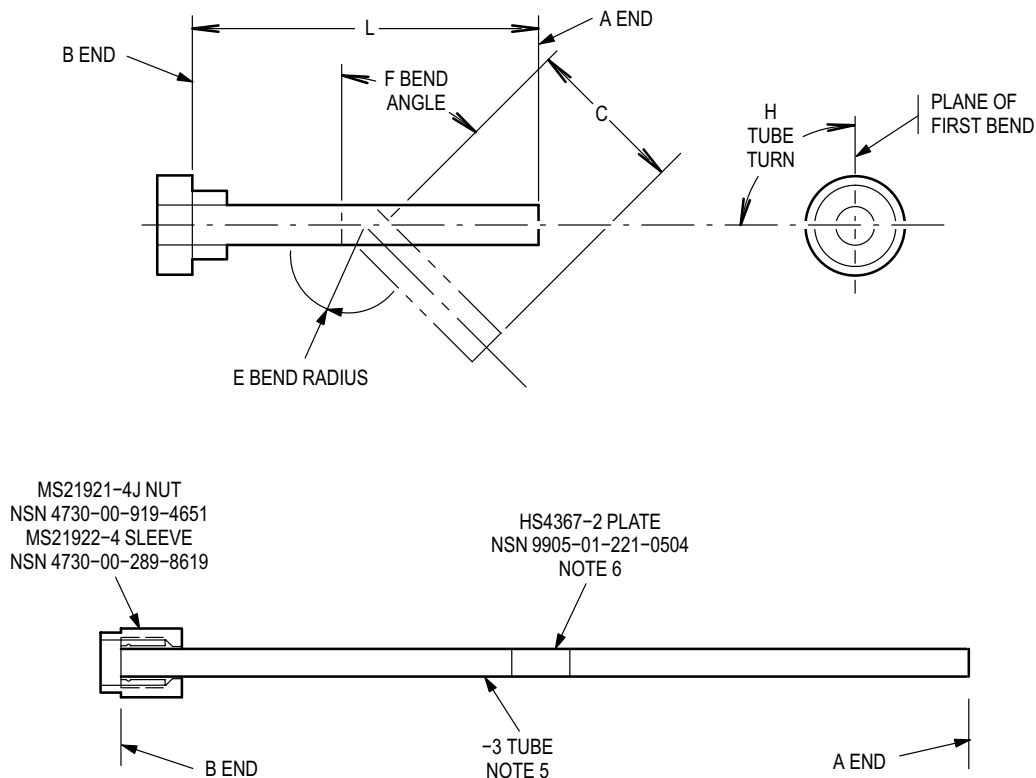
BEND NUMBER	DIMENSIONS				
	C	E	F	H	L
PART NUMBER 7-311651011					
-3 ONLY					
1	0.85	0.75	55.5	0.0	4.52
2	1.22 0.55	0.75	90.0	90.0	4.52
-7 ONLY					
1	0.85	0.75	63.8	0.0	4.59
2	1.08 0.65	0.75	90.0	90.0	4.59
PART NUMBER 7-311651012					
1	1.15	0.75	90.0	0.0	8.27
2	2.24 3.65	0.75	4.0	90.0	8.27

NOTES:

- 1 TUBE ASSEMBLY, METAL - MAKE FROM STEEL CRES TUBING COMPOSITION 21-6-9, TUBE SIZE 0.250 O.D x 0.020 WALL THICKNESS NSN 4710-00-825-5894
- 2 DIMENSION C IS DISTANCE BETWEEN BENDS
- 3 DIMENSION L IS PREPARED LENGTH BEFORE BENDING
- 4 FIRST BEND STARTS FROM A END
- 5 FINISH - PASSIVATE FOR CORROSION RESISTANT STEEL
- 6 ALL DIMENSIONS ARE IN INCHES

M04-4920

**Figure D-273. Tube Assembly PN 7-311651011-5  
 Tube Assembly PN 7-311651012**



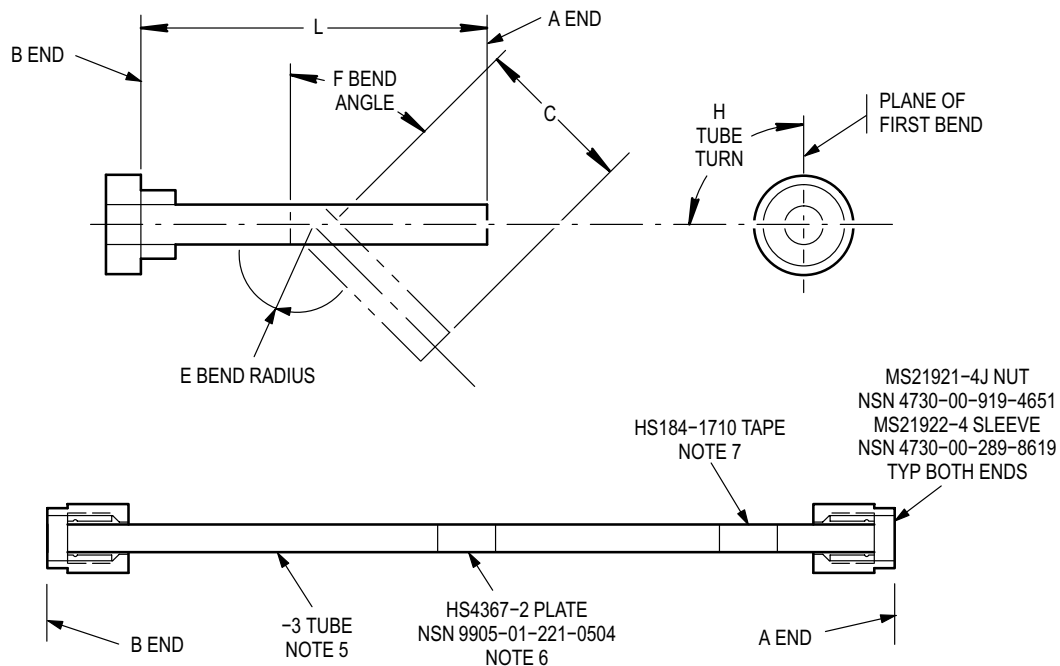
BEND NUMBER	DIMENSIONS				
	C	E	F	H	L
PART NUMBER 7-311651013					
1	0.75	0.75	27.6	0.0	7.69
2	1.37	0.75	52.2	-170.5	7.69
3	2.26	0.75	89.0	93.9	7.69
	1.10				

NOTES:

- 1 TUBE ASSEMBLY METAL - MAKE FROM STEEL CRES TUBING COMPOSITION 21-6-9, 0.250 O.D X 0.020 WALL THICKNESS NSN 4710-00-825-5894
- 2 DIMENSION C IS DISTANCE BETWEEN BENDS
- 3 DIMENSION L IS PREPARED LENGTH BEFORE BENDING
- 4 FIRST BEND STARTS FROM A END
- 5 FINISH - PASSIVATE PER CORROSION RESISTANT STEEL
- 6 IDENTIFY BY ENGRAVING, ELECTRIC VIBRATOR, IMPRESSION STAMPING OR TYPEWRITER
- 7 ALL DIMENSIONS ARE IN INCHES

M04-4921

Figure D-274. Tube Assembly PN 7-311651013



BEND NUMBER	DIMENSIONS				
	C	E	F	H	L
PART NUMBER 7-311670113					
1	1.75	0.75	19.5	0.0	17.27
2	9.04	0.75	90.0	-85.0	17.27
3	3.25	0.75	37.0	-92.8	17.27
	1.31				
PART NUMBER 7-311670114					
1	2.00	0.75	20.8	0.0	27.36
2	1.67	0.75	88.8	-89.2	27.36
3	4.98	0.75	17.5	89.1	27.36
4	1.84	0.75	19.9	179.7	27.36
5	8.55	0.75	87.4	69.4	27.36
6	2.49	0.75	48.1	88.5	27.36
	2.14				

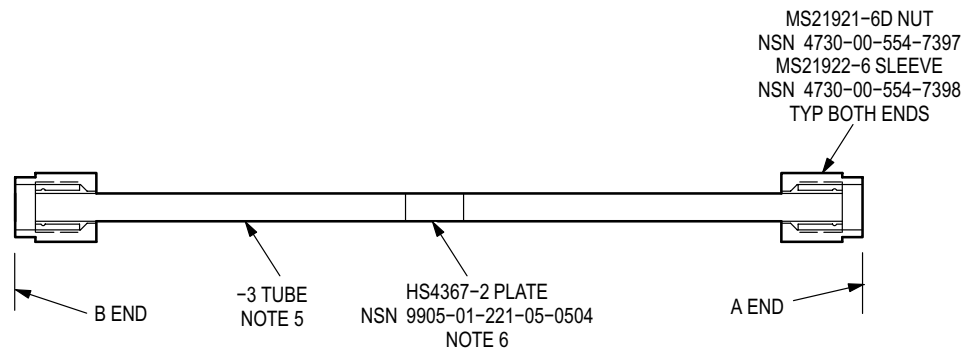
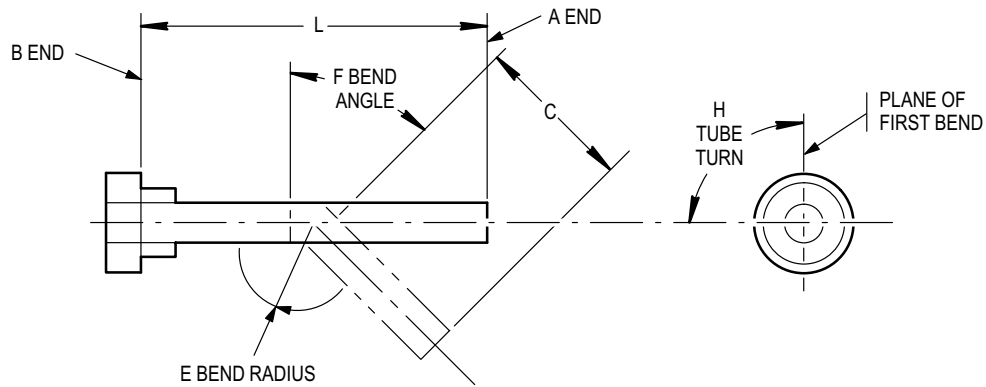
BEND NUMBER	DIMENSIONS				
	C	E	F	H	L
PART NUMBER 7-311670115					
1	0.81	0.75	43.2	0.0	34.90
2	1.61	0.75	62.2	-56.9	34.90
3	3.86	0.75	20.7	19.7	34.90
4	1.69	0.75	33.0	-151.1	34.90
5	1.80	0.75	17.0	-62.6	34.90
6	1.92	0.75	36.0	-136.8	34.90
7	2.67	0.75	17.1	10.8	34.90
8	5.23	0.75	24.2	0.0	34.90
9	6.37	0.75	91.7	88.1	34.90
10	2.49	0.75	21.3	-88.2	34.90
	0.95				
PART NUMBER 7-311670116					
1	2.97	0.75	90.2	0.0	21.60
2	1.53	0.75	21.0	94.5	21.60
3	3.00	0.75	16.5	-5.4	21.60
4	4.16	0.75	16.3	2.1	21.60
5	1.60	0.75	9.6	-102.0	21.60
6	1.06	0.75	51.8	-164.3	21.60
7	0.77	0.75	41.1	157.9	21.60
8	1.31	0.75	35.1	100.5	21.60
	1.51				

NOTES:

- 1 TUBE ASSEMBLY METAL - MAKE FROM STEEL CRES TUBING COMPOSITION 21-6-9, TUBE SIZE 0.250 O.D x 0.020 WALL THICKNESS NSN 4710-00-825-5894
- 2 DIMENSION C IS DISTANCE BETWEEN BENDS
- 3 DIMENSION L IS PREPARED LENGTH BEFORE BENDING
- 4 FIRST BEND STARTS FROM A END
- 5 FINISH - PASSIVATE FOR CORROSION RESISTANT STEEL
- 6 IDENTIFY WITH METAL TAPE AND APPLY MIL-V-173 PROTECTIVE COATING
- 7 TAPE ARROW → POINTS TO B END
- 8 ALL DIMENSIONS ARE IN INCHES

M04-4919

**Figure D-275. Tube Assembly PN 7-311670113, PN 7-311670114, PN 7-311670115, PN 7-311670116**



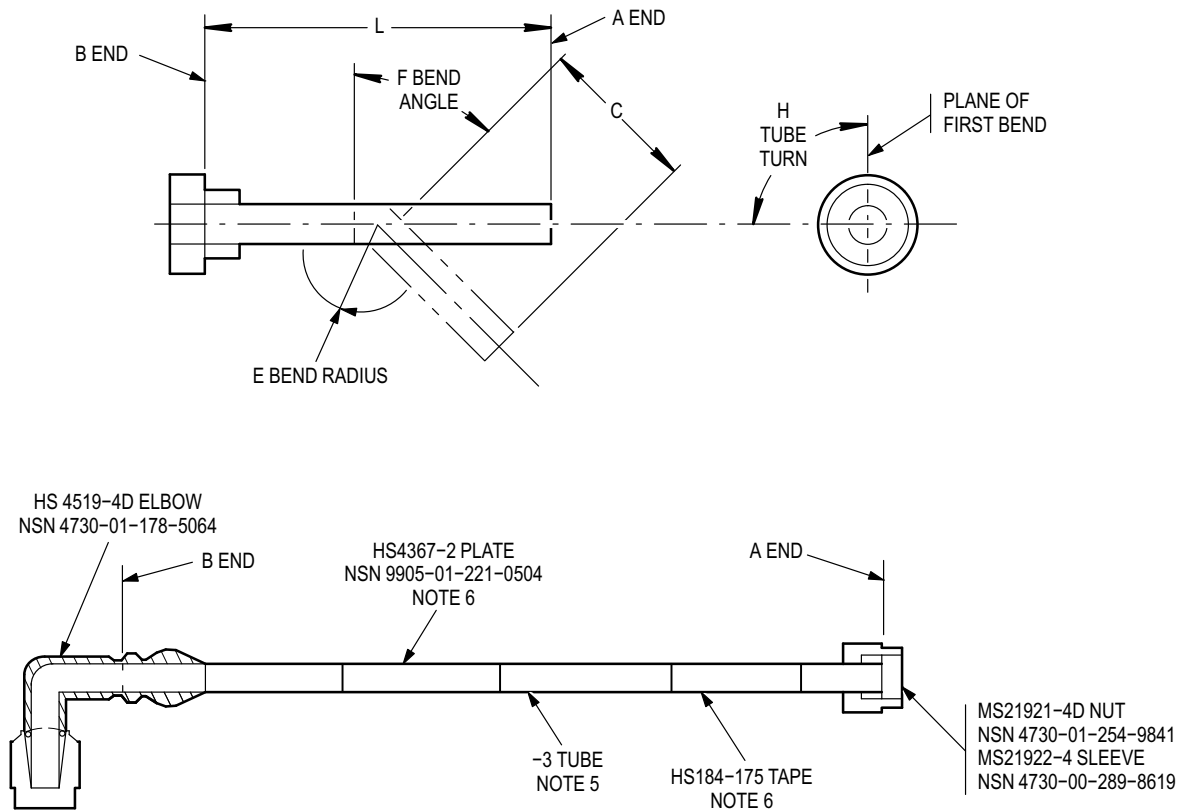
BEND NUMBER	DIMENSIONS				
	C	E	F	H	L
	PART NUMBER 7-311670417				
1	3.00	1.12	4.5	0.0	14.93
2	2.11	1.12	88.0	91.0	14.93
	8.00				

NOTES:

- 1 TUBE ASSEMBLY METAL - MAKE FROM AL-ALY TUBING 6061-T6, TUBE SIZE 0.375 O.D x 0.028 WALL THICKNESS, NSN 4710-01-167-6979
- 2 DIMENSION C IS DISTANCE BETWEEN BENDS
- 3 DIMENSION L IS PREPARED LENGTH BEFORE BENDING
- 4 FIRST BEND STARTS FROM A END
- 5 FINISH - CHROMIC OXIDIZE PER MIL-A-8625 TYPE I, CLASS 1
- 6 IDENTIFY WITH METAL TAPE AND APPLY MIL-V-173 PROTECTIVE COATING
- 7 ALL DIMENSIONS ARE IN INCHES

M04-4918

Figure D-276. Tube PN 7-311670417



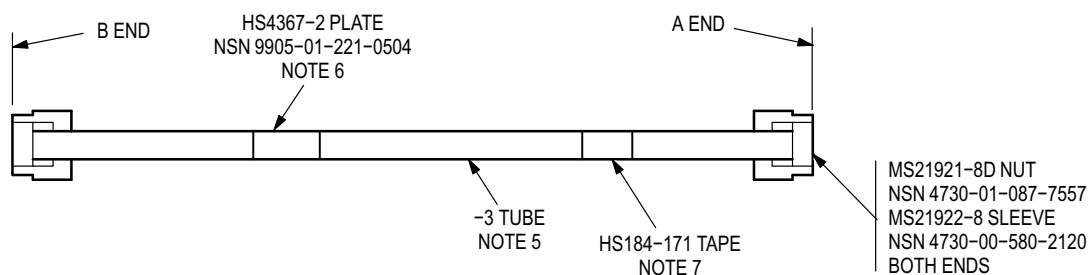
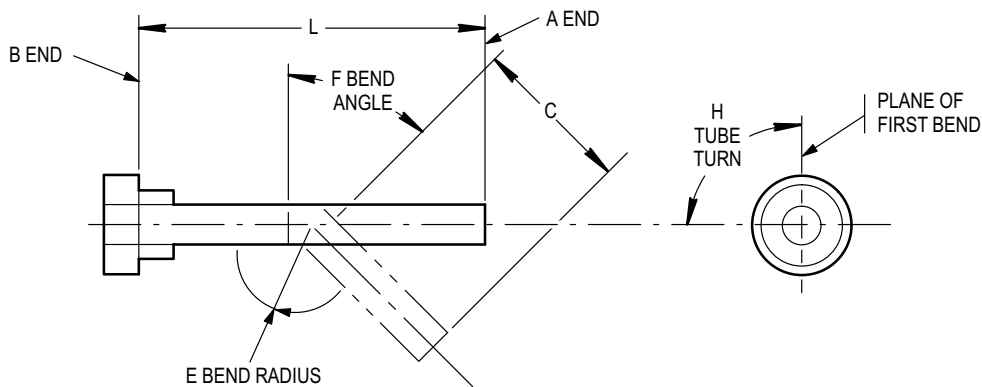
BEND NUMBER	DIMENSIONS				
	C	E	F	H	L
PART NUMBER 7-311710502					
1	11.43	0.75	33.5	0.0	96.09
2	2.67	0.75	33.0	-117.6	96.09
3	5.40	0.75	25.0	-131.9	96.09
4	1.05	0.75	46.7	-179.0	96.09
5	2.65	0.75	54.0	-172.1	96.09
6	45.03	0.75	87.4	-155.9	96.09
7	4.49	0.75	58.5	95.9	96.09
8	3.93	0.75	67.0	132.4	96.09
9	9.06	0.75	82.5	-174.5	96.09
	4.00				

NOTES:

- 1 TUBE ASSEMBLY, METAL - MAKE FROM AL-ALY TUBING  
6061-T6, TUBE SIZE 0.250 O.D x 0.028 WALL THICKNESS  
NSN 4710-00-289-2780
- 2 DIMENSION C IS DISTANCE BETWEEN BENDS
- 3 DIMENSION L IS PREPARED LENGTH BEFORE BENDING
- 4 FIRST BEND STARTS FROM A END
- 5 FINISH - CHEMICALLY FILM TREAT FOR ELECTRICAL  
CONDUCTIVITY PER MIL-C-5541, CLASS 3A FOR 0.50  
INCH FROM EACH END, EXTERNAL SURFACES ONLY
- 6 TAPE ARROW → POINTS TO B END
- 7 ALL DIMENSIONS ARE IN INCHES

M04-4949

Figure D-277. Tube Assembly 7-311710502



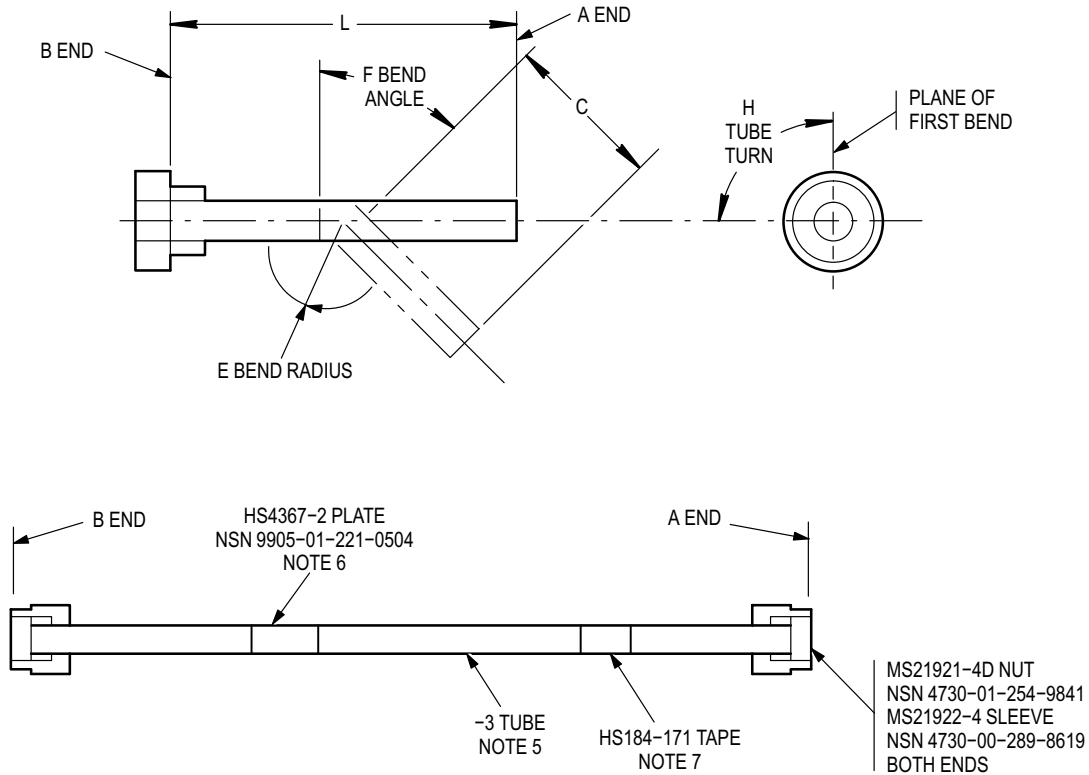
BEND NUMBER	DIMENSIONS				
	C	E	F	H	L
PART NUMBER 7-311710503					
1	2.26	1.5	17.40	0.0	24.03
2	5.51	1.5	37.00	91.00	24.03
3	1.95	1.5	19.70	-169.00	24.03
4	8.14	1.5	105.20	5.00	24.03
	1.48				
PART NUMBER 7-311710504					
1	2.26	1.5	19.5	0.0	14.09
2	2.17	1.5	85.0	81.7	14.09
	7.06				

NOTES:

- 1 TUBE ASSEMBLY, METAL - MAKE FROM AL-ALY TUBING PER MIL-T-7081, TUBE SIZE 0.500 O.D x 0.028 WALL THICKNESS, NSN 4710-01-340-3466
- 2 DIMENSION C IS DISTANCE BETWEEN BENDS
- 3 DIMENSION L IS PREPARED LENGTH BEFORE BENDING
- 4 FIRST BEND STARTS FROM A END
- 5 FINISH - CHROMIC ANODIZE PER MIL-A-8625 TYPE CLASS I
- 6 IDENTIFY AND APPLY MIL-V-173 PROTECTIVE COATING
- 7 TAPE ARROW → POINTS TO B END
- 8 ALL DIMENSIONS ARE IN INCHES

M04-4950

Figure D-278. Tube Assembly PN 7-311710503, PN 7-311710504



BEND NUMBER	DIMENSIONS				
	C	E	F	H	L
PART NUMBER 7-311710505					
1	1.01	0.75	15.5	0.0	7.67
2	1.53	0.75	86.4	75.4	7.67
	3.79				
PART NUMBER 7-311710518					
1	1.85	0.75	103.4	0.0	30.11
2	1.77	0.75	25.2	-107.4	30.11
3	2.50	0.75	88.3	-95.2	30.11
4	6.50	0.75	32.4	90.0	30.11
5	1.46	0.75	32.8	-180.0	30.11
6	1.66	0.75	29.7	0.0	30.11
7	2.13	0.75	30.4	-180.0	30.11
8	2.83	0.75	90.0	-180.0	30.11
	3.75				

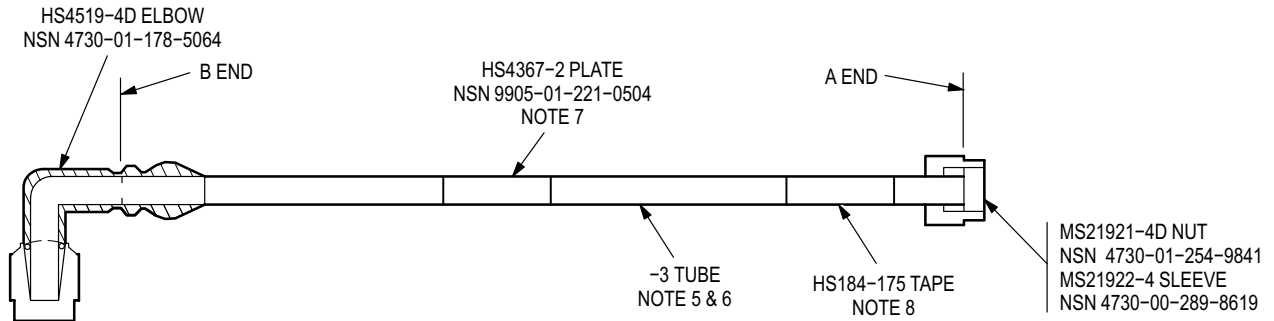
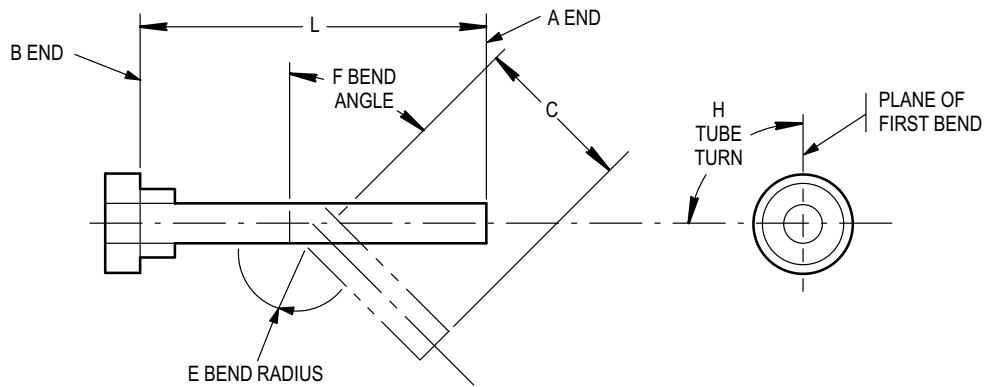
NOTES:

- 1 TUBE ASSEMBLY, METAL - MAKE FROM AL-ALY TUBING, TUBE SIZE 0.250 O.D x 0.028 WALL THICKNESS, NSN 4710-00-289-2780
- 2 DIMENSION C IS DISTANCE BETWEEN BENDS
- 3 FIRST BEND STARTS FROM A END
- 4 DIMENSION L IS PREPARED LENGTH BEFORE BENDING
- 5 FINISH - CHROMIC ANODIZE PER MIL-A-8625 TYPE I, CLASS I
- 6 IDENTIFY AND APPLY MIL-V-173 PROTECTIVE COATING
- 7 TAPE ARROW → POINTS TO B END
- 8 ALL DIMENSIONS ARE IN INCHES

M04-4952

Figure D-279. Tube Assembly PN 7-311710505, PN 7-311710518

CONDUCTIVITY PER MIL-C-5541 CLASS 3A FOR 0.050



NOTES:

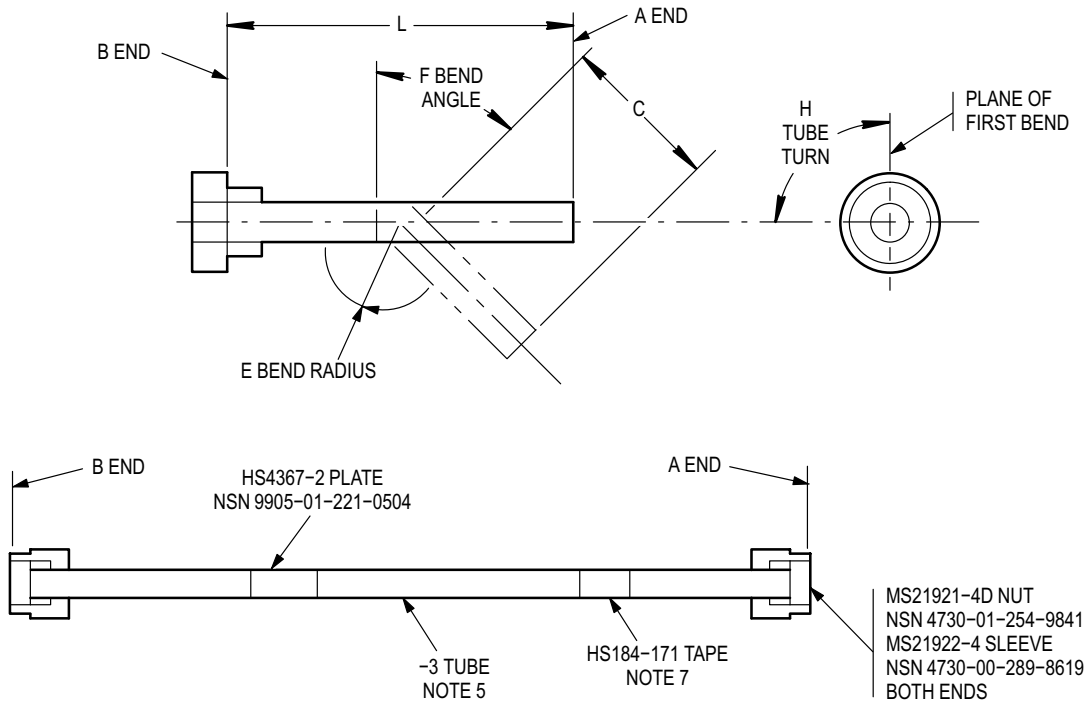
- 1 TUBE ASSEMBLY, METAL - MAKE FROM AL-ALY TUBING, TUBE SIZE 0.250 O.D x 0.028 WALL THICKNESS NSN 4710-00-289-2780
- 2 DIMENSION C IS DISTANCE BETWEEN BENDS
- 3 FIRST BEND STARTS FROM A END
- 4 DIMENSION L IS PREPARED LENGTH BEFORE BENDING
- 5 FINISH - CHROMIC ANODIZE PER MIL-A-8625 TYPE I CLASS I
- 6 FINISH - CHEMICALLY FILM TREAT FOR ELECTRICAL CONDUCTIVITY PER MIL - C-5541 CLASS 3A FOR 0.050 INCH FROM EACH END, EXTERNAL SURFACES ONLY
- 7 IDENTIFY AND APPLY MIL-V-173 PROTECTIVE COATING
- 8 TAPE ARROW → POINTS TO B END
- 9 ALL DIMENSIONS ARE IN INCHES

BEND NUMBER	DIMENSIONS				
	C	E	H	F	L
PART NUMBER 7-311710506					
1	4.97	0.75	0.0	87.9	89.32
2	1.56	0.75	177.9	55.6	89.32
3	18.42	0.75	1.2	53.4	89.32
4	6.02	0.75	173.6	63.2	89.32
5	1.00	0.75	4.8	3.6	89.32
6	4.43	0.75	1.1	40.8	89.32
7	2.74	0.75	175.3	40.7	89.32
8	3.81	0.75	6.6	36.6	89.32
9	1.29	0.75	179.5	38.3	89.32
10	11.66	0.75	72.5	40.5	89.32
11	3.00	0.75	96.2	25.2	89.32
12	3.01	0.75	171.0	66.1	89.32
13	6.16	0.75	12.2	27.1	89.32
14	10.53	0.75	-50.6	26.6	89.32
	2.79				

M04-4954A

Figure D-280. Tube Assembly PN 7-311710506





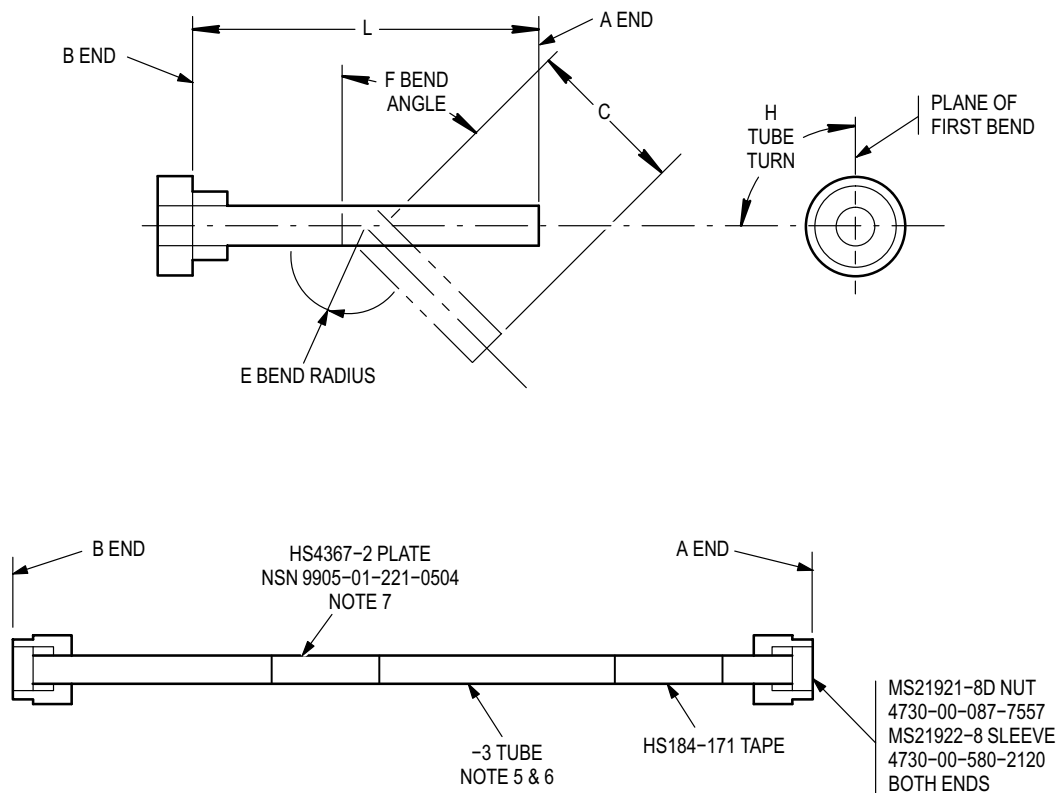
BEND NUMBER	DIMENSIONS				
	C	E	F	H	L
PART NUMBER 7-311710507					
1	1.04	0.75	99.80	0.0	9.49
2	4.51	0.75	85.90	20.60	9.49
	1.52				
PART NUMBER 7-311710508					
1	1.33	0.75	5.20	0.0	21.61
2	1.39	0.75	3.80	-171.50	21.61
3	3.68	0.75	16.50	63.30	21.61
4	4.50	0.75	16.60	175.50	21.61
5	2.94	0.75	50.20	-93.00	21.61
6	3.57	0.75	52.30	-178.60	21.61
	2.31				
PART NUMBER 7-311710534					
1	1.21	0.75	27.50	0.0	55.92
2	10.28	0.75	87.60	83.30	55.92
3	11.50	0.75	83.30	91.80	55.92
4	7.06	0.75	39.50	103.90	55.92
5	2.05	0.75	40.10	-176.60	55.92
6	4.62	0.75	16.60	32.00	55.92
7	1.35	0.75	18.40	-175.30	55.92
8	2.76	0.75	46.40	50.60	55.92
9	6.32	0.75	46.40	180.00	55.92
10	1.43	0.75	90.00	-103.80	55.92
	0.85				

NOTES:

- 1 TUBE ASSEMBLY, METAL - MAKE FROM AL-ALY TUBING, TUBE SIZE 0.250 O.D x 0.028 WALL THICKNESS, NSN 4710-00-289-2780
- 2 DIMENSION C IS DISTANCE BETWEEN BENDS
- 3 DIMENSION L IS PREPARED LENGTH BEFORE BENDING
- 4 FIRST BEND STARTS FROM A END
- 5 FINISH - CHROMIC ANODIZE PER MIL-A-8625 TYPE 1 CLASS 1
- 6 IDENTIFY AND APPLY MIL-V-173 PROTECTIVE COATING
- 7 TAPE ARROW → POINTS TO B END
- 8 ALL DIMENSIONS ARE IN INCHES

M04-4951

**Figure D-281. Tube Assembly PN 7-311710507, PN 7-311710508, PN 7-311710534**



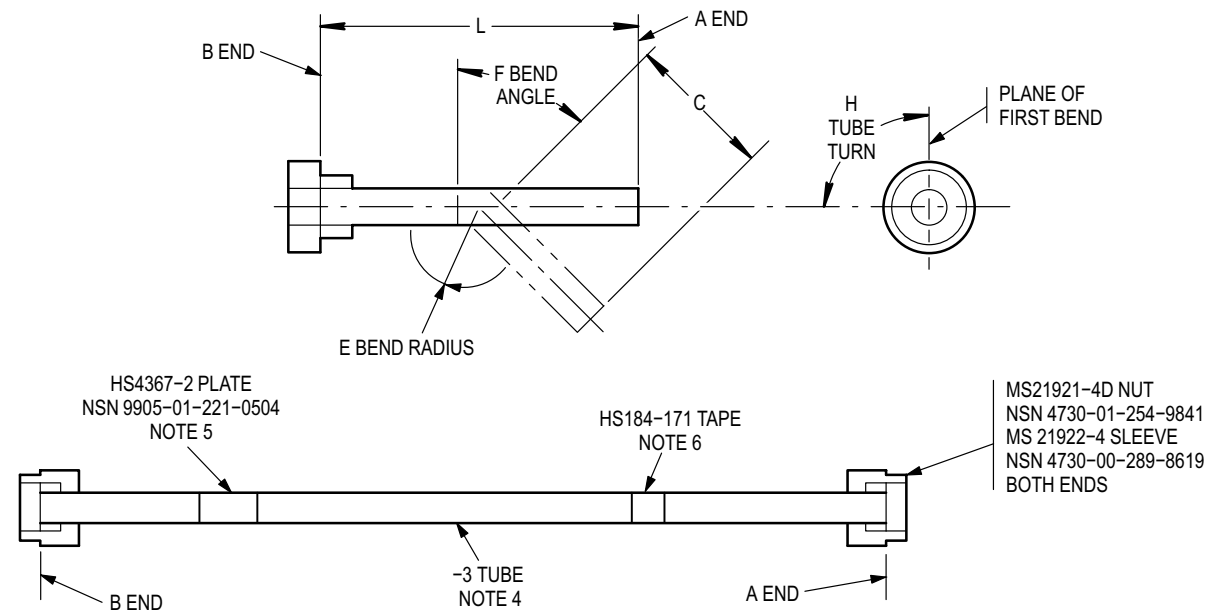
NOTES:

- 1 TUBE ASSEMBLY, METAL - MAKE FROM AL-ALY TUBING, TUBE SIZE 0.500 O.D x 0.028 WALL THICKNESS, NSN 4710-01-009-9770
- 2 DIMENSION C IS DISTANCE BETWEEN BENDS
- 3 FIRST BEND STARTS FROM A END
- 4 DIMENSION L IS PREPARED LENGTH BEFORE BENDING
- 5 FINISH - CHROMIC ANODIZE PER MIL-A-8625 TYPE I CLASS I
- 6 FINISH - CHEMICALLY FILM TREAT FOR ELECTRICAL CONDUCTIVITY PER MIL-C-5541 CLASS 3A FOR 0.050 INCH FROM EACH END, EXTERNAL SURFACES ONLY
- 7 IDENTIFY AND APPLY MIL-V-173 PROTECTIVE COATING
- 8 ALL DIMENSIONS ARE IN INCHES

BEND NUMBER	DIMENSIONS				
	C	E	F	H	L
PART NUMBER 7-311710509					
1	12.31	1.50	67.5	0.0	25.28
2	7.98	1.50	63.8	177.5	25.28
	1.55				
PART NUMBER 7-311710511					
1	8.52	1.50	90.3	0.0	22.13
2	7.25	1.50	3.7	87.6	22.13
	3.89				
PART NUMBER 7-311710527					
1	1.71	1.50	5.1	0.0	28.46
2	2.74	1.50	6.2	-171.6	28.46
3	2.38	1.50	13.0	-94.2	28.46
4	6.00	1.50	48.0	-105.4	28.46
5	3.45	1.50	49.2	-169.3	28.46
6	2.62	1.50	90.0	159.0	28.46
	4.03				

M04-4955

Figure D-282. Tube Assembly PN 7-311710509, PN 7-311710511, PN 7-311710527



BEND NUMBER	DIMENSIONS				
	C	E	F	H	L
PART NUMBER 7-311710512					
1	1.20	0.75	72.50	0.0	12.98
2	8.67	0.75	74.80	-178.30	12.98
	1.18				
PART NUMBER 7-311710519					
1	1.55	0.75	98.00	0.0	17.27
2	0.81	0.75	57.60	102.20	17.27
3	6.80	0.75	70.50	-132.00	17.27
4	3.00	0.75	68.50	178.10	17.27
	1.25				
PART NUMBER 7-311710520					
1	1.15	0.75	52.10	0.0	42.36
2	0.58	0.75	49.30	-179.10	42.36
3	2.64	0.75	47.00	81.70	42.36
4	1.74	0.75	47.60	-177.40	42.36
5	16.29	0.75	50.90	-163.70	42.36
6	3.62	0.75	5.50	-166.20	42.36
7	6.12	0.75	69.40	-61.20	42.36
8	2.96	0.75	47.20	127.90	42.36
	2.43				

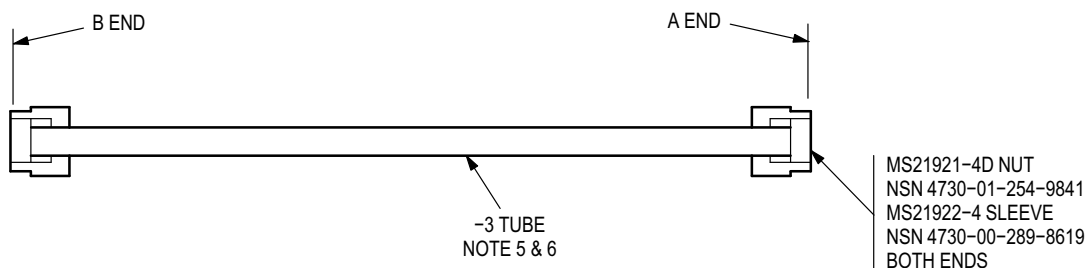
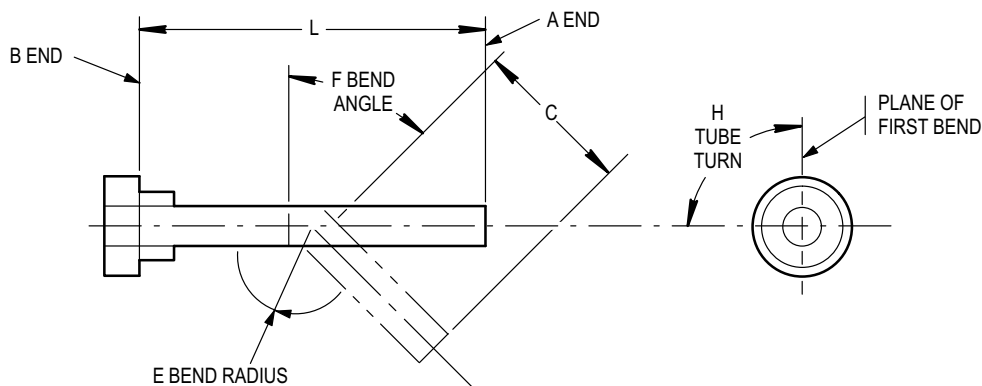
BEND NUMBER	DIMENSIONS				
	C	E	F	H	L
PART NUMBER 7-311710521					
1	6.32	0.75	85.60	0.0	45.92
2	12.26	0.75	85.40	89.20	45.92
3	6.29	0.75	33.90	113.00	45.92
4	1.94	0.75	35.10	-175.40	45.92
5	9.50	0.75	40.60	-136.90	45.92
6	2.55	0.75	49.30	-100.30	45.92
7	0.81	0.75	54.20	-131.50	45.92
	1.22				
PART NUMBER 7-311710523					
1	2.47	0.75	24.90	0.0	4.55
	1.75				
PART NUMBER 7-311710524					
1	2.04	0.75	59.50	0.0	9.51
2	1.65	0.75	31.70	9.90	9.51
3	2.24	0.75	109.70	27.40	9.51
	0.95				
PART NUMBER 7-311710531					
1	1.20	0.75	79.50	0.0	25.39
2	0.71	0.75	81.90	-25.90	25.39
3	3.44	0.75	28.20	57.10	25.39
4	6.28	0.75	70.00	34.80	25.39
5	4.69	0.75	55.20	121.00	25.39
6	2.14	0.75	27.20	-115.70	25.39
	2.45				

- NOTES:
- 1 TUBE ASSEMBLY, METAL - MAKE FROM AL-ALY TUBING 6061-T6, TUBE SIZE 0.250 O.D x 0.028 WALL THICKNESS NSN 4710-00-289-2780
  - 2 DIMENSION C IS DISTANCE BETWEEN BENDS
  - 3 DIMENSION L IS PREPARED LENGTH BEFORE BENDING
  - 4 FINISH - CHROMIC ANODIZE PER MIL-C-5541, CLASS 3A FOR 0.050 INCH FROM EACH END FOR 0.050 INCH FROM EACH END EXTERNAL SURFACES ONLY
  - 5 IDENTIFY AND APPLY MIL-V-173 PROTECTIVE COATING

- 6 TAPE ARROW → POINTS TO B END
- 7 ALL DIMENSIONS ARE IN INCHES

M04-4956

**Figure D-283. Tube Assembly PN 7-311710512, PN 7-311710519, PN 7-311710520, PN 7-311710521, PN 7-311710523, PN 7-311710524, PN 7-311710531**



BEND NUMBER	DIMENSIONS				
	C	E	F	H	L
PART NUMBER 7-311710522					
1	1.03 0.91	0.75	85.8	0.0	3.06
PART NUMBER 7-311710528					
1	5.92	0.75	101.0	0.0	26.73
2	1.28	0.75	84.0	-79.6	26.73
3	1.94	0.75	86.3	-178.2	26.73
4	3.30	0.75	89.3	46.1	26.73
5	3.46 5.58	0.75	40.1	89.4	26.73

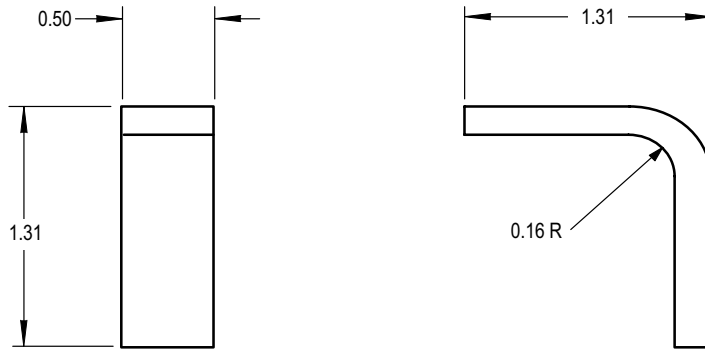
BEND NUMBER	DIMENSIONS				
	C	E	F	H	L
PART NUMBER 7-311710530					
1	1.75	0.75	84.3	0.0	62.66
2	4.18	0.75	47.6	-159.6	62.66
3	2.90	0.75	67.2	-81.2	62.66
4	3.65	0.75	50.8	52.1	62.66
5	2.49	0.75	52.8	-169.0	62.66
6	4.04	0.75	83.6	-145.7	62.66
7	4.87	0.75	14.5	78.7	62.66
8	19.60	0.75	87.4	94.1	62.66
9	5.15	0.75	14.1	57.9	62.66
10	4.22 2.30	0.75	72.2	87.7	62.66
PART NUMBER 7-311710532					
1	3.26	0.75	18.1	0.0	10.58
2	4.01 0.90	0.75	165.5	5.4	10.58
PART NUMBER 7-311710533					
1	1.80	0.75	40.0	0.0	16.80
2	1.94	0.75	116.0	-172.8	16.80
3	3.41	0.75	53.2	19.5	16.80
4	2.94	0.75	49.1	-106.4	16.80
5	1.03 1.62	0.75	51.9	-108.6	16.80

NOTES:

- 1 TUBE ASSEMBLY, METAL - MAKE FROM AL-ALY TUBING, TUBE SIZE 0.250 O.D x 0.028 WALL THICKNESS NSN 4710-00-289-2780
- 2 FINISH - CHROMIC ANODIZE PER MIL-A-8625 TYPE 1 CLASS 1
- 3 FIRST BEND STARTS FROM A END
- 4 DIMENSION L IS PREPARED LENGTH BEFORE BENDING
- 5 DEMENSION C IS DISTANCE BETWEEN BENDS
- 6 FINISH - CHEMICALLY FILM TREAT FOR ELECTRICAL CONDUCTIVITY PER MIL-C-5541 CLASS 3A FOR 0.050 INCH FROM EACH END, EXTERNAL SURFACES ONLY
- 7 ALL DIMENSIONS ARE IN INCHES

M04-4953

**Figure D-284. Tube Assembly PN 7-311710522, PN 7-311710528, PN 7-311710530, PN 7-311710532, PN 7-311710533**

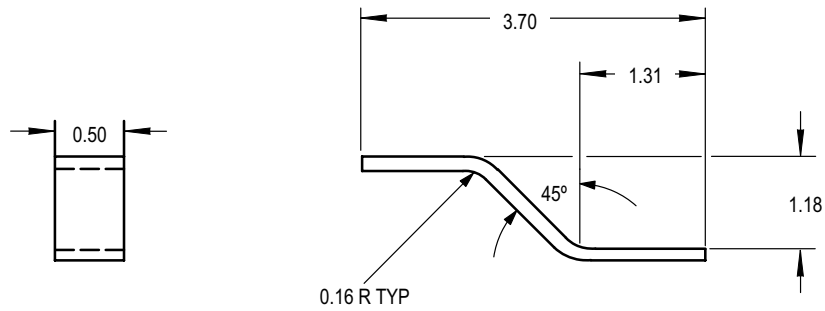


NOTES:

- CLIP - MAKE FROM AL-ALY SHEET, 2024-T3, 0.040 THICK  
NSN 9535-00-086-9930
- ALL DIMENSIONS ARE IN INCHES

M04-4618

Figure D-285. Clip PN 7-311830061-5

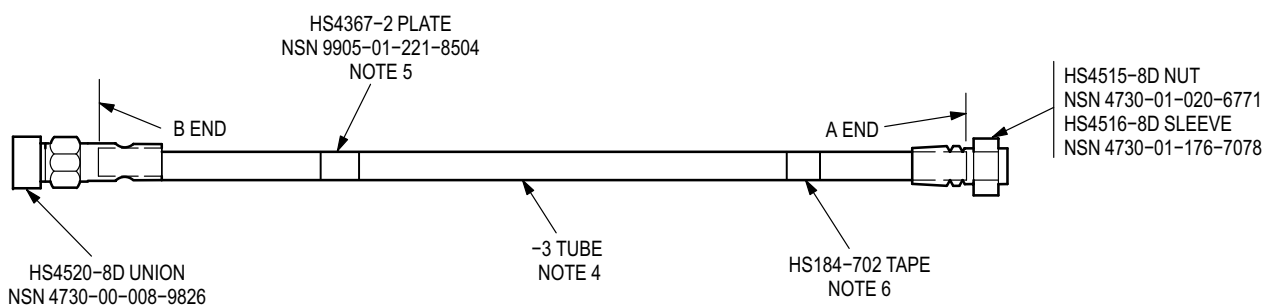
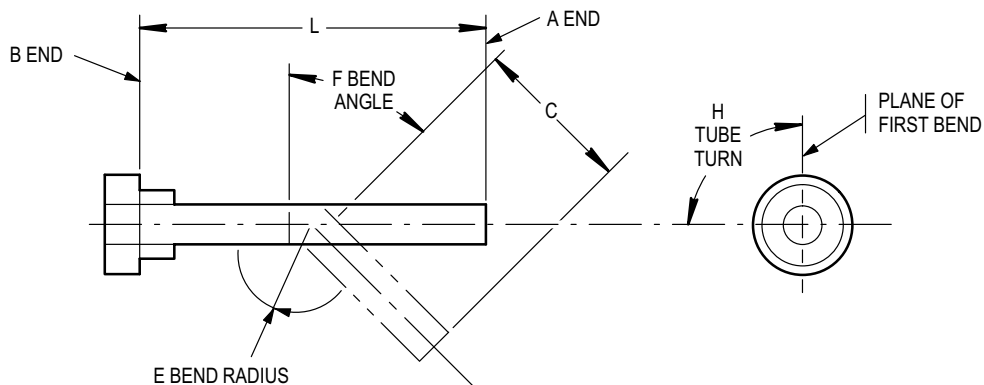


NOTES:

- CLIP - MAKE FROM AL-ALY SHEET, 2024-T3, 0.040 THICK  
NSN 9535-00-086-9930
- ALL DIMENSIONS ARE IN INCHES

M04-4617

Figure D-286. Clip PN 7-311830061-7



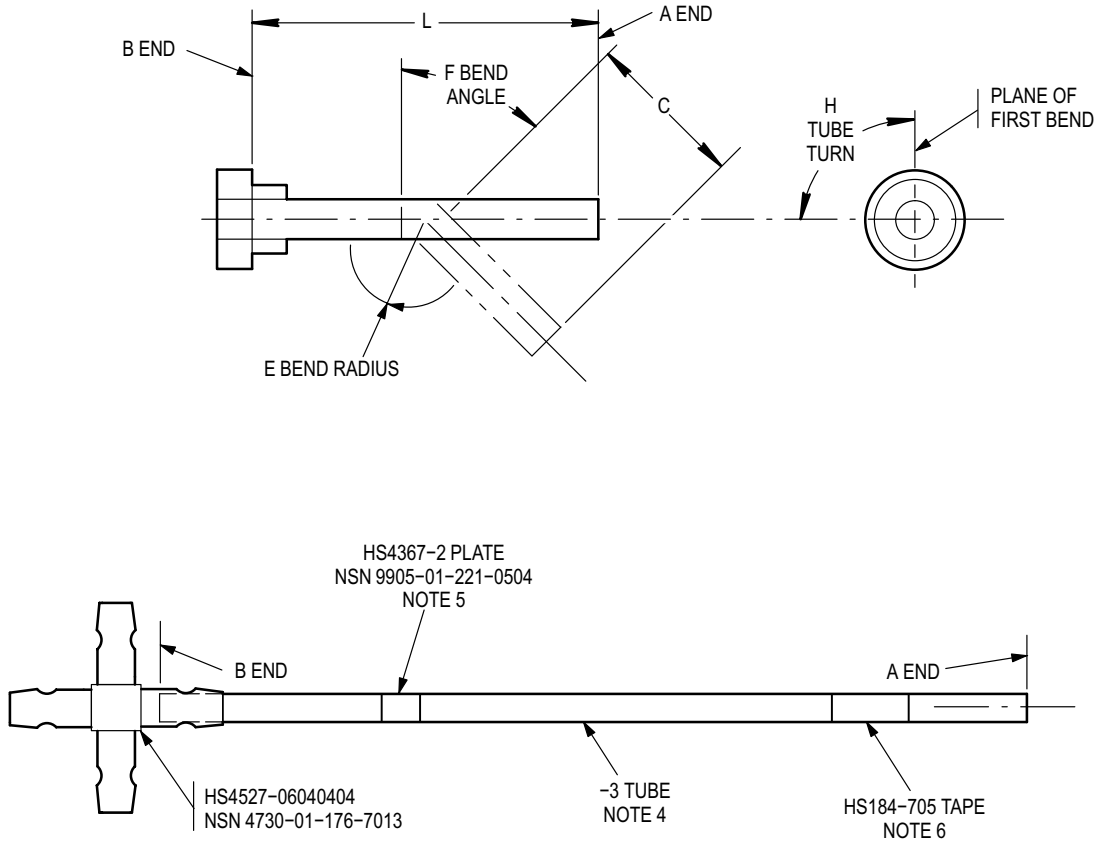
BEND NUMBER	DIMENSIONS				
	C	E	F	H	L
PART NUMBER 7-311830201					
1	2.63	1.5	71.30	0.0	13.62
2	3.38 4.87	1.5	33.20	-179.50	13.62

NOTES:

- 1 TUBE ASSEMBLY, METAL - MAKE FROM AL-ALY TUBING 6061-T6, TUBE SIZE 0.500 O.D x 0.028 WALL THICKNESS NSN 4710-01-009-9770
- 2 DIMENSION C IS DISTANCE BETWEEN BENDS
- 3 DIMENSION L IS PREPARED LENGTH BEFORE BENDING
- 4 FINISH - CHEMICALLY FILM TREAT FOR ELECTRICAL CONDUCTIVITY PER MIL-C-5541 CLASS 3A
- 5 IDENTIFY AND APPLY MIL-V-173 PROTECTIVE COATING
- 6 TAPE ARROW → POINTS TO BEND
- 7 ALL DIMENSIONS ARE IN INCHES

M04-4957

Figure D-287. Tube Assembly PN 7-311830201



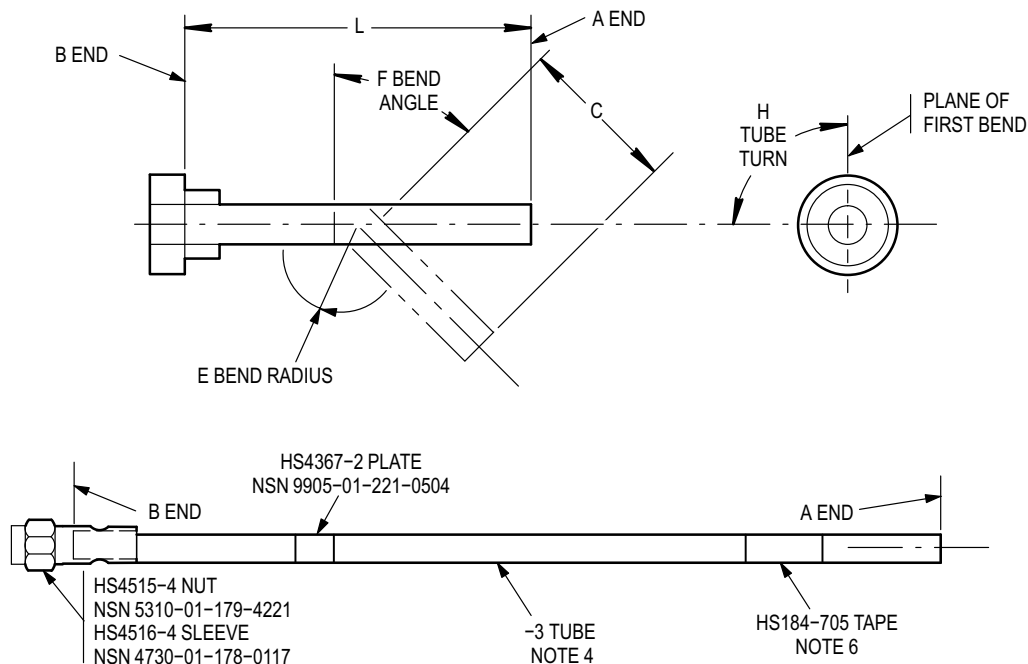
BEND NUMBER	DIMENSIONS				
	C	E	F	H	L
PART NUMBER 7-311830204					
1	1.56	1.12	20.0	0.0	15.36
2	6.53	1.12	36.3	-144.6	15.36
3	3.42	1.12	38.9	-63.7	15.36
	1.98				

NOTES:

- 1 TUBE ASSEMBLY, METAL - MAKE FROM STEEL CRES TUBING COMPOSITION 21-6-9, TUBE SIZE 0.375 O.D x 0.020 WALL THICKNESS NSN 4710-01-102 -6423
- 2 DIMENSION C IS DISTANCE BETWEEN BENDS
- 3 DIMENSION L IS PREPARED LENGTH BEFORE BENDING
- 4 FINISH - PASSIVATE FOR CORROSION RESISTANT STEEL
- 5 IDENTIFY AND APPLY MIL-V-173 PROTECTIVE COATING
- 6 TAPE ARROW → POINTS TO BEND
- 7 ALL DIMENSIONS ARE IN INCHES

M04-4959

Figure D-288. Tube PN 7-311830204



BEND NUMBER	DIMENSIONS				
	C	E	F	H	L
PART NUMBER 7-311830205					
1	9.71	0.75	94.4	0.0	55.26
2	10.51	0.75	88.3	2.9	55.26
3	11.74	0.75	67.6	-89.3	55.26
4	6.68	0.75	17.8	-67.8	55.26
5	2.92	0.75	17.8	-180.0	55.26
6	5.48	0.75	56.3	-68.7	55.26
7	1.90	0.75	56.3	180.0	55.26
	2.10				
PART NUMBER 7-311830206					
1	3.46	0.75	28.4	0.0	29.33
2	0.86	0.75	85.2	-80.1	29.33
3	4.68	0.75	89.8	-69.0	29.33
4	8.42	0.75	13.4	155.7	29.33
5	4.95	0.75	54.9	-108.1	29.33
6	1.77	0.75	59.8	178.9	29.33
	0.85				
PART NUMBER 7-311830207					
1	1.85	0.75	20.3	0.0	25.39
2	1.88	0.75	18.3	176.2	25.39
3	3.20	0.75	56.8	-94.4	25.39
4	1.17	0.75	58.0	66.6	25.39
5	3.50	0.75	21.0	13.4	25.39
6	2.61	0.75	7.9	88.5	25.39
7	2.89	0.75	61.4	-18.2	25.39
8	1.76	0.75	58.9	171.9	25.39
	2.57				

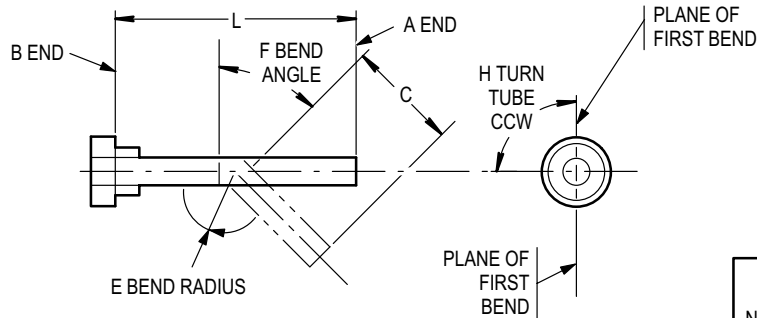
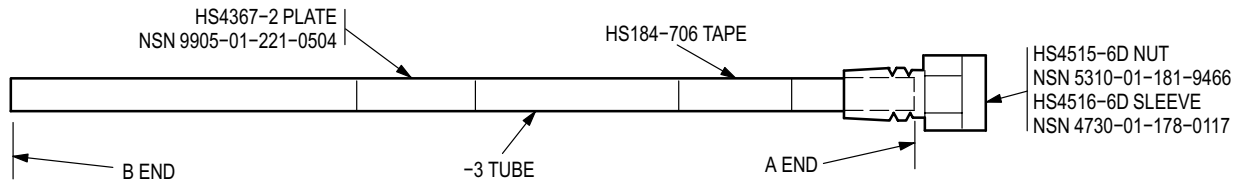
NOTES:

- 1 TUBE ASSEMBLY, METAL - MAKE FROM STEEL CRES TUBING, COMPOSITION 21-6-9, TUBE SIZE 0.250 O.D x 0.020 WALL THICKNESS NSN 4710-00-541-8630
- 2 DIMENSION C IS DISTANCE BETWEEN BENDS
- 3 DIMENSION L IS PREPARED LENGTH BEFORE BENDING
- 4 FINISH - PASSIVATE FOR CORROSION RESISTANT STEEL
- 5 IDENTIFY AND APPLY MIL-V-173 PROTECTIVE COATING
- 6 TAPE ARROW → POINTS TO B END
- 7 ALL DIMENSIONS ARE IN INCHES

M04-4958

Figure D-289. Tube PN 7-311830205, PN 7-311830206, PN 7-311830207





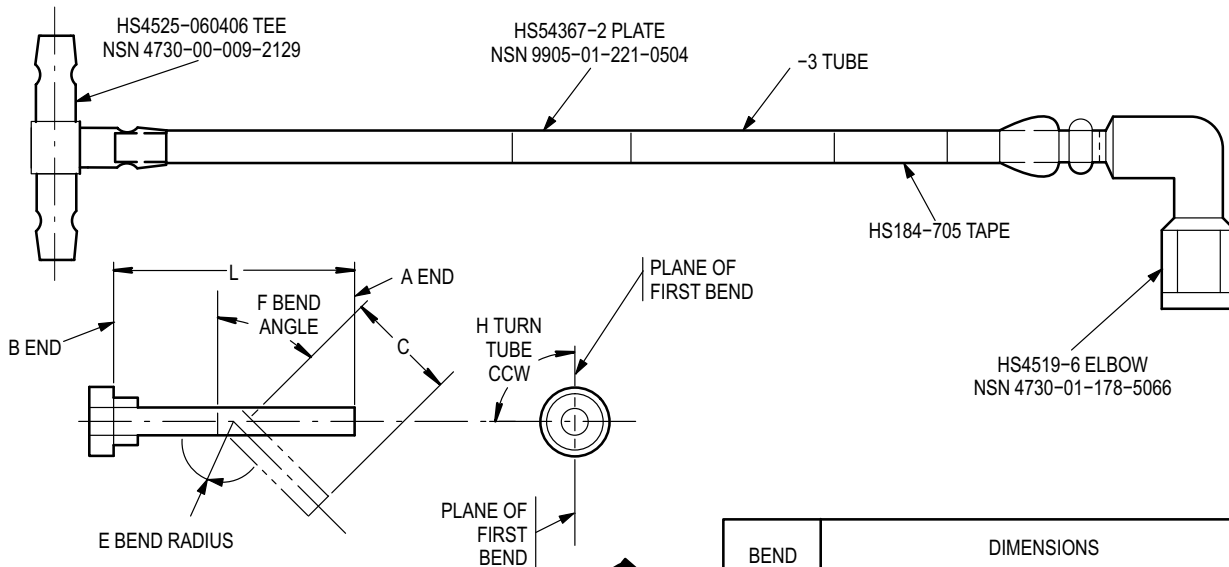
BEND NUMBER	DIMENSIONS				
	C	E	F	H	L
PART NUMBER 7-311830222					
1	4.29	1.12	42.5	0.0	95.34
2	9.07	1.12	35.5	142.1	95.34
3	16.26	1.12	26.1	80.6	95.34
	63.68				

NOTES:

- TUBE ASSEMBLY, METAL BRANCHED-MAKE FROM AL-ALY TUBING 6061-T6, TUBE SIZE 0.375 O.D x 0.020 WALL THICKNESS NSN 4710-01-102-6423
- DIMENSION C IS DISTANCE BETWEEN BENDS
- FINISH - CHEMICALLY FILM TREAT FOR ELECTRICAL CONDUCTIVITY PER MIL-C-5541 CLASS 3A
- ALL DIMENSIONS ARE IN INCHES

M04-4979

Figure D-290. Tube Assembly PN 7-311830222



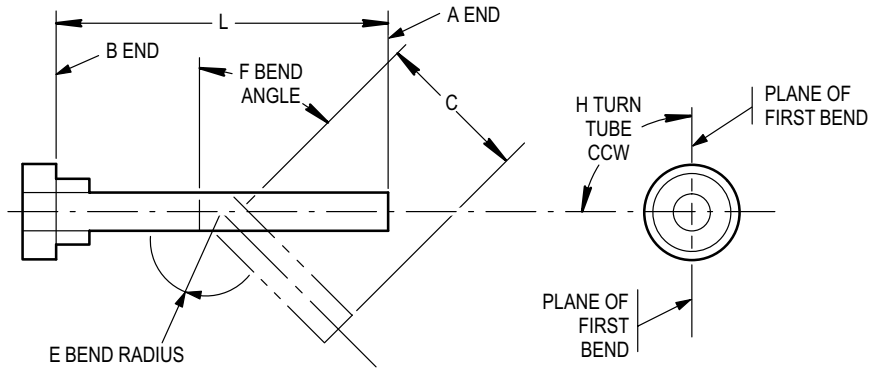
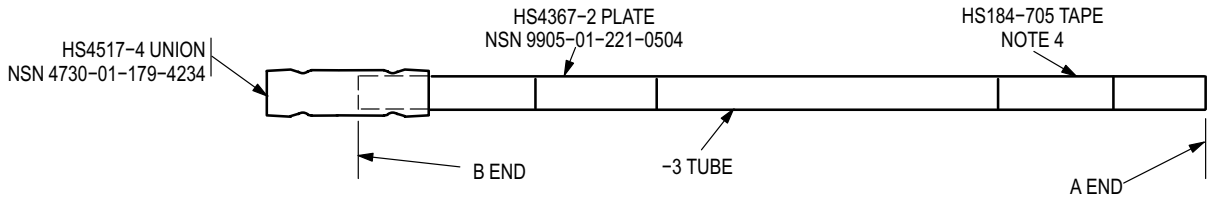
NOTES:

- TUBE ASSEMBLY, METAL - MAKE FROM STEEL CRES TUBING, COMPOSITION 21-6-9, TUBE SIZE 0.375 O.D x 0.020 WALL THICKNESS NSN 4710-01-102-6423
- DIMENSION C IS DISTANCE BETWEEN BENDS
- FINISH - CHEMICALLY FILM TREAT FOR ELECTRICAL CONDUCTIVITY PER MIL-C-5541 CLASS 3A
- ALL DIMENSIONS ARE IN INCHES

BEND NUMBER	DIMENSIONS				
	C	E	F	H	L
PART NUMBER 7-311830208					
1	3.82	1.12	58.6	0.0	10.57
2	1.20	1.12	146.2	-180.0	10.57
	1.53				

M04-5058A

Figure D-291. Tube Assembly PN 7-311830208



BEND NUMBER	DIMENSIONS				
	C	E	F	H	L
PART NUMBER 7-311830209					
1	10.46	0.75	45.5	0.0	61.95
2	31.01	0.75	63.5	-1.8	61.95
3	2.92 15.30	0.75	63.5	179.9	61.95
PART NUMBER 7-311830210					
-3 ONLY					
1	98.77	0.75	14.8	0.0	107.23
2	1.93 6.11	0.75	17.1	-171.8	107.23
-5 ONLY					
1	94.77	0.75	14.8	0.0	107.23
2	1.93 6.11	0.75	17.1	-171.8	107.23

BEND NUMBER	DIMENSIONS				
	C	E	F	H	L
PART NUMBER 7-311830237					
-7 ONLY					
1	3.95	0.75	41.9	0.0	50.92
2	2.35	0.75	46.1	-179.1	50.92
3	5.86	0.75	88.1	-90.0	50.92
4	2.13	0.75	33.5	3.7	50.92
5	2.34	0.75	32.9	174.2	50.92
6	21.96 7.30	0.75	91.7	1.0	50.92
-11 ONLY					
1	5.95	0.75	45.0	0.0	55.16
2	2.35	0.75	45.0	-180.0	55.16
3	5.85	0.75	86.0	-90.0	55.16
4	3.15	0.75	33.5	0.0	55.16
5	2.35	0.75	33.5	-180.0	55.16
6	18.50	0.75	33.5	0.0	55.16
7	3.00	0.75	56.5	0.0	55.16
8	9.65				
PART NUMBER 7-311830241					
1	21.75	0.75	57.3	0.0	98.20
2	7.16	0.75	56.0	-178.5	98.20
3	11.34	0.75	64.1	55.2	98.20
4	2.56	0.75	31.0	-126.4	98.20
5	1.68	0.75	48.7	-70.0	98.20
6	2.68	0.75	84.7	126.00	98.20
7	5.71	0.75	84.7	-180.0	98.20
	39.75				

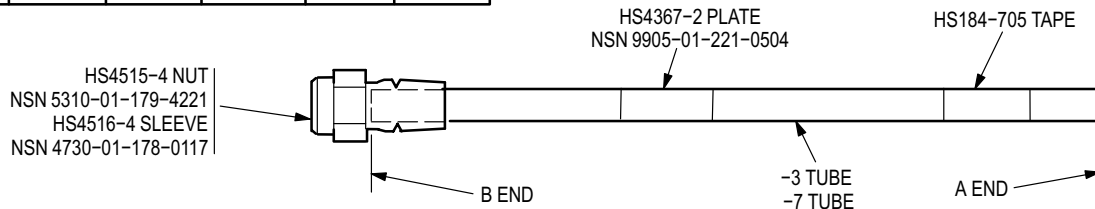
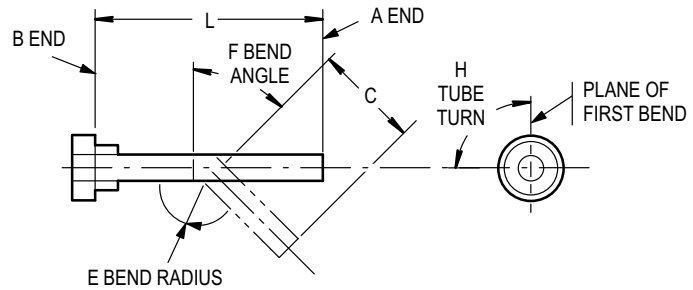
NOTES:

- 1 TUBE ASSEMBLY METAL - MAKE FROM STEEL CRES TUBING  
COMPOSITION 21-6-9, TUBE SIZE 0.250 O.D x 0.020 WALL THICKNESS  
NSN 4710-00-825-5894
- 2 DIMENSION C IS DISTANCE BETWEEN BENDS
- 3 FINISH - PASSIVATE FOR CORROSION RESISTANT STEEL
- 4 TAPE ARROW POINTS TO B END
- 5 ALL DIMENSIONS ARE IN INCHES

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Figure D-292. Tube PN 7-311830209, PN 7-311830210,  
PN 7-311830237, PN 7-311830241

BEND NUMBER	DIMENSIONS				
	C	E	F	H	L
PART NUMBER 7-311830211					
-3 ONLY					
1	62.80	.75	24.8	0.0	92.91
2	15.78	.75	41.4	112.7	92.91
3	11.02	.75	35.5	131.9	92.91
	1.98				
-7 ONLY					
1	61.80	.75	25.0	0.0	93.87
2	16.90	.75	49.0	105.0	93.87
3	9.50	.75	46.0	142.0	93.87
	4.10				



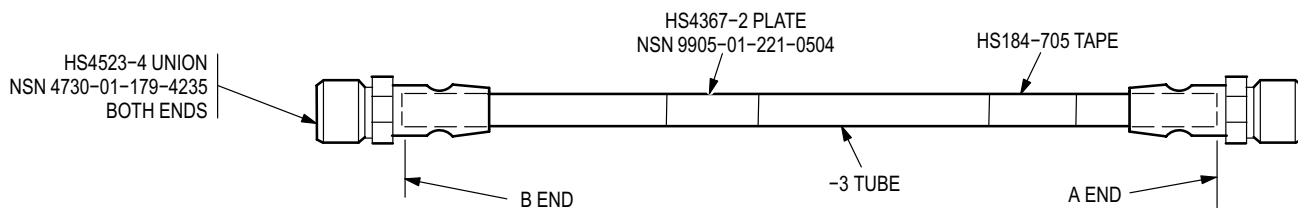
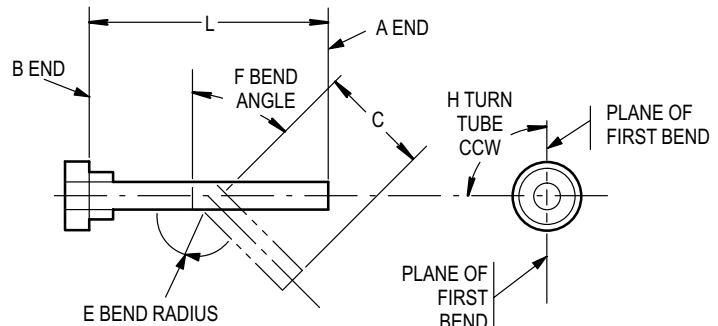
NOTES:

- TUBE ASSEMBLY, METAL - MAKE FROM STEEL CRES TUBING COMPOSITION 21-6-9, TUBE SIZE 0.250 O.D x 0.020 WALL THICKNESS NSN 4710-00-541-8630
- DIMENSION C IS DISTANCE BETWEEN BENDS
- FINISH - PASSIVATE FOR CORROSION RESISTANT STEEL
- ALL DIMENSIONS ARE IN INCHES

M04-4961

Figure D-293. Tube PN 7-311830211

BEND NUMBER	DIMENSIONS				
	C	E	F	H	L
PART NUMBER 7-311830212					
1	6.95	0.75	45.0	0.0	90.36
2	1.00	0.75	45.0	-180.0	90.36
3	3.40	0.75	45.0	0.0	90.36
4	1.00	0.75	45.0	-180.0	90.36
5	60.50	0.75	11.5	0.0	90.36
6	1.45	0.75	78.5	90.0	90.36
7	5.96	0.75	6.5	0.0	90.36
	6.48				

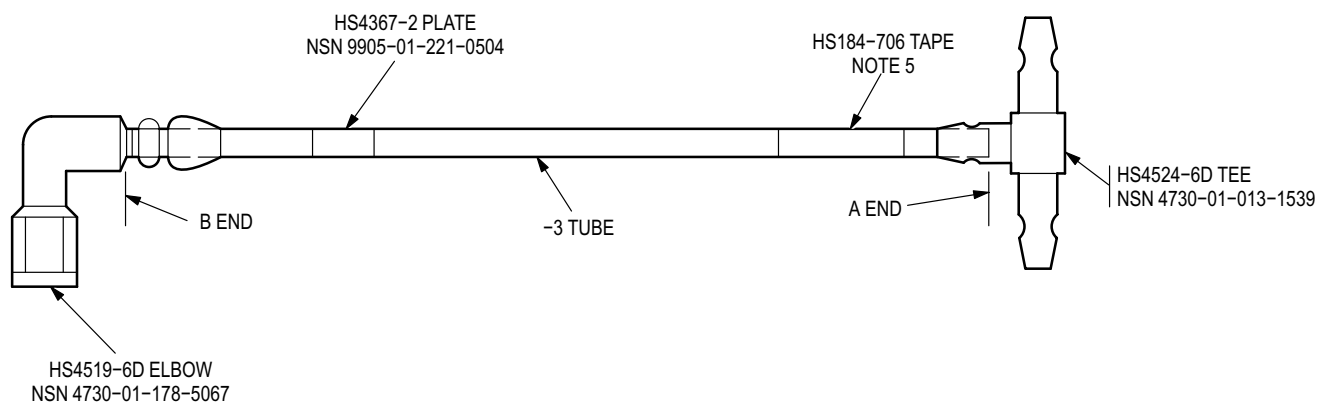
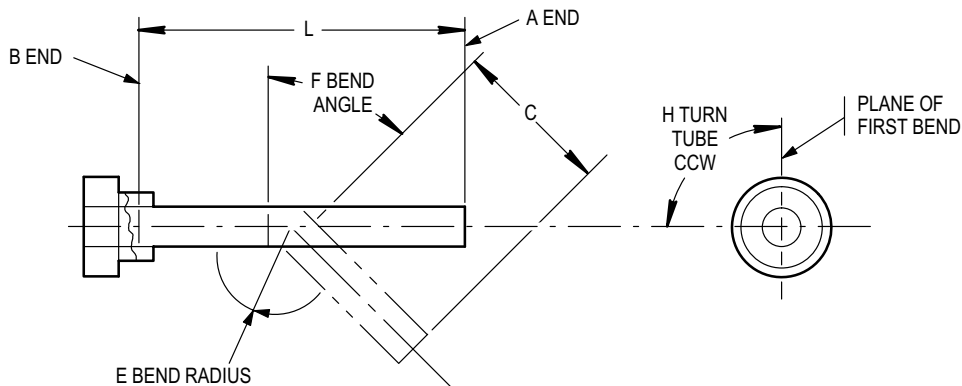


NOTES:

- TUBE ASSEMBLY, METAL - MAKE FROM STEEL CRES TUBING COMPOSITION 21-6-9, TUBE SIZE 0.250 O.D x 0.020 WALL THICKNESS NSN 4710-00-541-8630
- DIMENSION C IS DISTANCE BETWEEN BENDS
- FINISH - PASSIVATE FOR CORROSION RESISTANT STEEL
- ALL DIMENSIONS ARE IN INCHES

M04-4963

Figure D-294. Tube Assembly PN 7-311830212



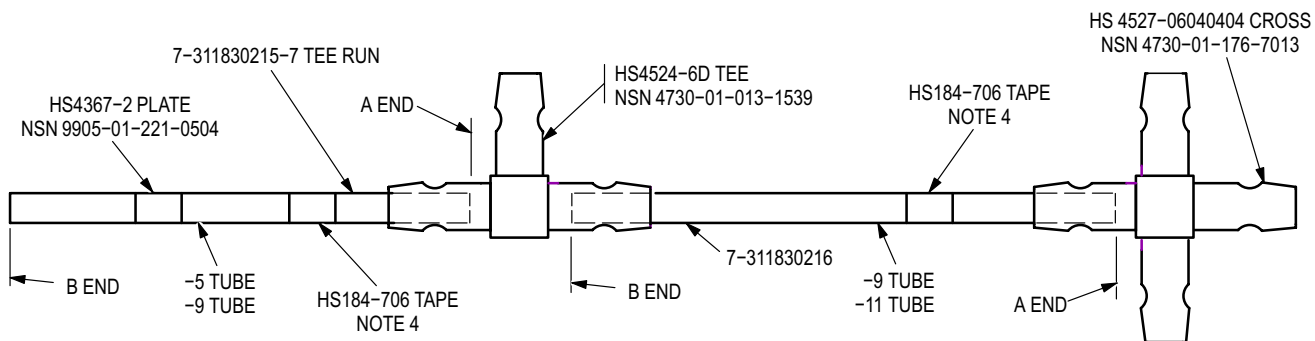
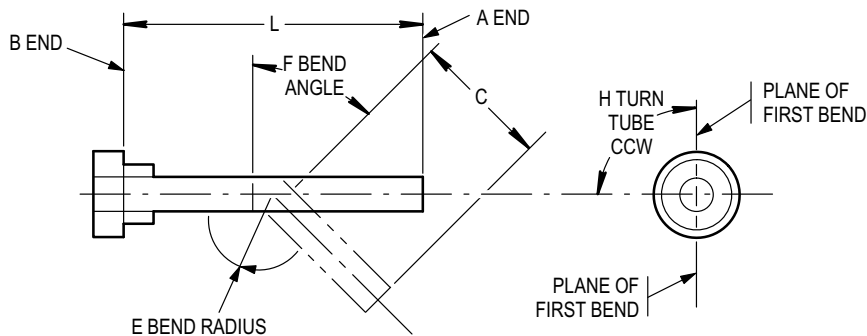
BEND NUMBER	DIMENSIONS				
	C	E	F	H	L
PART NUMBER 7-311830214					
1	1.52 3.57	1.12	109.20	0.0	7.23

NOTES:

- 1 TUBE ASSEMBLY, METAL - MAKE FROM AL-ALY 6061-T6, TUBE SIZE 0.375 O.D x 0.028 WALL THICKNESS NSN 4710-01-167-6979
- 2 DIMENSION C IS DISTANCE BETWEEN BENDS
- 3 DIMENSION L IS PREPARED LENGTH BEFORE BENDING
- 4 FINISH - CHEMICALLY FILM TREAT FOR ELECTRICAL CONDUCTIVITY PER MIL-C-5541 CLASS 3A
- 5 TAPE ARROW POINTS TO B END
- 6 ALL DIMENSIONS ARE IN INCHES

M04-4970

Figure D-295. Tube Assembly PN 7-311830214



BEND NUMBER	DIMENSIONS				
	C	E	F	H	L
PART NUMBER 7-311830215					
-5 ONLY					
1	11.59	1.12	61.8	0.0	23.00
2	2.58	1.12	62.8	-180	23.00
	6.40				
-9 ONLY					
1	11.29	1.12	61.8	0.0	21.97
2	2.58	1.12	62.8	-180	21.97
	7.20				

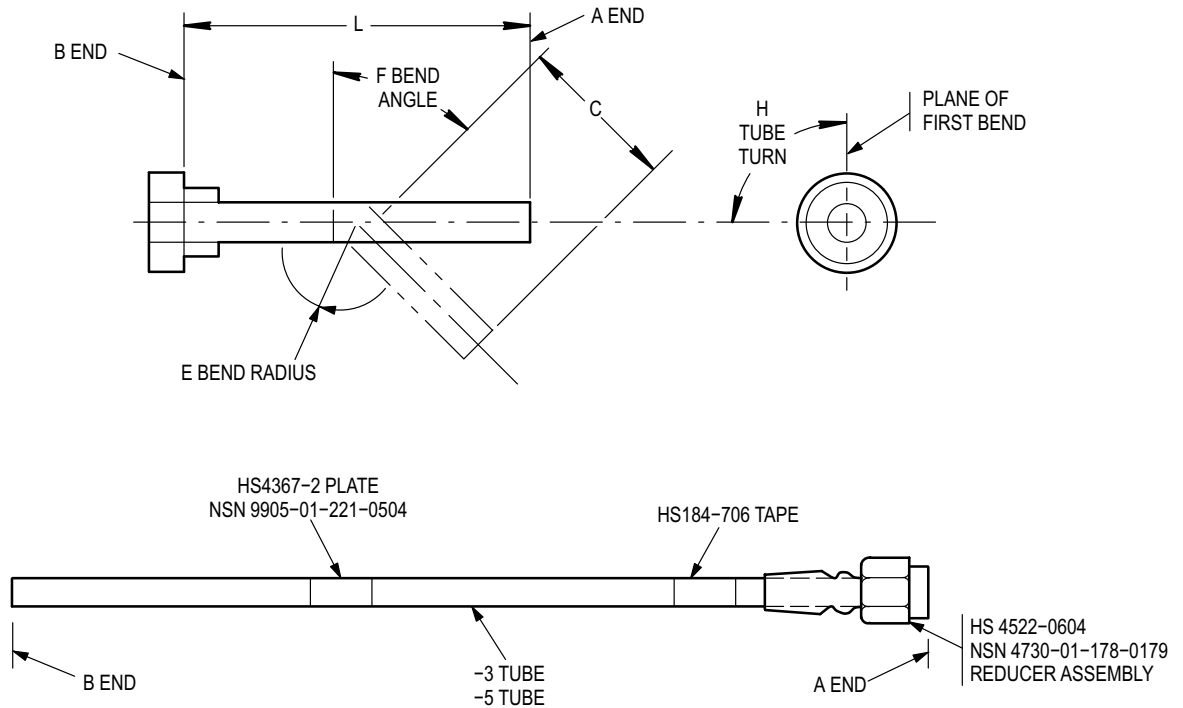
BEND NUMBER	DIMENSIONS				
	C	E	F	H	L
PART NUMBER 7-311830216					
-9 ONLY					
1	1.28	1.12	45.6	0.0	33.77
2	3.03	1.12	18.5	145.9	33.77
3	9.77	1.12	44.1	-96.6	33.77
	17.35				
-11 ONLY					
1	2.10	1.12	30.3	0.0	12.04
2	3.82	1.12	27.1	-21.3	12.04
3	3.09	1.12	20.7	-41.2	12.04
	1.28				
PART NUMBER 7-311830239					
1	2.00	1.12	91.0	0.0	47.40
2	22.16	1.12	21.6	-9.0	47.40
3	2.55	1.12	27.0	-171.5	47.40
4	1.69	1.12	84.4	-0.5	47.40
5	5.10	1.12	39.5	-89.1	47.40
6	1.97	1.12	40.9	179.9	47.40
	5.95				

NOTES:

- 1 TUBE ASSEMBLY, METAL - MAKE FROM AL-ALY TUBING 6061-T6, TUBE SIZE 0.375 O.D x 0.028 WALL THICKNESS NSN 4710-01-167-6979
- 2 DIMENSION C IS DISTANCE BETWEEN BENDS
- 3 FINISH - CHEMICALLY FILM TRAT FOR ELECTRICAL CONDUCTIVITY PER MIL-C-5541 CLASS 3A
- 4 TAPE ARROW POINTS TO B END
- 5 7-311830215-5 TUBE FOR -7 ASSEMBLY
- 6 7-311830215-9 TUBE FOR -11 ASSEMBLY
- 7 7-311830239-3 TUBE SAME DIMENSIONS
- 8 ALL DIMENSIONS ARE IN INCHES

M04-4974

Figure D-296. Tube Assembly PN 7-311830215, PN 7-311830216, PN 7-311830239



BEND NUMBER	DIMENSIONS				
	C	E	F	H	L
PART NUMBER 7-311830217					
1	2.15	0.75	59.2	0.0	51.62
2	2.08	0.75	59.2	180.0	51.62
3	5.46	0.75	17.5	-71.6	51.62
4	2.97	0.75	10.0	-164.6	51.62
5	6.22	0.75	76.4	-79.4	51.62
6	10.36	0.75	87.0	-95.9	51.62
7	8.27	0.75	94.0	-3.3	51.62
	8.84				
PART NUMBER 7-311830218					
1	1.00	0.75	45.3	0.0	28.23
2	1.42	0.75	55.9	-130.6	28.23
3	1.96	0.75	39.0	-123.2	28.23
4	2.20	0.75	36.9	-46.3	28.23
5	3.41	0.75	25.6	-159.7	28.23
6	5.05	0.75	93.9	-60.0	28.23
7	5.44	0.75	91.0	-92.3	28.23
	2.67				

BEND NUMBER	DIMENSIONS				
	C	E	F	H	L
PART NUMBER 7-311830219					
-3 ONLY					
1	2.00	0.75	58.6	0	27.59
2	2.04	0.75	61.1	-177.9	27.59
3	2.94	0.75	23.4	-55.0	27.59
4	2.50	0.75	32.5	144.8	27.59
5	3.39	0.75	61.6	-12.5	27.59
6	1.68	0.75	63.8	70.2	27.59
	9.10				
-5 ONLY					
1	2.02	0.75	57.4	0.0	27.59
2	1.93	0.75	56.0	175.4	27.59
3	3.00	0.75	19.9	-37.4	27.59
4	2.53	0.75	17.3	124.1	27.59
5	3.34	0.75	67.8	-14.4	27.59
6	1.63	0.75	63.8	69.1	27.59
	9.10				

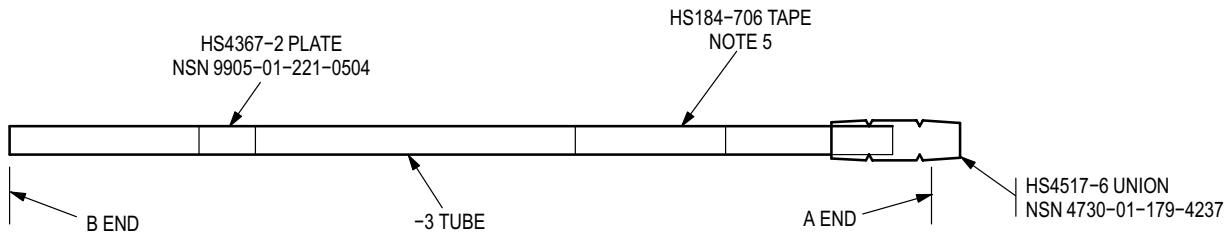
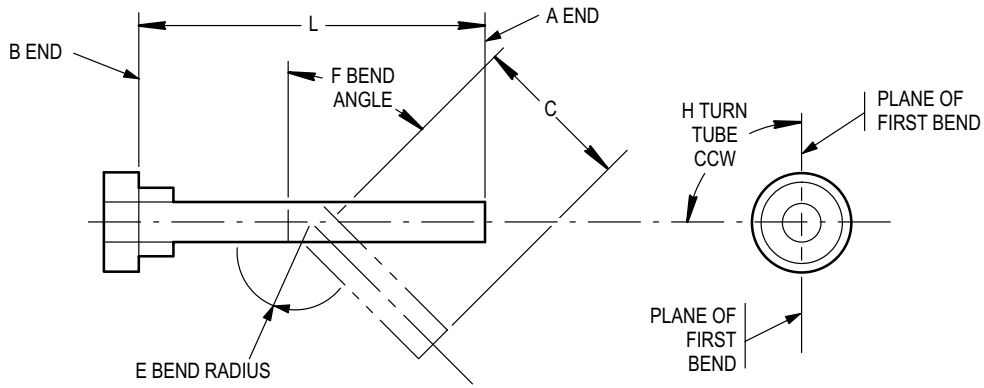
NOTES:

- TUBE ASSEMBLY, METAL - MAKE FROM CORROSION RESISTANT STEEL TUBING COMPOSITION 21-6-9, TUBE SIZE 0.250 O.D x 0.020 WALL THICKNESS NSN 4710-00-541-8630
- DIMENSION C IS DISTANCE BETWEEN BENDS
- DIMENSION L IS PREPARED LENGTH BEFORE BENDING

- FINISH - PASSIVATE FOR CORROSION RESISTANT STEEL
- ALL DIMENSIONS ARE IN INCHES

M04-4960

**Figure D-297. Tube Assembly, Primary System PN 7-311830217, PN 7-311830218, PN 7-311830219**



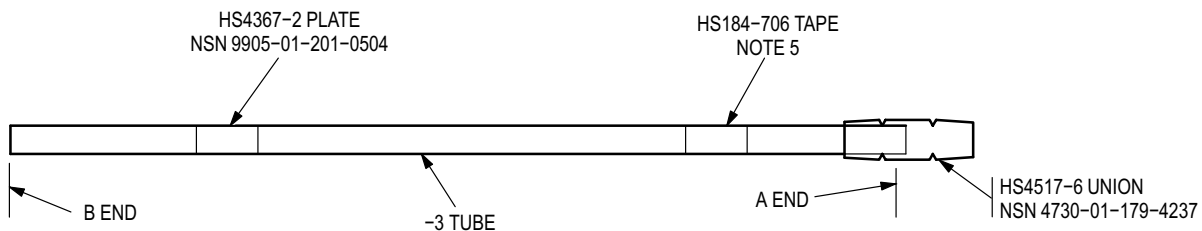
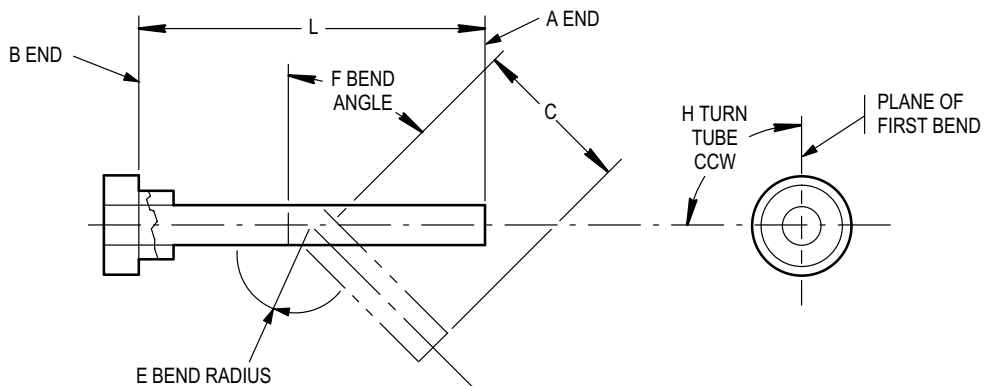
BEND NUMBER	DIMENSIONS				
	C	E	F	H	L
PART NUMBER 7-311830220					
1	38.63	1.12	90.00	0.0	104.31
2	5.07	1.12	90.00	-180.00	104.31
3	2.63	1.12	54.00	111.00	104.31
4	3.14	1.12	54.00	-173.10	104.31
5	9.97	1.12	55.00	47.90	104.31
6	6.55	1.12	55.00	-180.00	104.31
	30.51				

NOTES:

- 1 TUBE ASSEMBLY, METAL - MAKE FROM AL-ALY 6061 T-6, TUBE SIZE 0.375 O.D x 0.028 WALL THICKNESS NSN 4710-01-167-6979
- 2 DIMENSION C IS DISTANCE BETWEEN BENDS
- 3 DIMENSION L IS PREPARED LENGTH BEFORE BENDING
- 4 FINISH - CHEMICALLY FILM TREAT FOR ELECTRICAL CONDUCTIVITY PER MIL-C-5541 CLASS 3A
- 5 TAPE ARROW POINTS TO B END
- 6 ALL DIMENSIONS ARE IN INCHES

M04-4962

Figure D-298. Tube Assembly PN 7-311830220



BEND NUMBER	DIMENSIONS				
	C	E	F	H	L
PART NUMBER 7-311830221					
1	7.75	1.125	20.60	0.0	110.39
2	1.46	1.125	18.50	178.0	110.39
3	92.30 8.25	1.125	3.00	-85.0	110.39

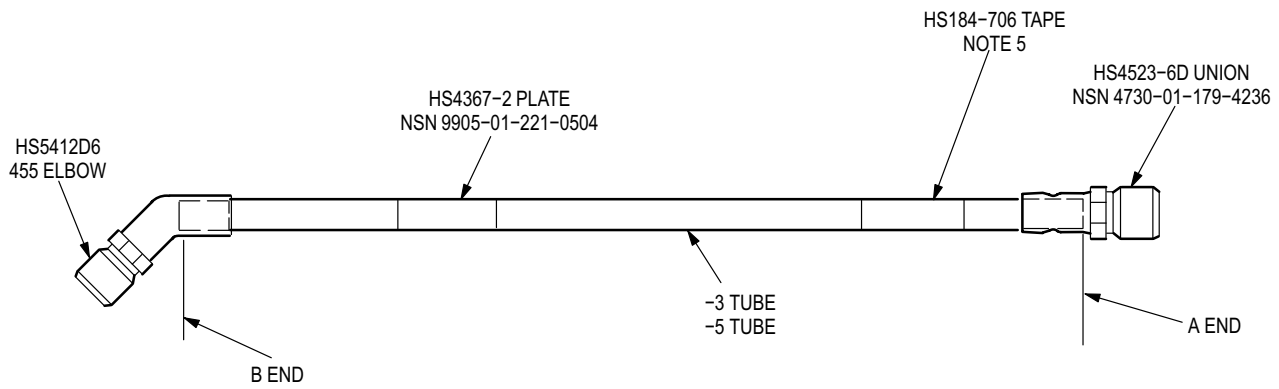
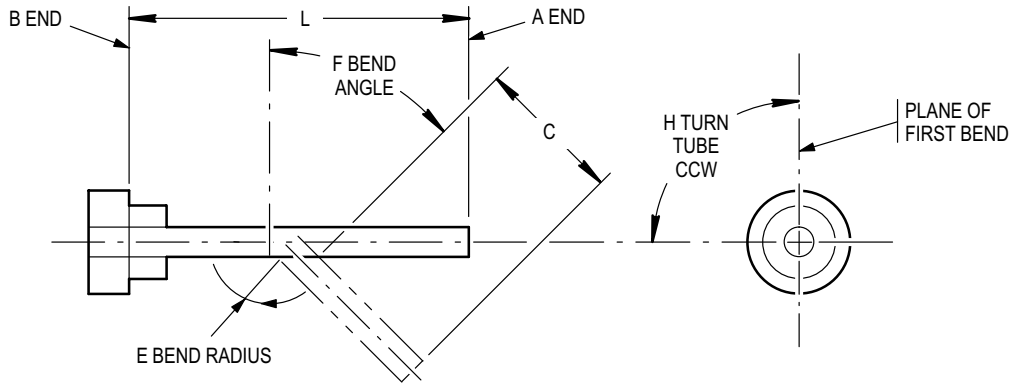
NOTES:

- 1 TUBE ASSEMBLY METAL - MAKE FROM AL-ALY 6061-T6  
MIL-T-7081, TUBE SIZE 0.375 O.D x 0.028 WALL  
THICKNESS NSN 4710-01-167-6979
- 2 DIMENSION C IS DISTANCE BETWEEN BENDS
- 3 DIMENSION L PREPARED LENGTH BEFORE BENDING
- 4 FINISH - CHEMICALLY FILM TREAT FOR ELECTRICAL  
CONDUCTIVITY PER MIL-C-5541 CLASS 3A
- 5 TAPE ARROW POINTS TO B END
- 6 ALL DIMENSIONS ARE IN INCHES

M04-4967

Figure D-299. Tube Assembly PN 7-311830221





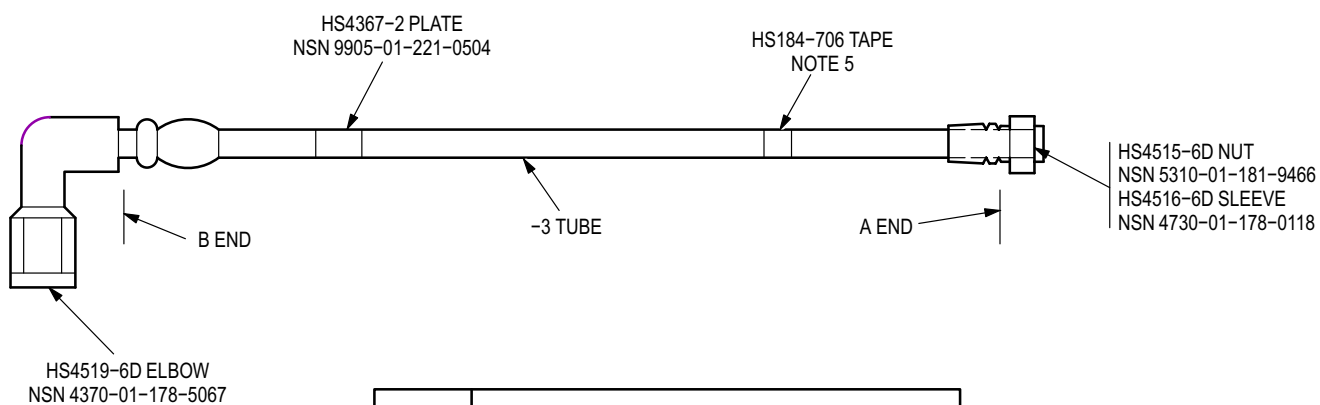
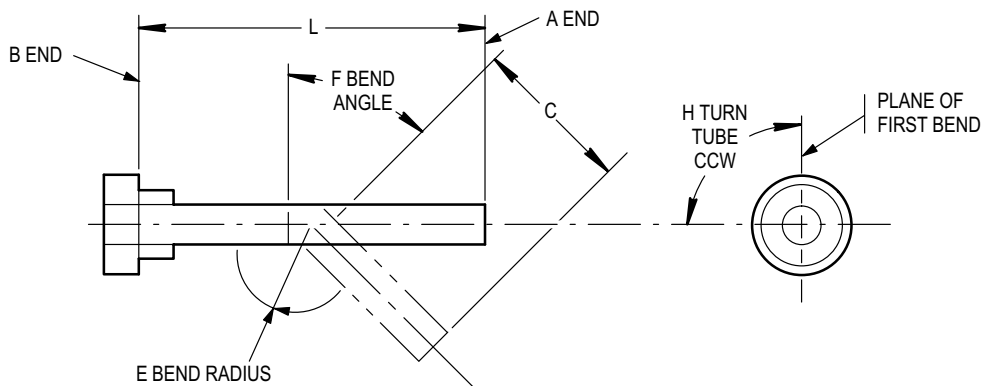
BEND NUMBER	DIMENSIONS				
	C	E	F	H	L
PART NUMBER 7-311830223					
-3 ONLY					
1	7.75	1.12	7.5	05	90.72
2	2.56	1.12	19.8	-180.0	90.72
3	1.45	1.12	78.5	-90.0	90.72
4	61.50	1.12	45.0	92.0	90.72
5	1.00	1.12	45.0	-180.0	90.72
6	3.25	1.12	45.0	0	90.72
7	1.00	1.12	45.0	-180.0	90.72
-5 ONLY					
1	7.75	1.12	7.5	05	90.66
2	2.55	1.12	20.0	-180.0	90.66
3	1.45	1.12	78.5	-90.0	90.66
4	61.60	1.12	38.5	94.0	90.66
5	0.95	1.12	38.5	-180.0	90.66
6	3.50	1.12	38.5	0.0	90.66
7	1.30	1.12	38.5	-180.0	90.66
	6.45				

NOTES:

- 1 TUBE ASSEMBLY, METAL-MAKE FROM AL-ALY TUBING 6061-T6, TUBE SIZE 0.375 O.D x 0.028 WALL THICKNESS NSN 4710-01-167-6979
- 2 DIMENSION C IS DISTANCE BETWEEN BENDS
- 3 DIMENSION L IS PREPARED LENGTH BEFORE BENDING
- 4 FINISH - CHEMICALLY FILM TREAT FOR ELECTRICAL CONDUCTIVITY PER MIL-C-5541 CLASS 3A
- 5 TAPE ARROW POINTS TO B END
- 6 ALL DIMENSIONS ARE IN INCHES

M04-4975

Figure D-300. Tube Assembly PN 7-311830223



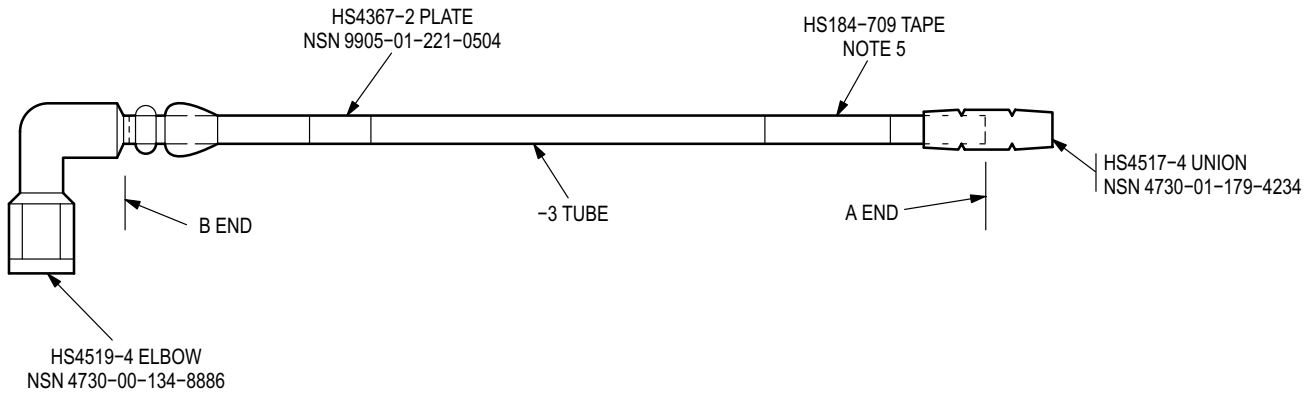
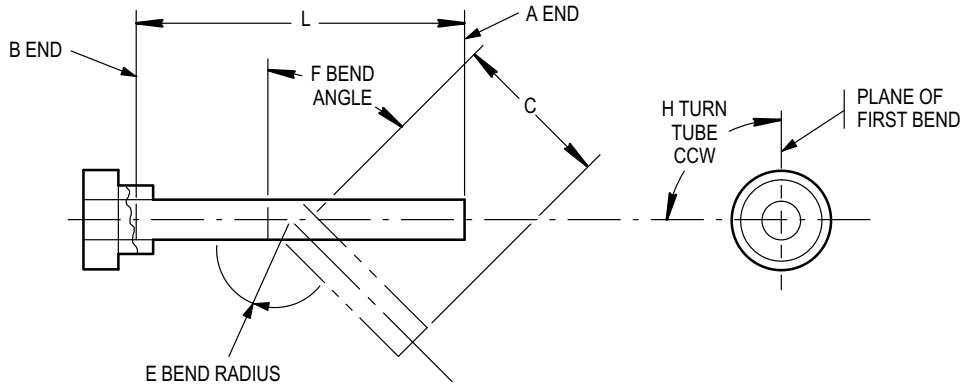
BEND NUMBER	DIMENSIONS				
	C	E	F	H	L
PART NUMBER 7-311830224					
1	1.07	1.12	31.30	0.0	54.29
2	2.93	1.12	35.10	178.00	54.29
3	3.66	1.12	87.70	-63.80	54.29
4	2.87	1.12	18.00	89.40	54.29
5	1.61	1.12	18.00	-179.80	54.29
6	1.33	1.12	44.30	-88.50	54.29
7	3.85	1.12	44.60	0.40	54.29
8	1.20	1.12	28.10	-6.60	54.29
9	3.14	1.12	26.70	-177.80	54.29
10	20.95	1.12	34.10	99.80	54.29
11	1.02	1.12	43.90	125.10	54.29
	2.59				

NOTES:

- 1 TUBE ASSEMBLY, METAL - MAKE FROM AL-ALY 6061 T-6, TUBE SIZE 0.375 O.D x 0.028 WALL THICKNESS NSN 4710-01-167-6979
- 2 DIMENSION C IS DISTANCE BETWEEN BENDS
- 3 DIMENSION L IS PREPARED LENGTH BEFORE BENDING
- 4 FINISH - CHEMICALLY FILM TREAT FOR ELECTRICAL CONDUCTIVITY PER MIL-C-5541 CLASS 3A
- 5 TAPE ARROW POINTS TO B END
- 6 ALL DIMENSIONS ARE IN INCHES

M04-4968

Figure D-301. Tube Assembly PN 7-311830224



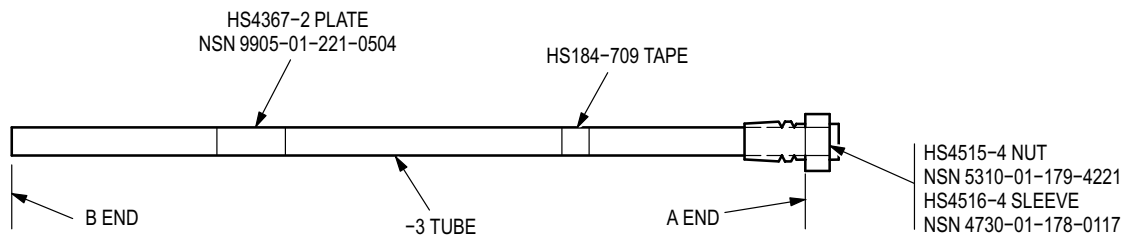
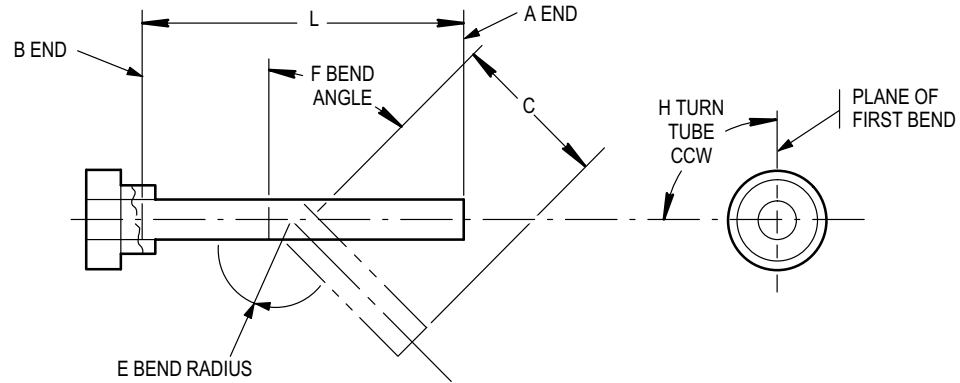
BEND NUMBER	DIMENSIONS				
	C	E	F	H	L
PART NUMBER 7-311830226					
1	18.26	0.75	61.70	0.0	59.39
2	2.84	0.75	63.60	-178.50	59.39
3	29.05	0.75	54.80	-96.00	59.39
4	5.23	0.75	55.00	-168.70	59.39
	0.93				

NOTES:

- 1 TUBE ASSEMBLY, METAL - MAKE FROM CORROSION RESISTANT STEEL TUBING  
COMPOSITION 21-6-9, TUBE SIZE 0.250 O.D x 0.020 WALL THICKNESS  
NSN 4710-00-825-5894
- 2 DIMENSION C IS DISTANCE BETWEEN BENDS
- 3 DIMENSION L IS PREPARED LENGTH BEFORE BENDING
- 4 FINISH - PASSIVATE FOR CORROSION RESISTANT STEEL
- 5 TAPE ARROW POINTS TO B END
- 6 ALL DIMENSIONS ARE IN INCHES

M04-4972

Figure D-302. Tube Assembly PN 7-311830226



BEND NUMBER	DIMENSIONS				
	C	E	F	H	L
PART NUMBER 7-311830227-3					
1	5.10	0.75	41.00	0.0	109.71
2	10.81	0.75	60.90	120.20	109.71
3	3.30	0.75	47.80	130.70	109.71
4	5.55	0.75	89.40	91.80	109.71
5	44.97	0.75	40.60	179.90	109.71
6	2.66	0.75	41.00	178.90	109.71
7	2.53	0.75	35.30	-152.70	109.71
8	3.68	0.75	32.20	-135.10	109.71
9	4.47	0.75	26.00	-105.70	109.71
	21.23				

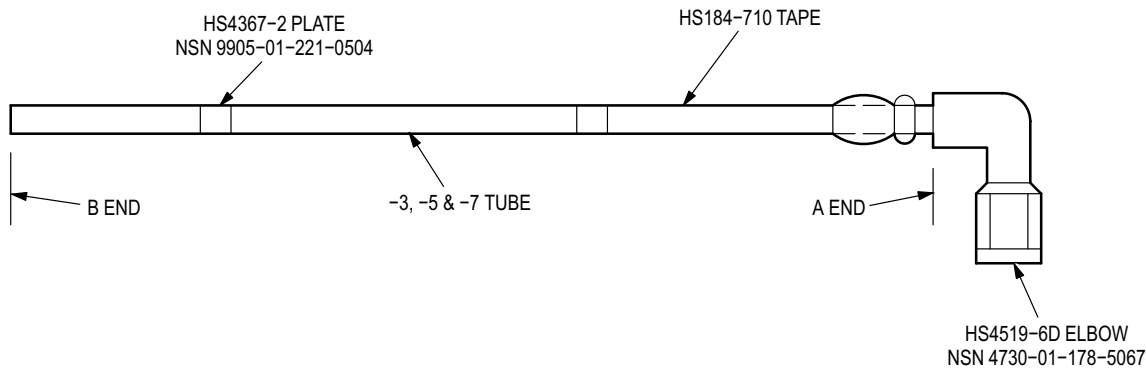
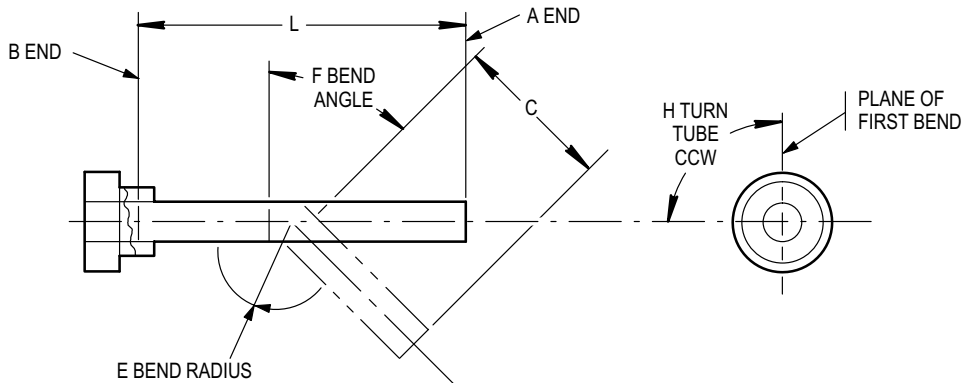
NOTES:

- TUBE ASSEMBLY, METAL - MAKE FROM CORROSION RESISTANT STEEL TUBING COMPOSITION 21-6-9, TUBE SIZE 0.250 O.D x 0.020 WALL THICKNESS NSN 4710-00-825-5894
- DIMENSION C IS DISTANCE BETWEEN BENDS
- DIMENSION L IS PREPARED LENGTH BEFORE BENDING
- FINISH - PASSIVATE FOR CORROSION RESISTANT STEEL
- ALL DIMENSIONS ARE IN INCHES

M04-4971A

Figure D-303. Tube Assembly PN 7-311830227-3





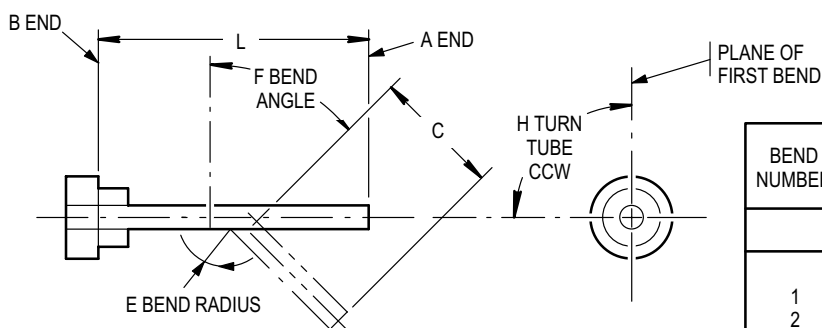
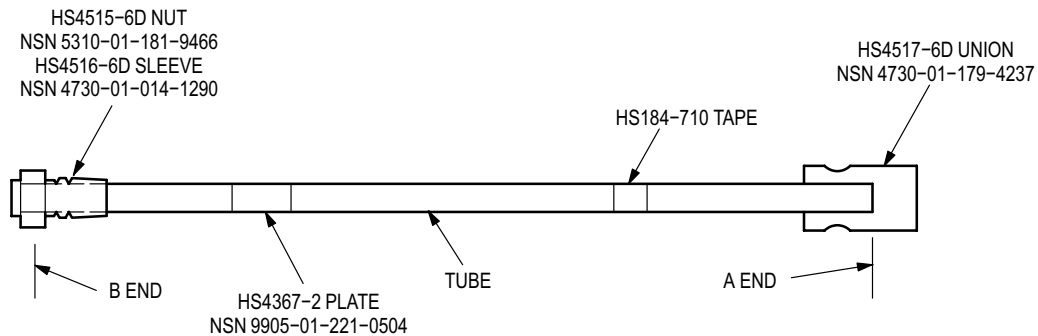
BEND NUMBER	DIMENSIONS				
	C	E	F	H	L
PART NUMBER 7-311830229					
-3 ONLY					
1	1.39	1.12	48.30	0.0	50.14
2	5.74	1.12	48.00	-178.70	50.14
3	28.05	1.12	64.60	-91.10	50.14
4	2.35	1.12	63.50	180.00	50.14
	8.20				
-5 & -7 ONLY					
1	2.14	1.12	48.30	0.0	50.14
2	5.74	1.12	48.00	-178.70	50.14
3	27.30	1.12	64.60	-91.10	50.14
4	2.35	1.12	63.50	-180.00	50.14
	8.20				

NOTES:

- TUBE ASSEMBLY, METAL - MAKE FROM AL-ALY 6061 T-6, TUBE SIZE 0.375 O.D x 0.028 WALL THICKNESS, NSN 4710-01-167-6979
- DIMENSION C IS DISTANCE BETWEEN BENDS
- DIMENSION L IS PREPARED LENGTH BEFORE BENDING
- FINISH - CHEMICALLY FILM TREAT FOR ELECTRICAL CONDUCTIVITY PER MIL-C-5541 CLASS 3A
- ALL DIMENSIONS ARE IN INCHES

M04-4969

Figure D-304. Tube Assembly PN 7-311830229



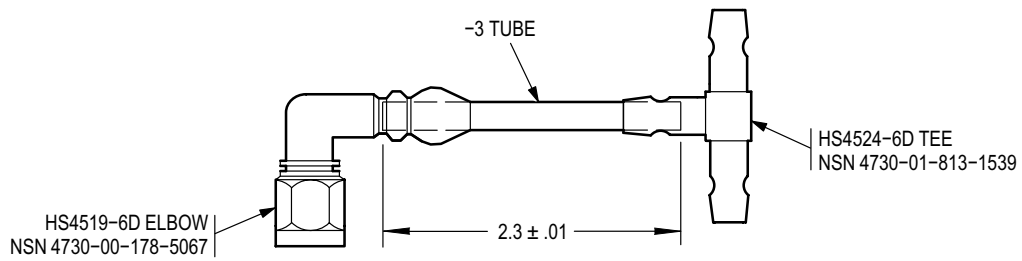
BEND NUMBER	DIMENSIONS				
	C	E	F	H	L
PART NUMBER 7-311830230					
-3 ONLY					
1	31.45	1.12	28.00	0	117.00
2	4.17	1.12	33.50	-110.20	117.00
3	2.49	1.12	35.80	-129.20	117.00
4	2.37	1.12	41.80	-144.20	117.00
5	2.14	1.12	42.00	-177.60	117.00
6	44.98	1.12	89.60	-178.50	117.00
7	6.14	1.12	51.80	89.70	117.00
8	2.56	1.12	76.80	110.80	117.00
9	10.33	1.12	62.20	122.40	117.00
	1.31				
-7 ONLY					
1	31.55	1.12	28.00	0.0	117.00
2	4.17	1.12	33.50	-110.20	117.00
3	2.49	1.12	35.80	-129.20	117.00
4	2.37	1.12	41.80	-144.20	117.00
5	2.14	1.12	42.00	-177.60	117.00
6	44.98	1.12	89.60	-178.50	117.00
7	6.14	1.12	51.80	89.70	117.00
8	2.56	1.12	76.30	111.60	117.00
9	9.94	1.12	65.70	126.90	117.00
	1.50				
PART NUMBER 7-311830231					
1	1.28	1.12	19.20	0	6.27
2	1.28	1.12	18.60	175.00	6.27
	2.98				
PART NUMBER 7-311830336*					
1	2.11	1.12	89.20	0	106.45
2	70.15	1.122	18.50	-172.60	106.45
3	3.24	1.12	15.90	-178.90	106.45
	28.52				

NOTES:

- TUBE ASSEMBLY, METAL-MAKE FROM AL ALY 6061-T6, TUBE SIZE 0.375 O.D x 0.028 WALL THICKNESS, NSN 4710-01-167-6979
- DIMENSION C IS DISTANCE BETWEEN BENDS
- DIMENSION L IS PREPARED LENGTH BEFORE BENDING
- FINISH - CHEMICALLY FILM TREAT FOR ELECTRICAL CONDUCTIVITY PER MIL-C-5541 CLASS 3A
- ALL DIMENSIONS ARE IN INCHES

M04-4965

Figure D-305. Tube Assembly PN 7-311830230, PN 7-311830231, PN 7-311830336

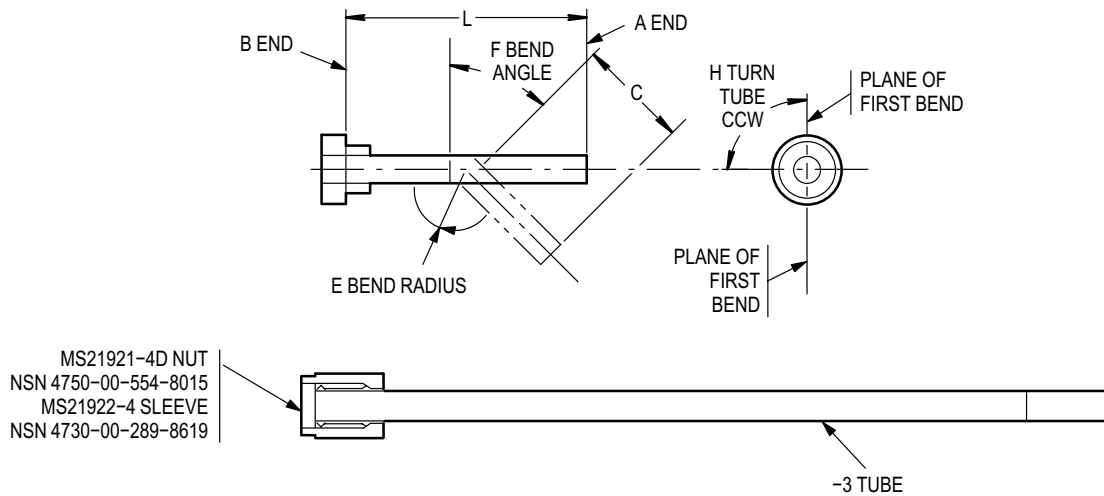


NOTES:

- TUBE ASSEMBLY, METAL - MAKE FROM AL-ALY TUBING 6061-T6, TUBE SIZE 0.375 O.D x 0.028 WALL THICKNESS, NSN 4710-01-167-6979
- PREPARED LENGTH BEFORE SWAGING
- FINISH - CHEMICALLY FILM TREAT FOR ELECTRICAL CONDUCTIVITY PER MIL-C-5541
- ALL DIMENSIONS ARE IN INCHES

M04-4977

Figure D-306. Tube Assembly PN 7-311830232



NOTES:

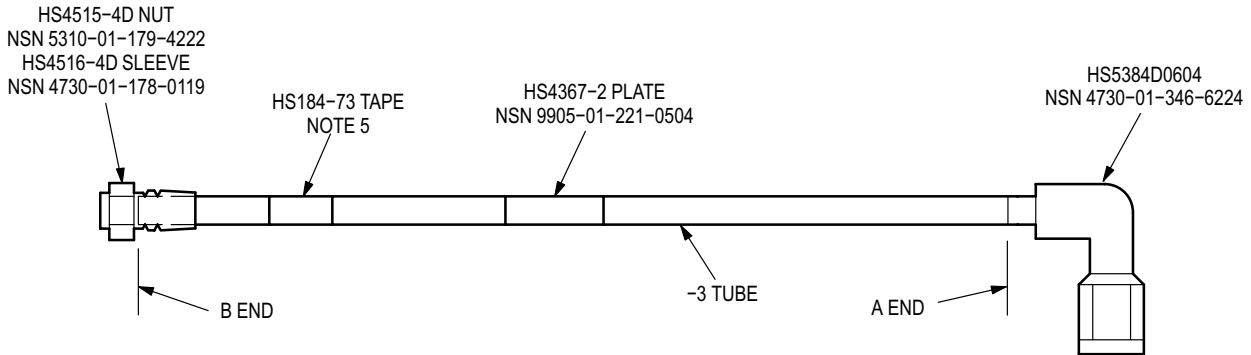
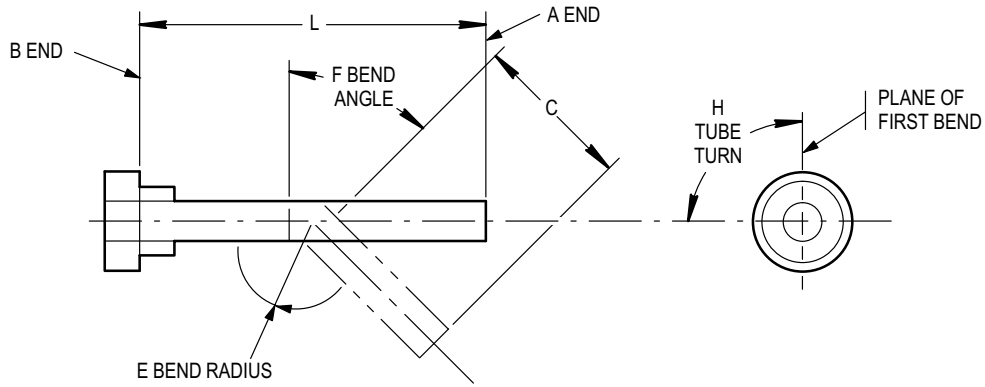
- TUBE ASSEMBLY, METAL - MAKE FROM AL-ALY TUBING 6061-T6, TUBE SIZE 0.250 O.D x 0.020 WALL THICKNESS NSN 4710-00-683-9034
- DIMENSION C IS DISTANCE BETWEEN BENDS
- FINISH - CHEMICALLY FILM TREAT FOR ELECTRICAL CONDUCTIVITY PER MIL-C-5541 CLASS 3A
- ALL DIMENSIONS ARE IN INCHES

BEND NUMBER	DIMENSIONS				
	C	E	F	H	L
PART NUMBER 7-311830233					
1	0.82 1.32	0.75	90.0	0.0	3.32

M04-4976

Figure D-307. Tube Assembly PN 7-311830233





NOTES:

- 1 TUBE ASSEMBLY, METAL - MAKE FROM AL-ALY 6061-T6, TUBE SIZE 0.250 O.D x 0.020 WALL THICKNESS, NSN 9535-00-683-9034
- 2 DIMENSION C IS DISTANCE BETWEEN BENDS
- 3 DIMENSION L IS PREPARED LENGTH BEFORE BENDING
- 4 FINISH - CHEMICALLY FILM TREAT FOR ELECTRICAL CONDUCTIVITY PER MIL-C-5541 CLASS 3A
- 5 TAPE ARROW POINTS TO A END
- 6 ALL DIMENSIONS ARE IN INCHES

BEND NUMBER	DIMENSIONS				
	C	E	F	H	L
PART NUMBER 7-311830236					
1	1.95	0.75	58.7	0.0	9.44
2	4.67	0.75	32.4	12.1	9.44
	1.63				

M04-4966

Figure D-308. Tube Assembly PN 7-311830236

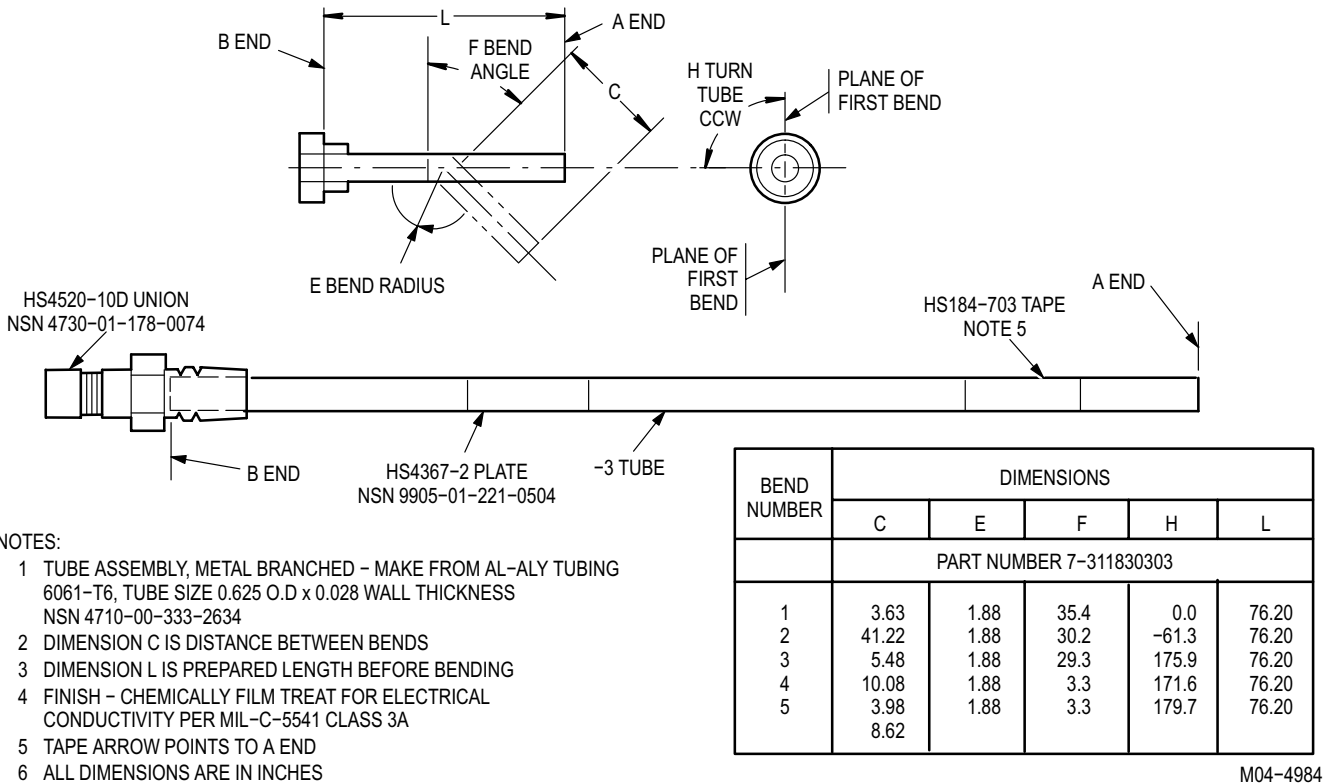


Figure D-309. Tube Assembly, Metal PN 7-311830303

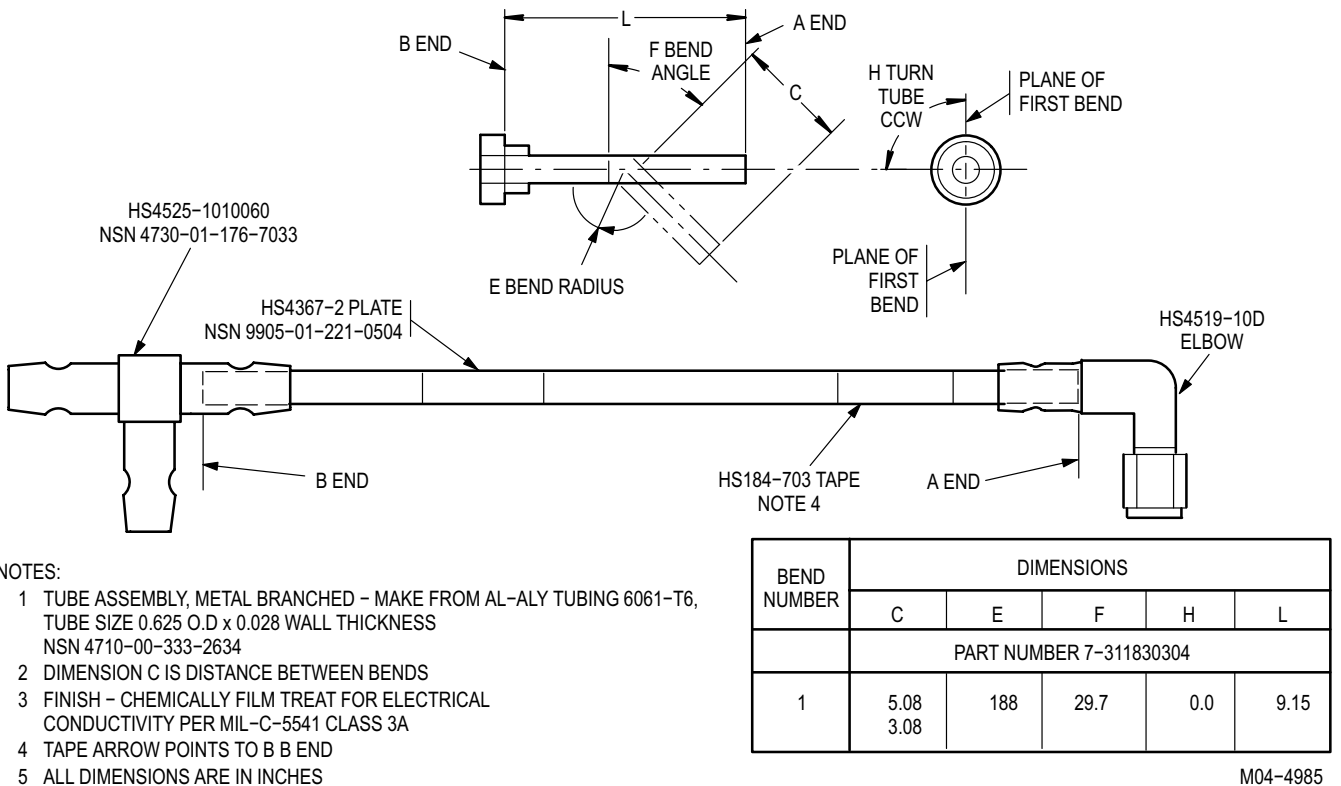
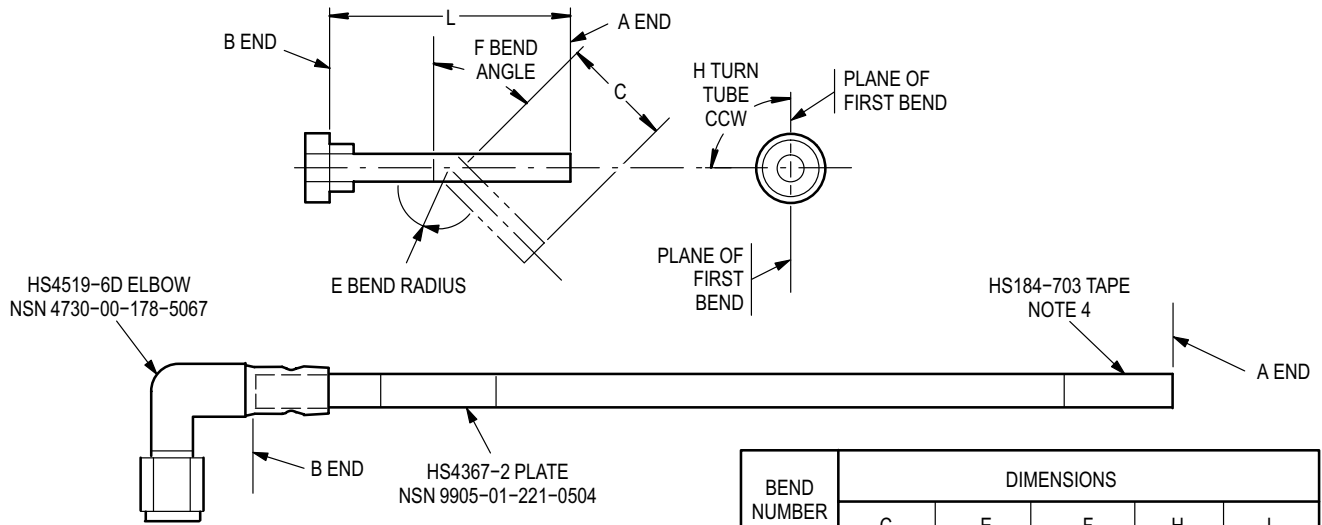


Figure D-310. Tube Assembly, Metal PN 7-311830304



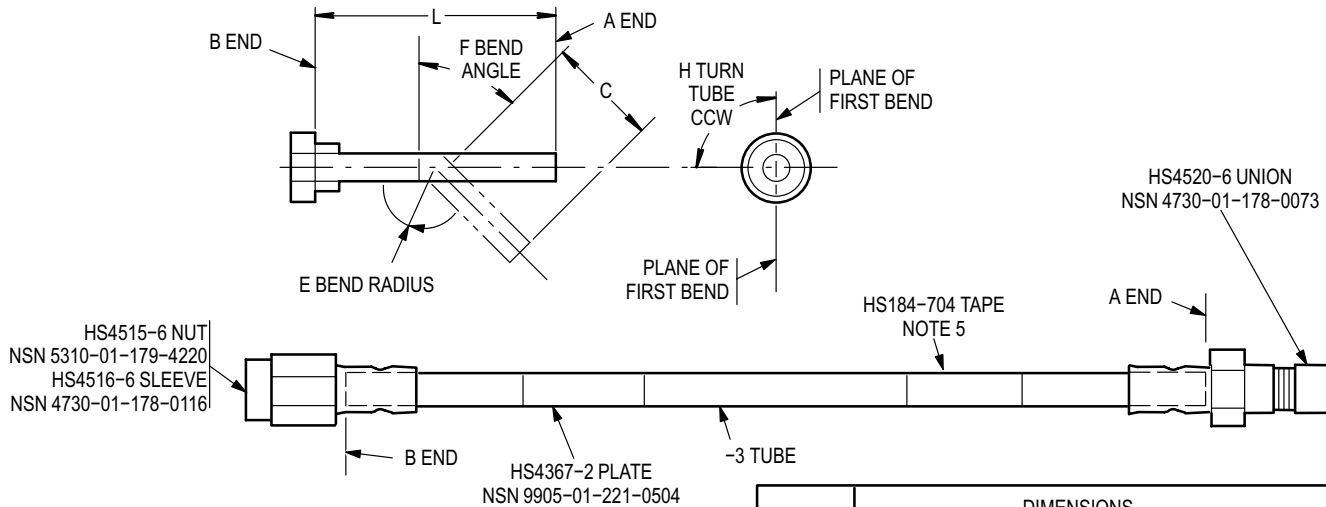
NOTES:

- 1 TUBE ASSEMBLY, METAL - MAKE FROM AL-ALY TUBING 6061-T6, TUBE SIZE 0.375 O.D x 0.028 WALL THICKNESS NSN 4710-01-167-6979
- 2 DIMENSION C IS DISTANCE BETWEEN BENDS
- 3 FINISH - CHEMICALLY FILM TREAT FOR ELECTRICAL CONDUCTIVITY PER MIL-C-5541 CLASS 3A
- 4 TAPE ARROW POINTS TO B END
- 5 ALL DIMENSIONS ARE IN INCHES

BEND NUMBER	DIMENSIONS				
	C	E	F	H	L
PART NUMBER 7-311830305					
1	1.13	1.12	3.4	0.0	35.64
2	4.17	1.12	55.3	11.94	35.64
3	1.67	1.12	61.1	105.4	35.64
4	15.29	1.12	40.6	-19.9	35.64
5	5.90	1.12	40.2	-179.9	35.64
	3.59				

M04-4989

Figure D-311. Tube Assembly, Metal PN 7-311830305



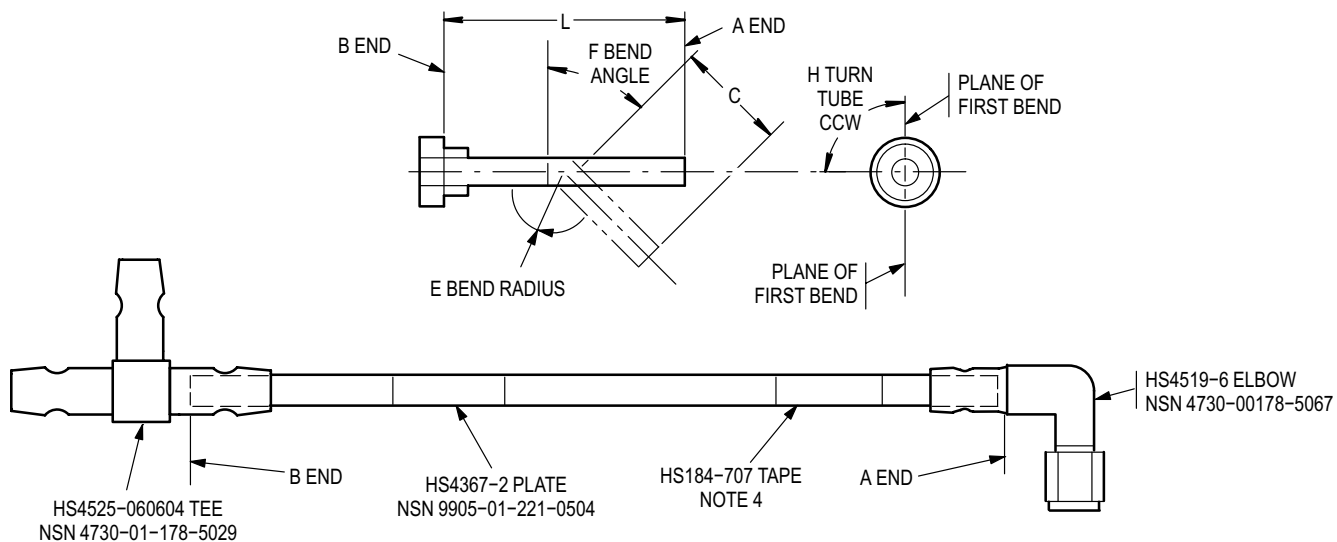
NOTES:

- 1 TUBE ASSEMBLY, METAL - MAKE FROM STEEL CRES TUBING COMPOSITION 21-6-9, TUBE SIZE 0.375 O.D x 0.020 WALL THICKNESS NSN 4710-01-102-6423
- 2 DIMENSION C IS DISTANCE BETWEEN BENDS
- 3 FINISH - PASSIVATE FOR CORROSION RESISTANT STEEL
- 4 IDENTIFY WITH METAL TAPE MARKED BY ENGRAVING WITH ELECTRIC VIBRATOR, IMPRESSION STAMPING OR TYPEWRITER APPLY PROTECTIVE COATING PER MIL-V-173 TO TYPEWRITER MARKING ONLY
- 5 TAPE ARROW POINTS TO B END
- 6 ALL DIMENSIONS ARE IN INCHES

BEND NUMBER	DIMENSIONS				
	C	E	F	H	L
PART NUMBER 7-311830307					
1	21.41	1.12	29.6	0.0	83.65
2	4.70	1.12	29.9	177.4	83.65
3	43.03	1.12	37.4	6.5	83.65
4	7.72	1.12	35.5	-175.1	83.65
	4.191				

M04-4990

Figure D-312. Tube PN 7-311830307



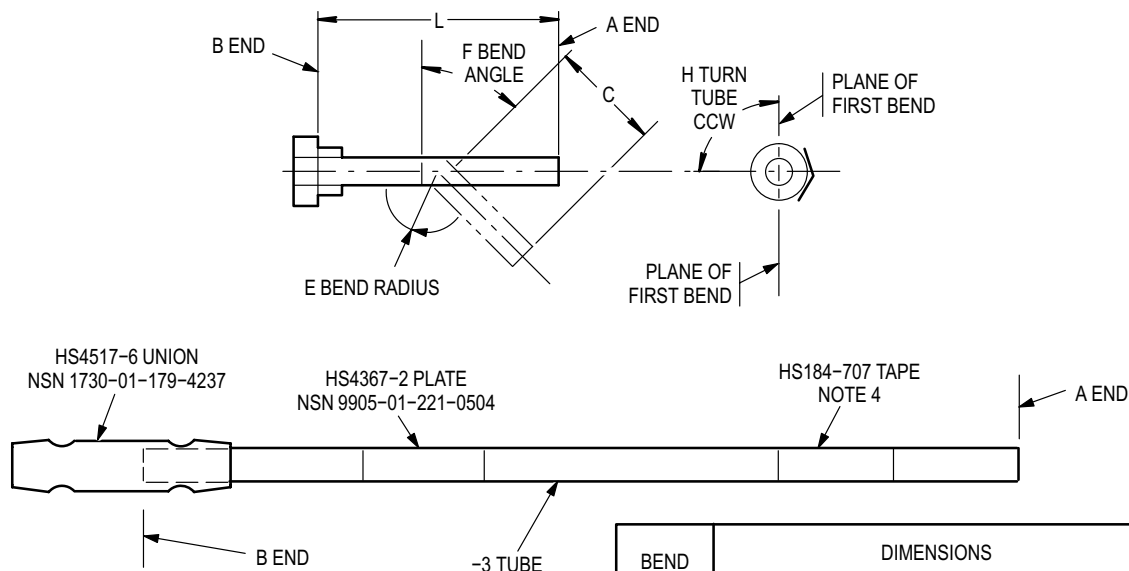
NOTES:

- 1 TUBE ASSEMBLY, METAL BRANCHED - MAKE FROM STEEL CRES TUBING COMPOSITION 21-6-9, TUBE SIZE 0.375 O.D x 0.020 WALL THICKNESS NSN 4710-01-102-6423
- 2 DIMENSION C IS DISTANCE BETWEEN BENDS
- 3 FINISH - PASSIVATE FOR CORROSION RESISTANT STEEL
- 4 TAPE ARROW POINTS TO B END
- 5 ALL DIMENSIONS ARE IN INCHES

BEND NUMBER	DIMENSIONS				
	C	E	F	H	L
PART NUMBER 7-311830310					
1	3.32 2.56	1.12	41.0	0.0	6.69

M04-4988

Figure D-313. Tube Assembly, Metal PN 7-311830310



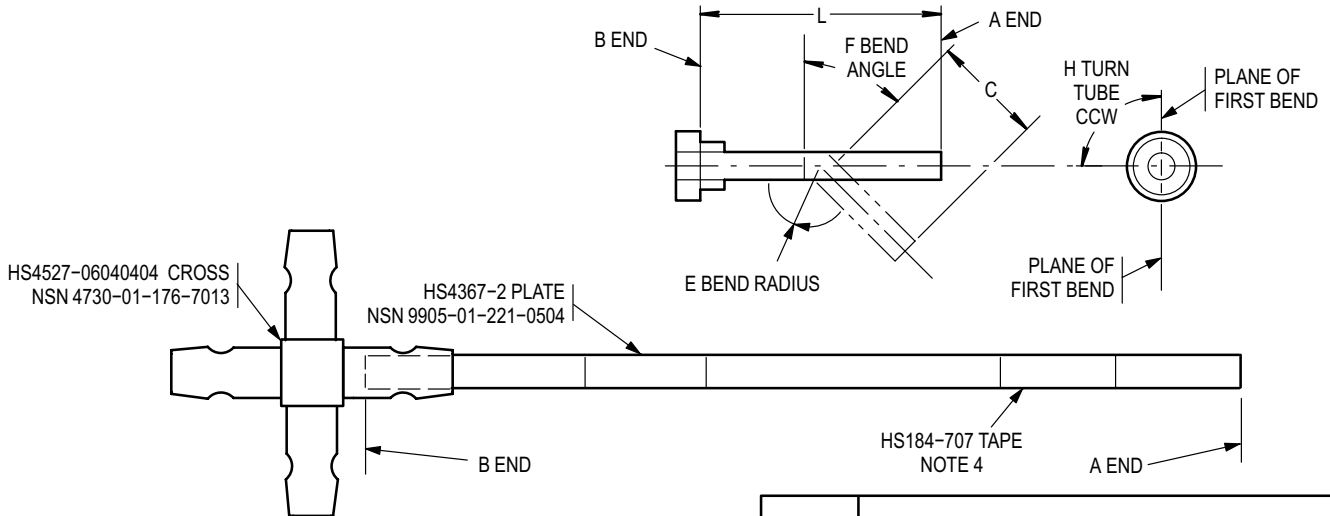
NOTES:

- 1 TUBE ASSEMBLY, METAL BRANCHED - MAKE FROM STEEL CRES TUBING COMPOSITION 21-6-9, TUBE SIZE 0.375 O.D x 0.020 WALL THICKNESS NSN 4710-01-102-6423
- 2 DIMENSION C IS DISTANCE BETWEEN BENDS
- 3 FINISH - PASSIVATE FOR CORROSION RESISTANT STEEL
- 4 TAPE ARROW POINTS TO B END
- 5 ALL DIMENSIONS ARE IN INCHES

BEND NUMBER	DIMENSIONS				
	C	E	F	H	L
PART NUMBER 7-311830311					
1	1.27	1.12	44.8	0.0	52.63
2	48.31 1.49	1.12	34.6	11.0	52.63

M04-4987

Figure D-314. Tube Assembly, Metal PN 7-311830311



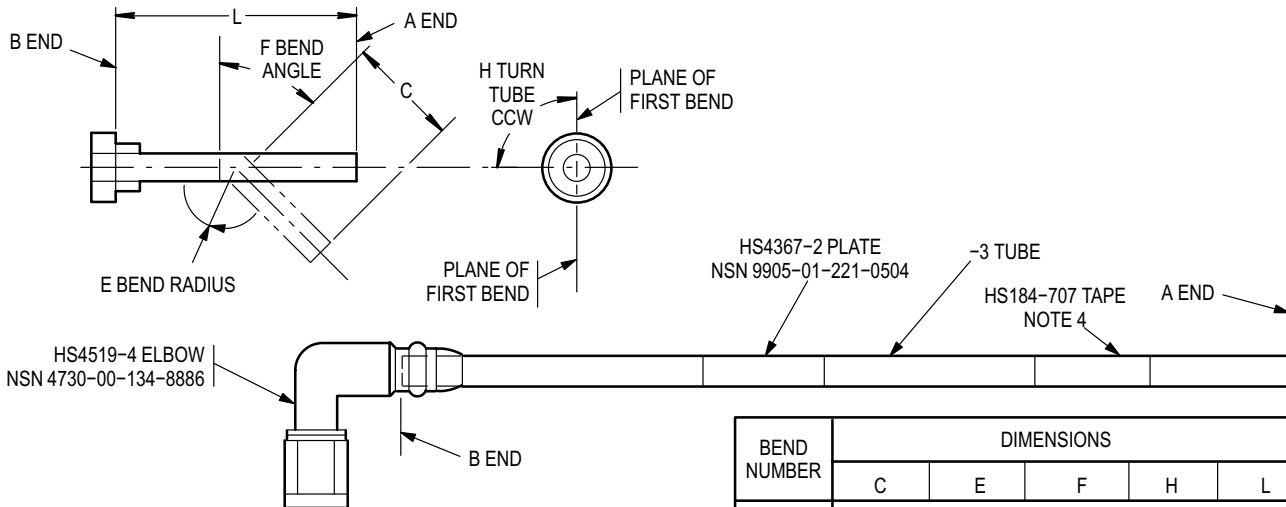
NOTES:

- 1 TUBE ASSEMBLY, METAL BRANCHED - MAKE FROM STEEL CRES TUBING COMPOSITION 21-6-9, TUBE SIZE 0.375 O.D x 0.020 WALL THICKNESS NSN 4710-01-102-6423
- 2 DIMENSION C IS DISTANCE BETWEEN BENDS
- 3 FINISH - PASSIVATE FOR CORROSION RESISTANT STEEL
- 4 TAPE ARROW POINTS TO B END
- 5 ALL DIMENSIONS ARE IN INCHES

BEND NUMBER	DIMENSIONS				
	C	E	F	H	L
PART NUMBER 7-311830312					
1	3.17	1.12	25.2	0.0	39.59
2	24.10	1.12	31.6	168.4	39.59
3	3.77	1.12	32.4	179.7	39.59
	6.91				

M04-4986

Figure D-315. Tube Assembly, Metal PN 7-311830312



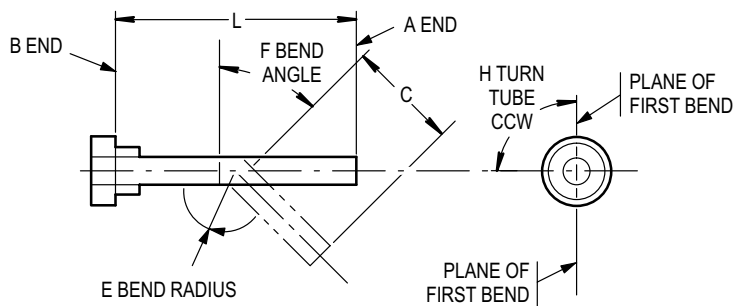
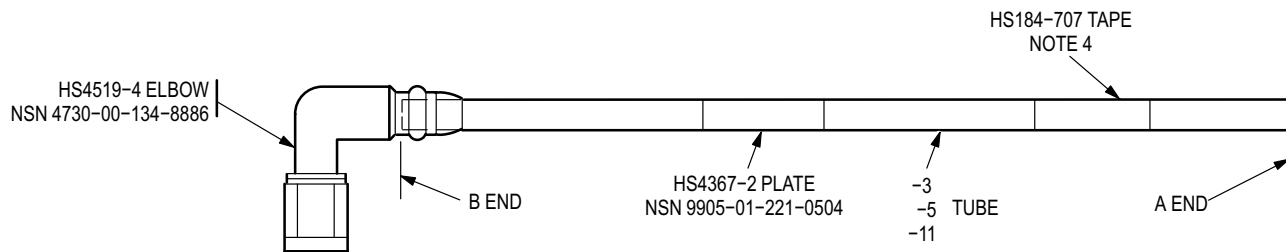
NOTES:

- 1 TUBE ASSEMBLY, METAL - MAKE FROM STEEL CRES TUBING COMPOSITION 21-6-9, TUBE SIZE 0.250 O.D x 0.020 WALL THICKNESS NSN 4710-00-825-5894
- 2 DIMENSION C IS DISTANCE BETWEEN BENDS
- 3 FINISH - PASSIVATE FOR CORROSION RESISTANT STEEL
- 4 TAPE ARROW POINTS TO B END
- 5 ALL DIMENSIONS ARE IN INCHES

BEND NUMBER	DIMENSIONS				
	C	E	F	H	L
PART NUMBER 7-311830313					
1	1.30	0.75	85.1	0.0	31.00
2	2.30	0.75	85.9	136.5	31.00
3	2.49	0.75	121.9	-178.8	31.00
4	4.21	0.75	26.8	-143.8	31.00
5	2.02	0.75	21.3	-141.4	31.00
6	8.79	0.75	52.8	124.3	31.00
7	2.58	0.75	52.1	179.5	31.00
	1.47				

M04-4991

Figure D-316. Tube Assembly, Metal PN 7-311830313



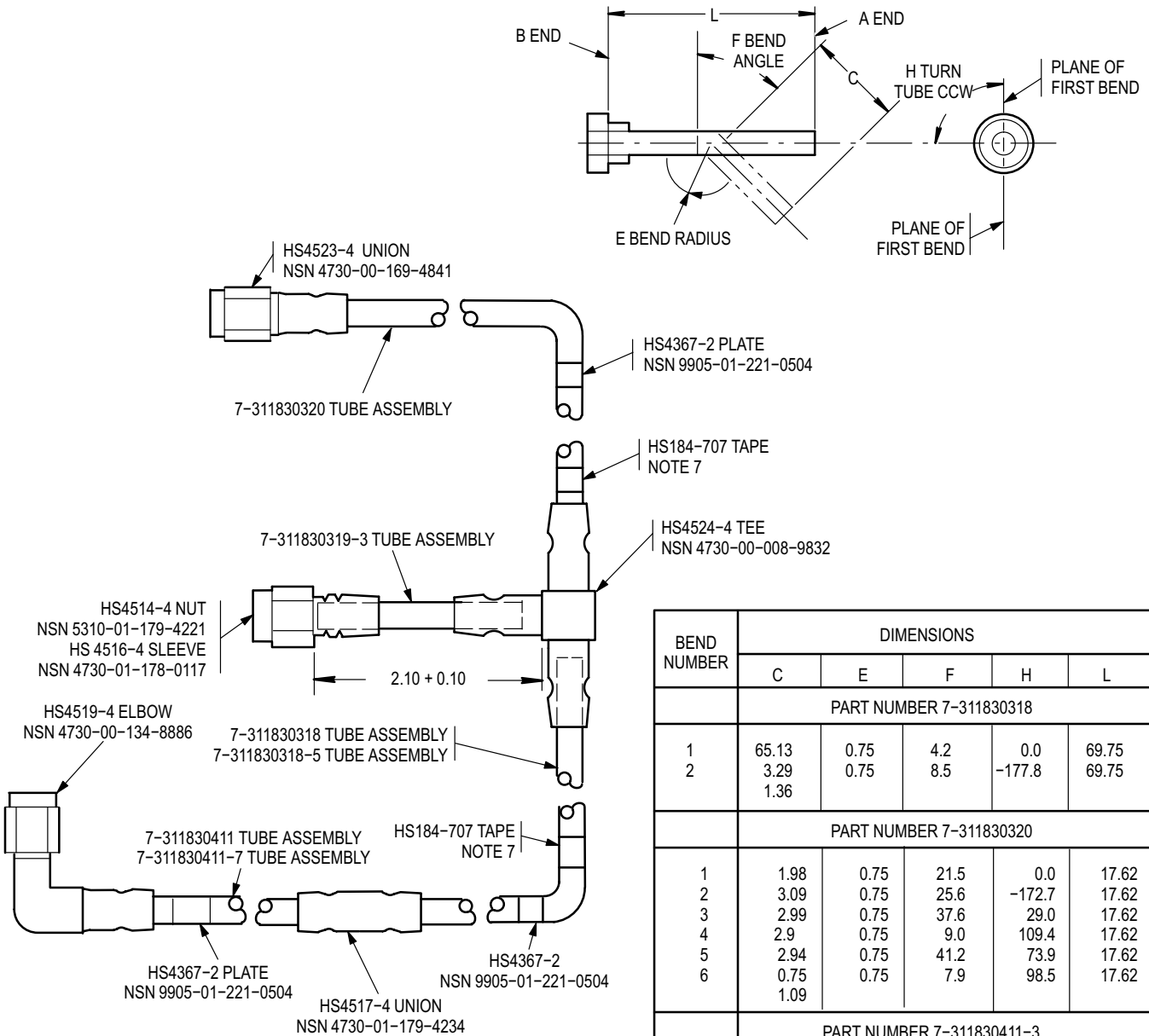
BEND NUMBER	DIMENSIONS				
	C	E	F	H	L
PART NUMBER 7-311830314					
1	3.03	0.75	46.4	0.0	45.75
2	1.83	0.75	90.0	-90.0	45.75
3	3.10	0.75	90.0	-133.6	45.75
4	1.82	0.75	110.4	170.7	45.75
5	7.41	0.75	8.8	86.8	45.75
6	7.49	0.75	55.3	88.1	45.75
7	8.61	0.75	65.0	-178.0	45.75
8	3.63	0.75	117.1	-14.3	45.75
	2.07				
PART NUMBER 7-311830315					
1	6.01	0.75	89.1	0.0	47.02
2	4.90	0.75	89.5	93.7	47.02
3	2.73	0.75	88.6	177.3	47.02
4	1.70	0.75	106.2	-177.9	47.02
5	5.73	0.75	20.2	-88.1	47.02
6	2.20	0.75	21.8	164.2	47.02
7	12.90	0.75	44.3	122.7	47.02
8	2.42	0.75	37.7	173.8	47.02
	1.92				
PART NUMBER 7-311830316					
1	5.46	0.75	21.0	0.0	56.20
2	5.54	0.75	39.0	79.0	56.20
3	3.50	0.75	19.0	-20.0	56.20
4	11.83	0.75	16.0	0.0	56.20
5	0.75	0.75	20.0	180.0	56.20
6	14.40	0.75	36.0	0.0	56.20
7	3.20	0.75	18.0	-180.0	56.20
8	6.20	0.75	86.00	0.0	56.20
	1.40				

NOTES:

- 1 TUBE ASSEMBLY, METAL - MAKE FROM STEEL CRES TUBING COMPOSITION 21-6-9, TUBE SIZE 0.250 O.D x 0.020 WALL THICKNESS NSN 4710-00-825-5894
- 2 DIMENSION C IS DISTANCE BETWEEN BENDS
- 3 FINISH - PASSIVATE FOR CORROSION RESISTANT STEEL
- 4 TAPE ARROW POINTS TO B END
- 5 ALL DIMENSIONS ARE IN INCHES

M04-4992

**Figure D-317. Tube Assembly, Metal PN 7-311830314, PN 7-311830315, PN 7-311830316**



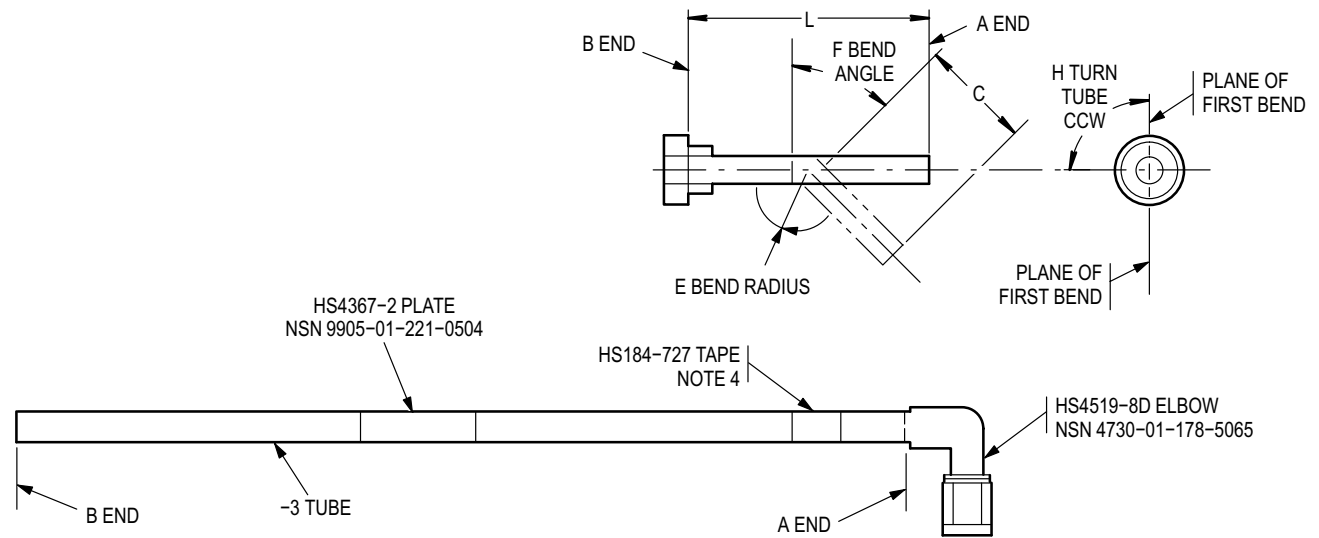
BEND NUMBER	DIMENSIONS				
	C	E	F	H	L
PART NUMBER 7-311830318					
1	65.13	0.75	4.2	0.0	69.75
2	3.29	0.75	8.5	-177.8	69.75
	1.36				
PART NUMBER 7-311830320					
1	1.98	0.75	21.5	0.0	17.62
2	3.09	0.75	25.6	-172.7	17.62
3	2.99	0.75	37.6	29.0	17.62
4	2.9	0.75	9.0	109.4	17.62
5	2.94	0.75	41.2	73.9	17.62
6	0.75	0.75	7.9	98.5	17.62
	1.09				
PART NUMBER 7-311830411-3					
1	1.40	0.75	10.0	0.0	80.34
2	33.57	0.75	2.2	-150.5	80.34
3	35.93	0.75	15.5	-150.5	80.34
4	3.39	0.75	17.2	-179.1	80.34
	5.46				
PART NUMBER 7-311830411-5					
1	34.99	0.75	2.2	0.0	80.10
2	35.93	0.75	15.5	-150.5	80.10
3	3.39	0.75	17.2	-179.1	80.10
	5.46				

NOTES:

- 1 TUBE ASSEMBLY, METAL BRANCHED - MAKE FROM STEEL CRES TUBING COMPOSITION 21-6-9, TUBE SIZE 0.250 O.D x 0.020 WALL THICKNESS NSN 4710-00-825-5894
- 2 DIMENSION C IS DISTANCE BETWEEN BENDS
- 3 DIMENSION L IS PREPARED LENGTH BEFORE BENDING
- 4 FINISH - PASSIVATE FOR CORROSION RESISTANT STEEL
- 5 7-311830317 INCLUDES ALL PARTS IN ILLUSTRATION
- 6 7-311830319-3 TUBE HAS NO BENDS
- 7 TAPE ARROW POINTS TO B END
- 8 ALL DIMENSIONS ARE IN INCHES

M04-4980

**Figure D-318. Tube Assembly PN 7-311830317, PN 7-311830318, PN 7-311830319, PN 7-311830320, PN 7-311830411**



NOTES:

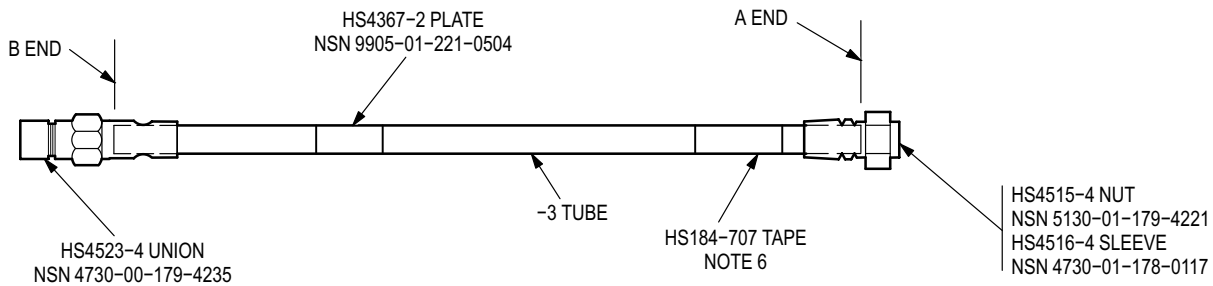
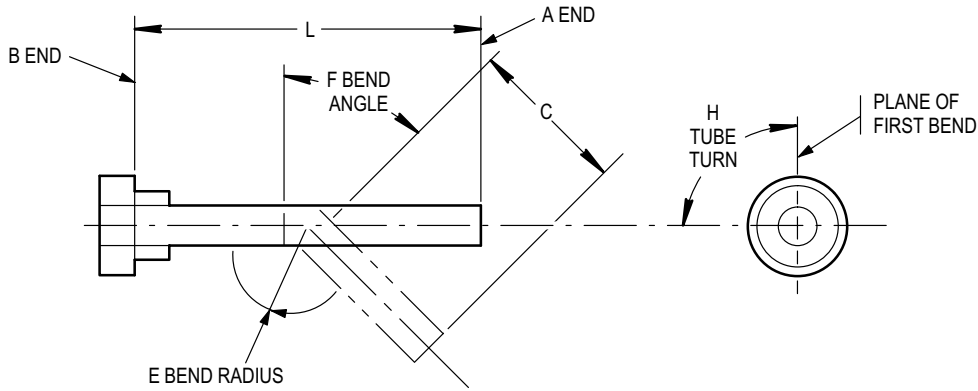
- 1 TUBE ASSEMBLY, METAL - MAKE FROM AL ALY TUBING 6061-T6, TUBE SIZE 0.500 O.D x 0.028 WALL THICKNESS NSN 4710-01-009-9770
- 2 DIMENSION C IS DISTANCE BETWEEN BENDS
- 3 FINISH - CHEMICALLY FILM TREAT FOR ELECTRICAL CONDUCTIVITY PER MIL-C-5541 CLASS 3A
- 4 TAPE ARROW POINTS TO B END
- 5 ALL DIMENSIONS ARE IN INCHES

BEND NUMBER	DIMENSIONS				
	C	E	F	H	L
PART NUMBER 7-311830321					
1	19.82 23.28	1.5	63.5	0.0	34.76

M04-4993

Figure D-319. Tube Assembly, Metal PN 7-311830321





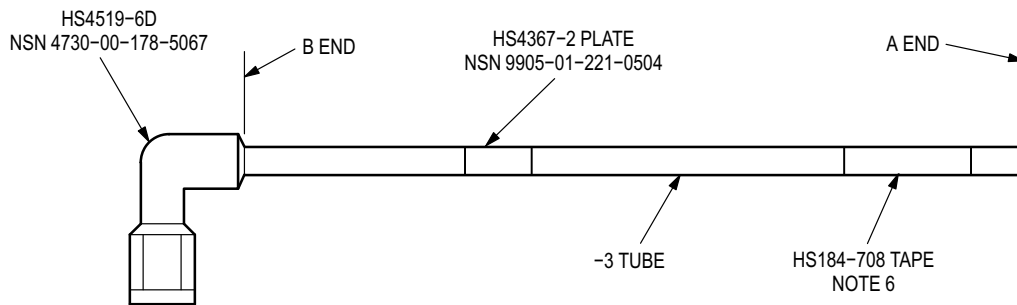
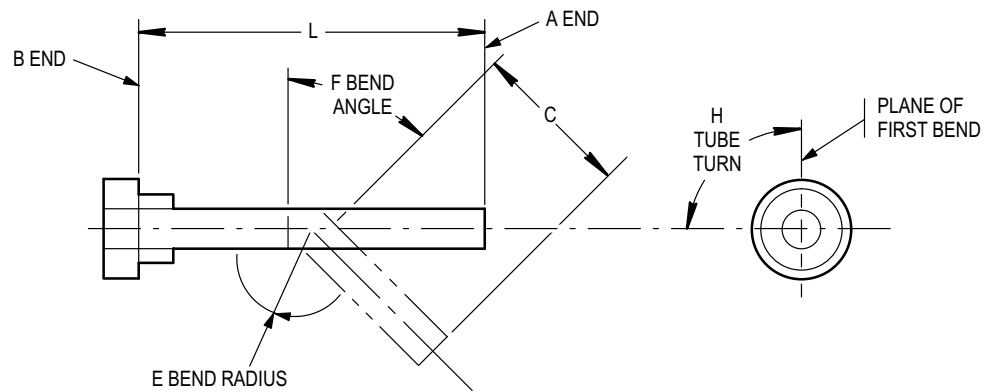
BEND NUMBER	DIMENSIONS				
	C	E	F	H	L
PART NUMBER 7-311830322					
1	2.88	0.75	13.6	0.0	71.05
2	1.98	0.75	13.1	164.1	71.05
3	53.76	0.75	29.1	-117.6	71.05
4	1.82	0.75	28.6	-179.5	71.05
5	3.15	0.75	86.8	98.4	71.05
	5.22				

NOTES:

- 1 TUBE ASSEMBLY METAL - MAKE FROM CRES COMPOSITION  
21-6-9, TUBE SIZE 0.250 O.D x 0.020 WALL THICKNESS  
NSN 4710-00-825-5894
- 2 FINISH - PASSIVATE FOR CORROSION RESISTANT STEEL
- 3 DIMENSION C IS DISTANCE BETWEEN BENDS
- 4 DIMENSION L IS PREPARED LENGTH BEFORE BENDING
- 5 FIRST BEND STARTS FROM A END
- 6 TAPE ARROW POINTS TO B END
- 7 ALL DIMENSION ARE IN INCHES

M04-5001

Figure D-320. Tube Assembly, Metal PN 7-311830322



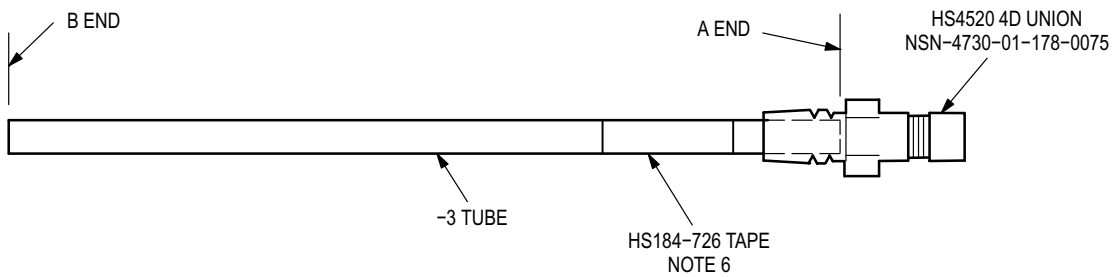
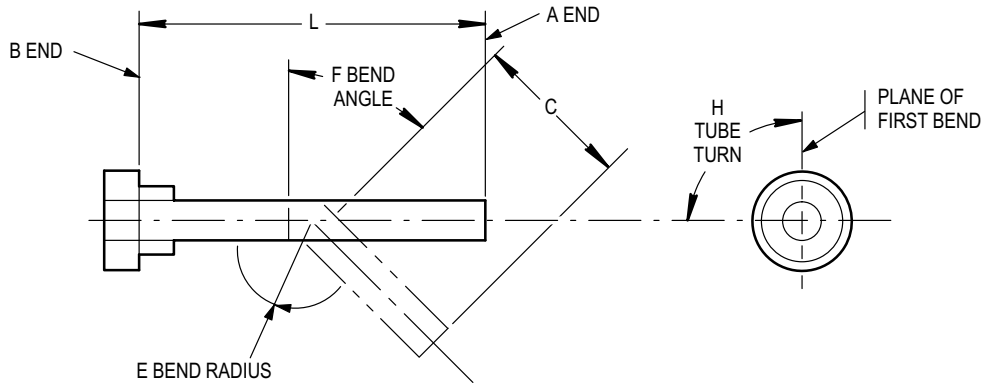
NOTES:

- 1 TUBE ASSEMBLY METAL - MAKE FROM AL-ALY TUBING 6061-T6, TUBE SIZE 0.375 O.D x 0.028 WALL THICKNESS NSN 4710-01-167-6979
- 2 FINISH - CHEMICALLY TREAT FOR ELECTRICAL CONDUCTIVITY PER MIL-C-5541 CLASS 3A
- 3 DIMENSION C IS DISTANCE BETWEEN BENDS
- 4 DIMENSION L IS PREPARED LENGTH BEFORE BENDING
- 5 FIRST BEND STARTS FROM A END
- 6 TAPE ARROW POINTS TO B END
- 7 ALL DIMENSIONS ARE IN INCHES

BEND NUMBER	DIMENSIONS				
	C	E	F	H	L
PART NUMBER 7-311830325					
1	1.00	1.12	97.4	0.0	24.98
2	1.65	1.12	98.5	155.8	24.98
3	10.30	1.12	27.6	-179.1	24.98
4	1.07	1.12	26.8	-179.1	24.98
5	1.88	1.12	87.7	-99.2	24.98
	2.75				

M04-5002

Figure D-321. Tube Assembly, Metal PN 7-311830325



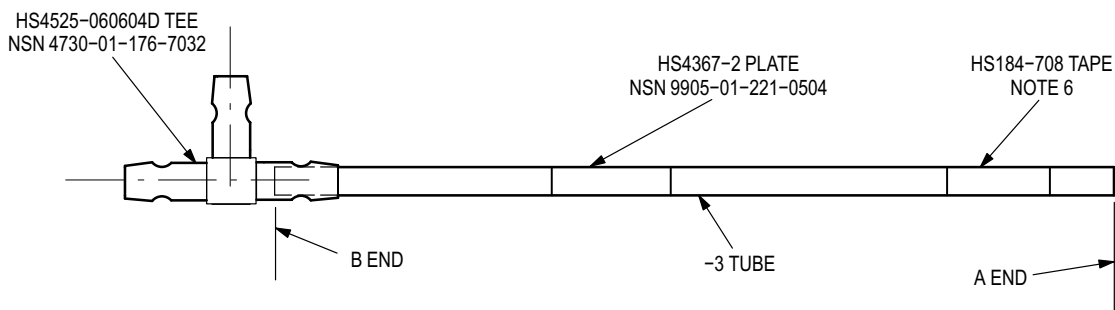
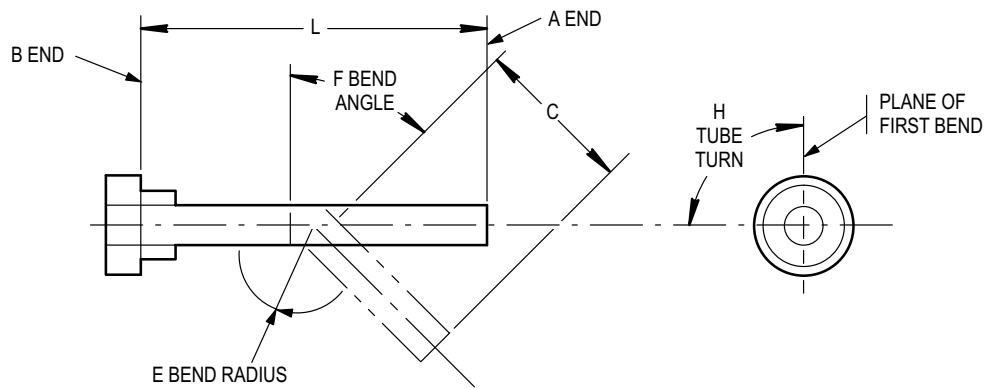
NOTES:

- 1 TUBE ASSEMBLY METAL - MAKE FROM AL-ALY TUBING 6061-T6, TUBE SIZE 0.250 O.D x 0.020 WALL THICKNESS NSN 4710-00-683-9034
- 2 FINISH - CHEMICALLY FILM TREAT FOR ELECTRICAL CONDUCTIVITY PER MIL-C-5541
- 3 DIMENSION C IS DISTANCE BETWEEN BENDS
- 4 DIMENSION L IS PREPARED LENGTH BEFORE BENDING
- 5 FIRST BEND STARTS FROM A END
- 6 TAPE ARROW POINTS TO B END
- 7 ALL DIMENSIONS ARE IN INCHES

BEND NUMBER	DIMENSIONS				
	C	E	F	H	L
PART NUMBER 7-311830326					
1	0.86	0.75	0.0	53.1	3.84
2	1.09	0.75	82.2	20.3	3.84
	0.93				

M04-5003

Figure D-322. Tube Assembly, Metal PN 7-311830326



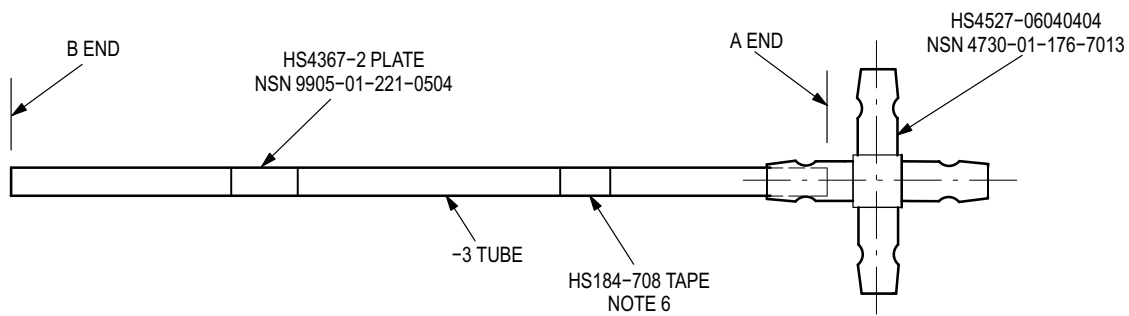
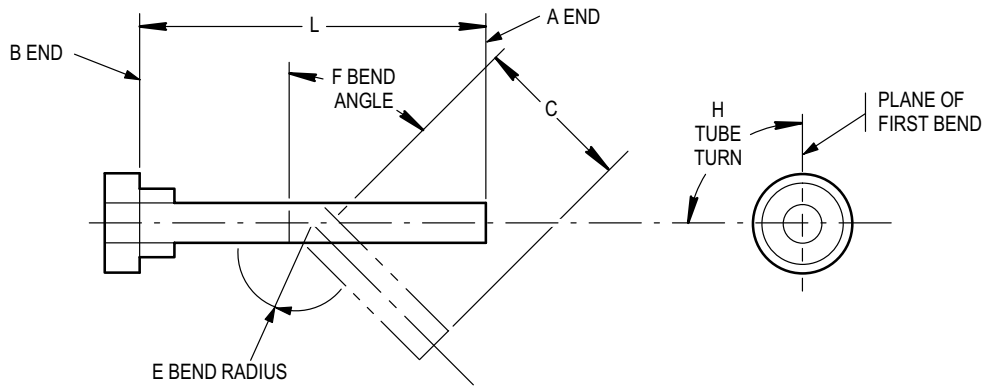
NOTES:

- 1 TUBE ASSEMBLY, METAL - MAKE FROM AL-ALY TUBING 6061-T6, TUBE SIZE 0.375 O.D x 0.028 WALL THICKNESS NSN 4710-01-167-6979
- 2 FINISH - CHEMICALLY FILM TREAT FOR ELECTRICAL CONDUCTIVITY PER MIL-C-5541 CLASS 3A
- 3 DIMENSION C IS DISTANCE BETWEEN BENDS
- 4 DIMENSION L IS PREPARED LENGTH BEFORE BENDING
- 5 FIRST BEND STARTS FROM A END
- 6 TAPE ARROW POINTS TO B END
- 7 ALL DIMENSIONS ARE IN INCHES

BEND NUMBER	DIMENSIONS				
	C	E	F	H	L
PART NUMBER 7-311830327					
1	1.83 4.62	1.125	27.2	0.0	6.97

M04-5004

Figure D-323. Tube Assembly PN 7-311830327



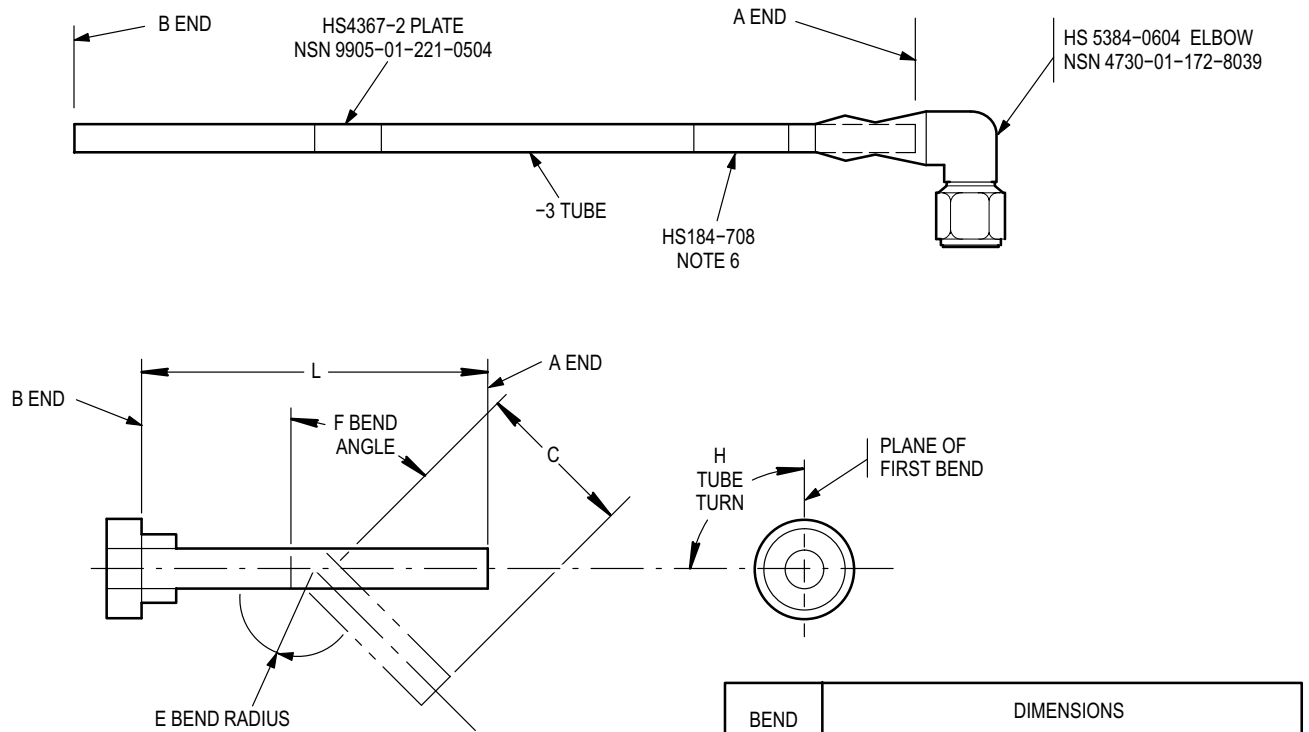
NOTES:

- 1 TUBE ASSEMBLY METAL - MAKE FROM AL-ALY TUBING 6061-T6, TUBE SIZE 0.375 O.D x 0.028 WALL THICKNESS NSN 4710-01-167-6979
- 2 FINISH - CHEMICALLY FILM TREAT FOR ELECTRICAL CONDUCTIVITY PER MIL-C-5541 CLASS 3A
- 3 DIMENSION C IS DISTANCE BETWEEN BENDS
- 4 DIMENSION L IS PREPARED LENGTH BEFORE BENDING
- 5 FIRST BEND STARTS FROM A END
- 6 TAPE ARROW POINTS TO B END
- 7 ALL DIMENSIONS ARE IN INCHES

BEND NUMBER	DIMENSIONS				
	C	E	F	H	L
PART NUMBER 7-311830223					
1	5.27	1.25	27.2	0.0	33.12
2	6.25 20.59	1.25	26.0	179.9	33.12

M04-5005

Figure D-324. Tube Assembly, Metal PN 7-311830328



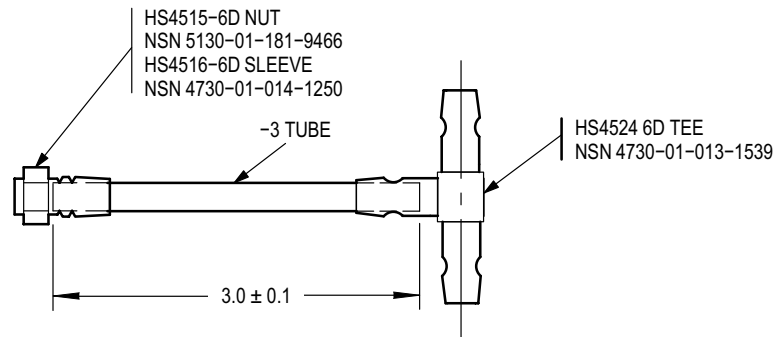
BEND NUMBER	DIMENSIONS				
	C	E	F	H	L
PART NUMBER 7-311830329					
1	2.02	0.75	41.2	0.0	31.00
2	2.55	0.75	43.5	179.0	31.00
3	11.80	0.75	23.3	31.8	31.00
4	3.78	0.75	128.5	171.0	31.00
5	2.20	0.75	84.0	-170.0	31.00
6	1.65	0.75	73.0	123.6	31.00
	1.86				
PART NUMBER 7-31183330					
1	2.71	0.75	115.6	0.0	47.98
2	5.32	0.75	54.6	34.5	47.98
3	2.19	0.75	39.7	-89.54	47.98
4	5.57	0.75	59.7	-123.7	47.98
5	14.90	0.75	115.7	176.8	47.98
6	2.31	0.75	90.0	177.9	47.98
7	2.20	0.75	90.0	-142.8	47.98
8	2.89	0.75	37.4	-97.4	47.98
	2.00				
PART NUMBER 7-311830331					
1	2.45	0.75	49.1	0.0	49.56
2	2.45	0.75	47.2	179.2	49.56
3	14.51	0.75	9.3	42.7	49.56
4	6.91	0.75	118.3	163.2	49.56
5	2.77	0.75	86.8	-175.8	49.56
6	2.06	0.75	89.7	172.2	49.56
7	5.19	0.75	92.2	88.2	49.56
	6.77				

NOTES:

- 1 TUBE ASSEMBLY, METAL - MAKE FROM CRES TUBING COMPOSITION 21-6-9, TUBE SIZE 0.250 O.D x 0.020 WALL THICKNESS NSN 9710-00-825-5894
- 2 FINISH - PASSIVATE FOR CORROSION RESISTANT STEEL
- 3 DIMENSION C IS DISTANCE BETWEEN BENDS
- 4 DIMENSION L IS PREPARED LENGTH BEFORE BENDING
- 5 FIRST BEND STARTS FROM A END
- 6 TAPE ARROW POINTS TO B END
- 7 ALL DIMENSIONS ARE IN INCHES

M04-5006

Figure D-325. Tube Assembly, Metal PN 7-311830329, PN 7-311830330, PN 7-311830331

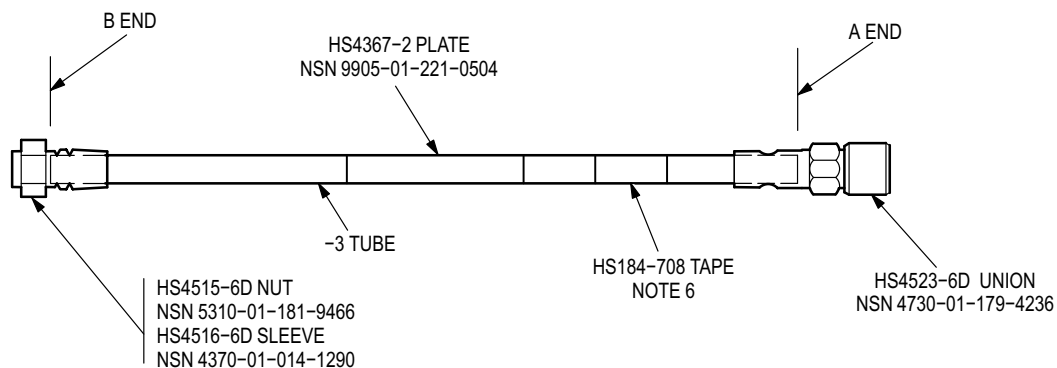
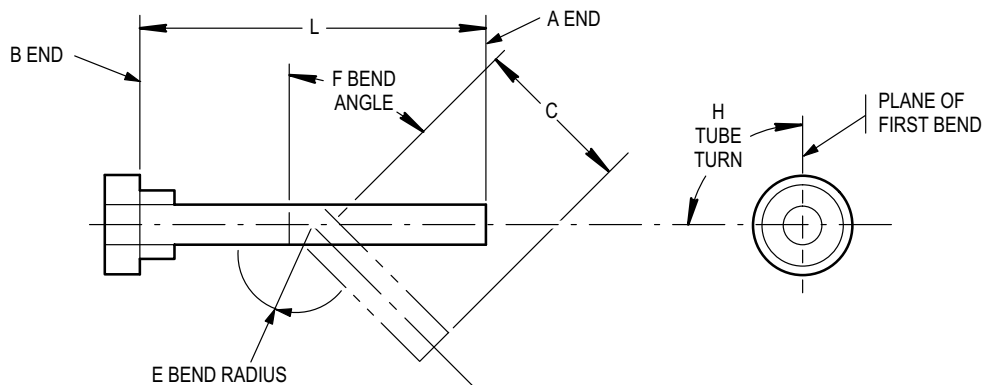


NOTES:

- TUBE ASSEMBLY, METAL - MAKE FROM AL-ALY TUBING 6061-T6,  
TUBE SIZE 0.375 O.D x 0.028 WALL THICKNESS NSN 4710-01-167-6979
- FINISH - CHEMICALLY FILM TREAT FOR ELECTRICAL CONDUCTIVITY  
PER MIL-C-5541 CLASS 3A
- ALL DIMENSIONS ARE IN INCHES

M04-5007

Figure D-326. Tube Assembly, Metal PN 7-311830332



NOTES:

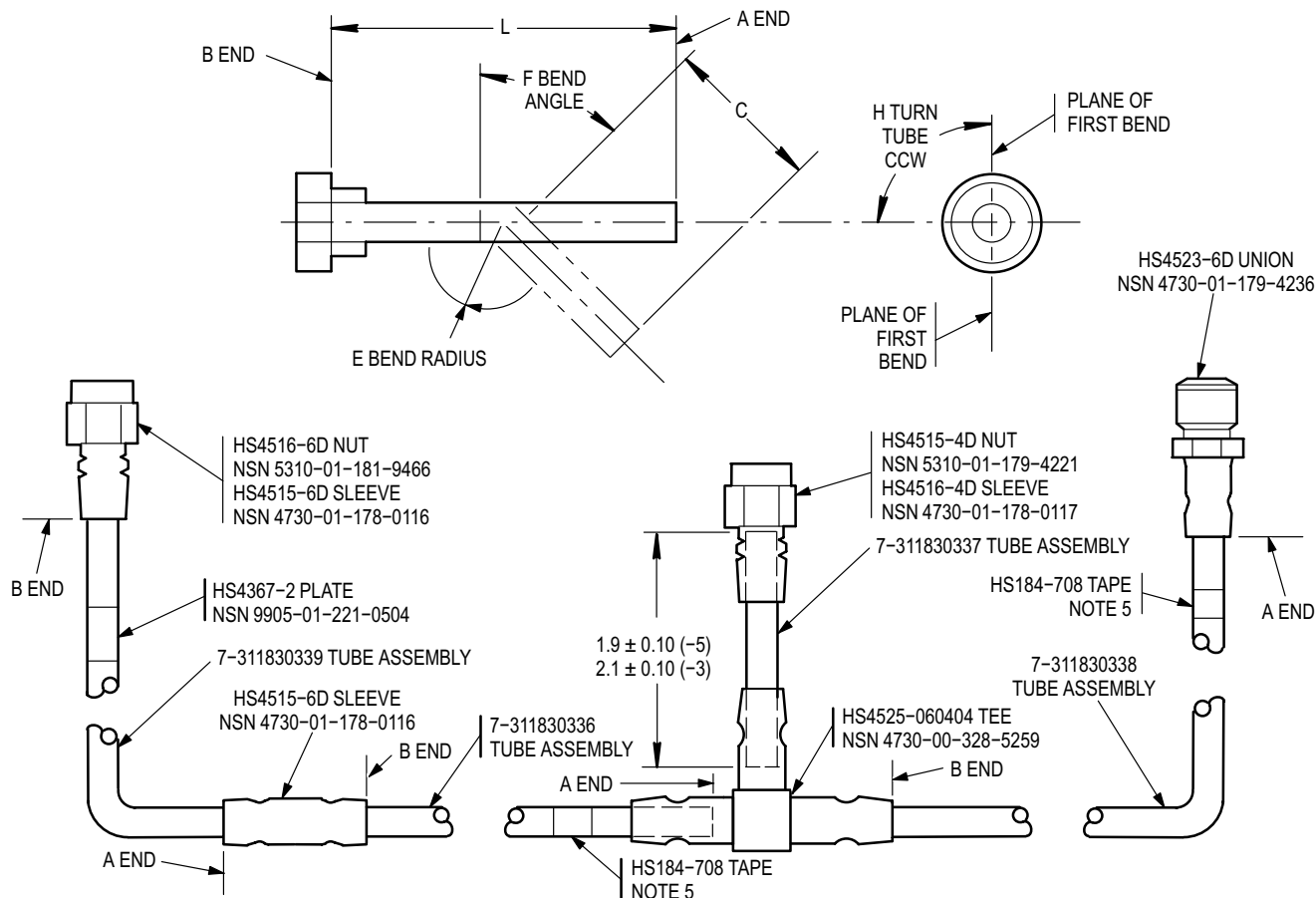
- 1 TUBE ASSEMBLY METAL - MAKE FROM AL-ALY TUBING 6061-T6, TUBE SIZE 0.375 O.D x 0.028 WALL THICKNESS NSN 4710-01-167-6979
- 2 FINISH - CHEMICALLY TREAT FOR ELECTRICAL CONDUCTIVITY PER MIL-C-5541 CLASS 3A
- 3 DIMENSION C IS DISTANCE BETWEEN BENDS
- 4 DIMENSION L IS PREPARED LENGTH BEFORE BENDING
- 5 FIRST BEND STARTS FROM A END
- 6 TAPE ARROW POINTS TO B END
- 7 ALL DIMENSION ARE IN INCHES

BEND NUMBER	DIMENSIONS				
	C	E	F	H	L
PART NUMBER 7-311830334					
1	4.99	1.12	91.7	0.0	69.27
2	1.13	1.12	34.5	89.0	69.27
3	1.35	1.12	35.9	175.7	69.27
4	53.26	1.12	16.4	108.5	69.27
5	2.18	1.12	20.6	168.2	69.27
	2.45				

M04-5008

Figure D-327. Tube Assembly, Metal PN 7-311830334





BEND NUMBER	DIMENSIONS				
	C	E	F	H	L
PART NUMBER 7-311830336					
1	2.11	1.125	89.2	0.0	106.45
2	70.15	1.125	18.5	-172.6	106.45
3	3.24	1.125	15.9	-178.9	106.45
	28.52				
PART NUMBER 7-311830338					
1	1.09	1.125	7.4	0.0	27.27
2	2.63	1.125	59.7	-96.7	27.27
3	1.25	1.125	8.7	-110.6	27.27

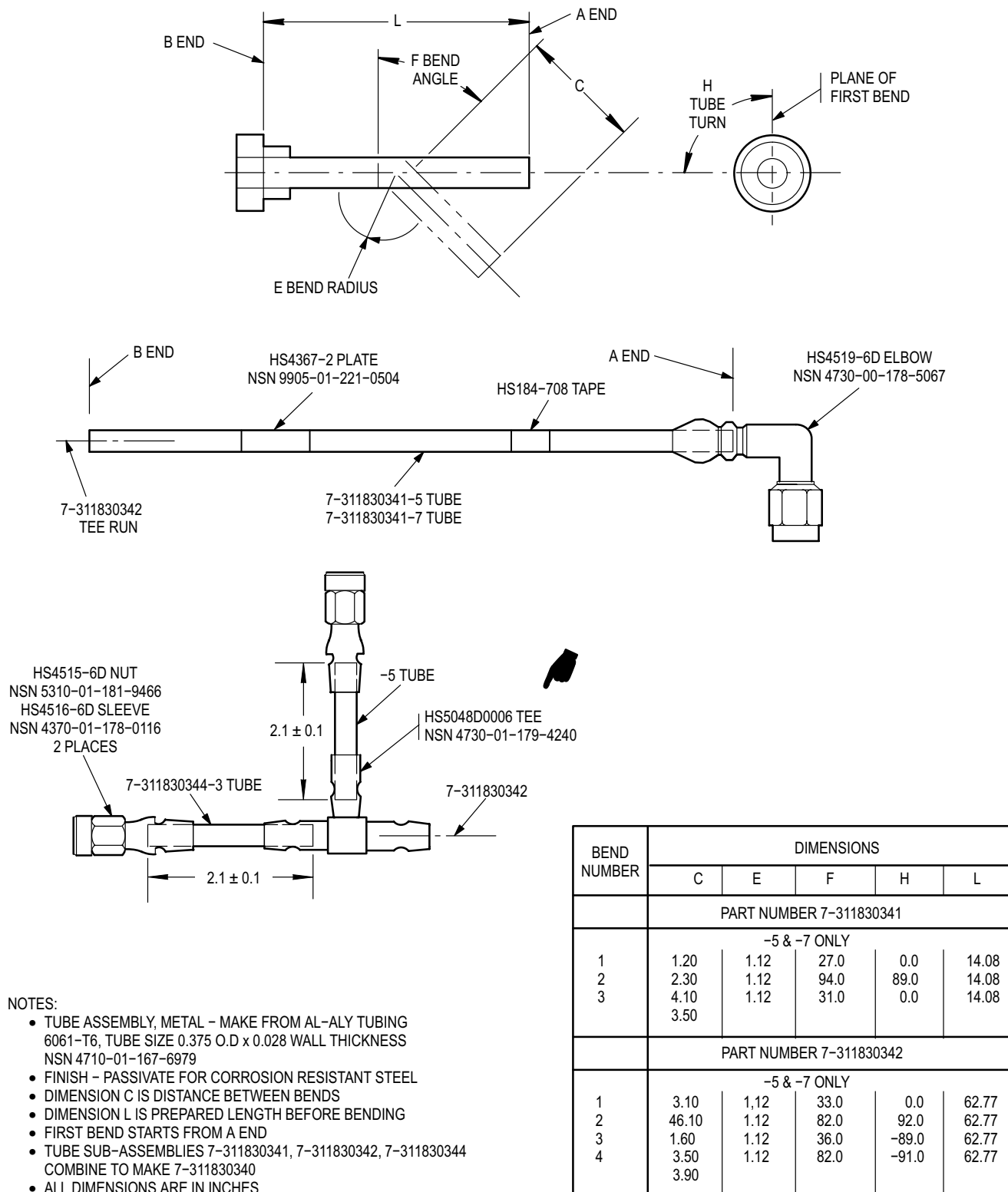
BEND NUMBER	DIMENSIONS				
	C	E	F	H	L
PART NUMBER 7-311830338 CONTINUED					
4	1.42	1.125	57.0	-74.5	27.27
5	8.97	1.125	1.6	-73.6	27.27
6	2.37	1.125	90.4	75.3	27.27
7	2.64	1.125	17.1	88.4	27.27
	2.15				
PART NUMBER 7-311830339					
1	7.00	1.12	3.0	0.0	101.00
2	12.00	1.12	3.3	90.0	101.00
3	24.74	1.12	3.9	90.0	101.00
4	8.47	1.12	17.3	180.0	101.00
5	2.94	1.12	35.4	-180.0	101.00
6	12.78	1.12	17.7	0.0	101.00
7	1.21	1.12	16.3	180.0	101.00
8	13.47	1.12	21.8	0.0	101.00
9	7.22	1.12	84.3	-63.2	101.00
10	2.57	1.12	31.1	91.8	101.00
	4.00				

NOTES:

- 1 TUBE ASSEMBLY, METAL BRANCHED - MAKE FROM AL-ALY TUBING 6061-T6, TUBE SIZE 0.250 O.D x 0.020 WALL THICKNESS NSN 4710-00-683-9034
- 2 7-311830335-3 TUBE ASSEMBLY CONSISTS OF 7-311830336, 7-311830337-7, 7-311830338-7, AND 7-311830339 TUBES
- 3 PREPARED LENGTH BEFORE SWAGING
- 4 FINISH - CHEMICALLY FILM TREAT FOR ELECTRICAL CONDUCTIVITY PER MIL-C-5541 CLASS 3A
- 5 ALL DIMENSIONS ARE IN INCHES
- 6 TAPE ARROW POINTS TO B END

M04-4994

Figure D-328. Tube Assembly  
PN 7-311830335, PN 7-311830337, PN 7-311830339

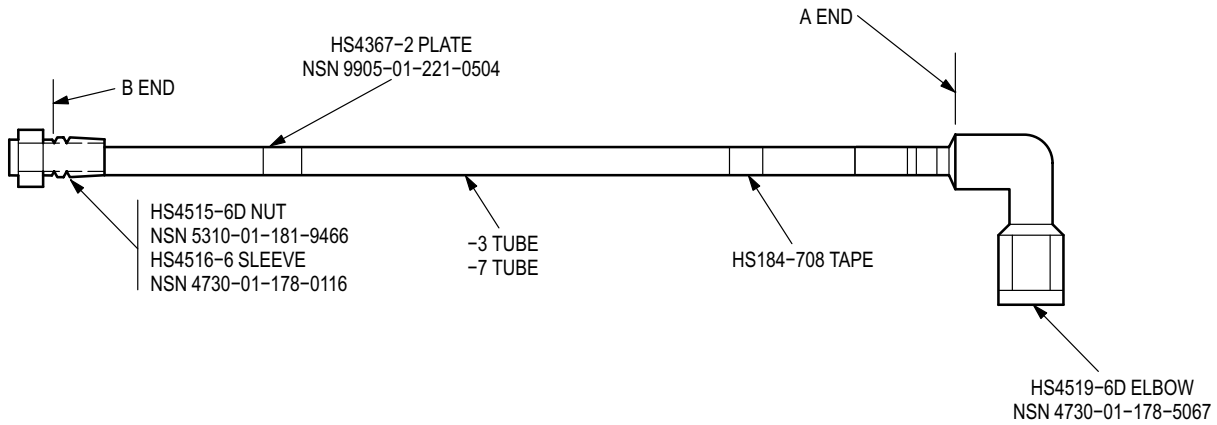
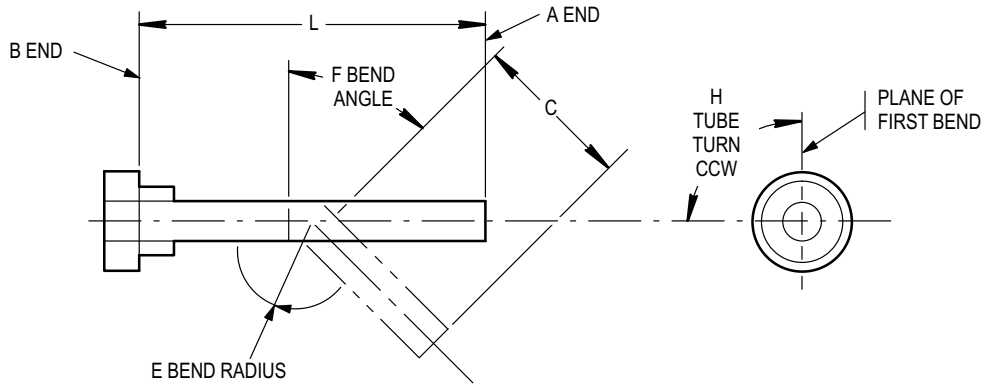


NOTES:

- TUBE ASSEMBLY, METAL - MAKE FROM AL-ALY TUBING 6061-T6, TUBE SIZE 0.375 O.D x 0.028 WALL THICKNESS NSN 4710-01-167-6979
- FINISH - PASSIVATE FOR CORROSION RESISTANT STEEL
- DIMENSION C IS DISTANCE BETWEEN BENDS
- DIMENSION L IS PREPARED LENGTH BEFORE BENDING
- FIRST BEND STARTS FROM A END
- TUBE SUB-ASSEMBLIES 7-311830341, 7-311830342, 7-311830344 COMBINE TO MAKE 7-311830340
- ALL DIMENSIONS ARE IN INCHES

M04-5009A

Figure D-329. Tube Assembly, Metal PN 7-311830341, PN 7-311830342, PN 7-311830344



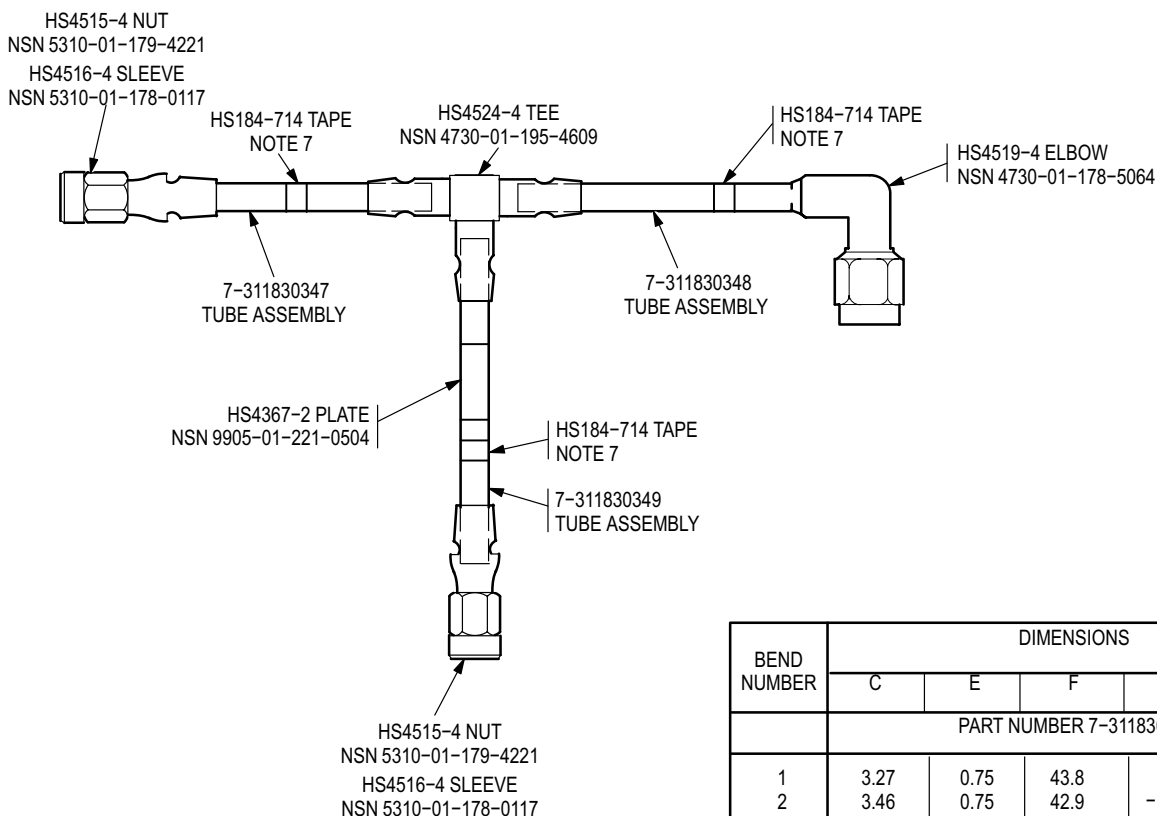
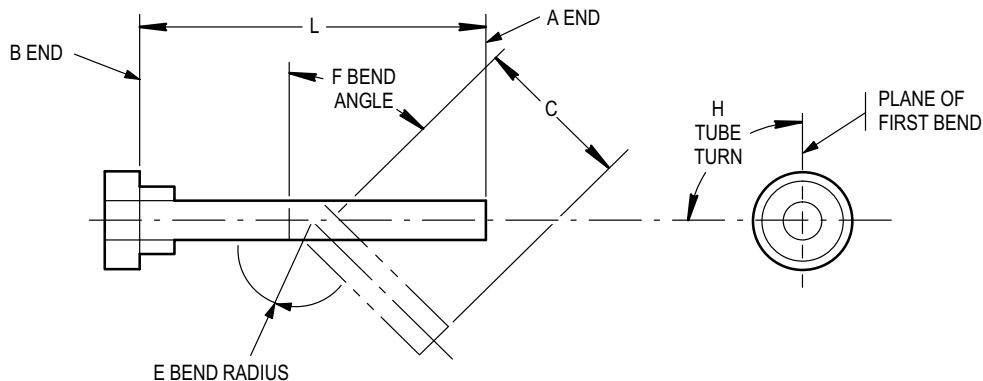
NOTES:

- TUBE ASSEMBLY, METAL - MAKE FROM AL-ALY 6061-T6, TUBE SIZE 0.375 O.D x 0.028 WALL THICKNESS, NSN 4710-01-167-6979
- DIMENSION C IS DISTANCE BETWEEN BENDS
- DIMENSION L IS PREPARED LENGTH BEFORE BENDING
- FIRST BEND STARTS FROM A END
- FINISH-CHEMICAL FILM TREAT FOR ELECTRICAL CONDUCTIVITY PER MIL-P-5541 CLASS 3A
- ALL DIMENSIONS ARE INCHES

BEND NUMBER	DIMENSIONS				
	C	E	F	H	L
PART NUMBER 7-311830345					
-3 ONLY					
1	1.33	1.125	104.2	0.0	13.50
2	6.59	1.125	56.8	-12.6	13.50
	2.42				
-7 ONLY					
1	1.10	1.125	66.0	0.0	13.18
2	6.50	1.125	101.0	-12.6	13.18
	2.30				

M04-4998

Figure D-330. Tube Assembly, Metal PN 7-311830345



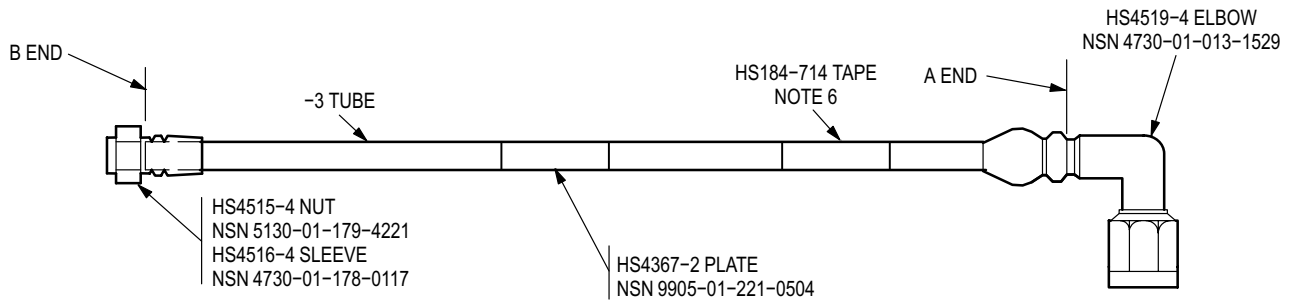
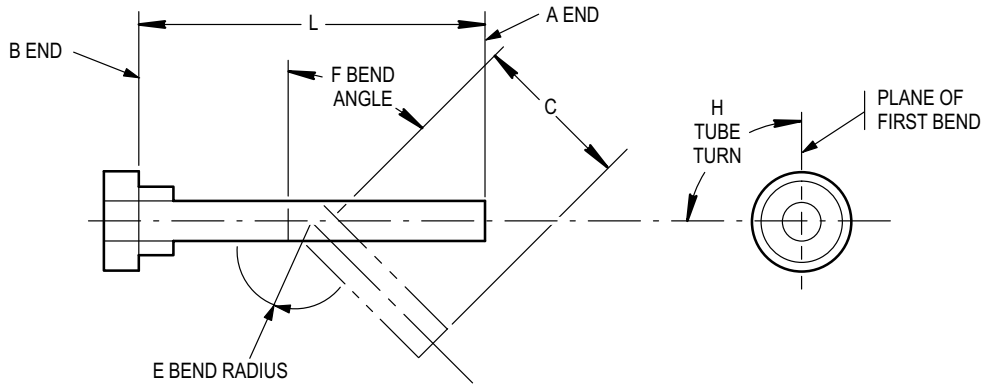
BEND NUMBER	DIMENSIONS				
	C	E	F	H	L
PART NUMBER 7-311830347					
1	3.27	0.75	43.8	0.0	9.84
2	3.46	0.75	42.9	-179.0	9.94
	1.98				
PART NUMBER 7-311830348					
1	5.91	0.75	33.6	0.0	31.13
2	4.35	0.75	31.5	176.8	31.13
	19.02				
PART NUMBER 7-311830349					
1	1.36	0.75	40.8	0.0	7.66
2	1.34	0.75	42.6	177.3	7.66
3	1.36	0.75	83.9	-87.9	7.66
	1.41				

NOTES:

- 1 TUBE ASSEMBLY, BRANCHED - MAKE FROM CRES TUBING COMPOSITION 21-6-9, TUBE SIZE 0.250 O.D x 0.020 WALL THICKNESS NSN 4710-00-825-5894
- 2 FINISH - PASSIVATE FOR CORROSION RESISTANT STEEL
- 3 DIMENSION C IS DISTANCE BETWEEN BENDS
- 4 DIMENSION L IS PREPARED LENGTH BEFORE BENDING
- 5 FIST BEND STARTS FROM A END
- 6 TUBE SUB-ASSEMBLIES 7-311830347, 7-311830348, 7-311830349 COMBINE TO MAKE 7-311830346
- 7 TAPE ARROW POINTS TO B END
- 8 ALL DIMENSIONS ARE IN INCHES

M04-4997

Figure D-331. Tube Assembly, Metal PN 7-311830346, PN 7-311830347, PN 7-311830348, PN 7-311830349



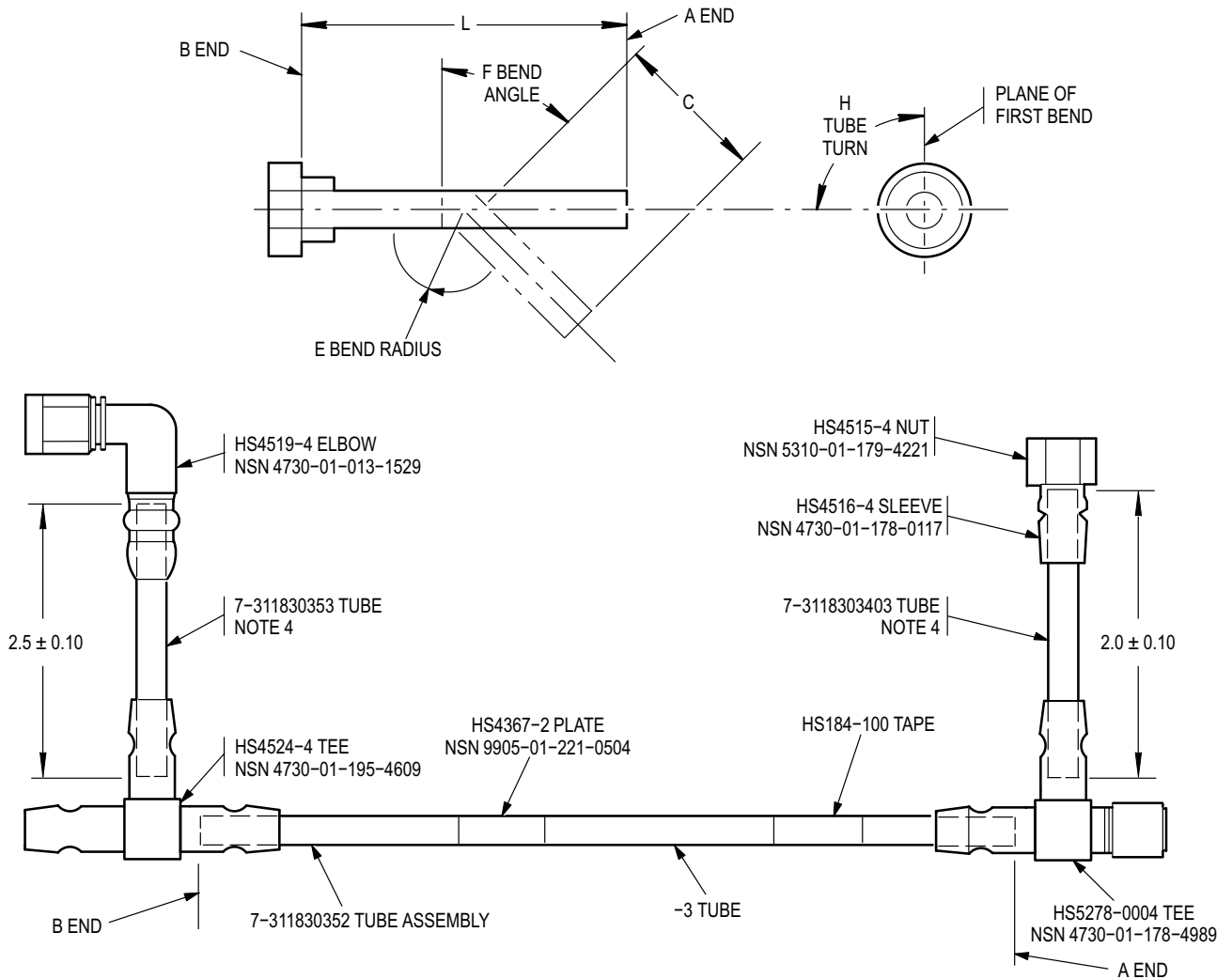
BEND NUMBER	DIMENSIONS				
	C	E	F	H	L
PART NUMBER 7-311830350					
1	1.01	0.75	62.5	0.0	49.74
2	3.19	0.75	55.7	98.7	49.74
3	4.74	0.75	26.1	47.9	49.74
4	3.62	0.75	60.5	75.5	49.74
5	27.72	0.75	28.7	142.1	49.74
6	2.56	0.75	29.0	-177.2	49.74
	3.46				

NOTES:

- 1 TUBE ASSEMBLY, METAL - MAKE FROM CRES TUBING  
COMPOSITION 21-6-9, TUBE SIZE 0.250 O.D x 0.020 WALL THICKNESS  
NSN 4710-00-825-5894
- 2 FINISH - PASSIVATE FOR CORROSION RESISTANT STEEL
- 3 DIMENSION C IS DISTANCE BETWEEN BENDS
- 4 DIMENSION L IS PREPARED LENGTH BEFORE BENDING
- 5 FIRST BEND STARTS FROM A END
- 6 TAPE ARROW POINTS TO B END
- 7 ALL DIMENSIONS ARE IN INCHES

M04-5010

Figure D-332. Tube Assembly, Metal PN 7-311830350



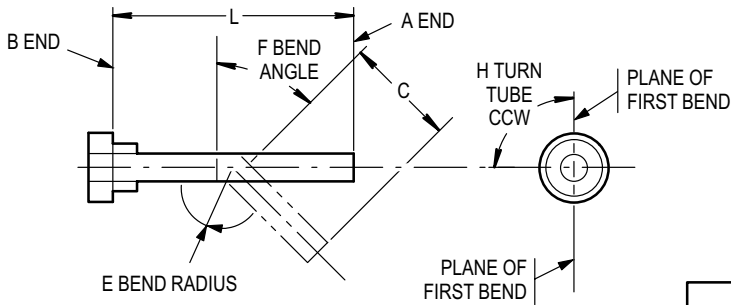
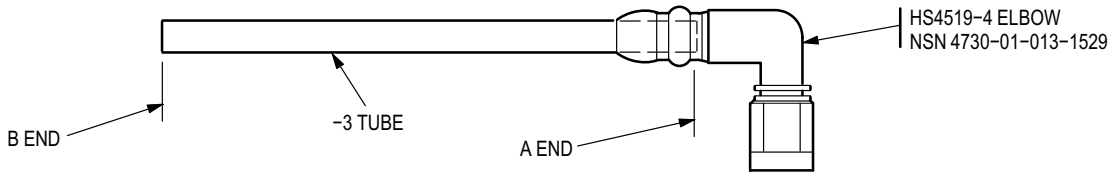
NOTES:

- 1 TUBE ASSEMBLY, METAL - MAKE FROM STEEL CRES TUBING  
COMPOSITION 21-6-9, TUBE SIZE 0.250 O.D x 0.020 WALL THICKNESS  
NSN 4710-00-825-5894
- 2 DIMENSION C IS DISTANCE BETWEEN BENDS
- 3 FINISH - PASSIVATE FOR CORROSION RESISTANT STEEL
- 4 NO BENDS - TUBE SUB-ASSEMBLIES 7-311830353 AND 7-31183403  
COMBINE TO MAKE 7-311830352
- 5 ALL DIMENSIONS ARE IN INCHES

BEND NUMBER	DIMENSIONS				
	C	E	F	H	L
PART NUMBER 7-311830352					
-3 ONLY					
1	1.42	0.75	36.5	0.0	29.04
2	2.16	0.75	35.9	176.8	29.04
3	17.69	0.75	42.3	33.8	29.04
4	2.56	0.75	44.3	178.3	29.04
	3.13				
-7 ONLY					
1	1.55	0.75	28.0	0.0	28.78
2	2.05	0.75	26.0	-180.0	28.78
3	2.55	0.75	11.0	-164.5	28.78
4	2.45	0.75	12.0	-172.0	28.78
5	12.50	0.75	41.0	10.0	28.78
6	2.65	0.75	41.0	178.0	28.78
7	2.95				

M04-5011

**Figure D-333. Tube Assembly, Metal PN 7-311830352,  
PN 7-311830353, PN 7-311830403**



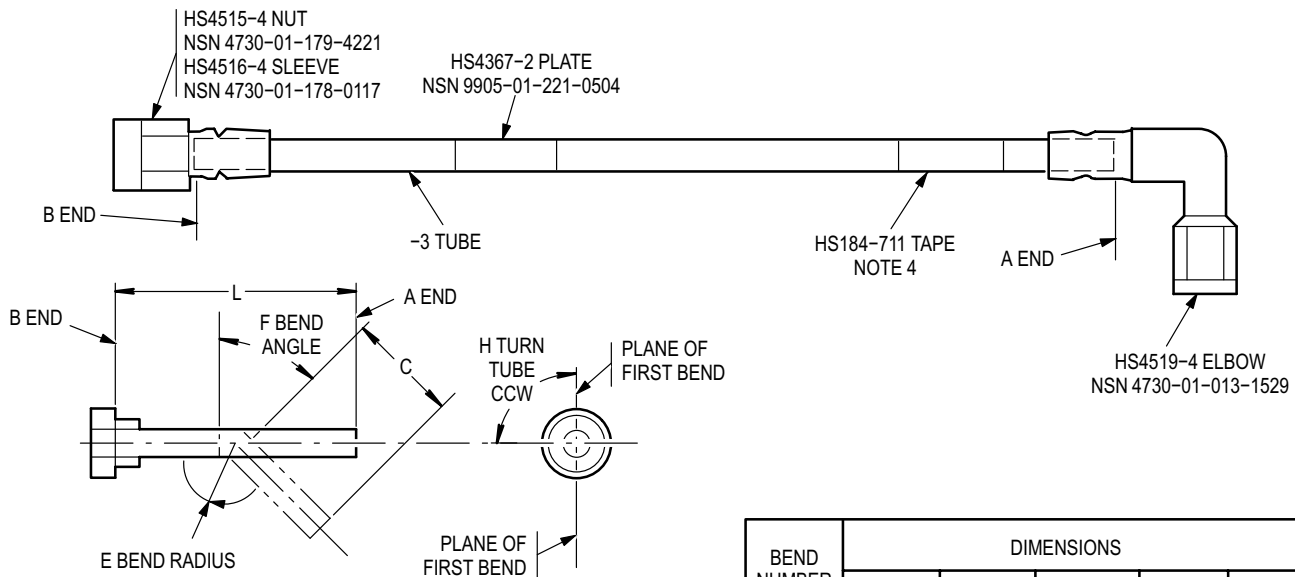
BEND NUMBER	DIMENSIONS				
	C	E	F	H	L
PART NUMBER 7-311830354					
1	2.02 1.32	0.75	90.0	0.0	4.52

NOTES:

- TUBE ASSEMBLY, METAL - MAKE FROM STEEL CRES TUBING COMPOSITION 21-6-9, TUBE SIZE 0.250 O.D x 0.020 WALL THICKNESS NSN 4710-00-825-5894
- DIMENSION C IS DISTANCE BETWEEN BENDS
- FINISH - PASSIVATE FOR CORROSION RESISTANT STEEL
- ALL DIMENSIONS ARE IN INCHES

M04-5012

Figure D-334. Tube Assembly, Metal PN 7-311830354



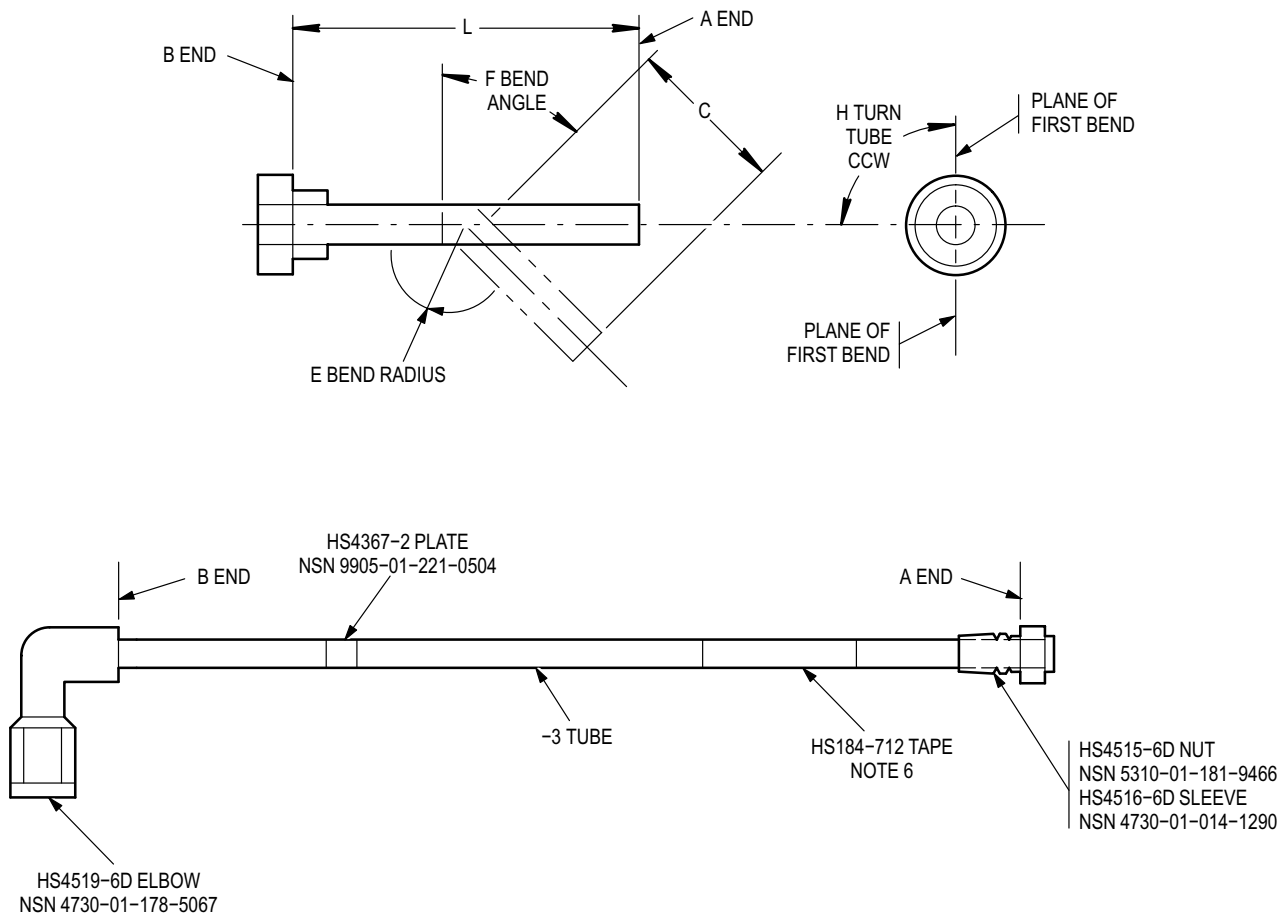
BEND NUMBER	DIMENSIONS				
	C	E	F	H	L
PART NUMBER 7-311830355					
1	5.15	0.75	35.0	0.0	13.40
2	5.36 1.16	0.75	97.2	103.0	13.40

NOTES:

- 1 TUBE ASSEMBLY, METAL - MAKE FROM CRES TUBING COMPOSITION 21-6-9, TUBE SIZE 0.250 O.D x 0.020 WALL THICKNESS NSN 4710-00-825-5894
- 2 DIMENSION C IS DISTANCE BETWEEN BENDS
- 3 FINISH - PASSIVATE FOR CORROSION RESISTANT STEEL
- 4 TAPE ARROW POINTS TO B END
- 5 ALL DIMENSIONS ARE IN INCHES

M04-5013

Figure D-335. Tube Assembly, Metal PN 7-311830355



BEND NUMBER	DIMENSIONS				
	C	E	F	H	L
PART NUMBER 7-311830356					
1	1.04	1.12	91.60	0.00	17.91
2	8.03	1.12	92.20	-172.10	17.91
	5.23				

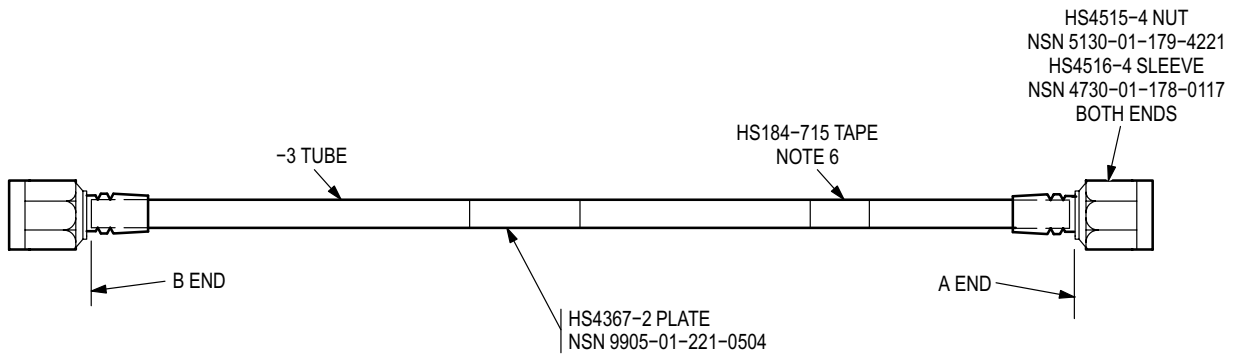
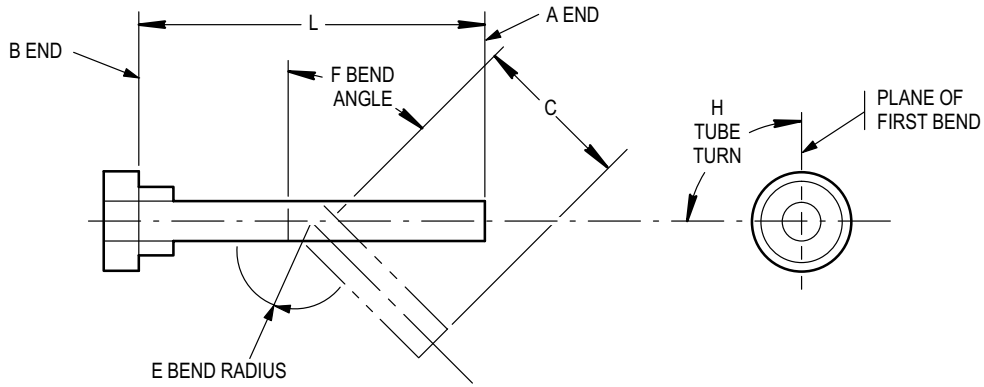
NOTES:

- 1 TUBE ASSEMBLY, METAL - MAKE FROM AL-ALY 6061 T-6, TUBE SIZE 0.375 O.D x 0.028 WALL THICKNESS NSN 4710-01-167-6979
- 2 DIMENSION C IS DISTANCE BETWEEN BENDS
- 3 DIMENSION L IS PREPARED LENGTH BEFORE BENDING
- 4 FIRST BEND STARTS FROM A END
- 5 FINISH-CHEMICALLY FILM TREAT FOR ELECTRICAL CONDUCTIVITY PER MIL-C-5541 CLASS 3A
- 6 TAPE ARROW POINTS TO B END
- 7 ALL DIMENSIONS ARE IN INCHES

M04-5000

Figure D-336. Tube Assembly, Metal PN 7-311830356





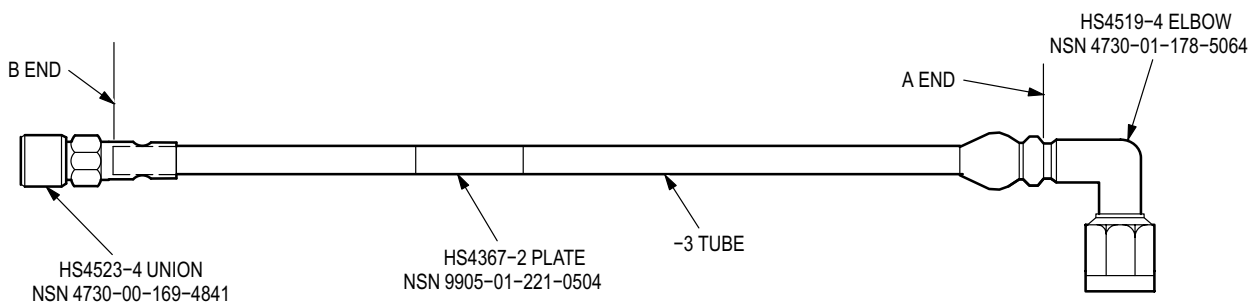
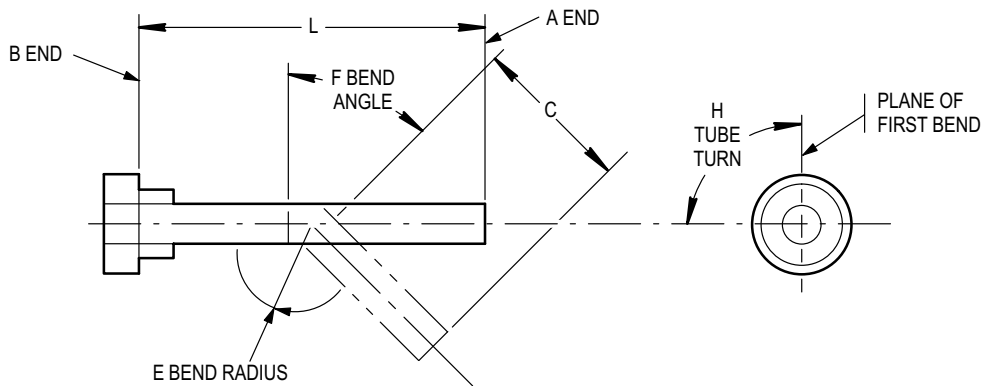
NOTES:

- 1 TUBE ASSEMBLY, METAL - MAKE FROM CRES TUBING COMPOSITION 21-6-9, TUBE SIZE 0.250 O.D x 0.020 WALL THICKNESS NSN 4710-00-825-5894
- 2 FINISH - PASSIVATE FOR CORROSION RESISTANT STEEL
- 3 DIMENSION C IS DISTANCE BETWEEN BENDS
- 4 DIMENSION L IS PREPARED LENGTH BEFORE BENDING
- 5 FIRST BEND STARTS FROM A END
- 6 TAPE ARROW POINTS TO B END
- 7 ALL DIMENSIONS ARE IN INCHES

BEND NUMBER	DIMENSIONS				
	C	E	F	H	L
PART NUMBER 7-311830357					
1	4.46	0.75	23.0	0.0	82.02
2	3.02	0.75	15.2	100.5	82.02
3	3.55	0.75	27.5	109.0	82.02
4	44.15	0.75	35.7	-20.2	82.02
5	4.09	0.75	34.3	180.0	82.02
	20.97				

M04-5014

Figure D-337. Tube Assembly, Metal PN 7-311830357



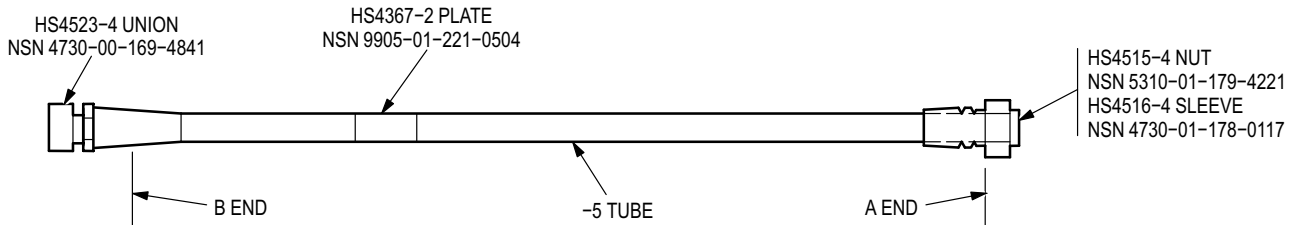
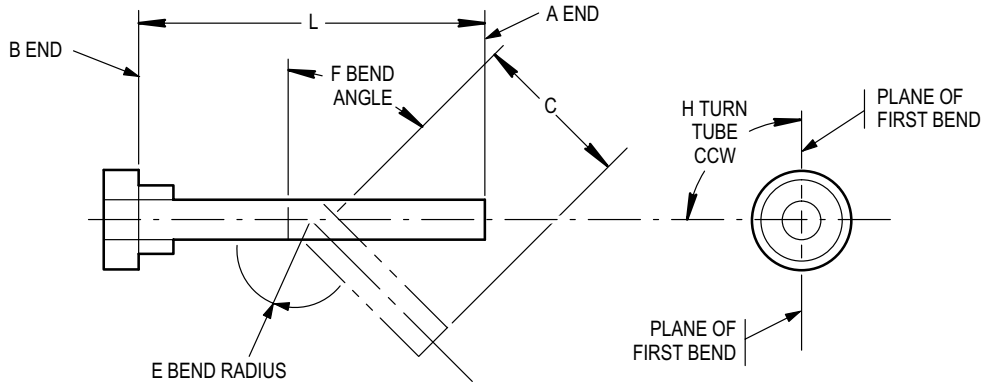
NOTES:

- TUBE ASSEMBLY, METAL - MAKE FROM CRES TUBING COMPOSITION 21-6-9, TUBE SIZE 0.250 O.D x 0.020 WALL THICKNESS NSN 4710-00-825-5894
- DIMENSION C IS DISTANCE BETWEEN BENDS
- DIMENSION L IS PREPARED LENGTH BEFORE BENDING
- FINISH - PASSIVATE FOR CORROSION RESISTANT STEEL
- ALL DIMENSIONS ARE IN INCHES

BEND NUMBER	DIMENSIONS				
	C	E	F	H	L
PART NUMBER 7-311830358					
1	2.50	0.75	56.6	0.0	42.35
2	19.05	0.75	37.7	25.3	42.35
3	2.62	0.75	12.9	118.5	42.35
4	14.10	0.75	17.9	-177.4	42.35
	2.44				

M04-5015

Figure D-338. Tube Assembly, Metal PN 7-311830358



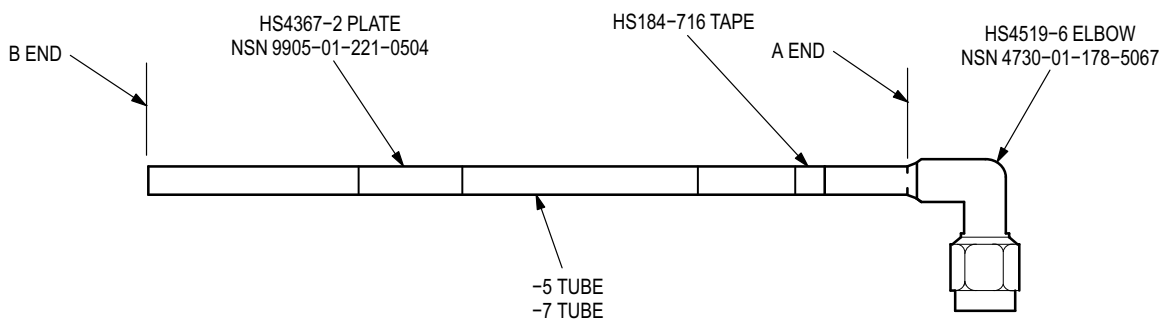
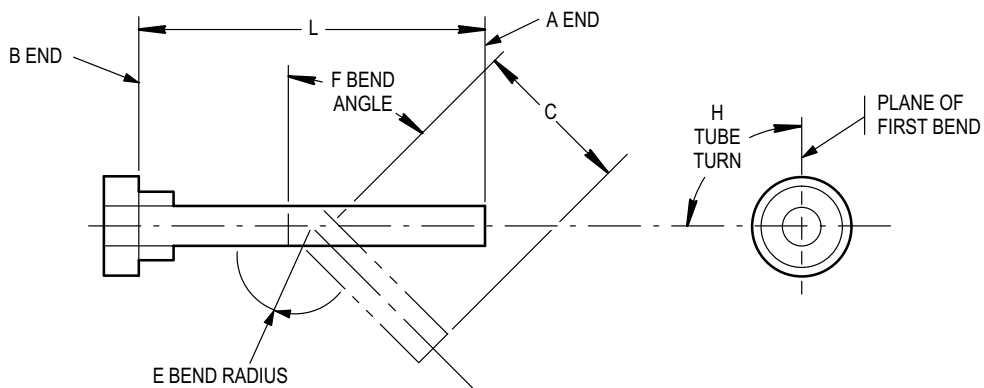
NOTES:

- TUBE ASSEMBLY, METAL - MAKE FROM CRES COMPOSITION 21-6-9, TUBE SIZE 0.250 O.D x 0.020 WALL THICKNESS, NSN 4710-00-825-5894
- DIMENSION C IS DISTANCE BETWEEN BENDS
- DIMENSION L IS PREPARED LENGTH BEFORE BENDING
- FIRST BEND STARTS FROM A END
- FINISH - PASSIVATE FOR CORROSION RESISTANT STEEL
- ALL DIMENSIONS ARE IN INCHES

BEND NUMBER	DIMENSIONS				
	C	E	F	H	L
PART NUMBER 7-311830359					
1	1.27	0.75	64.1	0.0	28.60
2	4.50	0.75	88.0	2.7	28.60
3	1.84	0.75	53.5	172.4	28.60
4	3.11	0.75	25.7	-5.3	28.60
	15.04				

M04-4999

Figure D-339. Tube Assembly, Metal PN 7-311830359



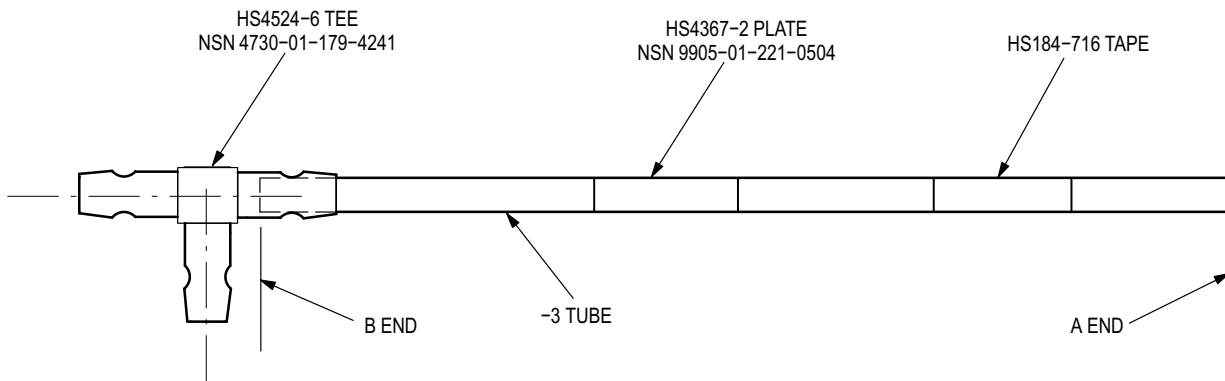
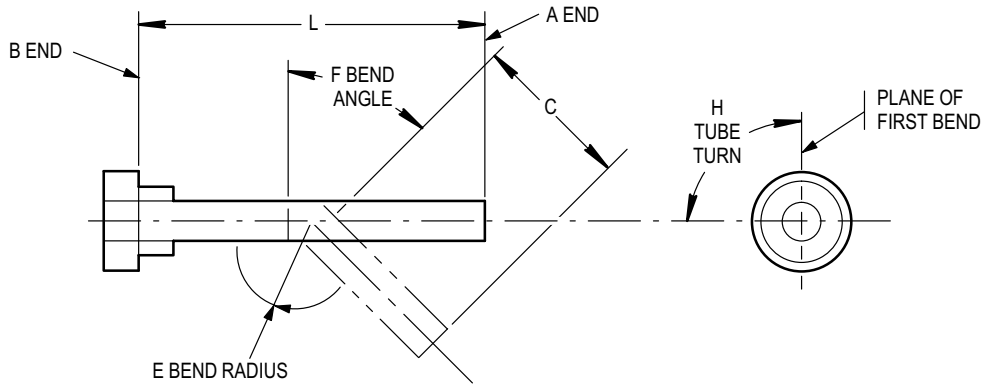
NOTES:

- TUBE ASSEMBLY, METAL - MAKE FROM CRES TUBING COMPOSITION 21-6-9, TUBE SIZE 0.375 O.D x 0.020 WALL THICKNESS NSN 4710-01-102-6423
- DIMENSION C IS DISTANCE BETWEEN BENDS
- DIMENSION L IS PREPARED LENGTH BEFORE BENDING
- FIRST BEND STARTS FROM A END
- FINISH - PASSIVATE FOR CORROSION RESISTANT STEEL
- ALL DIMENSIONS ARE IN INCHES

BEND NUMBER	DIMENSIONS				
	C	E	F	H	L
PART NUMBER 7-311830361					
-5 & -7 ONLY					
1	5.92	1.12	43.9	0.0	64.88
2	3.68	1.12	46.7	177.9	64.88
3	46.88	1.12	35.9	32.4	64.88
	5.92				

M04-5016

Figure D-340. Tube Assembly, Metal PN 7-311830361



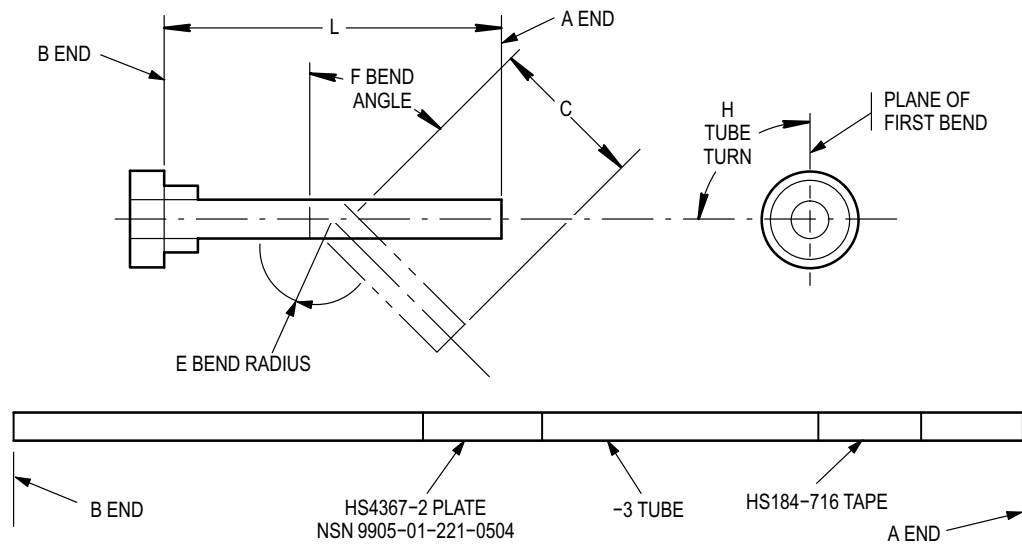
NOTES:

- TUBE ASSEMBLY, METAL - MAKE FROM CRES TUBING COMPOSITION 21-6-9, TUBE SIZE 0.250 O.D x 0.020 WALL THICKNESS NSN 4710-00-825-5894
- DIMENSION C IS DISTANCE BETWEEN BENDS
- DIMENSION L IS PREPARED LENGTH BEFORE BENDING
- FIRST BEND STARTS FROM A END
- FINISH - PASSIVATE FOR CORROSION RESISTANT STEEL
- ALL DIMENSIONS ARE IN INCHES

BEND NUMBER	DIMENSIONS				
	C	E	F	H	L
PART NUMBER 7-311830362					
1	1.45	1.12	89.8	0.0	38.16
2	1.86	1.12	78.3	-161.4	38.16
3	12.18	1.12	22.3	-58.1	38.16
4	6.07	1.12	10.9	4.2	38.16
5	10.85	1.12	18.7	-14.8	38.16
	1.43				

M04-5017

Figure D-341. Tube Assembly, Metal PN 7-311830362



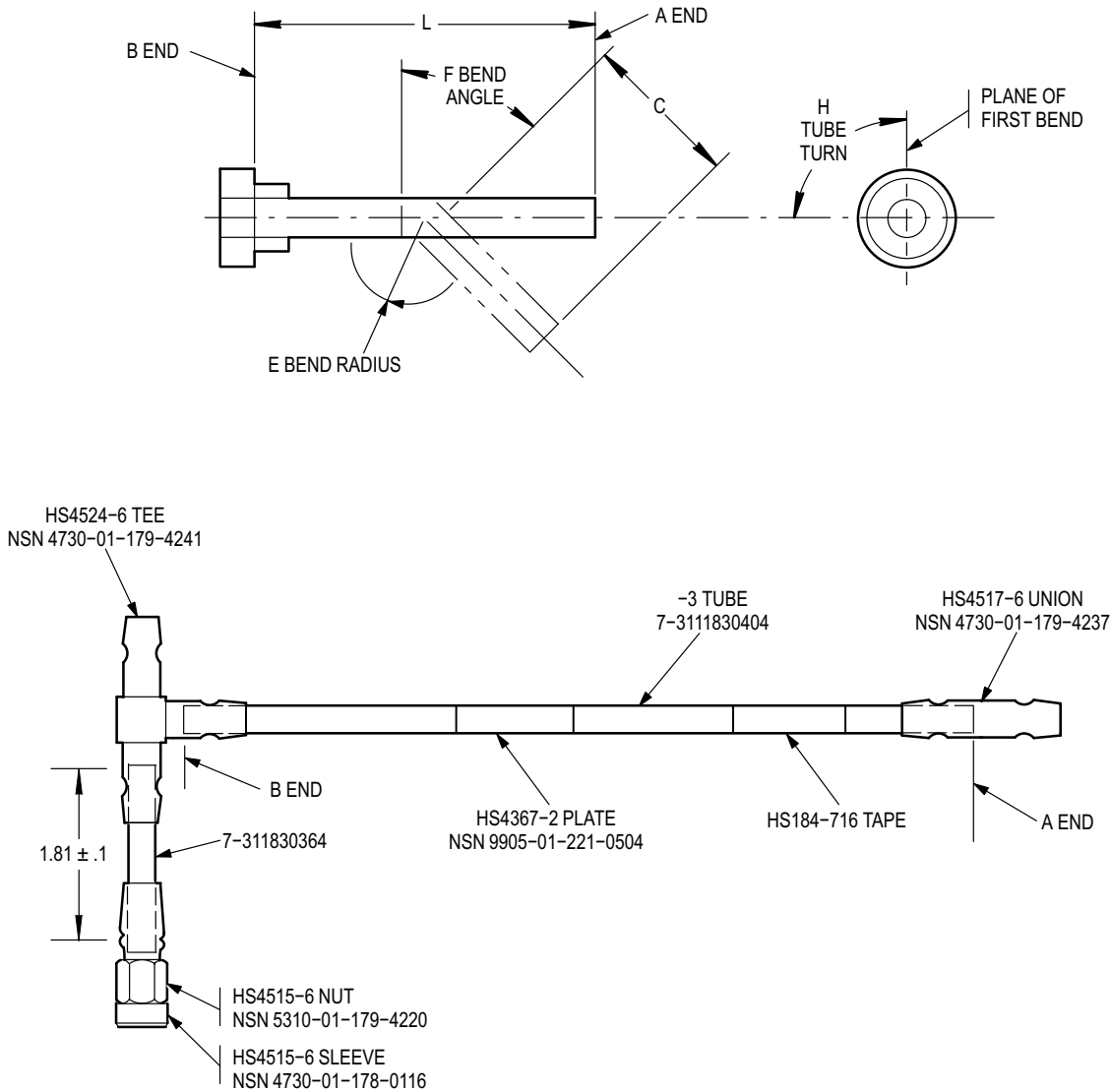
NOTES:

- TUBE ASSEMBLY, METAL - MAKE FROM CRES TUBING COMPOSITION 21-6-9 0.375 O.D. X 0.020 WALL THICKNESS NSN 4710-01-102-6423
- DIMENSION C IS DISTANCE BETWEEN BENDS
- DIMENSION L IS PREPARED LENGTH BEFORE BENDING
- FIRST BEND STARTS FROM A END
- FINISH - PASSIVATE FOR CORROSION RESISTANT STEEL
- ALL DIMENSIONS ARE IN INCHES

BEND NUMBER	DIMENSIONS				
	C	E	F	H	L
PART NUMBER 7-311830363					
1	17.70 9.86	1.12	89.2	0.0	29.31

M04-5018

Figure D-342. Tube Assembly, Metal PN 7-311830363



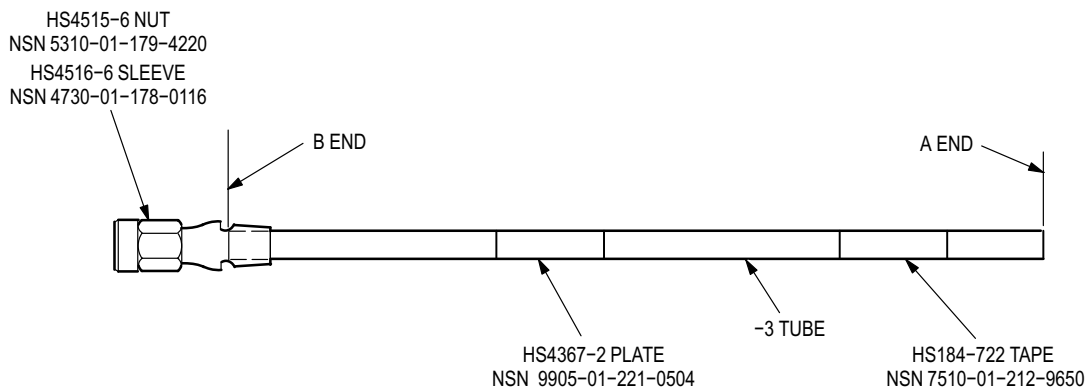
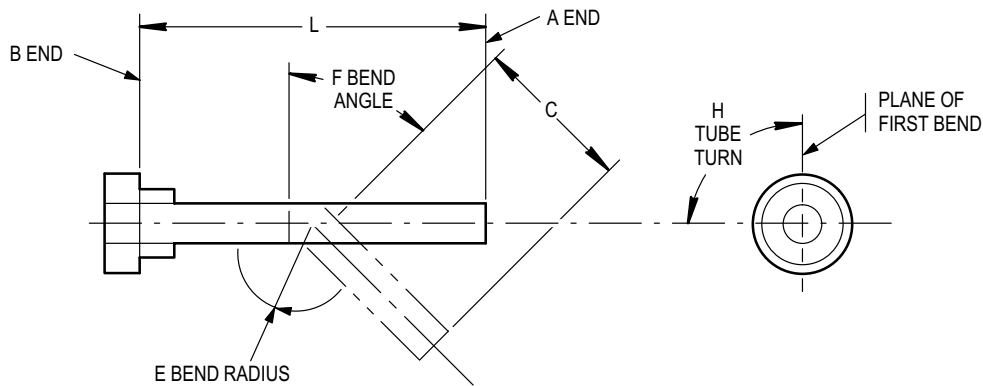
NOTES:

- TUBE ASSEMBLY, METAL - MAKE FROM CRES TUBING COMPOSITION 21-6-9, TUBE SIZE 0.375 O.D x 0.020 WALL THICKNESS NSN 4710-01-102-6423
- DIMENSION C IS DISTANCE BETWEEN BENDS
- DIMENSION L IS PREPARED LENGTH BEFORE BENDING
- FIRST BEND STARTS FROM A END
- FINISH - PASSIVATE FOR CORROSION RESISTANT STEEL
- SUB-ASSEMBLY - 7-311830404 COMBINES TO MAKE 7-311830364
- ALL DIMENSIONS ARE IN INCHES

BEND NUMBER	DIMENSIONS				
	C	E	F	H	L
	PART NUMBER 7-311830404				
1	1.81	1.12	37.8	0.0	49.6
2	21.48	1.12	88.5	-92.9	49.6
3	3.94	1.12	90.6	-152.2	49.6
4	3.57	1.12	74.5	173.2	49.6
5	4.05	1.12	82.7	152.8	49.6
	1.24				

M04-5019

Figure D-343. Tube Assembly, Metal PN 7-311830364, PN 7-311830404



NOTES:

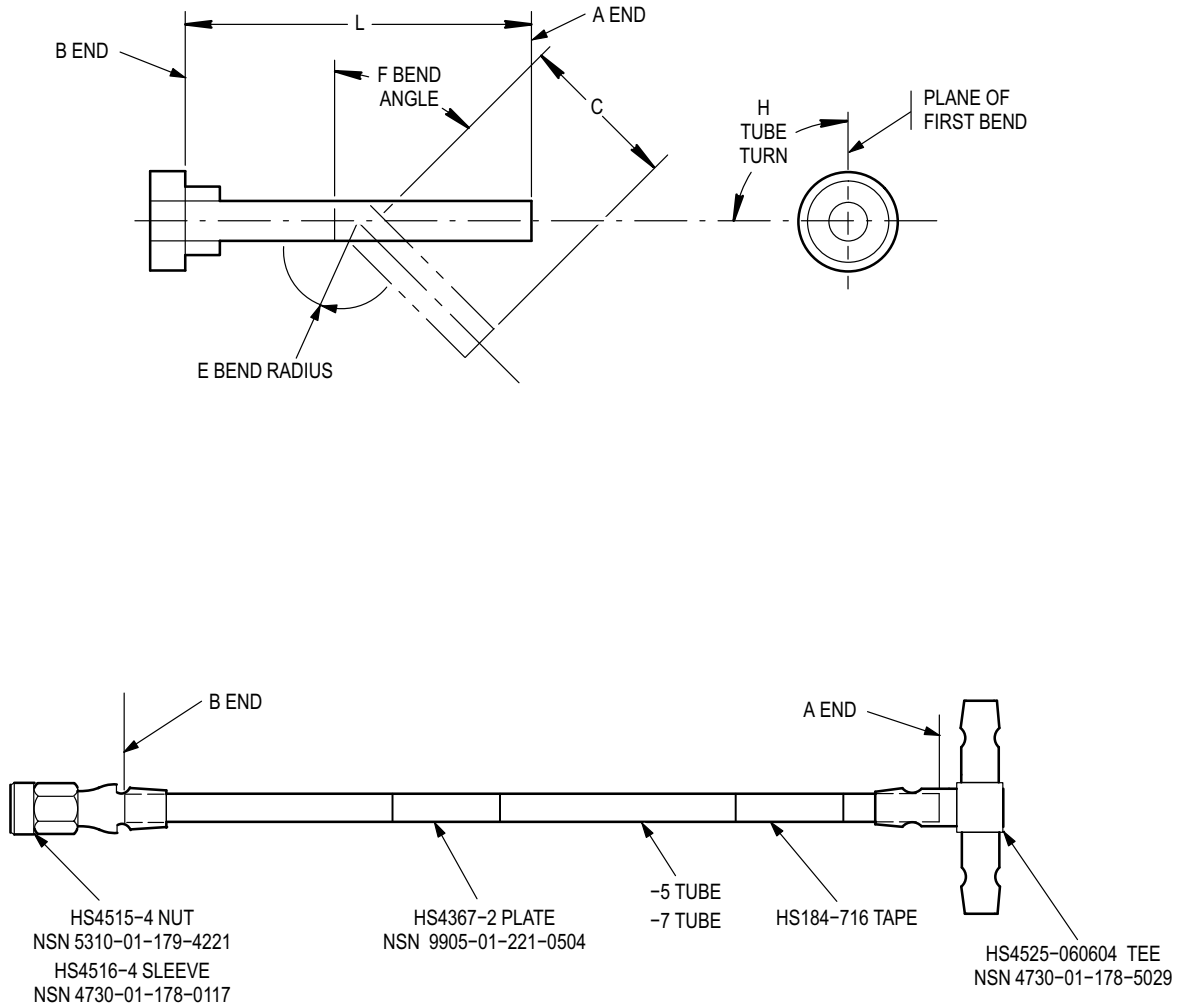
- TUBE ASSEMBLY, METAL - MAKE FROM CRES TUBING COMPOSITION 21-6-9, TUBE SIZE 0.375 O.D x 0.020 WALL THICKNESS NSN 4710-01-102-6423
- DIMENSION C IS DISTANCE BETWEEN BENDS
- DIMENSION L IS PREPARED LENGTH BEFORE BENDING
- FIRST BEND STARTS FROM A END
- FINISH - PASSIVATE FOR CORROSION RESISTANT STEEL
- ALL DIMENSIONS ARE IN INCHES

BEND NUMBER	DIMENSIONS				
	C	E	F	H	L
PART NUMBER 7-311830365					
1	1.31	1.12	39.2	0.0	9.66
2	3.23	1.12	63.5	172.1	9.66
	3.10				

M04-5020

Figure D-344. Tube Assembly, Metal PN 7-311830365





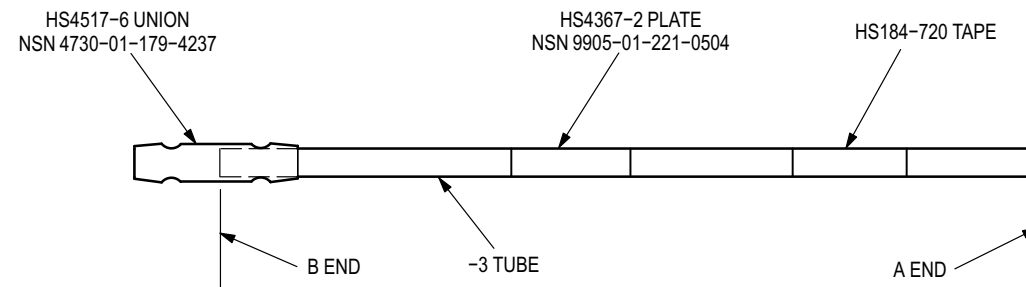
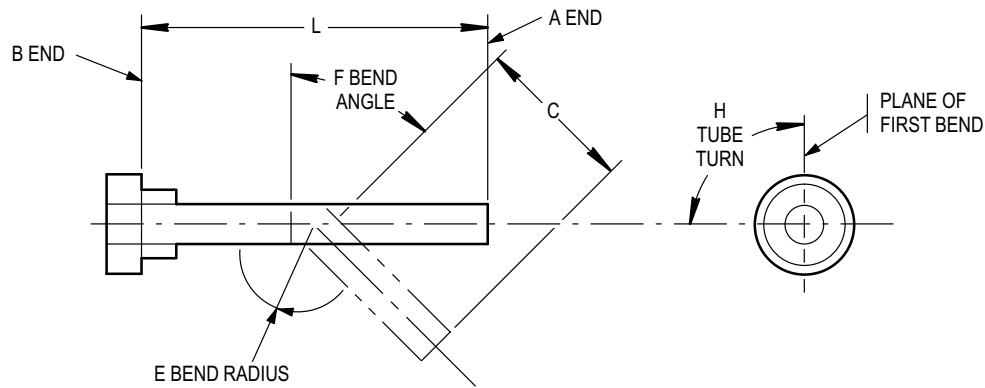
NOTES:

- TUBE ASSEMBLY, METAL - MAKE FROM CRES TUBING COMPOSITION 21-6-9, TUBE SIZE 0.250 O.D x 0.020 WALL THICKNESS NSN 4710-00-825-5894
- DIMENSION C IS DISTANCE BETWEEN BENDS
- DIMENSION L IS PREPARED LENGTH BEFORE BENDING
- FIRST BEND STARTS FROM A END
- FINISH - PASSIVATE FOR CORROSION RESISTANT STEEL
- ALL DIMENSIONS ARE IN INCHES

BEND NUMBER	DIMENSIONS				
	C	E	F	H	L
PART NUMBER 7-311830366					
1	3.45	0.75	89.4	0.0	7.73
2	3.39	0.75	43.3	170.1	7.73
	1.31				

M04-5021

Figure D-345. Tube Assembly, Metal PN 7-311830366



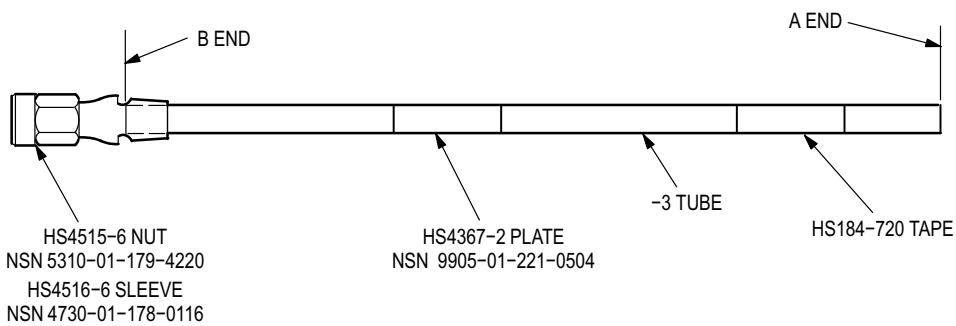
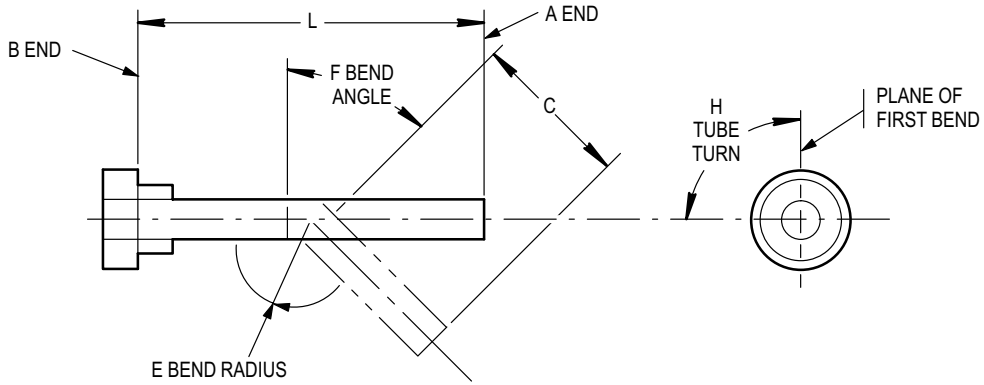
NOTES:

- TUBE ASSEMBLY, METAL - MAKE FROM CRES TUBING COMPOSITION 21-6-9, TUBE SIZE 0.375 O.D x 0.020 WALL THICKNESS NSN 4710-01-102-6423
- DIMENSION C IS DISTANCE BETWEEN BENDS
- DIMENSION L IS PREPARED LENGTH BEFORE BENDING
- FIRST BEND STARTS FROM A END
- FINISH - PASSIVATE FOR CORROSION RESISTANT STEEL
- ALL DIMENSIONS ARE IN INCHES

BEND NUMBER	DIMENSIONS				
	C	E	F	H	L
PART NUMBER 7-311830367					
1	3.06	1.12	29.5	0.0	22.09
2	9.42	1.12	84.2	175.3	22.09
3	2.06 3.55	1.12	90.0	88.5	22.09
PART NUMBER 7-311830368					
1	21.36	1.12	48.0	0.0	68.80
2	4.11	1.12	46.7	-178.1	68.80
3	35.05 6.38	1.12	1.6	69.7	68.80

M04-5022

Figure D-346. Tube Assembly, Metal PN 7-311830367, PN 7-311830368



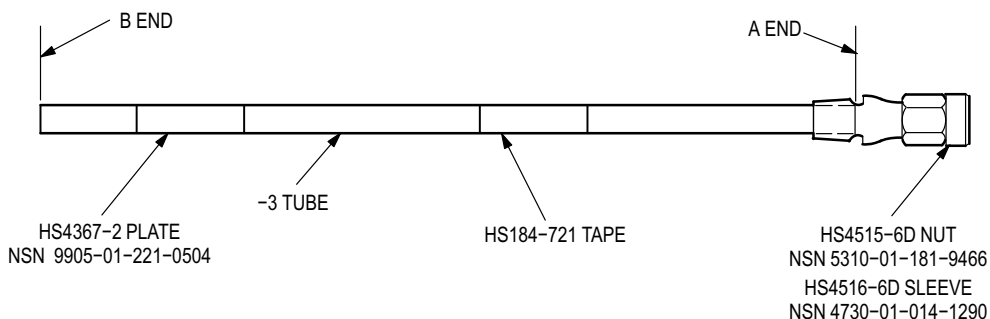
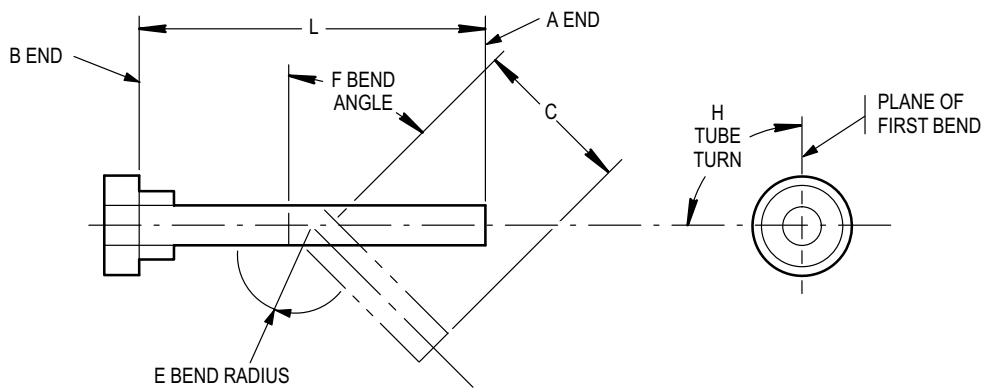
NOTES:

- TUBE ASSEMBLY, METAL - MAKE FROM CRES TUBING COMPOSITION 21-6-9 TUBE SIZE 0.375 O.D x 0.020 WALL THICKNESS NSN 4710-01-102-6423
- DIMENSION C IS DISTANCE BETWEEN BENDS
- DIMENSION L IS PREPARED LENGTH BEFORE BENDING
- FIRST BEND STARTS FROM A END
- FINISH - PASSIVATE FOR CORROSION RESISTANT STEEL
- ALL DIMENSIONS ARE IN INCHES

BEND NUMBER	DIMENSIONS				
	C	E	F	H	L
PART NUMBER 7-311830369					
1	1.56	1.12	7.8	0.0	17.39
2	5.23	1.12	88.2	180.0	17.39
3	6.71	1.12	18.2	-90.0	17.39
	1.65				

M04-5023

Figure D-347. Tube Assembly, Metal PN 7-311830369



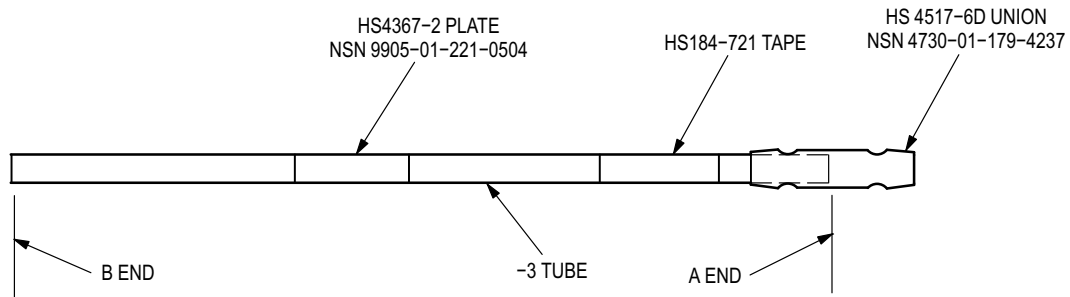
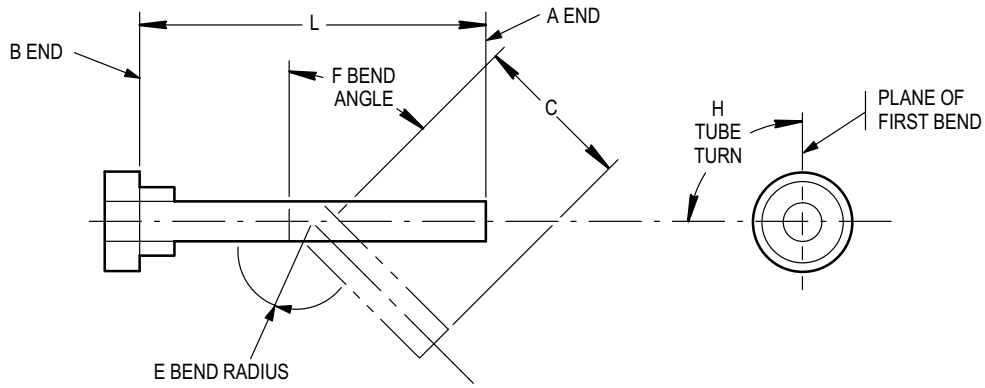
NOTES:

- TUBE ASSEMBLY, METAL - MAKE FROM AL-ALY TUBING 6061-T6, TUBE SIZE 0.375 O.D x 0.028 WALL THICKNESS NSN 4710-01-102-6423
- DIMENSION C IS DISTANCE BETWEEN BENDS
- DIMENSION L IS PREPARED LENGTH BEFORE BENDING
- FIRST BEND STARTS FROM A END
- FINISH - CHEMICALLY FILM TREAT FOR ELECTRICAL CONDUCTIVITY PER MIL-C-5541 CLASS 3A
- ALL DIMENSIONS ARE IN INCHES

BEND NUMBER	DIMENSIONS				
	C	E	F	H	L
PART NUMBER 7-311830371					
1	1.47	1.12	17.4	0.0	14.21
2	4.83	1.12	92.4	-91.8	14.21
3	2.68 2.92	1.12	7.7	159.0	14.21

M04-5024

Figure D-348. Tube Assembly, Metal PN 7-311830371



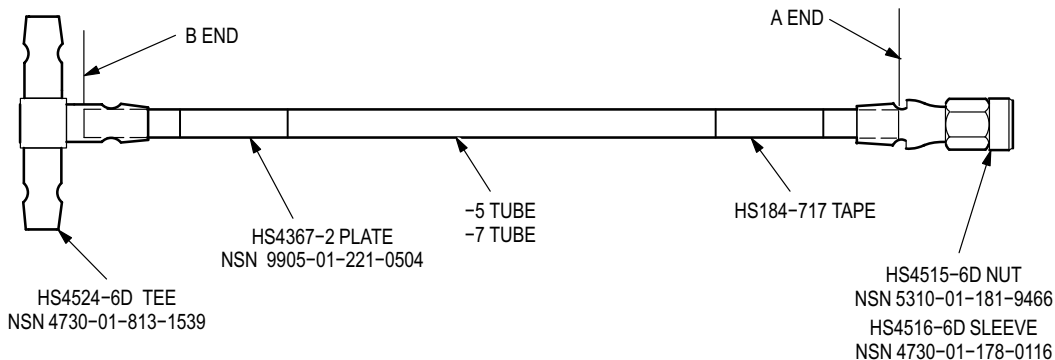
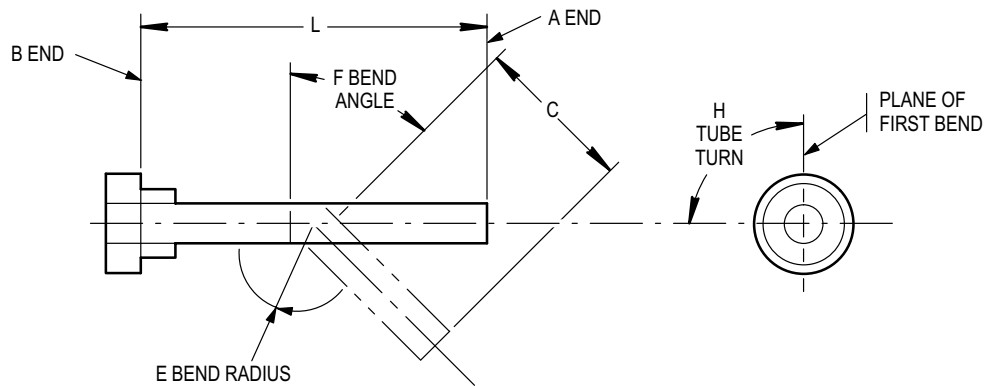
NOTES:

- TUBE ASSEMBLY, METAL - MAKE FROM AL-ALY TUBING 6061-T6, TUBE SIZE 0.375 O.D x 0.028 WALL THICKNESS NSN 4710-01-167-6979
- DIMENSION C IS DISTANCE BETWEEN BENDS
- DIMENSION L IS PREPARED LENGTH BEFORE BENDING
- FIRST BEND STARTS FROM A END
- FINISH - CHEMICALLY FILM TREAT FOR ELECTRICAL CONDUCTIVITY PER MIL-C-5541 CLASS 3A
- ALL DIMENSIONS ARE IN INCHES

BEND NUMBER	DIMENSIONS				
	C	E	F	H	L
PART NUMBER 7-311830373					
1	3.29	1.125	88.8	0.0	18.31
2	1.49	1.125	91.6	90.0	18.31
3	8.58	1.125	30.2	178.6	18.31
	1.06				

M04-5025

Figure D-349. Tube Assembly, Metal PN 7-311830373



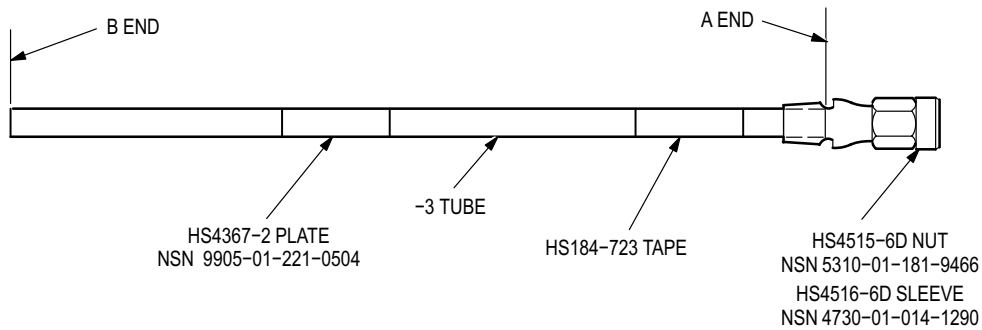
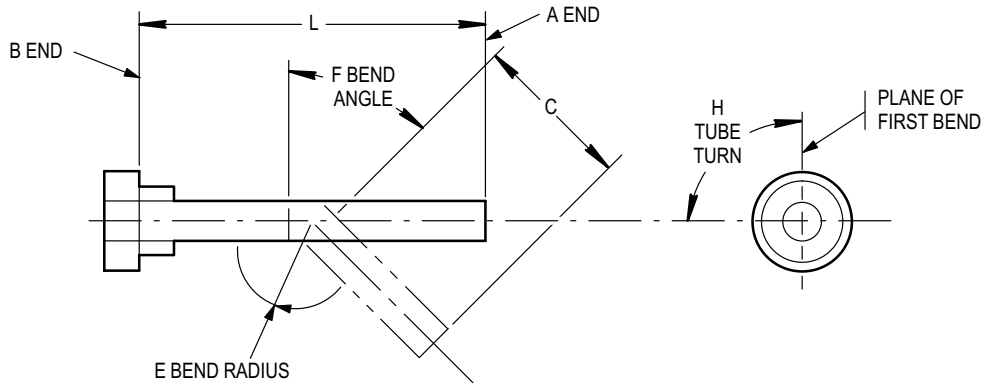
NOTES:

- TUBE ASSEMBLY, METAL - MAKE FROM AL-ALY TUBING 6061-T6, TUBE SIZE 0.375 O.D x 0.028 WALL THICKNESS NSN 4710-01-167-6979
- DIMENSION C IS DISTANCE BETWEEN BENDS
- DIMENSION L IS PREPARED LENGTH BEFORE BENDING
- FIRST BEND STARTS FROM A END
- FINISH - CHEMICALLY FILM TREAT FOR ELECTRICAL CONDUCTIVITY PER MIL-C-5541 CLASS 3A
- ALL DIMENSIONS ARE IN INCHES

BEND NUMBER	DIMENSIONS				
	C	E	F	H	L
PART NUMBER 7-311830374					
1	1.82	1.125	32.4	0.0	7.60
2	1.99	1.125	56.3	169.8	7.60
	2.67				

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Figure D-350. Tube Assembly, Metal PN 7-311830374



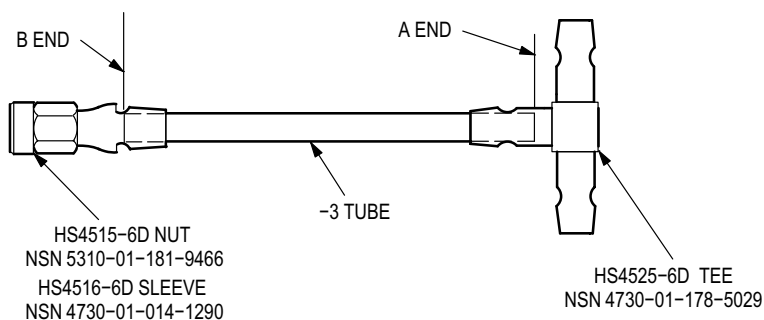
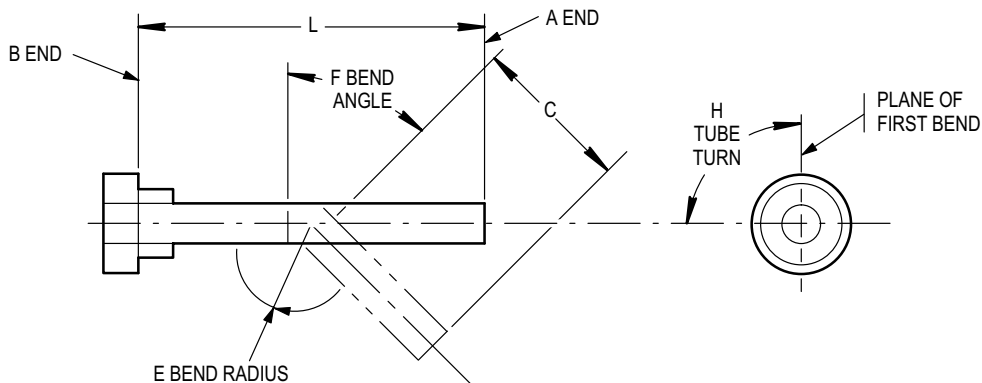
NOTES:

- TUBE ASSEMBLY, METAL - MAKE FROM AL-ALY TUBING 6061-T6, TUBE SIZE 0.375 O.D x 0.028 WALL THICKNESS NSN 4710-01-167-6979
- DIMENSION C IS DISTANCE BETWEEN BENDS
- DIMENSION L IS PREPARED LENGTH BEFORE BENDING
- FIRST BEND STARTS FROM A END
- FINISH - CHEMICALLY FILM TREAT FOR ELECTRICAL CONDUCTIVITY PER MIL-C-5541 CLASS 3A
- ALL DIMENSIONS ARE IN INCHES

BEND NUMBER	DIMENSIONS				
	C	E	F	H	L
PART NUMBER 7-311830375					
1	3.19	1.12	68.5	0.0	10.47
2	3.33	1.12	88.2	166.9	10.47
	0.87				
PART NUMBER 7-311830376					
1	0.94	1.12	38.5	0.0	21.56
2	4.47	1.12	16.0	-162.8	21.56
3	12.47	1.12	24.0	-23.2	21.56
	2.39				

M04-5027

Figure D-351. Tube Assembly, Metal PN 7-311830375, PN 7-311830376



NOTES:

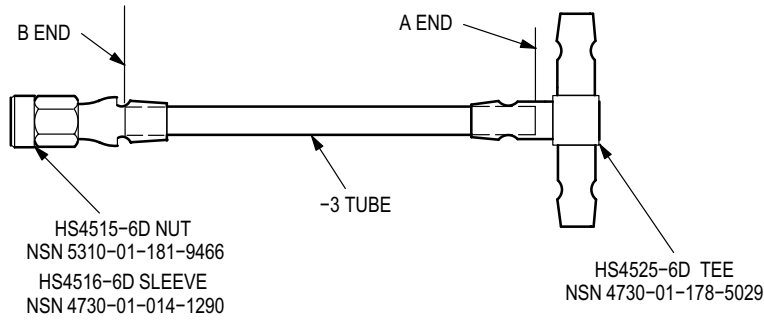
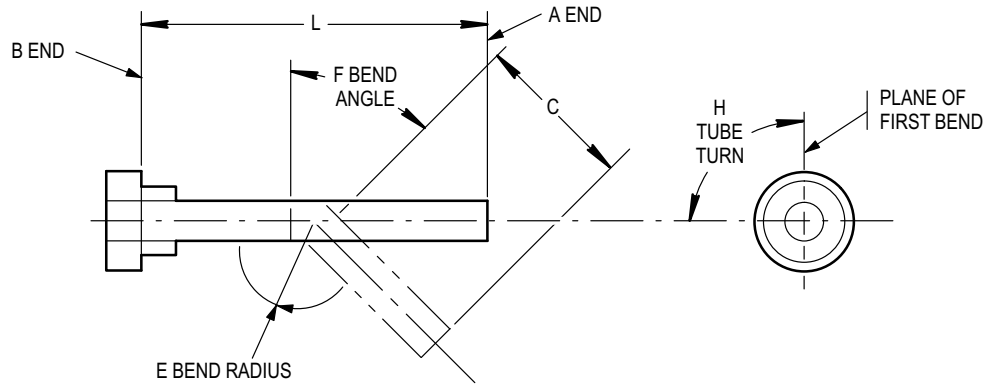
- TUBE ASSEMBLY, METAL - MAKE FROM AL-ALY TUBING 6061-T6, TUBE SIZE 0.375 O.D x 0.028 WALL THICKNESS NSN 4710-01-167-6979
- DIMENSION C IS DISTANCE BETWEEN BENDS
- DIMENSION L IS PREPARED LENGTH BEFORE BENDING
- FIRST BEND STARTS FROM A END
- FINISH - CHEMICALLY FILM TREAT FOR ELECTRICAL CONDUCTIVITY PER MIL-C-5541 CLASS 3A
- ALL DIMENSIONS ARE IN INCHES

BEND NUMBER	DIMENSIONS				
	C	E	F	H	L
PART NUMBER 7-311830379					
1	1.62 1.29	1.12	91.5	0.0	4.84

M04-5029

Figure D-352. Tube Assembly, Metal PN 7-311830377, PN 7-311830378





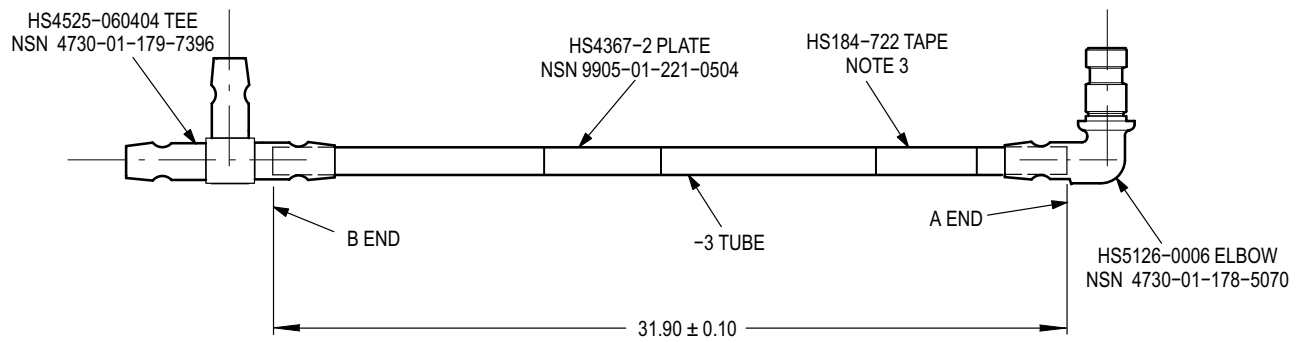
NOTES:

- TUBE ASSEMBLY, METAL - MAKE FROM AL-ALY TUBING 6061-T6, TUBE SIZE 0.375 O.D x 0.028 WALL THICKNESS NSN 4710-01-167-6979
- DIMENSION C IS DISTANCE BETWEEN BENDS
- DIMENSION L IS PREPARED LENGTH BEFORE BENDING
- FIRST BEND STARTS FROM A END
- FINISH - CHEMICALLY FILM TREAT FOR ELECTRICAL CONDUCTIVITY PER MIL-C-5541 CLASS 3A
- ALL DIMENSIONS ARE IN INCHES

BEND NUMBER	DIMENSIONS				
	C	E	F	H	L
PART NUMBER 7-311830379					
1	1.62 1.29	1.12	91.5	0.0	4.84

M04-5029

Figure D-353. Tube Assembly, Metal PN 7-311830379

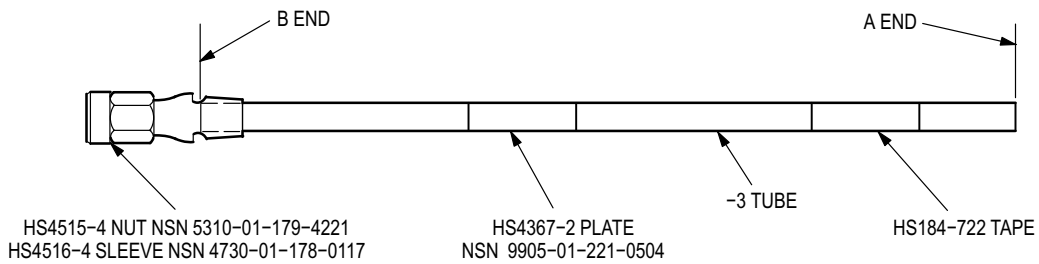
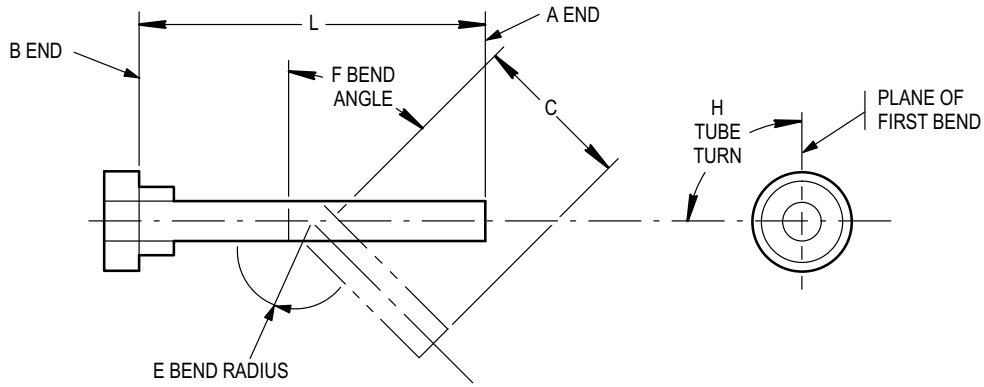


NOTES:

- 1 TUBE ASSEMBLY, METAL - MAKE FROM STEEL-CRES  
TUBING COMPOSITION 21-6-9, TUBE SIZE 0.375 O.D x 0.020 WALL  
THICKNESS NSN 4710-01-102-6423
- 2 FINISH - PASSIVATE FOR CORROSION RESISTANT STEEL
- 3 TAPE ARROW POINTS TO 'B' END
- 4 ALL DIMENSIONS ARE IN INCHES

M04-5030

**Figure D-354. Tube Assembly, Metal PN 7-311830381**



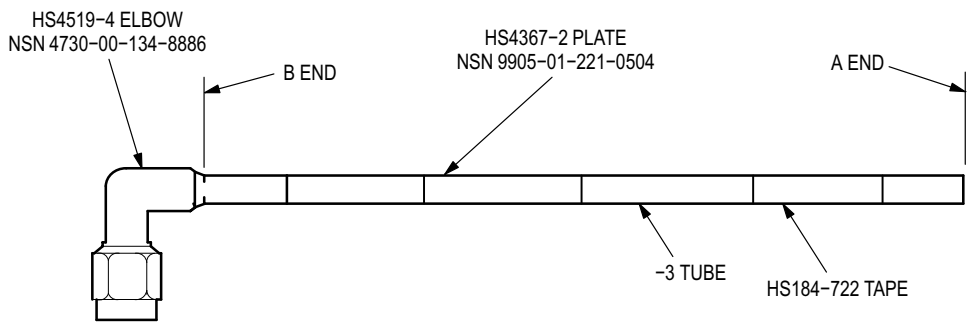
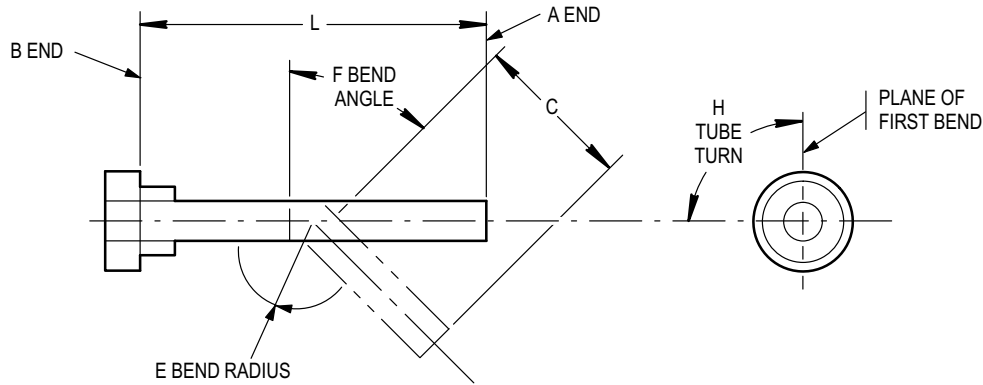
NOTES:

- TUBE ASSEMBLY, METAL - MAKE FROM CRES TUBING COMPOSITION 21-6-9, TUBE SIZE 0.250 O.D x 0.020 WALL THICKNESS NSN 4710-00-825-5894
- DIMENSION C IS DISTANCE BETWEEN BENDS
- DIMENSION L IS PREPARED LENGTH BEFORE BENDING
- FIRST BEND STARTS FROM A END
- FINISH - PASSIVATE FOR CORROSION RESISTANT STEEL
- ALL DIMENSIONS ARE IN INCHES

BEND NUMBER	DIMENSIONS				
	C	E	F	H	L
PART NUMBER 7-311830382					
1	5.10	0.75	23.0	0.0	23.96
2	12.19	0.75	2.0	79.5	23.96
3	3.43	0.75	89.5	-85.6	23.96
	1.00				

M04-5031

Figure D-355. Tube Assembly, Metal PN 7-311830382



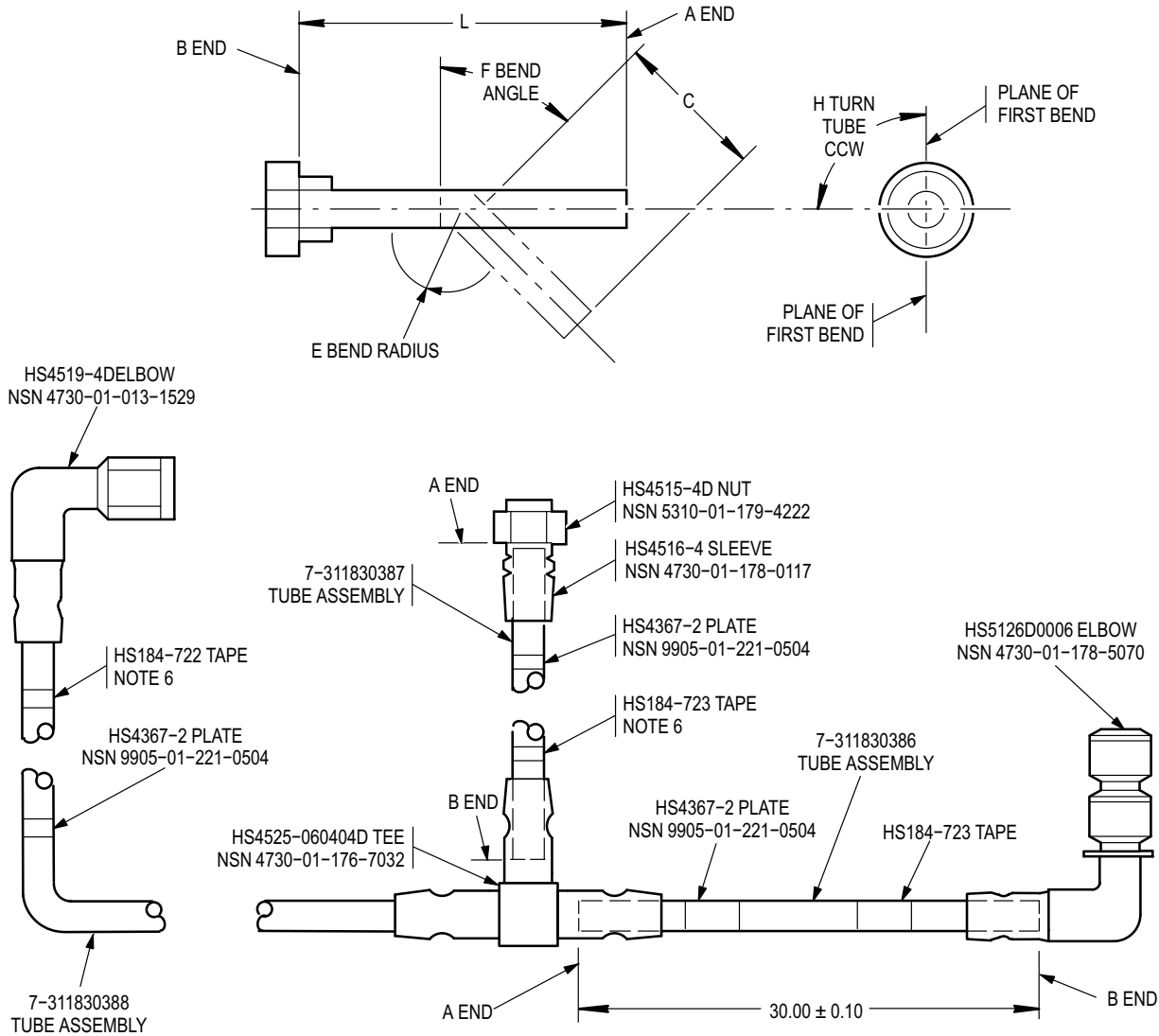
NOTES:

- TUBE ASSEMBLY, METAL - MAKE FROM CRES TUBING COMPOSITION 21-6-9, TUBE SIZE 0.250 O.D x 0.020 WALL THICKNESS NSN 4710-00-825-5894
- DIMENSION C IS DISTANCE BETWEEN BENDS
- DIMENSION L IS PREPARED LENGTH BEFORE BENDING
- FIRST BEND STARTS FROM A END
- FINISH - PASSIVATE FOR CORROSION RESISTANT STEEL
- ALL DIMENSIONS ARE IN INCHES

BEND NUMBER	DIMENSIONS				
	C	E	F	H	L
PART NUMBER 7-311830383					
1	29.80	0.75	91.5	0.0	49.06
2	3.09	0.75	3.1	110.7	49.06
3	10.50	0.75	6.6	-13.6	49.06
	4.35				

M04-5032

Figure D-356. Tube Assembly, Metal PN 7-311830383



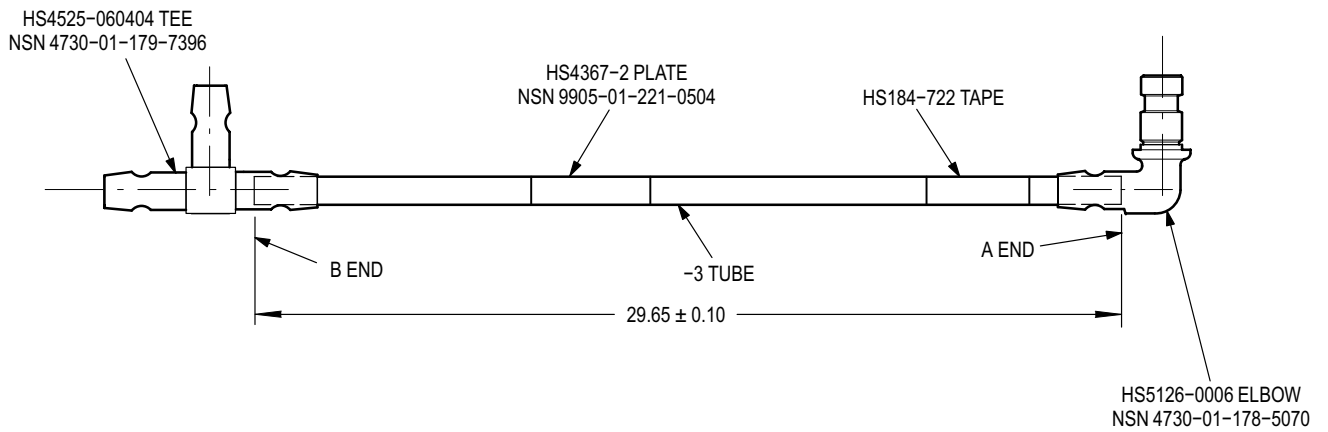
NOTES:

- 1 TUBE ASSEMBLY, METAL BRANCHED - MAKE FROM AL-ALY TUBING 6061-T6, 7-311830387, 7-311830388, TUBE SIZE 0.250 O.D x 0.020 WALL THICKNESS NSN 4710-00-683-9034
- 2 7-311830386 AL-ALY TUBING 6061-T6, TUBE SIZE 0.375 O.D x 0.028 WALL THICKNESS NSN 4710-01-167-6979
- 3 DIMENSION C IS DISTANCE BETWEEN BENDS  
SFINISH - CHEMICALLY FILM TREAT FOR ELECTRICAL CONDUCTIVITY PER MIL-C-5541 CLASS 3A
- 4 NO BENDS 7-311830386
- 5 SUB ASSEMBLIES - 7-311830386, 7-311830387, 7-311830388 COMBINE TO MAKE 7-311830385
- 6 TAPE ARROW POINTS TO B END
- 7 ALL DIMENSIONS ARE IN INCHES

BEND NUMBER	DIMENSIONS				
	C	E	F	H	L
PART NUMBER 7-311830387					
1	1.00	0.75	89.0	0.0	23.46
2	2.84	0.75	6.5	84.7	23.46
3	12.28	0.75	11.5	-87.3	23.46
	5.55				
PART NUMBER 7-311830388					
1	3.76	0.75	4.6	0.0	49.38
2	9.11	0.75	3.7	-64.2	49.38
3	5.31	0.75	92.6	-83.3	49.38
	29.53				

M04-4996

**Figure D-357. Tube Assembly, Metal PN 7-311830385, PN 7-311830386, PN 7-311830387, PN 7-311830388**

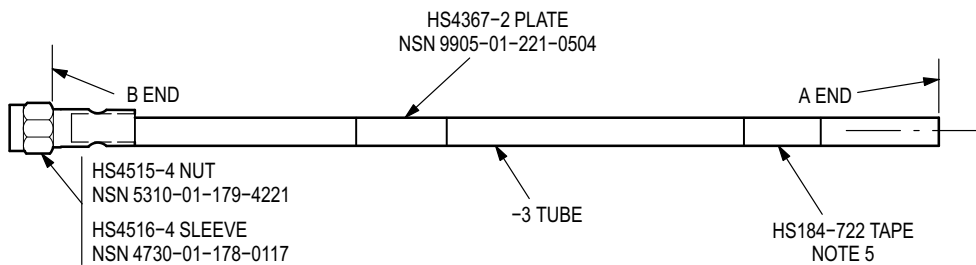
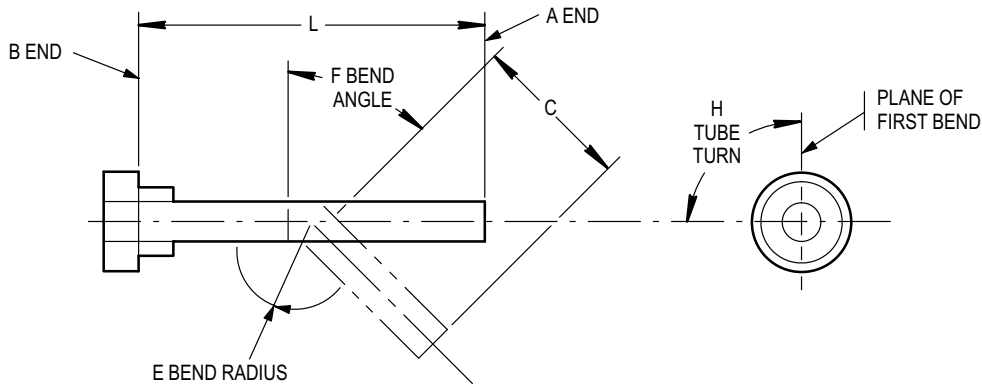


NOTES:

- TUBE ASSEMBLY, METAL - MAKE FROM STEEL-CRES
- TUBING COMPOSITION 21-6-9, TUBE SIZE 0.375 O.D x 0.020 WALL THICKNESS NSN 4710-01-102-6423
- FINISH - PASSIVATE FOR CORROSION RESISTANT STEEL
- ALL DIMENSIONS ARE IN INCHES

M04-5033

**Figure D-358. Tube Assembly, Metal PN 7-311830391**



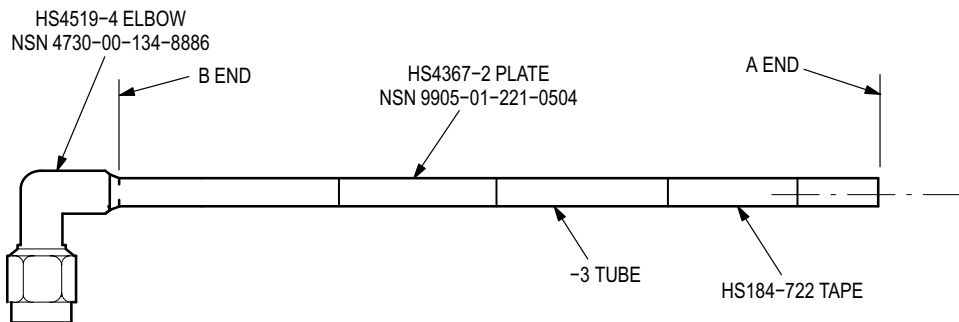
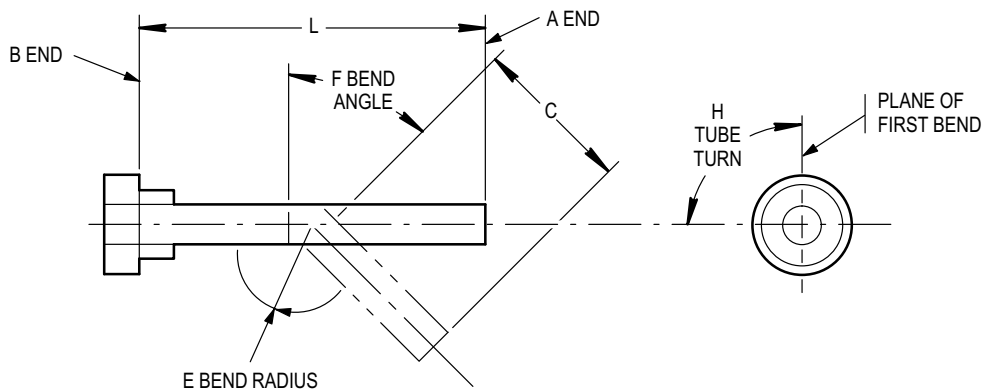
NOTES:

- 1 TUBE ASSEMBLY, METAL - MAKE FROM STEEL-CRES  
TUBING COMPOSITION 21-6-9, TUBE SIZE 0.250 O.D x 0.020 WALL  
THICKNESS NSN 4710-00-825-5894
- 2 DIMENSION C IS DISTANCE BETWEEN BENDS
- 3 DIMENSION L IS PREPARED LENGTH BEFORE BENDING
- 4 FINISH - PASSIVATE CORROSION - RESISTANT STEELS
- 5 TAPE ARROW POINTS TO B END
- 6 ALL DIMENSIONS ARE IN INCHES

BEND NUMBER	DIMENSIONS				
	C	E	F	H	L
PART NUMBER 7-3118930392					
1	4.76	0.75	16.0	0.0	23.47
2	11.93	0.75	2.0	113.2	23.47
3	3.94	0.75	89.0	-90.7	23.47
	1.00				

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Figure D-359. Tube Assembly, Metal PN 7-311830392



NOTES:

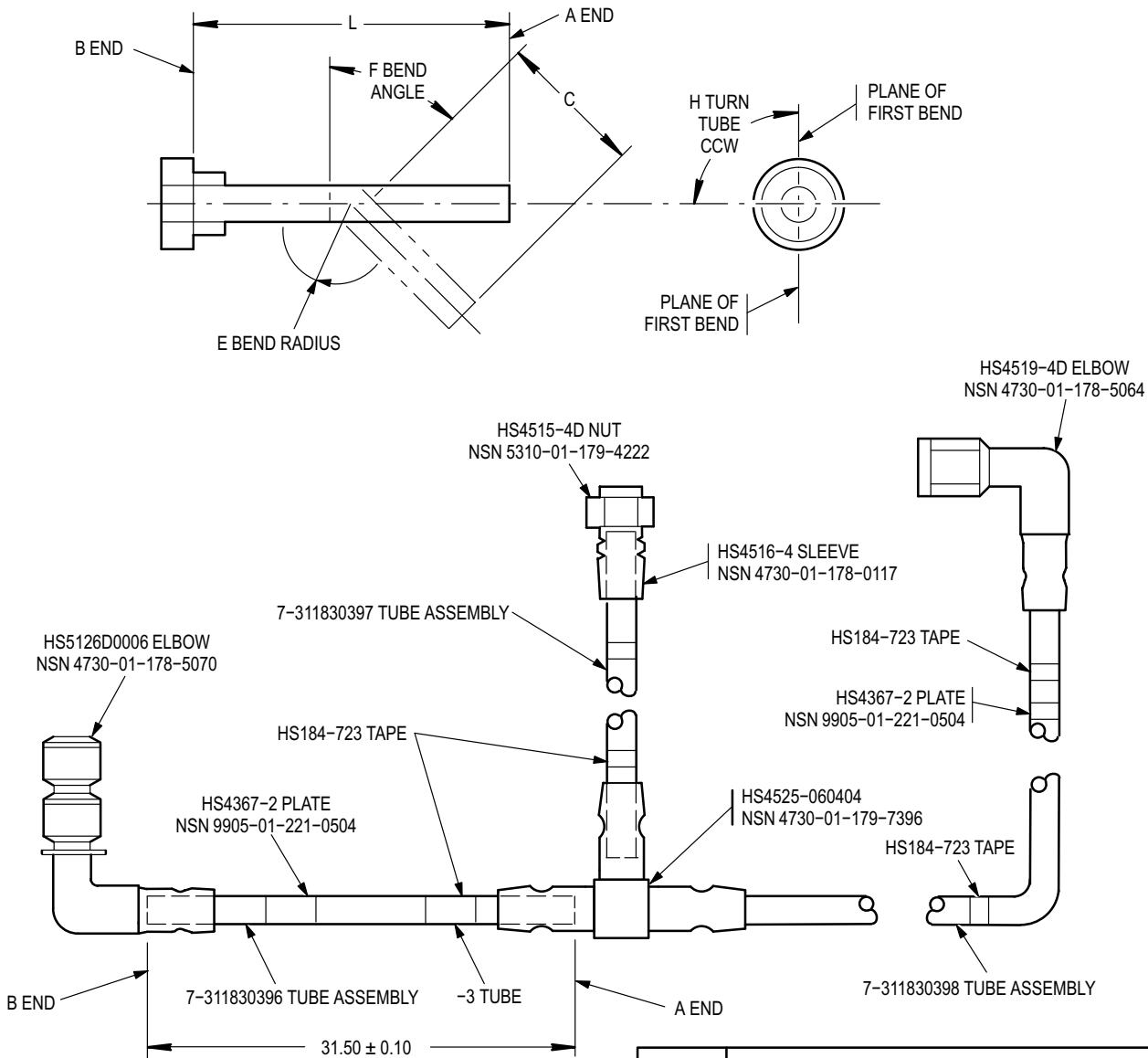
- TUBE ASSEMBLY, METAL - MAKE FROM CRES TUBING COMPOSITION 21-6-9, TUBE SIZE 0.250 O.D x 0.020 WALL THICKNESS NSN 4710-00-825-5894
- DIMENSION C IS DISTANCE BETWEEN BENDS
- DIMENSION L IS PREPARED LENGTH BEFORE BENDING
- FIRST BEND STARTS FROM A END
- FINISH - PASSIVATE FOR CORROSION RESISTANT STEEL
- ALL DIMENSIONS ARE IN INCHES

BEND NUMBER	DIMENSIONS				
	C	E	F	H	L
PART NUMBER 7-311830393					
1	29.80	0.75	87.7	0.0	49.04
2	6.05	0.75	3.5	94.9	49.04
3	7.74	0.75	3.9	117.9	49.04
	4.21				

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Figure D-360. Tube Assembly, Metal PN 7-311830393





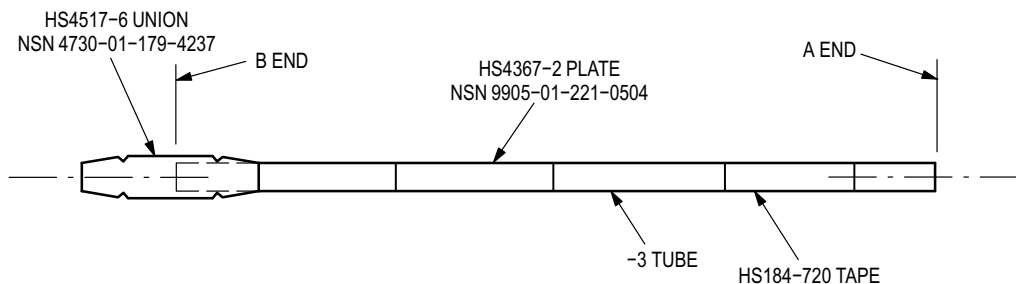
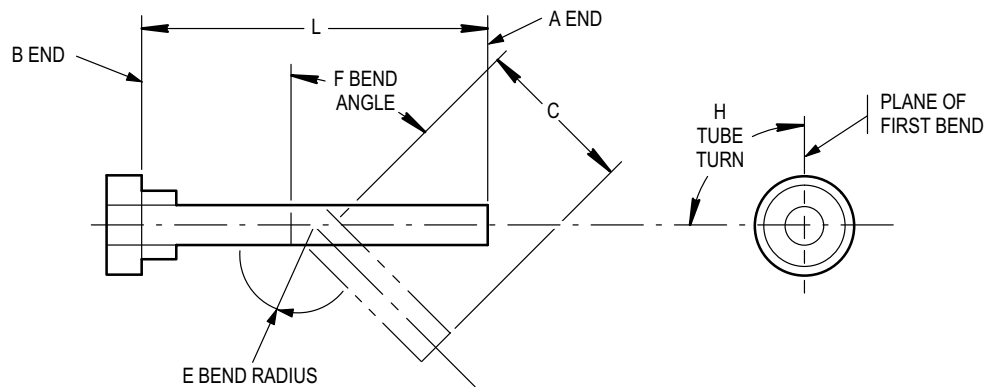
NOTES:

- TUBE ASSEMBLY, METAL BRANCHED - MAKE FROM 7-311830398, 7-311830397 AL-ALY TUBING 6061-T6, TUBE SIZE 0.250 O.D x 0.020 WALL THICKNESS NSN 4710-00-683-9034
- 7-311830396 AL-ALY TUBING 6061-T6, 0.375 OD X 0.028 WALL THICKNESS NSN 4710-01-167-6979
- DIMENSION C IS DISTANCE BETWEEN BENDS
- FINISH - CHEMICALLY FILM TREAT FOR ELECTRICAL CONDUCTIVITY PER MIL-C-5541 CLASS 3A
- SUB ASSEMBLIES - 7-311830396, 7-311830397, 7-311830378 COMBINE TO MAKE 7-311830395
- ALL DIMENSIONS ARE IN INCHES

BEND NUMBER	DIMENSIONS				
	C	E	F	H	L
PART NUMBER 7-311830397					
1	1.00	0.75	90.0	0.0	23.77
2	2.88	0.75	11.0	90.4	23.77
3	13.24	0.75	26.0	-75.6	23.77
	4.60				
PART NUMBER 7-311830398					
1	3.44	0.75	12.1	0.0	48.94
2	10.19	0.75	6.6	-85.7	48.94
3	4.22	0.75	87.5	-92.5	48.94
	29.75				

M04-4995

Figure D-361. Tube Assembly, Metal PN 7-311830395, PN 7-311830396, PN 7-311830397, PN 7-311830398



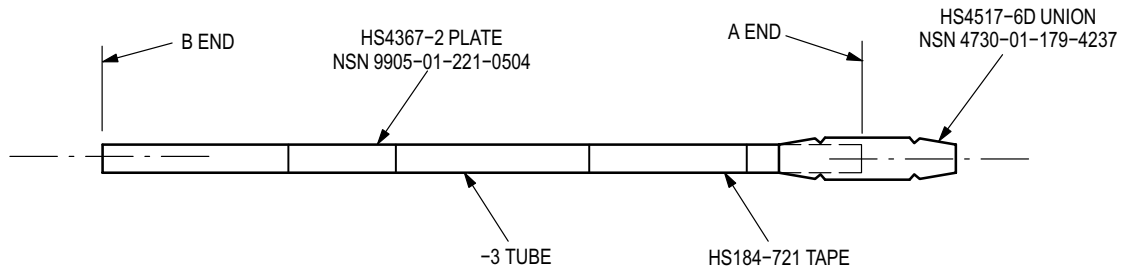
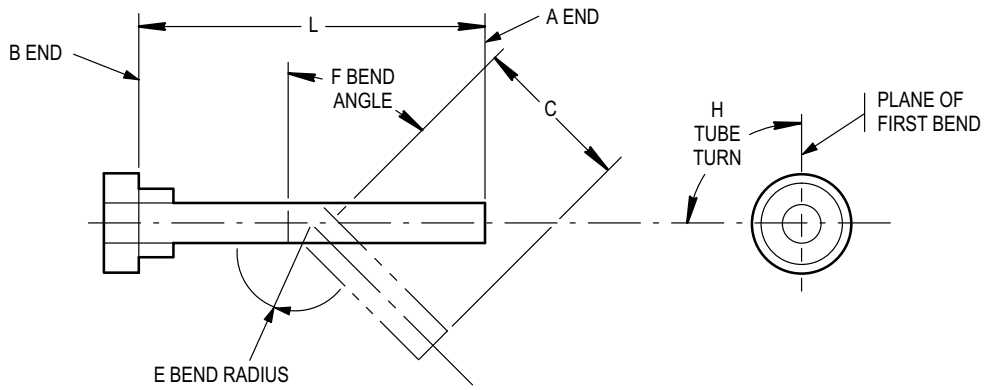
BEND NUMBER	DIMENSIONS				
	C	E	F	H	L
PART NUMBER 7-311830405					
1	1.40	1.12	48.2	0.0	43.47
2	2.34	1.12	93.5	-80.3	43.47
3	2.18	1.12	17.9	-16.7	43.47
4	2.33	1.12	81.8	-90.2	43.47
5	3.92	1.12	30.5	-39.9	43.47
6	6.26	1.12	46.6	-17.8	43.47
7	2.67	1.12	48.5	-171.5	43.47
8	9.48	1.12	88.1	79.2	43.47
9	1.90	1.12	7.5	95.7	43.47
	1.91				

NOTES:

- TUBE ASSEMBLY, METAL - MAKE FROM CRES TUBING COMPOSITION 21-6-9, TUBE SIZE 0.375 O.D x 0.020 WALL THICKNESS NSN 4710-01-102-6423
- DIMENSION C IS DISTANCE BETWEEN BENDS
- DIMENSION L IS PREPARED LENGTH BEFORE BENDING
- FIRST BEND STARTS FROM A END
- FINISH - PASSIVATE FOR CORROSION RESISTANT STEEL
- ALL DIMENSIONS ARE IN INCHES

M04-5036

Figure D-362. Tube Assembly, Metal PN 7-311830405



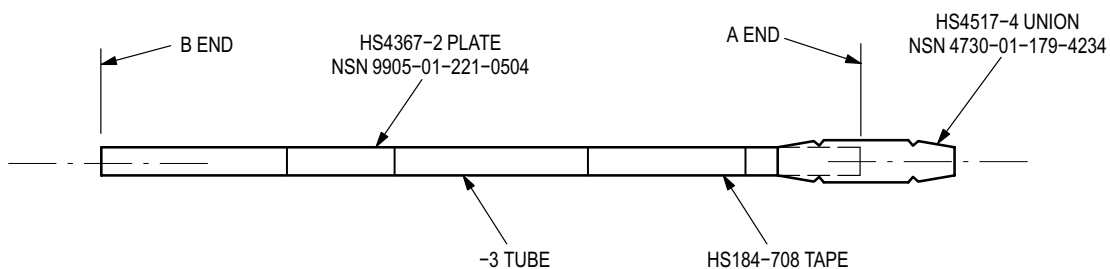
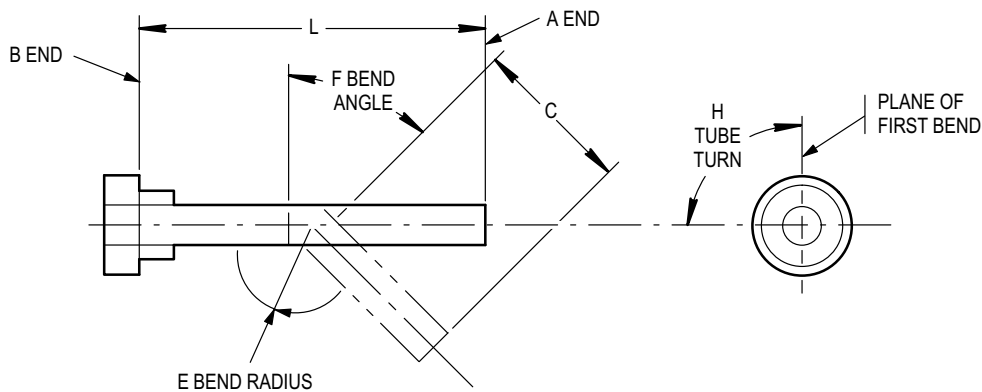
BEND NUMBER	DIMENSIONS				
	C	E	F	H	L
	PART NUMBER 7-311830406				
1	1.70	1.12	10.7	0.0	43.05
2	2.05	1.12	83.1	89.0	43.05
3	10.89	1.12	41.9	72.5	43.05
4	2.73	1.12	42.8	-166.9	43.05
5	4.99	1.12	36.5	-2.7	43.05
6	2.68	1.12	85.4	-73.0	43.05
7	4.91	1.12	85.9	-96.1	43.05
8	3.02	1.12	48.8	-79.3	43.05
	1.54				

NOTES:

- TUBE ASSEMBLY, METAL - MAKE FROM AL-ALY TUBING 6061-T6, TUBE SIZE 0.375 O.D x 0.028 WALL THICKNESS NSN 4710-01-167-6979
- DIMENSION C IS DISTANCE BETWEEN BENDS
- DIMENSION L IS PREPARED LENGTH BEFORE BENDING
- FIRST BEND STARTS FROM A END
- FINISH - CHEMICALLY FILM TREAT FOR ELECTRICAL CONDUCTIVITY PER MIL-C-5541 CLASS 3A
- ALL DIMENSIONS ARE IN INCHES

M04-5037

Figure D-363. Tube Assembly, Metal PN 7-311830406



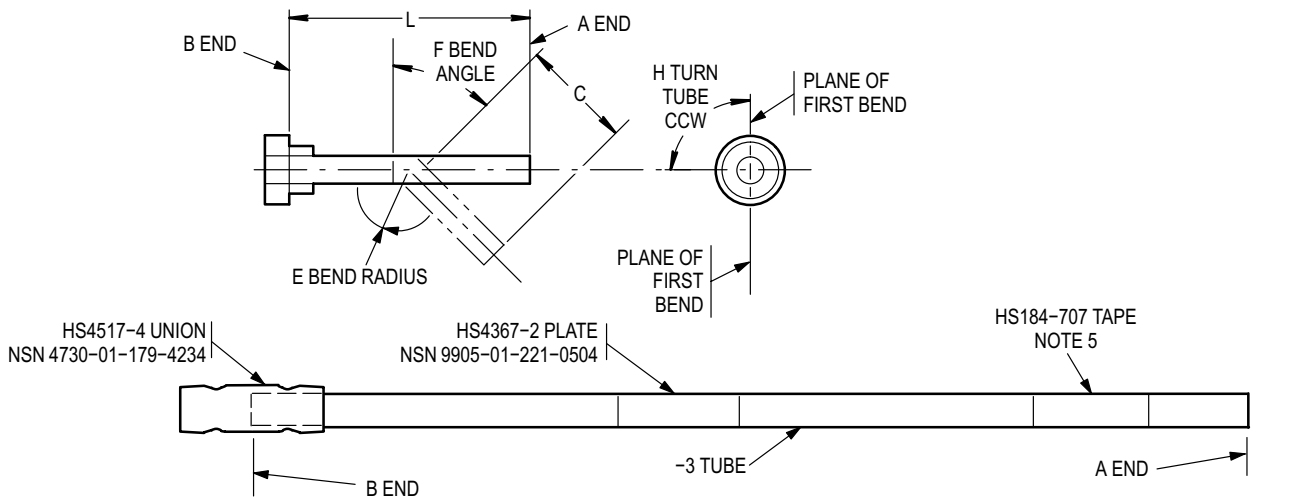
BEND NUMBER	DIMENSIONS				
	C	E	F	H	L
PART NUMBER 7-311830408					
1	0.81	0.75	42.7	0.0	13.02
2	5.15	0.75	66.2	-173.7	13.02
3	3.19	0.75	62.6	179.3	13.02
	1.66				

NOTES:

- TUBE ASSEMBLY, METAL - MAKE FROM CRES TUBING COMPOSITION 21-6-9, TUBE SIZE 0.250 O.D x 0.020 WALL THICKNESS NSN 4710-00-825-5894
- DIMENSION C IS DISTANCE BETWEEN BENDS
- DIMENSION L IS PREPARED LENGTH BEFORE BENDING
- FIRST BEND STARTS FROM A END
- FINISH - PASSIVATE FOR CORROSION RESISTANT STEEL
- ALL DIMENSIONS ARE IN INCHES

M04-5038

Figure D-364. Tube Assembly, Metal PN 7-311830408



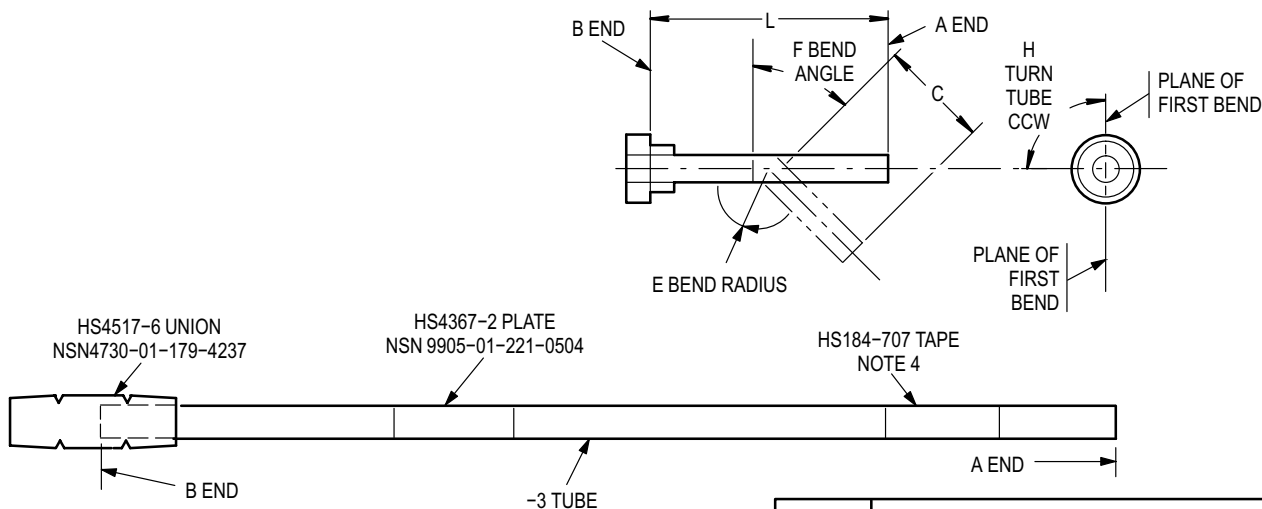
BEND NUMBER	DIMENSIONS				
	C	E	F	H	L
PART NUMBER 7-311830409					
1	3.39	0.75	60.8	0.0	13.86
2	2.88	0.75	62.4	-176.2	13.86
3	4.30	0.75	49.0	-170.0	13.86
	1.04				

M04-4981

NOTES:

- 1 TUBE ASSEMBLY, METAL BRANCHED - MAKE FROM STEEL CRES TUBING COMPOSITION 21-6-9, TUBE SIZE 0.250 O.D x 0.020 WALL THICKNESS NSN 4710-00-825-5894
- 2 DIMENSION C IS DISTANCE BETWEEN BENDS
- 3 DIMENSION L IS PREPARED LENGTH BEFORE BENDING
- 4 FINISH - PASSIVATE FOR CORROSION RESISTANT STEEL
- 5 TAPE ARROW POINTS TO B END
- 6 ALL DIMENSIONS ARE IN INCHES

Figure D-365. Tube Assembly PN 7-311830409



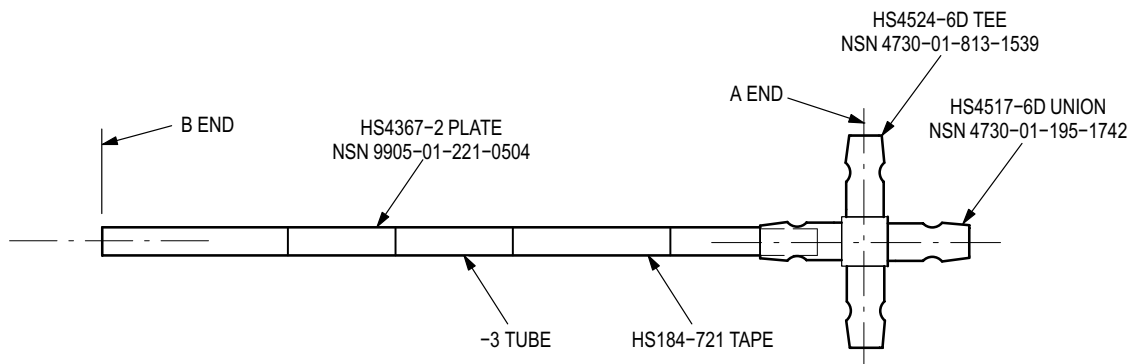
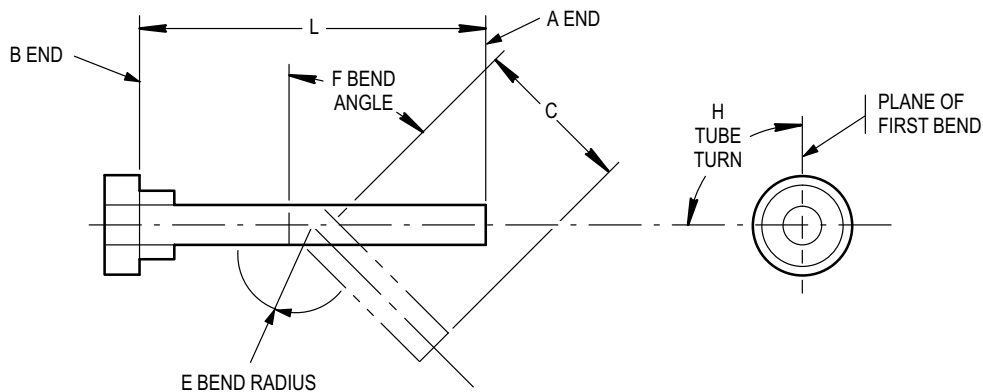
BEND NUMBER	DIMENSIONS				
	C	E	F	H	L
PART NUMBER 7-311830410					
1	6.12	1.12	33.4	0.0	36.59
2	21.08	1.12	93.0	-80.2	36.59
3	1.98	1.12	92.9	153.7	36.59
	3.10				

M04-4982

NOTES:

- 1 TUBE ASSEMBLY, METAL BRANCHED - MAKE FROM STEEL CRES TUBING COMPOSITION 21-6-9, TUBE SIZE 0.375.0 O.D x 0.020 WALL THICKNESS NSN 4710-01-102-6423
- 2 DIMENSION C IS DISTANCE BETWEEN BENDS
- 3 FINISH - PASSIVATE FOR CORROSION RESISTANT STEEL
- 4 TAPE ARROW POINTS TO B END
- 5 ALL DIMENSIONS ARE IN INCHES

Figure D-366. Tube Assembly, Metal PN 7-311830410



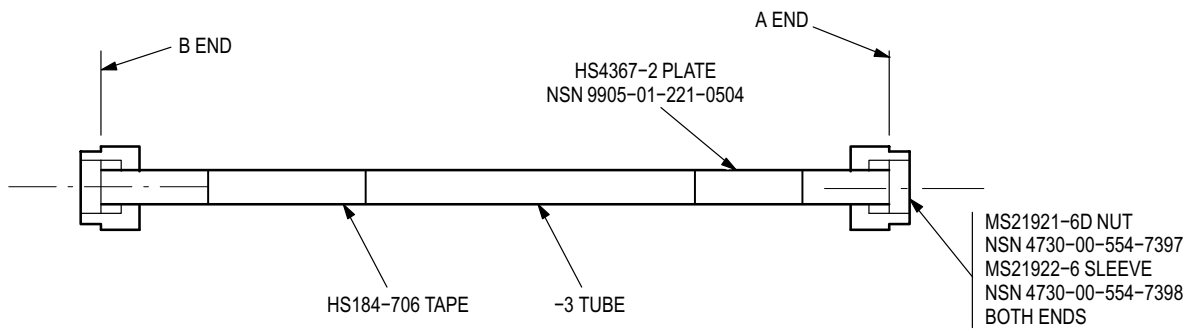
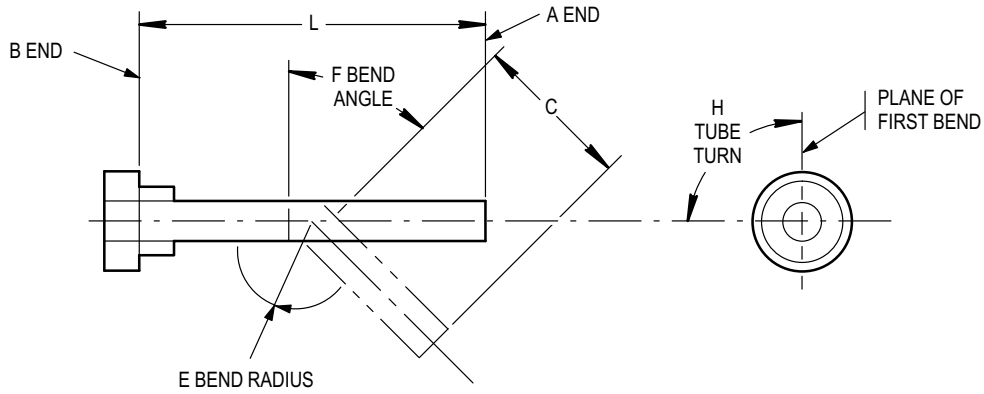
NOTES:

- TUBE ASSEMBLY, METAL - MAKE FROM AL-ALY TUBING 6061-T6, TUBE SIZE 0.375 O.D x 0.028 WALL THICKNESS NSN 4710-01-167-6979
- DIMENSION C IS DISTANCE BETWEEN BENDS
- DIMENSION L IS PREPARED LENGTH BEFORE BENDING
- FIRST BEND STARTS FROM A END
- FINISH - CHEMICALLY FILM TREAT FOR ELECTRICAL CONDUCTIVITY PER MIL-C-5541 CLASS 3A
- ALL DIMENSIONS ARE IN INCHES

BEND NUMBER	DIMENSIONS				
	C	E	F	H	L
PART NUMBER 7-311830415					
1	3.25	1.125	3.0	0.0	47.09
2	35.95	1.125	32.0	74.0	47.09
PART NUMBER 7-311830416					
1	1.55	1.125	63.0	0.0	22.27
2	1.40	1.125	7.0	-90.0	22.27
	17.95				

M04-5039

Figure D-367. Tube PN 7-311830415, PN 7-311830416



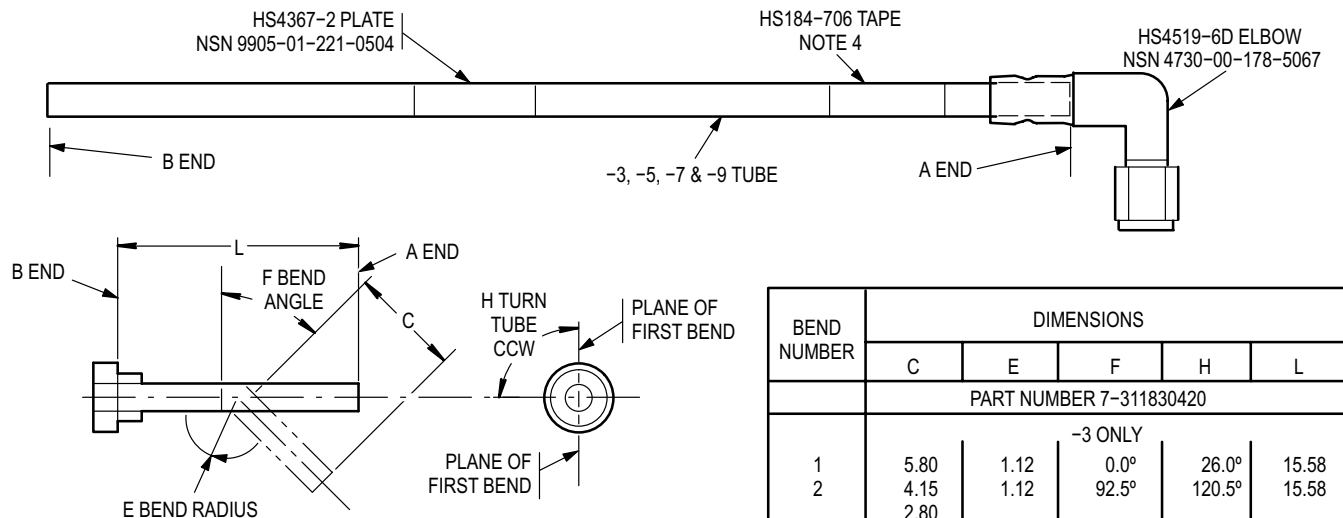
NOTES:

- TUBE ASSEMBLY, METAL - MAKE FROM AL-ALY TUBING 6061-T6, TUBE SIZE 0.375 O.D x 0.028 WALL THICKNESS NSN 4710-01-167-6979
- DIMENSION C IS DISTANCE BETWEEN BENDS
- DIMENSION L IS PREPARED LENGTH BEFORE BENDING
- FIRST BEND STARTS FROM A END
- FINISH - CHEMICALLY FIL;M TREAT FOR ELECTRICAL CONDUCTIVITY PER MIL-C-5541 CLASS 3A
- ALL DIMENSIONS ARE IN INCHES

BEND NUMBER	DIMENSIONS				
	C	E	F	H	L
PART NUMBER 7-311830419					
1	1.35	1.12	45.0	0.0	13.38
2	1.00	1.12	45.0	180	13.38
3	1.02	1.12	179.0	0.0	13.38
	4.72				

M04-5040

Figure D-368. Tube PN 7-311830419



NOTES:

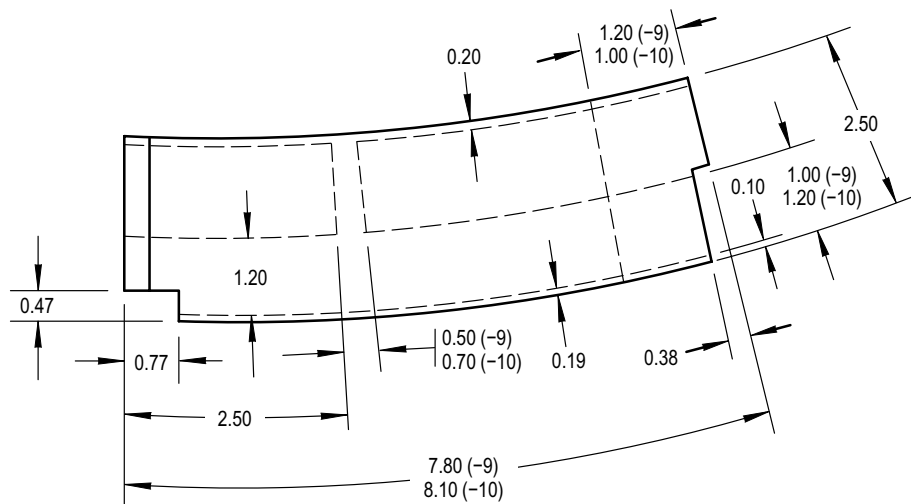
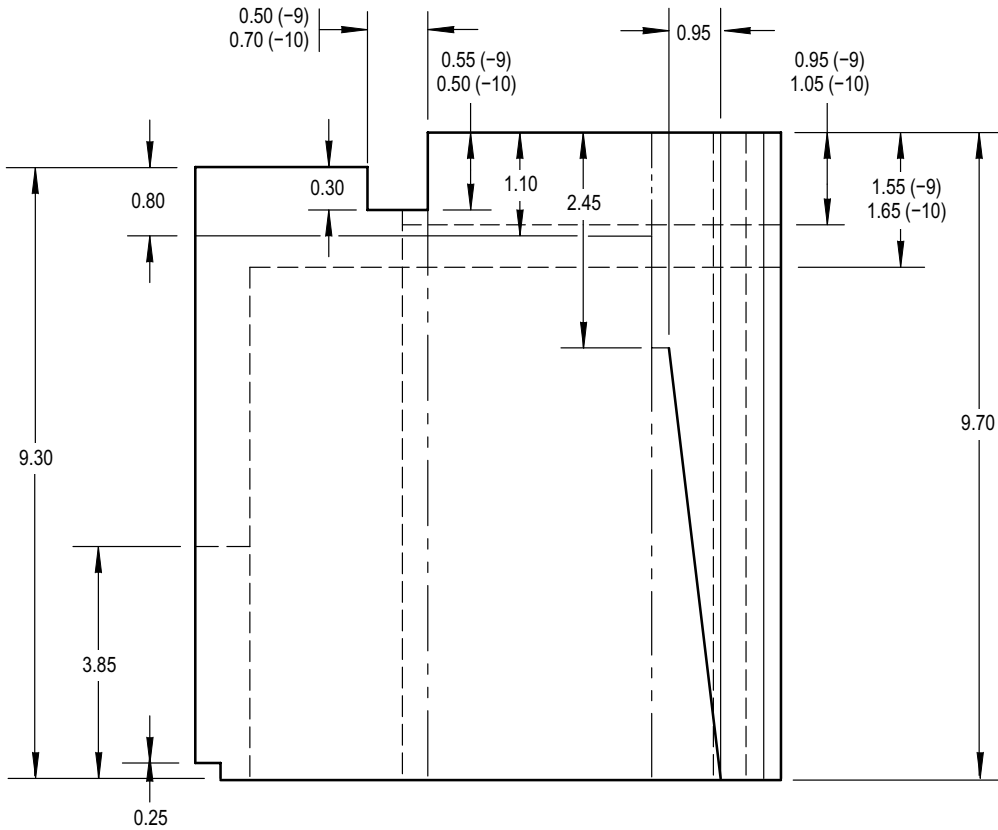
- 1 TUBE ASSEMBLY, METAL BRANCHED - MAKE FROM AL-ALY TUBING 6061-T6, TUBE SIZE 0.375 O.D x 0.028 WALL THICKNESS NSN 4710-01-167-6979
- 2 DIMENSION C IS DISTANCE BETWEEN BENDS
- 3 FINISH - CHEMICALLY FILM TREAT FOR ELECTRICAL CONDUCTIVITY PER MIL-C-5541 CLASS 3A
- 4 TAPE ARROW POINTS TO A END
- 5 ALL DIMENSIONS ARE IN INCHES

BEND NUMBER	DIMENSIONS				
	C	E	F	H	L
PART NUMBER 7-311830420					
-3 ONLY					
1	5.80	1.12	0.0°	26.0°	15.58
2	4.15	1.12	92.5°	120.5°	15.58
	2.80				
-5 ONLY					
1	5.50	1.12	0.0°	26.0°	15.53
2	4.10	1.12	92.5°	125.0°	15.53
	3.05				
-9 ONLY					
1	5.50	1.12	0.0°	26.0°	16.21
2	4.15	1.12	92.0°	125.0°	16.21
	3.16				

M04-4983

Figure D-369. Tube Assembly, Metal PN 7-311830420





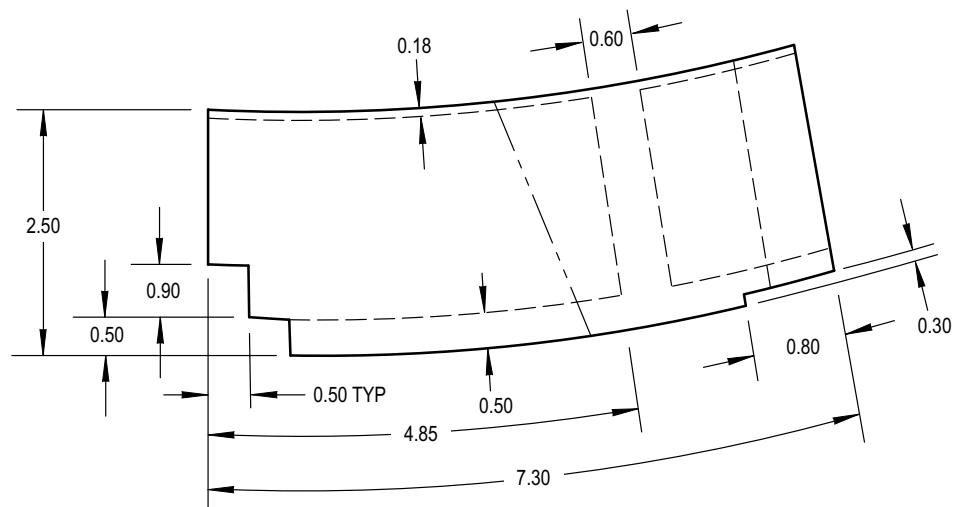
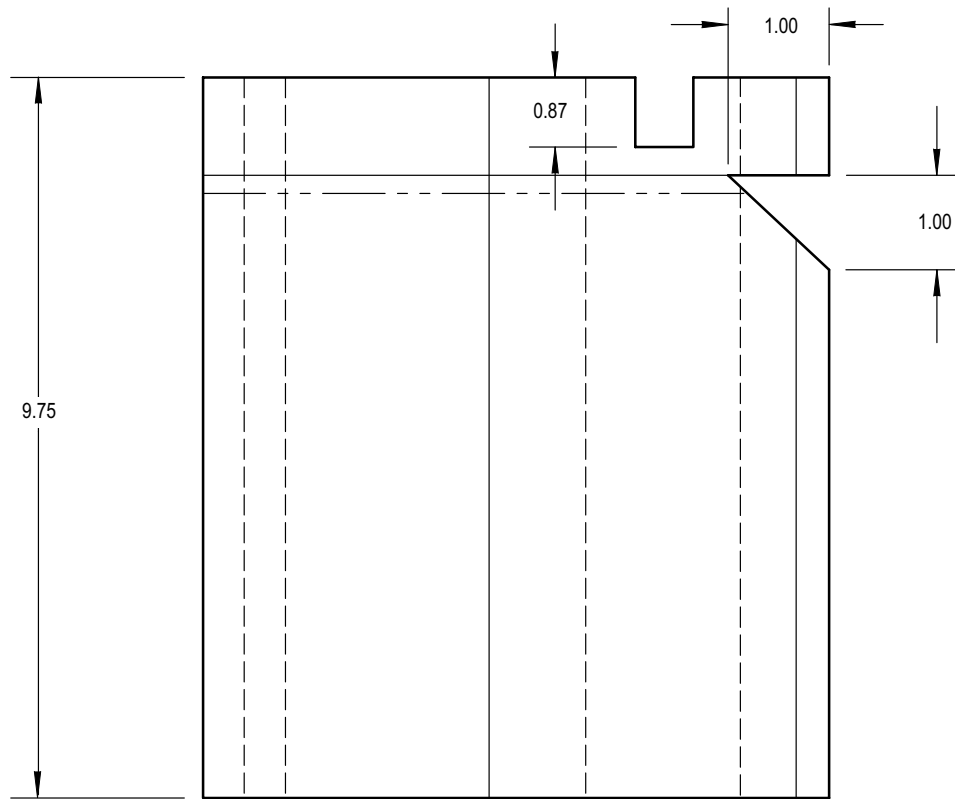
NOTES:

- FILLER, VOID-MAKE FROM FOAM INSTILLATION-BALLISTIC, RIGID
- NSN 1680-01-463-3310
- ALL DIMENSIONS ARE IN INCHES



M04-4718A

Figure D-370. Filler, Void PN 7-311930040-9/-10



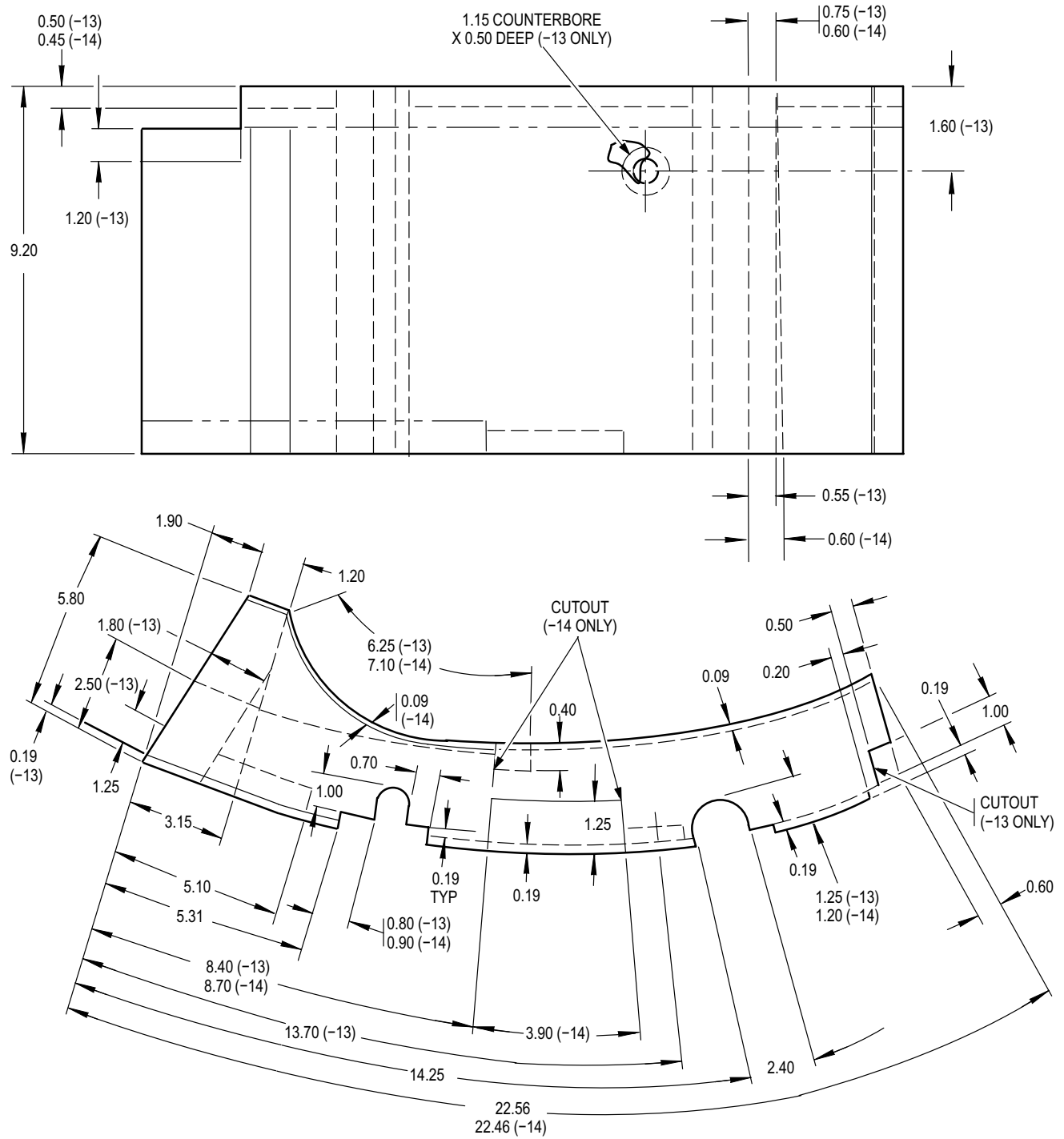
NOTES:

- FILLER, VOID-MAKE FROM FOAM INSTILLATION-BALLISTIC, RIGID  
NSN 1680-01-463-3310
- ALL DIMENSIONS ARE IN INCHES



M04-4717A

Figure D-371. Filler, Void PN 7-311930040-11



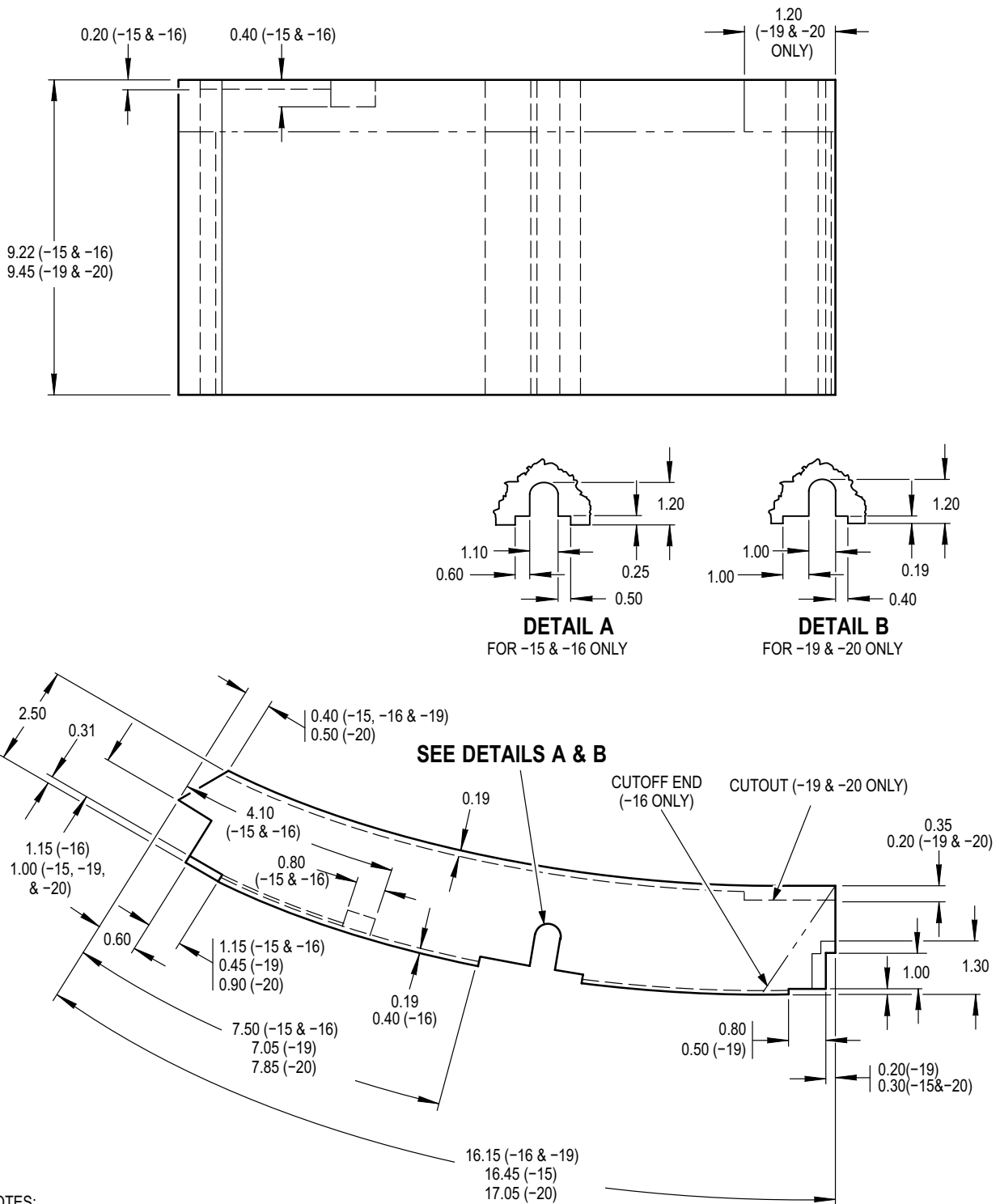
NOTES:

- FILLER, VOID-MAKE FROM FOAM INSTILLATION-BALLISTIC, RIGID  
NSN 1680-01-463-3310
- ALL DIMENSIONS ARE IN INCHES



M04-4716A

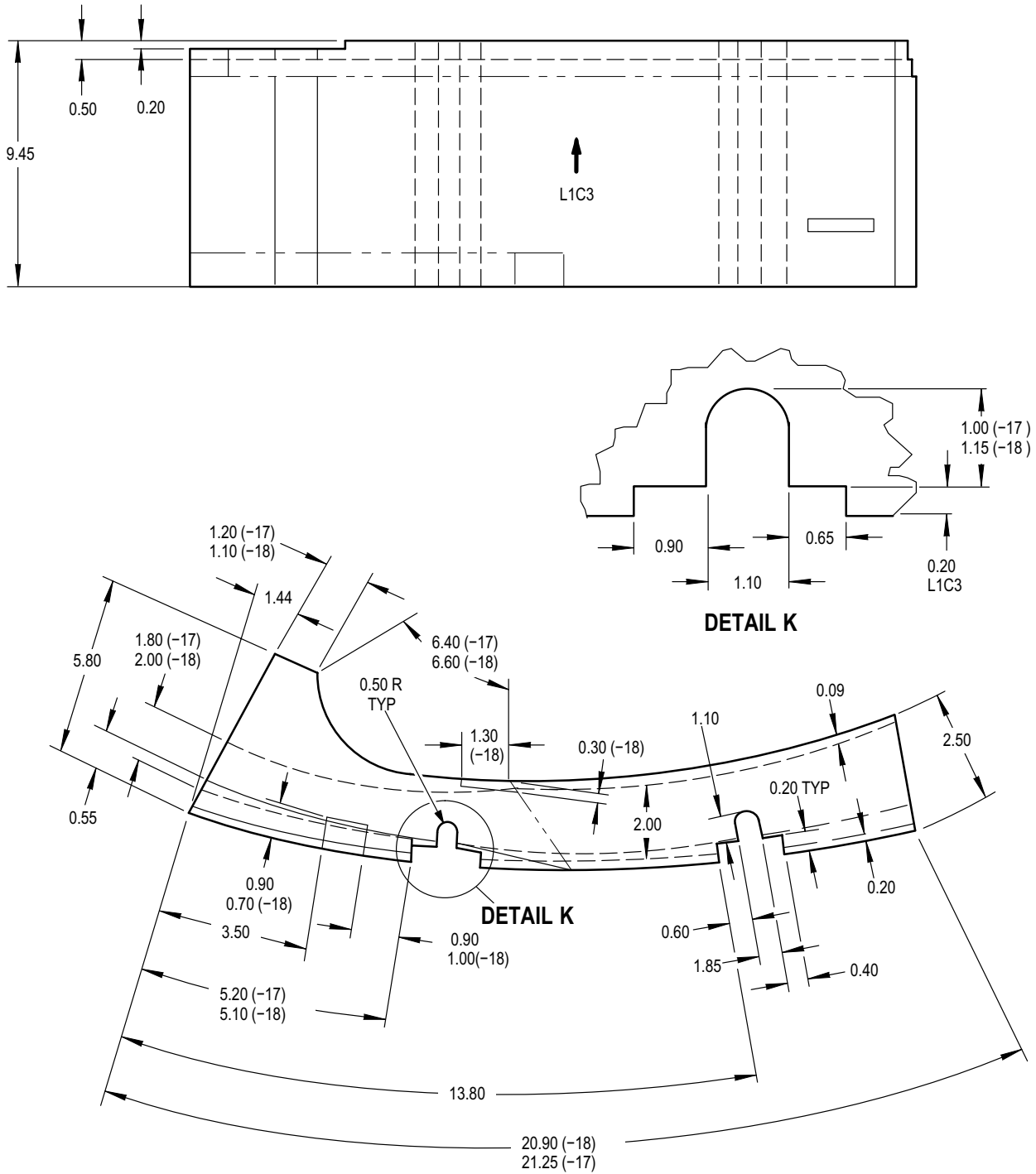
Figure D-372. Filler, Void PN 7-311930040-13/-14



- NOTES:
- FILLER, VOID-MAKE FROM FOAM INSTILLATION-BALLISTIC, RIGID  
NSN 1680-01-463-3310
  - ALL DIMENSIONS ARE IN INCHES

M04-4715A

Figure D-373. Filler, Void PN 7-311930040-15/-16/-19/-20



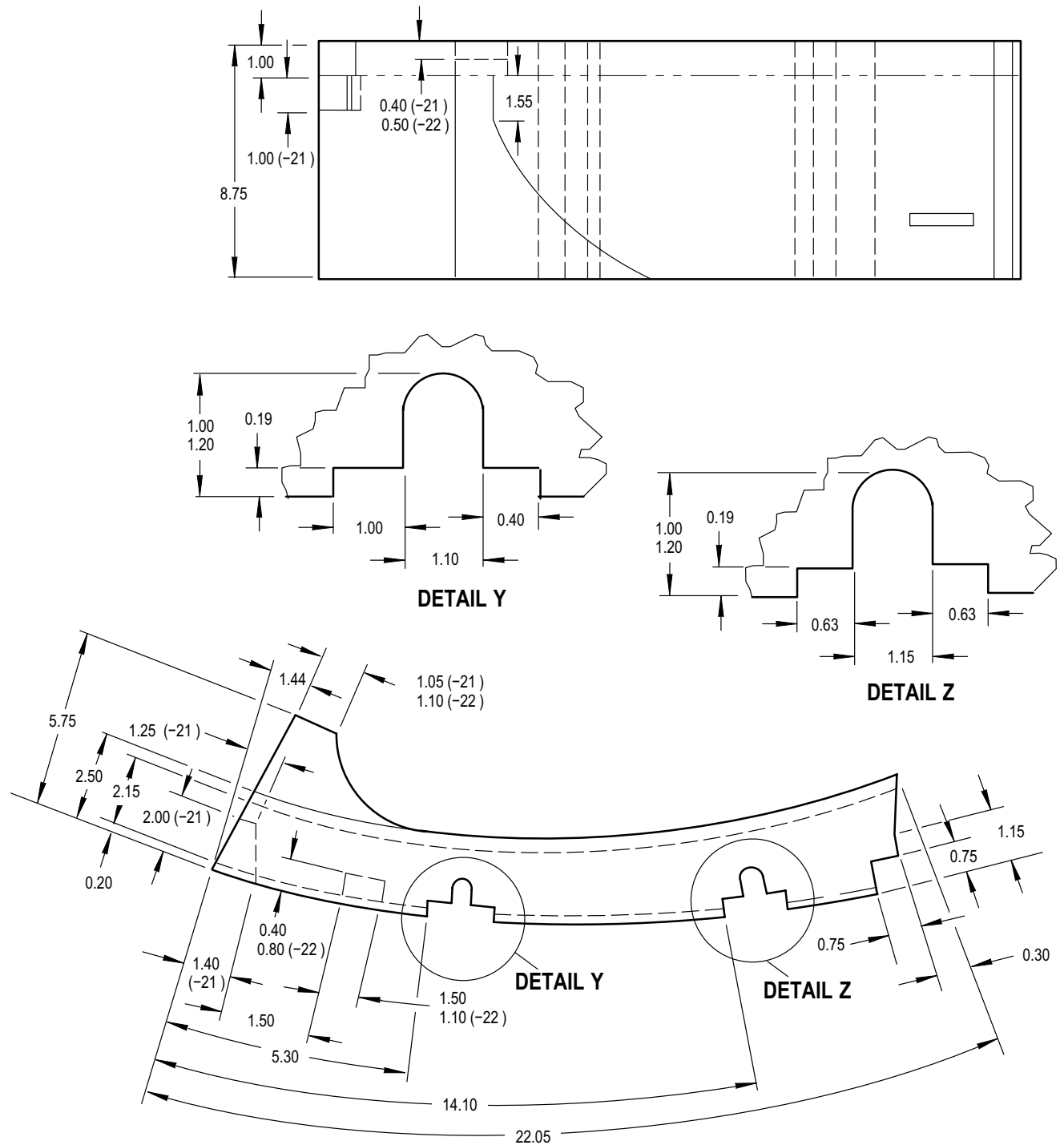
NOTES:

- FILLER, VOID-MAKE FROM FOAM INSTILLATION-BALLISTIC, RIGID  
NSN 1680-01-463-3310
- -17 SHOWN
- -18 OPPOSITE EXCEPT AS SHOWN
- ALL DIMENSIONS ARE IN INCHES



M04-4714A

Figure D-374. Filler, Void PN 7-311930040-17/-18



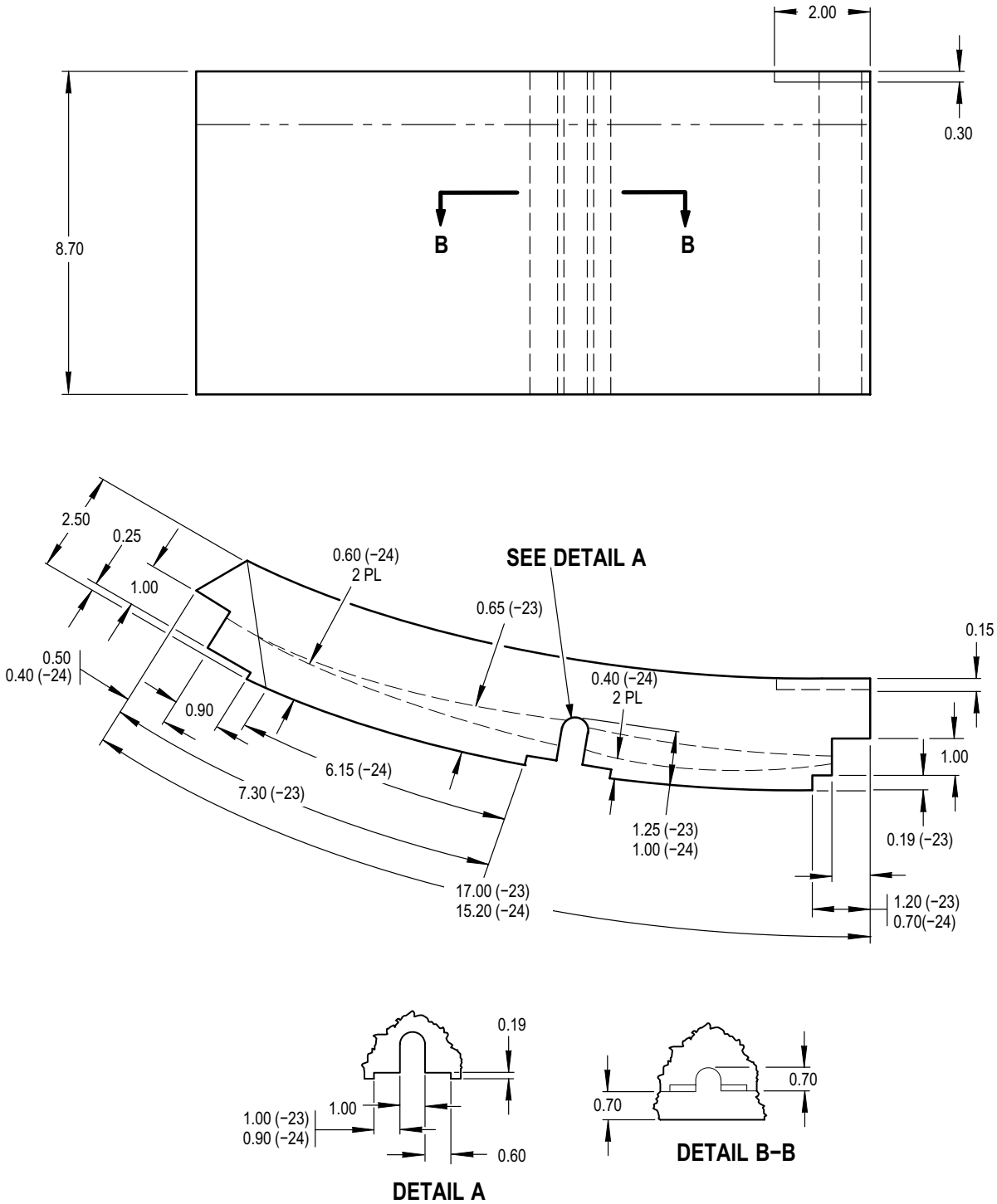
NOTES:

- FILLER, VOID-MAKE FROM FOAM INSTILLATION-BALLISTIC, RIGID  
NSN 1680-01-463-3310
- -21 SHOWN
- -22 OPPOSITE EXCEPT AS SHOWN
- ALL DIMENSIONS ARE IN INCHES



M04-4713A

Figure D-375. Filler, Void PN 7-311930040-21/-22



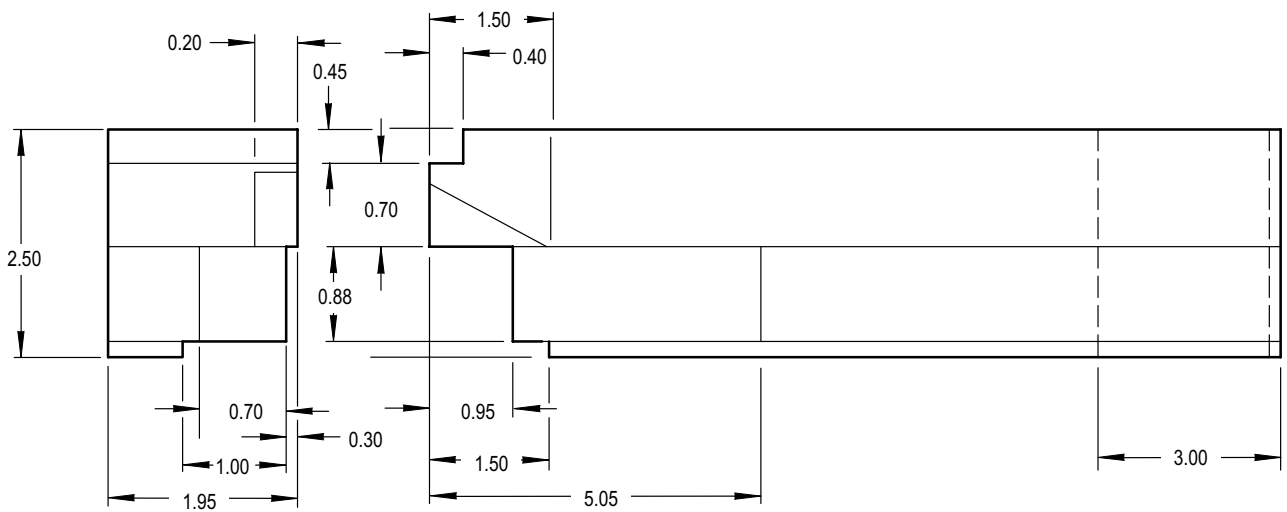
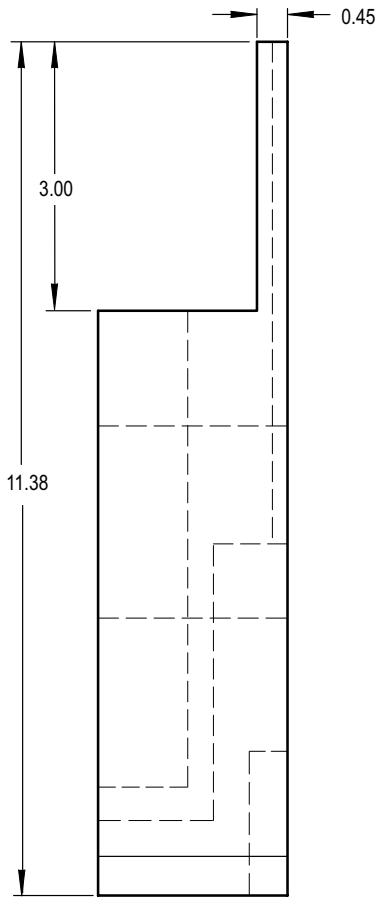
NOTES:

- FILLER, VOID-MAKE FROM FOAM INSTILLATION-BALLISTIC, RIGID  
NSN 1680-01-463-3310
- ALL DIMENSIONS ARE IN INCHES



M04-4712A

Figure D-376. Filler, Void PN 7-311930040-23/-24



NOTES:

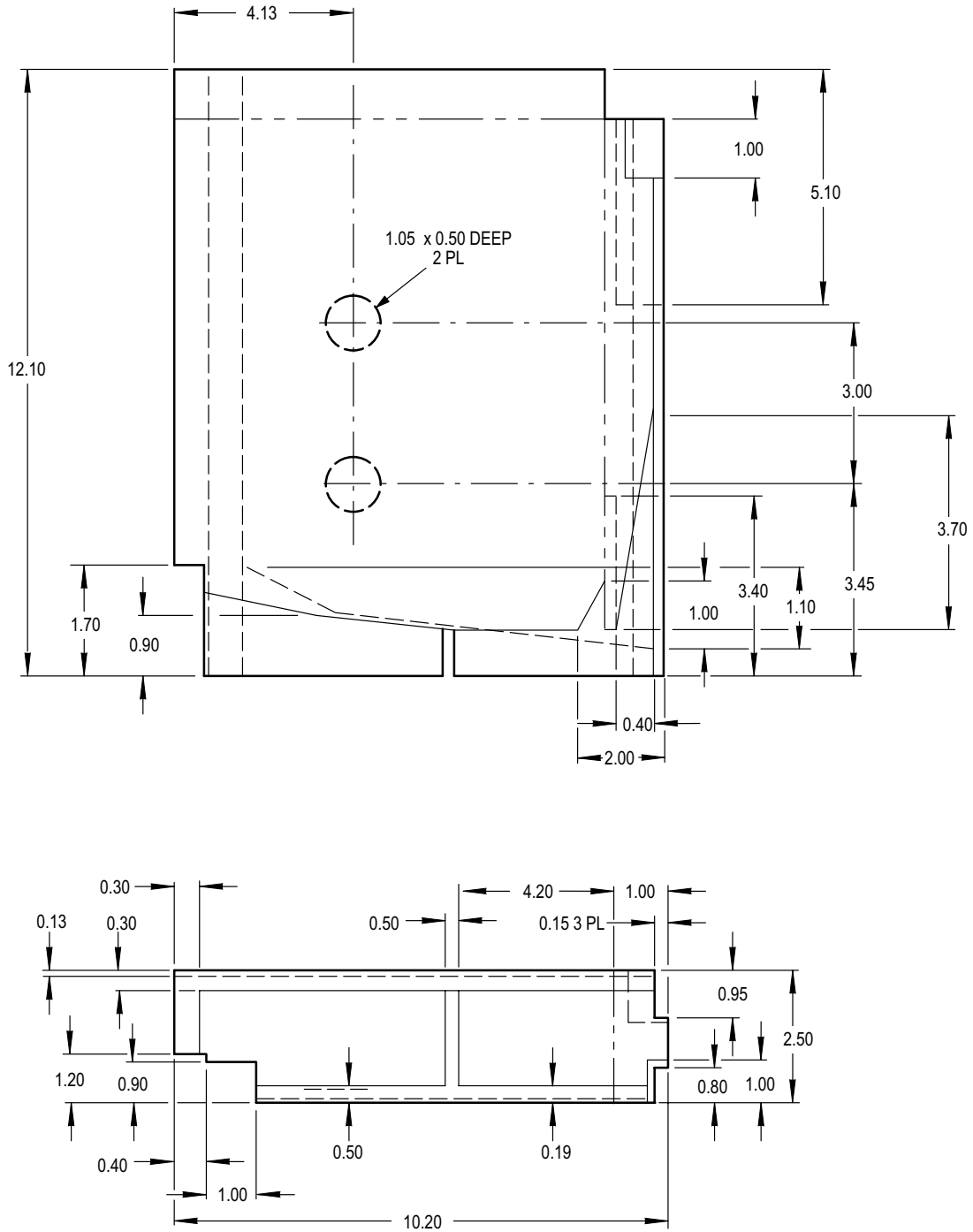
- FILLER, VOID-MAKE FROM FOAM INSTILLATION-BALLISTIC, RIGID
- NSN 1680-01-463-3310
- ALL DIMENSIONS ARE IN INCHES



M04-4711A

Figure D-377. Filler, Void PN 7-311930040-25





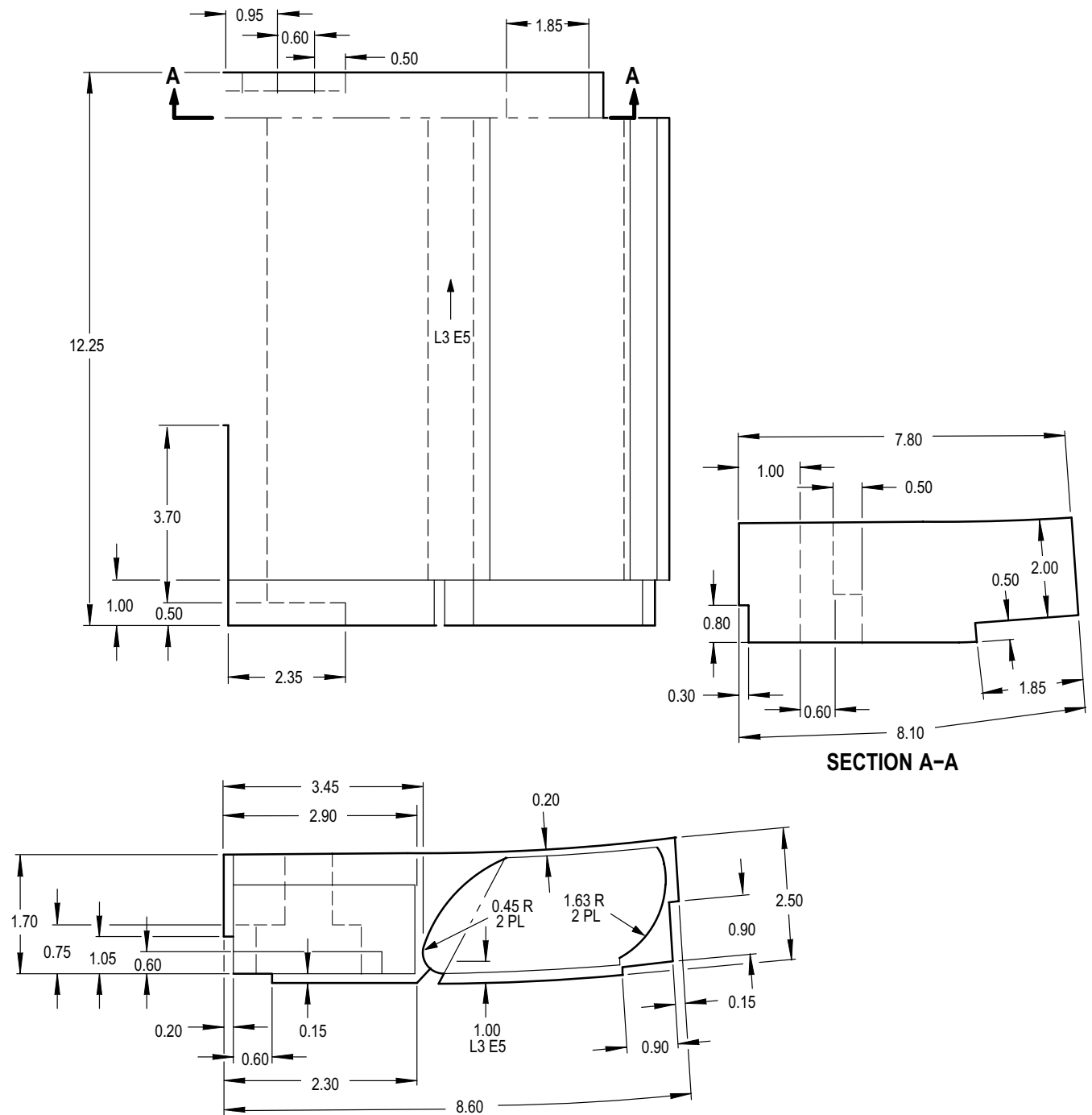
NOTES:

- FILLER, VOID-MAKE FROM FOAM INSTILLATION-BALLISTIC, RIGID
- NSN 1680-01-463-3310
- ALL DIMENSIONS ARE IN INCHES



M04-4710A

Figure D-378. Filler, Void PN 7-311930040-27

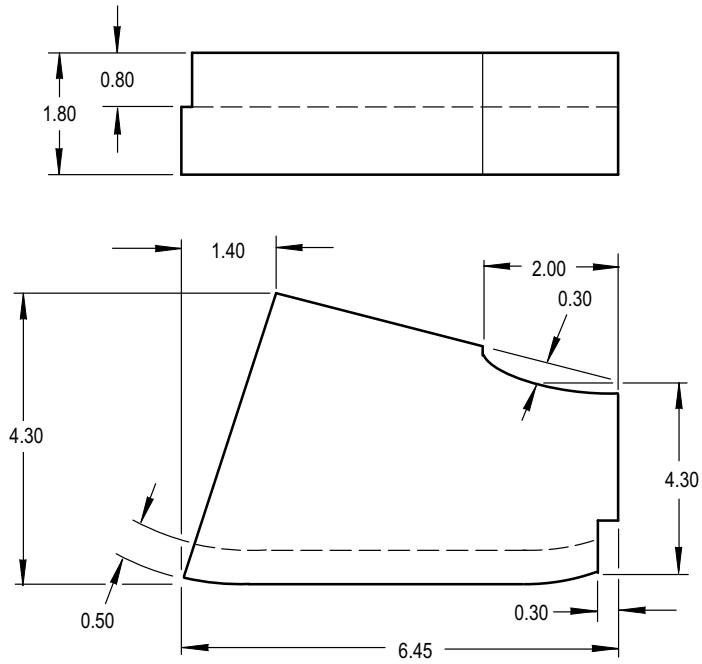


- NOTES:
- FILLER, VOID-MAKE FROM FOAM INSTILLATION-BALLISTIC, RIGID
  - NSN 1680-01-463-3310
  - ALL DIMENSIONS ARE IN INCHES



M04-4709A

Figure D-379. Filler, Void PN 7-311930040-29



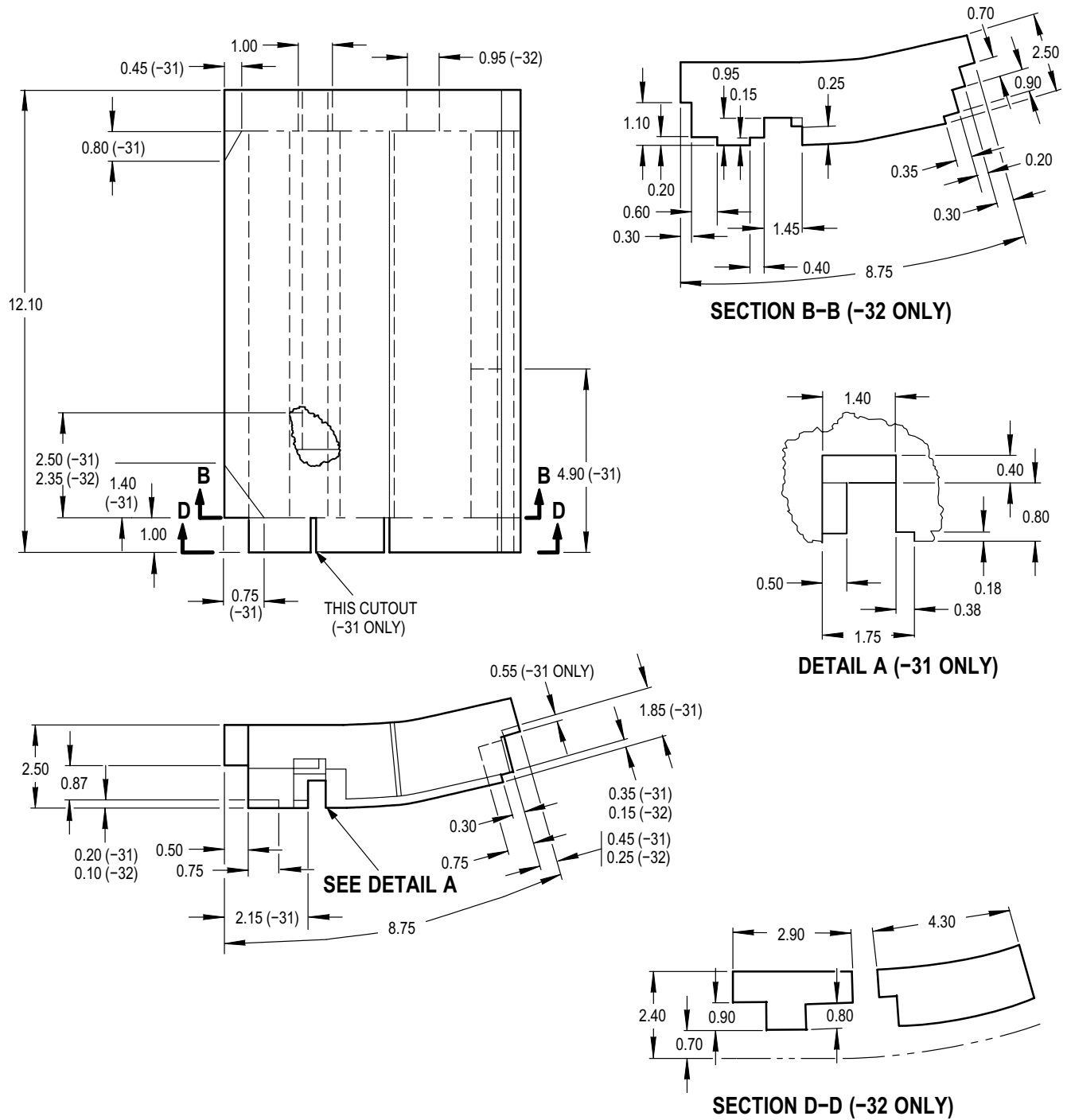
NOTES:

- FILLER, VOID-MAKE FROM FOAM INSTILLATION-BALLISTIC, RIGID  
NSN 1680-01-463-3310
- ALL DIMENSIONS ARE IN INCHES



M04-4721A

Figure D-380. Filler, Void PN 7-311930040-3



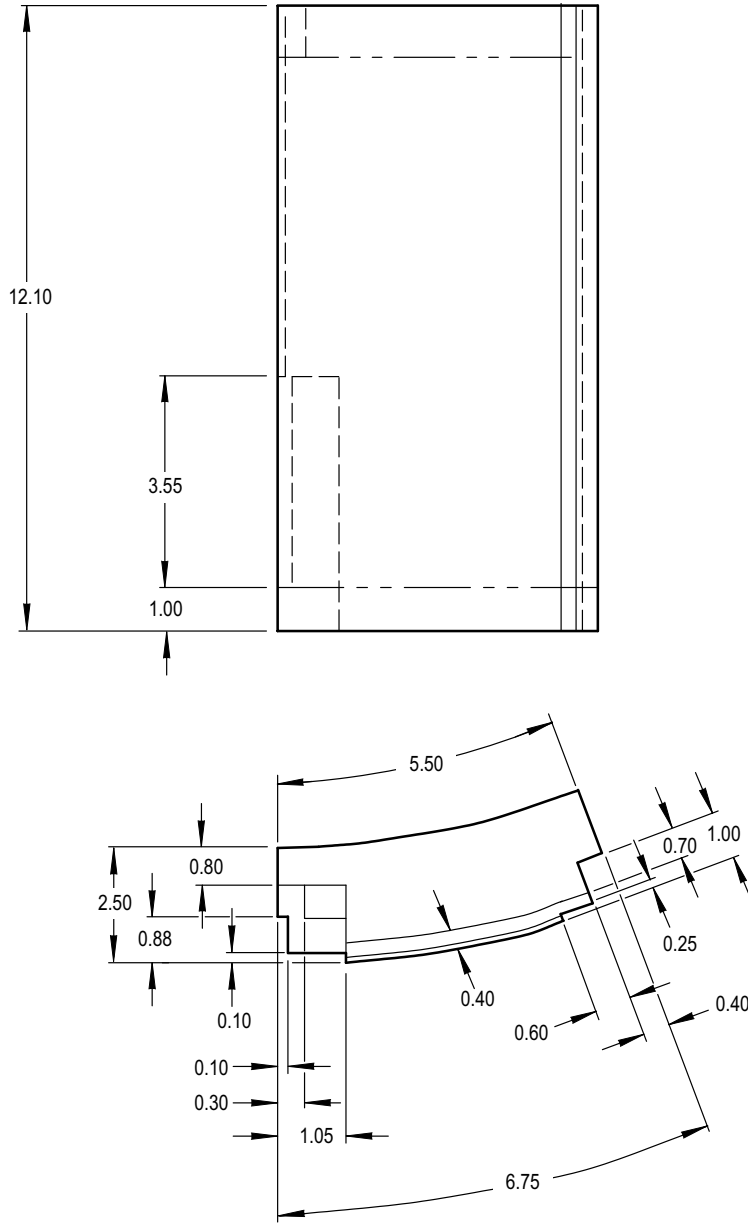
NOTES:

- FILLER, VOID-MAKE FROM FOAM INSTILLATION-BALLISTIC, RIGID  
NSN 1680-01-463-3310
- -31 SHOWN
- -32 OPPOSITE EXCEPT AS SHOWN
- ALL DIMENSIONS ARE IN INCHES



M04-4708A

Figure D-381. Filler, Void PN 7-311930040-31/-32



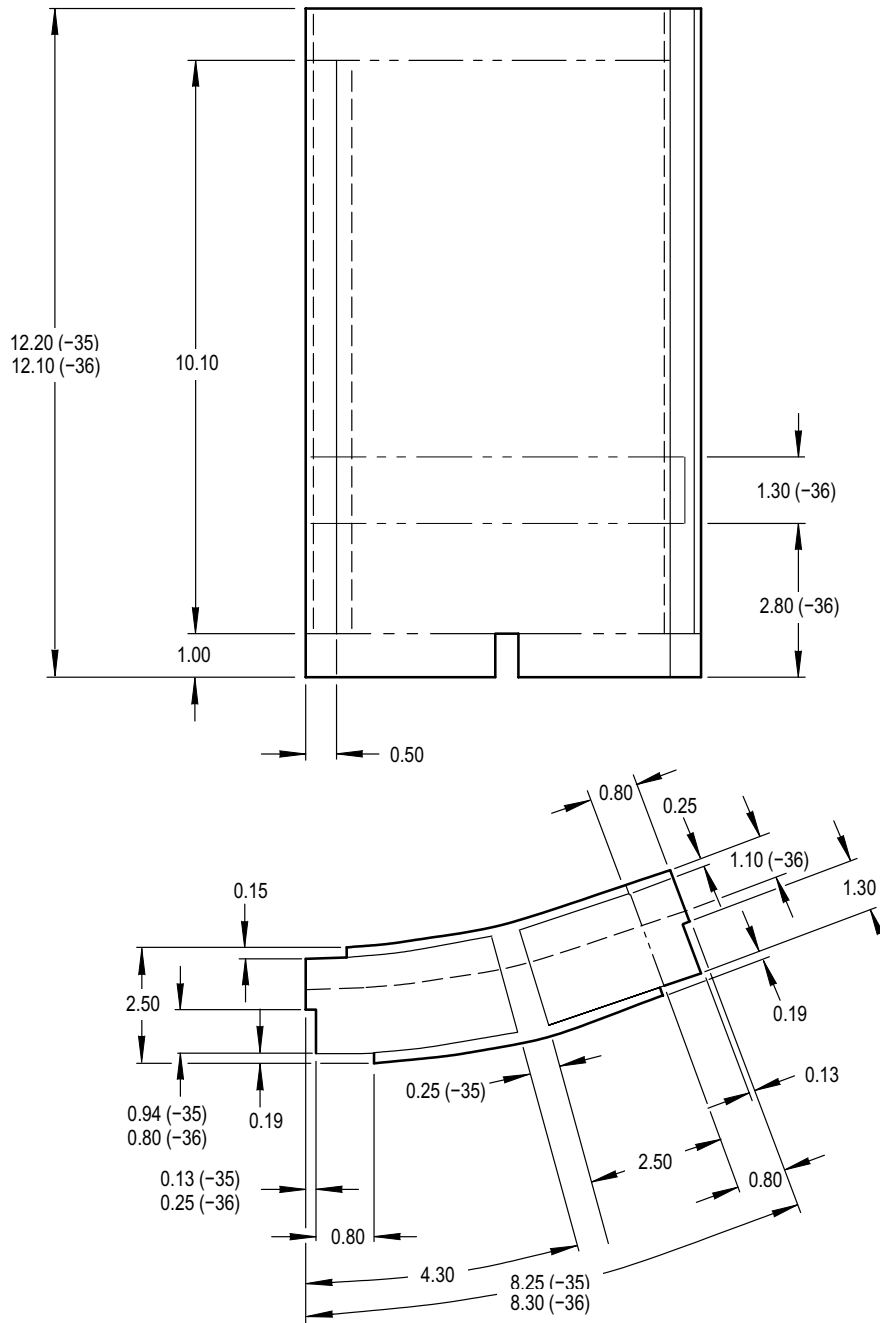
NOTES:

- FILLER, VOID-MAKE FROM FOAM INSTILLATION-BALLISTIC, RIGID
- NSN 1680-01-463-3310
- 7-311930040-33
- 7-311930040-34 OPPOSITE
- ALL DIMENSIONS ARE IN INCHES



M04-4707A

Figure D-382. Filler, Void PN 7-311930040-33/-34



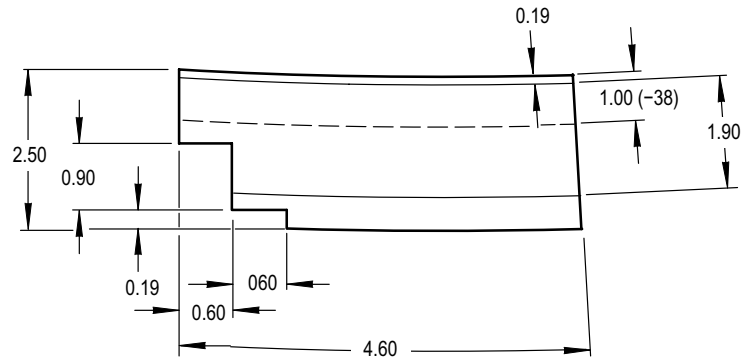
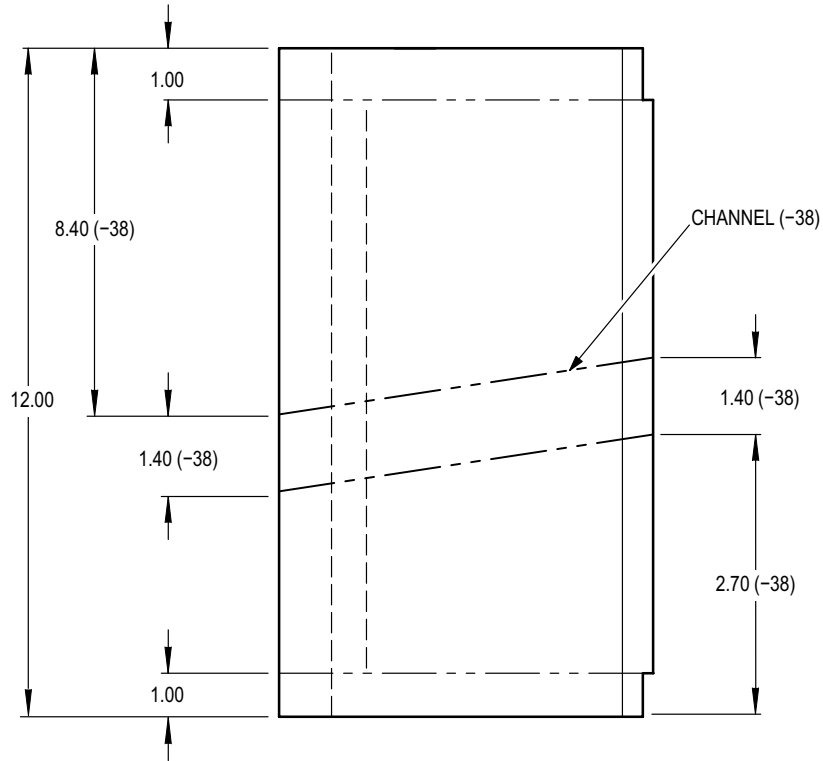
NOTES:

- FILLER, VOID-MAKE FROM FOAM INSTILLATION-BALLISTIC, RIGID  
NSN 1680-01-463-3310
- -35 SHOWN
- -36 OPPOSITE EXCEPT AS SHOWN
- ALL DIMENSIONS ARE IN INCHES



M04-4706A

Figure D-383. Filler, Void PN 7-311930040-35/-36



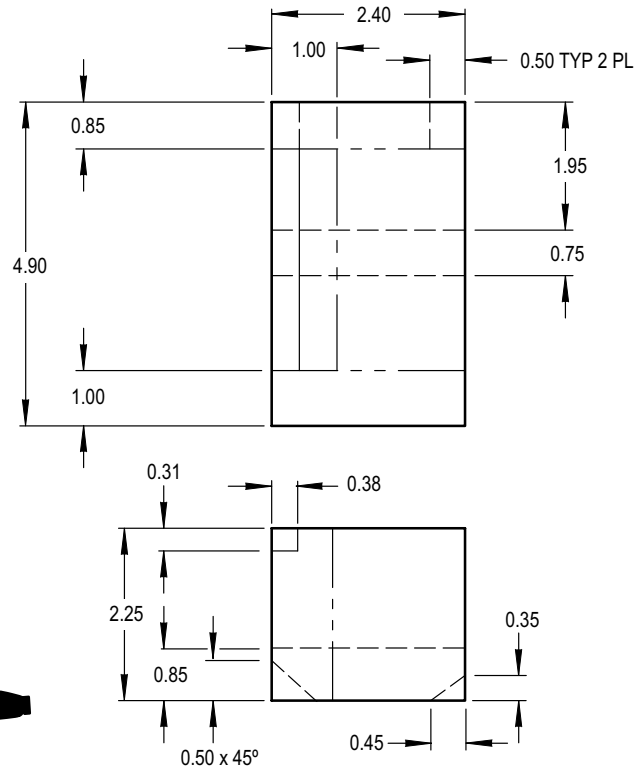
NOTES:

- FILLER, VOID-MAKE FROM FOAM INSTILLATION-BALLISTIC, RIGID  
NSN 1680-01-463-3310
- -37 SHOWN
- -38 OPPOSITE EXCEPT AS SHOWN
- ALL DIMENSIONS ARE IN INCHES



M04-4705A

Figure D-384. Filler, Void PN 7-311930040-37/-38



NOTES:

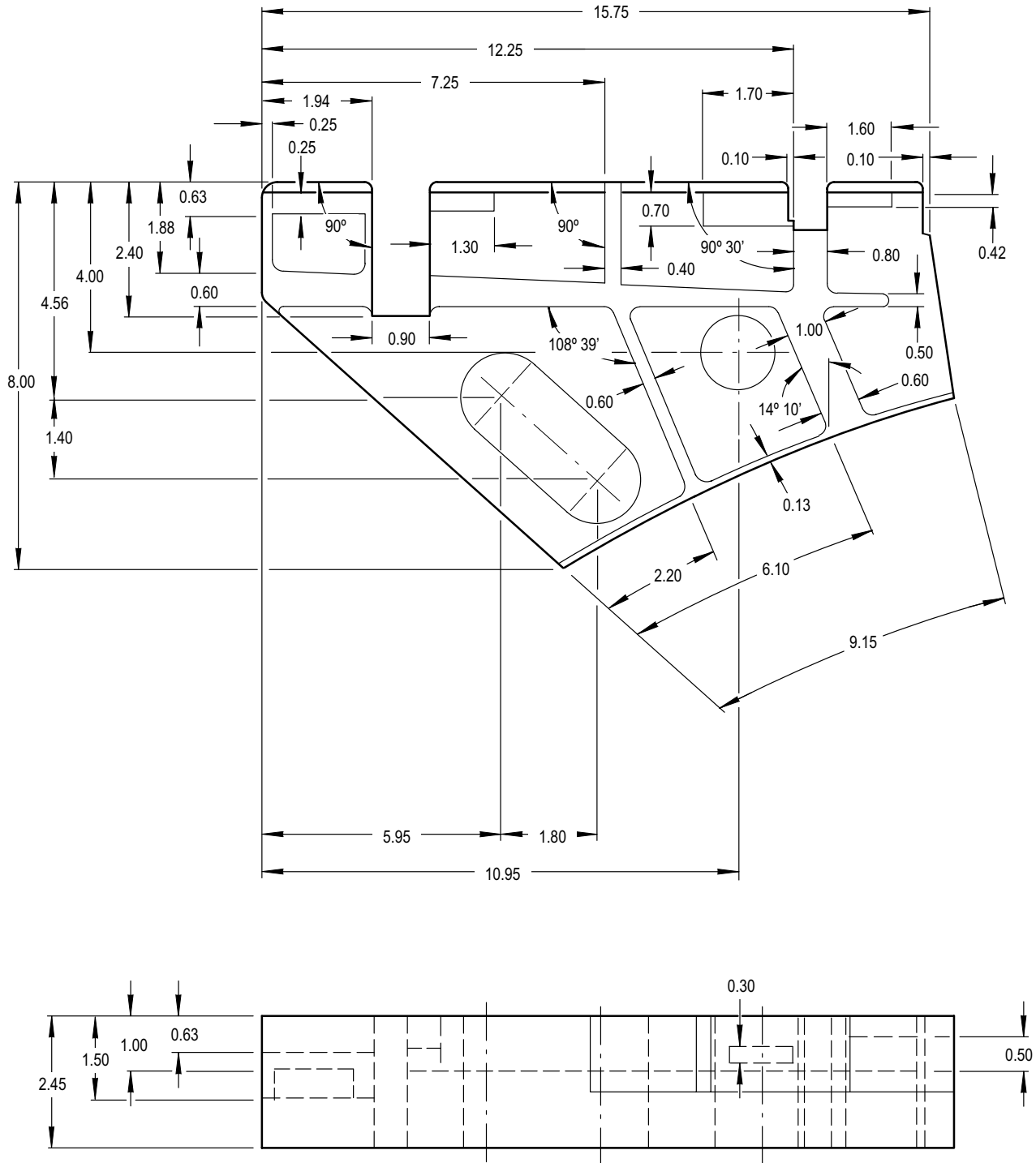
- FILLER, VOID-MAKE FROM FOAM INSTILLATION-BALLISTIC, RIGID
- NSN 1680-01-463-3310
- ALL DIMENSIONS ARE IN INCHES



M04-4704A

Figure D-385. Filler, Void PN 7-311930040-39





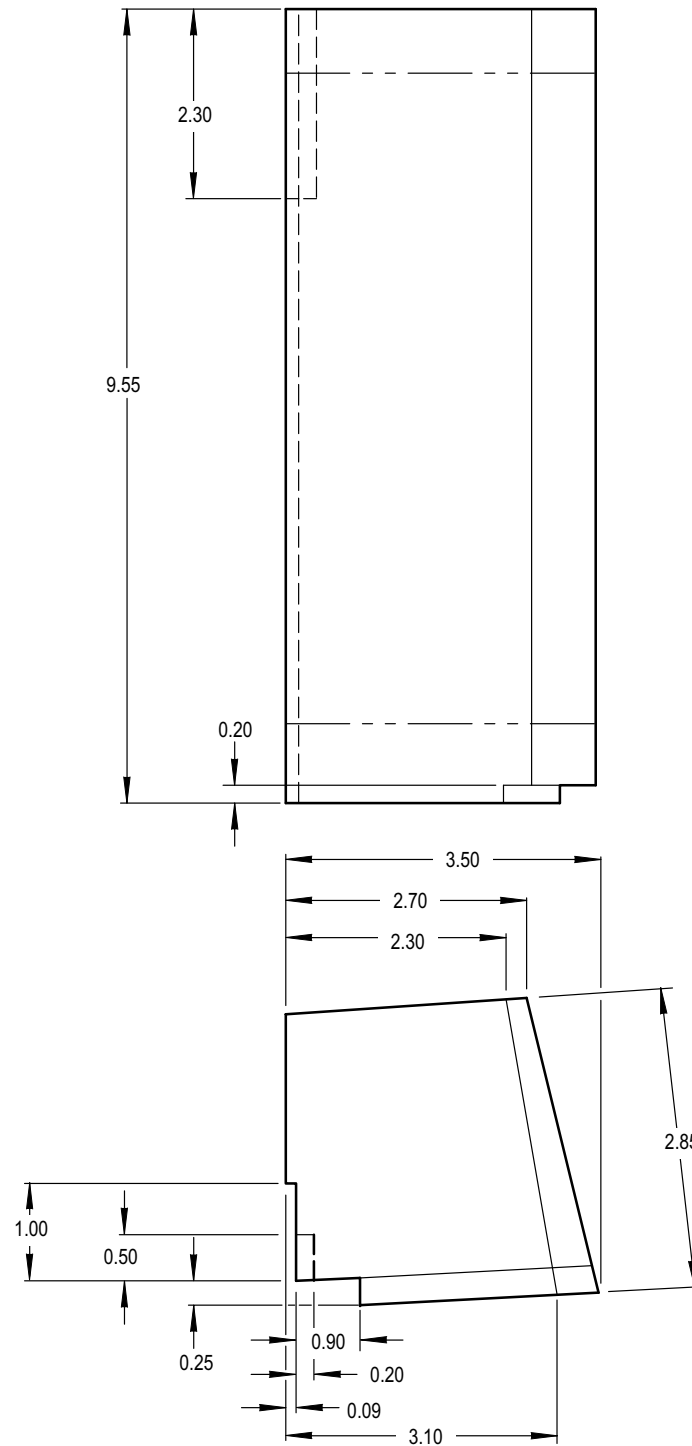
NOTES:

- FILLER, VOID-MAKE FROM FOAM INSTILLATION-BALLISTIC, RIGID
- NSN 1680-01-463-3310
- ALL DIMENSIONS ARE IN INCHES



M04-4703A

Figure D-386. Filler, Void PN 7-311930040-43

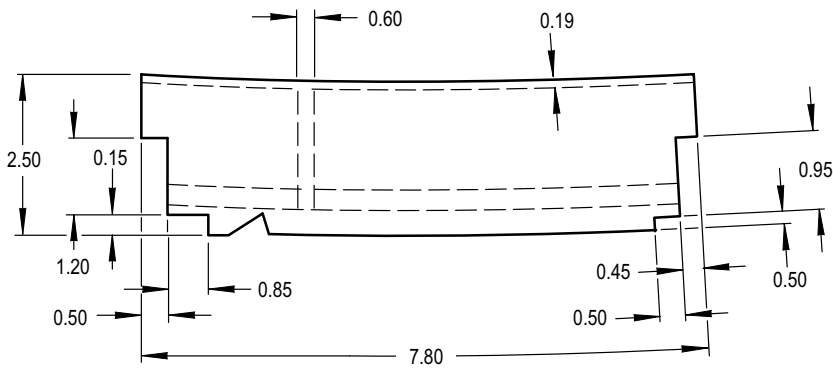
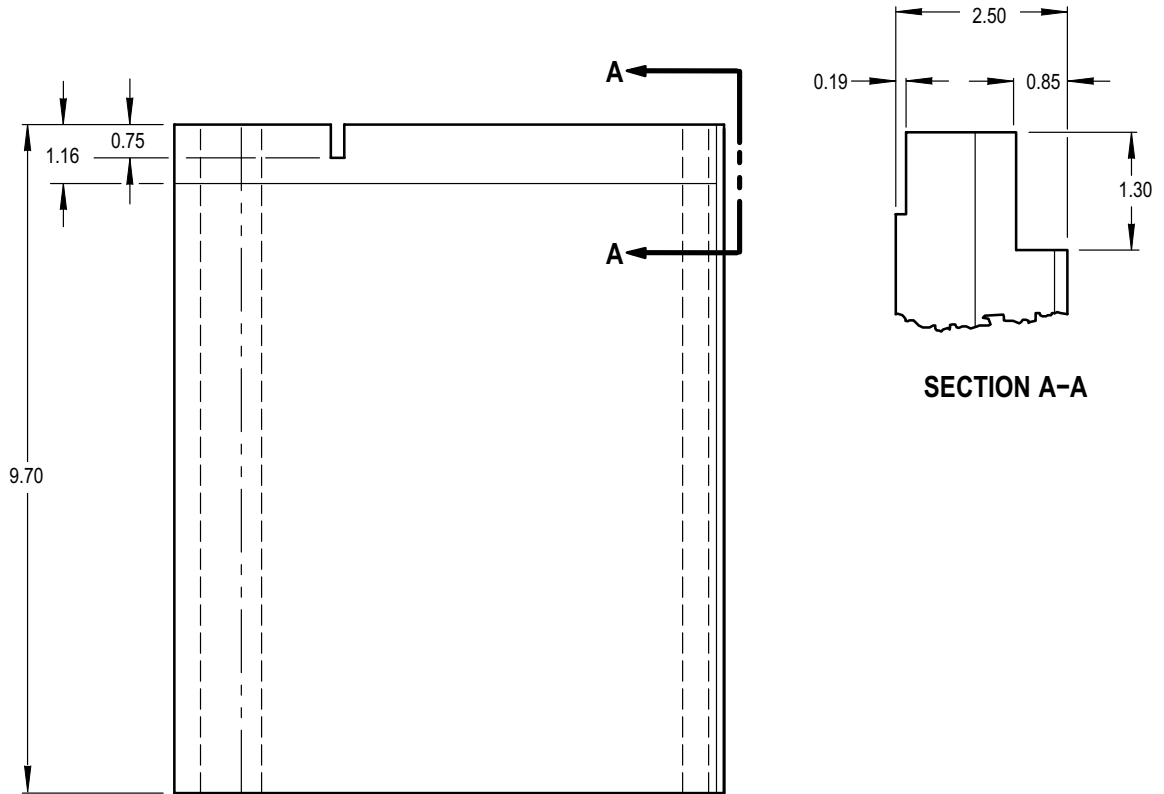


NOTES:  
 FILLER, VOID-MAKE FROM FOAM INSTALLATION-  
 BALLISTIC, RIGID  
 NSN 1680-01-463-3310  
 ALL DIMENSIONS ARE IN INCHES



M04-4702A

Figure D-387. Filler, Void PN 7-311930040-45



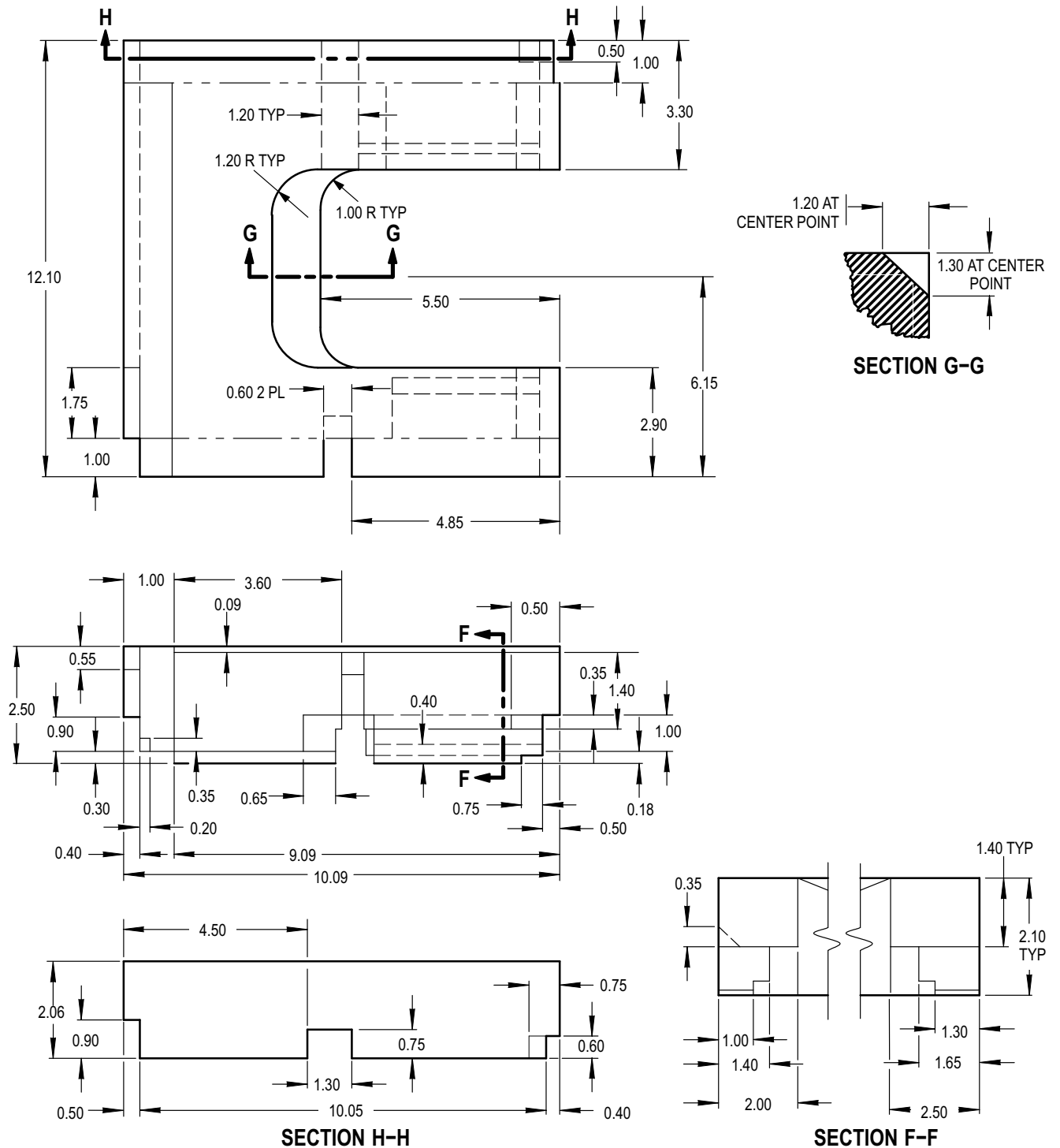
NOTES:

- FILLER, VOID-MAKE FROM FOAM INSTILLATION-BALLISTIC, RIGID
- NSN 1680-01-463-3310
- ALL DIMENSIONS ARE IN INCHES



M04-4701A

Figure D-388. Filler, Void PN 7-311930040-47



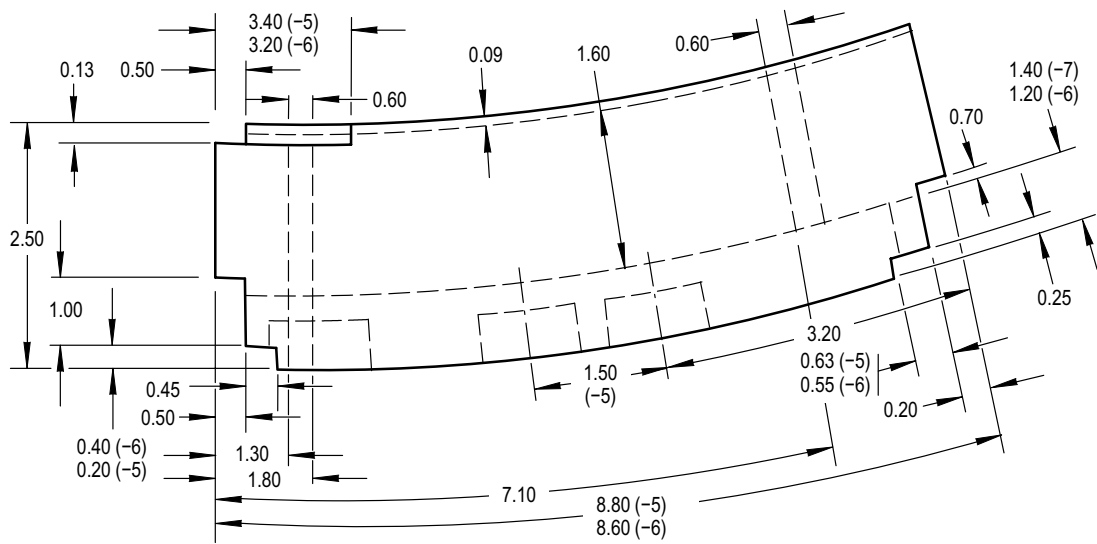
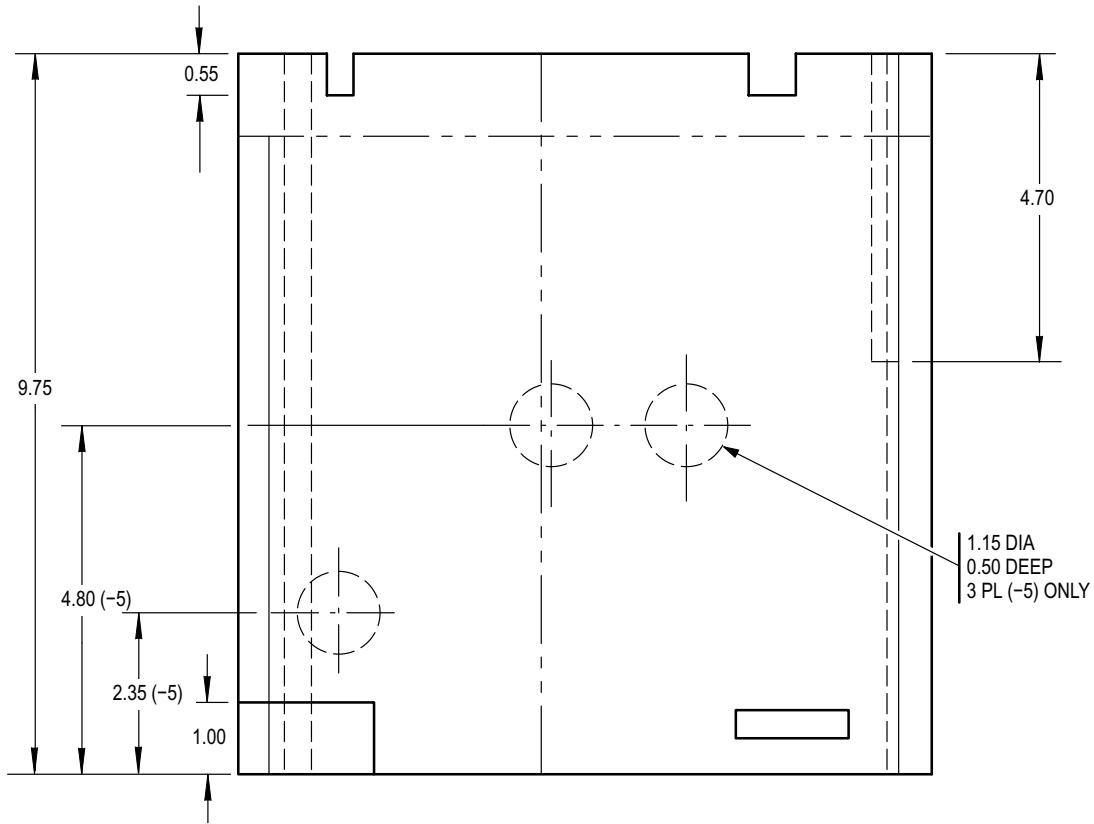
NOTES:

- FILLER, VOID-MAKE FROM FOAM INSTILLATION-BALLISTIC, RIGID
- NSN 1680-01-463-3310
- ALL DIMENSIONS ARE IN INCHES



M04-4700A

Figure D-389. Filler, Void PN 7-311930040-49



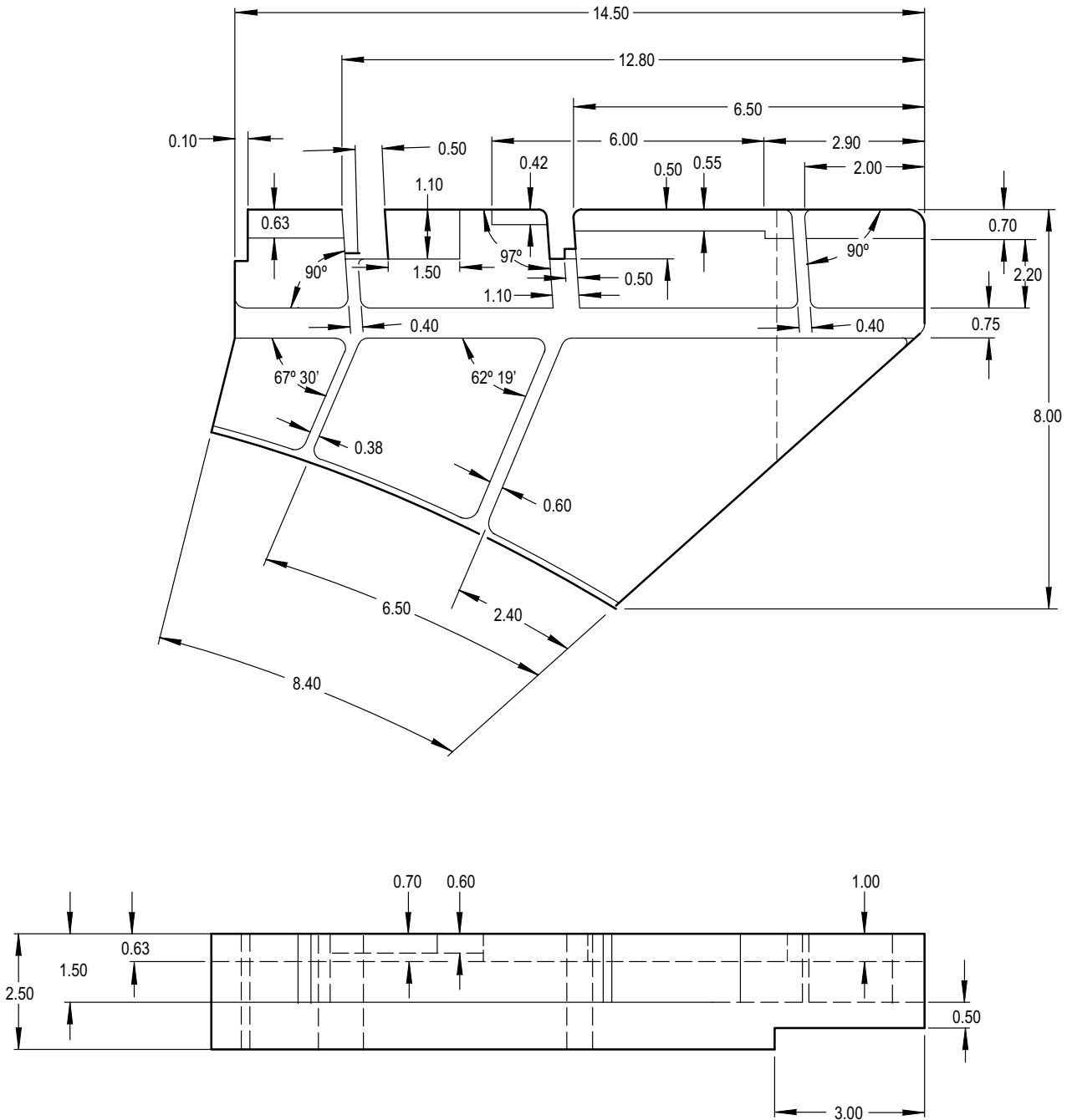
NOTES:

- FILLER, VOID-MAKE FROM FOAM INSTILLATION-BALLISTIC, RIGID
- NSN 1680-01-463-3310
- ALL DIMENSIONS ARE IN INCHES



M04-4720A

Figure D-390. Filler, Void PN 7-311930040-5/-6



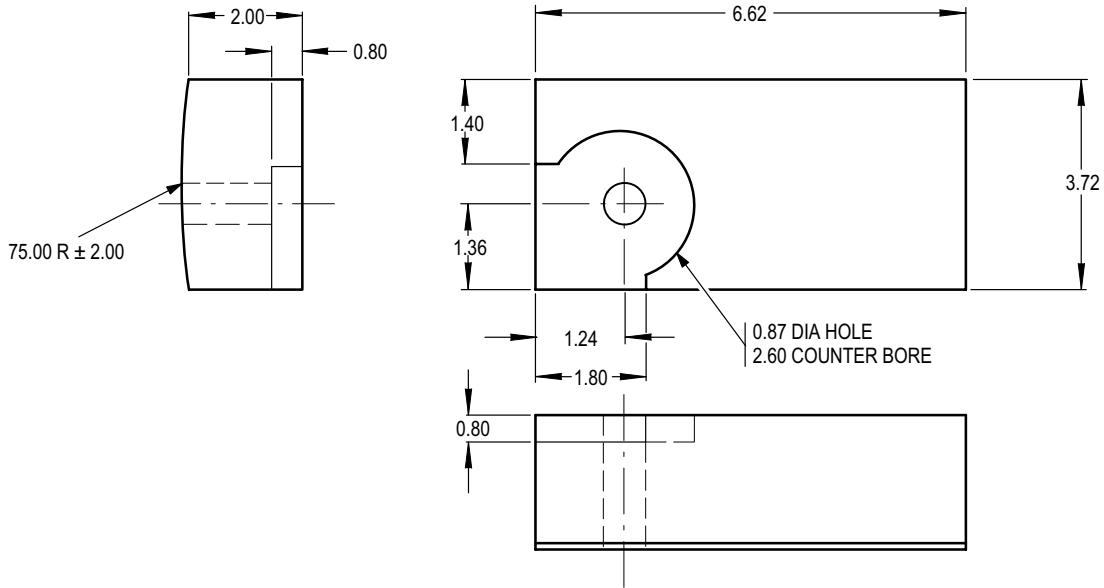
NOTES:

- FILLER, VOID-MAKE FROM FOAM INSTILLATION-BALLISTIC, RIGID
- NSN 1680-01-463-3310
- ALL DIMENSIONS ARE IN INCHES



M04-4698A

Figure D-391. Filler, Void PN 7-311930040-51



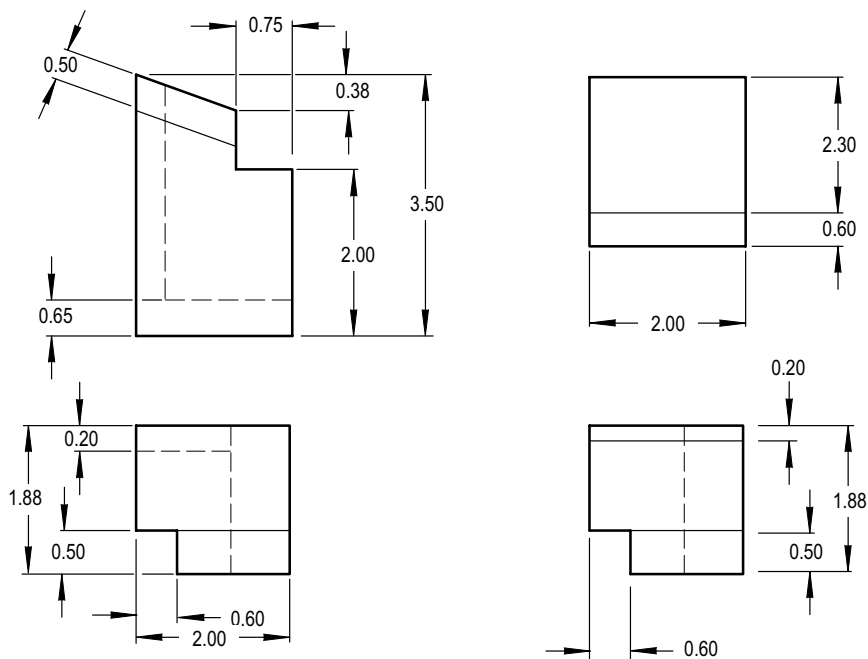
NOTES:

- FILLER, VOID-MAKE FROM FOAM INSTILLATION-BALLISTIC, RIGID
- NSN 1680-01-463-3310
- ALL DIMENSIONS ARE IN INCHES



M04-4696A

Figure D-392. Filler, Void PN 7-311930040-53



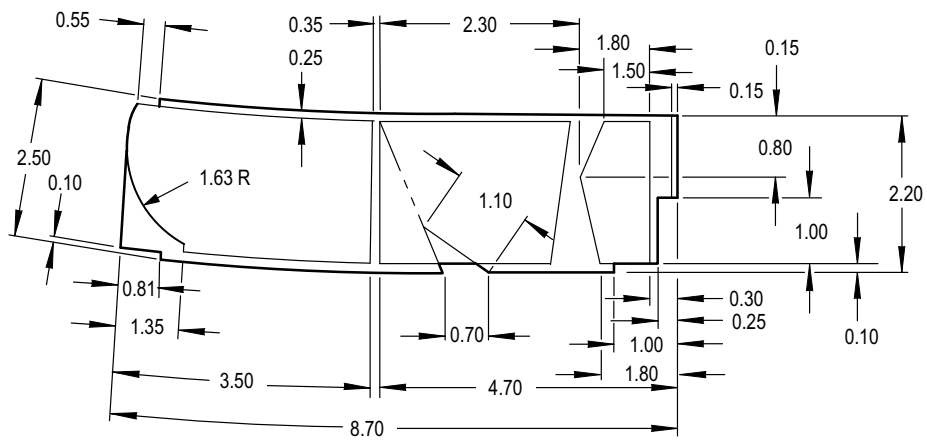
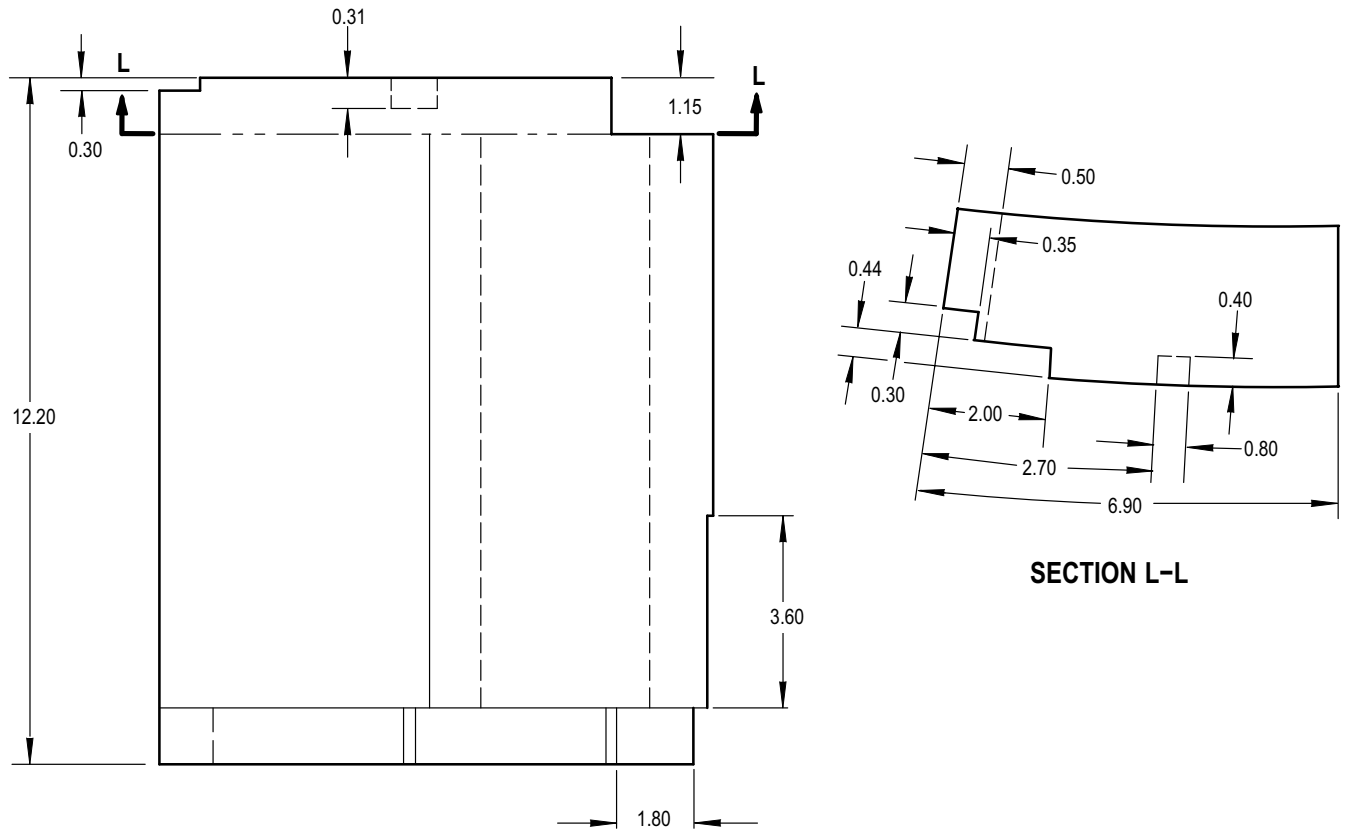
NOTES:

- FILLER, VOID-MAKE FROM FOAM INSTILLATION-BALLISTIC, RIGID
- NSN 1680-01-463-3310
- ALL DIMENSIONS ARE IN INCHES



M04-4699A

Figure D-393. Filler, Void PN 7-311930040-55



NOTES:

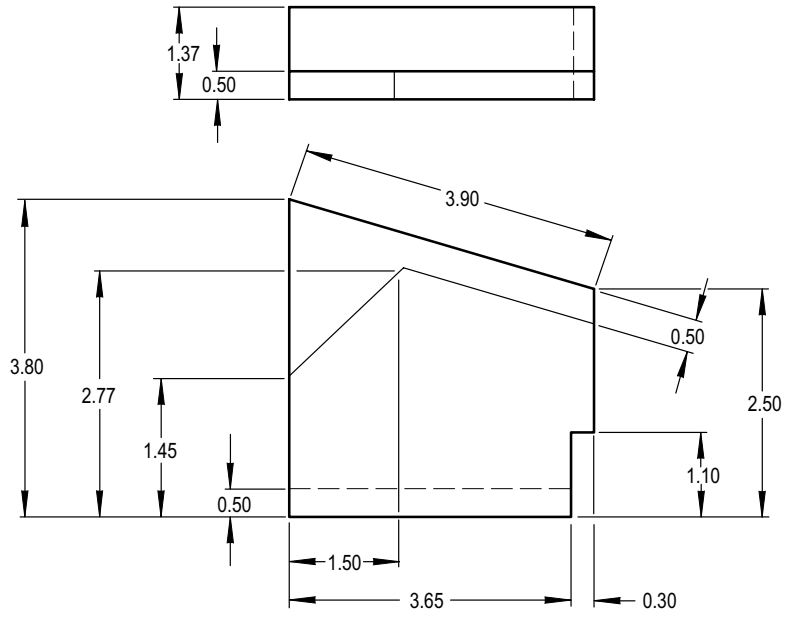
- FILLER, VOID-MAKE FROM FOAM INSTILLATION-BALLISTIC, RIGID
- NSN 1680-01-463-3310
- ALL DIMENSIONS ARE IN INCHES



M04-4697A

Figure D-394. Filler, Void PN 7-311930040-57





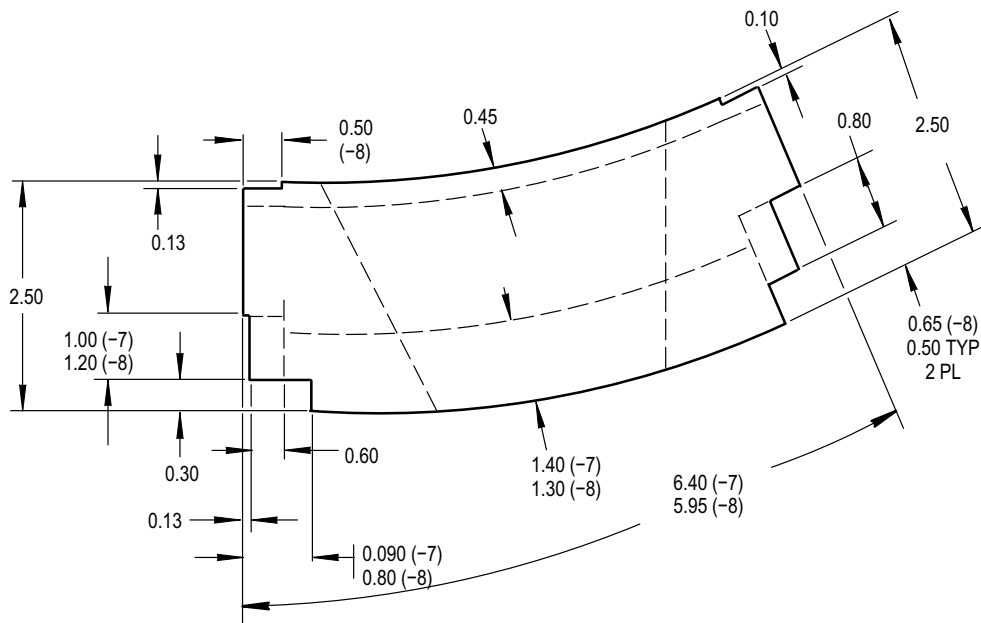
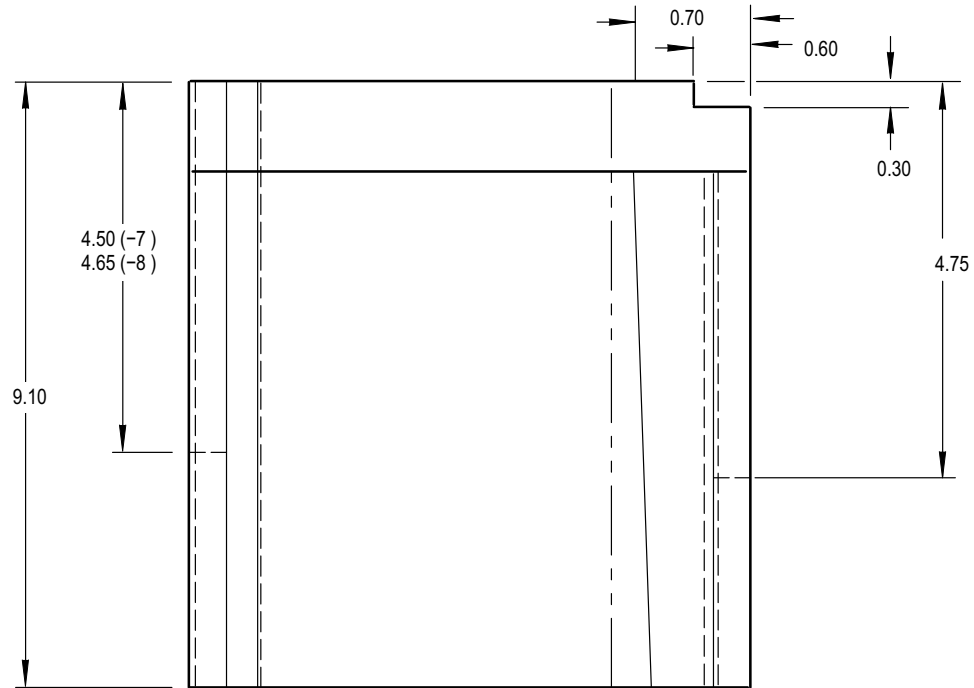
NOTES:

- FILLER, VOID-MAKE FROM FOAM INSTILLATION- BALLISTIC, RIGID
- NSN 1680-01-463-3310
- ALL DIMENSIONS ARE IN INCHES



M04-4695A

Figure D-395. Filler, Void PN 7-311930040-59

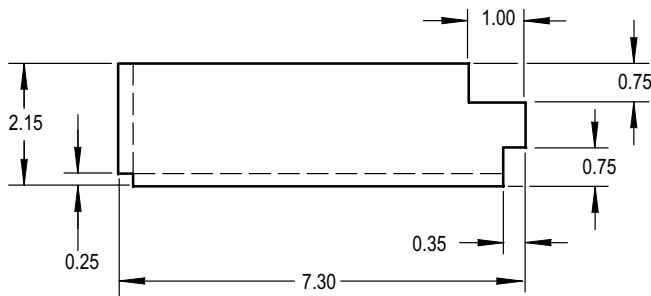
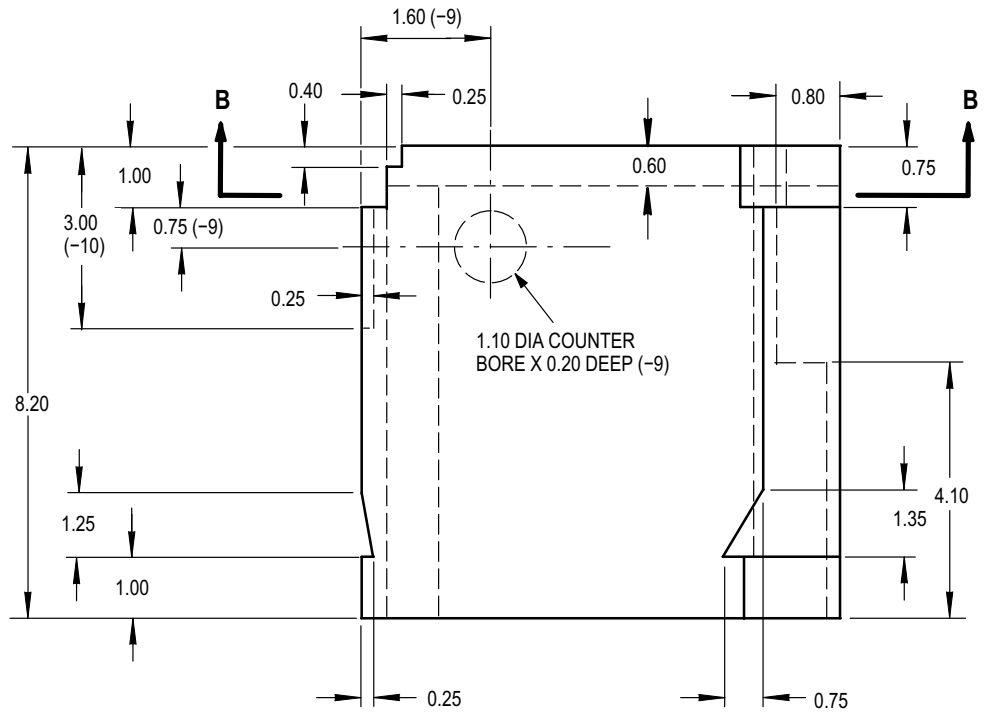


NOTES:

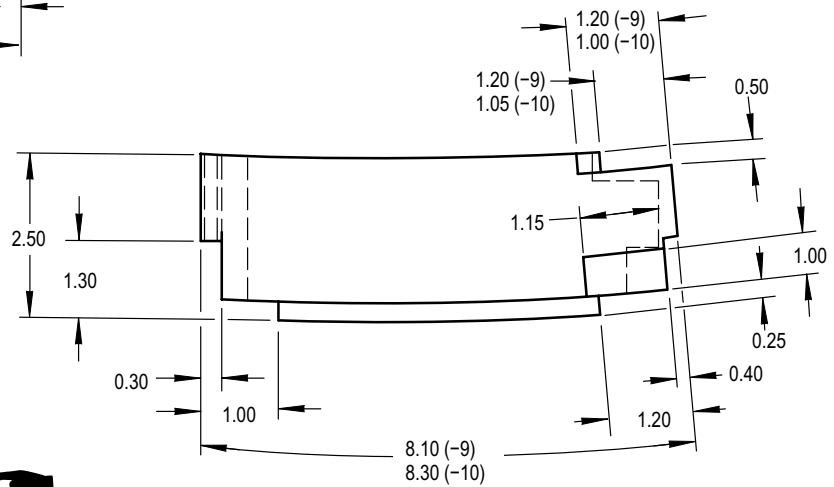
- FILLER, VOID-MAKE FROM FOAM INSTILLATION- BALLISTIC, RIGID NSN 1680-01-463-3310
- -7 SHOWN
- -8 OPPOSITE EXCEPT AS SHOWN
- ALL DIMENSIONS ARE IN INCHES

M04-4719A

Figure D-396. Filler, Void PN 7-311930040-7/-8



**SECTION B-B**

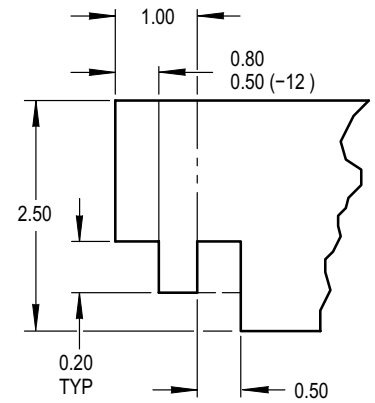
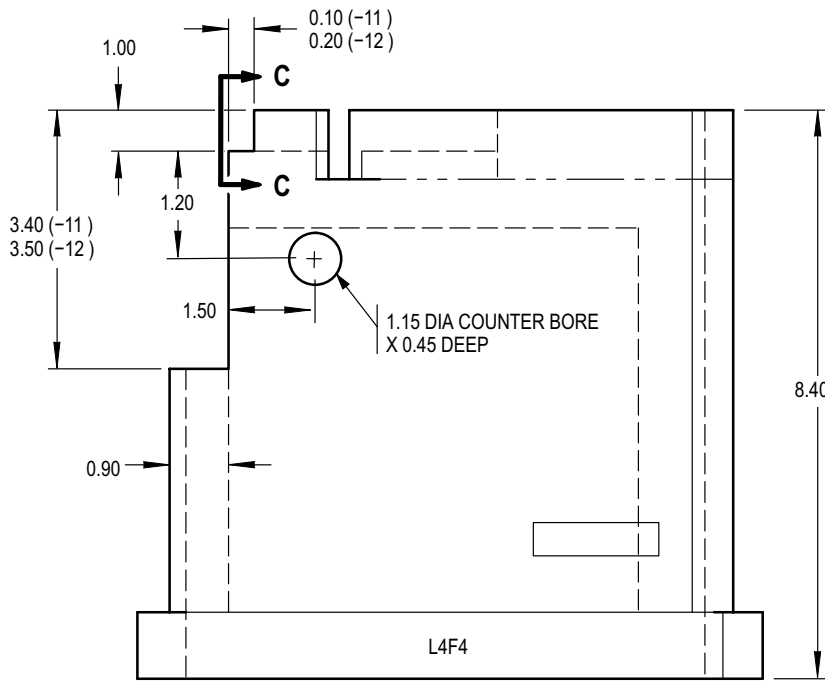


**NOTES:**

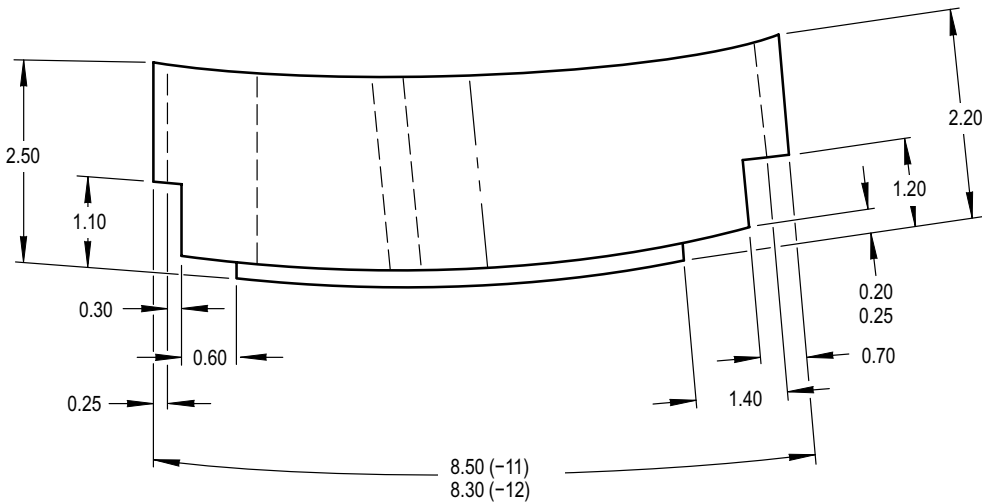
- FILLER, VOID-MAKE FROM FOAM INSTALLATION-BALLISTIC, RIGID  
NSN 1680-01-463-3310
- -9 SHOWN
- -10 OPPOSITE EXCEPT AS SHOWN
- ALL DIMENSIONS ARE IN INCHES

M04-4634A

**Figure D-397. Filler, Void PN 7-311930050-9/-10**



**VIEW C-C**  
ROTATED 90° CCW



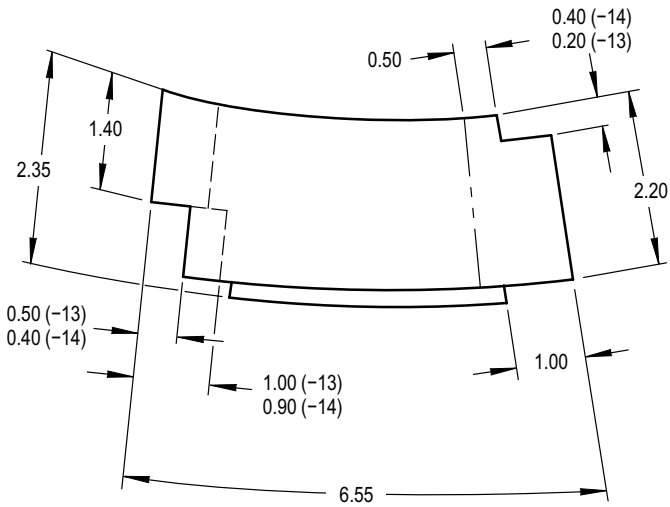
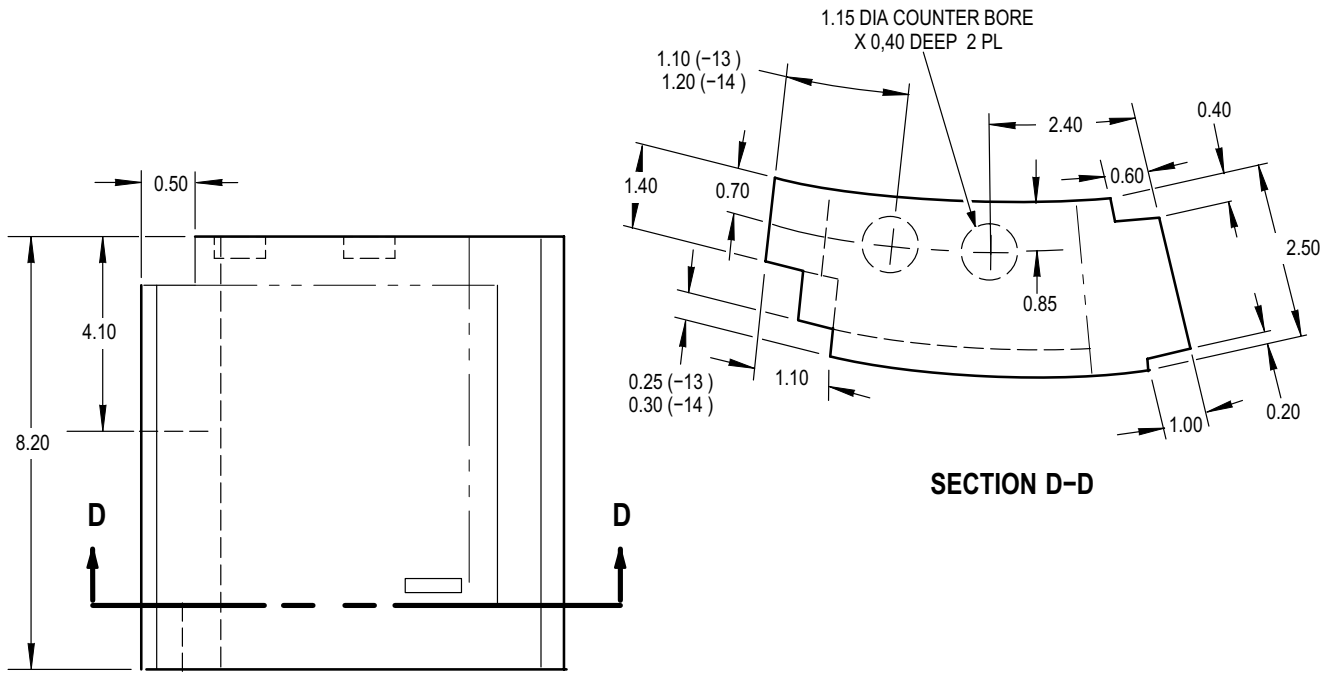
NOTES:

- FILLER, VOID-MAKE FROM FOAM INSTILLATION-BALLISTIC, RIGID  
NSN 1680-01-463-3310
- -11 SHOWN
- -12 OPPOSITE EXCEPT AS SHOWN
- ALL DIMENSIONS ARE IN INCHES



M04-4635A

**Figure D-398. Filler, Void PN 7-311930050-11/-12**

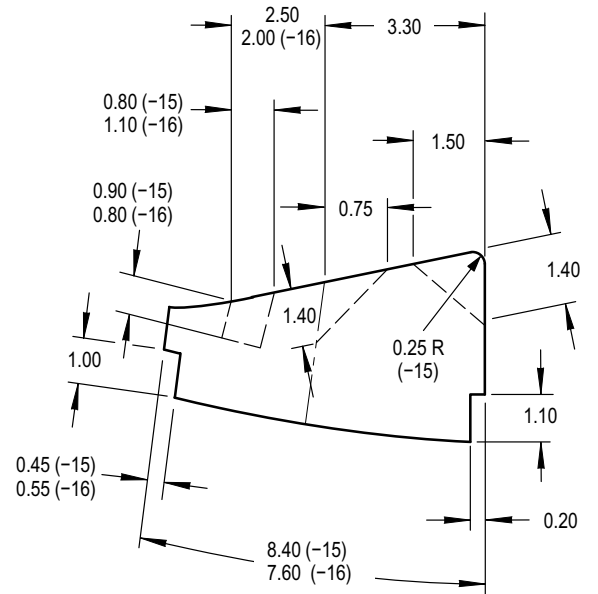
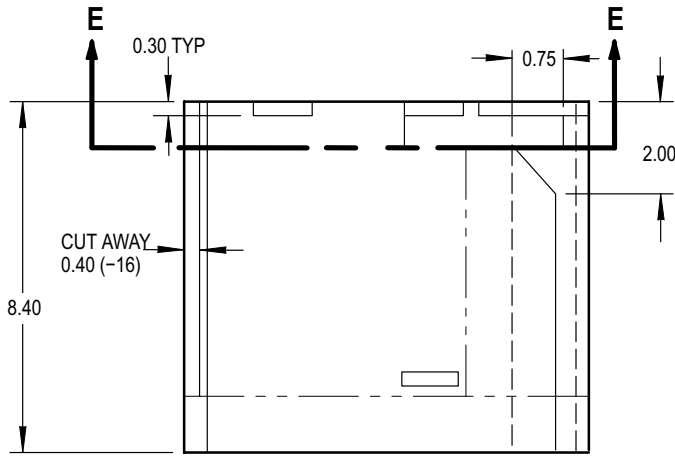


NOTES:

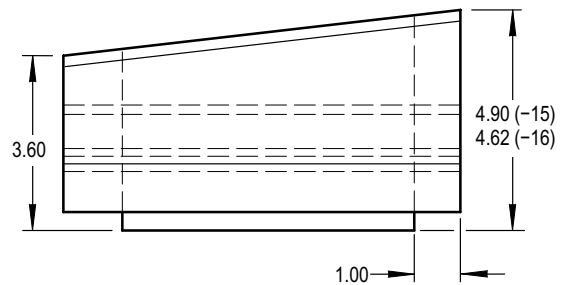
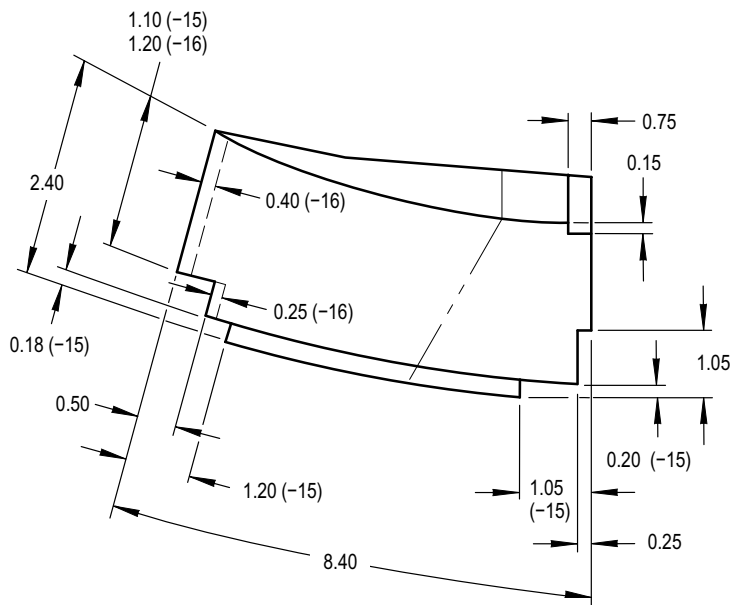
- FILLER, VOID-MAKE FROM FOAM INSTILLATION-BALLISTIC, RIGID  
NSN 1680-01-463-3310
- -13 SHOWN
- -14 OPPOSITE EXCEPT AS SHOWN
- ALL DIMENSIONS ARE IN INCHES

M04-4636A

Figure D-399. Filler, Void PN 7-311930050-13/-14



SECTION E - E



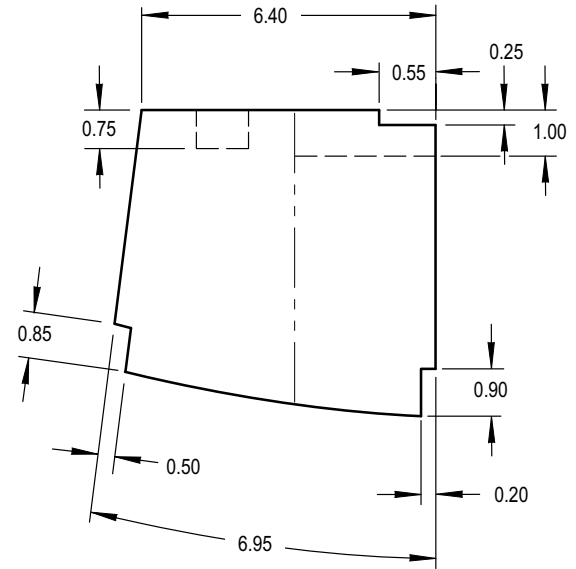
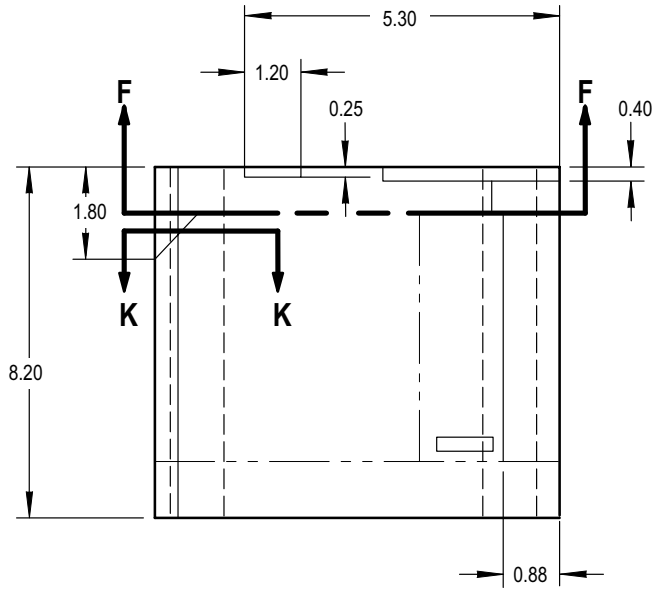
NOTES:

- FILLER, MAKE FROM FOAM INSTILLATION-BALLISTIC, RIGID  
NSN 1680-01-463-3310
- -15 SHOWN
- -16 OPPOSITE EXCEPT AS SHOWN
- ALL DIMENSIONS ARE IN INCHES

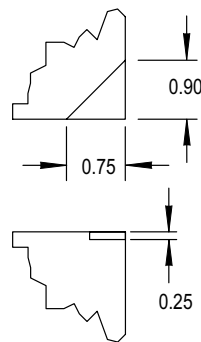
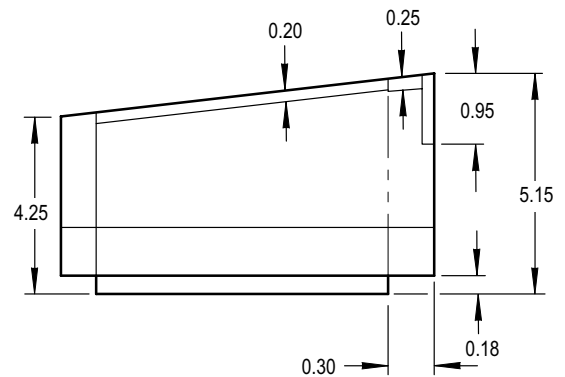
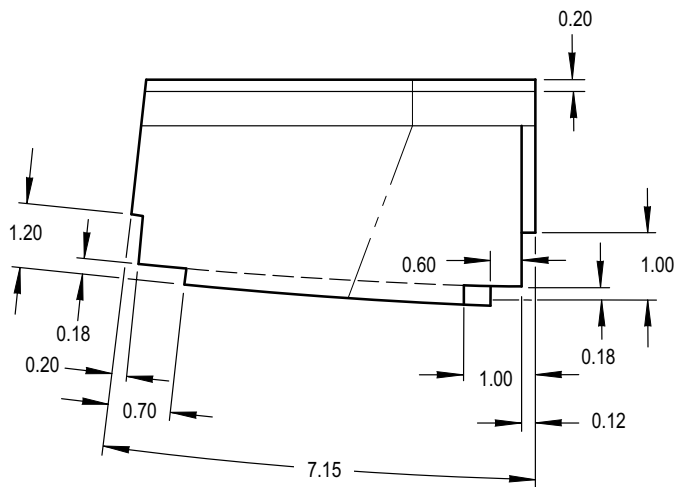


M04-4637A

Figure D-400. Filler, Void PN 7-311930050-15-16



SECTION F-F



SECTION K-K

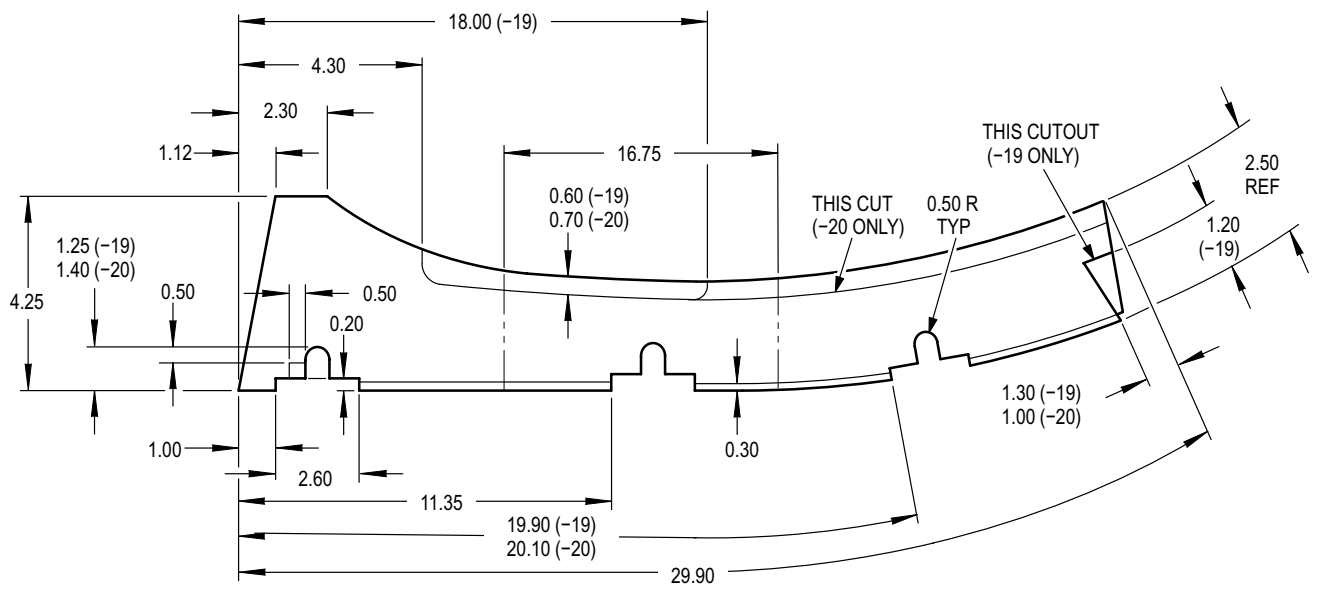
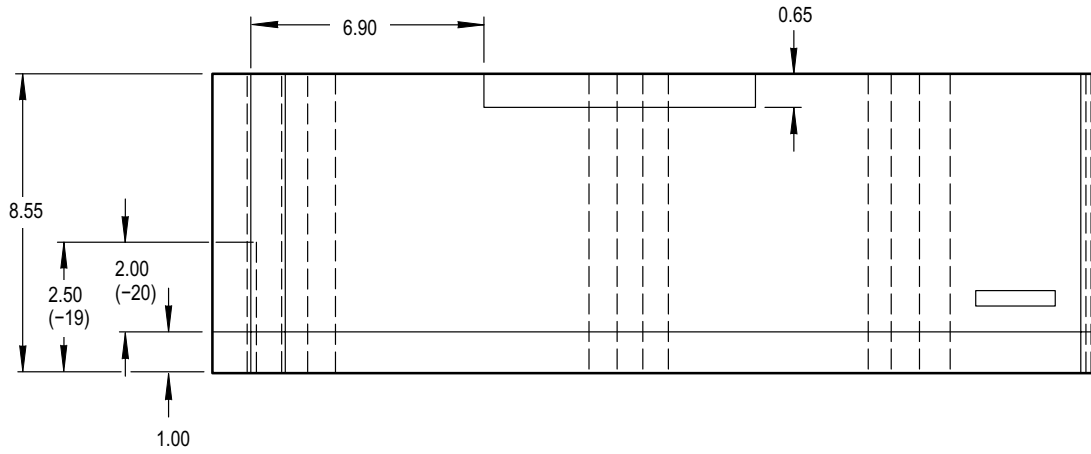
NOTES:

- FILLER, VOID-MAKE FROM FOAM INSTILLATION-BALLISTIC, RIGID
- NSN 1680-01-463-3310
- ALL DIMENSIONS ARE IN INCHES



M04-4638A

Figure D-401. Filler, Void PN 7-311930050-17



NOTES:

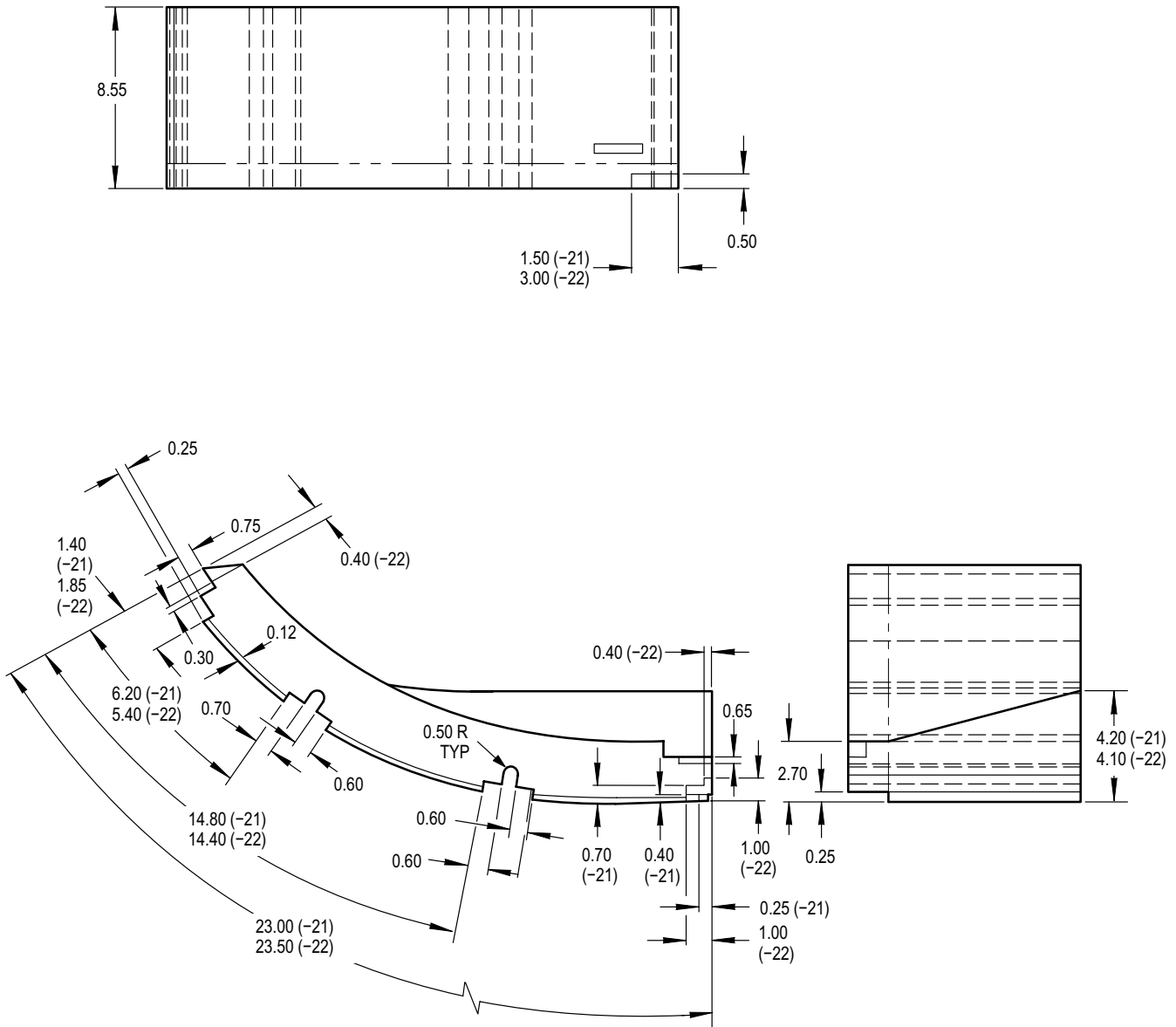
- FILLER, VOID-MAKE FROM FOAM INSTILLATION-BALLISTIC, RIGID NSN 1680-01-463-3310
- -19 SHOWN
- -20 OPPOSITE EXCEPT AS SHOWN
- ALL DIMENSIONS ARE IN INCHES



M04-4639A

Figure D-402. Filler, Void PN 7-311930050-19/-20





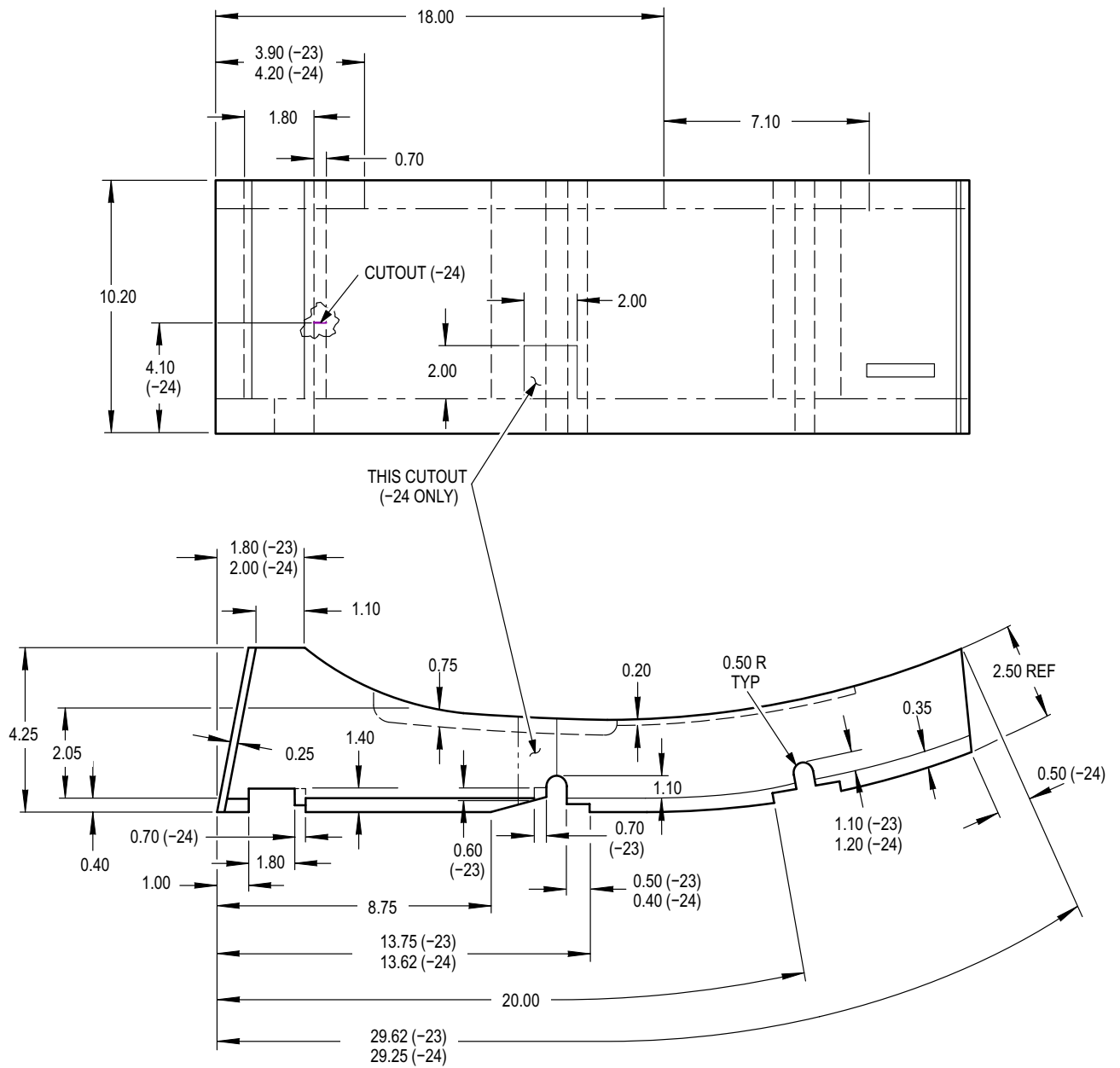
NOTES:

- FILLER, VOID-MAKE FROM FOAM INSTILLATION-BALLISTIC, RIGID  
NSN 1680-01-463-3310
- -21 SHOWN
- -22 OPPOSITE EXCEPT AS SHOWN
- ALL DIMENSIONS ARE IN INCHES



M04-4640A

Figure D-403. Filler, Void PN 7-311930050-21/-22



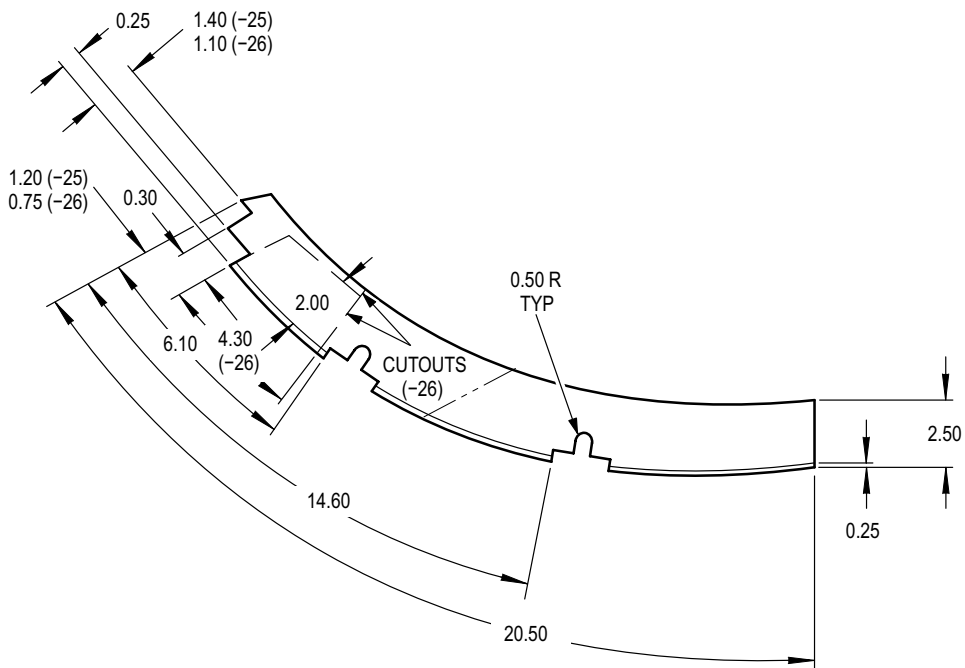
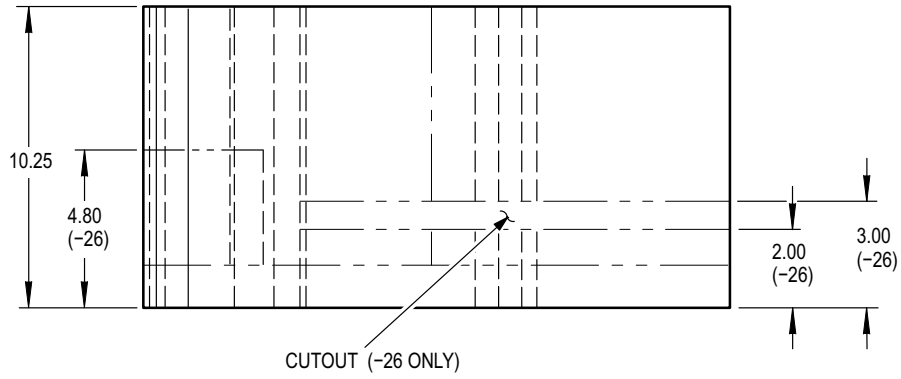
NOTES:

- FILLER, VOID-MAKE FROM FOAM INSTILLATION-BALLISTIC, RIGID  
NSN 1680-01-463-3310
- -23 SHOWN
- -24 OPPOSITE EXCEPT AS SHOWN
- ALL DIMENSIONS ARE IN INCHES



M04-4641A

Figure D-404. Filler, Void PN 7-311930050-23/-24



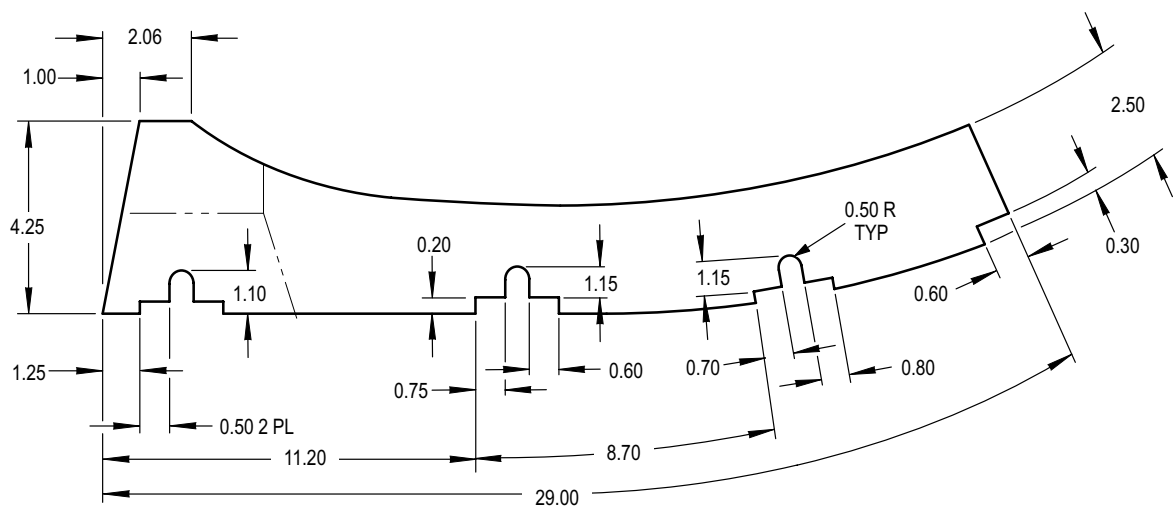
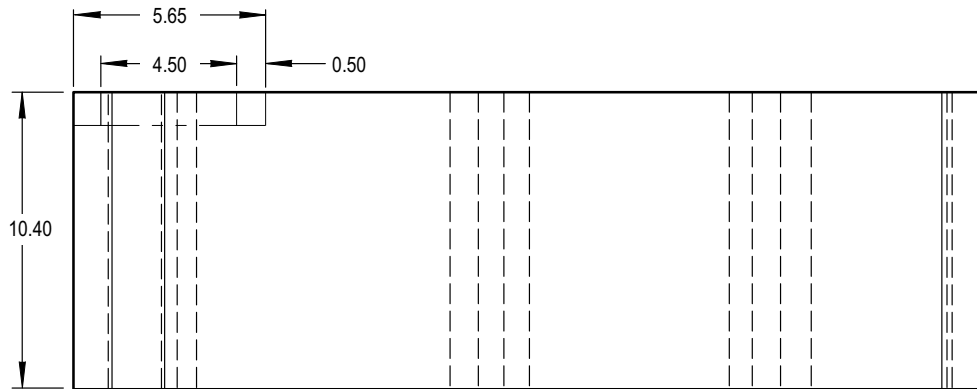
NOTES:

- FILLER, VOID-MAKE FROM FOAM INSTILLATION-BALLISTIC, RIGID  
NSN 1680-01-463-3310
- -25 SHOWN
- -26 OPPOSITE EXCEPT AS SHOWN
- ALL DIMENSIONS ARE IN INCHES



M04-4642A

Figure D-405. Filler, Void PN 7-311930050-25/-26



NOTES:

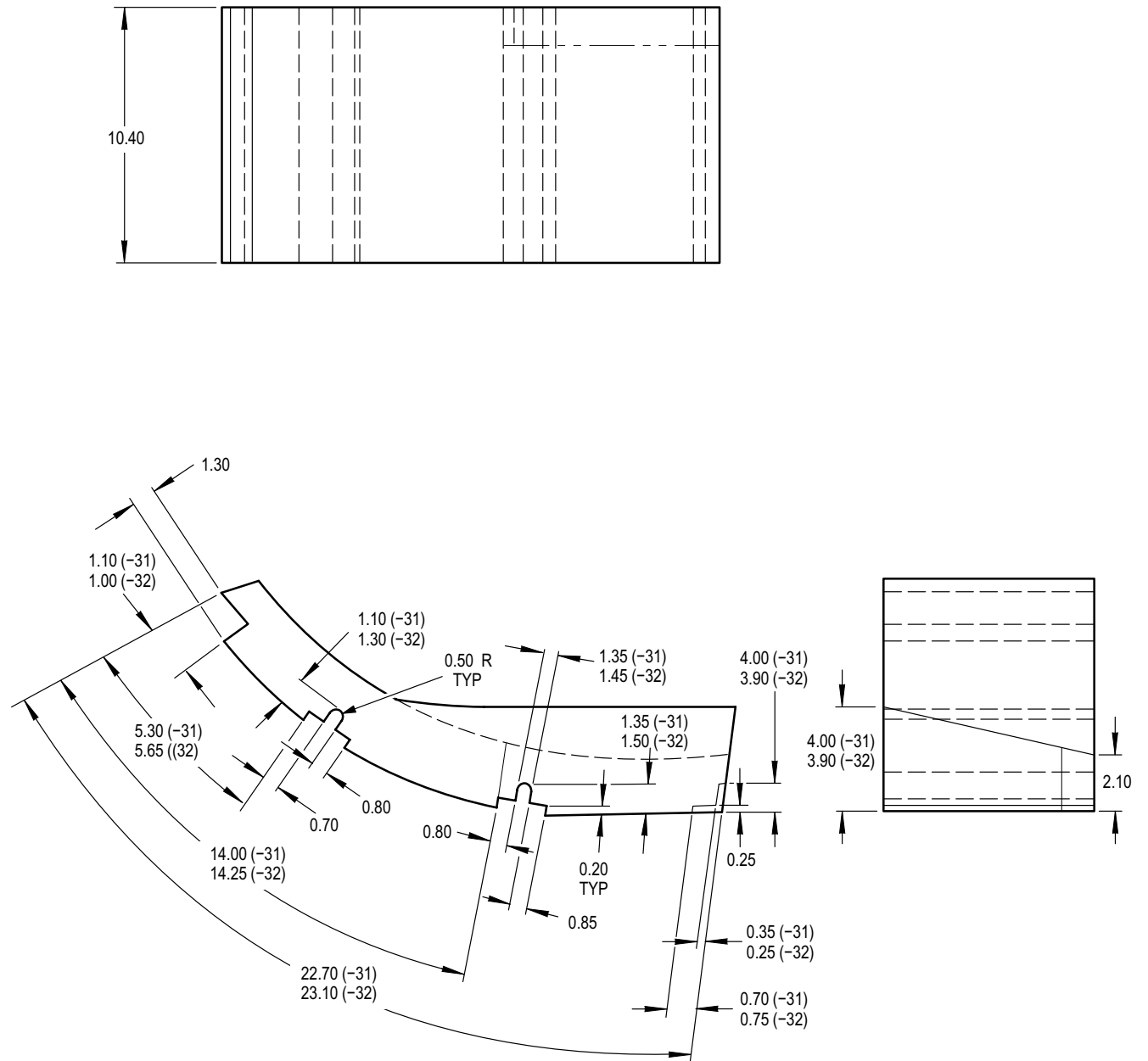
- FILLER, VOID-MAKE FROM FOAM INSTILLATION-BALLISTIC, RIGID
- NSN 1680-01-463-3310
- ALL DIMENSIONS ARE IN INCHES



M04-4643A

Figure D-406. Filler, Void PN 7-311930050-29



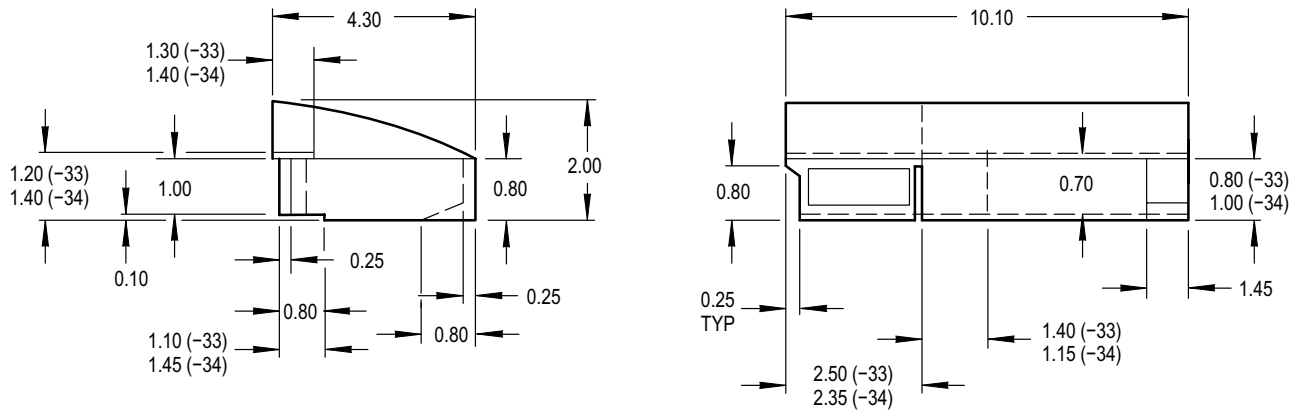


- NOTES:
- FILLER, VOID-MAKE FROM FOAM INSTILLATION-BALLISTIC, RIGID NSN 1680-01-463-3310
  - -31 SHOWN
  - -32 OPPOSITE EXCEPT AS SHOWN
  - ALL DIMENSIONS ARE IN INCHES



M04-4645A

Figure D-408. Filler, Void PN 7-311930050-31/-32

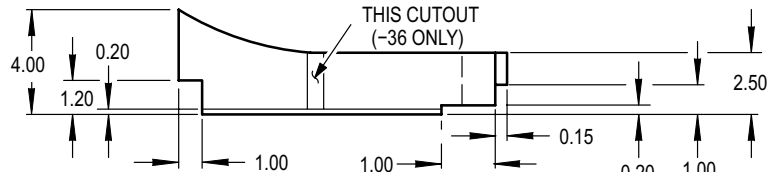
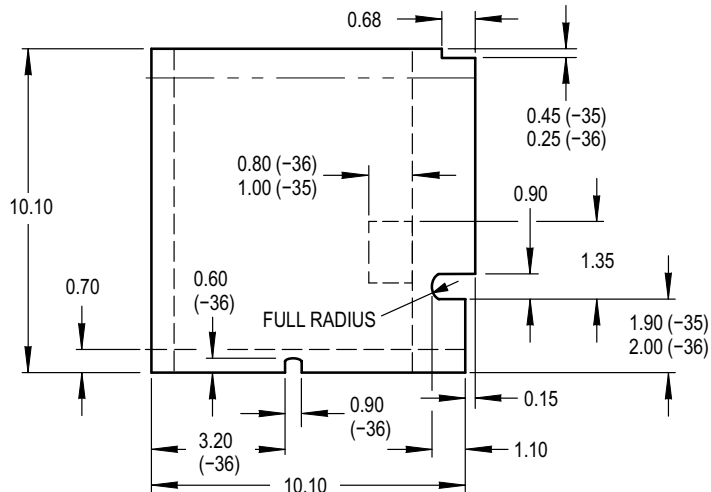


NOTES:

- FILLER, VOID-MAKE FROM FOAM INSTILLATION-BALLISTIC, RIGID  
NSN 1680-01-463-3310
- -33 SHOWN
- -34 OPPOSITE EXCEPT AS SHOWN
- ALL DIMENSIONS ARE IN INCHES

M04-4646A

Figure D-409. Filler, Void PN 7-311930050-33/-34

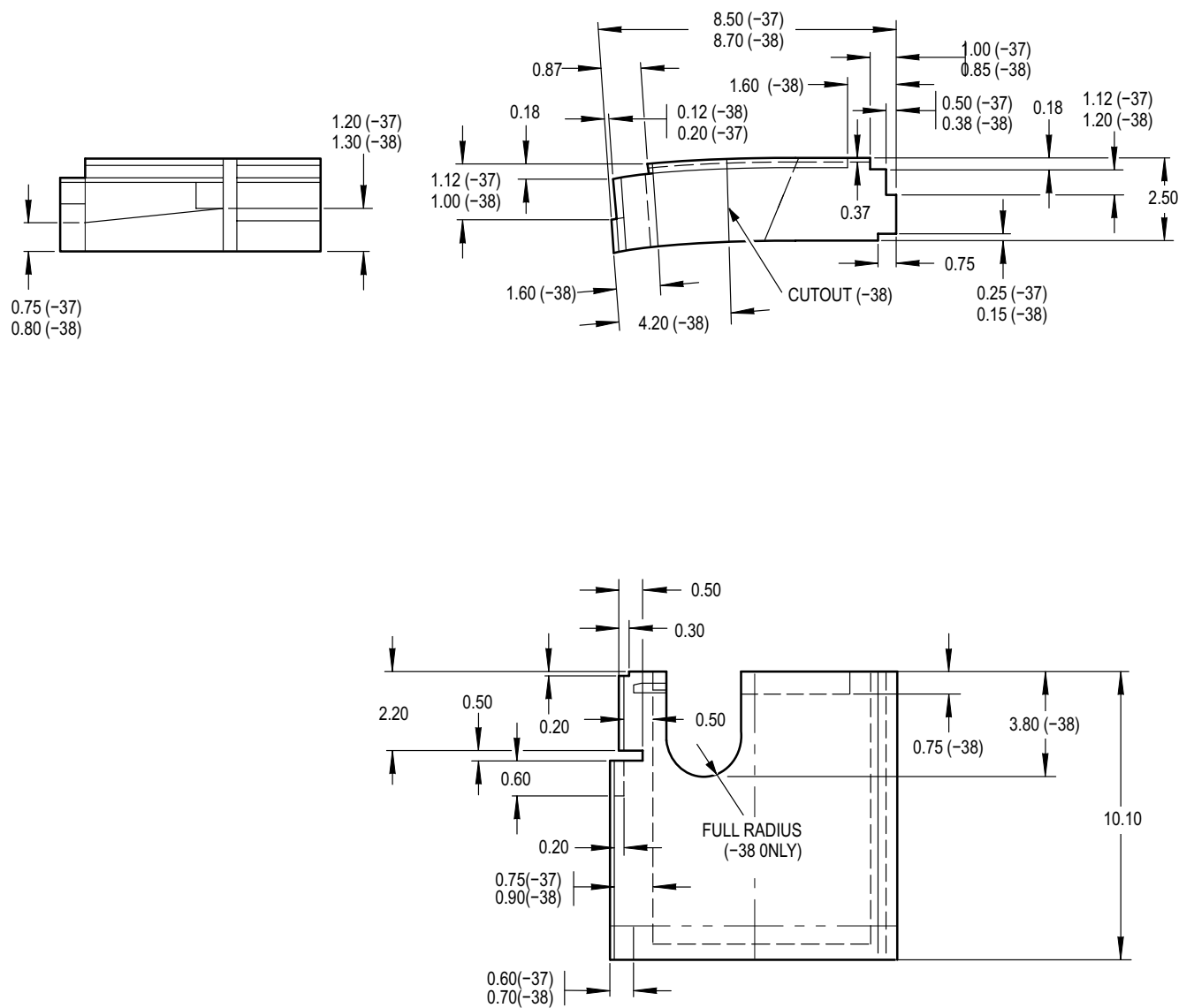


NOTES:

- FILLER, VOID-MAKE FROM FOAM INSTILLATION-BALLISTIC, RIGID  
NSN 1680-01-463-3310
- -35 SHOWN
- -36 OPPOSITE EXCEPT AS SHOWN
- ALL DIMENSIONS ARE IN INCHES

M04-4647A

Figure D-410. Filler, Void PN 7-311930050-35/-36



NOTES:

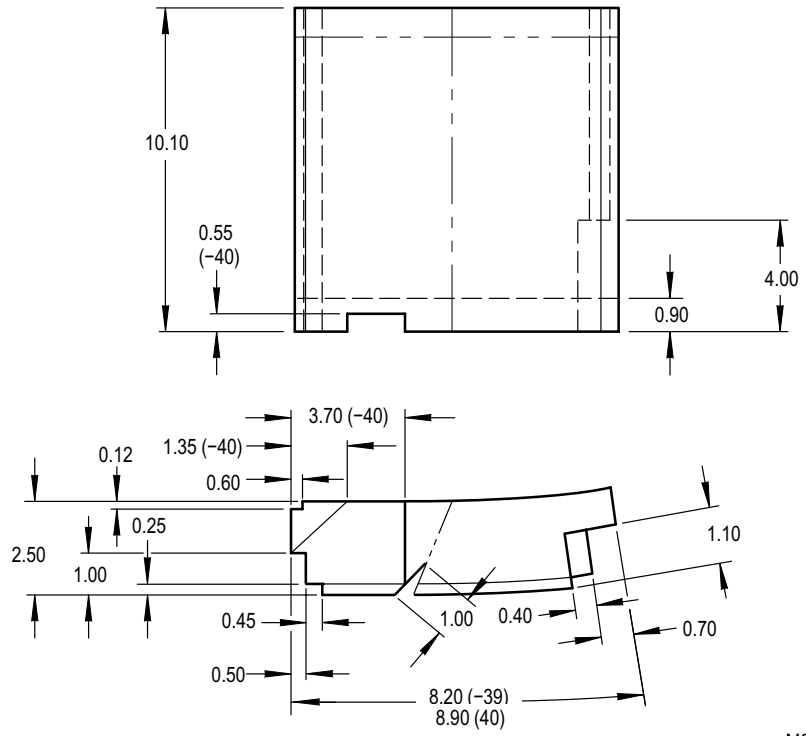
- FILLER, VOID-MAKE FROM FOAM INSTILLATION-BALLISTIC, RIGID  
NSN 1680-01-463-3310
- -37 SHOWN
- -38 OPPOSITE EXCEPT AS SHOWN
- ALL DIMENSIONS ARE IN INCHES



M04-4648A

Figure D-411. Filler, Void PN 7-311930050-37/-38



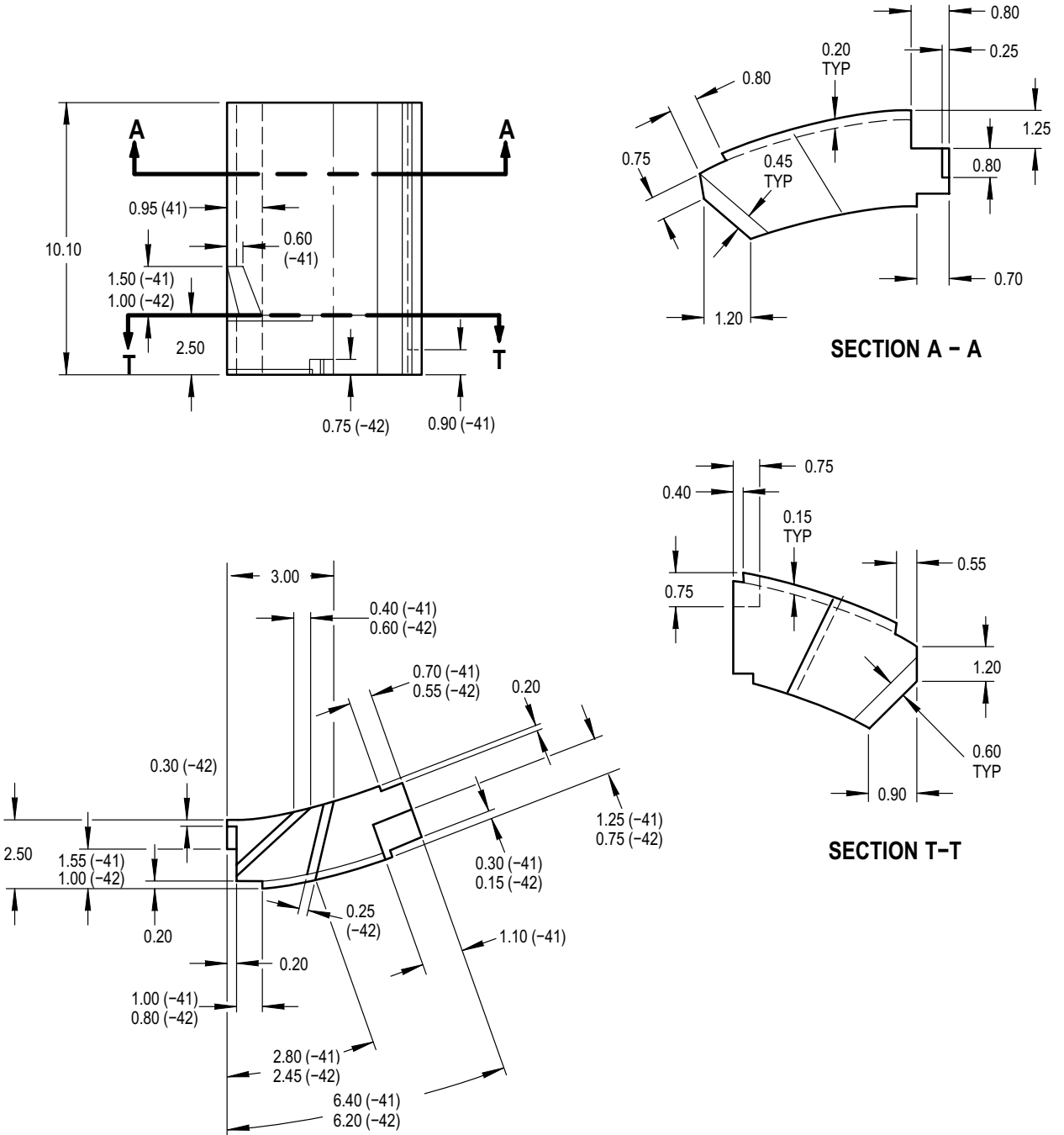


NOTES:

- FILLER, VOID-MAKE FROM FOAM INSTILLATION-BALLISTIC, RIGID NSN 1680-01-463-3310
- -39 SHOWN
- -40 OPPOSITE EXCEPT AS SHOWN
- ALL DIMENSIONS ARE IN INCHES

M04-4649A

Figure D-412. Filler, Void PN 7-311930050-39/-40



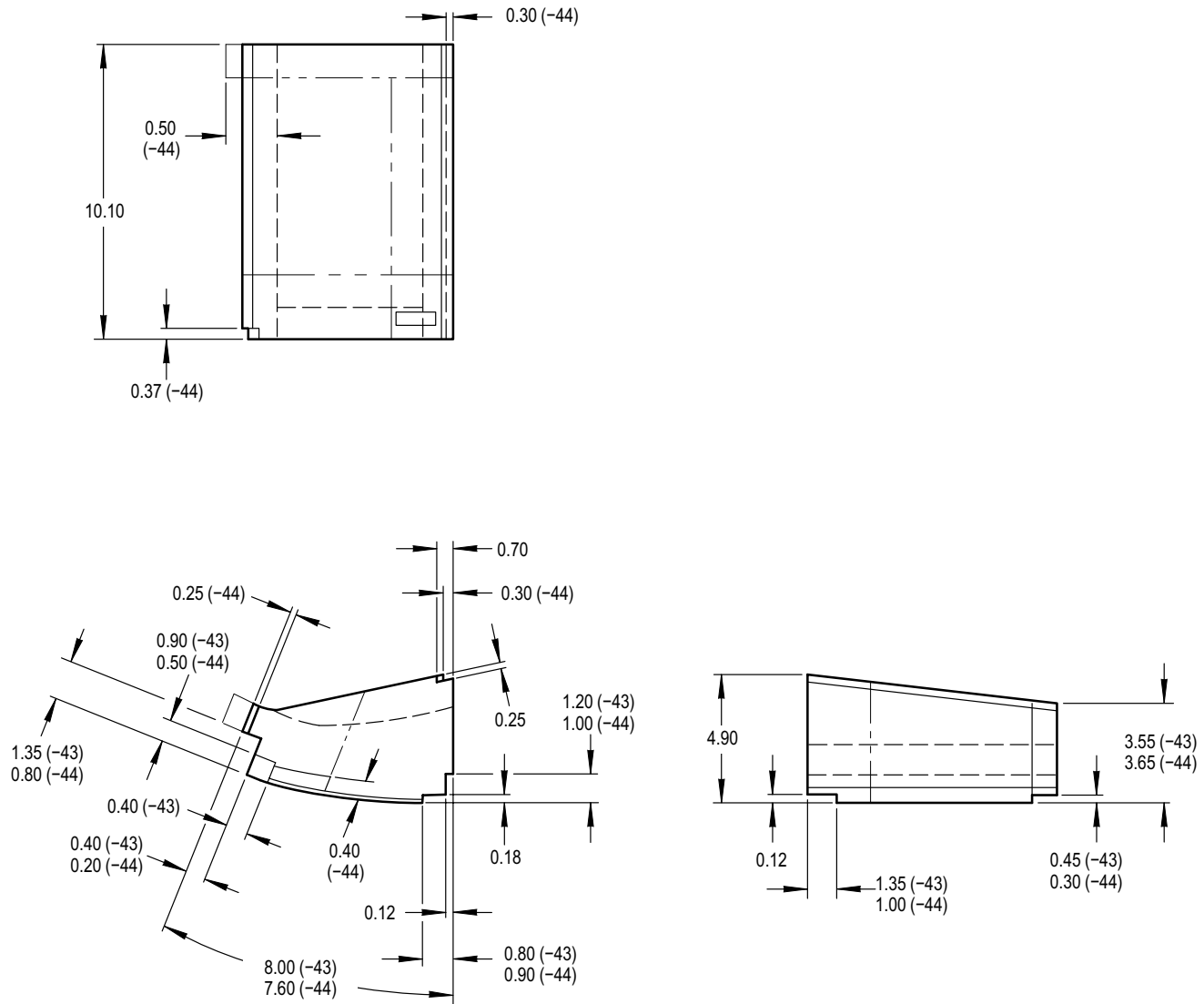
NOTES:

- FILLER, VOID-MAKE FROM FOAM INSTILLATION-BALLISTIC, RIGID
- NSN 1680-01-463-3310
- -41 SHOWN
- -42 OPPOSITE EXCEPT AS SHOWN
- ALL DIMENSIONS ARE IN INCHES



M04-4650A

Figure D-413. Filler, Void PN 7-311930050-41/-42



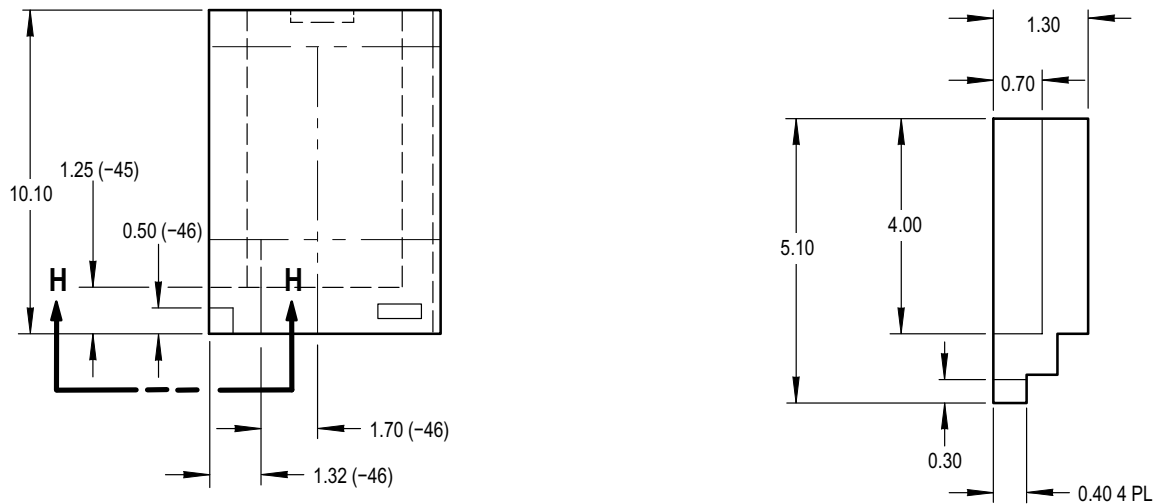
NOTES:

- FILLER, VOID-MAKE FROM FOAM INSTILLATION-BALLISTIC, RIGID
- NSN 1680-01-463-3310
- -43 SHOWN
- -44 OPPOSITE EXCEPT AS SHOWN
- ALL DIMENSIONS ARE IN INCHES

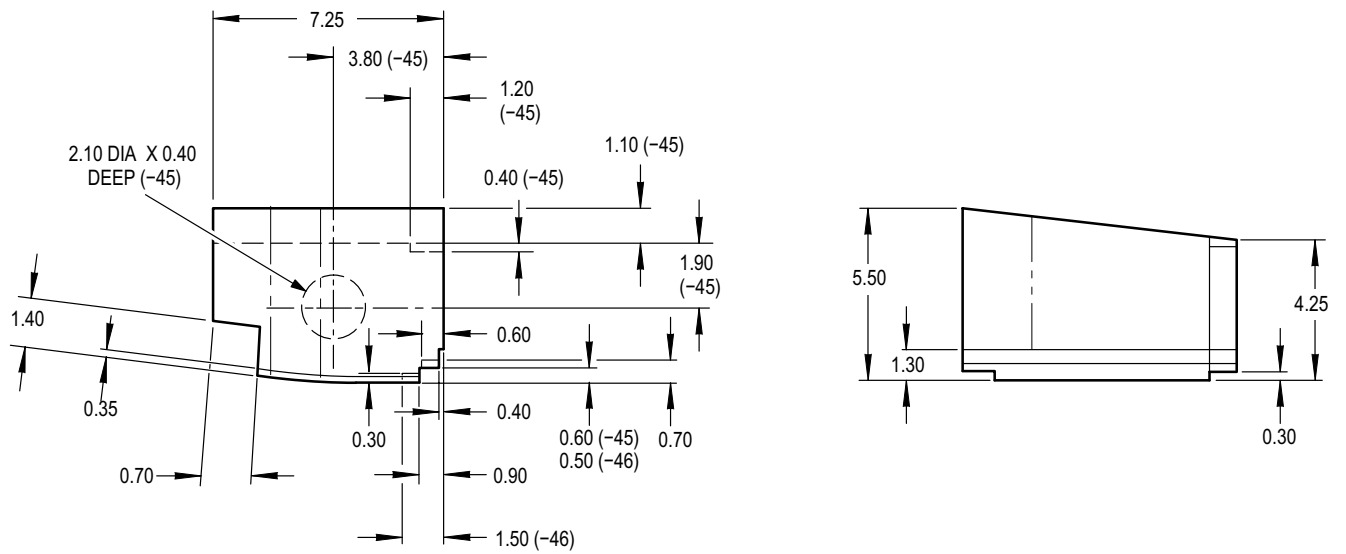


M04-4651A

Figure D-414. Filler, Void PN 7-311930050-43/-44



VIEW H -H



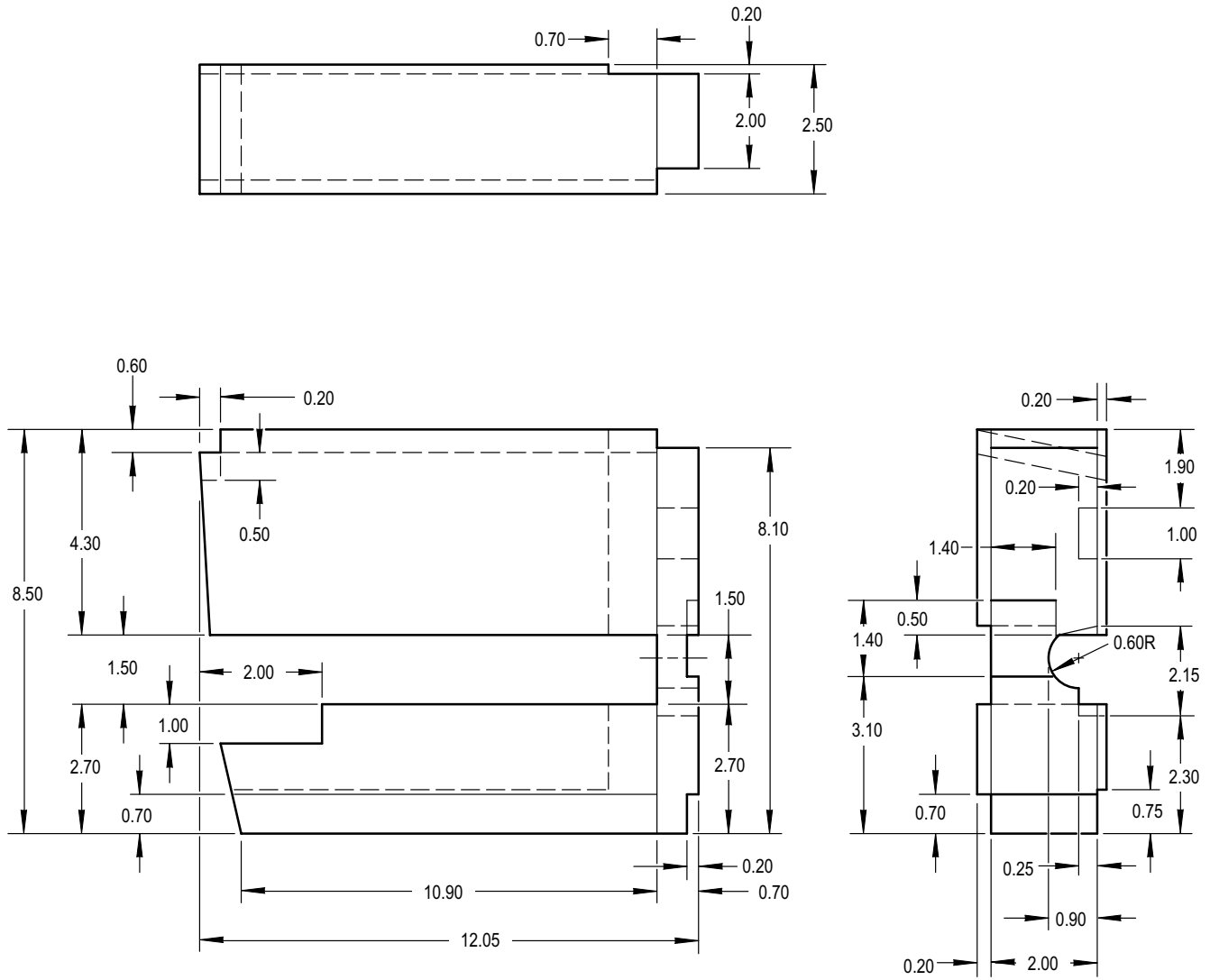
NOTES:

- FILLER, VOID-MAKE FROM FOAM INSTILLATION-BALLISTIC, RIGID NSN 1680-01-463-3310
- -45 SHOWN
- -46 OPPOSITE EXCEPT AS SHOWN
- ALL DIMENSIONS ARE IN INCHES



M04-4652A

Figure D-415. Filler, Void PN 7-311930050-45/-46



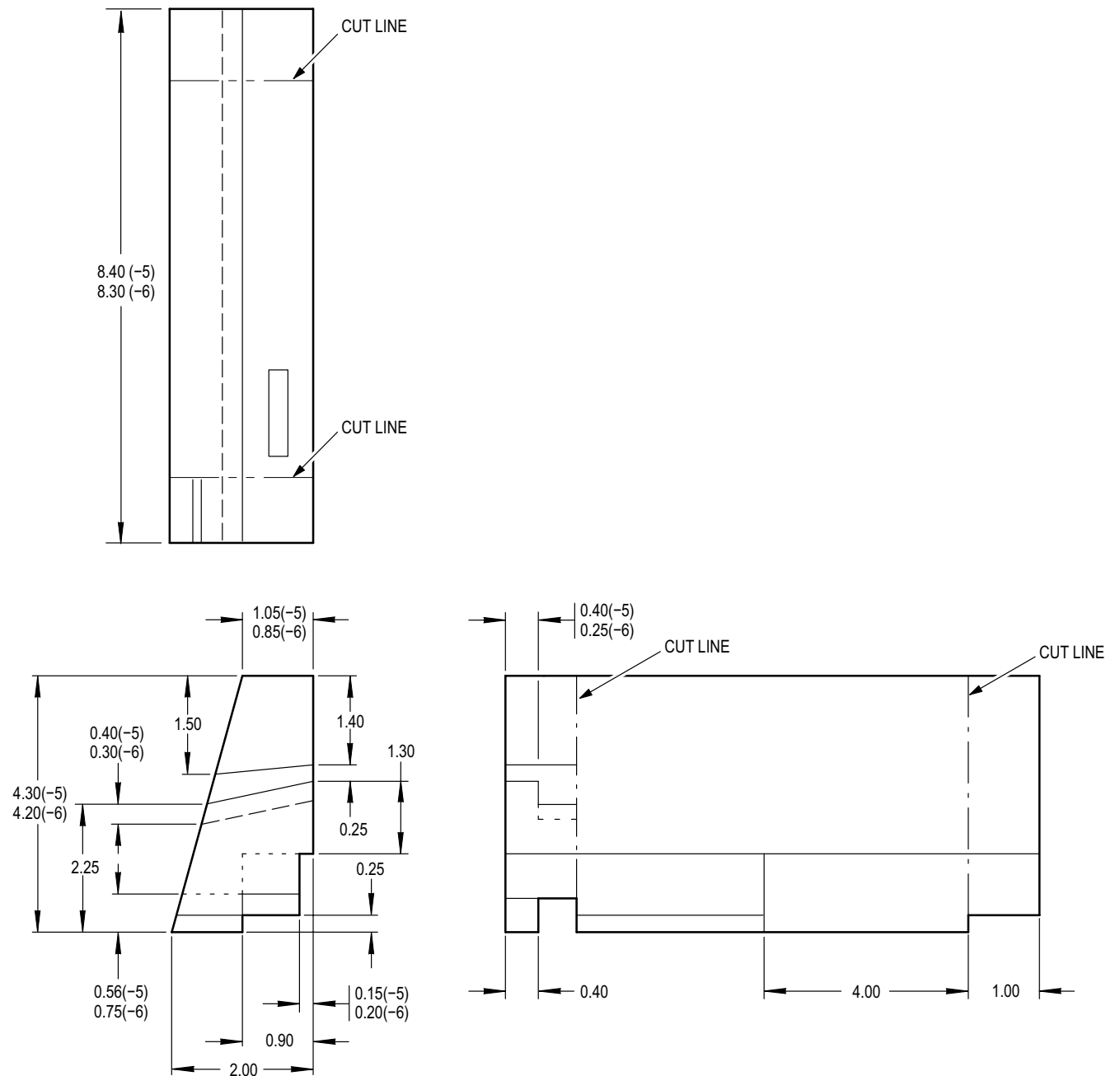
NOTES:

- FILLER, VOID-MAKE FROM FOAM INSTILLATION-BALLISTIC, RIGID
- NSN 1680-01-463-3310
- ALL DIMENSIONS ARE IN INCHES



M04-4657A

Figure D-416. Filler, Void PN 7-311930050-49



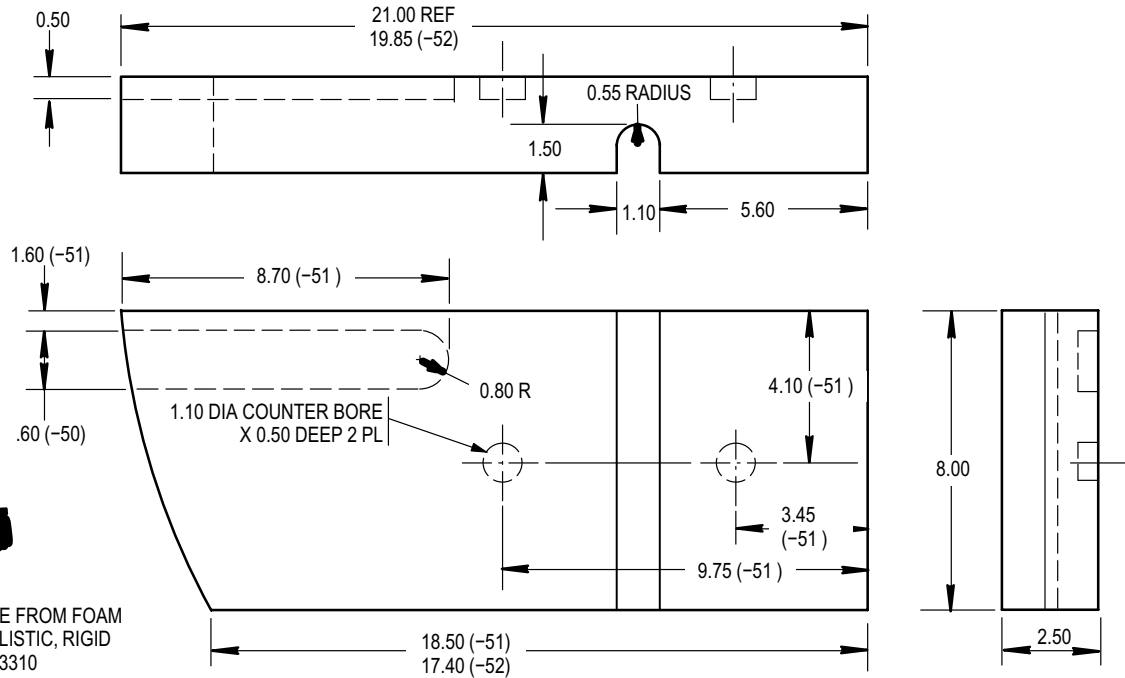
NOTES:

- FILLER, VOID-MAKE FROM FOAM INSTILLATION-BALLISTIC, RIGID  
NSN 1680-01-463-3310
- -5 SHOWN
- -6 OPPOSITE EXCEPT AS SHOWN
- ALL DIMENSIONS ARE IN INCHES



M04-4632A

Figure D-417. Filler, Void PN 7-311930050-5/-6

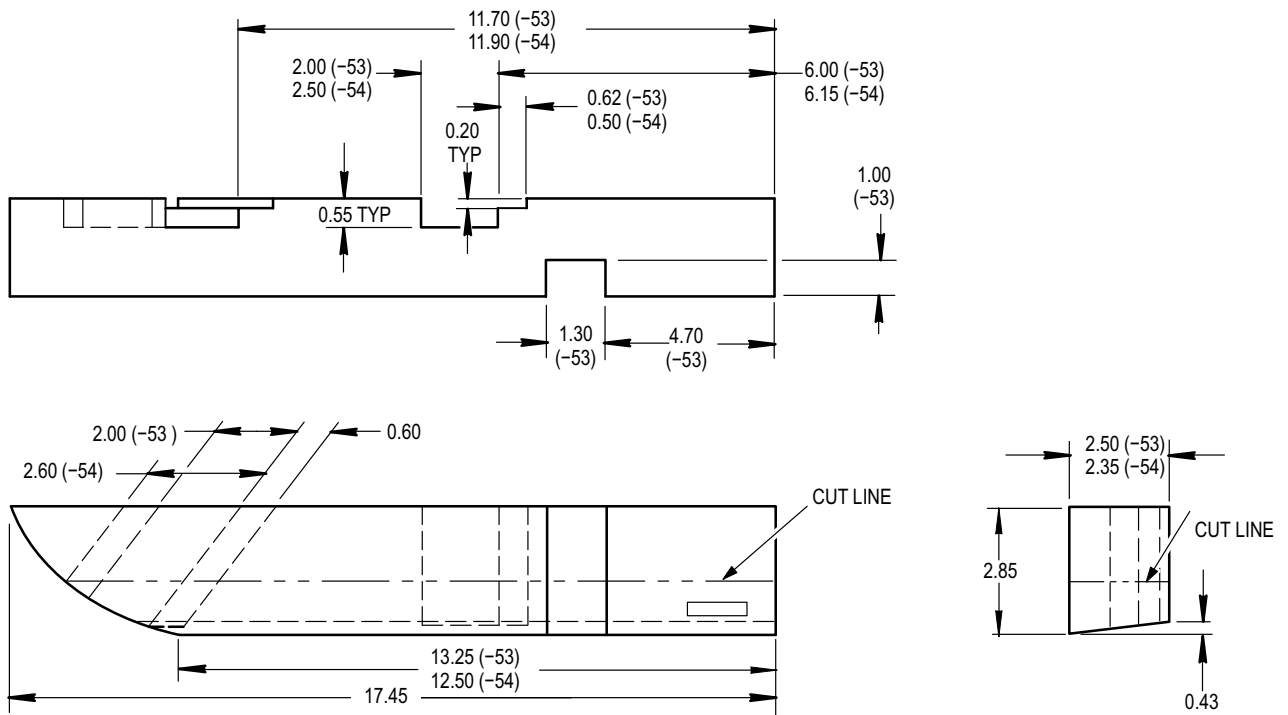


NOTES:

- FILLER, VOID-MAKE FROM FOAM INSTILLATION-BALLISTIC, RIGID NSN 1680-01-463-3310
- -51 SHOWN
- -52 OPPOSITE EXCEPT AS SHOWN
- ALL DIMENSIONS ARE IN INCHES

M04-4658A

Figure D-418. Filler, Void PN 7-311930050-51/-52



NOTES:

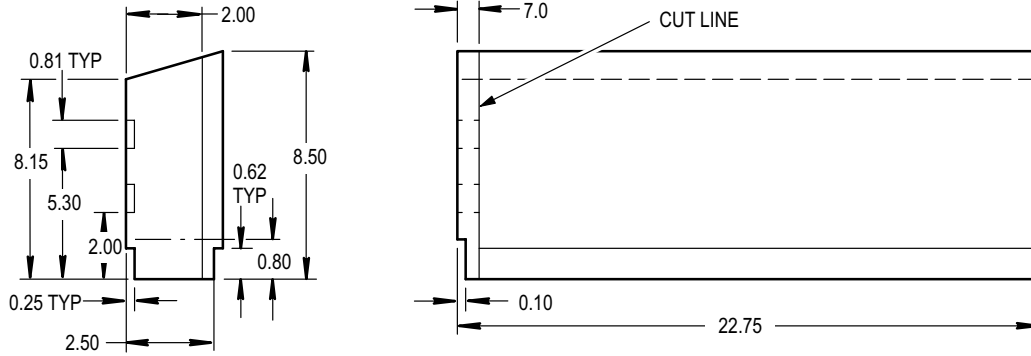
- FILLER, VOID-MAKE FROM FOAM INSTILLATION-BALLISTIC, RIGID
- NSN 1680-01-463-3310
- -53 SHOWN
- -54 OPPOSITE EXCEPT AS SHOWN
- ALL DIMENSIONS ARE IN INCHES



M04-4659A

Figure D-419. Filler, Void PN 7-311930050-53/-54





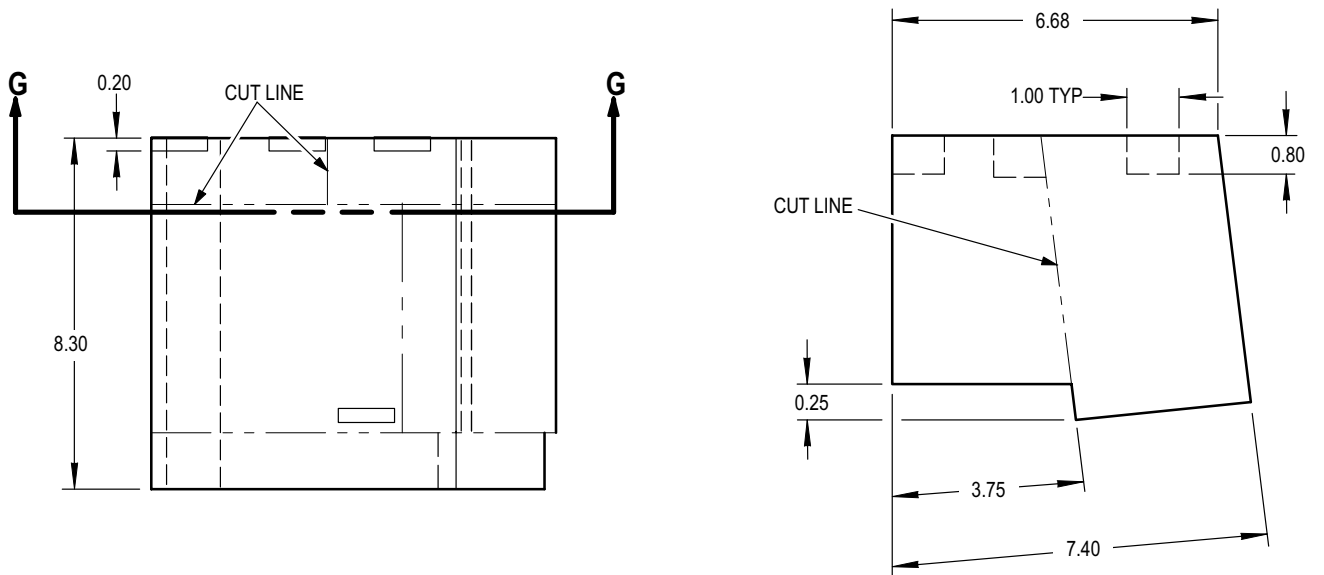
NOTES:

- FILLER, VOID-MAKE FROM FOAM INSTILLATION-BALLISTIC, RIGID  
NSN 1680-01-463-3310
- ALL DIMENSIONS ARE IN INCHES

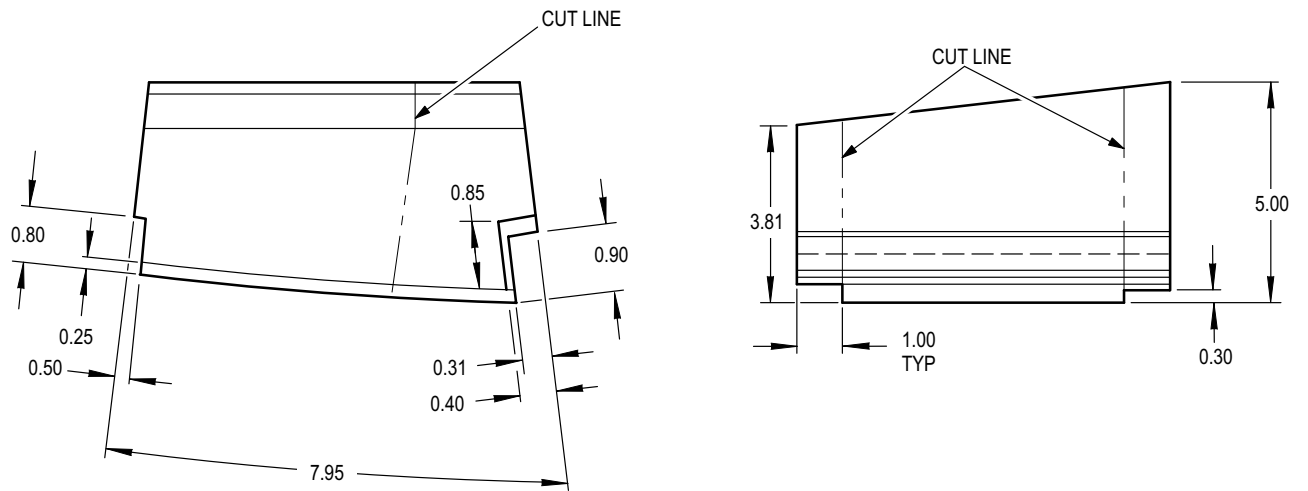


M04-4660A

Figure D-420. Filler, Void PN 7-311930050-57



SECTION G - G



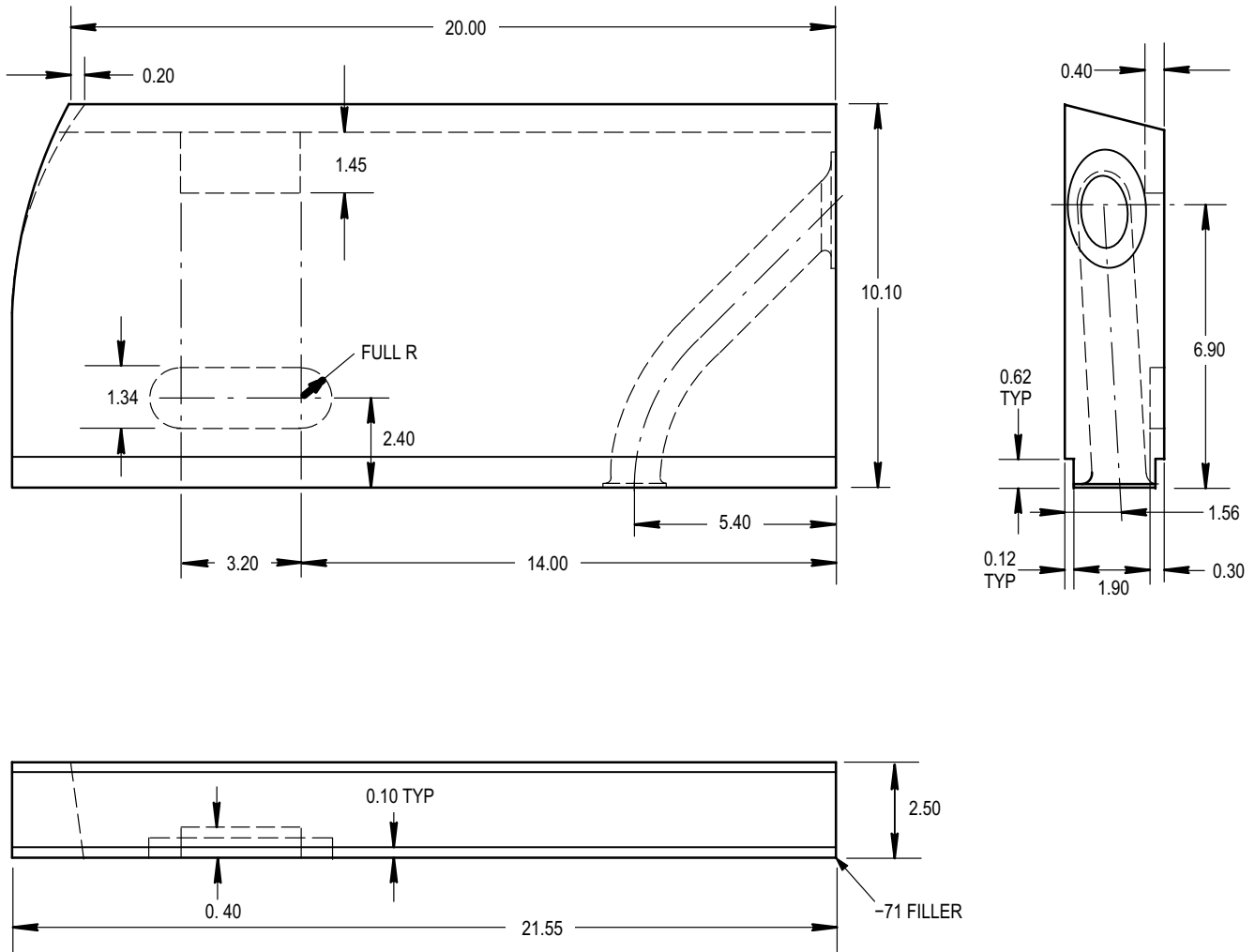
NOTES:

- FILLER, VOID-MAKE FROM FOAM INSTILLATION-BALLISTIC, RIGID
- ALL DIMENSIONS ARE IN INCHES



M04-4661A

Figure D-421. Filler, Void PN 7-311930050-59



NOTES:

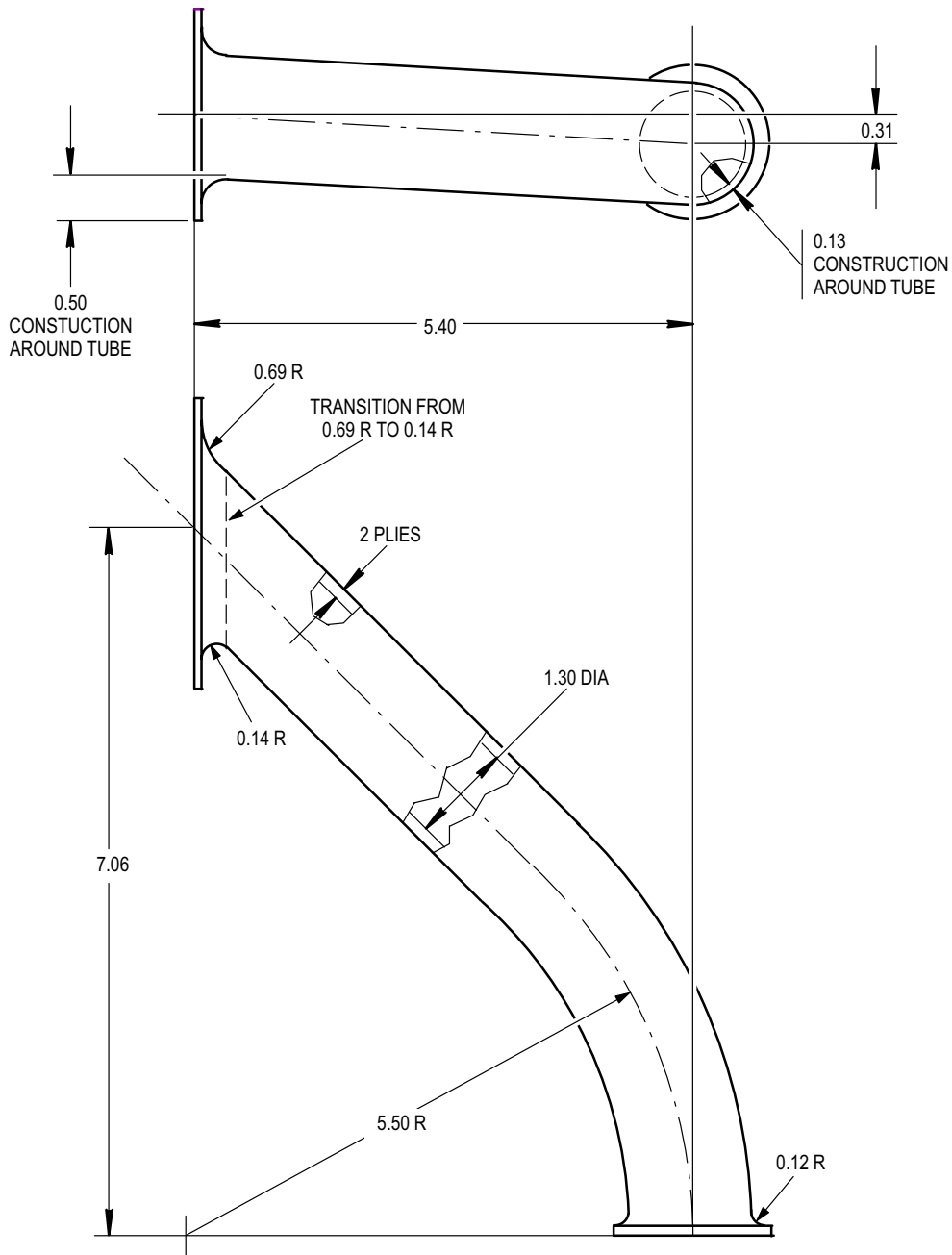
- FILLER, VOID-MAKE FROM FOAM INSTILLATION-BALLISTIC, RIGID  
NSN 1680-01-463-3310
- ALL DIMENSIONS ARE IN INCHES



M04-4653A

Figure D-422. Filler, Void, Assembly PN 7-311930050-63/-71



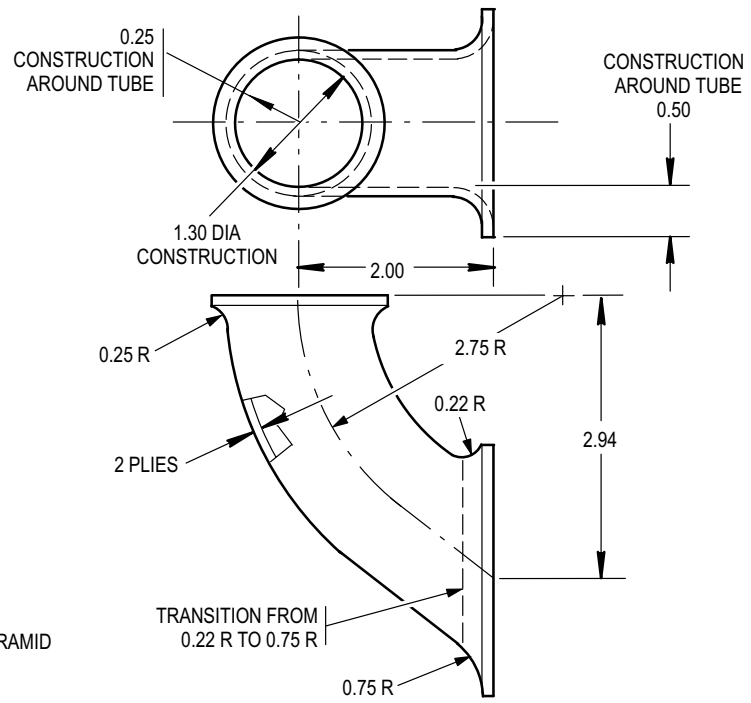


NOTES:

- FILLER TUBE - MAKE FROM PREIMPREGNATED ARAMID UNIDIRECTIONAL TAPE AND FABRIC TYPE 3  
P/N CYCOM 950-K-220 ADHESIVE  
NSN 8040-01-107-4000
- ALL DIMENSIONS ARE IN INCHES

M04-4654

Figure D-424. Tube, Filler PN 7-311930050-67

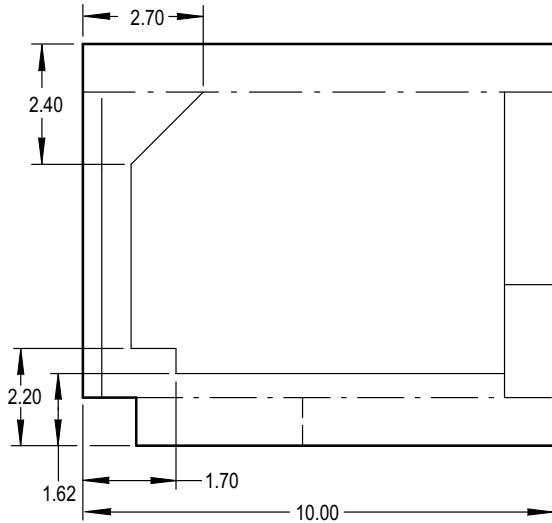
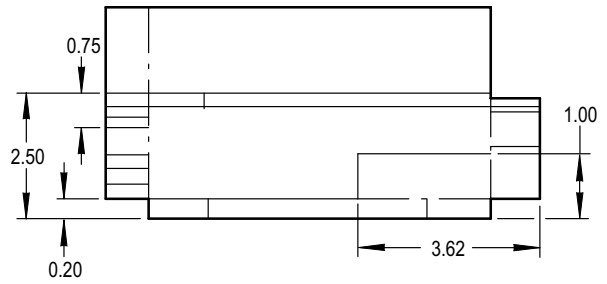
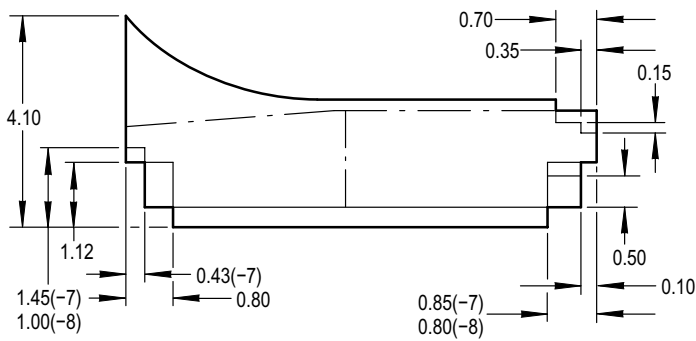
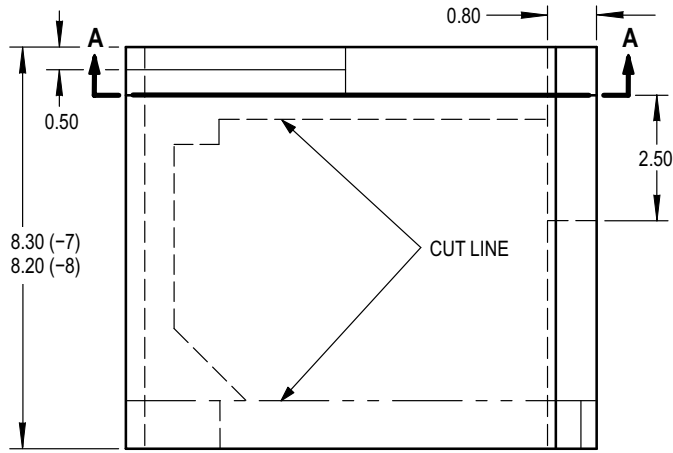


NOTES:


- FILLER TUBE - MAKE FROM PREIMPREGNATED ARAMID UNIDIRECTIONAL TAPE AND FABRIC TYPE 3  
P/N CYCOM 950-K-220 ADHESIVE  
NSN 8040-01-107-4000
- ALL DIMENSIONS ARE IN INCHES

M04-4655

Figure D-425. Tube, Filler PN 7-311930050-69

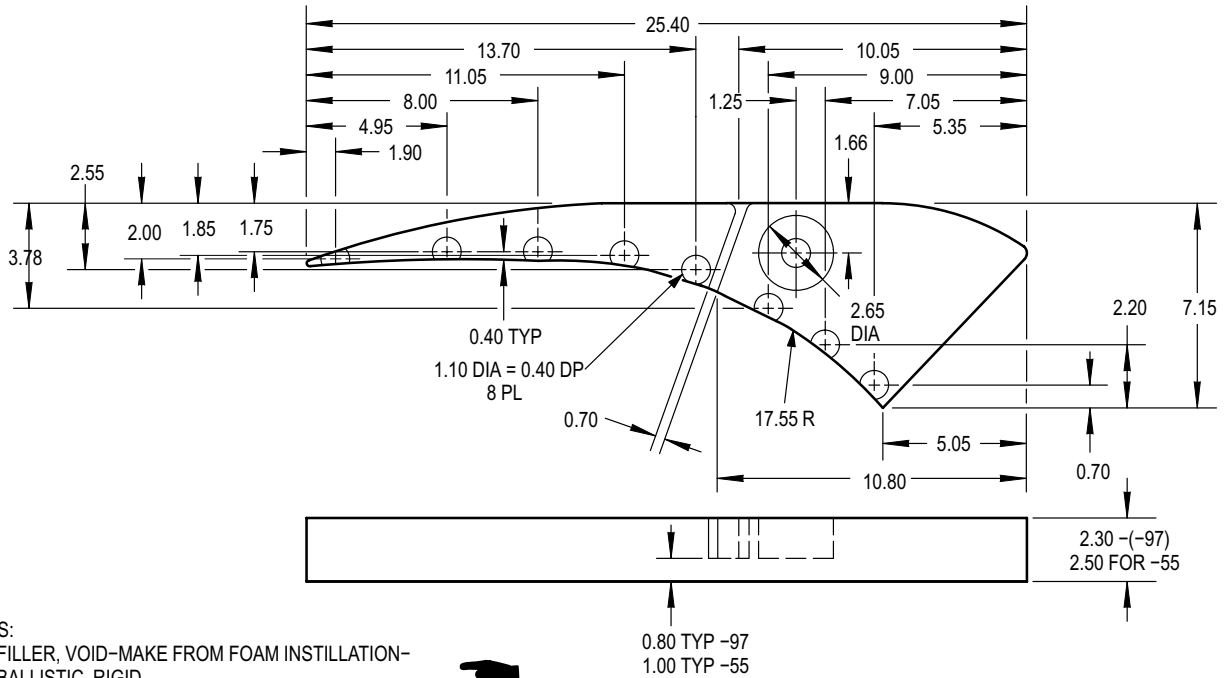


NOTES:

- FILLER, VOID-MAKE FROM FOAM INSTILLATION-, BALLISTIC, RIGID. 
- NSN 1680-01-463-3310
- -7 SHOWN
- -8 OPPOSITE EXCEPT AS SHOWN
- ALL DIMENSIONS ARE IN INCHES

M04-4633A

Figure D-426. Filler, Void PN 7-311930050-7/-8

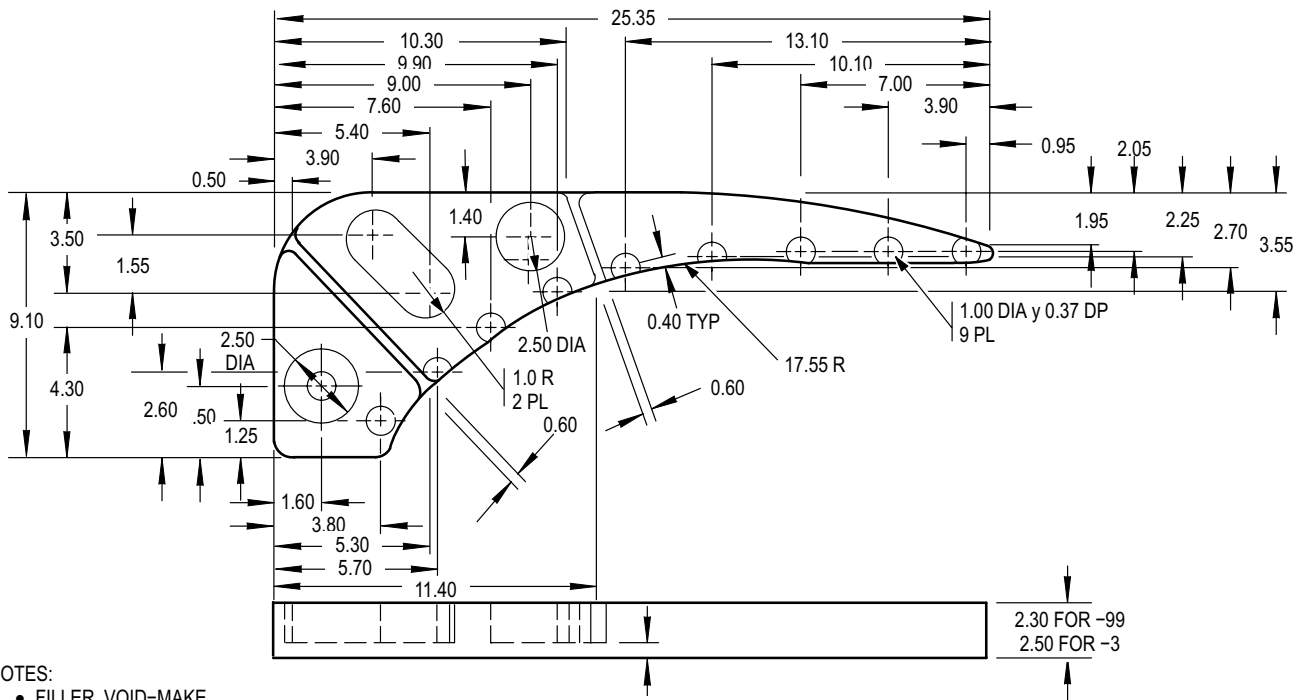


NOTES:

- FILLER, VOID-MAKE FROM FOAM INSTILLATION-BALLISTIC, RIGID  
NSN 1680-01-463-3310
- ALL DIMENSIONS ARE IN INCHES

M04-4662A

Figure D-427. Filler, Void PN 7-311930050-97



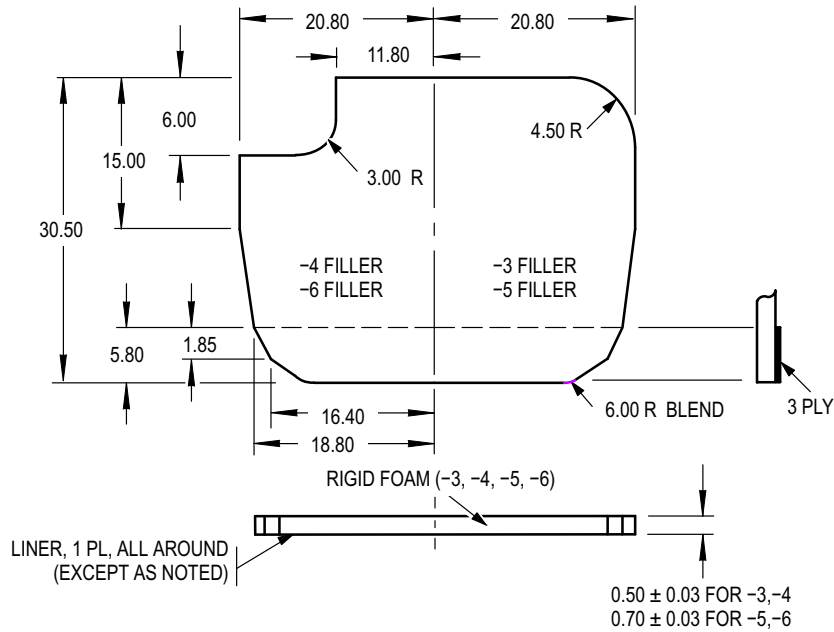
NOTES:

- FILLER, VOID-MAKE FROM FOAM INSTILLATION-BALLISTIC, RIGID  
NSN 1680-01-463-3310
- ALL DIMENSIONS ARE IN INCHES

M04-4663A

Figure D-428. Filler, Void PN 7-311930050-99



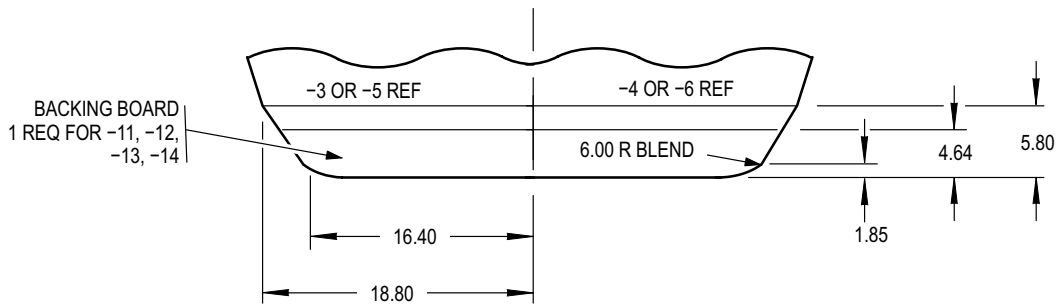


NOTES:

- FILLER-MAKE FROM RIGID POLYURETHANE FOAM, NSN 8030-00-753-5009
- SEE DIMENSIONS FOR -3, -4, -5, AND -6
- EXCEPT AS NOTED ALL DIMENSIONS  $\pm 0.10$
- ALL DIMENSIONS ARE IN INCHES

M04-4614

Figure D-429. Filler PN 7-311930051-3/-4/-5/-6

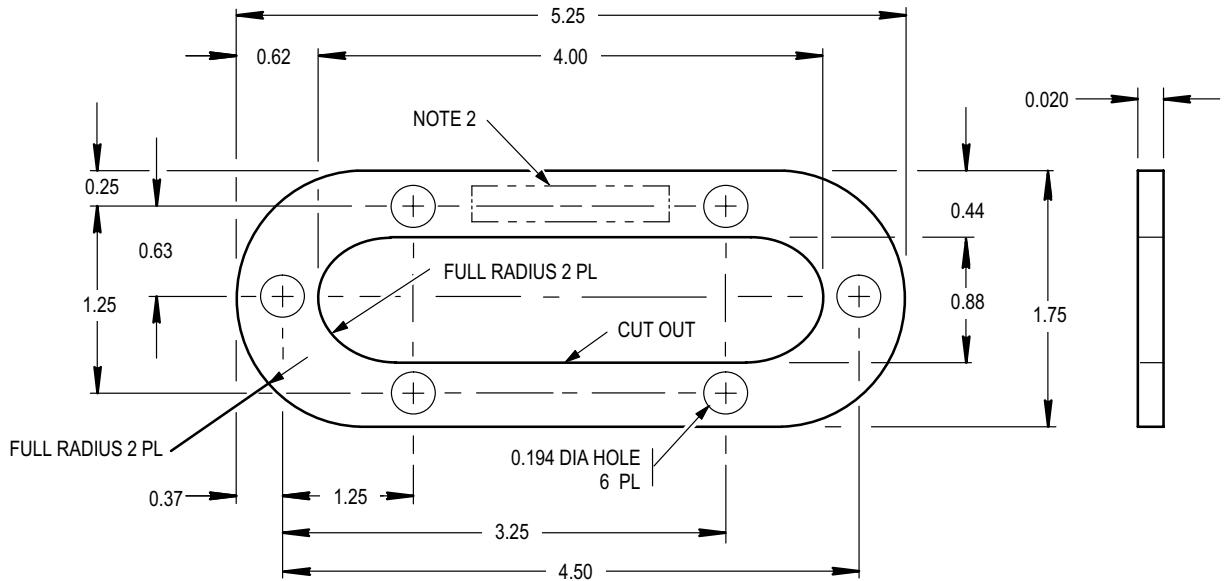


NOTES:

- BACKING BOARD-PLASTIC BACKING MATERIAL NSN 9330-00-663-7316
- ALL DIMENSIONS ARE IN INCHES

M04-4615

Figure D-430. Board, Backing PN 7-311930051-7

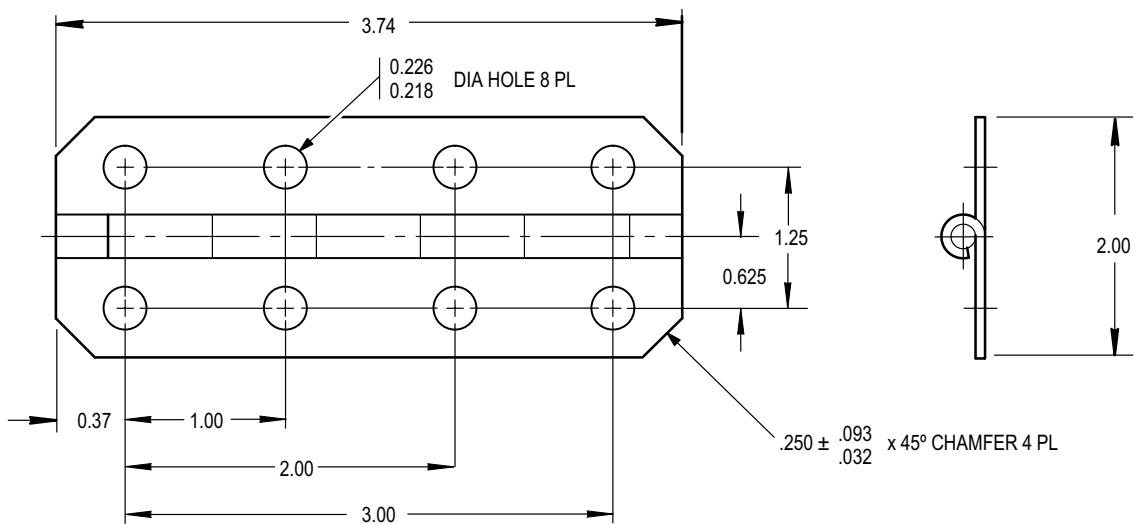


NOTES:

- 1 GASKET - MAKE FROM COHRLASTIC  
P/N 8520 NSN 5330-00-081-5383, RFI GASKET SHEET
- 2 IDENTIFY WITH INDELIBLE INK, MINIMUM HEIGHT 0.125 INCH  
PER MIL-STD-130
- 3 ALL DIMENSIONS ARE IN INCHES

M04-4611

Figure D-431. Gasket PN 7-313200063-7

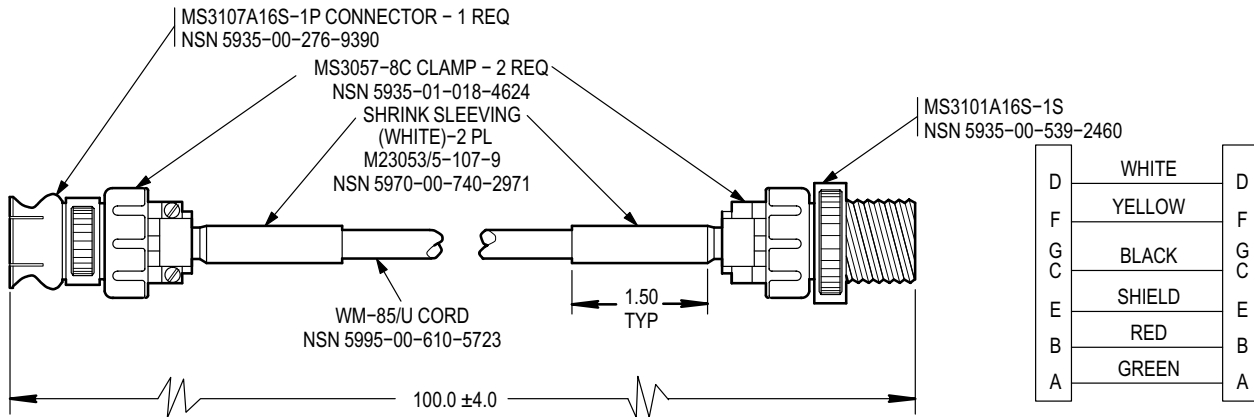


NOTES:

- HINGE, BUTT - MAKE FROM MS35823-7A, 0.050 THICK, 0.125 PIN DIA  
NSN 5340-01-053-7128
- FINISH - CHEMICALLY FILM TREAT PER MIL-C-5541, CLASS 1A
- ALL DIMENSIONS ARE IN INCHES

M04-4694

Figure D-432. Hinge, Butt PN 7-318000066

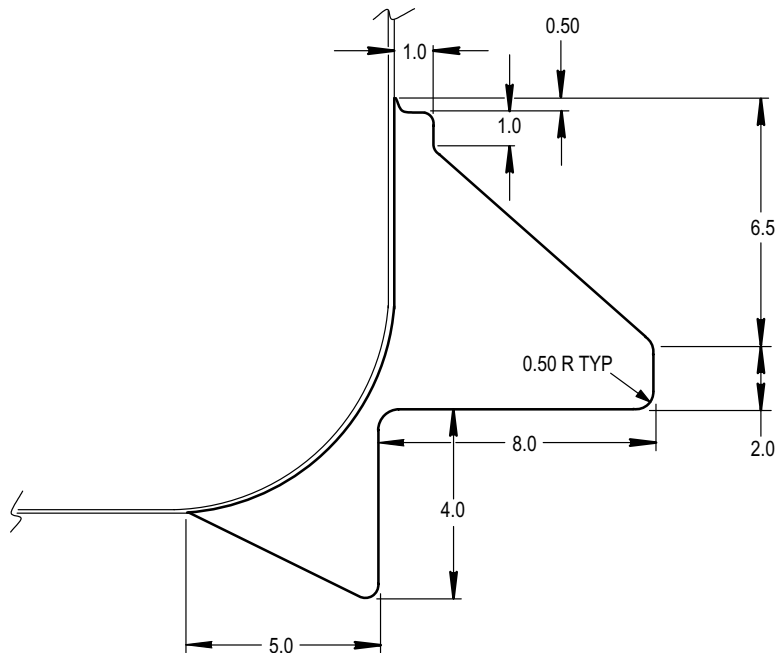


NOTES:

- CORD - NSN 5995-00-610-5723
- CABLE ASSY EXTENSION - AS SHOWN
- ALL DIMENSIONS ARE IN INCHES

M04-4600

Figure D-433. Cable Assembly, Extension PN 7-362100092

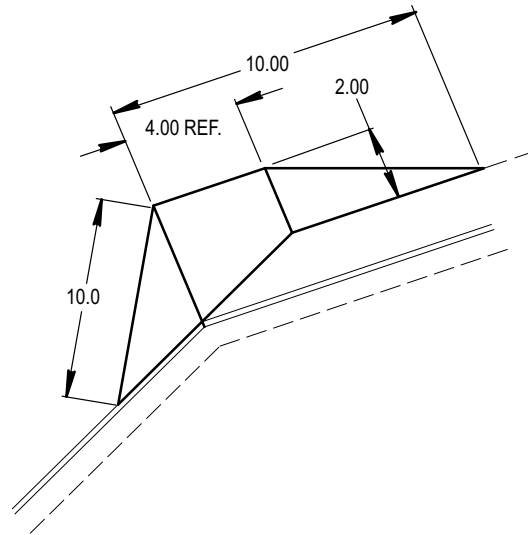


NOTES:

- BOOT - MAKE FROM VINYL - NYLON CLOTH MIL-C-43006, TYPE II, CLASS 2 NSN 8305-00-351-8346
- ALL DIMENSIONS ARE IN INCHES

M04-4581

Figure D-434. Boot PN 7-362120008-73

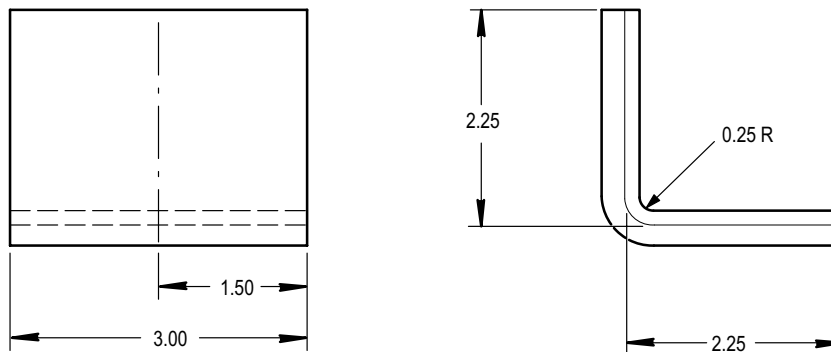


NOTES:

- BOOT - MAKE FROM NYLON CLOTH, COLOR OD, MIL-C-43006, TYPE II, CLASS I NSN 8305-00-351-8346
- ALL DIMENSIONS ARE IN INCHES

M04-4582

Figure D-435. Boot PN 7-362120008-75

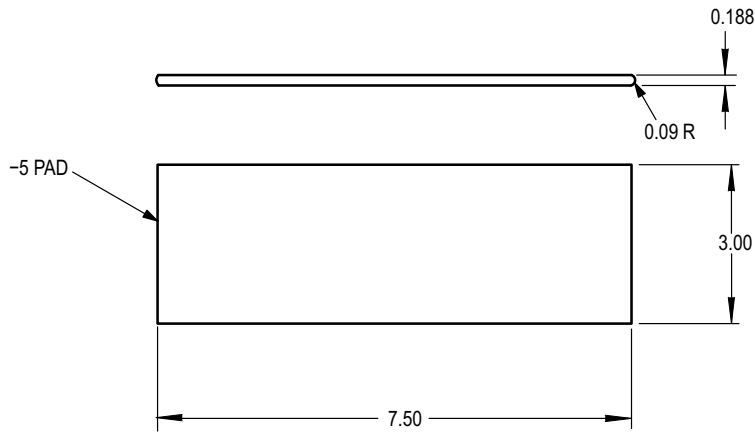


NOTES:

- PAD - MAKE FROM SILICONE RUBBER ZZ-R-765, CLASS 1B, GR 40 0.25 THICKNESS x 4.5 x 3.2 NSN 9320-00-241-9750
- BOND -7 PAD TO -3 USING ADHESIVE HMS 16-1118 TYPE 2, CLASS 1 D.C. 93-104 FRAY (DOW CORNING)
- ALL DIMENSIONS ARE IN INCHES

M04-4601

Figure D-436. Pad PN 7-362120045-7

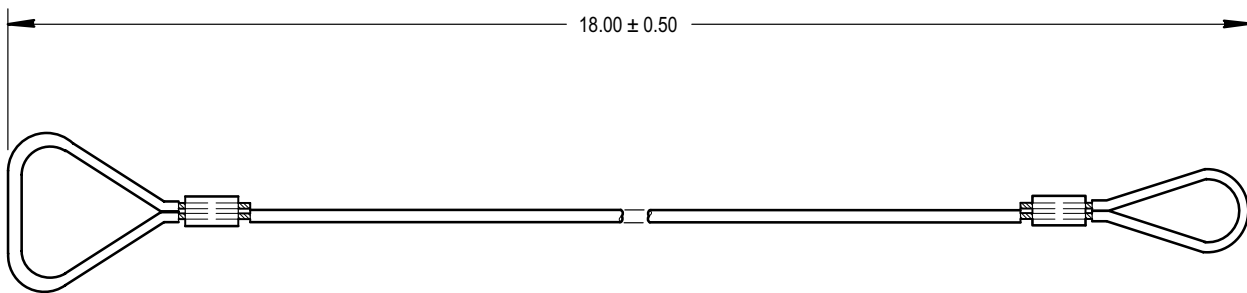


NOTES:

- PAD - MAKE FROM SOLID RUBBER SHEET ZZ-R-765 CLASS IB GRADE 40 0.188 x 3.00 x 7.50 NSN 9320-01-103-0196
- ALL DIMENSIONS ARE IN INCHES

M04-4608

Figure D-437. Rubber Strip PN 7-362120170-5

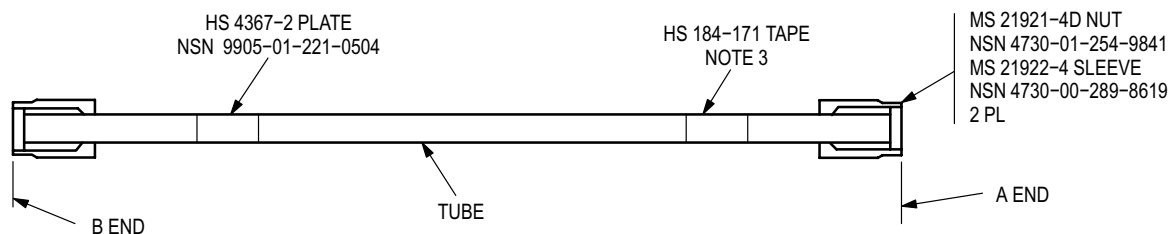
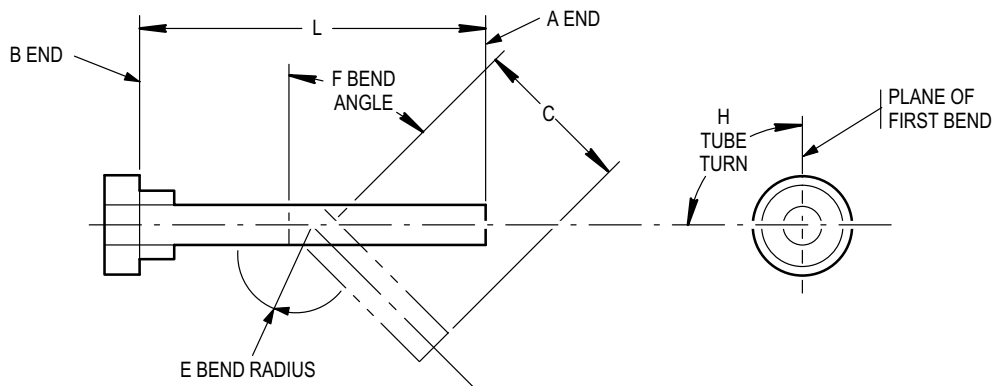


NOTES:

- LANYARD - MAKE FROM WIRE - ROPE STAINLESS JACKETED, MIL-W-83420, 0.062 O.D. NSN 4010-01-200-4056 AND TWO SLEEVES MS51844-62 NSN 4030-01-088-2952
- ALL DIMENSIONS ARE IN INCHES

M04-4599

Figure D-438. Lanyard PN 7-362120178-11



BEND NUMBER	DIMENSIONS				
	C	E	F	H	L
PART NUMBER 7-367100501					
1	10.30	0.75	20.0	0.0	61.70
2	2.50	0.75	40.0	180.0	61.70
3	2.50	0.75	20.0	-180.0	61.70
4	39.00	0.75	34.0	0.0	61.70
5	1.50	0.75	32.0	-177.0	61.70
6	2.70	0.75	41.0	75.0	61.70
	1.90				
PART NUMBER 7-367100502					
1	10.30	0.75	20.0	0.0	61.70
2	2.50	0.75	40.0	-180.0	61.70
3	2.50	0.75	20.0	180.0	61.70
4	39.00	0.75	34.0	0.0	61.70
5	1.50	0.75	32.0	177.0	61.70
6	2.70	0.75	41.0	-75.0	61.70
	1.90				

BEND NUMBER	DIMENSIONS				
	C	E	F	H	L
PART NUMBER 7-367100503					
1	10.20	0.75	20.0	0.0	31.54
2	2.50	0.75	40.0	-180.0	31.54
3	2.50	0.75	20.0	180.0	31.54
4	14.00	0.75	45.0	-90.0	31.54
	1.50				31.54
PART NUMBER 7-367100504					
1	10.20	0.75	20.0	0.0	31.54
2	2.50	0.75	40.0	180.0	31.54
3	2.50	0.75	20.0	-180.0	31.54
4	14.00	0.75	45.0	90.0	31.54
	1.50				

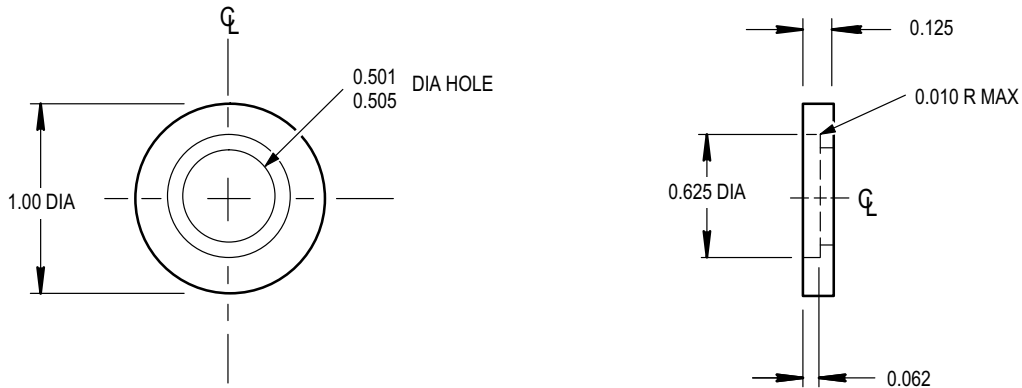
NOTES:

- 1 TUBE ASSEMBLY, METAL - MAKE FROM MIL-T-7081-6061 T6, ALL TUBES 0.250 O.D x 0.028 WALL THICKNESS NSN 4710-01-275-0016
- 2 DIMENSION C IS DISTANCE BETWEEN BENDS
- 3 TAPE ARROW POINTS TO B END

- 4 CHROMIC OXIDE AL ALY PER MIL-A-8625, TYPE 1, CLASS 1.
- 5 ALL DIMENSIONS ARE IN INCHES.

M04-4593

**Figure D-439. Tube Assembly, Metal PN 7-367100501, PN 7-367100502, PN 7-367100503, PN 7-367100504**

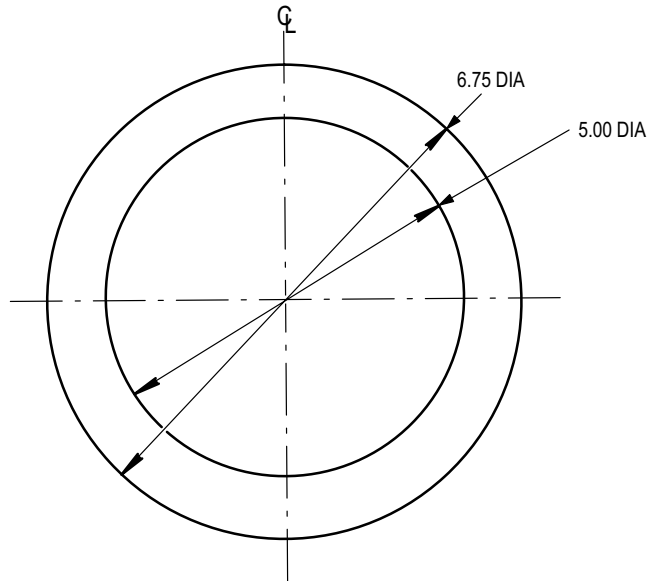


NOTES:

- WASHER - MAKE FROM AMS 5643, 1.00 INCH DIAMETER ROD  
NSN 9510-00-815-6432
- ALL DIMENSIONS ARE IN INCHES

M04-4585

Figure D-440. Washer PN 7-367310010-29

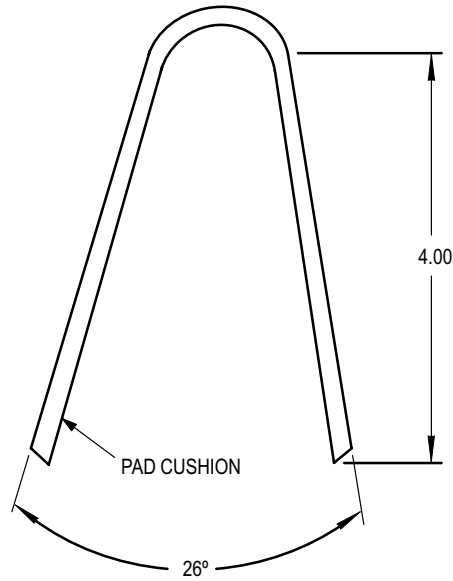


NOTES:

- GASKET - MAKE FROM SYNTHETIC RUBBER - .062 THICK  
MIL-R-6855 CLASS I, GRADE 40 NSN 9520-00-074-4116
- BOND TO SHAFT USING NEOPRENE CEMENT NSN 8040-00-165-8614
- ALL DIMENSIONS ARE IN INCHES

M04-4589

Figure D-441. Gasket PN 7-367310022-9

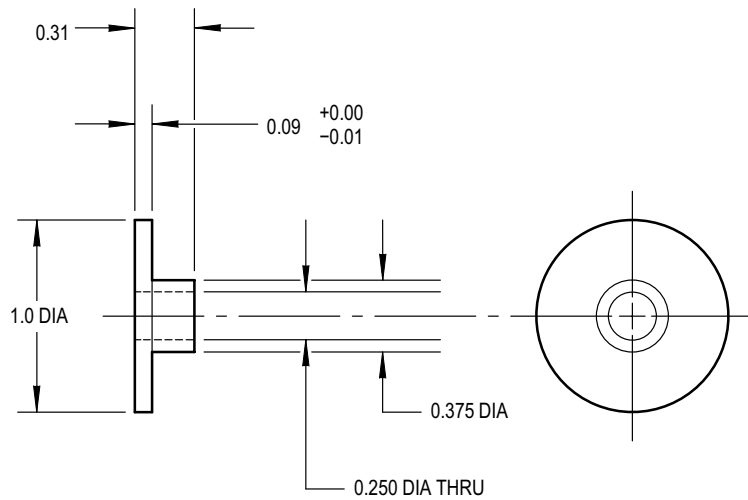


NOTES:

- PAD CUSHION - MAKE FROM SILICONE RUBBER ZZ-R-765 CLASS 1B GRADE 40, 0.062 THICK NSN 9320-00-241-9741
- BOND TO TRAILING PLATE USING ADHESIVE NSN 5330-01-259-0770
- ALL DIMENSIONS ARE IN INCHES

M04-4592

Figure D-442. Pad, Cushion PN 7-367311032-7



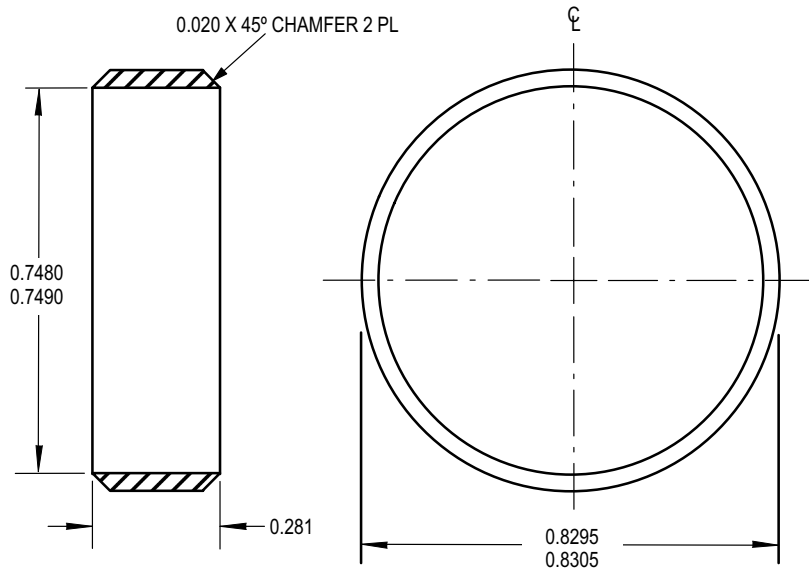
NOTES:

- TEST FIXTURE, MASTER CYLINDER-MAKE FROM CRS 1.0 X 0.5 INCH DIAMETER.
- USED ON CH-47 MASTER CYLINDERS.
- ALL DIMENSIONS ARE IN INCHES.

M04-5101-3

Figure D-442.1. Mounting Bushing PN AH64-0001





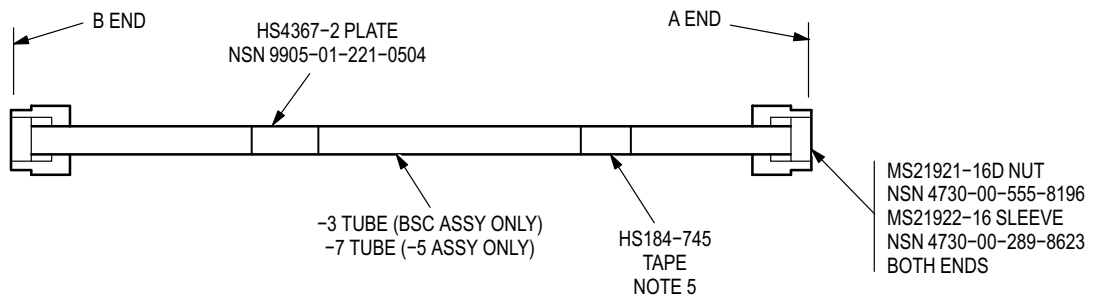
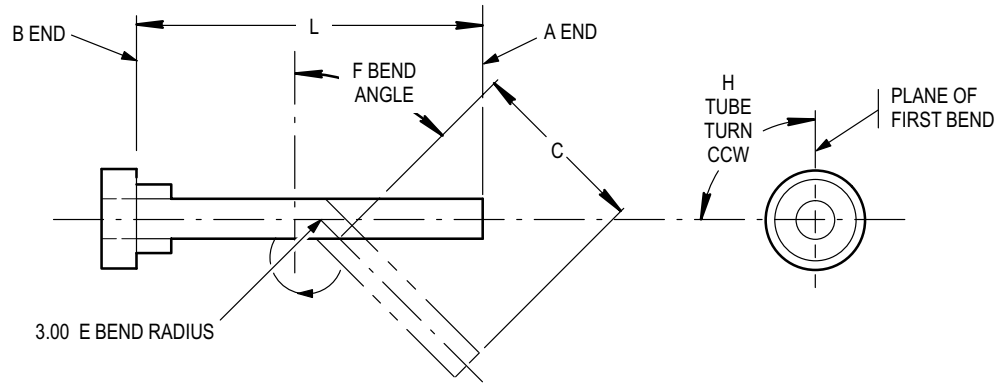
NOTES:

- SUPPORT BUSHING - MAKE FROM 17-4 PH CRS [0.8750 DIAMETER ROD (7/8)], NSN 9510-00-079-5021
- ALL DIMENSIONS ARE IN INCHES



M04-5118A

Figure D-442.2. Support Bushing PN AMS 5643D-442.2



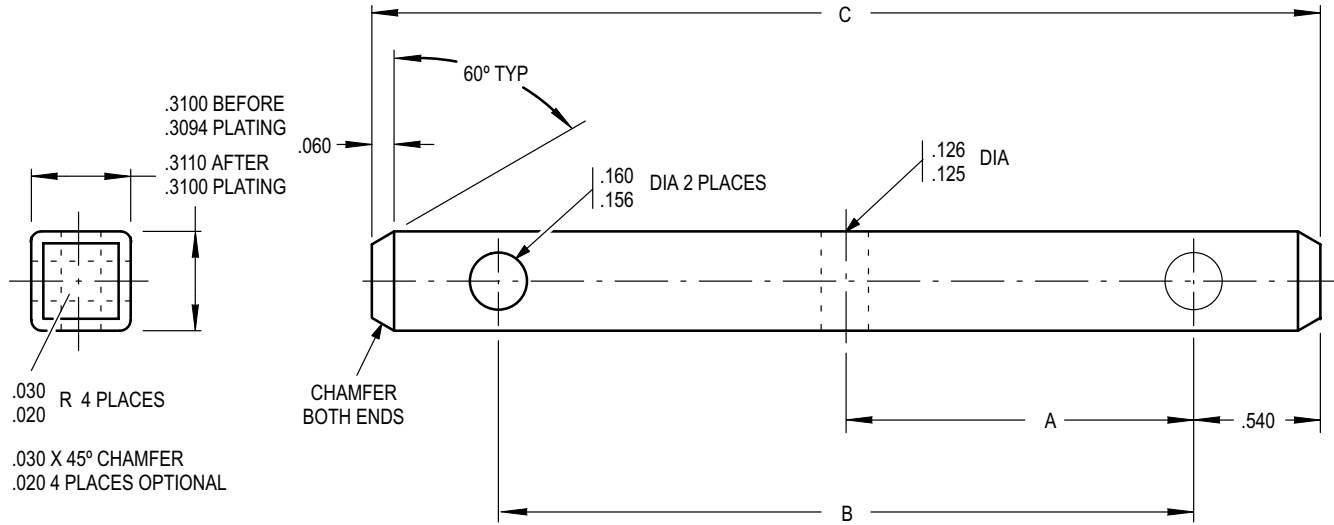
BEND NUMBER	DIMENSIONS			
	C	H	F	L
PART NUMBER 7-311830400-3				72.11
1	5.30	0	73.3	
2	13.31	-176.8	73.7	
3	10.45	-137.7	43.7	
4	4.82	180.0	41.2	
5	11.57	48.5	23.1	
6	8.31	12.4	63.0	
	1.70			
PART NUMBER 7-311830400-7				71.72
1	5.00	0	71.5	
2	13.31	-173.0	72.0	
3	10.50	-151.7	41.0	
4	5.06	171.5	37.2	
5	11.40	62.5	23.4	
6	8.61	14.5	62.8	
	1.72			

NOTES:

- 1 TUBE ASSEMBLY, METAL - MAKE FROM AL-ALY TUBING, 6061 T-6, TUBE SIZE 1.00 OD x 0.065 WALL THICKNESS, NSN 4710-00-278-6441
- 2 DIMENSION C IS DISTANCE BETWEEN BENDS
- 3 DIMENSION L IS PREPARED LENGTH BEFORE BENDING
- 4 FIRST BEND STARTS FROM END A
- 5 TAPE ARROW → POINTS TO END B
- 6 INSTALL END FITTINGS (TM 1-1500-204-23)
- 7 ALL DIMENSIONS ARE IN INCHES

M04-5134

Figure D-442.3. Part Number 7-311830400-3, 7-311830400-7 Tube Assemblies



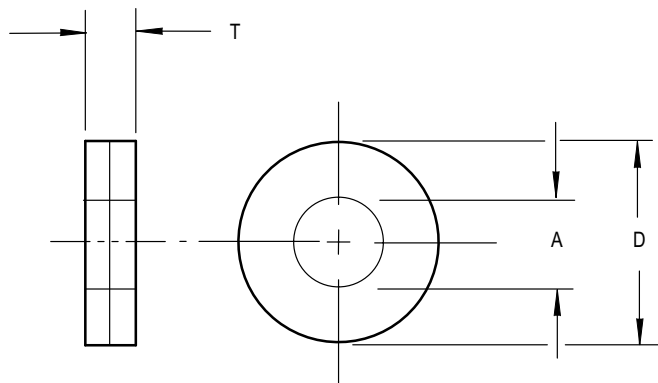
PART NUMBER	A	B	C
7-31112042-3	1.145	2.580	3.66
7-31112042-5	1.215	2.678	3.75

NOTES:

- SHAFT - MAKE FROM STEEL BAR, MIL-S-5000, E4 CONDITION, NSN 9510-01-333-1467
- FINISH - CADMIUM ELECTROLYTIC PLATING PER QQ-P-416, TYPE II, CLASS 1
- ALL DIMENSIONS ARE IN INCHES

M04-5103

Figure D-442.4. Shaft PN 7-31112042



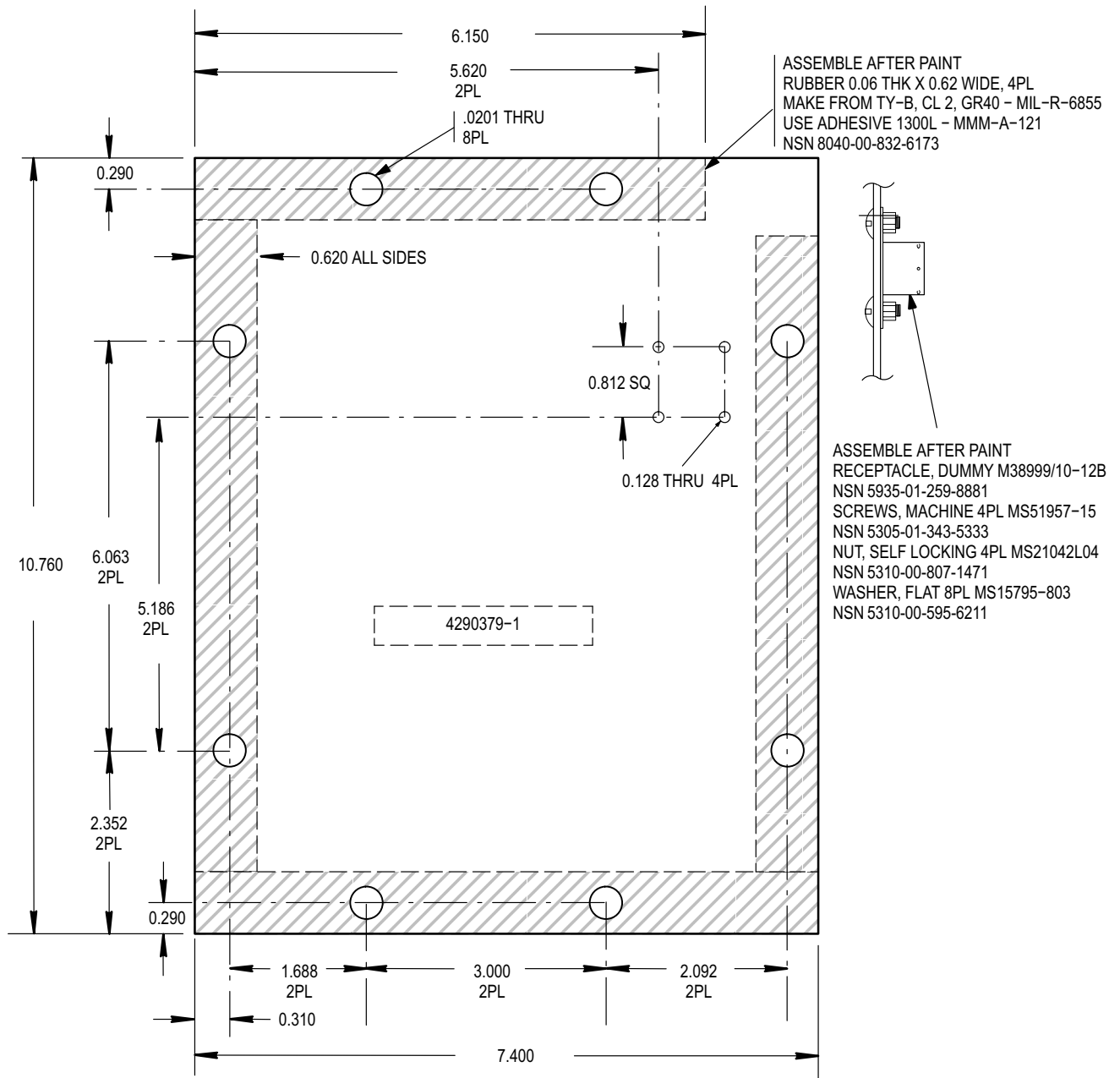
DASH NUMBER	DIMENSIONS			
	BOLT SIZE	A	D	T
PART NUMBER 990-00041				
-1	0.250	0.265	1.125	0.187
-3	0.375	0.390	1.625	0.187

NOTES:

- SHIM - MAKE FROM AL-ALLOY QQ-A-250/8 SHEET, 2024-T3, MIL-S-22499, COMPOSITION I, TYPE 2, CLASS 2, 0.1900 THICK, NSN 9535-00-726-1171
- FINISH - CHEMICALLY FILM TREAT PER MIL-C-5541, CLASS 1A
- ALL DIMENSIONS ARE IN INCHES

M04-5179

Figure D-442.5. Shim PN 990-00041



NOTES:

- MAKE FROM AL-ALY SH, 6061-T6, 0.063 THICK
- ALL PAINT/PRIME AND MARKINGS PER MIL-STD-130.
- FINISH - SURFACE TREAT PER MIL-C-5541, CLASS 1A
- PRIME - MIL-P-23377, TYPE 1, CLASS N, TWO COATS
- PAINT - MIL-C-83286, COLOR NO. 34031 (ACFT GREEN)
- ALL DIMENSIONS IN INCHES
- MARK PART NUMBER LOCATED APPROX AS SHOWN ON FAR SIDE WITH 0.12 HIGH MAX. CHARACTERS, BLACK (COLOR NO. 37038) OF FED-STD-595, CONFORMING TO MIL-STD-130

M04-5181

Figure D442.6. Cover Assembly, Sensor PN 4290379

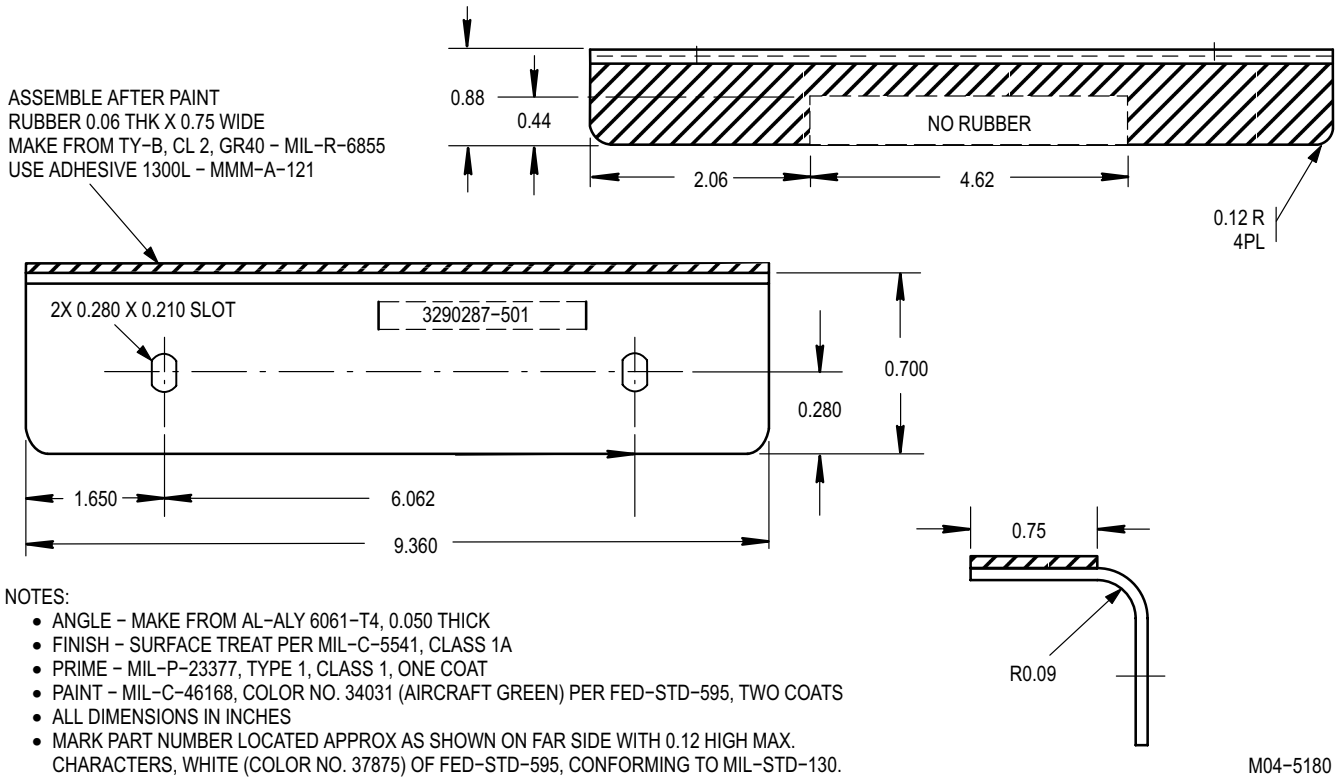
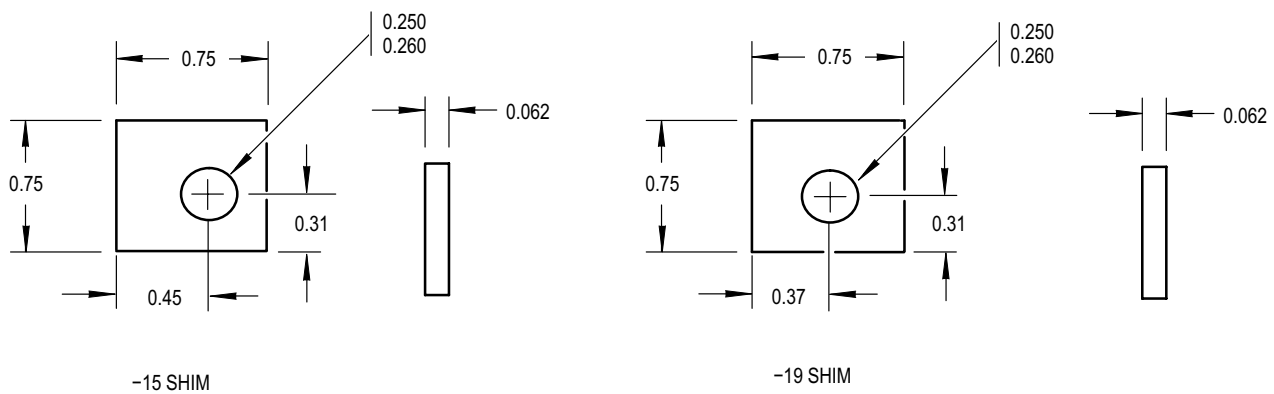


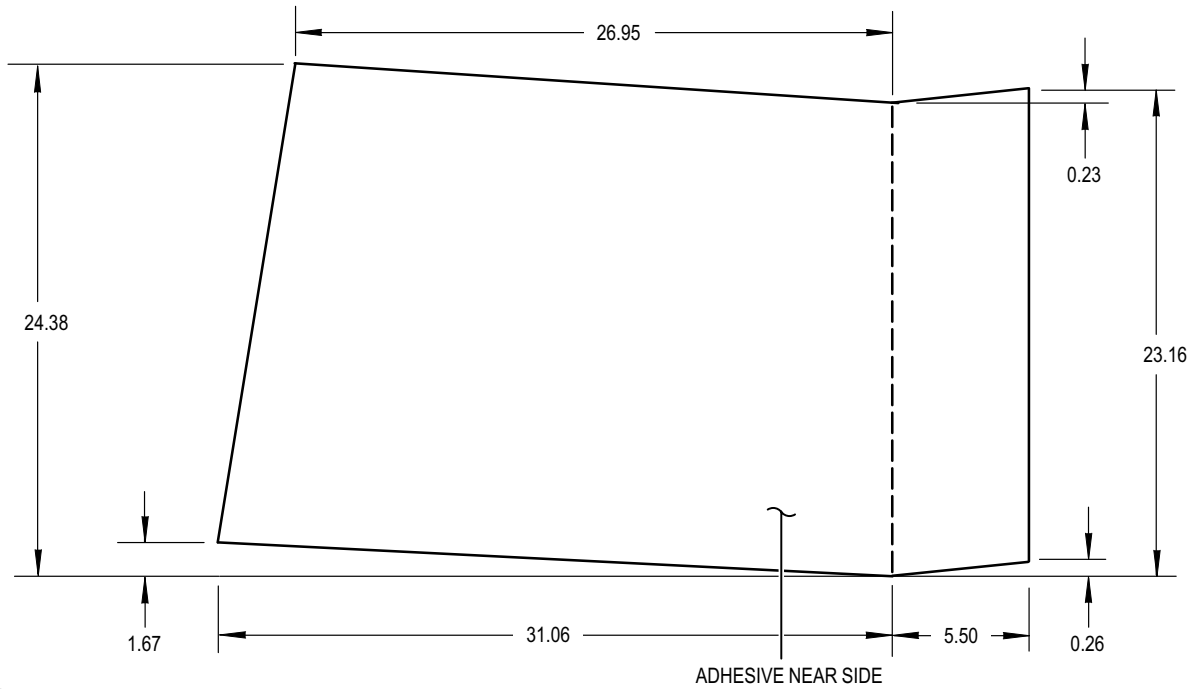
Figure D-442.7. Angle, Weatherstripping PN 3290287



- NOTES:  
 • SHIM - MAKE FROM LAMINATED SHIM STOCK, ML-S-22499, COMP 1, TY 2, CL 1, NSN 9535-00-811-1867  
 • ALL DIMENSIONS ARE IN INCHES

M04-5186

Figure D-442.8. Shim PN 7-21113523-15/-19

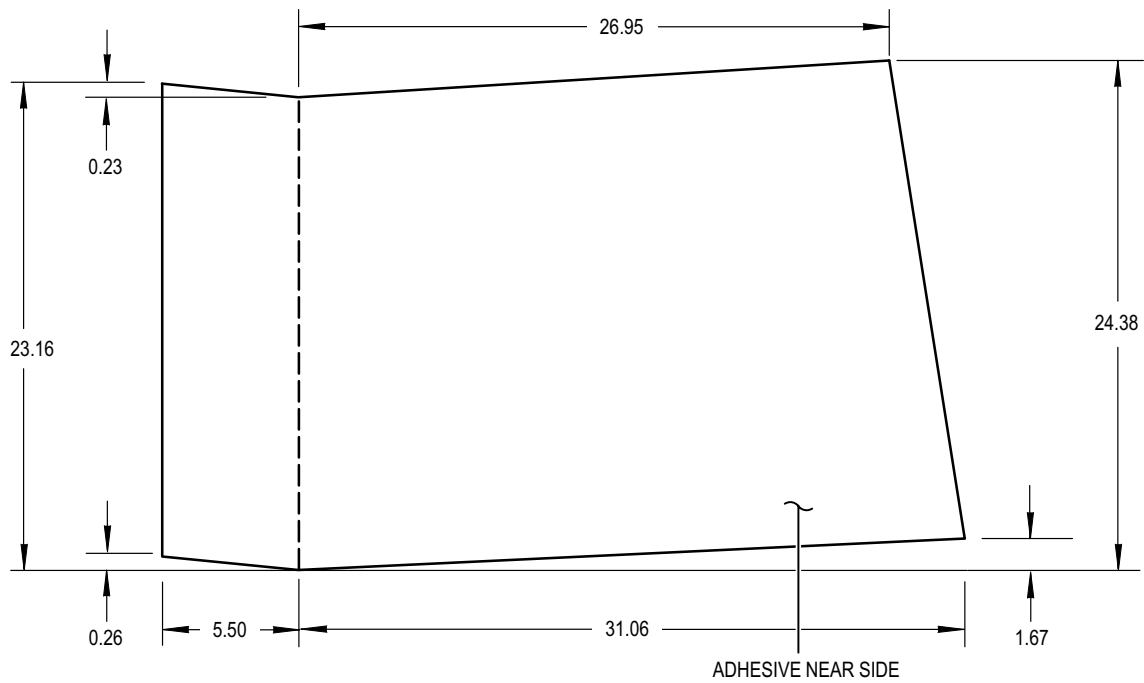


NOTES:

- DEBRIS COVER - MAKE FROM EROSION PROTECTION TAPE P/N HS6002-01  
0.041 THICK NSN 9390-01-382-8297
- ALL DIMENSIONS ARE IN INCHES

M04-5204

**Figure D442.9. Cover, Debris Protection-Stabilator, Left Hand PN 7-311123828-1**

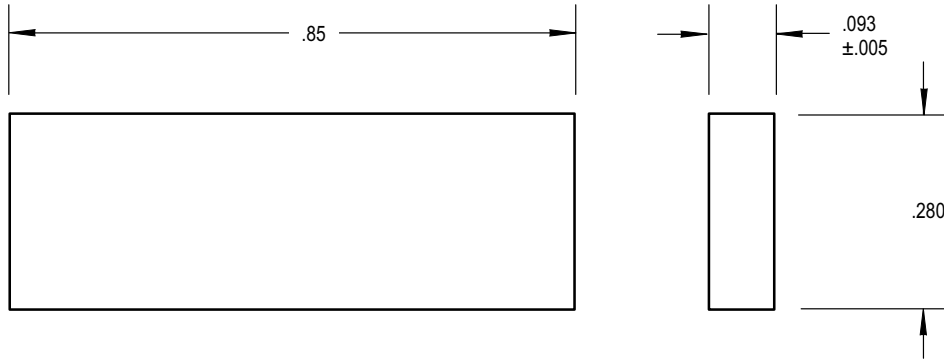


NOTES:

- DEBRIS COVER - MAKE FROM EROSION PROTECTION TAPE P/N HS6002-01  
0.041 THICK NSN 9390-01-382-8297
- ALL DIMENSIONS ARE IN INCHES

M04-5205

**Figure D-442.10. Cover, Debris Protection-Stabilator, Right Hand PN 7-311123828-2**

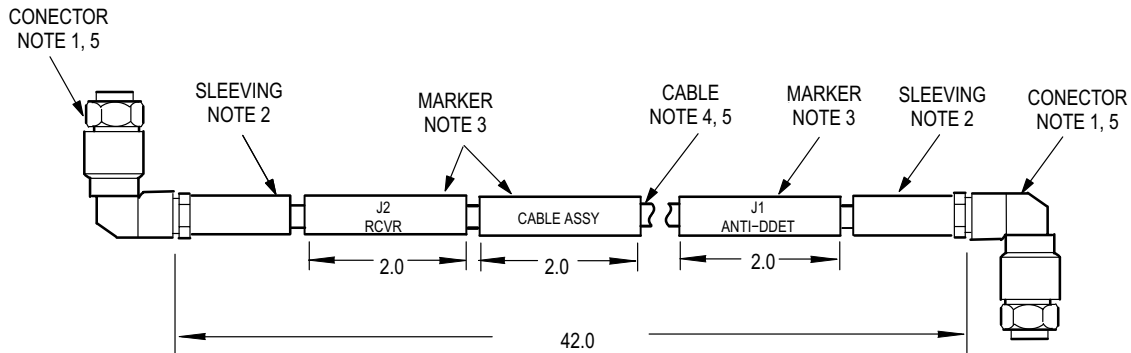


NOTES:

- BUMPER - MAKE FROM PLASTIC SHT TYPE 6/12 PER L-P-410 (81348) L-P-410 NSN 9330-01-035-5385
- ALL DIMENSIONS ARE IN INCHES

M04-5225

Figure D-442.11. Bumper PN 7-311525063-9

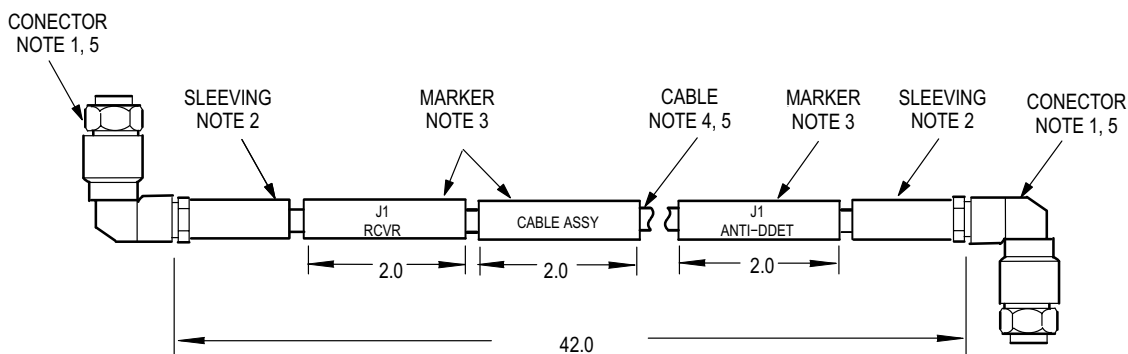


NOTES:

- 1 SD 18575, 90\_ CONNECTOR, 2 REQ, NSN 5935-01-457-0924.
- 2 M23053 (5-106-0, INSULATION SLEEVING, ELECT, NSN 5970-00-815-1295.
- 3 MIL-I-23053 (4, WHITE SLEEVE MARKER, 3 REQ, MSN 5970-00-239-6222.
- 4 M17/128-R8400, CABLE, RADIO FREQUENCY, NSN 6145 -00-542-2773.
- 5 INSTALL CABLE AND CONNECTORS PER TM 55-1500-323-24.
- 6 ALL DIMENSIONS ARE IN INCHES.

M04-5231

Figure D-442.12. Antenna-Detector Cable PN 5595-CAB39-001-1

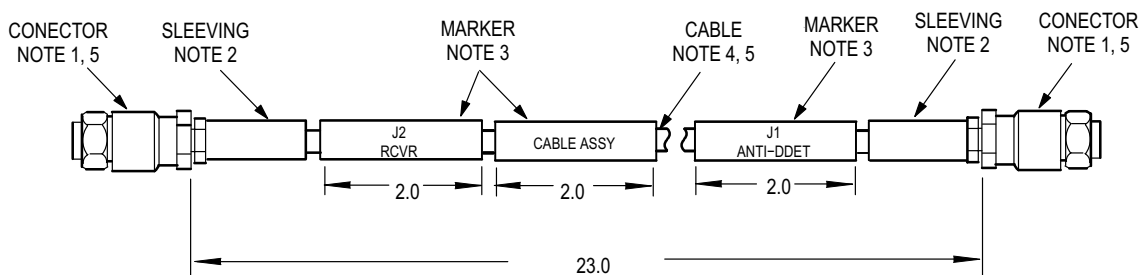


NOTES:

- 1 SD 18575, 90\_CONNECTOR, 2 REQ, NSN 5935-01-457-0924.
- 2 M23053 (5-106-0, INSULATION SLEEVING, ELECT, NSN 5970-00-815-1295.
- 3 MIL-I-23053 (4, WHITE SLEEVE MARKER, 3 REQ, MSN 5970-00-239-6222.
- 4 M17/128-R8400, CABLE, RADIO FREQUENCY, NSN 6145 -00-542-2773.
- 5 INSTALL CABLE AND CONNECTORS PER TM 55-1500-323-24.
- 6 ALL DIMENSIONS ARE IN INCHES.

M04-5232

**Figure D-442.13. Antenna-Detector Cable PN 5595-CAB39-001-2**



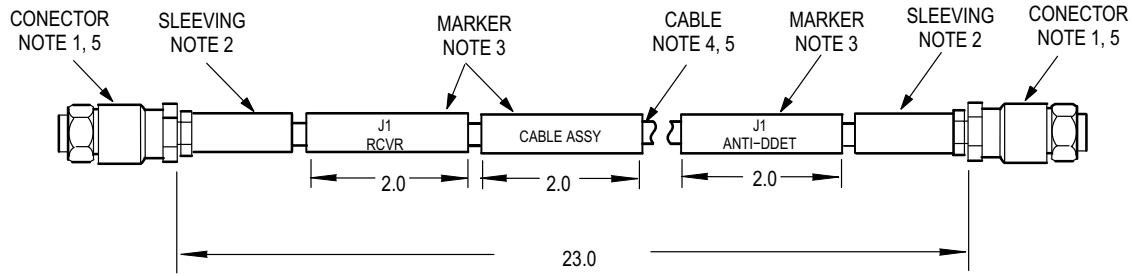
NOTES:

- 1 SD 18574, STRAIGHT CONNECTOR, 2 REQ, NSN 5935-01-457-0919.
- 2 M23053 (5-106-0, INSULATION SLEEVING, ELECT, NSN 5970-00-815-1295.
- 3 MIL-I-23053 (4, WHITE SLEEVE MARKER, 3 REQ, MSN 5970-00-239-6222.
- 4 M17/128-R8400, CABLE RADIO FREQUENCY NSN 6145 -00-542-2773.
- 5 INSTALL CABLE AND CONNECTORS PER TM 55-1500-323-24.
- 6 ALL DIMENSIONS ARE IN INCHES.

M04-5233

**Figure D-442.14. Antenna-Detector Cable PN 5595-CAB39-001-3**





NOTES:

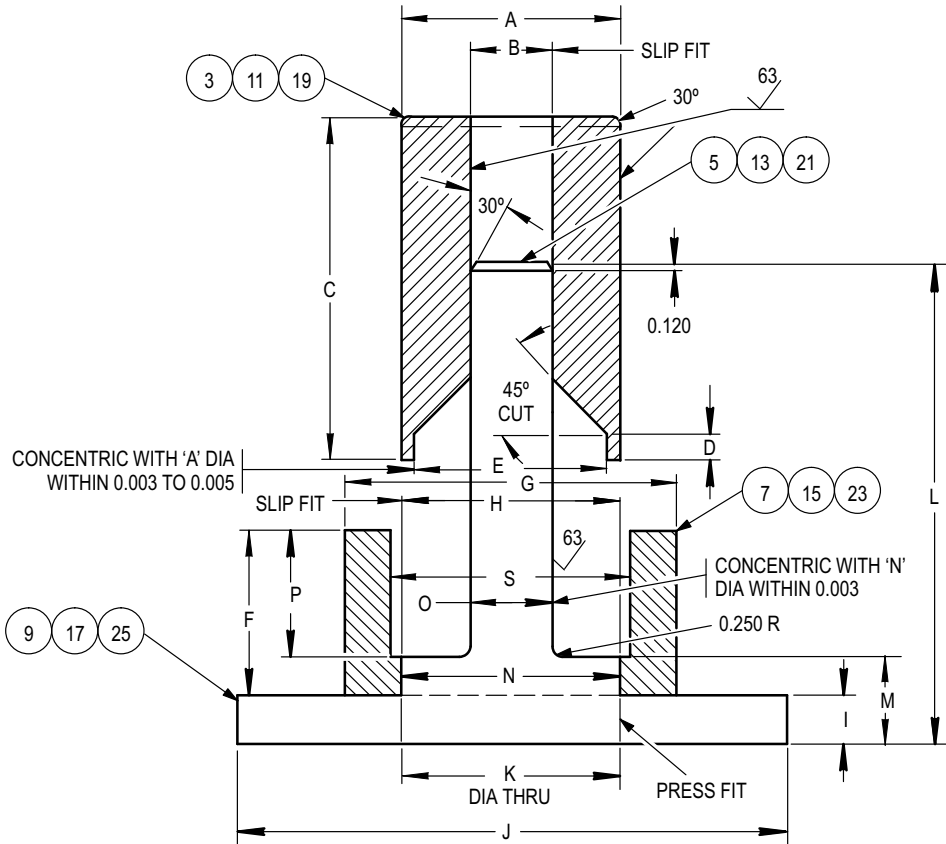
- 1 SD 18574, STRAIGHT CONNECTOR, 2 REQ, NSN 5935-01-457-0919.
- 2 M23053 (5-106-0, INSULATION SLEEVING, ELECT, NSN 5970-00-815-1295.
- 3 MIL-I-23053 (4, WHITE SLEEVE MARKER, 3 REQ, MSN 5970-00-239-6222.
- 4 M17/128-R8400, CABLE RADIO FREQUENCY NSN 6145 -00-542-2773.
- 5 INSTALL CABLE AND CONNECTORS PER TM 55-1500-323-24.
- 6 ALL DIMENSIONS ARE IN INCHES.

M04-5234

**Figure D-442.15. Antenna-Detector Cable PN 5595-CAB39-001-4**



SECTION IV. ILLUSTRATED FIELD MANUFACTURE TOOLS



25	5.000 DIA X 0.500
23	1.500 DIA X 2.000
21	1.000 DIA X 4.000
19	1.000 DIA X 2.500
17	5.000 DIA X 0.500
15	3.000 DIA X 2.000
13	2.000 DIA X 5.000
11	2.000 DIA X 3.000
9	5.000 DIA X 0.500
7	3.000 DIA X 2.000
5	2.000 DIA X 5.000
3	2.000 DIA X 3.000

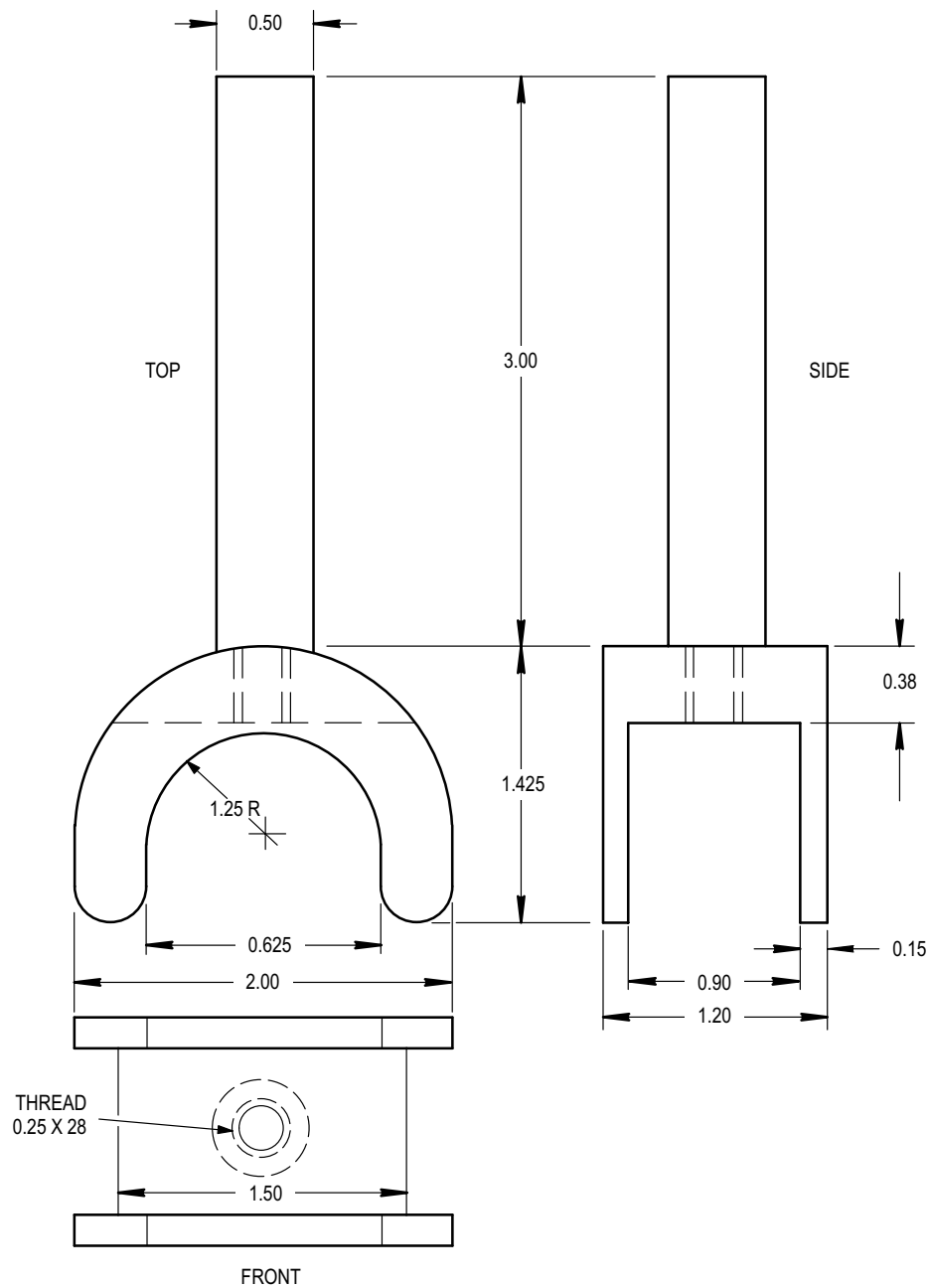
TOOL PT NO.	TOOL DETAIL	A	+0.002 -0.000 B	C	D	E	F	G	+0.002 -0.000 H	I	J	+0.001 -0.000 K	L	M	N	O	P	+0.005 -0.000 S
SK-101590-601	3, 5, 7, 9	1.500	0.749	2.500	0.500	1.280	1.750	2.750	1.565	0.500	5.000	1.558	4.400	0.750	1.562	0.746	1.500	1.615
SK-101590-603	11, 13, 15, 17	1.500	0.499	2.500	0.500	1.280	1.750	2.550	1.565	0.500	5.000	1.558	4.400	0.750	1.562	0.496	1.500	1.615
SK-101590-605	19, 21, 23, 25	0.750	0.375	2.000	0.250	0.580	1.750	1.250	0.753	0.500	5.000	0.746	3.800	0.750	0.750	0.371	1.500	0.853

NOTES:

- BEARING REMOVAL - PITCH LINKS, MAIN/TAIL ROTOR - MAKE FROM TOOL STEEL ANSI-01 NSN 9150-00-461-3577 6 INCH SQUARE TOOL STEEL
- HEAT TREAT ITEMS 3, 11, 19 TO RC 48-54
- PERMANENTLY IDENTIFY BY IMPRESSION STAMPING
- ALL DIMENSIONS ARE IN INCHES

M04-4732

Figure D-443. Bearing Removal - Pitch Links, Main/Tail Rotor  
PN SK-101590-601/-603/-605

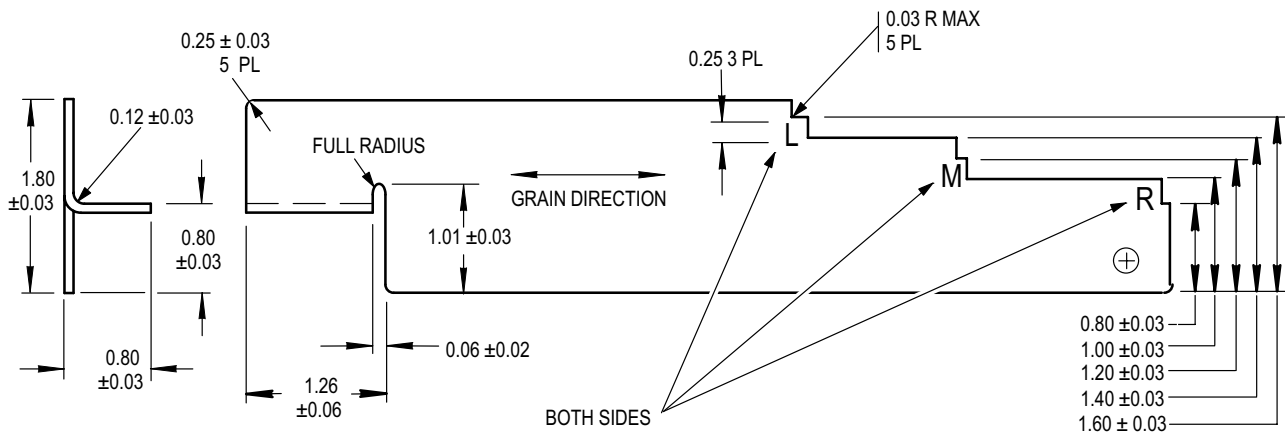
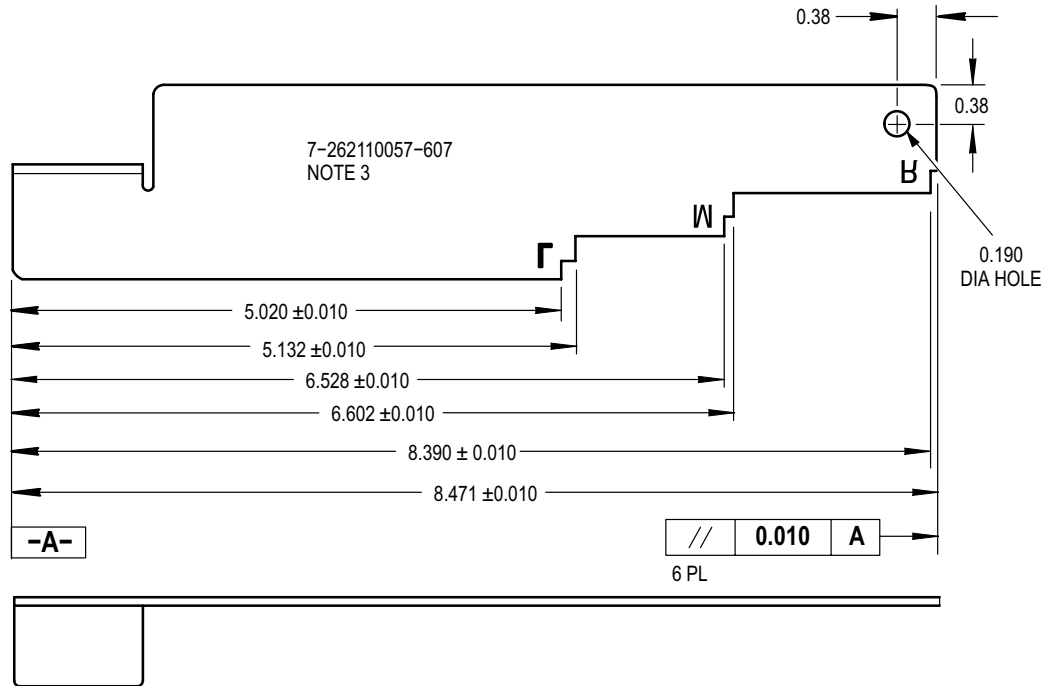


NOTES:

- ROD END CENTERING FORK - USE MATERIAL 10/10 OR 10/18 CRS
- FINISH - PASSIVATE FOR CORROSION RESISTANT STEEL
- ALL DIMENSIONS ARE IN INCHES

M04-4730

Figure D-444. Rod End Dampener Blade Main Rotor PN 7-211411186-32401

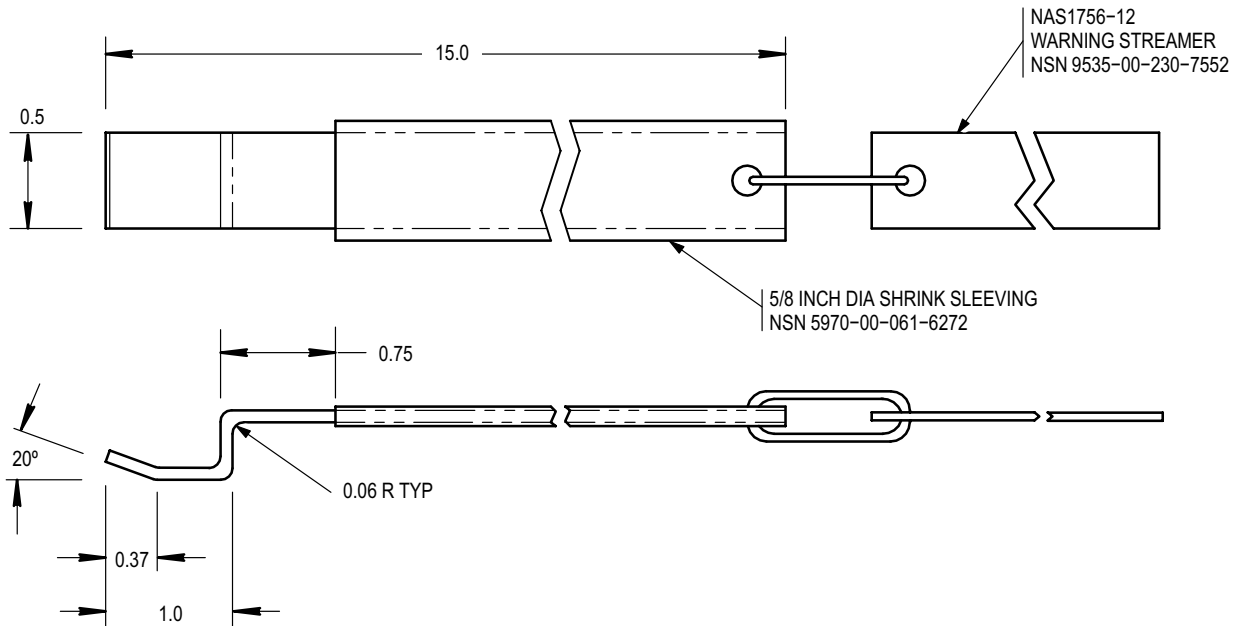


NOTES:

- 1 TAIL ROTOR BLADE ANGLE TOOL - MAKE FROM STEEL - CRES SHEET 0.063 INCH THICK, CONDITION A, MIL-STD-5059 NSN 9515-00-204-4534 PER QQ-S-766
- 2 ATTACH NAS 1756-12 STREAMER
- 3 IDENTIFY BY IMPRESSION STAMPING OR ELECTRIC VIBRATOR MARKINGS PER MIL-STD-130
- 4 ALL DIMENSIONS ARE IN INCHES

M04-4735

Figure D-445. Tail Rotor Blade Angle Tool PN 7-262110057-607

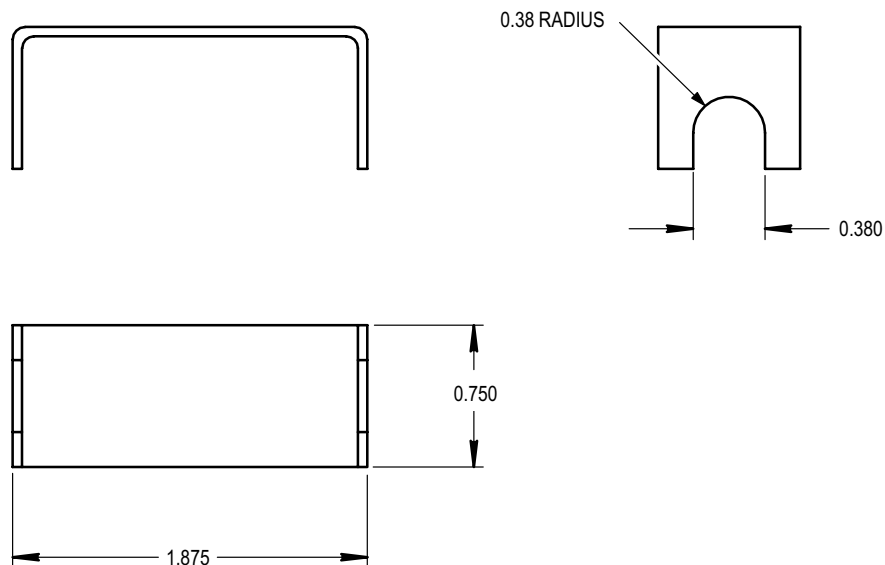


NOTES:

- FIXTURE, SQUAT SWITCH - MAKE FROM AL ALY SHEET 2024 T-3, 0.063 INCH-THICK NSN 9535-00-230-7552 , PER FS QQ-A-250/4
- ALL DIMENSIONS ARE IN INCHES

M04-4725

Figure D-446. Fixture, Squat Switch PN 7-3621MF002

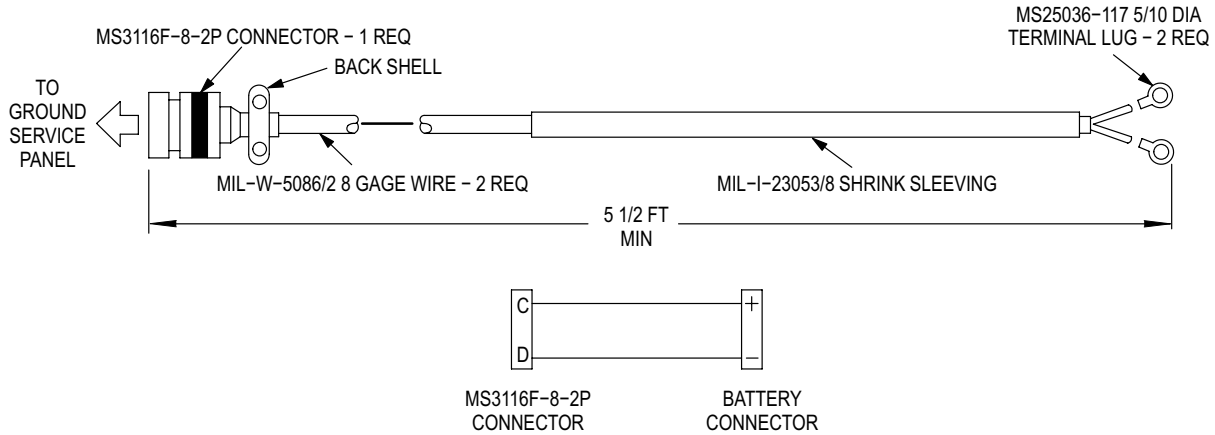


NOTES:

- TOOL, RETENTION - MAKE FROM AL-ALY SHEET 2024 T-3, 0.050 INCH THICK NSN 9535-00-232-0569 PER FS 11-A-250/5
- ALL DIMENSIONS ARE IN INCHES

M04-4726

Figure D-447. Tool, Retention PN 7-3621MF003



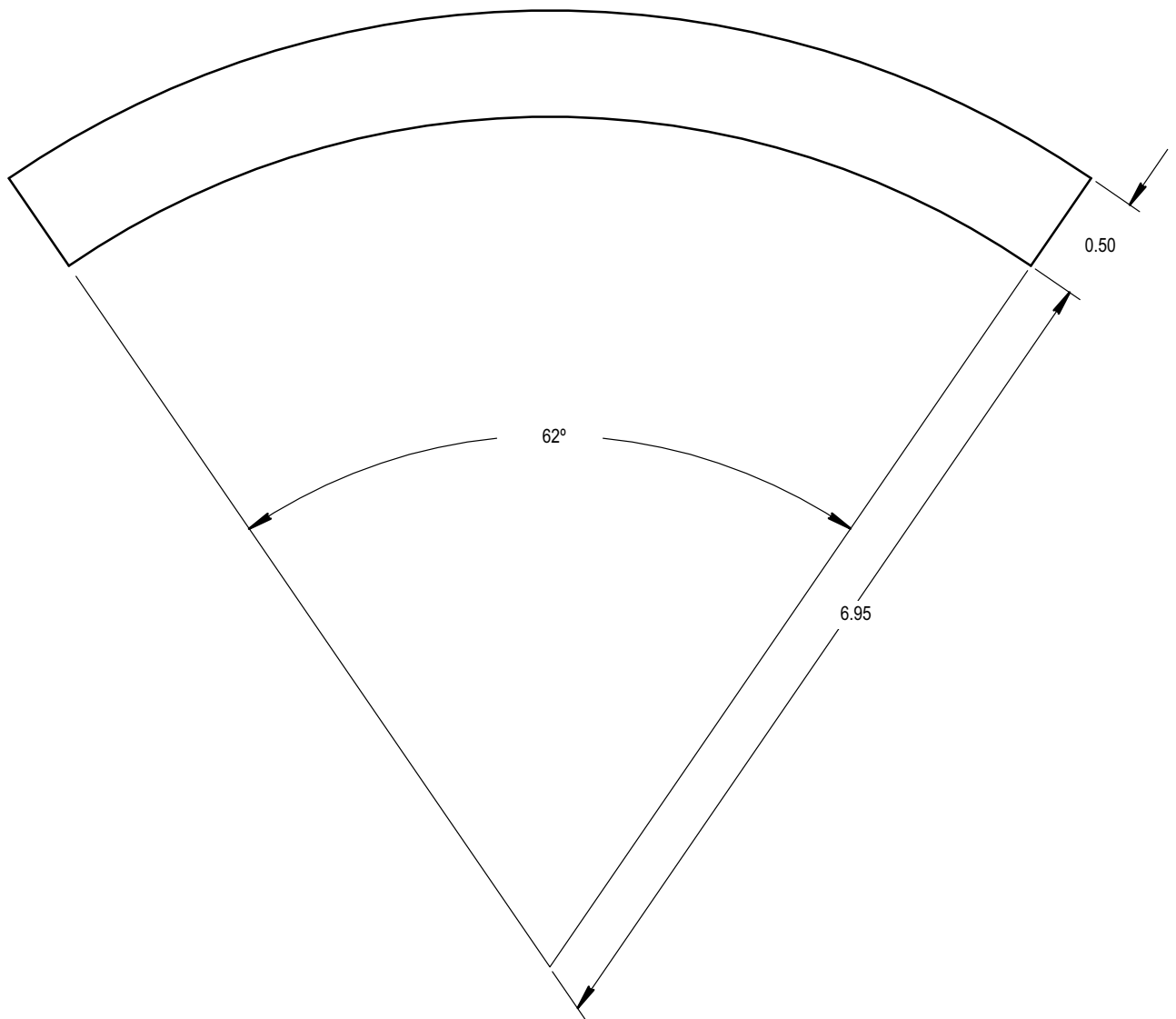
WIRING SCHEMATICS

NOTES:

- EMERGENCY BATTERY CABLE - CABLE ASSEMBLY MUST BE A MINIMUM OF 5 1/2 FEET FROM CONNECTOR TO CONNECTOR
- AFTER INSTALLING HEAT SHRINK SLEEVE OVER WIRE HARNESS, ONLY SHRINK SLEEVE THREE (3) INCHES FROM THE CONNECTOR ENDS
- INSTALL WIRES, CONNECTOR AND TERMINAL LUGS PER TM 55-1500-323-24
- ALL DIMENSIONS ARE IN INCHES

M04-5114

**Figure D-448. Emergency Battery Cable PN 7-3621MF006**



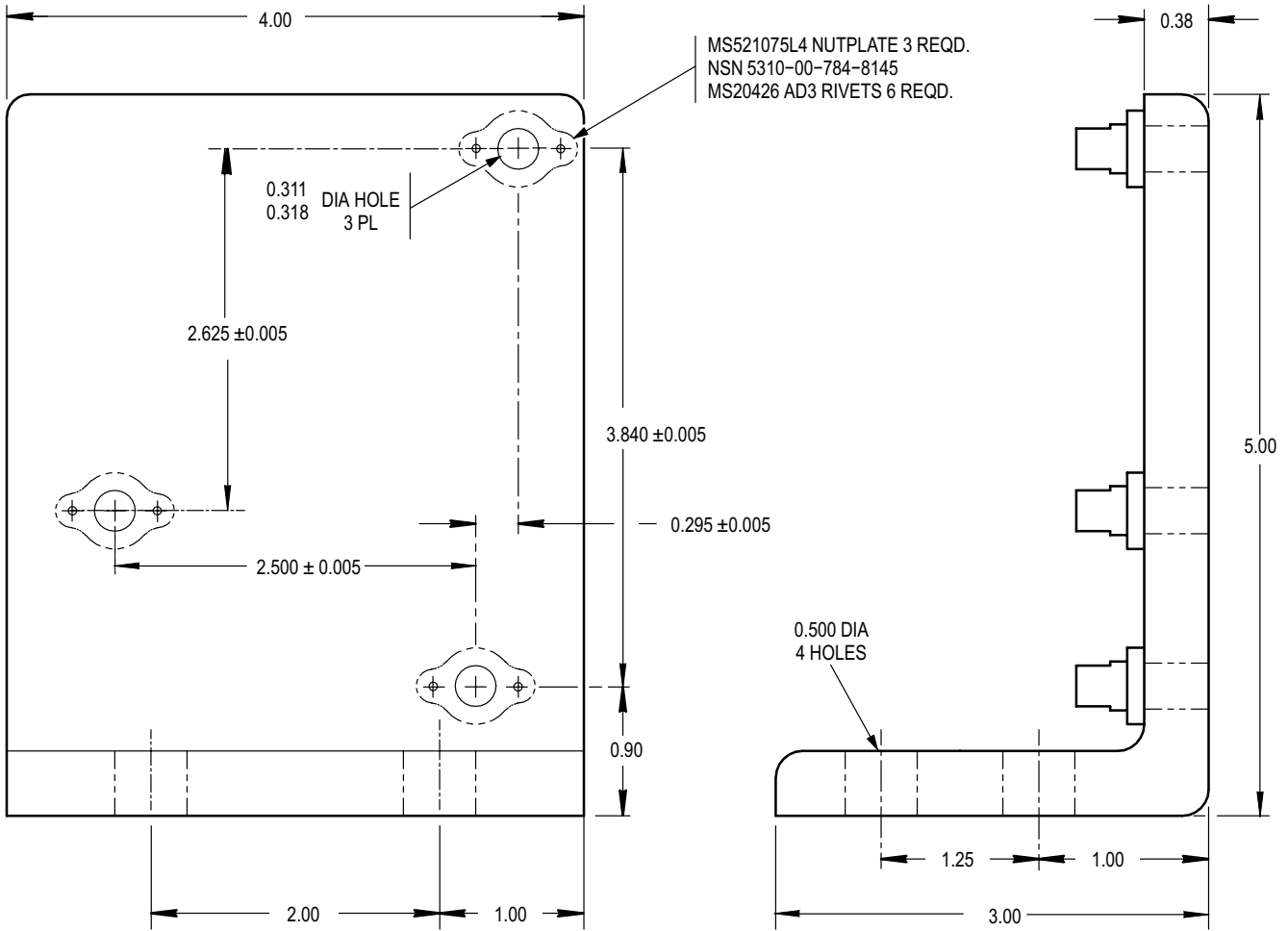
NOTES:

- TEMPLATE, RESILIENT MOUNT CEREX - MAKE FROM AL-ALY SHEET 2024 T-0, 0.040 INCH THICK, NSN 9535-00-167-2249 PER FS QQ-A-250/4
- HEAT TREAT TO T42 AFTER FORMING
- ALL DIMENSIONS ARE IN INCHES

M04-4727

**Figure D-449. Template, Resilient Mount Cerex PN 7-3631FM001**



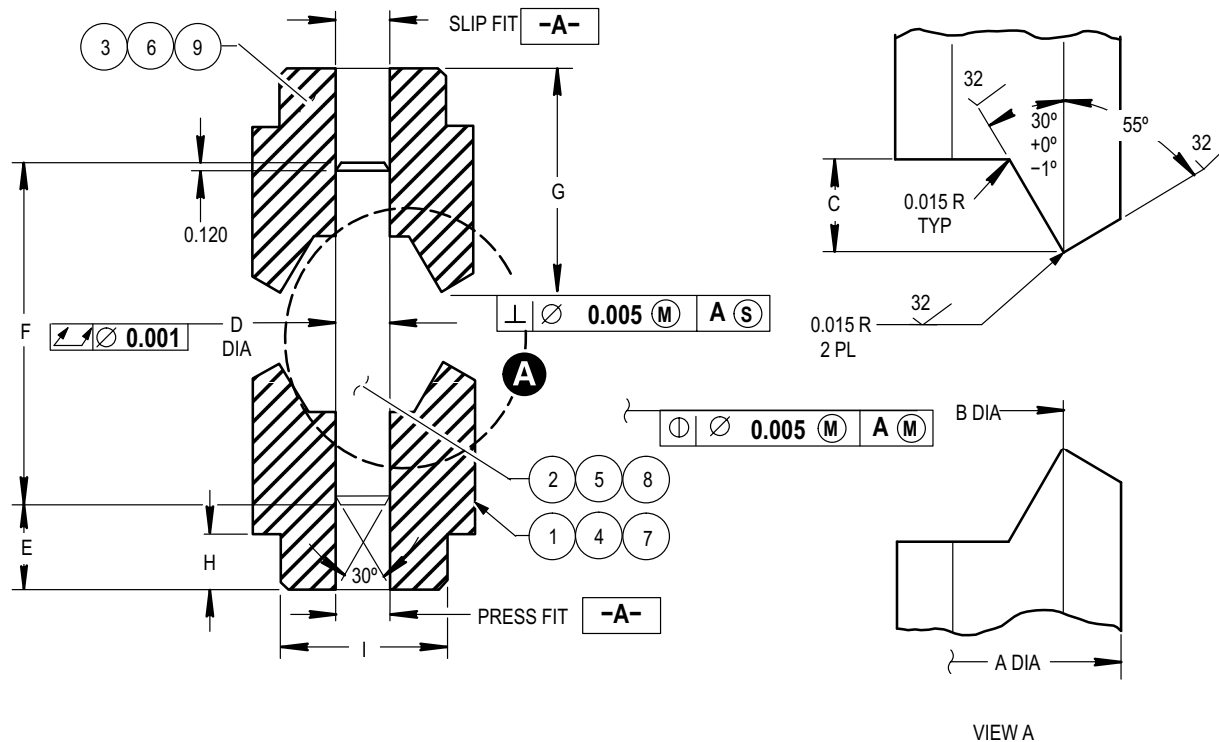


NOTES:

- MAKE AL ALY SHEET 0.375 INCH THICK, NSN 9535-01-159-1326, PER ASTM B209
- ALL DIMENSIONS ARE IN INCHES

M04-4742

**Figure D-450. Holding Plate, Hydraulic Hand Pump PN 7-3631MF002**



9	2.125 DIA X 2.125
8	0.875 DIA X 3.125
7	2.125 DIA X 2.125
6	1.000 DIA X 1.125
5	0.375 DIA X 1.750
4	1.000 DIA X 1.125
3	2.125 DIA X 2.125
2	0.500 DIA X 3.125
1	2.125 DIA X 2.125

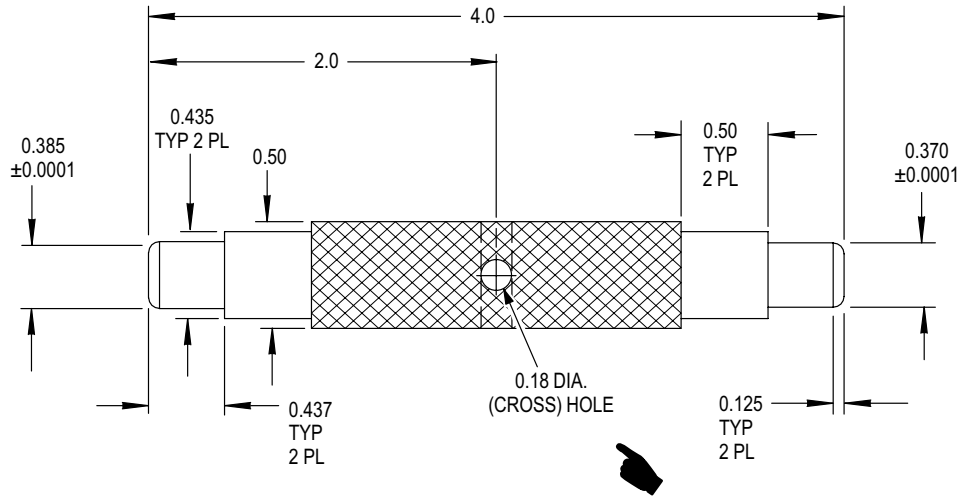
TOOL PART NUMBER	TOOL DETAILS	A DIA	B DIA + 0.005	C DIA + 0.005	D DIA + 0.005	E	F	G	H	I
7-363MF0010-3	1,2,3	1.970	1.472	0.400	0.495	0.750	3.000	2.000	0.500	1.500
7-363MF0010-5	4,5,6	0.890	0.719	0.110	0.370	0.500	1.700	1.000	0.250	0.700
7-363MF0010-7	7,8,9	1.970	1.482	0.400	0.749	0.750	3.000	2.000	0.500	1.500

NOTES:

- STAKING TOOL - PITCH LINKS, MAIN/TAIL ROTOR - MAKE FROM TOOL STEEL AISI-01
- HEAT TREAT EACH ITEM TO RC 48-54
- MACHINE FINISH EXCEPT AS SHOWN SURFACE ROUGHNESS 125 RMS OR BETTER
- PERMANENTLY IDENTIFY BY IMPRESSION STAMPING
- ALL DIMENSIONS ARE IN INCHES

M04-4731

**Figure D-451. Staking Tool – Pitch Links, Main/Tail Rotor  
PN 7-363MF0010-3/-5/-7**

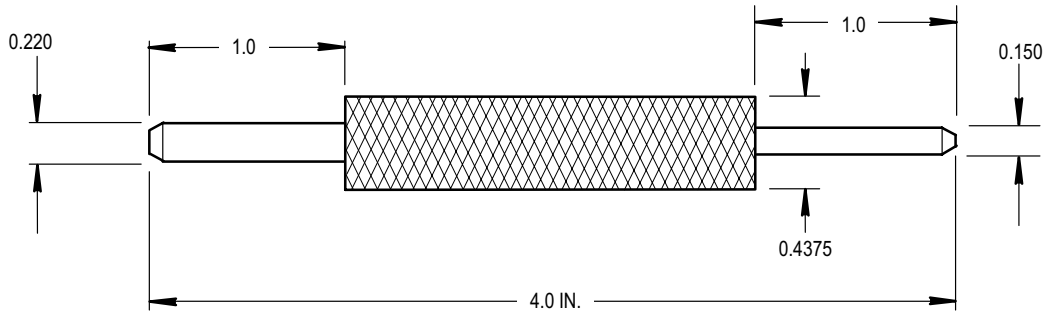


NOTES:

- INSPECTION INSERT GAUGE - MAKE FROM STAINLESS STEEL TYPE 304 0.500 INCH DIAMETER NSN 9510-00-824-8349 PER QQ-S-763
- KNURL (OPTIONAL)
- ALL DIMENSIONS ARE IN INCHES

M04-4736A

Figure D-452. Inspection Insert Gauge PN 743E03

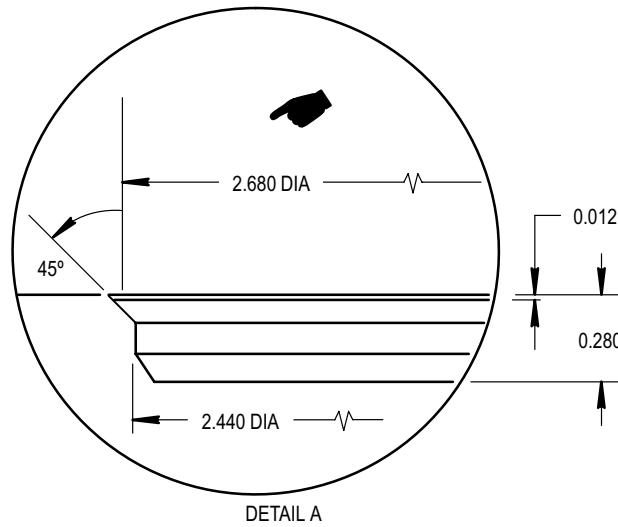


NOTES:

- TAIL ROTOR SHAFT ANTIFLAIL INSPECTION GAUGE - MAKE FROM STAINLESS STEEL TYPE 304 0.500 INCH DIAMETER NSN 9510-00-824-8349 PER QQ-S-763
- SHAFT ENDS TAPERED FOR EASE OF INSERTION
- ALL DIMENSIONS ARE IN INCHES

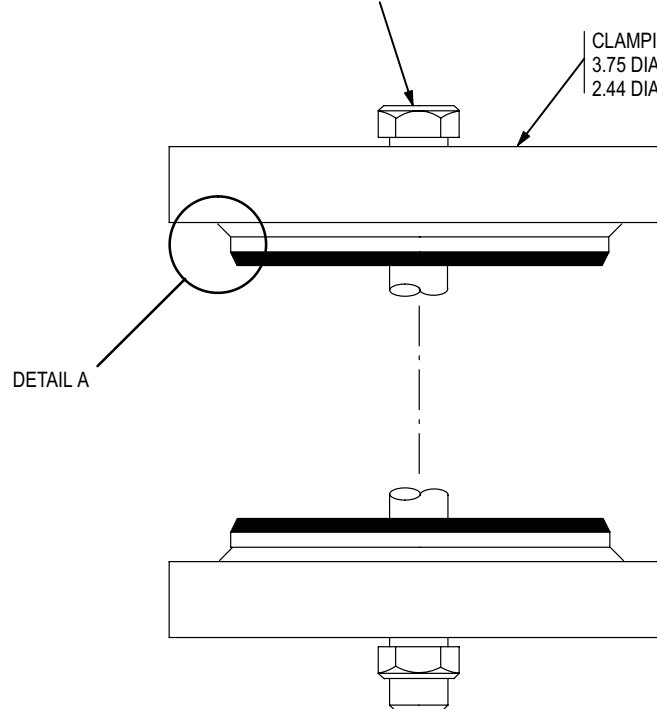
M04-4739

Figure D-453. Tail Rotor Shaft Antiflail Inspection Gauge PN 743E04



BOLT NAS1306-25, 5306-00-929-6384  
 WASHER (AR) AN960-616, 5310-00-167-0821  
 NUT AN315-6, 5310-00-843-4824

CLAMPING FIXTURES  
 3.75 DIA x 0.50 HIGH TOP  
 2.44 DIA x 0.28 HIGH BOTTOM

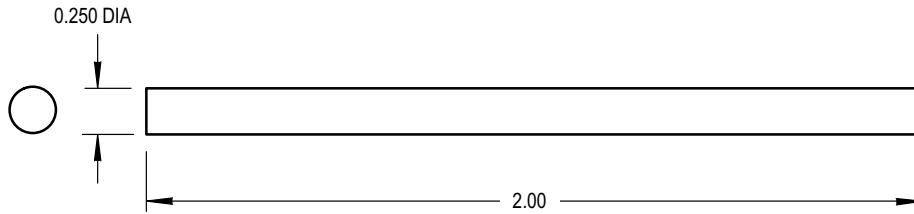


NOTE:

MAKE CLAMPING FIXTURE FROM 4.00 INCH DIAMETER NONMETALLIC  
 ROD, NYLON , NSN 9390-00-861-2009

M04-4741A

Figure D-454. Clamping Fixture M/R Head Pitch Housing Shim Installation  
 PN 743F268

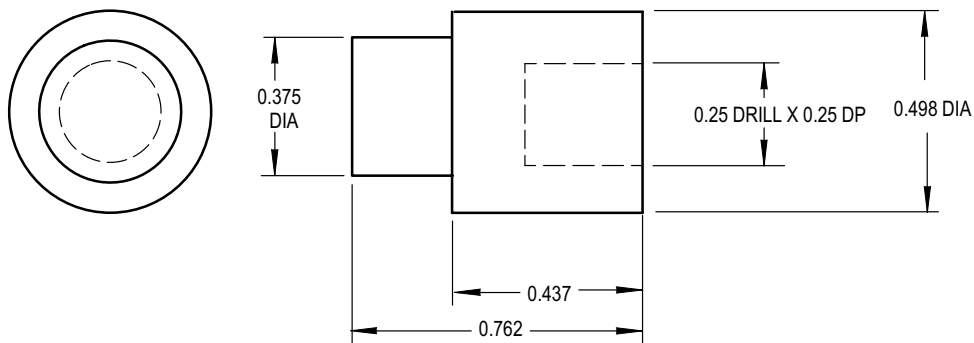


NOTES:

- BEARING REMOVAL INSTALLATION TOOL - MAKE FROM TOOL STEEL ANSI-02
- ALL DIMENSIONS ARE IN INCHES

M04-4964

Figure D-455. Bearing Removal/Installation Tool PN 8184-1

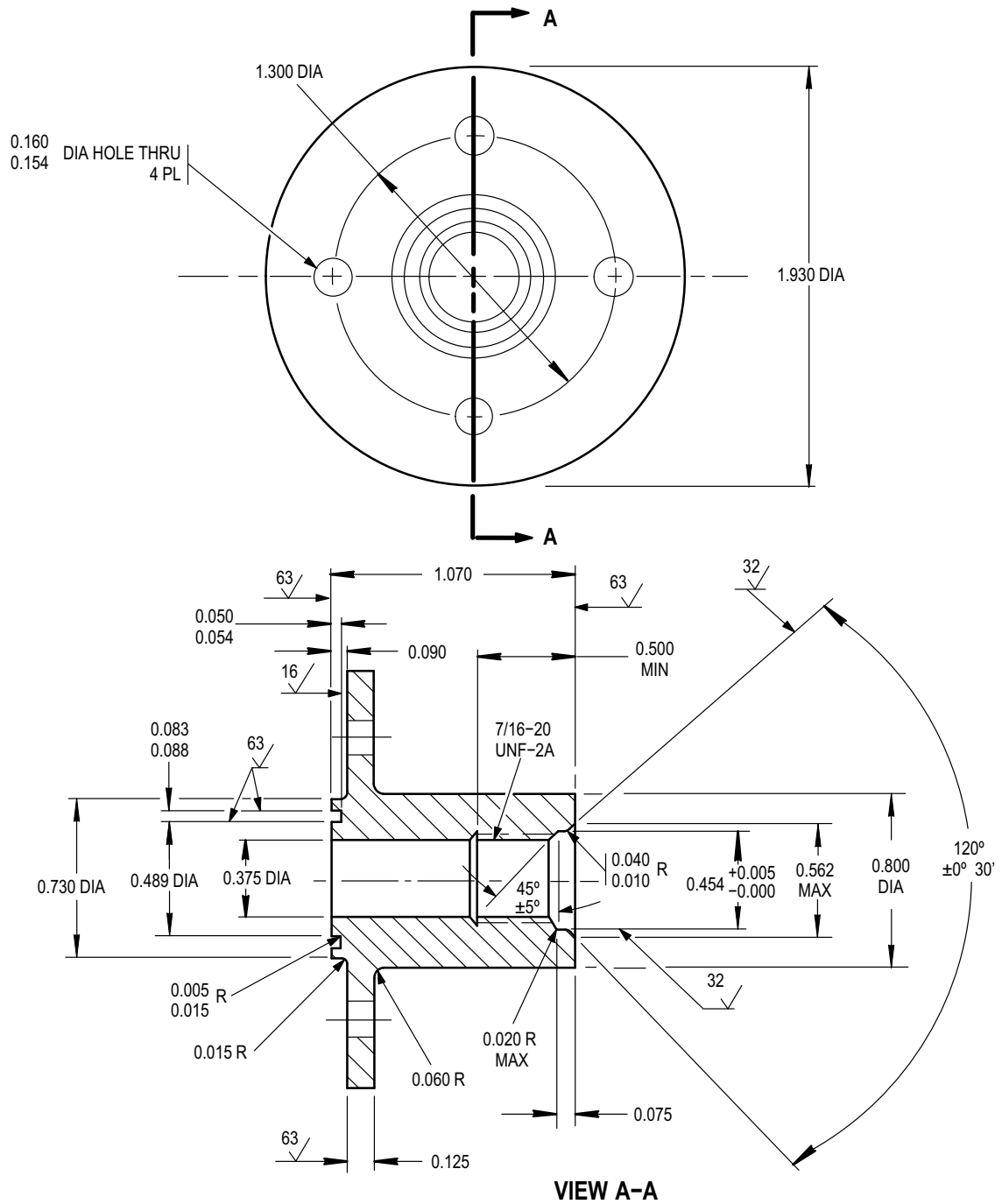


NOTES:

- BEARING REMOVAL INSTALLATION TOOL - MAKE FROM AL-ALY 2024-T4, NSN 9530-00-236-8429, PER QQ-A-225/6.
- ALL DIMENSIONS ARE IN INCHES

M04-4740

Figure D-456. Bearing Removal/Installation Tool PN 8184-2

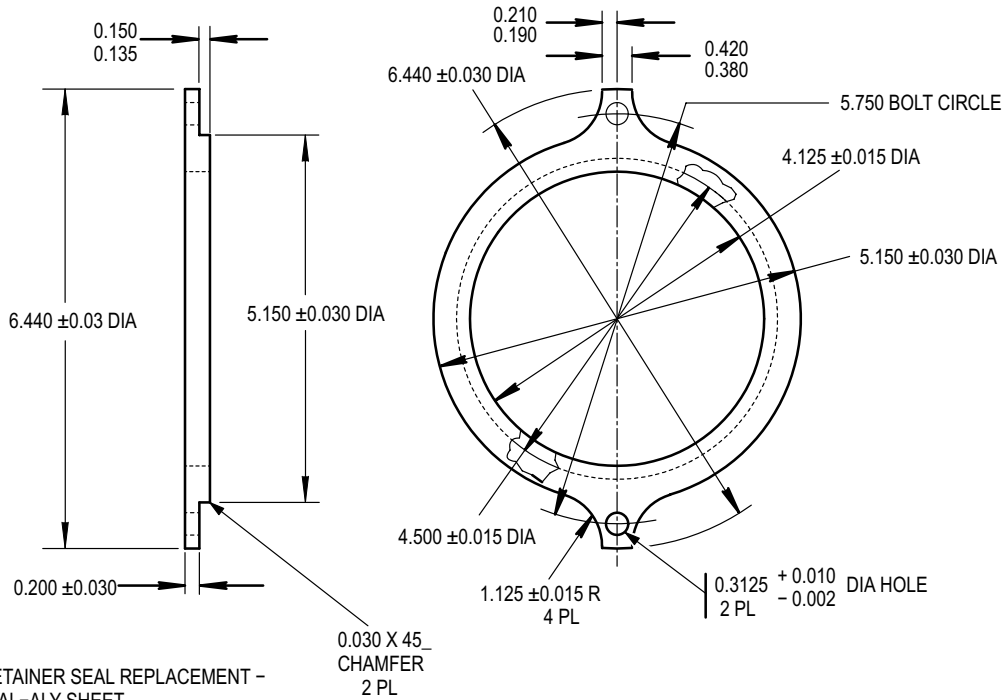


NOTES:

- STATIC PORT ADAPTER - MAKE FROM AL-ALY PER QQ-A-225/8  
NSN 9530-00-244-9023
- PERMANENTLY IDENTIFY BY IMPRESSION STAMPING
- ALL DIMENSIONS ARE IN INCHES

M04-4737

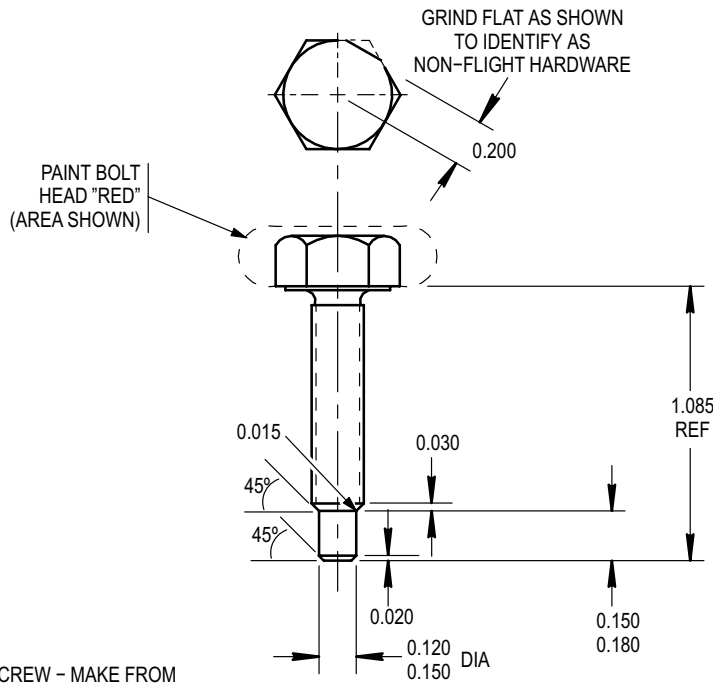
Figure D-457. Static Port Adapter PN 99801-5



- NOTES:
- GEARBOX RETAINER SEAL REPLACEMENT - MAKE FROM AL-ALY SHEET PER QQ-A-250/4. T3
  - ANODIZE ENTIRE PART
  - ALL DIMENSIONS ARE IN INCHES

M04-4734

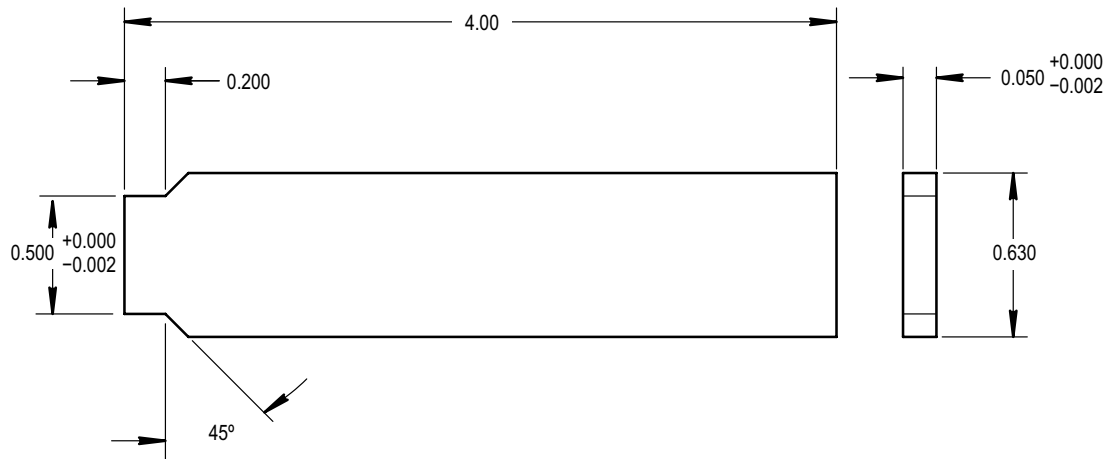
Figure D-458. Gearbox Retainer Seal Replacement



- NOTES:
- INPUT PINION RETAINER JACKSCREW - MAKE FROM NAS 564-35 BOLT
  - TOUCH UP REWORKED AREA OF BOLT WITH CADMIUM PLATE, PER MIL-STD 865, 0.005 MAX THICK
  - ALL DIMENSIONS ARE IN INCHES

M04-4733

Figure D-459. Input Pinion Retainer Jackscrew

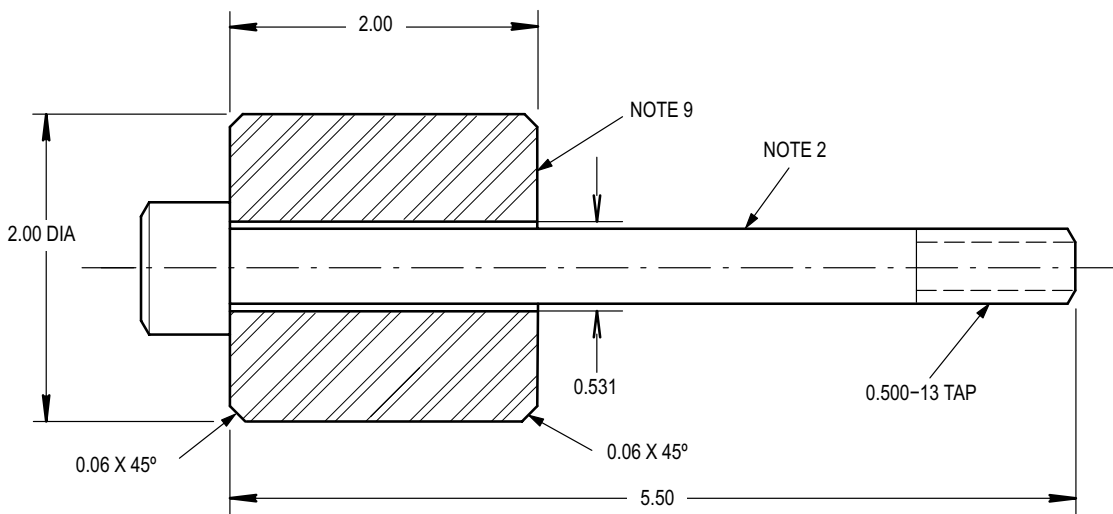


NOTES:

- MAKE FROM AL-ALY SHEET PER QQ-A-250/4, T-3, 0.050 INCH THICK, NSN 9535-00-236-7000
- ALL DIMENSIONS ARE IN INCHES

M04-4729

**Figure D-460. Transmission Accessory Pump Bypass Filter Removal Tool**

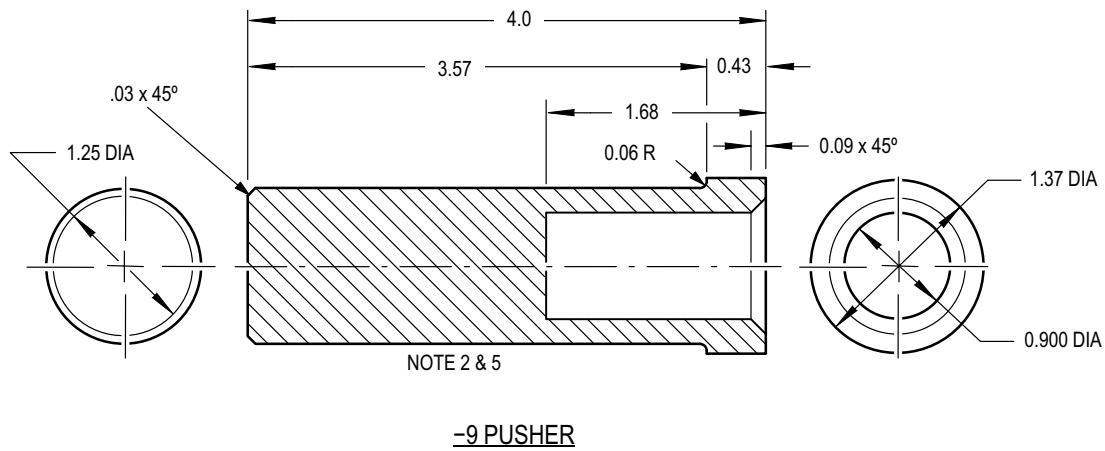
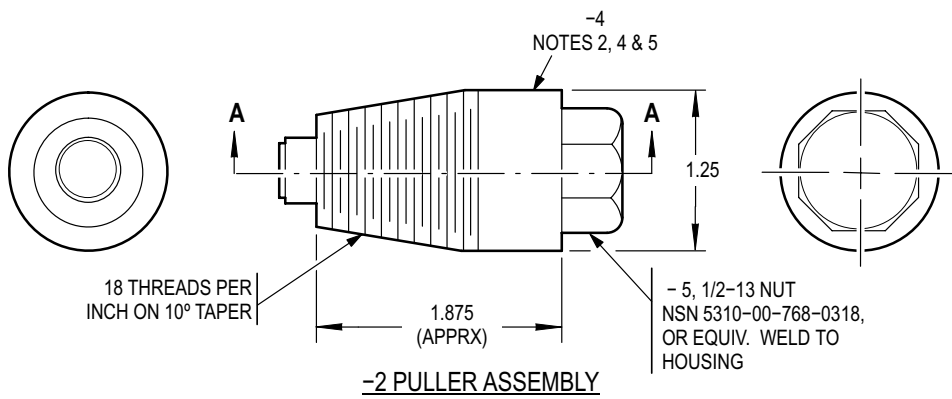
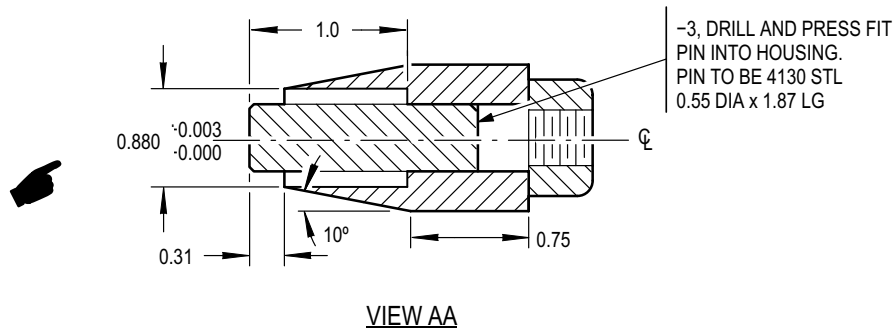


-12 SLIDE HAMMER ASSEMBLY

M04-5101-3

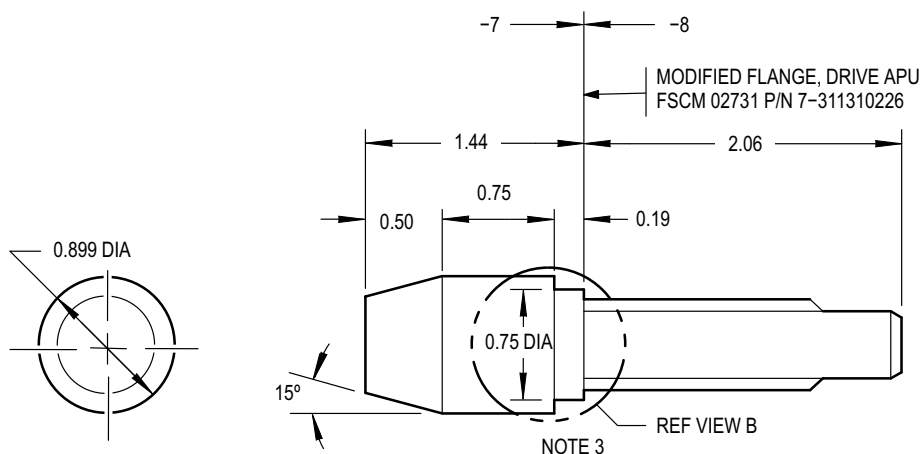
**Figure D-461. Main Transmission Seal Removal/Installation Tool, P/N 2787  
(Page 1 of 3)**



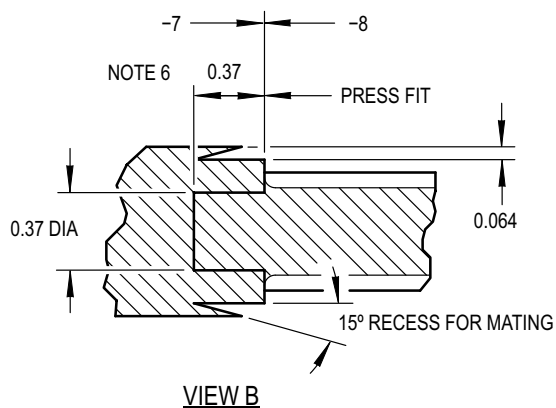


M04-5101-1A

**Figure D-461. Main Transmission Seal Removal/Installation Tool, P/N 2787  
(Page 2 of 3)**



-6 GUIDE ASSEMBLY

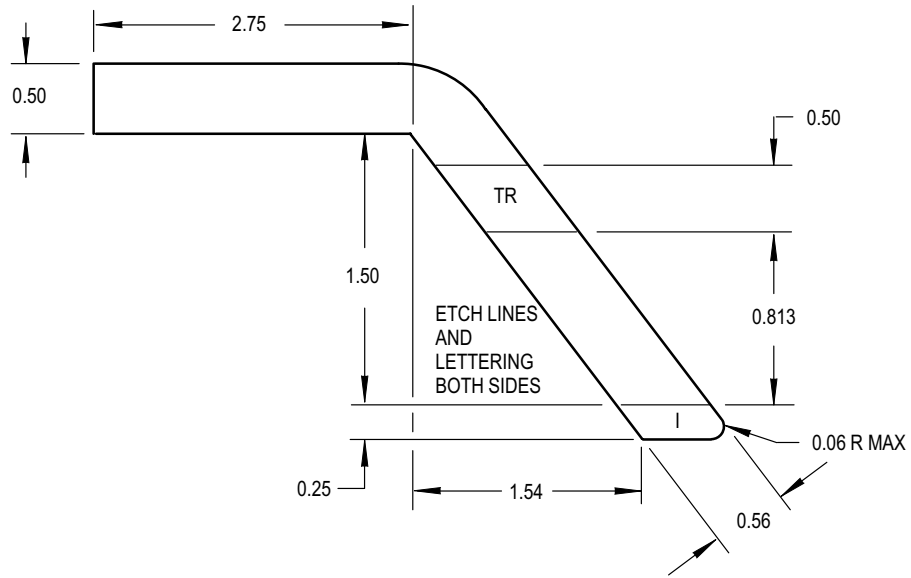


NOTES:

- 1 MAIN TRANSMISSION SEAL REMOVAL/INSTALLATION TOOL
- 2 MAKE FROM 4130 STEEL
- 3 MAKE FROM AMS 301 S.S.
- 4 HEAT TREAT TO 140-150 KSI
- 5 FINISH CADMIUM
- 6 FINISH POLISH
- 7 NSN 5180-00-945-0186
- 8 ALL DIMENSIONS ARE IN INCHES
- 9 MAKE FROM 1020 STEEL

M04-5101-2

**Figure D-461. Main Transmission Seal Removal/Installation Tool, P/N 2787  
(Page 3 of 3)**

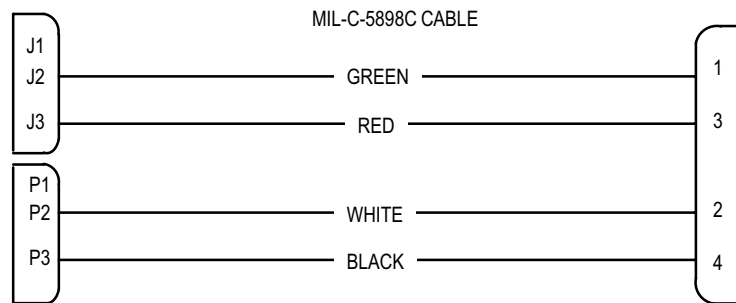
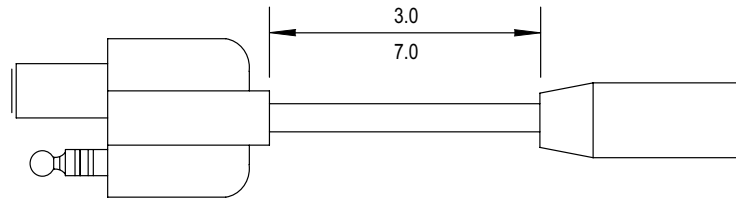


NOTES:

- MAKE FROM: NSN 9535-00-084-4448, PN QQ-A-250/11
- ROUND ALL SHARP EDGES
- ALL DIMENSIONS ARE IN INCHES

M04-5130

Figure D-462. Intermediate Gearbox and Tail Rotor Service Tool, PN 2807



NSN 5935-01-186-8204, PN 59354-1

WIRING SCHEMATIC

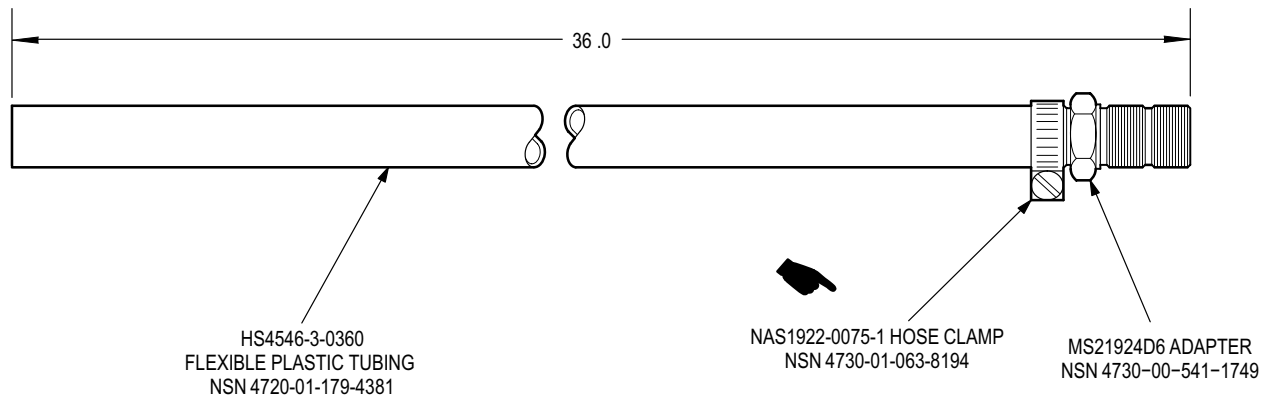
NSN 5930-00-665-5125  
U-92A/U(M9177/3-1)  
CONNECTOR

NOTES:

- A MINIMUM OF 5 ±2 INCHES FROM CONNECTOR TO CONNECTOR
- INSTALL WIRES, CONNECTOR AND TERMINAL LUGS PER TM 55-1500-323-24
- ALL DIMENSIONS ARE IN INCHES
- MAKE FROM MIL-C-5898C CABLE

M04-5131

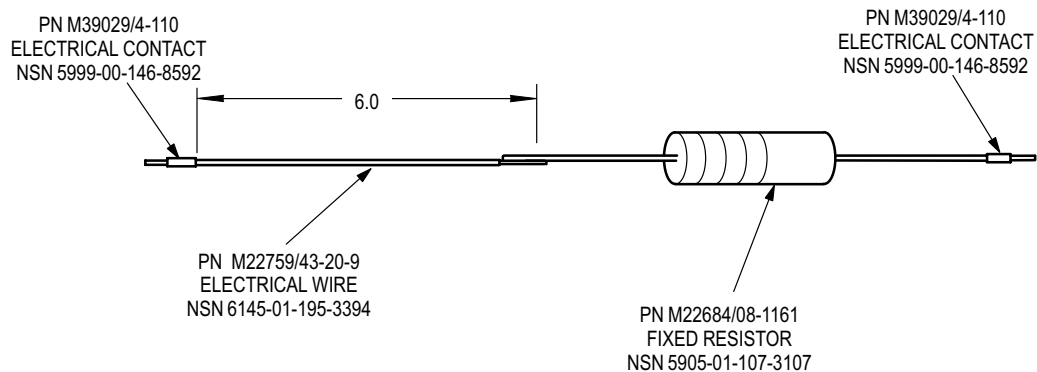
Figure D-463. Intercommunication System Adapter Harness, PN 7-311B22060-81601



NOTES:  
DIMENSIONS ARE IN INCHES

M04-5140

**Figure D-464. APU Fuel Bleeder Hose, PN AH64-0003**

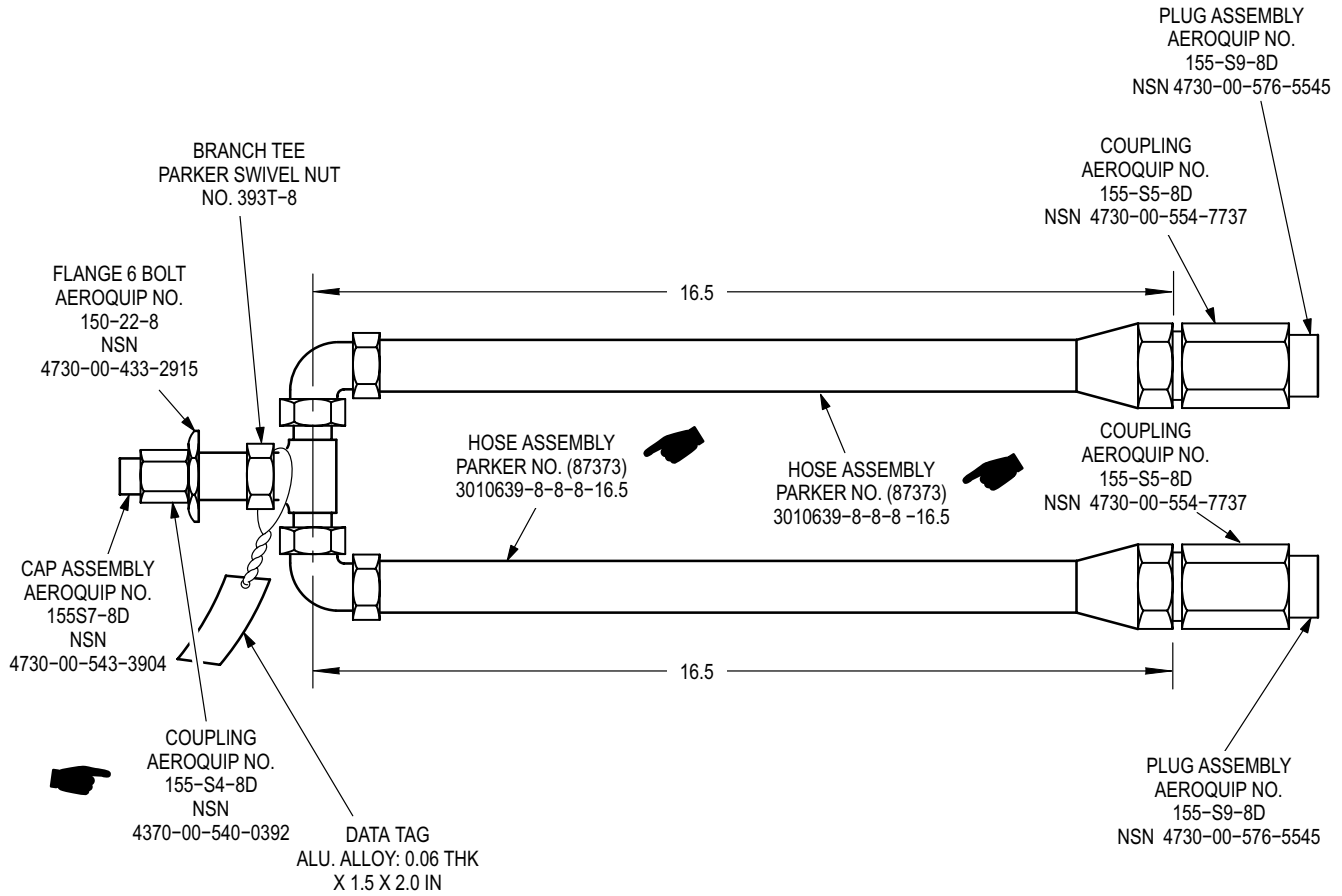


NOTES:

- SOLDER SIX INCH WIRE TO RESISTOR PER TM 55-1500-323-24
- INSTALL CONTACTS PER TM 55-1500-323-24
- ALL DIMENSIONS ARE IN INCHES

M04-5160

**Figure D-465. Alarm Control Unit Test Lead, PN AH64-0004**

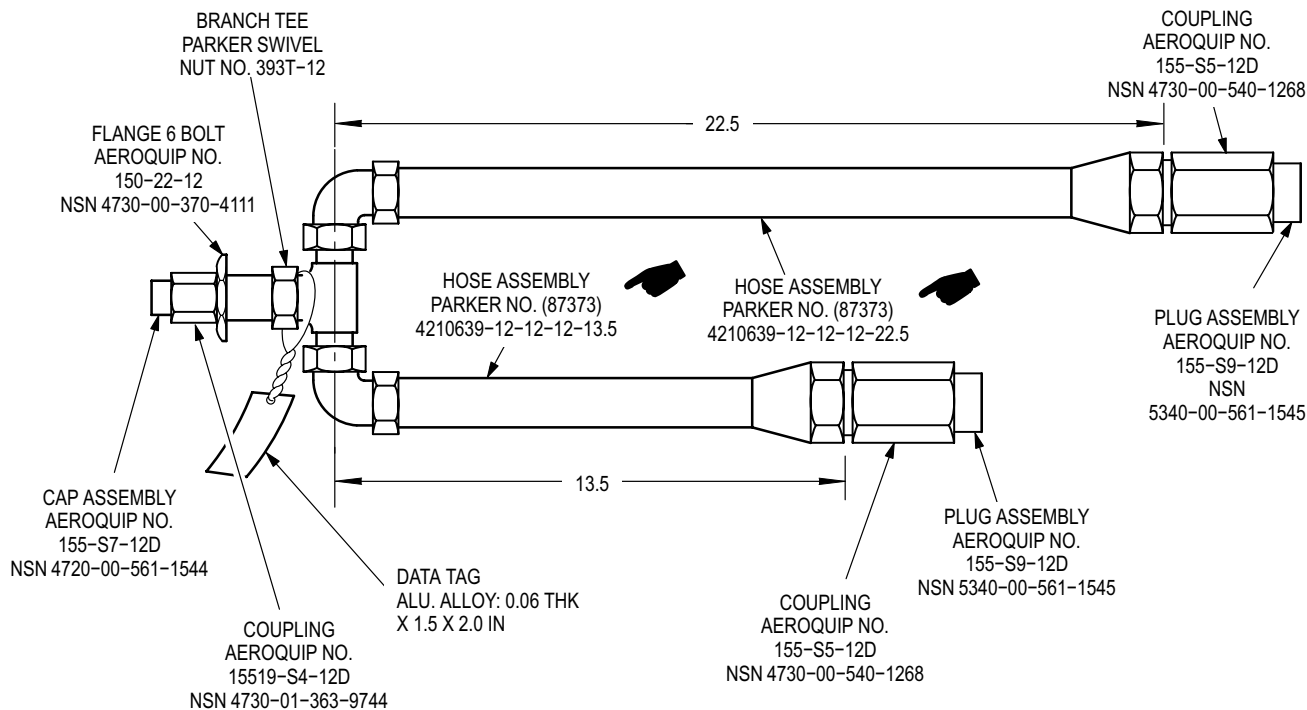


NOTES:

- ALL DIMENSIONS IN INCHES
- SUBSTITUTION OF PARTS AND/OR MATERIALS MUST BE FUNCTIONAL AND PHYSICALLY EQUIVALENT
- PERMANENTLY IDENTIFY DATA TAG BY STEEL STAMP OR OTHER SUITABLE MEANS
- PRESSURE LINE TO BE PRESSURE TESTED TO 4500 +50 PSIG FOR 2 MIN. NO CRACKS, LEAKS, OR DEFORMATION (TM 1-1500-204-23-2)
- USE MIL-H-83282 OR MIL-H-5606 HYDRAULIC FLUID ONLY

M04-5162A

Figure D-466. Hydraulic Pressure "Y" Hose, PN AH64-0005

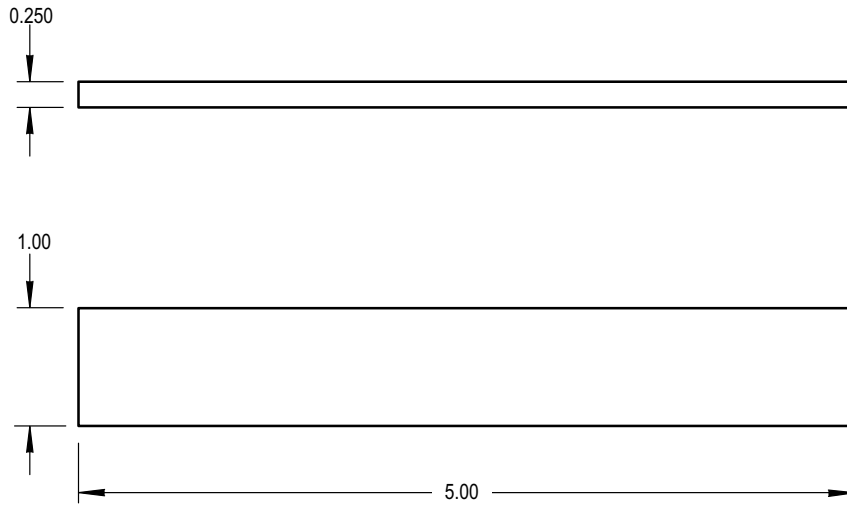


NOTES:

- ALL DIMENSIONS IN INCHES
- SUBSTITUTION OF PARTS AND/OR MATERIALS MUST BE FUNCTIONAL AND PHYSICALLY EQUIVALENT
- PERMANENTLY IDENTIFY DATA TAG BY STEEL STAMP OR OTHER SUITABLE MEANS
- RETURN LINE TO BE PRESSURE TESTED TO 2000 ±50 PSIG FOR 2 MIN. NO CRACKS, LEAKS, OR DEFORMATION PERMITTED (TM 1-1500-204-23-2)
- USE MIL-H-83282 OR MIL-H-5606 HYDRAULIC FLUID ONLY

M04-5170B

Figure D-467. Hydraulic Return "Y" Hose, PN AH64-0006

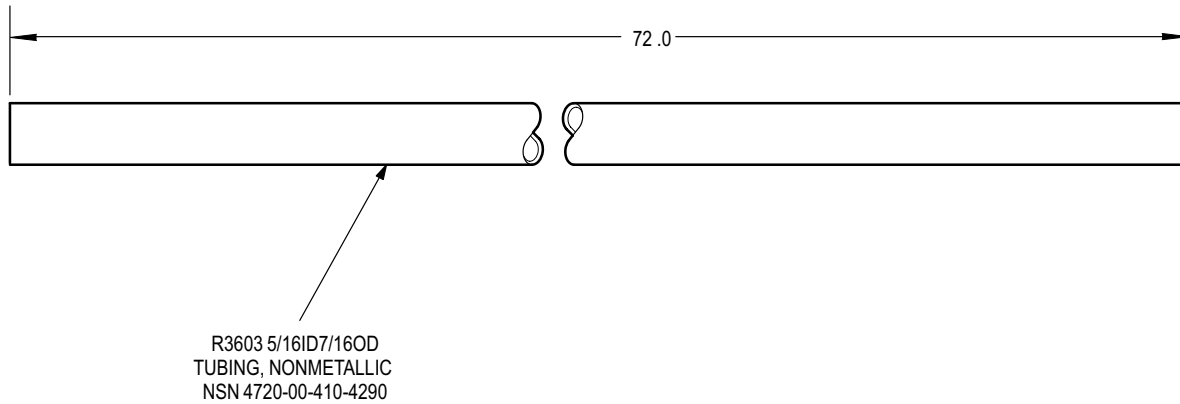


NOTES:

- MAIN ROTOR HEAD LOWER SEAL RETAINER INSTALLATION TOOL
- MAKE FROM PLASTIC SHEET, NSN 9330-00-143-6849, MIL-P-15035
- ALL DIMENSIONS ARE IN INCHES

M04-5165

**Figure D-468. Main Rotor Head Lower Seal Retainer Installation Tool, PN AH64-0007**

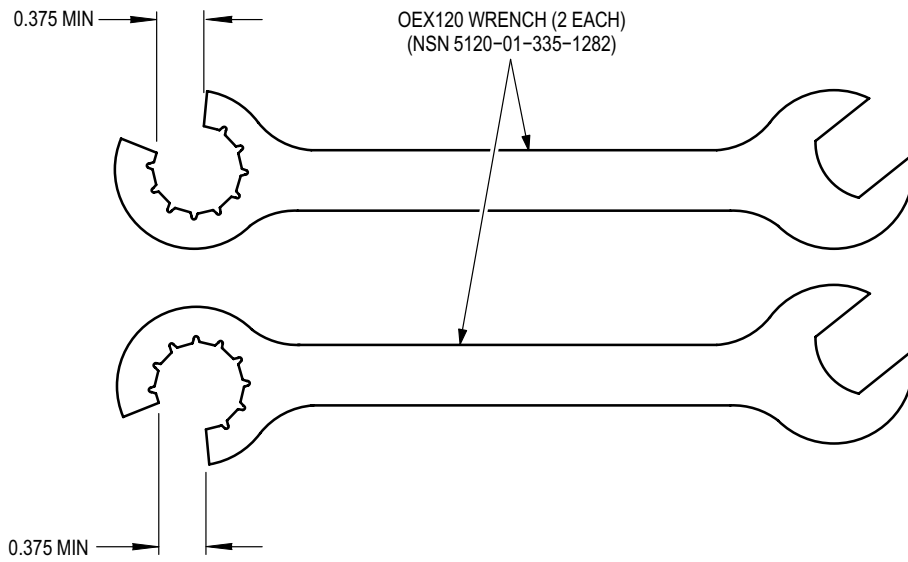


NOTES:

DIMENSIONS ARE IN INCHES

M04-5167

**Figure D-469. Main Landing Gear Bleed Hose, PN AH64-0008**



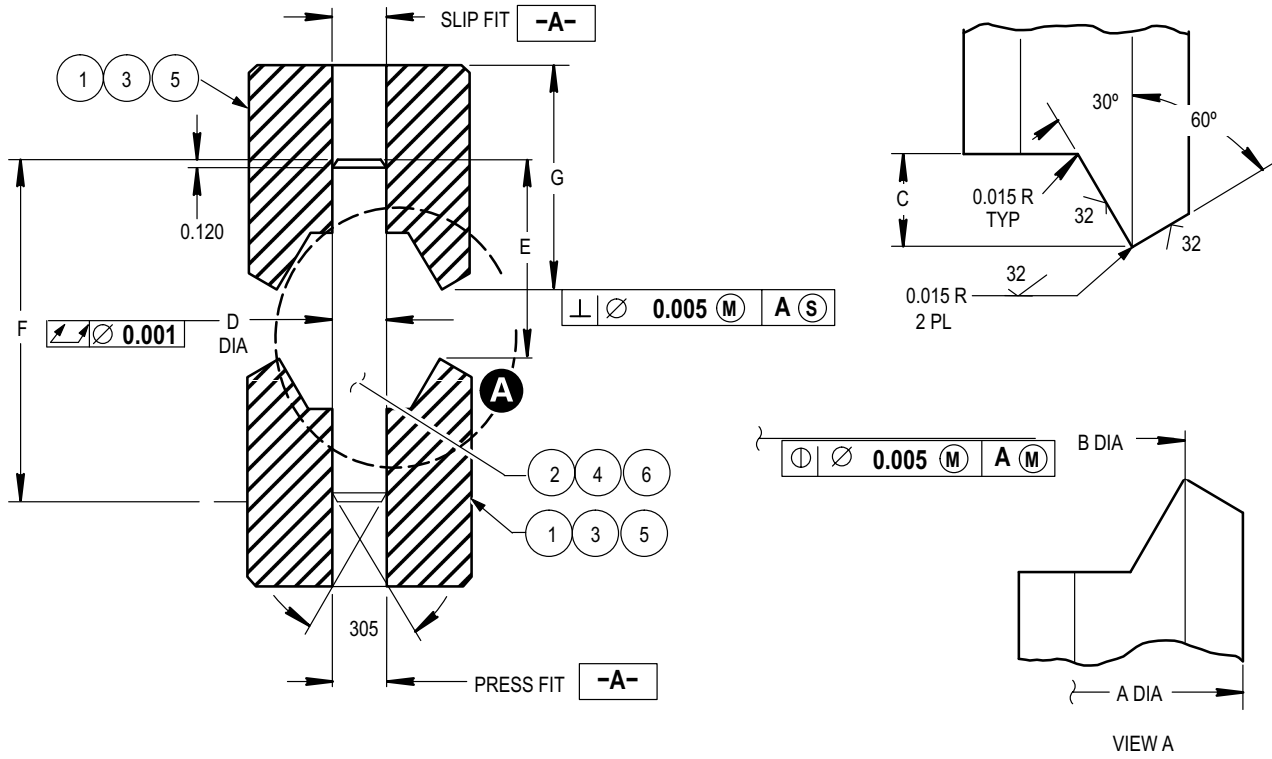
NOTES:

- PERMANENTLY IDENTIFY BY STEEL STAMPING OR OTHER SUITABLE MEANS.
- ALL DIMENSIONS IN INCHES.

M04-5174

**Figure D-470. Shock Strut Support Wrench Set, PN AH64-0009**





TOOL NUMBER	HOUSING NUMBER	BEARING NUMBER	TOOL DETAILS	A DIA	B DIA	C ± 0.015	D DIA +.000 - .001	E	F	G
AH64-0010	7-311511130	7-211511168	1, 2	1.312	1.037	0.156	0.561	2.50	4.37	2.00
AH64-0011	7-311525063	HS4736KR5CWGH	3, 4	0.800	0.637	0.125	0.311	1.56	2.44	1.00
AH64-0012	7-311525064	MS14103-12	5, 6	1.750	1.263	0.218	0.748	2.50	4.37	2.00

1	1.500 DIA x 2.125 TOOL STEEL
2	0.750 DIA x 4.500 DRILL ROD
3	1.000 DIA x 1.125 TOOL STEEL
4	0.375 DIA x 2.500 DRILL ROD
5	2.000 DIA x 2.125 TOOL STEEL
6	0.750 DIA x 4.500 DRILL ROD

NOTES:

- STAKING TOOL - MAKE FROM TOOL STEEL AISI-01
- HEAT TREAT EACH TOOL HALF TO RC 58-62
- HEAT TREAT ROD TO RC 56-60
- MACHINE FINISH EXCEPT AS SHOWN  
SURFACE ROUGHNESS 125 RMS OR BETTER
- PERMANENTLY IDENTIFY BY IMPRESSION STAMPING
- TOLERANCE .xx ± 0.015
- TOLERANCE .xxx ± 0.005
- ALL DIMENSIONS ARE IN INCHES

M04-5175

Figure D-471. Staking Tool, PN AH64-0010, AH64-0011, AH64-0012

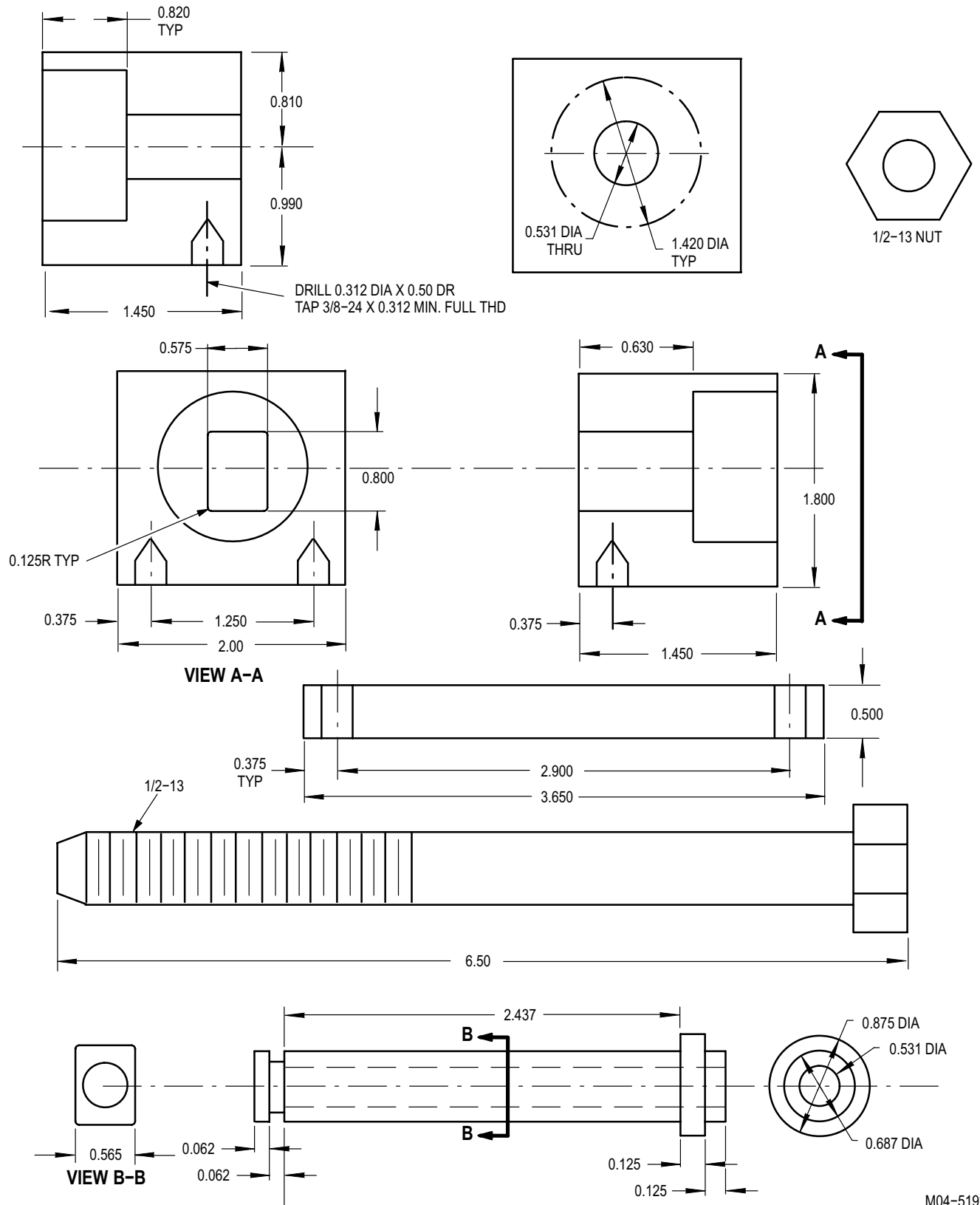
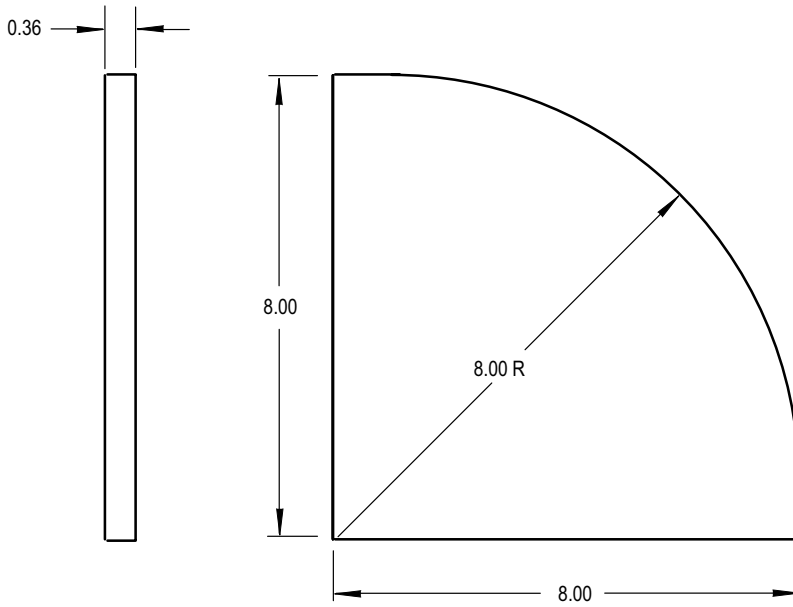


Figure D-472. Bearing Removal/Installation Tool – Main Rotor Lower Shoe Scissor Attach Sleeve, PN AH64-0013

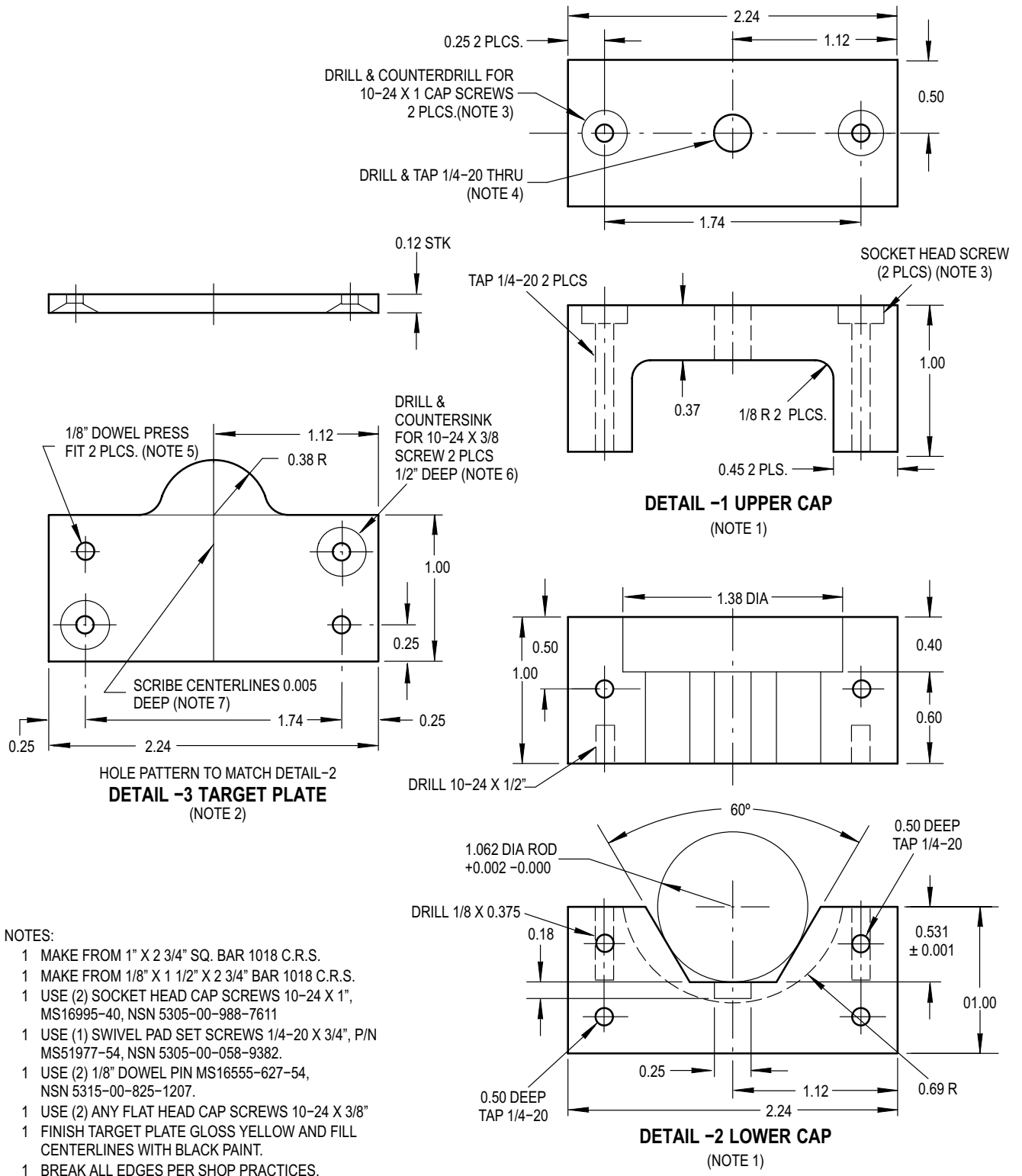


NOTES:

- BRAKE DISK TEST SEGMENT TOOL - MAKE FROM TOOL STEEL 5046
- HEAT TREAT DISK SEGMENT TO RC 32-62
- PERMANENTLY IDENTIFY BY IMPRESSION STAMPING OR OTHER SUITABLE MEANS
- ALL DIMENSIONS IN INCHES

M04-5191

**Figure D-473. Brake Disk Test Segment, PN AH64-0014**

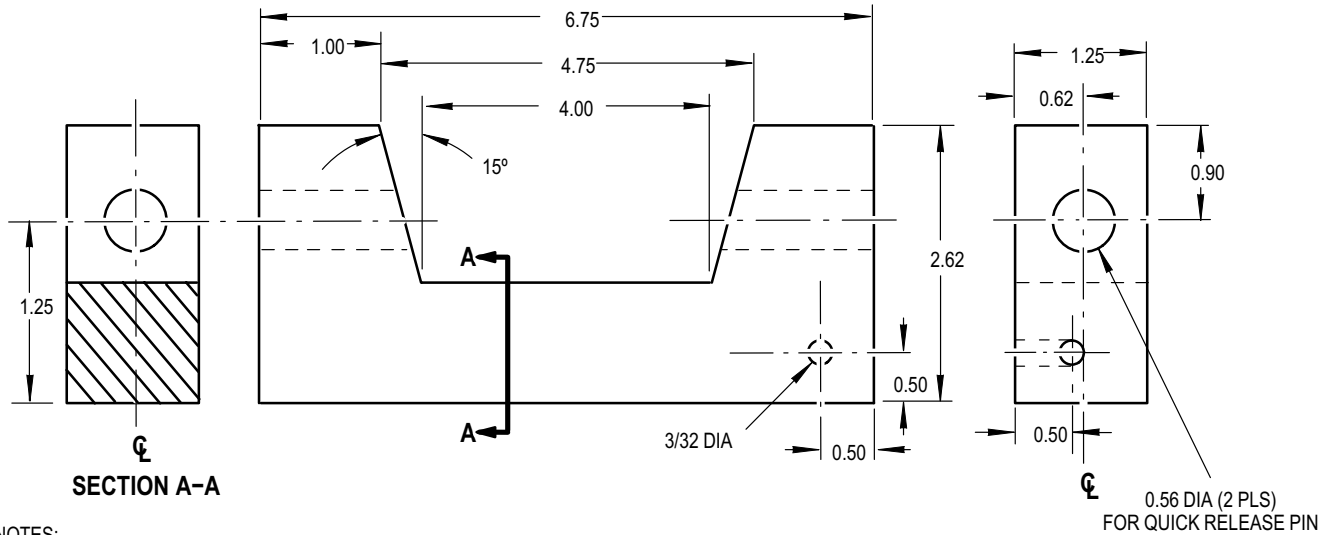


NOTES:

- 1 MAKE FROM 1" X 2 3/4" SQ. BAR 1018 C.R.S.
- 1 MAKE FROM 1/8" X 1 1/2" X 2 3/4" BAR 1018 C.R.S.
- 1 USE (2) SOCKET HEAD CAP SCREWS 10-24 X 1", MS16995-40, NSN 5305-00-988-7611
- 1 USE (1) SWIVEL PAD SET SCREWS 1/4-20 X 3/4", P/N MS51977-54, NSN 5305-00-058-9382.
- 1 USE (2) 1/8" DOWEL PIN MS16555-627-54, NSN 5315-00-825-1207.
- 1 USE (2) ANY FLAT HEAD CAP SCREWS 10-24 X 3/8"
- 1 FINISH TARGET PLATE GLOSS YELLOW AND FILL CENTERLINES WITH BLACK PAINT.
- 1 BREAK ALL EDGES PER SHOP PRACTICES.

M04-5193

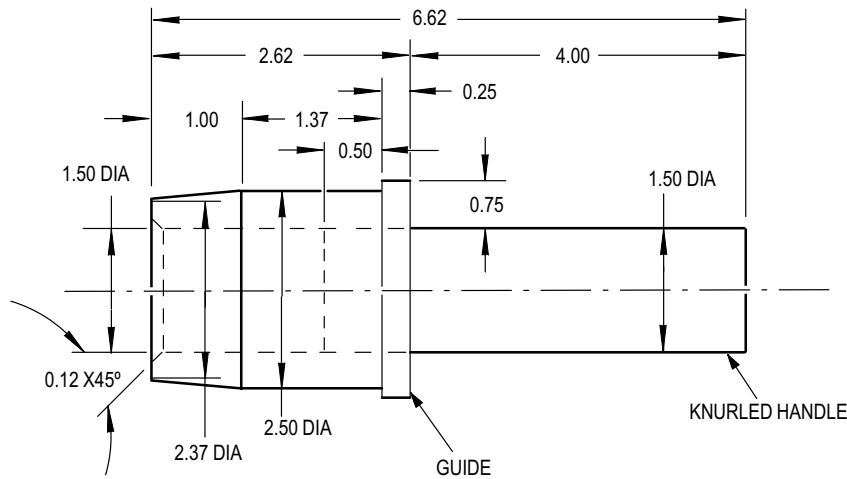
Figure D-474. Main Rotor Mixer Rigging Alinement Tool, PN 7-311511100-81601



- NOTES:
- ALIGNMENT TOOL - MAKE FROM AL ALY 2024, T3, NSN 4710-817-1819
  - TWO (2) QUICK RELEASE PINS, P/N NAS1339A5C24F NSN 5315-01-195-6060 WITH "REMOVE BEFORE FLIGHT" STREAMERS, P/N NAS1756-24 NSN 8345-00-673-9992 INSTALLED ARE REQUIRED
  - ATTACH "REMOVE BEFORE FLIGHT" STREAMER THROUGH HOLE AT RIGHT OF PART USING P/N 17054, CAGE 4R506, AND SWEDGE USING HOOK, LATCH, RAMP, P/N 3F41710-117 NSN 4030-00-760-1654 OR EQUIVALENT AS REQUIRED
  - ALL DIMENSIONS IN INCHES

M04-5215

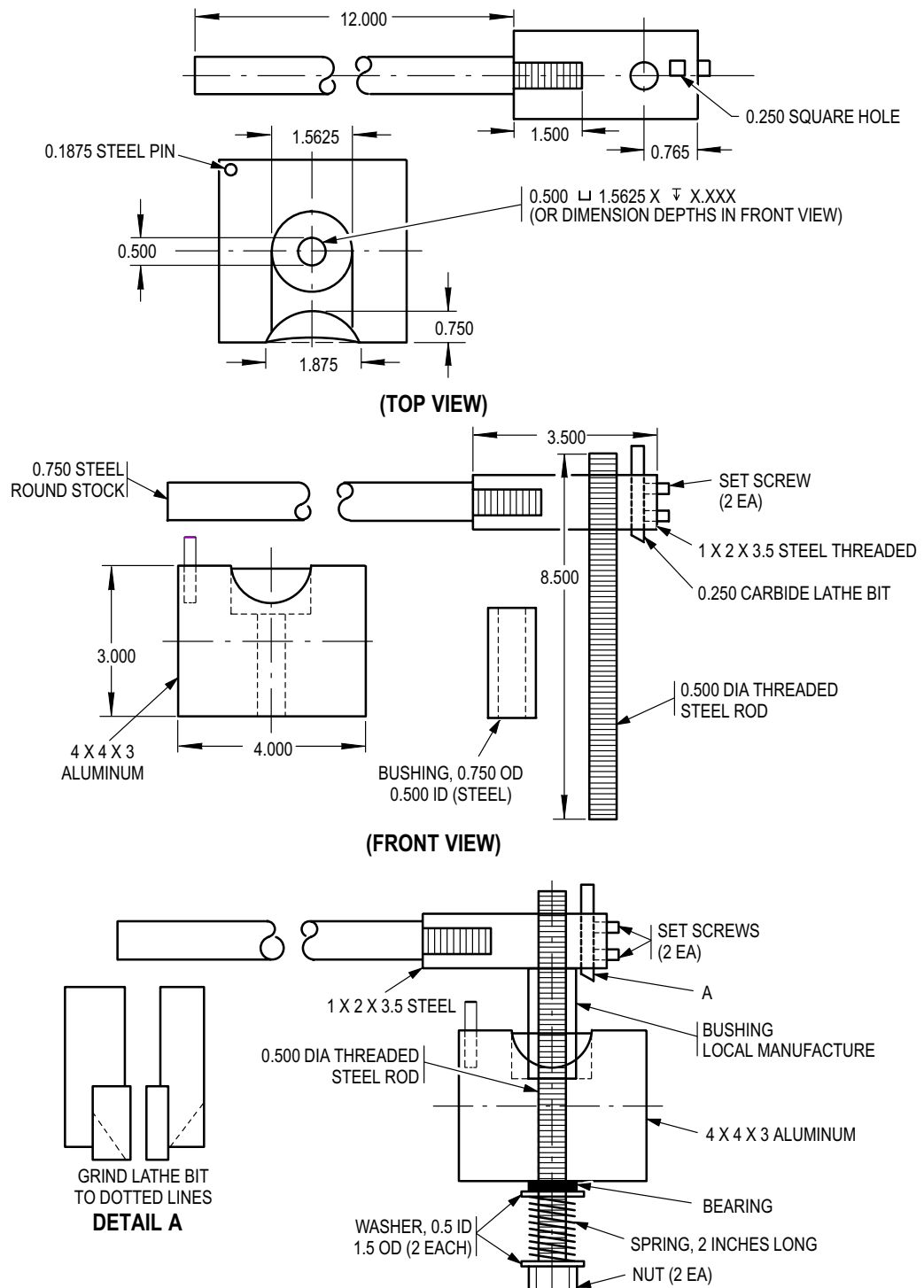
Figure D-475. Pitch Case Housing Lead Lag Link/Strap Pack Alinement Tool, PN M5227-1



- NOTES:
- ALIGNMENT TOOL - MAKE FROM AL ALY 2024, T3 NSN 4710-817-1819 OR
  - 2) MOD FROM 7-311411164, IF AVAILABLE
  - 3) MOD FROM 7-211411199, IF AVAILABLE
  - PRESS FIT AND LOCKTITE HANDLE INTO GUIDE
  - ALL DIMENSIONS IN INCHES

M04-5216

Figure D-476. Pitch Case Housing Lead Lag Link/Strap Pack Alinement Tool, PN M5227-2



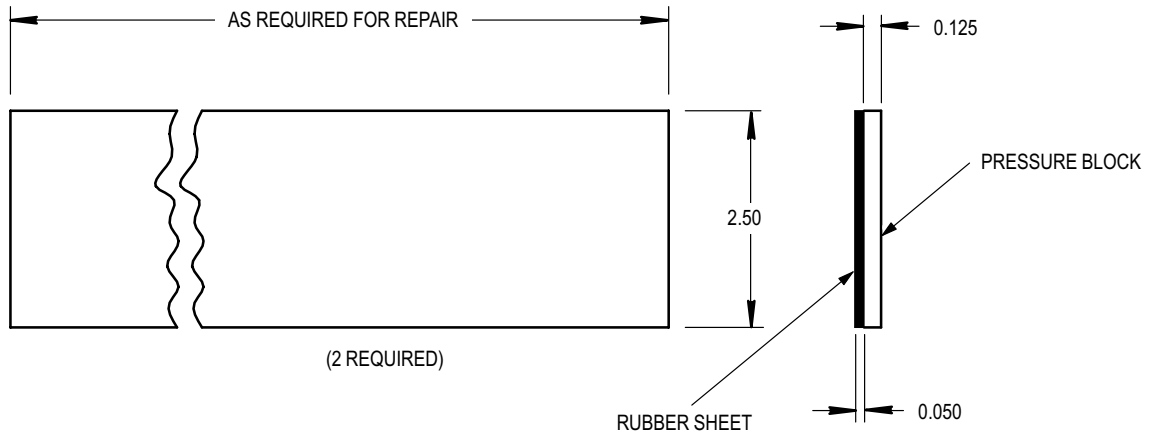
NOTES:

- ALL DIMENSIONS IN INCHES
- USE SETSCREW MS 51963-64, NSN 5305-00-723-9386
- USE BEARING, NSN 3110-00-120-4505
- USE NUT, NSN 5310-00-768-0318
- USE 0.250 LATHE BIT, NSN 3455-00-554-8699

**BEARING CUTTING TOOL (AH64-0015)**

M04-5218

**Figure D-477. Bearing Cutting Tool, PN AH64-0015**



NOTES:

- PRESSURE BLOCK - MAKE FROM AL ALY 2024, T3, 0.125 THICK, QQ-A-250/4  
NSN 9535-00-230-7646
- CUT RUBBER SHEET PAD TO SAME DIMENSION AS PRESSURE BLOCK  
MAKE FROM RUBBER SHEET SOLID, P/N ZZR765/15-098D5, 0.050 THICK  
NSN 9320-01-326-1309
- BOND RUBBER SHEET TO PRESSURE BLOCK USING  
ADHESIVE P/N DC 732 RTV NSN 8040-00-833-9563
- ALL DIMENSIONS IN INCHES

M04-5224

**Figure D-478. Pressure Block, Main Rotor Blade Spar To Spar Debond Repair Tool, PN AH64-0017**

## APPENDIX E STORAGE OF AIRCRAFT

### OVERVIEW

Appendix E contains description information and procedures for helicopter storage.

### APPENDIX INDEX

<u>Para Title</u>	<u>Para No.</u>
<b>SECTION I. STORAGE AND CORROSION CONTROL GENERAL INFORMATION</b>	
Description of Storage Categories .....	E.1
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## SECTION I. STORAGE AND CORROSION CONTROL GENERAL INFORMATION

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### E.1. DESCRIPTION OF STORAGE CATEGORIES

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a. Any component removed for reason of accident shall not be preserved, but shall be shipped in the same condition it was in after the accident.

b. There are three types of storage: Flyable, short-term, and intermediate.

(1) Flyable storage assures that the helicopter is maintained for frequent use. Service normal to daily use is required.

(2) Short-term storage is for 1 to 45 days. This type of storage requires little service to the helicopter while stored.

(3) Intermediate storage is from 46 to 180 days. This longer time requires preservation services.

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### E.2. CORROSION CONTROL

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a. Corrosion prevention and control involves keeping moisture, salt-laden air, industrial pollutants, and other environmental contaminants from contacting exposed metals and non-metals.

b. Corrosion occurs by two methods. They are:

(1) Direct chemical attack.

(2) Electrochemical attack.

c. During storage, preventive maintenance must be applied to ensure effective corrosion control of the helicopter and related equipment.

d. Corrosion preservation service will retard and/or minimize corrosion of metallic surfaces provided the preservation/corrosion preventive compounds will displace moisture and prevent permeation of harmful environmental contaminants.

e. To preserve helicopter exposed surfaces, they must be cleaned well and a barrier of protective coating must be applied between these surfaces and the moisture in the air.

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**E.3. SERVICES COMMON TO THE THREE STORAGE CATEGORIES**

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- a. When preserving the helicopter, do not stop until each job is finished. Corrosion preventive treatment must be done immediately after cleaning. If you must stop, use a temporary treatment to keep moisture and corrosion out.
- b. At the end of either Short-term or Intermediate storage, the helicopter is made ready for flight.
- c. Before engine run-up, preservative shall be removed from the following:
  - (1) Engine
  - (2) Main Transmission
  - (3) Engine Nose Gearboxes

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**E.4. ENVIRONMENTAL CONDITIONS**

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- a. Atmospheric conditions and site facilities must be evaluated before the helicopter is stored. Varied storage conditions may be necessary between flyable and short-term storage for periods of time up to 45 days. The decision will be based upon availability of manpower, materials, and equipment required to perform ground run-ups, motoring of engines, defueling and purging of fuel and oils, and other various procedural elements.
- b. When possible, the helicopter will be stored in a hangar or building. Otherwise, it will be moored as described in Chapter 1.
- c. Wet weather induces fungi and/or micro-organisms to cause mildew, mold, and microbial corrosion. When these conditions prevail, corrosion preventive remedial service shall be performed.
- d. Non-metallic materials shall be kept as clean and dry as possible.
- e. Visible effects of corrosion shall be treated in accordance with paragraph 1.49.
- f. Ensure drain holes are free from obstruction and are kept open for duration of the storage periods. Cover drain holes with screens.
- g. Fuel cells must be kept full to prevent condensation.
- h. Forced ventilation procedures will minimize occurrence of condensation and microbial corrosion caused by fungi and/or micro-organisms in the visible formation of mildew, mold, etc.

## SECTION II. FLYABLE STORAGE

### E.5. FLYABLE STORAGE – NO TIME LIMIT

This task covers: Flyable Storage.

#### E.5.1. Initial Setup

**Tools:**

Aircraft mechanic's tool kit (item 376, App H)  
 Light duty laboratory apron (item 27, App H)  
 Chemical protective gloves (item 154, App H)  
 Adjustable air filtering respirator (item 262, App H)

**Materials/Parts:**

Barrier material (item 32, App F)  
 Cloth (item 52, App F)  
 Dry cleaning solvent (item 74, App F)  
 Lubricating oil (item 117, App F)  
 Tape (item 207, App F)

**Personnel Required:**

67R      Attack Helicopter Repairer  
 67R3F   Attack Helicopter Repairer/Technical  
           Inspector  
 152FG   Maintenance Test Pilot

**References:**

TM 1-1500-204-23  
 TM 1-1520-238-PMS  
 TM 9-1090-208-23  
 TM 11-6140-203-14-1  
 TM 11-6140-203-14-2  
 TM 55-1500-344-23  
 TM 55-1520-238-10  
 TM 55-2840-248-23

**Equipment Conditions:**

<u>Ref</u>	<u>Condition</u>
1.57	Helicopter safed
TM 55-2840-248-23	Engine 10-hour/14-day in- specion performed
TM 1-1520-238-PMS	10-hour/14-day in- specion performed

### NOTE

Refer to TM 1-1500-204-23 for general procedures for storage of aircraft.

#### E.5.2. Flyable Storage

- a. **Start and operate auxiliary power unit (APU)** (para 1.74).
  - (1) Allow APU to run for 10 to 15 minutes.
- b. **Perform engine ground run-up procedures** (TM 55-1520-238-10).
  - (1) Allow engines to run at idle for 5 minutes.
  - (2) Shut engines down and allow to cool.

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**E.5. FLYABLE STORAGE – NO TIME LIMIT – continued**


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**c. Service fuel system** (para 1.13).

- (1) Drain residual water from fuel cells and service to full.

**CAUTION**

If ambient temperature is below -40 °F (-40 °C), remove battery from helicopter (para 9.40) and store in heated building (TM 11-6140-203-14-1 and -2).

**d. Disconnect battery plug and battery sensor from battery.**

- (1) Connect sensor plug to stowage receptacle.

**e. Clean helicopter** (TM 55-1500-344-23).


- f. Clean exposed chrome surfaces of main landing gear struts.** Use cloth (item 52, App F) and dry cleaning solvent (item 74, App F).



- g. Lubricate cleaned surfaces.** Use lubricating oil (item 117, App F).

- h. Download area weapon, rockets, and/or missiles as required** (TM 9-1090-208-23).

- i. Clean area weapon** (TM 9-1090-208-23).

- j. Remove external stores jettison firing cartridges** (para 16.3).

- k. Install protective covers** (para 1.59).

- l. Seal and secure APU inlet and all fuselage openings.** Use barrier material (item 32, App F) and tape (item 207, App F).

- m. Install main rotor blade tiedowns** (para 1.106).

- n. Perform mooring procedures** (para 1.76).

- o. Inspect (QA).**

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**E.5. FLYABLE STORAGE – NO TIME LIMIT – continued**

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**CAUTION**

To prevent damage to rotor system, do not start engines or pressurize hydraulic system with main rotor blades tied down. Remove helicopter from storage status before starting engines.

**p. Every fourteen days during storage:**

- (1) Perform 10-hour/14-day inspection (TM 1-1520-238-PMS).
- (2) Perform engine 10-hour/14-day inspection (TM 55-2840-248-23).
- (3) Check main and tail landing gear shock strut extension and adjust to normal as required (para 1.40, 1.41, and 1.42).
- (4) Remove main rotor blade tiedowns (para 1.107).
- (5) Remove engine protective covers (para 1.60).
- (6) Remove APU exhaust protective cover (para 1.60).
- (7) Remove barrier material and tape from APU intake.
- (8) Start and operate APU for 10 to 15 minutes (para 1.74).
- (9) Perform engine ground run-up procedures (TM 55-1520-238-10).
  - (a) Allow engines to run at idle for 5 minutes.
  - (b) Shut down engines and allow to cool.
- (10) Install protective covers (para 1.59).
- (11) Seal all fuselage openings. Use barrier material (item 32, App F) and tape (item 207, App F).
- (12) Install main rotor blade tiedowns (para 1.106).
- (13) Inspect helicopter for corrosion and perform appropriate corrosion control procedures (para 1.49).

END OF TASK

**E.6. REMOVAL FROM FLYABLE STORAGE – NO TIME LIMIT**

This task covers: Removal from Storage.

E.6.1. Initial Setup

**Tools:**

- Aircraft mechanic’s tool kit (item 376, App H)
- Light duty laboratory apron (item 27, App H)
- Chemical protective gloves (item 154, App H)
- Adjustable air filtering respirator (item 262, App H)

**References:**

- TM 1-1500-204-23
- TM 1-1500-328-23
- TM 1-1520-238-PMS
- TM 55-1500-344-23
- TM 55-1520-238-10
- TM 55-2840-248-23

**Materials/Parts:**

- Cloth (item 52, App F)
- Dry cleaning solvent (item 74, App F)

**Personnel Required:**

- 67R Attack Helicopter Repairer
- 67R3F Attack Helicopter Repairer/Technical Inspector
- 152FG Maintenance Test Pilot

**Equipment Conditions:**

<u>Ref</u>	<u>Condition</u>
1.57	Helicopter safed

**NOTE**

Refer to TM 1-1500-204-23 for general procedures for removing aircraft from storage.

E.6.2. Removal from Storage

- a. **Remove mooring tiedowns from helicopter.**
- b. **Remove main rotor blade tiedowns** (para 1.107).



- c. **Remove all barrier material and tape.**

(1) Remove all barrier material, tape and residue left by tape. Use cloth (item 52, App F) and dry cleaning solvent (item 74, App F).

- d. **Remove protective covers** (para 1.60).
- e. **Install external stores jettison firing cartridges** (para 16.3).

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**E.6. REMOVAL FROM FLYABLE STORAGE – NO TIME LIMIT – continued**

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f. **Install battery and connect battery plug and battery sensor to battery** (para 9.40).

- (1) Disconnect sensor plug from stowage receptacle.
- (2) Connect battery plug and battery sensor to battery.

g. **Clean helicopter** (TM 55-1500-344-23).

**CAUTION**

Before performing operational checks, ensure that all systems and components are depreserved and serviced.

h. **Perform 10-hour/14-day inspection** (TM 1-1520-238-PMS).

i. **Start and operate auxiliary power unit** (para 1.74).

- (1) Allow APU to operate for 10 to 15 minutes.

j. **Perform engine ground run-up procedures** (TM 55-1520-238-10).

- (1) Allow engines to run at idle for 5 minutes.
- (2) Shut engines down and allow to cool.

k. **Perform after activation inspection.**

- (1) Check log book for record of removed or disconnected components. Ensure that these components have been installed and/or connected. Test flight may be required (TM 1-1500-328-23).
- (2) Check that all procedures for removal from storage have been accomplished.
- (3) Check that all log entries have been made for helicopter, engines, and APU.
- (4) Perform engine 10-hour/14 day inspection (TM 55-2840-248-23).
- (5) Inspect helicopter for corrosion and perform appropriate corrosion control procedures (para 1.49).

END OF TASK

## SECTION III. SHORT TERM STORAGE

### E.7. SHORT TERM STORAGE – 1 TO 45 DAYS

This task covers: Short Term Storage.

#### E.7.1. Initial Setup

**Tools:**

Aircraft mechanic's tool kit (item 376, App H)  
 Light duty laboratory apron (item 27, App H)  
 Chemical protective gloves (item 154, App H)  
 Adjustable air filtering respirator (item 262, App H)

**Materials/Parts:**

Barrier material (item 32, App F)  
 Corrosion preventive compound (item 62, App F)  
 Hydraulic fluid (item 92, App F)  
 Rubber band (item 151, App F)  
 Tape (item 207, App F)

**References:**

TM 1-1270-476-20  
 TM 1-1500-204-23  
 TM 1-1500-328-25  
 TM 1-1520-238-PMS  
 TM 1-5855-265-20  
 TM 9-1090-208-23-1  
 TM 11-6140-203-14-1  
 TM 11-6140-203-14-2  
 TM 55-1500-344-23  
 TM 55-1520-238-10  
 TM 55-2840-248-23

**Equipment Conditions:**

**Personnel Required:**

67R Attack Helicopter Repairer  
 67R3F Attack Helicopter Repairer/Technical Inspector  
 152FG Maintenance Test Pilot

Ref

1.57  
 TM 55-2840-248-23  
 TM 1-1520-238-PMS

Condition

Helicopter safed  
 Engine 10-hour/14-day inspection performed  
 10-hour/14-day inspection performed

**NOTE**

Refer to TM 1-1500-204-23 for general procedures for storage of aircraft.

#### E.7.2. Short Term Storage

- a. **Start and operate auxiliary power unit (APU)** (para 1.74).
  - (1) Allow APU to operate for 10 to 15 minutes.
- b. **Perform engine ground run-up procedures** (TM 55-1520-238-10).
  - (1) Allow engines to run at idle for 5 minutes.
  - (2) Shut engines down and allow to cool.
- c. **Perform engine wash procedures** (TM 55-2840-248-23).

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**E.7. SHORT TERM STORAGE – 1 TO 45 DAYS – continued**

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- d. **Perform environmental control unit cleaning** (para 1.48).
- e. **Perform APU cleaning** (TM 55-1500-344-23).
- f. **Remove, clean, and reinstall engine fuel filter** (TM 55-2840-248-23).
- g. **Service helicopter fuel system** (para 1.13).
  - (1) Drain residual water from fuel cells and service to full.
- h. **Download area weapon, rockets, and/or missiles as required** (TM 9-1090-208-23-1).
- i. **Clean area weapon** (TM 9-1090-208-23-1).
- j. **Remove external stores jettison firing cartridges** (para 16.3).
- k. **Clean helicopter** (TM 55-1500-344-23).
- l. **Inspect helicopter for corrosion and perform appropriate corrosion control procedures** (para 1.49).



- m. **Apply a thin coat of hydraulic fluid to piston rods of the landing gear, gun turret, and pylon actuator.**  
Use hydraulic fluid (item 92, App F).

**CAUTION**

If ambient temperature is below -40 °F (-40 °C), remove battery from helicopter (para 9.40) and store in heated building (TM 11-6140-203-14-1 and -2).

- n. **Disconnect battery plug and battery sensor from battery.**
  - (1) Connect sensor plug to stowage receptacle.
- o. **Make entries in log book, maintenance, and historical records as required** (TM 1-1500-204-23).
  - (1) Place logbook and records in bag, seal, and secure to pilot seat. Use tape (item 207, App F).
- p. **Fasten all safety belts and shoulder harnesses and tighten to eliminate slack.**
  - (1) Roll and secure loose ends of webbing. Use rubber band (item 151, App F).

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**E.7. SHORT TERM STORAGE – 1 TO 45 DAYS – continued**

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- q. **Wrap and secure all technical manuals, fire extinguishers, headsets, first-aid packs, and clocks.** Use barrier material (item 32, App F) and tape (item 207, App F).
- (1) Place all items in a fiberboard box, label, and store in hangar or building.
- r. **Enter pilot station (para 1.56). Observe all safety precautions.**
- (1) De-energize circuit breakers at main panels.
  - (2) Friction down cyclic and collective sticks.
  - (3) Check that all equipment in pilot station is secure.
- s. **Enter CPG station (para 1.56). Observe all safety precautions.**
- (1) De-energize circuit breakers at main panels.
  - (2) Friction down cyclic and collective sticks.
  - (3) Check that all equipment in CPG station is secure.
- t. **Install protective covers (para 1.59).**
- (1) Seal and secure static air pressure vent, APU intake, and all fuselage openings. Use barrier material (item 32, App F) and tape (item 207, App F).
- u. **Preserve TADS/PNVS turret as required (TM 1-1270-476-20) and (TM 1-5855-265-20).**

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**E.7. SHORT TERM STORAGE – 1 TO 45 DAYS – continued**

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- v. **Remove main rotor blades** (para 5.3).



- w. **Store main rotor blades.**

- (1) Clean blades (TM 55-1500-344-23).
- (2) Apply corrosion preventive compound to mating surfaces of blades. Use corrosion preventive compound (item 62, App F).
- (3) Wrap and secure areas of blade that contact box supports. Use barrier material (item 32, App F) and tape (item 207, App F).
- (4) Place blades in shipping containers and store in hangar or building.

**NOTE**

Aircraft in storage will be periodically inspected in accordance with applicable local directives and TM 1-1500-204-23.

- x. **Perform helicopter mooring procedures** (para 1.76).

END OF TASK

**E.8. REMOVAL FROM SHORT TERM STORAGE – 1 TO 45 DAYS**

This task covers: Removal from Short Term Storage.

E.8.1. Initial Setup

**Tools:**

- Aircraft mechanic's tool kit (item 376, App H)
- Light duty laboratory apron (item 27, App H)
- Chemical protective gloves (item 154, App H)
- Adjustable air filtering respirator (item 262, App H)

**Materials/Parts:**

- Cloth (item 52, App F)
- Dry cleaning solvent (item 74, App F)

**References:**

- TM 1-1270-476-20
- TM 1-1500-204-23
- TM 1-1500-328-23
- TM 1-1520-238-PMS
- TM 1-5855-265-20
- TM 55-1500-344-23
- TM 55-1520-238-10
- TM 55-2840-248-23

**Personnel Required:**

- 67R Attack Helicopter Repairer
- 67R3F Attack Helicopter Repairer/Technical Inspector
- 152FG Maintenance Test Pilot

**Equipment Conditions:**

<u>Ref</u>	<u>Condition</u>
1.57	Helicopter safed

**NOTE**

Refer to TM 1-1500-204-23 for general procedures for removing aircraft from storage.

E.8.2. Removal from Short Term Storage

- a. **Remove mooring tiedowns from helicopter.**
- b. **Install main rotor blades** (para 5.4).
- c. **Depreserve TADS/PNVS turret** (TM 1-1270-476-20) **and** (TM 1-5855-265-20).



- d. **Remove all barrier material, tape, and rubber bands.**

(1) Remove all barrier material, tape, and residue left by tape. Use cloth (item 52, App F) and dry cleaning solvent (item 74, App F).

- e. **Remove protective covers** (para 1.60).

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**E.8. REMOVAL FROM SHORT TERM STORAGE – 1 TO 45 DAYS – continued**

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**f. Remove technical manuals, fire extinguishers, headsets, first aid kits, and clock from storage.**

(1) Remove barrier material and tape and install in helicopter.

**g. Install external stores jettison firing cartridges (para 16.3).**

**h. Install battery and connect battery plug and battery sensor to battery (para 9.40).**

(1) Disconnect sensor plug from stowage receptacle.

(2) Connect battery plug and battery sensor to battery.

**i. Clean helicopter (TM 55-1500-344-23).**

**CAUTION**

Before performing operational checks, ensure all systems and components are deperused and serviced.

**j. Perform 10 hour/14 day inspection (TM 1-1520-238-PMS).**

**k. Start and operate auxiliary power unit (para 1.74).**

(1) Allow APU to operate for 10 to 15 minutes.

**l. Perform engine ground run-up procedures (TM 55-1520-238-10).**

(1) Allow engines to run at idle for 5 minutes.

(2) Shut engines down and allow to cool.

**m. Perform after activation inspection.**

(1) Check log book for record of removed or disconnected components. Ensure that these components have been installed and/or connected, test flight may be required (TM 1-1500-328-23).

(2) Check that all procedures for removal from storage have been accomplished.

(3) Check that all log entries have been made for helicopter, engines, and APU.

(4) Perform engine 10-hour/14 day inspection (TM 55-2840-248-23).

(5) Inspect helicopter for corrosion and perform appropriate corrosion control procedures (para 1.49).

END OF TASK

## SECTION IV. INTERMEDIATE STORAGE

### E.9. INTERMEDIATE STORAGE – 46 TO 180 DAYS

This task covers: Intermediate Storage.

#### E.9.1. Initial Setup

##### **Tools:**

Aircraft mechanic's tool kit (item 376, App H)  
 Light duty laboratory apron (item 27, App H)  
 Chemical protective gloves (item 154, App H)  
 Adjustable air filtering respirator (item 262, App H)

##### **Materials/Parts:**

Barrier material (item 32, App F)  
 Cloth (item 52, App F)  
 Corrosion preventive compound (item 62, App F)  
 Dry cleaning solvent (item 74, App F)  
 Hydraulic fluid (item 92, App F)  
 Rubber band (item 151, App F)  
 Tape (item 207, App F)

##### **Personnel Required:**

67R     Attack Helicopter Repairer  
 67R3F   Attack Helicopter Repairer/Technical  
           Inspector  
 152FG   Maintenance Test Pilot

##### **References:**

TM 1-1500-204-23  
 TM 1-1520-238-PMS  
 TM 1-5855-265-20  
 TM 9-1090-208-23-1  
 TM 55-1500-344-23  
 TM 55-1520-238-10  
 TM 55-2840-248-23

##### **Equipment Conditions:**

<u>Ref</u>	<u>Condition</u>
1.57	Helicopter safed
TM 55-2840-248-23	Engine 10-hour/14-day inspection performed
TM 1-1520-238-PMS	10-hour/14-day inspection performed

#### **NOTE**

Refer to TM 1-1500-204-23 for general procedures for storage of aircraft.

#### E.9.2. Intermediate Storage

- a. **Start and operate auxiliary power unit (APU)** (para 1.74).
  - (1) Allow APU to run for 10 to 15 minutes.
- b. **Perform engine ground run-up procedures** (TM 55-1520-238-10).
  - (1) Allow engines to run at idle for 5 minutes.
  - (2) Shut engines down and allow to cool.

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**E.9. INTERMEDIATE STORAGE – 46 TO 180 DAYS – continued**

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- c. **Perform engine washing procedures** (TM 55-1500-344-23) **and** (TM 55-2840-248-23).
- d. **Perform engine intermediate storage preservation procedures** (TM 55-2840-248-23).
- e. **Perform environmental control unit cleaning** (para 1.48).
- f. **Perform APU cleaning** (TM 55-1500-344-23).
- g. **Perform auxiliary power unit storage preservation procedures** (para E.11).
- h. **Download area weapon, rockets, and/or missiles as required** (TM 9-1090-208-23-1).
- i. **Clean area weapon** (TM 9-1090-208-23-1).
- j. **Remove external stores jettison firing cartridges** (para 16.3).
- k. **Clean helicopter** (TM 55-1500-344-23).
- l. **Inspect helicopter for corrosion and perform appropriate corrosion control procedures** (para 1.49).
- m. **Remove main rotor blades** (para 5.3).



- n. **Store main rotor blades.**
  - (1) Clean blades (TM 55-1500-344-23).
  - (2) Apply corrosion preventive compound (item 62, App F) to mating surfaces of blades.
  - (3) Wrap and secure areas of blade that contact box supports. Use barrier material (item 32, App F) and tape (item 207, App F).
  - (4) Place blades in shipping containers and store in hangar or building.
- o. **Apply corrosion preventive compound to exposed metal surfaces of tail rotor blades.** Use corrosion preventive compound (item 62, App F).
  - (1) Wrap and secure tail rotor blades. Use barrier material (item 32, App F) and tape (item 207, App F).
- p. **Preserve forward and aft fuel cells** (TM 1-1500-204-23).

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**E.9. INTERMEDIATE STORAGE – 46 TO 180 DAYS – continued**


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- q. **Clean power train and apply a thin coat of corrosion preventive compound to all exposed metal surfaces.** Use cloth (item 52, App F), dry cleaning solvent (item 74, App F), and corrosion preventive compound (item 62, App F).

(1) Cover and secure power train. Use barrier material (item 32, App F) and tape (item 207, App F).

**CAUTION**

Do not allow tape (item 207, App F) to contact canopy panels.

- r. **Seal and secure all transmission and gearbox vents.** Use barrier material (item 32, App F) and tape (item 207, App F).

- s. **Perform battery compartment preservation.**

(1) Remove battery (para 9.40).

(2) Seal receptacle and bring to battery shop. Use tape (item 207, App F).

(3) Wrap and secure battery connector to airframe. Use barrier material (item 32, App F) and tape (item 207, App F).

(4) Clean battery compartment (para 1.50).

(5) Seal vent holes. Use tape (item 207, App F).



- t. **Apply a thin coat of hydraulic fluid to hydraulic boost cylinder actuator piston rods.** Use hydraulic fluid (item 92, App F).

- u. **Apply a thin coat of corrosion preventive compound to exposed metal surfaces of main rotor mast and rotating controls.** Use corrosion preventive compound (item 62, App F).

- v. **Wrap and secure exposed metal surfaces of main rotor mast and rotating controls.** Use barrier material (item 32, App F) and tape (item 207, App F).

- w. **Apply a thin coat of hydraulic fluid to landing gear piston rods, gun turret, and pylon actuator.** Use hydraulic fluid (item 92, App F).

- x. **Wrap and secure landing gear piston rods, gun turret, and pylon actuator.** Use barrier material (item 32, App F) and tape (item 207, App F).

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**E.9. INTERMEDIATE STORAGE – 46 TO 180 DAYS – continued**

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- y. **Make entries in log book, maintenance, and historical records as required** (TM 1-1500-204-23).
  - (1) Place logbook and records in bag.
  - (2) Seal and secure logbook and records to pilot seat. Use tape (item 207, App F).
- z. **Fasten all safety belts and shoulder harnesses and tighten to eliminate slack.**
  - (1) Roll and secure loose ends of webbing. Use rubber band (item 151, App F).
- aa. **Wrap and secure technical manuals, fire extinguishers, headsets, first-aid kits, and clock.** Use barrier material (item 32, App F) and tape (item 207, App F).
  - (1) Pack all items in a fiberboard box, label, and store in hangar or building.
- ab. **Enter pilot station** (para 1.56). **Observe all safety precautions.**
  - (1) De-energize circuit breakers at main panels.
  - (2) Friction down cyclic and collective sticks.
  - (3) Check that all equipment in pilot station is secure.
- ac. **Enter CPG station** (para 1.56). **Observe all safety precautions.**
  - (1) De-energize circuit breakers at main panels.
  - (2) Friction down cyclic and collective sticks.
  - (3) Check that all equipment in CPG station is secure.
- ad. **Install protective covers** (para 1.59).
  - (1) Seal and secure static air pressure vent, APU intake, and all fuselage openings. Use barrier material (item 32, App F) and tape (item 207, App F).
- ae. **Preserve TADS/PNVS turret as required** (TM 9-1090-208-23-1) **and** (TM 1-5855-265-20).

**NOTE**

Aircraft in storage will be periodically inspected in accordance with applicable local directives and TM 1-1500-204-23.

- af. **Perform helicopter mooring procedures** (para 1.76).
- ag. **Inspect (QA).**

END OF TASK

**E.10. REMOVAL FROM INTERMEDIATE STORAGE – 46 TO 180 DAYS**

This task covers: Removal from Intermediate Storage.

E.10.1. Initial Setup

**Tools:**

- Aircraft mechanic’s tool kit (item 376, App H)
- Light duty laboratory apron (item 27, App H)
- Industrial faceshield (item 129, App H)
- Chemical protective gloves (item 154, App H)
- Adjustable air filtering respirator (item 262, App H)

**Materials/Parts:**

- Cloth (item 52, App F)
- Dry cleaning solvent (item 74, App F)

**Personnel Required:**

- 67R Attack Helicopter Repairer
- 67R3F Attack Helicopter Repairer/Technical Inspector
- 152FG Maintenance Test Pilot

**References:**

- TM 1-1270-476-20
- TM 1-1500-204-23
- TM 1-1500-328-23
- TM 1-1520-238-PMS
- TM 1-5855-265-20
- TM 55-1500-344-23
- TM 55-1520-238-10
- TM 55-2840-248-23

**Equipment Conditions:**

<u>Ref</u>	<u>Condition</u>
1.57	Helicopter safed

**NOTE**

Refer to TM 1-1500-204-23 for general procedures for removing aircraft from storage.

E.10.2. Removal from Intermediate Storage

- a. **Remove mooring tiedowns from helicopter.**
- b. **Install main rotor blades on helicopter** (para 5.4).
- c. **Depreserve TADS/PNVS turret** (TM 1-1270-476-20) **and** (TM 1-5855-265-20).



- d. **Remove all barrier material, tape, and rubber bands.**

(1) Remove all barrier material, tape, and residue left by tape. Use cloth (item 52, App F) and dry cleaning solvent (item 74, App F).

- e. **Remove protective covers** (para 1.60).

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**E.10. REMOVAL FROM INTERMEDIATE STORAGE – 46 TO 180 DAYS – continued**

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- f. **Remove technical manuals, fire extinguishers, headsets, first aid kits, and clock from storage.**
  - (1) Remove barrier material and tape and install in helicopter.
- g. **Install external stores jettison firing cartridges** (para 16.3).
- h. **Depreserve battery compartment and install battery.**
  - (1) Remove barrier material, tape, and residue left by tape from battery compartment, battery connectors, and seal vent holes. Use cloth (item 52, App F) and dry cleaning solvent (item 74, App F).
  - (2) Install battery (para 9.40).
- i. **Depreserve forward and aft fuel cells.**
  - (1) Drain fuel cells (para 1.21).
  - (2) Flush fuel cells with JP-4 and JP-5 fuel until fuel draining out is free of oil.
  - (3) Remove warning tags from fuel cell filler caps.
  - (4) Service fuel cells to full (para 1.13).
- j. **Perform auxiliary power unit (APU) depreservation procedures** (para E.12).
- k. **Perform engine depreservation procedures** (TM 55-2840-248-23).
- l. **Clean helicopter** (TM 55-1500-344-23).

**CAUTION**

Before performing operational checks, ensure all systems and components are depreserved and serviced.

- m. **Perform 10-hour/14-day inspection** (TM 1-1520-238-PMS).
- n. **Start and operate auxiliary power unit** (para 1.74).
  - (1) Allow APU to operate for 10 to 15 minutes.
- o. **Perform engine ground run-up procedures** (TM 55-1520-238-10).
  - (1) Allow engines to run at idle for 5 minutes.
  - (2) Shut engines down and allow to cool.

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**E.10. REMOVAL FROM INTERMEDIATE STORAGE – 46 TO 180 DAYS – continued**

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**p. Perform after activation inspection.**

- (1) Check log book for record of removed or disconnected components. Ensure that these components have been installed and/or connected, test flight may be required (TM 1-1500-328-23).
- (2) Check that all procedures for removal from storage have been accomplished.
- (3) Check that all log entries have been made for helicopter, engines, and APU.
- (4) Perform engine 10-hour/14 day inspection (TM 55-2840-248-23).
- (5) Inspect helicopter for corrosion and perform appropriate corrosion control procedures (para 1.49).

END OF TASK

**E.11. AUXILIARY POWER UNIT (APU) STORAGE PRESERVATION**

This task covers: APU Storage Preservation.

E.11.1. Initial Setup

**Tools:**

Aircraft mechanic's tool kit (item 376, App H)  
 Light duty laboratory apron (item 27, App H)  
 Industrial faceshield (item 129, App H)  
 Chemical protective gloves (item 154, App H)  
 Aircraft power unit (item 232, App H)

**Personnel Required:**

67R Attack Helicopter Repairer  
 67R3F Attack Helicopter Repairer/Technical Inspector

**References:**

TM 1-1500-204-23  
 ■ TM 1-2835-213-23

**Materials/Parts:**

Protective caps  
 Barrier material (item 32, App F)  
 Lubricating oil (item 117, App F)  
 Tape (item 207, App F)  
 Tubing (item 213, App F)

**Equipment Conditions:**

<u>Ref</u>	<u>Condition</u>
1.57	Helicopter safed
2.2	Access doors T250L, T250R, T290L, T290R, and L325 opened
15.41	APU enclosure removed

**NOTE**

Refer to TM 1-1500-204-23 for general procedures for preservation of aircraft.

E.11.2. APU Storage Preservation

a. **Enter pilot station** (para 1.56). **Observe all safety precautions.**

- (1) On pilot center circuit breaker panel, open **FUEL BST** and **FUEL APU** circuit breakers and close **APU HOLD** circuit breaker.



**Ignition system contains high voltage electricity and can cause injury or death. Exercise extreme caution when handling the igniter lead.**

- b. **Remove igniter plug from combustor cap** (TM 1-2835-213-23).

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**E.11. AUXILIARY POWER UNIT (APU) STORAGE PRESERVATION – continued**

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c. **Preserve APU fuel system.** Use lubricating oil (item 117, App F).

- (1) Disconnect fuel inlet line from fuel nozzle (TM 1-2835-213-23).
- (2) Connect tubing (item 213, App F) to fuel inlet line.
- (3) Disconnect fuel inlet line from APU fuel control unit (para 15.20) and install protective cap (TM 1-1500-204-23).
- (4) Disconnect fuel inlet line to APU boost pump (para 10.108) and install protective cap (TM 1-1500-204-23).
- (5) Connect tubing (item 213, App F) to fuel control unit inlet.
- (6) Place free end of tubing (item 213, App F) into container of lubricating oil (item 117, App F).
- (7) Apply external power – electrical (para 1.70). Use aircraft power unit.
- (8) Apply external power – hydraulic (utility) (para 1.73). Use aircraft power unit.
- (9) Motor APU until only oil is expended from fuel line.
- (10) Remove external power – hydraulic (utility) (para 1.73).
- (11) Remove external power – electrical (para 1.70).
- (12) Install protective caps on disconnected ends of fuel nozzle, fuel lines, and APU fuel control unit (TM 1-1500-204-23).
- (13) Tag APU fuel control unit inlet elbow and **APU START/RUN** switch on right console with the following caution message:

**CAUTION**

Fuel system has been preserved with lubricating oil (item 117, App F). Flushing is required before placing helicopter in service.

d. **Drain oil from APU** (para 1.26).

■ e. **Replace APU oil filter** (TM 1-2835-213-23).

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**E.11. AUXILIARY POWER UNIT (APU) STORAGE PRESERVATION – continued**

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- f. **Install protective caps on all outlets, bleed, and ambient ports** (TM 1-1500-204-23).
- g. **Inspect (QA)**.
- h. **Install APU exhaust cover** (para 1.59).
  - (1) Seal and secure APU intake. Use barrier material (item 32, App F) and tape (item 207, App F).

**NOTE**

Manufacturer requires that auxiliary power units stored outside be removed from storage and operated every 60 days. Units stored in a protected environment must be operated once a year.

- i. **Install APU enclosure** (para 15.42).
- j. **Secure access doors T250L, T250R, T290L, T290R, and L325** (para 2.2).

END OF TASK

**E.12. AUXILIARY POWER UNIT (APU) DEPRESERVATION**

This task covers: APU Depreservation.

E.12.1. Initial Setup

**Tools:**

- Aircraft mechanic's tool kit (item 376, App H)
- Light duty laboratory apron (item 27, App H)
- Industrial faceshield (item 129, App H)
- Chemical protective gloves (item 154, App H)
- Aircraft power unit (item 232, App H)
- Adjustable air filtering respirator (item 262, App H)

**Personnel Required:**

- 67R Attack Helicopter Repairer
- 67R3F Attack Helicopter Repairer/Technical Inspector

**References:**

- TM 1-1500-204-23
- TM 1-2835-213-23

**Equipment Conditions:**

<u>Ref</u>	<u>Condition</u>
1.57	Helicopter safed
2.2	Access doors T250L, T250R, T290L, T290R, and L325 opened
15.41	APU enclosure removed

**Materials/Parts:**

- Cloth (item 52, App F)
- Dry cleaning solvent (item 74, App F)

**NOTE**

Refer to TM 1-1500-204-23 for general procedures for removing aircraft from storage.

E.12.2. APU Depreservation



- a. **Remove APU exhaust cover** (para 1.60).
  - (1) Remove all barrier material, tape, and residue left by tape. Use cloth (item 52, App F) and dry cleaning solvent (item 74, App F).
- b. **Remove protective caps from APU** (TM 1-1500-204-23).
- c. **Service APU** (para 1.26).

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**E.12. AUXILIARY POWER UNIT (APU) DEPRESERVATION – continued**

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**d. Flush APU fuel system with JP-4 or JP-5 fuel.**

- (1) Remove caution tag from APU fuel control unit inlet elbow and **APU START/RUN** switch.
- (2) Remove protective caps from ends of fuel nozzle, fuel lines, and APU fuel control unit.
- (3) Apply external power – electrical (para 1.70). Use aircraft power unit.
- (4) Apply external power – hydraulic (utility) (para 1.73). Use aircraft power unit.
- (5) Place end of fuel inlet line into container of fuel.
- (6) Motor APU until only fuel is expended from nozzle fuel line.
- (7) Remove external power – hydraulic (utility) (para 1.73).
- (8) Remove external power – electrical (para 1.70).
- (9) Remove protective cap from boost pump and connect fuel inlet to boost pump (para 10.108).
- (10) Connect fuel inlet line to APU fuel control unit (para 15.20).
- (11) Connect fuel inlet line to fuel nozzle (TM 1-2835-213-23).

**WARNING**

**Ignition system contains high voltage electricity and can cause injury or death. Exercise extreme caution when handling the igniter lead.**

- e. **Install igniter plug into combustor cap** (TM 1-2835-213-23).
- f. **Inspect (QA).**
- g. **Install APU enclosure** (para 15.42).
- h. **Secure access doors T250L, T250R, T290L, T290R, and L325** (para 2.2).

END OF TASK

## APPENDIX F EXPENDABLE AND DURABLE ITEMS LIST

### SECTION I. INTRODUCTION

#### F.1. SCOPE

This appendix lists expendable and durable items you will need to maintain the AH-64A helicopter. This listing is for informational purposes only and is not authority to requisition the listed items. These items are authorized to you by CTA 50-970, expendable items (except Medical, Class V, Repair Parts, and Heraldic Items).

#### F.2. EXPLANATION OF COLUMNS

- a. Column (1) – Item number. This number is assigned to the entry in the listing for referencing when required.
- b. Column (2) – Level. This column identifies the lowest level of maintenance that requires the listed item.

C – Operator/Crew

O – Unit Maintenance

F – Direct Support Maintenance

H – General Support Maintenance

- c. Column (3) – National Stock Number. This is the national stock number assigned to the item.
- d. Column (4) – Description. Indicates the federal item name and, if required, a description to identify the item. The last line for each item indicates the Commercial and Government Entity Code (CAGEC) in parenthesis followed by the part number.
- e. Column (5) – Unit of Measure (U/M)/Unit of Issue (U/I). This measure is expressed by a two-character alphabetical abbreviation (e.g., EA, IN, PR). If the unit of measure differs from the unit of issue as shown in the Army Master Data File (AMDF) requisition the lowest unit of issue that will satisfy your requirements.

## SECTION II. EXPENDABLE AND DURABLE ITEMS LIST

(1) Item Number	(2) Level	(3) National Stock Number	(4) Description	(5) (U/M)/ (U/I)
1	O	8040-01-208-6003	Adhesive. (04347) EA 960 F	KT
1A	O	6810-00-264-8955	Acetone, ACS, 1 gl (81348) O-C-265	BT
2	O	8040-01-163-3481	Adhesive, 1 qt. (04347) EA9309.3NA	KT
2A	O	8040-01-382-5841	Adhesive, 50 gm. (5 mil. glass beads for thickness) (33564) EA9309.3NA	KT
3	O	8040-01-189-1284	Adhesive, 1 qt. (04347) EA9314 A/B	KT
3A	O	8040-01-184-7171	Adhesive, 1 qt. (04347) EA9330.3 A/B	KT
4	O	8040-01-016-4726	Adhesive, 1 qt. (52152) EC3549BA	KT
5	O	8040-01-107-4000	Adhesive, 2 lb. (33564) EA9313	KT
6	O	8040-01-193-6717	Adhesive, 2 lb. (33564) EA 9321	KT
6A	O		Adhesive, modified acrylic paste type, two part (04347) EA 9366	KT
7	O	8040-01-252-8567	Adhesive, 2.8 oz. (01139) RTV 128	TU
8	O	8040-00-145-0019	Adhesive, 2 oz. 2 component. (52152) 2216 B/A	KT
9	O	8040-00-181-7201	Adhesive, 300 gm. (06090) S-1009	KT
10	O	8040-00-152-0028	Adhesive, TY 1, CL3, 6 oz, 2 component (34469) EA934NA	KT
11	O	8040-01-036-3771	Adhesive, MIL-A-8623, 4 oz. (03481) A-1177B	KT
12	O	8040-01-023-7469	Adhesive, MIL-A-46050 TY1 CL2, 4 oz. (98100) 3154737-00	BT
13	O	8040-00-142-9193	Adhesive, MIL-A-46050 TY2 CL2, 10 - 1-oz. bt. (05972) IS-04E	BX
14	O	8040-00-833-9563	Adhesive, MIL-A-46106, 5 oz. (71984) DC 732 RTV	TU
14A	O	8040-00-851-0211	Adhesive, MIL-A-46106, GR1, TY1, CL1, 6 oz. (71984)	KT
15	O	8040-00-225-4548	Adhesive, MIL-A-46106, 12 oz. (01139) RTV 102	CN

(1) Item Number	(2) Level	(3) National Stock Number	(4) Description	(5) (U/M)/ (U/I)
16	O	8040-00-117-8510	Adhesive, MIL-A-46146, Clear, 3 oz. (71984) 3145 RTV CLEAR	TU
17	O	8040-00-938-1535	Adhesive, MIL-A-46146, Type 1, White, 12 oz. (71984) 3145 RTV	CA
18	O	8040-00-165-8614	Adhesive, MMM-A-121, 1 qt. (04633) EC1300L	CN
19	O	8040-00-152-0017	Adhesive, MMM-A-132, 2.5 oz. (92108) 25009-1	KT
20	O	8040-00-290-4301	Adhesive, MMM-A-1617, 32 oz. (85091) BROADMASTER 81-4016	CN
20A	O	8040-01-269-2280	Adhesive, RTV, 103 oz. (71984) SILASTIC 739 RTV	TU
21			Deleted	
22	O		Adhesive, Sealer, THIXON, 1 gl. (17927) P-5-2	KT
23	O	8040-01-015-3805	Adhesive, Silicone, 4 oz. (79500) M53846LQ	TU
24	O		Adhesive Film. (73030) 760497	CN
25	O	6810-00-205-6786	Alcohol, Denatured, 32 oz. (81348) O-E-00760	BT
26	O	8030-00-087-8630	Antiseize Compound, 1 lb. (81349) MIL-T-83483	CN
27	O	8030-01-044-5034	Antiseize Compound, 1 lb. (81349) MIL-T-5544	CN
28	O	8030-00-597-5367	Antiseize Compound, MIL-A-907, 2.5 lb. (73165) 51008	CN
29	O	8030-00-292-1102	Antiseize Compound, MIL-T-22361, 8 oz. (81349) C-638	TU
29A	O	6515-00-303-8250	Applicator, Disposable (02773) 30-011, Swab, Cotton	PG
30	O	9150-00-159-5012	Assembly Fluid, 10 - 4 oz. tubes. (OAG11) AFS TURBO 10	BX
31	O	8105-00-054-0939	Bag, Plastic. (73342) 6871617-2	BX
32	O	8135-00-282-0565	Barrier Material, MIL-B-131, Water Vaporproofed, Flexible. (19203) 801560	RO

(1) Item Number	(2) Level	(3) National Stock Number	(4) Description	(5) (U/M)/ (U/I)
33	O	6810-00-264-6535	Boric Acid, 500 gm. (81348) 0-C-265	BT
34	O	7920-00-514-2417	Brush, Acid Swabbing. (58536) A-A-289, TY II, CL 1	GR
35	O	8020-00-224-8022	Brush, Artists, 0.047 in. dia. (81348) H-B-118	EA
36	O	8020-00-297-6657	Brush, Paint, 1 1/4 in. (81348) H-B-491	EA
37	O	7920-00-282-7783	Brush, Test Tube, 1/2 in. dia. (81348) H-B-1051	EA
38	O	7920-00-282-7784	Brush, Test Tube, 3/4 in. dia. (80011) 3-574	EA
39	O	8020-00-260-1305	Brush, Varnish, 1 1/2 in. (81348) H-B-695	EA
39A	O	6810-00-242-4066	Calcium Sulfate, Anhydrous, Technical, 1 lb. (70000) 13001	CN
40	O	6830-00-247-0619	Carbon Dioxide, Technical, (Dry Ice), 50 lb. (81348) BB-C-104	BL
41	O	8135-00-582-5170	Cellophane, 1000 sh. 12 X 12. (81348) L-C-110	PG
41A	O	6810-00-264-6517	Chromium Trioxide, Technical, D.O.T class 5.1 5 lb. (58536) A-A-55827	CN
42	O	8010-00-913-0152	Cleaner, Aluminum Coating, 1 gl. (55849) 12	CN
43	O	6850-01-227-8201	Cleaner, Metal (92108) 222550	BT
43A	O	6850-01-045-7929	Cleaning Compound, Aircraft Surface, 5 gl. (81349) MIL-C-43616	CN
44	O	6850-01-235-0872	Cleaning Compound, Aircraft Surface, 5 gl. (81349) MIL-C-85570	CN
44A	O	6850-01-339-5227	Cleaning Compound, Aircraft Surface, TY II, 5 gl. (81349) MIL-C-87937	CN
45			Deleted	
46	O	6850-00-105-3084	Cleaning Compound, Solvent, 16 oz. (10136) 02016	CN
46A	O	6850-01-231-8677	Cleaning Compound, Solvent (75293) ED-400	DR
47	O	5350-00-192-5051	Cloth, Abrasive, 180 Grit, pg. 50 sh. (58536) A-A-1048	PG
48	O	5350-00-246-0330	Cloth, Abrasive, 320 Grit, pg. 50 sh. (58536) A-A-1048	PG

(1) Item Number	(2) Level	(3) National Stock Number	(4) Description	(5) (U/M)/ (U/I)
49	O	5350-00-260-0750	Cloth, Abrasive, 400 Grit, 50 yd. (81348) P-C-451	RO
50	O	5350-00-221-0872	Cloth, Abrasive, Crocus Cloth pg. 50 sh. (58536) A-A-1206	PG
51	O	8305-01-125-0725	Cloth, Cheesecloth, 36 in. X 5 yd. (58536) A-A-1491	RO
52	O	7920-00-044-9281	Cloth, Cleaning, MIL-C-85043, 12 X 16 - 10 lb. (51200) MIRACLEWIPEL001	BX
53	O	8305-00-503-6961	Cloth, Fiberglass. (67232) MIL-C-9084 CL II	YD
54	O	8305-01-118-8168	Cloth, Flannel (81348) CCC-C-458	YD
55	O		Cloth, Kevlar, 38 in. X 100-yds. (70361) CYCOM950-K220	RL
56	O	8305-01-007-2672	Cloth, Satin, 38-in. wide, Fiberglass, MIL-C-9084. (81349) MIL-C-9084	YD
57	O	8305-00-286-6111	Cloth, Satin, 38-in. wide, Fiberglass, MIL-Y-1140 CL C. (81349) MIL-Y-1140	YD
58	O	8010-00-641-0427	Coating Compound, Nonslip, TY 2, Black, 1 gl. (81349) MIL-W-5044	CN
59	O	8030-00-163-5792	Coating Compound, Plastisol, 4 oz. (04866) Vibratite	BT
60	O	8010-01-057-3600	Coating Kit, Rain Erosion Resisting, 3/4 qt. and 1/2 pt. (98795) 7-X-74/10-C-81	KT
60A	O	6850-00-841-1347	Compound, Magnetic Inspection, 12 oz. (37676) 14AM	CN
60B	O	7330-00-418-7525	Corkscrew (28447)	EA
60C	O	8030-00-145-0084	Corrosion Chemical Treatment, 5 gl. (81348) MIL-C-10578, TY1	EA
61	O	8030-01-045-4780	Corrosion Preventive Compound, 1 qt. (81349) MIL-C-85054	CN
62	O	8030-00-244-1297	Corrosion Preventive Compound, MIL-C-16173 GR2, 1 gl. (81349) MIL-C-16173	CN
62A	O	8030-00-526-1605	Corrosion Preventive Compound, MIL-C-16173 GR4, 5 gl. (81349) MIL-C-16173 GR 4	CN
62B	O	8030-00-062-5866	Corrosion Preventive Compound, MIL-C-16173 CL 1, GR 4, 1 gl. (80244) MIL-C-16173 CL1GR 4	CN

(1) Item Number	(2) Level	(3) National Stock Number	(4) Description	(5) (U/M)/ (U/I)
63	O	8030-00-938-1947	Corrosion Preventive Compound, TY II, CL 2, 16 oz. (81349) MIL-C-81309	CN
63A	O	8030-01-387-1131	Corrosion Preventive Compound, 11.7 oz. (0RA06) FLUID FILM	CN
64	O	8030-00-546-8637	Corrosion Preventive Compound, TY III, CL 2, 16 oz. (81349) MIL-C-81309	CN
64A	O	8030-00-057-2354	Corrosion Resistant Coating, MIL-C-81706, CL1A, Form 2, Method B, 4 oz. (84063)	JR
64B	O	6850-00-854-7952	Corrosion Removing Compound, MIL-C-10578, TY II, 5 gl. (81349)	CN
65	O	8030-01-332-1557	Corrosion Resistant Coating, Chemically Treated Aluminum, 2-part kit. (18565) 52-04-2001-0000	KT
66	O	8030-00-065-0957	Corrosion Resistant Coating, MIL-C-5541, Chemically Treated Aluminum, 1 qt. (84063) 1200	CN
67	O	7350-00-990-1028	Cup, Paper, 32 oz., 50/tube. (75603) 32WW6	TU
68	O	8135-00-142-9004	Cushioning Material, Packaging, 250 ft. (58536) A-A-549	RO
69	O	9150-00-864-4973	Damping Fluid, 1 lb. (81348) VV-D-1078	CN
70	O	6515-00-753-4533	Depressor, Tongue, 500 pcs. (5J367) 0899856	BX
71	O	7930-00-282-9699	Detergent, General Purpose, MIL-D-16791, 1 gl. (83421) 7930-00-282-9699	CN
72	O	7930-00-880-4454	Dishwashing Compound, Hand, 1 gl. (83421) 7930-00-880-4454	BT
72A	O	5345-01-327-6148	Disk, Abrasive, Blue, 200 to 240 Grit, (26082) 840413	BX
73	O	6810-01-070-1784	Distilled Water, Technical, 2 oz. (53390) 6170-18-7	BT
74	O	6850-01-331-3350	Dry Cleaning Solvent, 55 gl. (81348) P-D-680A, TY III	DR
74A	O	8030-00-794-6807	Enamel, 1 pt. (89473) GLYPTAL1201B	CN
75	O	8010-00-258-7087	Epoxy Coating Kit, 5 gl. (81349) MIL-C-46081	KT
76	O	8010-01-050-4082	Epoxy Primer Coating Kit, Dark Green, TY 2, CL 1, 2 qt. (81349) MIL-P-23377	KT

(1) Item Number	(2) Level	(3) National Stock Number	(4) Description	(5) (U/M)/ (U/I)
76A	O	8010-01-292-8893	Epoxy Primer Coating Kit, Light Green, TY I, CL 2, 1 gl. (80244) MIL-P-85582	KT
76B	O	8010-01-294-7781	Epoxy Primer Coating Kit, Dark Green, TY II, CL 2, 1 gl. (81349) M85582-22-01G	KT
77	O	8010-01-314-6077	Epoxy Primer Coating Kit, Yellow, MIL-P-23377, TY 1, CL 3, 1 pt. (81349) MIL-P-23377	KT
78	O	8010-00-142-9279	Epoxy Primer Coating Kit, Yellow, TY 1, CL 1, 1 pt. (81349) MIL-P-23377	KT
78A	O	8010-01-387-1033	Epoxy Primer Coating Kit, Yellow, TY 1, CL C, (81349) MIL-P-23377	KT
79	O		Estane Cement, 3 gl. (76500) A1503B	CN
80	O		Estane Cement Accelerator, 1 pt. (76500) A1343B	CN
80A	O	5940-01-193-4821	Ferrule, Metallic Shielded Cable, Grounding (02731) HS4786-216	EA
81	O	1680-01-463-3310	Filler, Fuel Cell, Rigid. (02731) 7-311930040-53	EA
82	O	8415-00-268-8330	Gloves, Men, Cotton, Regular Size, MIL-G-1008. (80480) 112	PR
83	O	6515-00-462-0832	Gloves, Patient Examining and Treatment, MIL-G-36592, 100 pcs. (81349) MIL-G-36592	BX
84	O	9150-00-269-8255	Grease, Aircraft, 1.75 lb. (81349) MIL-G-4343	CN
85	O	9150-00-119-9291	Grease, Aircraft, 2 oz. (81349) MIL-G-4343	TU
86	O	9150-00-985-7246	Grease, Aircraft and Instrument, 1.75 lb. (81349) MIL-G-23827	CN
87	O	9150-00-145-0268	Grease, Aircraft, MIL-G-81322, 5 lb. (54527) AEROSHELLGREASF2	CN
88	O	9150-00-953-1694	Grease, General Purpose, 14 oz. (73219) 930AA	TU
89	O	9150-00-141-4481	Grease, General Purpose, 14 oz. (12474) MOLYLUBE 503	TU
89A	O	9150-00-935-4018	Grease, Molybdenum Disulfide, 14 oz. (81349) MIL-G-21164	CA
90	O	9150-00-664-0050	Grease, Ordnance, Extreme Pressure, 1 pt. (98113) LIQUI-MOLY-NV GREASE	CN
91	O	9150-01-212-1409	Grease, Transmission, 1 lb. (02731) HMS20-1155	CN



(1) Item Number	(2) Level	(3) National Stock Number	(4) Description	(5) (U/M)/ (U/I)
92	O	9150-00-149-7431	Hydraulic Fluid, Fire Resistant, 1 qt. (81349) MIL-H-83282	CN
93	O	9150-00-252-6383	Hydraulic Fluid, Petroleum Base, MIL-H-5606, 1 qt. (98308) BRAYCO756C	CN
94	O	9150-00-935-9807	Hydraulic Fluid, Petroleum Base, MIL-H-6083, 1 qt. (77988) AVERX904	CN
95	O	6520-01-276-4625	Impression Material, Dental, 6/package. (33339) 18919	PG
96	O	5970-01-144-7333	Insulating Compound, Electrical, MIL-I-46058, 1 lb. (61408) DPX-C	JR
97	O	5970-00-181-0190	Insulating Compound Kit, Electrical. (81349) MIL-I-46058	KT
98	O	5970-00-814-2878	Insulating Sleeving, Electrical. (92194) FIT221 1/4White	FT
99	O	5970-00-812-2967	Insulation Sleeving, Electrical. (92194) FIT221 1-2 Black	FT
100	O	5970-00-954-1622	Insulation Sleeving, Electrical. (92194) FIT221 3/16BLACK	FT
101	O	5970-00-914-3118	Insulation Sleeving, Electrical. (92194) FIT221 3-4BLACK	FT
102	O	5970-00-954-1624	Insulation Sleeving, Electrical. (92194) FIT221 3-8BLACK	FT
103	O	5970-00-773-3461	Insulation Sleeving, Electrical. (81349) MIL-I-18057	FT
104	O	5970-01-084-8651	Insulation Sleeving, Electrical. (81349) MIL-I-23053/4	FT
105	O	5970-01-132-9959	Insulation Sleeving, Electrical. (81349) MIL-I-23053-5-104-9	FT
106	O	6810-00-753-4993	Isopropyl Alcohol, Technical, 8 oz. (89264) 2200200	CN
106A	O	8010-00-141-2952	Lacquer, Pressurized Spray, Red, 1 pt. (58536) A-A-665	CN
107	O	5350-01-269-2244	Lapping and Grinding Compound, 1 gl. (71724) LAP5-0001-000-003	CN

(1) Item Number	(2) Level	(3) National Stock Number	(4) Description	(5) (U/M)/ (U/I)
108	O	5350-00-151-5600	Lapping and Grinding Compound, 1 lb. (71724) 1800	CN
109	O	6850-00-621-1819	Leak Test Compound, 4 oz. (81349) MIL-L-25567	BT
110	O	7810-00-982-5656	Line, Fishing, Nylon Monofilament, Green, 0.012 - 0.015 in. dia, 220 yd. (22835) 62038	SL
111	O	9150-00-506-8497	Lubricant, 6 oz. (97499) 204-040-755-5	TU
112	O	9150-00-349-9290	Lubricant, Fluorocarbon, MIL-L-60326, 16 oz. (18598) MS122	CN
113	O	9150-00-985-7255	Lubricant, Solid Film, 1 gl. (81349) MIL-L-46010	CN
114	O	9150-01-260-2534	Lubricant, Solid Film, 12 oz. (81349) MIL-L-23398	CN
115	O	9150-00-080-1026	Lubricant, Solid Film, 15 oz. (12474) MOLYLUBE 1200	CN
115A	O	9150-01-360-1903	Lubricant, Solid Film, 12 oz. (81349) MIL-L-46147 TY II	CN
116	O	9150-00-948-6912	Lubricant, Solid Film, MIL-L-46010, 1 qt. (71984) DC 3400A BONDED LUBRICANT	CN
117	O	9150-00-273-2388	Lubricating Oil, Aircraft Turbine Engine, Petroleum, 1 qt. (81349) MIL-L-6081	CN
118	O	9150-00-782-2627	Lubricating Oil, Aircraft Turbine Engine, Synthetic, 1 qt. (81349) MIL-L-7808	CN
119	O	9150-00-985-7099	Lubricating Oil, Aircraft Turboshaft Engine, Synthetic, MIL-L-23699, 1 qt. (97854) AEROSHELLTURBINEOIL550	CN
119A	O	9150-00-458-0075	Lubricating Oil, General Purpose, (81348) VV-L-800,	CN
120	O	9150-00-082-5636	Lubricating Oil, Hydraulic, MIL-S-81087, 1 qt. (01139) F50VERSILUBE	CN
121	O	5350-00-967-5092	Mat, Abrasive, MIL-A-9962, Medium Grade C, 9 X 11 in. (83421)	SH

(1) Item Number	(2) Level	(3) National Stock Number	(4) Description	(5) (U/M)/ (U/I)
122	O	5350-00-967-5089	Mat, Abrasive, MIL-A-9962, Very Fine Grade A, 9 X 11 in. (83421) 5350-00-967-5089	SH
123	O	7690-00-753-4742	Marker, Identification, 1 X 1800 in. (81349) MIL-T-9906	RO
123A	O	8030-00-145-0084	Metal Conditioning Compound, 5gl (81349) MIL-C-10578, TY 1	CN
124	O	6810-00-823-8052	Methyl Ethyl Ketone, 32 oz. (81348) TT-M-261	CN
125	O	6810-00-180-5976	Methyl Isobutyl Ketone, Technical, 5 gl. (81346) D1153	CN
125A	O	6810-01-459-1994	Methyl Propyl Ketone, 1 QT. (74364) SPC 19010 QT	CN
126	O	6810-00-264-6715	Molybdenum Disulfide, Technical, MIL-M-7866, 1 lb. (83323) 55-1043-1	CN
127	O	6810-00-238-8119	Naphtha, Aliphatic, 1 gl. (81348) TT-N-95	CN
127A	O	6515-00-302-5020	Needle, Hypodermic, 18 Ga., (51965) 405184	BX
128	O	6830-00-192-9067	Nitrogen, Technical, 110.0 cu ft. (03670) 25522	CY
129	O	9390-01-014-8629	Nonmetallic Special Shaped Section. (76823) 92X534	EA
129A	O	6850-01-333-3975	Oil, Air Filter, 1 qt. (0N0N0) 990516	CN
130	O	7920-01-133-2442	Pad, Scouring, Cellulose/Nylon, 20 pads. (27293) SCOTCH BRITE-63	BX
131	O	7920-00-659-9175	Pad, Scouring, Plastic, 4 x 3 in. (92128) TUFFY	EA
132	O	5350-00-221-0883	Paper, Abrasive, 80 Grit Garnet, P-P-121, 50 sh. (58536) A-A-1201	PG
133	O	5350-00-721-8117	Paper, Abrasive, 180 Grit, pg. 50 sh. (58536) A-A-1047	PG
134	O	5350-00-224-7207	Paper, Abrasive, 240 Grit, pg. 50 sh. (58536) A-A-1047	PG
135	O	5350-00-224-7201	Paper, Abrasive, 400 Grit, pg. 50 sh. (58536) A-A-1047	PG
136	O	5350-00-224-7215	Paper, Abrasive, 600 Grit, pg. 50 sh. (58536) A-A-1047	PG
136A	O	8135-01-164-4936	Paper, Wrapping, Chemically neutral. 36 in. wide X 300 Ft. (0F451) E4760	RO

(1) Item Number	(2) Level	(3) National Stock Number	(4) Description	(5) (U/M)/ (U/I)
136B	O	7510-01-311-9445	Pencil, Silver. (9V632) 753	DZ
137	O	7510-00-264-4612	Pencil, Wax. (58536) A-A-87	DZ
138	O	9150-00-250-0926	Petrolatum, Technical, 1.75 lb. (82146) 14P1	CN
138A	O	9330-01-429-1230	Plastic Sheet. 54 in. wide X 1600 Yds. (0F451) E4760	RO
139	O	9330-01-348-5891	Plastic Strip. (99932) ES-180	EA
139A	O	7930-00-935-3794	Polish, Plastic, 1 pt. (12849) 5602260	BX
140	O	8010-01-146-2646	Polyurethane Coating, Black, TY 2, 1 gl. and 1 qt. (81349) MIL-C-46168	KT
140A	O	8010-01-340-7060	Polyurethane Coating, Black, TY 4, 1 gl. and 1 qt. (80244) MIL-C-46168	KT
140B	O	8010-01-316-2219	Polyurethane Coating, Green, TY 4, 1 gl. and 1 qt. (80244) MIL-C-46168	KT
141	O	8010-01-131-6255	Polyurethane Coating, Green TY 2, 1 gl. Component A, 1 qt. Component B. (81349) MIL-C-46168	KT
141A	O	8010-01-144-9872	Polyurethane Coating, White, TY 2, 1 gl. and 1 qt. (81349) MIL-C-46168	KT
142	O	8040-01-204-7187	Primer, Adhesive, 1 gl. (04347) EA 9210	CN
143	O	8040-01-355-6366	Primer, Adhesive, 1 gl. (33564) EA9203	CN
144	O	8040-01-205-6819	Primer, Adhesive, Yellow, 1 gl. (04622) METLBOND 6726	CN
144A	O	6850-01-326-1607	Primer, Pressure, Sensetive, Tape, (52152) 70-0701-8275-6	PT
145	O	8030-00-083-3442	Primer, Sealing Compound, MIL-S-22473, GR T, 1 gl. (81349) MIL-S-22473	CN
146	O	8030-00-082-2508	Primer, Sealing Compound, MIL-S-22473, GR T, 4 oz. (27079) STA-LOK PRIMER F	BT
147	O	8010-00-582-5318	Primer Coating, Composition L, Color T, 1 gl. (81348) TT-P-1757	CN
148	O	6850-00-139-5297	Rain Repellant, Windshield, MIL-W-006882, 8 oz. (50159) REPCON	BT

(1) Item Number	(2) Level	(3) National Stock Number	(4) Description	(5) (U/M)/ (U/I)
149	O	8010-00-926-4727	Remover, Paint, 1 gl. (81348) TT-R-251	CN
150	O	8010-00-142-9273	Remover, Paint, 1 pt. (81349) MIL-R-81294	CN
151	O	7510-00-243-3435	Rubber Band. (58536) A-A-131	LB
152	O	5330-00-630-2348	Rubber Sheet, Solid, 12 X 12 in. sh. (81348) ZZ-R-765	SH
152A	O	5330-00-257-3639	Rubber Sheet, Solid, 36 X 36 in. sh. (81343) AMS3241	SH
153			Deleted, replaced by item 74A	
154	O	1015-01-255-4144	Sealant, Pipe, Teflon, 50 ml tube. (19207) 12297953	TU
155	O	8030-00-123-6955	Sealing Compound, 3/4 pt. (81349) MIL-S-23586	KT
155A	O	8010-01-125-0055	Sealing Compound (01195) F-900 Torque Seal Orange	TU
156	O	8030-01-303-0502	Sealing Compound, Green. (05972) 68035	EA
156A	O	8030-00-251-2312	Sealing Compound, 4.7 oz. (71984) 730RTV	TU
157	O	8030-00-111-6404	Sealing Compound, MIL-R-46082 TY 2, 50 cc, Green. (05972) 640-31	BT
158	O	8030-00-181-7603	Sealing Compound, MIL-R-46082 TY 3, 50 cc, Green. (05972) 635-31	BT
158A	O	8030-00-008-7204	Sealing Compound, MIL-S-81733 TY 3-1, 1 qt. (80244)	KT
159	O	8030-01-154-9247	Sealing Compound, MIL-S-8802 TY 1, CL A-1/2, 1 pt. (83574) PR-1422 A-1/2	KT
160	O	8030-01-154-9249	Sealing Compound, MIL-S-8802 TY 1, CL A-2, 1 pt. (83574) PR-1422 A-2	KT
161	O	8030-01-154-9253	Sealing Compound, MIL-S-8802 TY 1, CL B-1/2, 1 pt. (83574) PR-1422 B-1/2	KT
162	O	8030-00-753-5009	Sealing Compound, MIL-S-8802 TY 2, CL A-2, 6 oz. (83574) PR-1440A-2 MODEEL 654	CA

(1) Item Number	(2) Level	(3) National Stock Number	(4) Description	(5) (U/M)/ (U/I)
163	O	8030-00-080-1549	Sealing Compound, MIL-S-8802 TY 2, CL B-1/2, 1 qt. (83574) PR-1440 B-1/2	KT
164	O	8030-00-723-2746	Sealing Compound, MIL-S-8802 TY 2, CL B-2, 12 oz. (81205) BAC5010	CN
165	O	8030-00-067-6744	Sealing Compound, MIL-S-22473 GR A, Red, 250 cc. (31435) 05-651137	BT
166	O	8030-00-081-2340	Sealing Compound, MIL-S-22473 GR AA, 50 cc, Green. (05972) 089-31	BT
167	O	8030-00-081-9022	Sealing Compound, MIL-S-22473 GR B, 50 cc, Yellow. (05972) 08531	BT
168	O	8030-00-964-7537	Sealing Compound, MIL-S-22473 GR C, 250 cc. (05972) CPAREN4-1PAREN	BT
169	O	8030-00-081-2328	Sealing Compound, MIL-S-22473 GR E, 50 cc, Purple. (05972) GRADEE	BT
170	O	8030-00-081-2325	Sealing Compound, MIL-S-22473 GR H, Brown, 250 cc. (05972) 078-31	BT
170A	O	8030-01-369-0049	Sealing Compound, MIL-S-29574, TY 1, GR A, CL B-1/2, Gray, 3.5 oz (ONYS9) PR-1829 B-1/2	BT
170B	O	8030-01-089-8129	Sealing Compound, MIL-S-46163 TY 1, GR J, 50 cc bt. (05972) 241-31	BT
170C	O	8030-01-330-9114	Sealing Compound, MIL-S-29574 Class B, 1 pt. (83574) PR-1826-B-1	KT
171	O	8030-00-148-9833	Sealing Compound, MIL-S-46163 TY 1, GR K, 10 cc bt. (05972) 271-21	BX
172	O	8030-01-069-3046	Sealing Compound, MIL-S-46163 TY 2, GR M, 50 cc, Purple. (05972) 222-31	BT
173	O	8030-01-025-1692	Sealing Compound, MIL-S-46163 TY 2, GR N, 1 pt. (05972) 242-41	BT
174	O	8030-00-008-7207	Sealing Compound, MIL-S-81733 TY 1-1/2, 1 pt. (81349) MIL-S-81733	KT
175	O	8030-00-008-7196	Sealing Compound, MIL-S-81733 TY 1-2, 1 pt. (81349) MIL-S-81733	KT

(1) Item Number	(2) Level	(3) National Stock Number	(4) Description	(5) (U/M)/ (U/I)
176	O	8030-00-008-7198	Sealing Compound, MIL-S-81733 TY 2-1/2, 1 pt. (83574) PR-1436-G B-1/2	KT
177	O	8030-00-008-7200	Sealing Compound MIL-S-81733 TY 2-2, 1 qt. (81349) MIL-S-81733	KT
178	O	8030-00-871-8489	Sealing Compound, MIL-S-81733 TY 3-1, 1 gl. (83574) PR-1436-G SPRAYABLE	KT
179	O	8030-00-008-7205	Sealing Compound, MIL-S-81733 TY 4-12, 1 qt. (81349) MIL-S-81733, TY IV	KT
180	O	8030-01-244-4372	Sealing Compound, Red, 6 oz. (81343) AMS 3375	CA
181	O	8030-01-235-4152	Shim, Liquid, 12 – 2 lb. bags (26512) Kerr Vel Mix	BG
182	O	8145-00-260-9556	Shipping and Storage Bag. (80132) P069-1	EA
183	O	8145-00-260-9562	Shipping and Storage Bag. (80132) P069-4	EA
184	O	8145-01-012-4088	Shipping and Storage Bag. (80132) P069-6	EA
185	O	6850-00-109-4362	Silicone Compound, 1 pt. (81349) MIL-C-47113	CN
186	O	6850-00-880-7616	Silicone Compound, 8 oz. (81349) MIL-S-8660	TU
187	O	5970-01-028-4137	Sleeving, Expandable MIL-I-3190. (96904) E-MF GP 1/4 Natural	RO
188	O	6810-00-281-1858	Sodium Phosphate, Monobasic, 100 lb. (81349) MIL-S-13727	BG
189	O	3439-00-555-4629	Solder, Tin Alloy, 1 lb. (81348) QQ-S-571	SP
190	O	7920-00-240-2559	Sponge, 5 3/4 X 3 5/8 X 1 3/4 in., 20 pcs. (83421) 7920-00-240-2559	BX
190A	O	5940-01-161-6407	Splicing Kit, Shield (06090) D-150-21	KT
191	O	5975-00-074-2072	Strap, Tiedown, Electrical Component. (06383) SST2SC	BD
192	O	5975-00-899-4606	Strap, Tiedown, Electrical Component, MIL-S-23190. (06383) SST4-0	BD
193	O	5975-00-903-2284	Strap, Tiedown, Electrical Component, MIL-S-23190. (06383) SST1M-CO	BD

(1) Item Number	(2) Level	(3) National Stock Number	(4) Description	(5) (U/M)/ (U/I)
194	O	5975-00-984-6582	Strap, Tiedown, Electrical Component, MIL-S-23190, 6.00 in. (46555) 600-9084-002	HD
195	O	6515-01-280-2320	Syringe, Hypodermic, 50 - 60 ml, 60/pg. (51965) 1627	PG
195A	O	6515-00-412-1699	Syringe, Hypodermic, 10 cc. (06531) 309604	PG
196	O	6515-00-985-7183	Syringe and Needle, Hypodermic, 5 - 6 cc. (81348) GGS00945	BX
197	O	8510-00-817-0295	Talcum Powder, 9 oz. (58536) A-A-42	CN
198	O	5999-01-345-0224	Tape, Shielding, Electrical. (18565) CCJ-18-201-0050	RO
199	O	5999-01-354-9043	Tape, Shielding, Electrical. (18565) CCJ-18-201-0100	RO
200	O	7510-01-372-5777	Tape, Aluminized Glass Fabric, 36 yd. (76381) FGA32600	RO
201	O	5640-00-103-2254	Tape, Duct, 2 in. X 60 yd. (39428) 1791K70	RO
202	O	4020-00-956-4754	Tape, Lacing and Tying, 500 yd. (82110) STURDLACEH	SL
203	O	7510-00-473-9513	Tape, Pressure Sensitive Adhesive, 2 in. Wide X 60 yd. (81349) MIL-T-23397	RO
203A	O	7510-01-108-0174	Tape, Pressure Sensitive Adhesive, Blue 1 in. Wide X 72 yd. (53912) FLASH BREAKER 1	RO
204	O	7510-01-137-8404	Tape, Pressure Sensitive Adhesive, MIL-T-83284, Gray, Glass, 1 in. wide X 36 yd. (99742) P-100 1INX36YD	RO
204A	O	7510-00-266-5026	Tape, Pressure Sensitive Adhesive, Olive Drab 2.5 in. Wide X 60 yd. (58536) A-A-884	RO
205	O	7510-00-283-0612	Tape, Pressure Sensitive Adhesive, Tan, Masking, 1 in. wide X 60 yd. (58536) A-A-883	RO



(1) Item Number	(2) Level	(3) National Stock Number	(4) Description	(5) (U/M)/ (U/I)
206	O	7510-00-680-2395	Tape, Pressure Sensitive Adhesive, Tan, Masking, 2 in. wide X 60 yd. (81349) MIL-T-21595	RO
207	O	7510-00-079-7905	Tape, Pressure Sensitive Adhesive, Tan, Plastic, 3 in. wide X 60 yd. (81348) PPP-T-60	RO
208	O	7510-01-248-7514	Tape, Pressure Sensitive Adhesive, White, Plastic, 1 in. wide X 18 yd. (34359) 5423	RO
209	O	5999-01-342-8403	Tape, Silver Coated EMI. (18565) HS5620-05-6480	RO
210	O	5999-01-343-0871	Tape, Shielding, Electrical. (02731) HS5620-10-6480	RO
211	O	8010-00-181-8079	Thinner, Aircraft Coating, MIL-T-81772, 1 gl. (71191) T1184-66	CN
212	O	8530-01-293-1387	Toothbrush, Adult. (58536) A-A-123	DZ
213	O	4720-00-025-9528	Tubing, Nonmetallic, 240 in. (18876) 8014476	RL
213A	O	4720-00-886-5265	Tubing, Nonmetallic, (61501) R3603 5/16IDX5/8OD	FT
214	O	9330-00-011-2000	Tubing, Spiral Wrap. (09106) HT-2029	FT
215	O	3040-01-181-9400	Weight, Counterbalance. (02731) 7-262110071-3	EA
216	O	3040-01-181-9401	Weight, Counterbalance. (02731) 7-262110071-5	EA
217	O	3040-01-170-7472	Weight, Counterbalance. (02731) 7-311422065-3	EA
218	O	3040-01-170-7471	Weight, Counterbalance. (02731) 7-311422065-5	EA
219	O	3040-01-170-7470	Weight, Counterbalance. (02731) 7-311422065-7	EA
219A	O		Wheel, Buff and Blend, (26082) P/N 880313	BX

(1) Item Number	(2) Level	(3) National Stock Number	(4) Description	(5) (U/M)/ (U/I)
220	O	9525-01-047-6455	Wire, Nonelectrical, 1 lb., 0.020 in. Copper. (96906) MS20995CY20	RO
221	O	9525-00-618-0257	Wire, Nonelectrical, 1 lb., 0.020 in. Nickel (96906) MS20995NC20	RO
222	O	9505-00-221-2650	Wire, Nonelectrical, 1 lb., 0.020 in. Steel. (81346) ASTM A580	RO
223	O	9525-01-031-1086	Wire, Nonelectrical, 1 lb., 0.032 in. Al Alloy. (96906) MS20995AB32	RO
224	O	9525-00-355-6072	Wire, Nonelectrical, 1 lb., 0.032 in. Nickel. (96906) MS20995NC32	RO
225	O	9525-00-529-0442	Wire, Nonelectrical, 1 lb., 0.032 in. Nickel Alloy. (96906) MS20995N32	RO
226	O	9505-00-684-4841	Wire, Nonelectrical, 1 lb., 0.032 in. Steel. (81348) QQ-W-461	RO
227	O	9505-00-592-4690	Wire, Nonelectrical, 1 lb., 0.032 in. Steel. (81348) QQ-W-461	RO
228	O	9525-00-529-0443	Wire, Nonelectrical, 1 lb., 0.041 in. Nickel Alloy. (81348) QQ-W-390/1-017	RO
229	O	9505-00-076-8640	Wire, Nonelectrical, 1 lb., 0.041 in. Steel. (90906) MS20995C41	RO
230	O	9505-00-555-8648	Wire, Nonelectrical, 5 lb., 0.047 in. Steel. (81346) ASTM A580	RO



## APPENDIX G WEIGHING AND LOADING INFORMATION

### OVERVIEW

Appendix G contains description, information, and procedures for helicopter weighing and loading. This information replaces the Chart E (Loading Data and Special Weighing Instructions) placed in the individual aircraft weight and balance files by the aircraft manufacturer. Chart E in the aircraft file will no longer be required.

### APPENDIX INDEX

<u>Para Title</u>	<u>Para No.</u>
<b>SECTION I. HELICOPTER WEIGHING INFORMATION</b>	
Helicopter Weighing (Aircraft on Jacks) .....	G.1
<b>SECTION II. LOADING INFORMATION</b>	
Loading Information .....	G.2

## SECTION I. HELICOPTER WEIGHING INFORMATION

### G.1. HELICOPTER WEIGHING (AIRCRAFT ON JACKS)

#### G.1.1. Description

This task covers: Preparation. Weighing. Calculations.

#### G.1.2. Initial Setup

**Tools:**

- Aircraft mechanic's tool kit (item 376, App H)
- Fuselage jack adapter (item 1, App H) (p/o item 391, App H) (2)
- 3-ton tripod hydraulic jack (item 184, App H)
- 5-ton aircraft landing gear jack (item 183, App H)
- Weighing kit (item 196, App H)
- Strut locks (item 203, App H) (p/o item 25 and 194, App H) (2)
- Aircraft maintenance kit (item 207, App H) (p/o item 25 and 194, App H) (plumb bob leveling kit)
- Tripod aircraft tail stand (item 344, App H) (2) (extension legs removed)

**Materials/Parts:**

- Wood block, 2 in. x 6 in. x 12 in.

**Personnel Required:**

- 67R3F Attack Helicopter Repairer/Technical Inspector
- Three persons to assist

**Equipment Conditions:**

<u>Ref</u>	<u>Condition</u>
1.57	Helicopter safed
1.19	Helicopter defueled, SPA method
1.24	Engine oil system serviced
1.26	APU oil system serviced
1.28	Engine nose gearboxes serviced
1.30	Intermediate gearbox serviced
1.31	Tail rotor gearbox serviced
1.32	Main transmission serviced
1.34	Hydraulic system serviced
2.2	Access doors L135 and R135 opened
1.41	Main landing gear shock struts collapsed



- Helicopter is unstable on jacks. Jack helicopter evenly and carefully on a firm, level, flat surface. Death or serious injury can result if helicopter should fall off jacks.
- When weighing helicopter, ensure that area is roped off and that multiple warning signs that read "HELICOPTER ON JACKS" are prominently displayed. Do not allow unauthorized persons in or around helicopter while it is on jacks.



Weighing should be done inside a hangar with all doors closed. Weighing the helicopter outdoors is not recommended as wind velocities may affect the accuracy of scale readings.

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**G.1. HELICOPTER WEIGHING (AIRCRAFT ON JACKS) – continued**

**NOTE**

- This section describes helicopter weighing procedures with the use of aircraft jacks and electronic load cells. Helicopter is weighed in a 3.5 degree nose up attitude with the main landing gear locked in a collapsed position. (See figure G–1 for two view chart diagram.)
- Helicopter shall be weighed in the BASIC WEIGHT condition. BASIC WEIGHT condition is established with all doors closed, except L135 and R135, seats in the mid position, and includes usable engine and APU oil, trapped fuel, 30mm gun and ammo magazine, and wing pylons .
- Check for and remove all non-basic weight items such as expendable ordnance, clipboards, helmets, personal equipment, tools, etc.
- Defuel helicopter before weighing. Helicopter Center of Gravity (CG) cannot be accurately determined when weighed with fuel on board.
- Defuel helicopter on the ground attitude with the use of a defueling pump. Drain remainder of fuel from each tank through sump drains. Sump drains are found on helicopter bottom centerline at fuselage stations (F.S.) 172.3 and 255.4. When the fuel drainage diminishes to dripping, allow five minutes for balance of fuel to drain.
- Pylons are a part of helicopter basic weight and should be listed on DD Form 365-1 (Chart A) as follows:

COMPARTMENT AND ITEM NUMBER	ITEMS AND LOCATION (Grouped by compartment)	WEIGHT (lbs)	ARM (in)	MOMENT/100 ENTER CONSTANT (in-lbs)
H	Right Wing (F.S. 185 - 238)			
H	Wing Pylon 318000001200	58	199.0	115
H	Wing Pylon 318000001	58	199.0	115
I	Left Wing (F. S. 185 - 238)	58	199.0	115
I	Wing Pylon 318000001100	58	199.0	115
I	Wing Pylon 318000001	58	199.0	115

- Perform a complete inventory of items installed on helicopter. Use Basic Weight Check List, DD Form 365-1 found in the helicopter weight and balance file. Record all discrepancies from DD Form 365-1 in Column I or II (as applicable) on the reverse side of the Aircraft Weighing Record, DD Form 365-2.
- Failure to weigh helicopter in the BASIC WEIGHT condition with four pylons installed will cause an incorrect center of gravity calculation when converting from “as weighed” condition to “corrected to level attitude” condition.

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G.1. HELICOPTER WEIGHING (AIRCRAFT ON JACKS) – continued

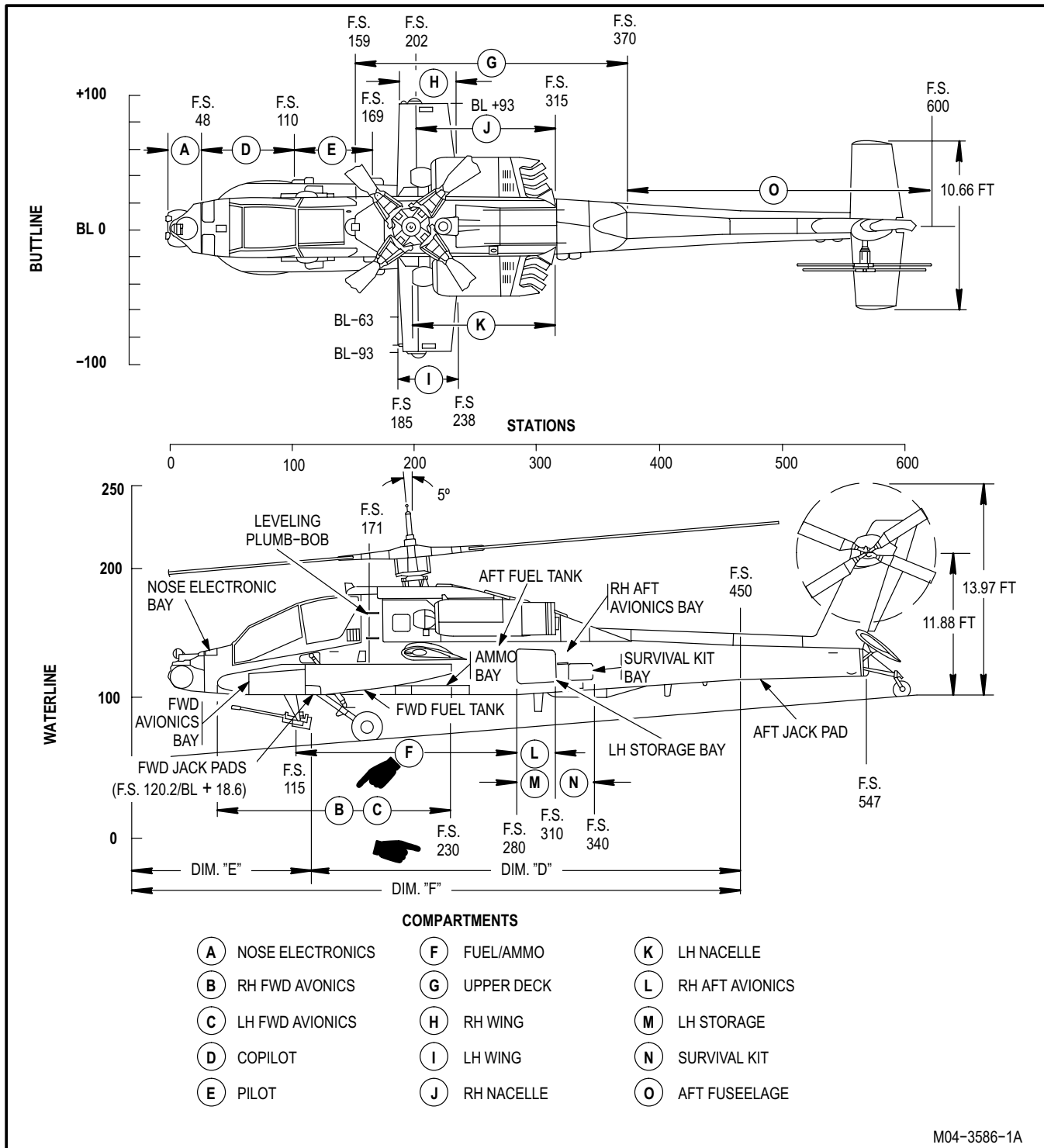


Figure G-1. Two View Chart E Diagram

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**G.1. HELICOPTER WEIGHING (AIRCRAFT ON JACKS) – continued**

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**G.1.3. Preparation****CAUTION**

Ensure that there are no adverse air currents from fans, heater blowers, etc., which could affect the accuracy of scale readings.

**a. Position helicopter in hangar.**

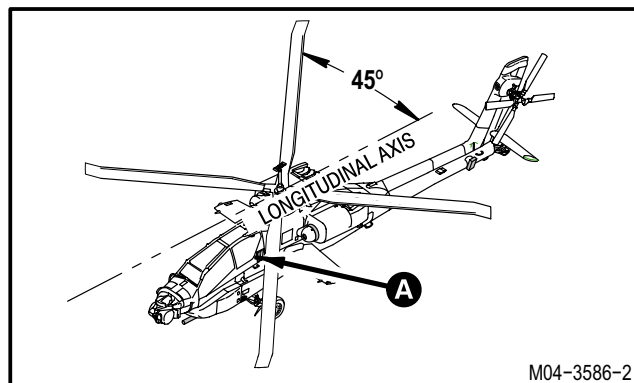
- (1) Move helicopter to designated weighing area in hangar.
- (2) Close all hangar doors and rope off weighing area.

**b. Position helicopter rotor blades.**

- (1) Turn main rotor blades clockwise to a position of 45 degrees relative to helicopter's longitudinal axis.

**c. Assemble aircraft weighing kit.**

- (1) Assemble weighing kit per manufacturer's instructions supplied with kit. Use weighing kit.



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**G.1. HELICOPTER WEIGHING (AIRCRAFT ON JACKS) – continued**

**CAUTION**

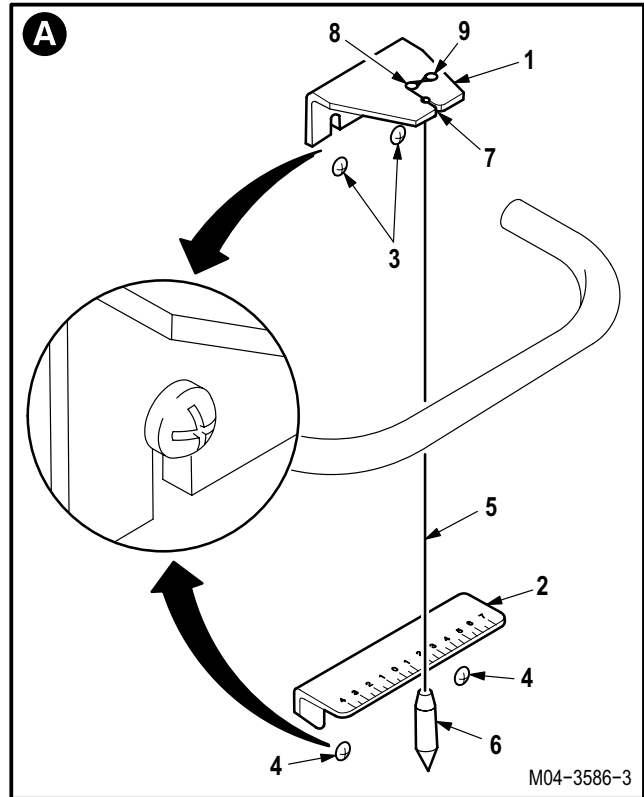
Plumb bob bracket and target installation screws are not removable. Damage to bracket and target will result if removal is attempted.

d. **Install plumb bob bracket (1) and target (2) on helicopter left side at F.S. 171.0.** Use aircraft maintenance kit.

- (1) Loosen two upper screws (3).
- (2) Loosen two lower screws (4).
- (3) Slide bracket (1) down on screws (3).
- (4) Slide target (2) down on screws (4).
- (5) Tighten screws (3) and (4).

e. **Install and secure plumb bob line (5) with plumb bob (6) in bracket (1).** Use aircraft maintenance kit.

- (1) Insert line (5) in bracket slot (7).
- (2) Lower plumb bob (6) until just below edge of target (2).
- (3) Secure line (5) to bracket (1) by wrapping line (5) around rivets (8) and (9).



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**G.1. HELICOPTER WEIGHING (AIRCRAFT ON JACKS) – continued**


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**CAUTION**

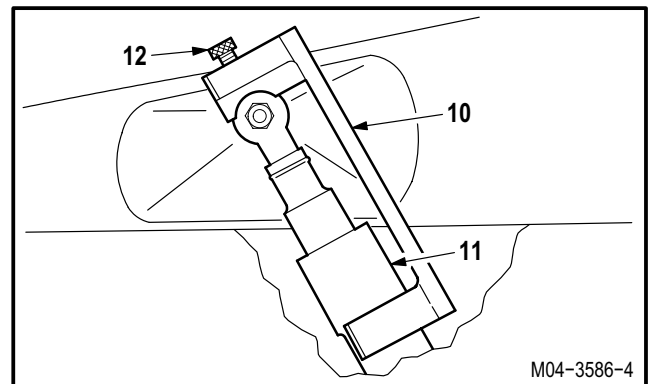
To prevent damage to main landing gear shock struts and strut lock, strut gas charge must be exhausted and the struts collapsed prior to strut lock installation.

**NOTE**

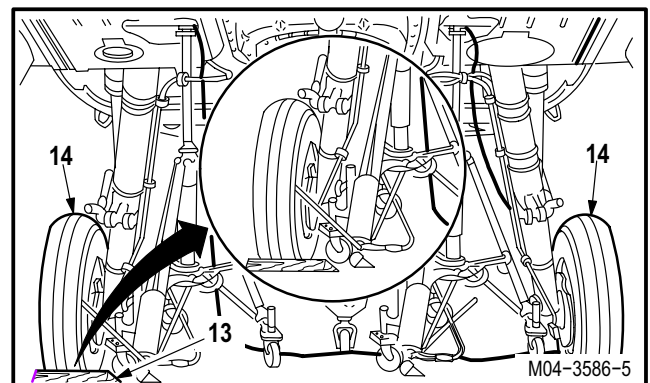
Access doors L135 and R135 are to remain open during helicopter weighing.

**f. Install strut locks (10) on main landing gear struts (11).**

- (1) Position strut locks (10) on struts (11). Use strut locks.
- (2) Secure strut locks (10) by tightening adjustment screw (12).



**g. Install wheel chocks (13) on both main landing gear wheels (14).**



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**G.1. HELICOPTER WEIGHING (AIRCRAFT ON JACKS) – continued**

**NOTE**

Helicopter jack adapter brackets are located just forward of the main landing gear struts.

**h. Install two jack adapters (15) on helicopter adapter brackets (16).**

- (1) Position adapters (15) on brackets (16). Use jack adapters.
- (2) Insert pins (17) in holes of adapters (15) and through brackets (16).

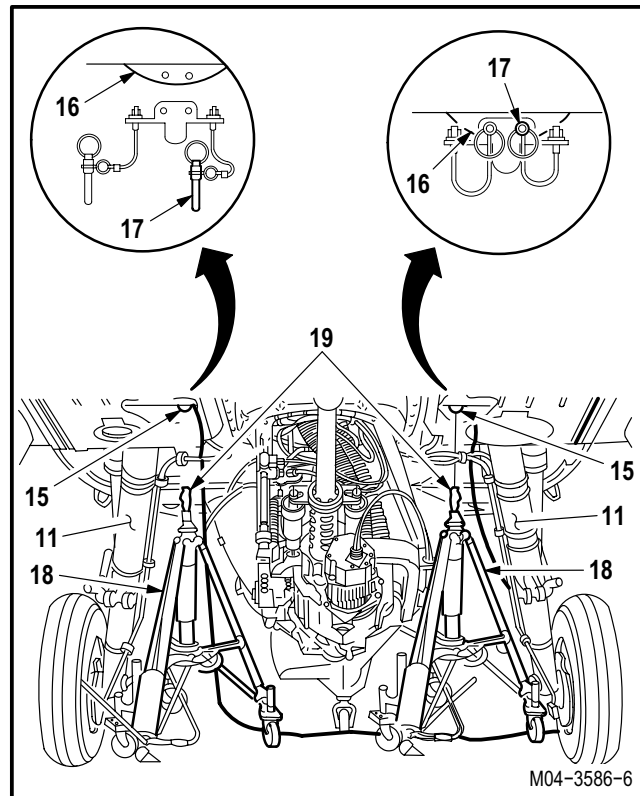
**i. Position two tail stands (18), with extension legs removed, under adapters (15). Use tail stands.**

**WARNING**

**A minimum of one inch clearance between load cells and the jack adapters is required to ensure aircraft will be supported on main landing gear when the tail is being raised to weighing position.**

**j. Install load cells (19) on tail stands (18).**

- (1) Position load cells (19) on tail stands (18). Use weighing kit.
- (2) Zero load cells (19) and check for adequate jack adapter clearance.



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**G.1. HELICOPTER WEIGHING (AIRCRAFT ON JACKS) – continued**

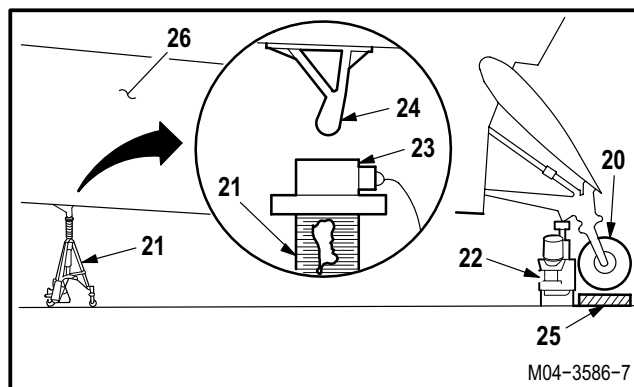

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**NOTE**

Tail wheel jack point is shielded by a wire strike protector plate. In order to jack tail wheel, swivel wheel to allow wire strike plate to clear jack point.

**k. Jack tail wheel (20) to provide clearance for jack (21).**

- (1) Position 5-ton jack (22) under tail wheel (20) jack point. Use jack.
- (2) Raise tail wheel (20) just enough to provide clearance to position 3-ton jack (21) with load cell (23) under tail boom jack pad (24).
- (3) Position wood block (25) under tail wheel (20) and against jack (22).

**NOTE**

Ensure that load cell is zeroed before making contact with jack pad.

**l. Install jack (21) with load cell (23) and raise helicopter tail boom (26).**

- (1) Position jack (21) with load cell (23) under jack pad (24). Use jack.
- (2) Raise jack (21) until load cell (23) contacts pad (24).
- (3) Continue to raise jack (21) until tail wheel (20) jack point clears jack (22).
- (4) Remove jack (22) and leave wood block (25) in place.
- (5) Position tail wheel (20) to line up with center line of helicopter.

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**G.1. HELICOPTER WEIGHING (AIRCRAFT ON JACKS) – continued**

G.1.4. Weighing

- a. Remove chocks (13) from wheels (14).

**WARNING**

To prevent helicopter from slipping off jacks, avoid side loads when performing leveling procedure. Tail of helicopter must be lifted while helicopter is supported on main landing gear with brakes unlocked.

**NOTE**

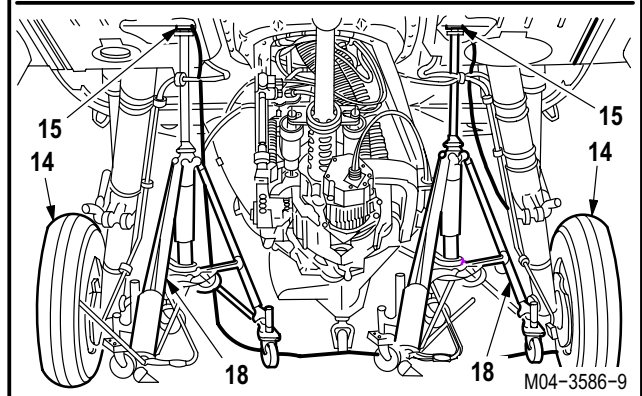
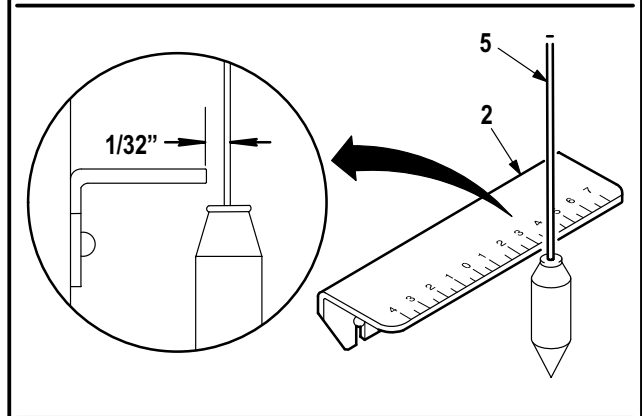
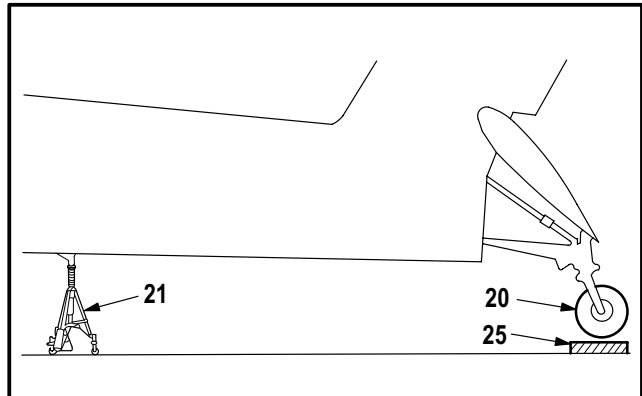
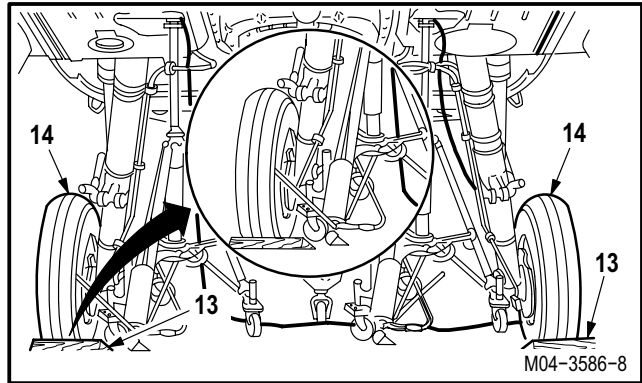
Position one person to observe helicopter attitude and to direct three jack operators during helicopter jacking.

- b. Slowly raise jack (21) until line (5) is aligned with the 3.5 degree mark on target (2).
- c. Raise two stands (18) until firm contact is made with adapters (15).

**NOTE**

Plumb bob line must remain aligned with the 3.5 degree mark on target at all times.

- d. Slowly, carefully, and simultaneously raise two stands (18) and jack (21) until wheels (14) clear the ground and wheel (20) clears block (25).
- e. Laterally level helicopter by raising or lowering either left or right stand (18) as required until line (5) clears edge of target (2) by approximately 1/32 INCH.
- f. Allow helicopter to stabilize on jacks.



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**G.1. HELICOPTER WEIGHING (AIRCRAFT ON JACKS) – continued**

**g. Record helicopter weight and weighing data in Aircraft Weighing Record, DD Form 365-2.**

- (1) Record load cell readings in **SCALE READING** column, blocks 1, 2, and 3.
- (2) Record 3.5 degree plumb bob angle in **MEASUREMENTS** and **REMARKS** area, block 4 and 21.

**NOTE**

Circled numbers on DD form 365-2 designate blocks, and are for reference only.

**FRONT SIDE**

REACTION (Weights, jacks, etc.)	SCALE READING	TARE	NET WEIGHT	ARM	MOMENT
1 LEFT MAN	4102.7		8 4101.5		
2 RIGHT MAN	4100.3		9 4002.3		
SUB-TOTAL (Both main)			10 8103.8	120.2	14 974076
NOSE OR TAIL					
3 TOTAL (as weighed)	2984.1		11 2985.7	450.0	15 343565
	2987.3		12 11089.5	208.9	16 317641
TOTAL (Not to be posted on Chart C)					19

**MEASUREMENTS**  
 4  $\alpha = 3.5^\circ$  PLUMB-BOB ANGLE  
 B = N/A — the distance from the Jb point, to the center line of the main reactions. Obtain by measurements.

**REVERSE SIDE**

REACTIONS USED	TYPE SCALE
E = 120.2	SERIAL NUMBER
F = 450.0	CALIBRATION DATE (YYMMDD)
	CALIBRATED ACCURACY

**REMARKS**  
 21 HELICOPTER WEIGHED ON JACKS : 3.5° NOSE UP. BASIC WEIGHT CORRECTED TO 0° (LEVEL ATTITUDE)

- h. Lower helicopter and remove jacks by performing step k.
- i. Go to paragraph G.1.3 and prepare helicopter for second weighing by repeating steps k. and l.
- j. Return to paragraph G.1.4 and perform a second helicopter weighing by repeating steps a. thru g.

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**G.1. HELICOPTER WEIGHING (AIRCRAFT ON JACKS) – continued**

**NOTE**

- Prior to lowering helicopter, position one person to observe helicopter attitude and to direct jack operators during lowering of helicopter.
- Tail wheel jack point is shielded by a wire strike protector plate. In order to jack tail wheel, swivel wheel to allow wire strike plate to clear jack point.

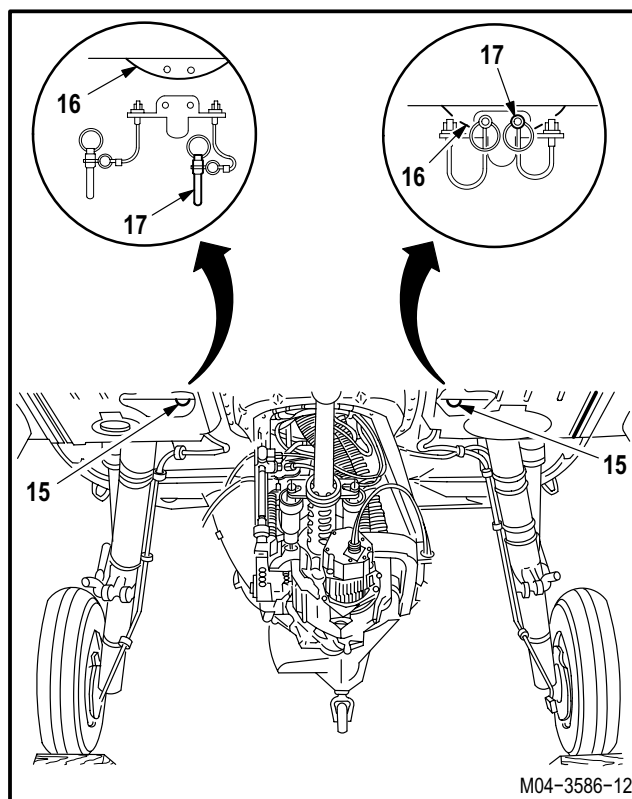
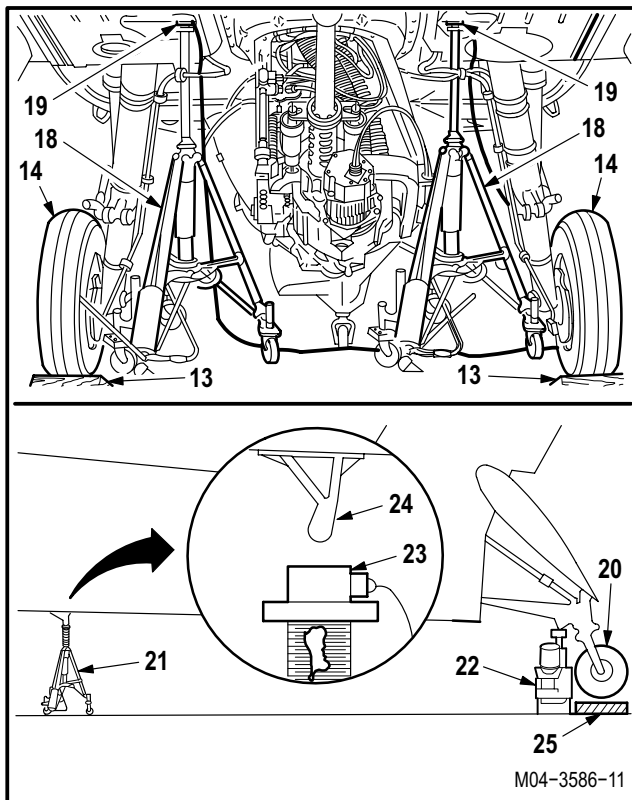
**k. Lower helicopter and remove stands (18) and jacks (21) and (22).**

- (1) Position jack (22) under wheel (20) jack point. Use jack.
- (2) Slowly, carefully, and simultaneously lower two stands (18) and jack (21) until wheels (14) are on the ground and wheel (20) is resting on block (25).
- (3) Remove two stands (18).
- (4) Install chocks (13) on wheels (14).
- (5) Jack tail wheel (20) until jack (21) and load cell (23) are clear of tail boom jack pad (24).
- (6) Remove jack (21) and load cell (23).
- (7) Remove block (25).
- (8) Lower jack (22) until tail wheel (20) is on the ground.
- (9) Remove jack (22).

**l. Remove load cells (19) from tail stands (18).**

**m. Remove adapters (15) from brackets (16).**

- (1) Remove pins (17) from adapters (15) and brackets (16).
- (2) Remove adapters (15).

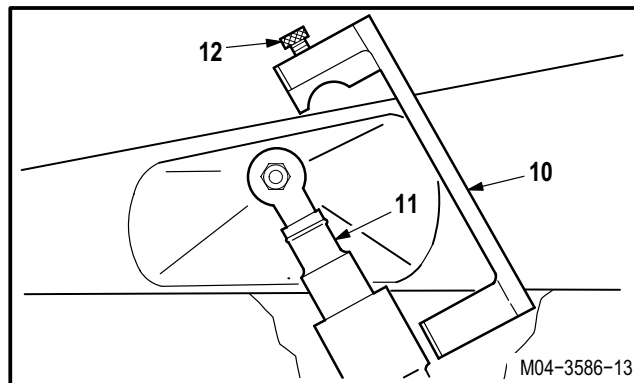


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**G.1. HELICOPTER WEIGHING (AIRCRAFT ON JACKS) – continued**

**n. Remove strut locks (10) from struts (11).**

- (1) Loosen adjustment screw (12) on both strut locks (10).
- (2) Remove strut locks (10).



**o. Remove line (5) with plumb bob (6) from bracket (1).**

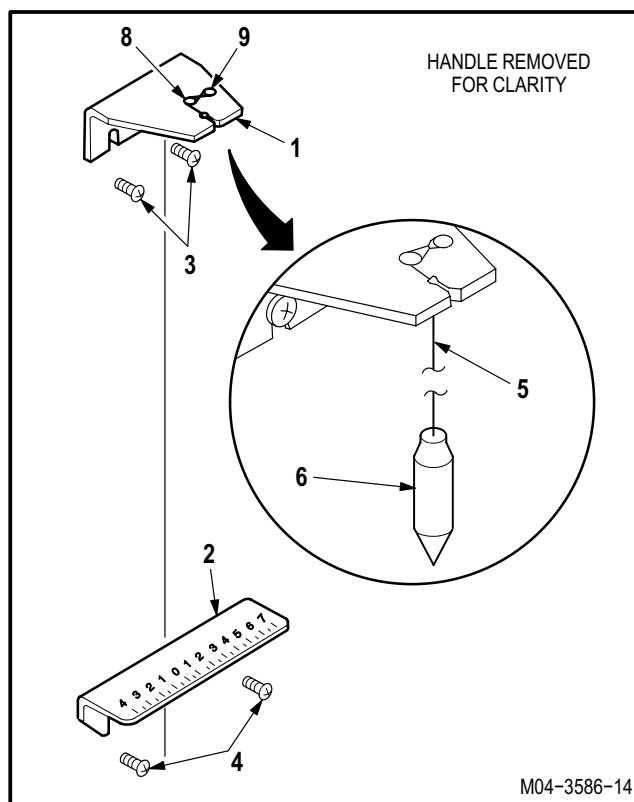
- (1) Unwind line (5) from rivets (8) and (9).
- (2) Remove line (5) and plumb bob (6).

**CAUTION**

Plumb bob bracket and target installation screws are not removable. Damage to bracket and target will result if removal is attempted.

**p. Remove plumb bob bracket (1) and target (2) from helicopter.**

- (1) Loosen screws (3) and (4).
- (2) Slide target (2) off of screws (4).
- (3) Slide bracket (1) off of screws (3).
- (4) Tighten screws (3) and (4).



**q. Service main landing gear struts (para 1.40).**

**r. Secure access doors L135 and R135 (para 2.2).**

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**G.1. HELICOPTER WEIGHING (AIRCRAFT ON JACKS)**

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G.1.5. Calculations

**NOTE**

- For the AH-64A helicopter, ARM equals Fuselage Station (F.S.) and Moment = Weight X ARM.
- Addition of weights or moments is acceptable, but the addition of ARMS is NOT acceptable.
- Record all calculations and data on Aircraft Weighing Record, DD Form 365-2. See Figure G-3 and G-4 for form illustration and block locations.

a. **Obtain weights for items on board when weighed, but not part of the helicopter basic weight (jack adapters and strut locks) and record in block 20.**

Jack adapters (2): \_\_\_\_\_ pounds. Arm = 120.2

Strut Locks (2): \_\_\_\_\_ pounds. Arm = 122.5

Record weight (as negative value) and ARM (as positive value) of above items in **WEIGHT** and **ARM** column, block 20 (reverse side of DD Form 365-2).

Reaction Locations: All three jack points are "Jig Points" and do not require measurements. The dimensions are:

E = 120.2 in.

F = 450.0 in.

Record "E" in block 5, 14 and 26.

Record "F" in block 6, 15 and 26.

b. **Fill in identifying data on top of DD Form 365-2.**

c. **Record average of scale readings (weighing #1 + weighing #2 divided by 2) in blocks 8, 9, and 11.**

d. **Add data in block 8 and 9 and record sum (subtotal) in block 10.**

e. **Add data in block 10 and 11 and record sum (total) in block 12.**

f. **Calculate subtotal and tail moments.**

(1) Multiply block 10 and block 14 and record result in block 17.

(2) Multiply block 11 and block 15 and record result in block 18.

g. **Add moments in blocks 17 and 18 and record sum (total) in block 19.**

h. **Divide moment in block 19 by the weight in block 12 and enter result (ARM as weighed) in blocks 16 and 7.**

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**G.1. HELICOPTER WEIGHING (AIRCRAFT ON JACKS) – continued**


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**NOTE**

Some automated weight and balance systems will not permit the calculation of “Corrected ARM” as described in step i. The following alternate procedure may be used: Skip steps i, j, k, and l. Transfer data in block 12 (total as weighed weight), block 16 (ARM), and block 19 (moment) to blocks 22, 27, and 30. Multiply 2.9 (constant value) and block 22 to obtain the non-level moment correction and record (as negative value) in MOMENT column, block 20. Continue with step m.

- i. **Subtract 2.9 (constant value) from block 7 (ARM as weighed) and enter difference (Corrected ARM for level attitude) in block 13.**
- j. **Transfer data in block 12 to block 22 on reverse side of DD Form 365-2.**
- k. **Transfer data in block 13 to block 27 on reverse side of DD Form 365-2.**
- l. **Multiply block 22 (net weight) with block 27 (ARM) and record result (moment) in block 30.**

**NOTE**

When main landing gear is locked in a fully collapsed position for weighing, a **-1490 INCH-POUND** moment correction to level flight position must be used.

- m. **Record MLG correction moment (-1490 INCH-POUND) in MOMENT column, block 20.**
- n. **Calculate total moment of items not part of basic weight.**
  - (1) Multiply weight and ARM of strut locks, jack adapters, and other items not part of helicopter basic weight and record each result (negative value moment) in MOMENT column, block 20.
  - (2) Add all weights of strut locks, jack adapters, and other items not part of helicopter basic weight and enter sum (as negative value) in TOTAL row of WEIGHT column, block 20.
  - (3) Add all moments of strut locks, jack adapters, and other items not part of helicopter basic weight and record sum (as negative value) in TOTAL row of MOMENT column, block 20.
- o. **Transfer total weight in block 20 to block 23 (record as negative value).**
- p. **Transfer total moment in block 20 to block 31 (record as negative value).**
- q. **Record basic weight items not in the helicopter at time of weighing in block 29 and calculate total weight and moment of these items (if any).**
  - (1) Record weight and ARM (as positive value) of each individual basic weight item not in the helicopter at time of weighing in WEIGHT and ARM column, block 29.
  - (2) Multiply weight and ARM of each individual basic weight item not in the helicopter at time of weighing and record each result (positive value moment) in MOMENT column, block 29.
  - (3) Add all weights of basic weight items not in the helicopter at time of weighing and record sum (as positive value) in TOTAL row of WEIGHT column, block 29.
  - (4) Add all moments of basic weight items not in the helicopter at time of weighing and record sum (as positive value) in **TOTAL** row of **MOMENT** column, block 29.
- r. **Transfer total weight from block 29 to block 24.**
- s. **Transfer total moment from block 29 to block 32.**

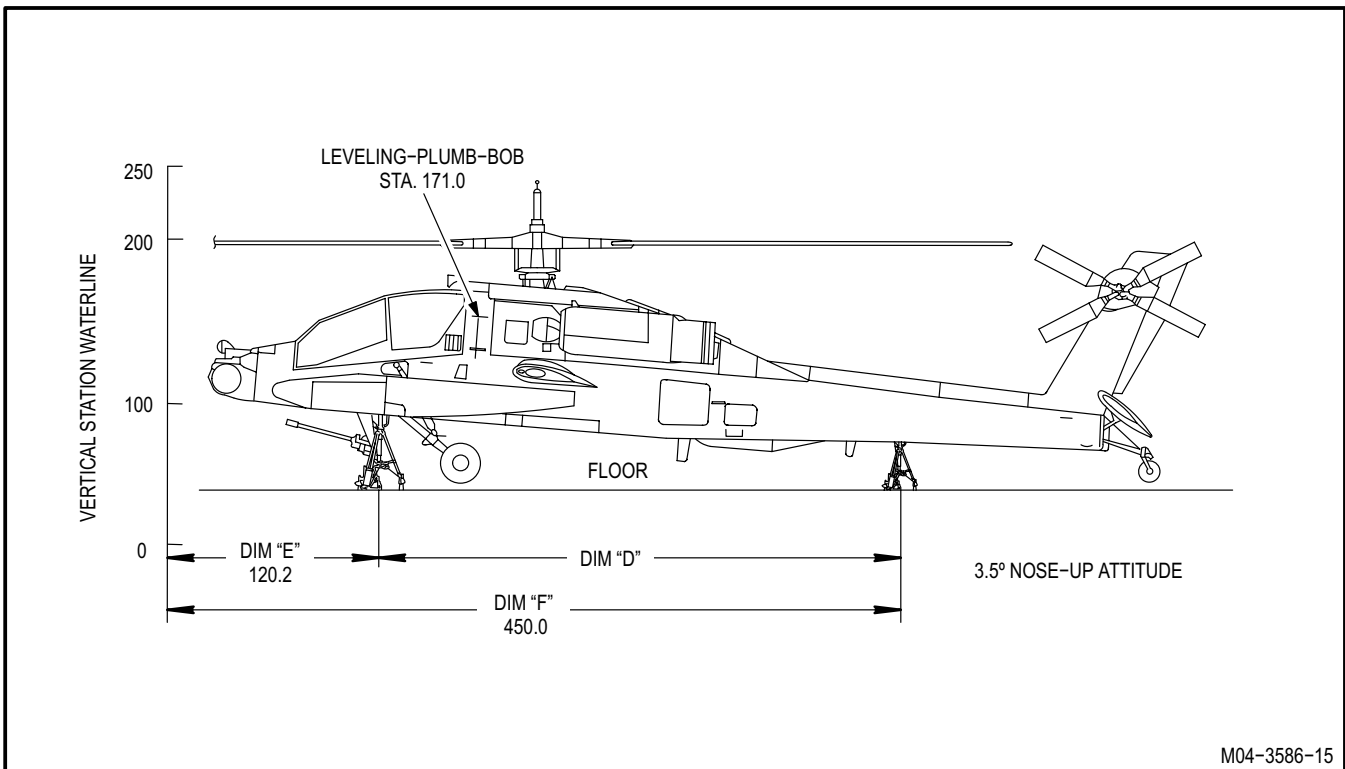
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**G.1. HELICOPTER WEIGHING (AIRCRAFT ON JACKS) – continued**

**NOTE**

Add total weights and moments algebraically. Pay careful attention to “+” and “-” signs.

- t. Add total weights in blocks 22, 23, and 24 (if any) and record sum (basic aircraft net weight) in block 25.
- u. Add total moments in blocks 30, 31, and 32 (if any) and record sum (basic aircraft moment) in block 33.
- v. Divide block 33 (basic aircraft moment) by block 25 (basic aircraft net weight) and record result (center of gravity ARM) in block 28.
- w. Divide block 33 (basic aircraft moment) by 100 and record result (moment/100) in block 34.
- x. Enter the following statements in block 21 (remarks):
  - (1) “Helicopter weighed on jacks: 3.5° Nose-Up Attitude”.
  - (2) “Basic weight corrected to 0° (Level Attitude)”.



**Figure G-2. Aircraft on Jacks**

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**G.1. HELICOPTER WEIGHING (AIRCRAFT ON JACKS) – continued**

FORM B - AIRCRAFT WEIGHING RECORD				FOR USE IN T.O 1-1 B-40, NAVAIR 01-1B-40 AND TM-55-405-9	
DATE WEIGHED (YYMMDD)		MODEL/DESIGN/SERIES		SERIAL NUMBER	
PLACE WEIGHED		WEIGHT AND BALANCE TECHNICIAN (last, first, M.I.)			DUTY PHONE NUMBER
REACTION (Wheels, jackpoints, etc.)	SCALE READING	TARE	NET WEIGHT	ARM	MOMENT
1 LEFT MAIN	1 4102.7		4101.5 8		
	2 4100.3				
2 RIGHT MAIN	1 3998.6		4002.3 9		
	2 4006.0				
SUB-TOTAL (Both main)			8103.8 10	E 120.2 14	974076 17
3 NOSE OR TAIL	1 2984.1		2985.7 11	F 450.0	1343565
	2 2987.3				
TOTAL (as weighed) Not to be posted on Chart C			11089.5 12	208.9	317641 19

4  $\alpha = 3.5^\circ$  PLUMB-BOB ANGLE MEASUREMENTS

B = N/A the distance from the jib point, to the center line of the main reactions. Obtain by measurements.

I = N/A the distance from the reference datum to the jib point of the aircraft, from which a plumb bob can be dropped to the ground. Obtain from the aircraft diagram in Chart E.

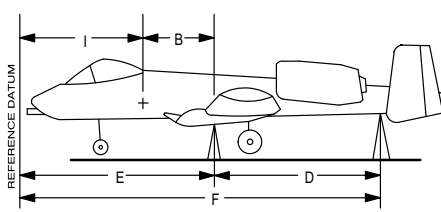
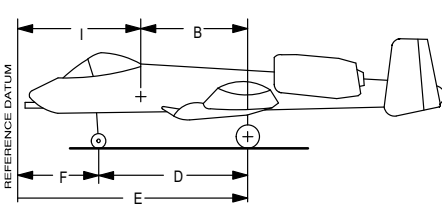
5 E = 120.2 <sup>1</sup> the distance from the reference datum to the center line of the main reactions.  
 $E = I + B$   
 $E = I - B$  (If the jib point is aft of the center line of the main reactions.)

D = N/A the distance between the main and nose tail reaction. Obtain by measurement.

6 F = 450.0 <sup>1</sup> the distance from the reference datum to the center line of the nose or tail reaction.  
 $F = E - D$  (for nose reaction)  
 $F = E + D$  (for tail reaction)

7 H = 208.9 ARM AS WEIGHED (3.5° NOSE-UP)      13 CORRECTED ARM 206.0 (FOR LEVEL ATTITUDE)

TAIL REACTION

DIAGRAMS FOR MEASURING VARIOUS TYPES OF REACTIONS TO DETERMINE ARM OF SUPPORT POINTS.

<sup>1</sup> Check dimensions E and F against approximate dimensions listed on Chart E.

DD FORM 365-2 82 JAN REPLACES DD FORM 365B, SEP, WHICH WILL BE USED

**Figure G-3. Aircraft Weighing Record DD Form 365-2**

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G.1. HELICOPTER WEIGHING (AIRCRAFT ON JACKS) – continued

AIRCRAFT WEIGHING RECORD				For use in TM 55-405-9			
DESCRIPTION	NET WEIGHT	ARM	MOMENT	1/INDEX OR MOM/100			
TOTAL (As Weighed) (From front side)	11089.5 (22)	206.0 (27)	2284437 (30)				
OIL IN AIRCRAFT	—		—				
TOTAL OF ITEMS WEIGHED BUT NOT PART OF BASIC WEIGHT (From Col I below)	- 24.8 (23)		- 4525 (31)				
TOTAL OF BASIC ITEMS NOT IN AIRCRAFT WHEN WEIGHED (From Col II below)	+	(24)	+				
BASIC AIRCRAFT (Post to Chart C)	11064.7 (25)	206.1 (28)	2279912 (33)	22799 (34)			
COLUMN I				COLUMN II			
ITEMS WEIGHED BUT NOT PART OF BASIC WEIGHT	WEIGHT	ARM	MOMENT	BASIC ITEMS NOT IN AIRCRAFT WHEN WEIGHED	WEIGHT	ARM	MOMENT
(20)				(29)			
WEIGHING TOOLS:							
STRUT LOCKS	-23.4	122.5	- 2867				
JACK ADAPTERS	- 1.4	120.2	- 168				
MLG CORRECTION			- 1490				
TOTAL	-24.8		-4525	TOTAL			
REACTIONS USED E = 120.2 F = 450.0				(26) TYPE SCALE SERIAL NUMBER CALIBRATION DATE (YYMMDD) CALIBRATED ACCURACY			
REMARKS (21) HELICOPTER WEIGHED ON JACKS : 3 5° NOSE UP. BASIC WEIGHT CORRECTED TO 0° (LEVEL ATTITUDE)							
1/ Enter constant used.							

DD Form 365-2 Reverse, JAN 82

U.S. Government Printing Offices: 1987-181-032/66628

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Figure G-4. Aircraft Weighing Record DD Form 365-2 (Reverse Side)

END OF TASK

## SECTION II. LOADING INFORMATION

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### G.2. LOADING INFORMATION

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#### G.2.1. Description

This task covers: Fundamental principles of loading. Helicopter compartments and stations. Weight and balance characteristics. Center of Gravity limits. Weight/balance and loading.

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#### G.2.2. Initial Setup

WEIGHT/BALANCE AND LOADING INFORMATION

WEIGHT AND CENTER OF GRAVITY LIMITATIONS

WEIGHT AND MOMENT TABLES

GO TO NEXT PAGE

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**G.2. LOADING INFORMATION – continued**

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**NOTE**

- This section provides information required for helicopter loading and for computing weight and balance. It contains sufficient information and data so that an aviator, knowing the basic weight and moment of the helicopter, can compute any combination of weight and balance using the prescribed Army charts and forms.
- Army AH-64A helicopter is a Class 2 aircraft. Additional directives governing weight and balance of Class 2 aircraft, forms, and records are contained in AR 95-1, DA PAM 738-751, and TM 55-1500-342-23.
- Proper loading of the aircraft can be accomplished by using the weight and moment tables provided in this section directly, or by using the actual weight and arm of the individual item(s) and multiplying them to calculate exact moment. Exercise care when adding calculated moments to table moments as table moments are given as moment divided by 100. Regardless of method used, the objective is to load the helicopter within the required weight and C.G. limits for takeoff, flight, and landing.

**G.2.3. Fundamental Principles of Loading**

There are several basic loading principles relative to weight and balance that must be understood in order to properly load an aircraft and to avoid and correct adverse loading conditions. These principles are as follows:

- a. **Weight added or removed at the C.G. will not shift the C.G.**
- b. **Weight added forward of the C.G. will move the C.G. forward.**
- c. **Weight removed forward of the C.G. will move the C.G. aft.**
- d. **Weight added aft of the C.G. will move the C.G. aft.**
- e. **Weight removed aft of the C.G. will move the C.G. forward.**
- f. **The effect on C.G. shifting for any given weight is directly proportional to the distance the weight is moved.**

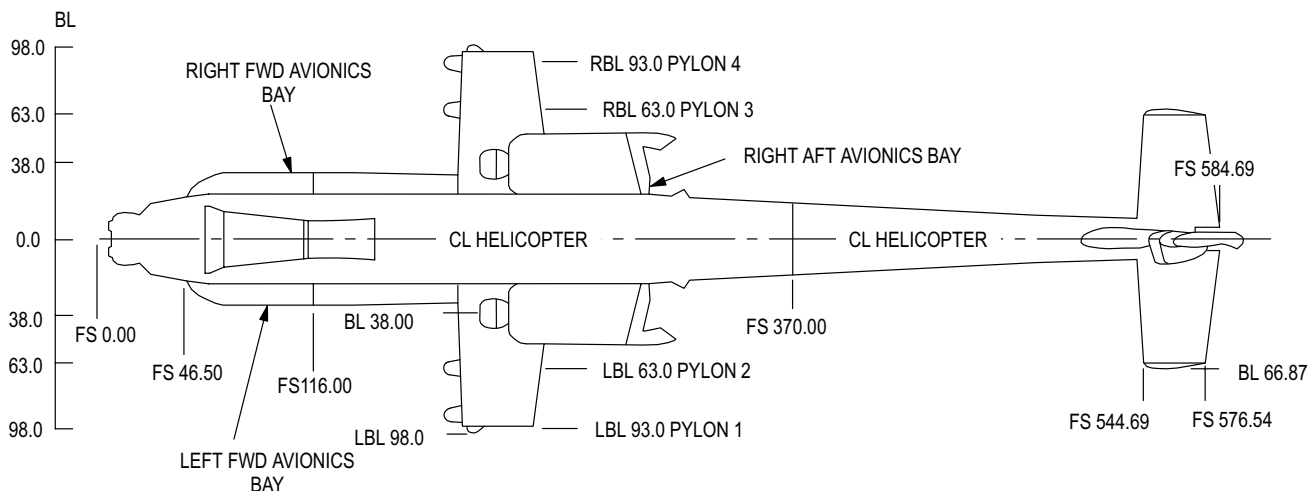
**G.2.4. Helicopter Compartments and Stations**

Figure G-5 presents the general location of major compartments and stations of the AH-64A helicopter. A more complete listing of compartments and equipment that comprise the basic weight of the helicopter is provided in the helicopter basic weight checklist, DD Form 365-1.

Weight and moment tables for customary load items such as crew, fuel, cargo, and armament can be found in paragraphs G.2.5 through G.2.7.

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**G.2. LOADING INFORMATION – continued**

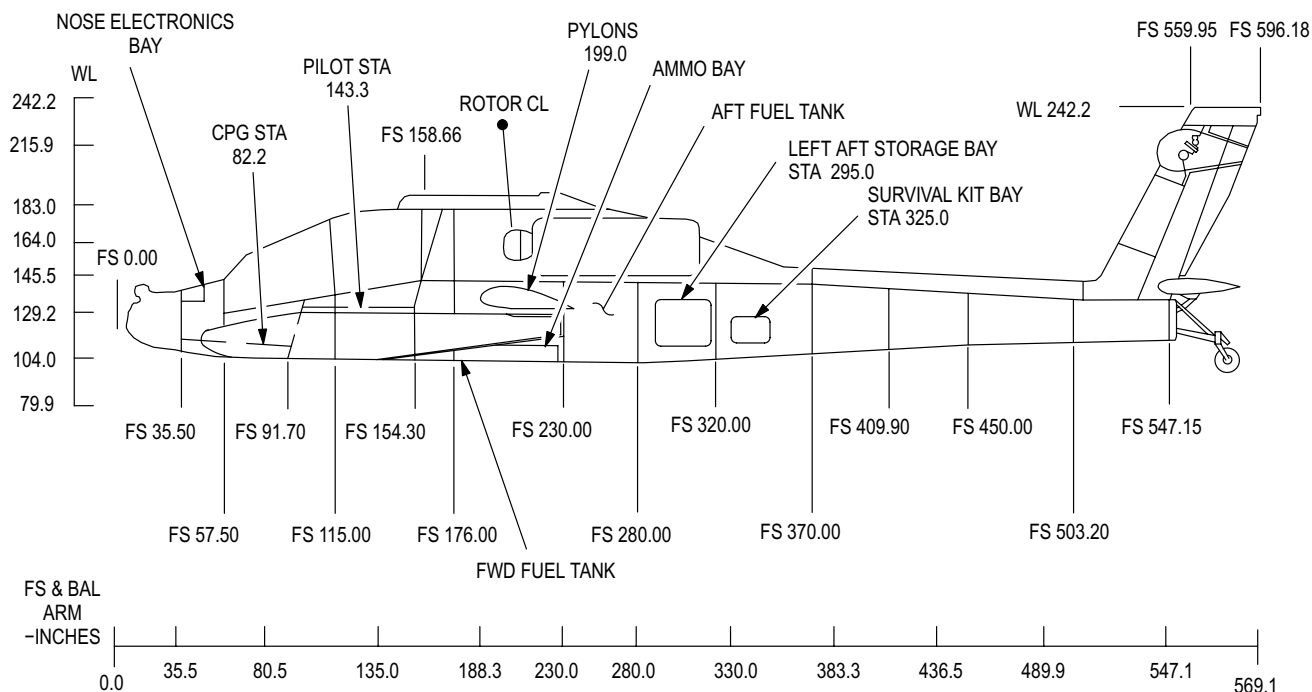


**PYLON FWD LUG STATION**

INBOARD = 184.4  
OUTBOARD = 184.5

ALL DIMENSIONS ARE IN INCHES

BL BUTT LINE  
CL CENTERLINE  
FS FUSELAGE STATION



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**Figure G-5. AH-64A Major Compartments and Stations**

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**G.2. LOADING INFORMATION**

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G.2.5. Weight And Balance Characteristics

■	Maximum mission Gross Weight (without auxiliary fuel tanks)			21,000 lb.
	Allowable Extended Range Gross Weight (with auxiliary fuel tanks)			21,000 lb.
	Minimum Flying Weight (typical)			11,500 lb.
	Fuel Capacity			
	Main Tanks	376.0 gal.	(JP4)	2,444.0 lb.
			(JP5/JP8)	2,538.0 lb.
	unusable fuel	1.9 gal.	(JP4)	12.4 lb.
			(JP5/JP8)	12.9 lb.
	Auxiliary Tanks	920.0 gal.	(JP4)	5,980.0 lb.
			(JP5/JP8)	6,210.0 lb.
	unusable fuel	2.7 gal.	(JP4)	17.6 lb.
			(JP5/JP8)	18.4 lb.

- Longitudinal Reference Datum
- 35.5 inches forward of the most forward frame assembly (Fig. G-5)

Utility Storage Compartments

L.H. Aft Storage Compartments	Max.	60 lb. @ 15 lb/ft <sup>2</sup>
Balance Arm Stations (Fuselage Station)		295.0 (Fig. G-5)
L.H. Survival Kit Bay	Max.	100 lb @ 15 lb/ft <sup>2</sup>
Balance Arm Stations (Fuselage Station)		325.0 (Fig. G-5)

G.2.6. Center of Gravity Limits



**Aft C.G. Limits can be exceeded when using the aft storage bays.**

**NOTE**

For the AH-64A helicopter, ARM and fuselage station (F.S.) are the same.

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**G.2. LOADING INFORMATION**

FORWARD – The normal forward C.G. limit is at fuselage station (F.S.) 201.0 inches to 19,400 pounds and a straight line taper from 201.0 to 202.2 inches from 19,400 to 21,000 pounds.

AFT – The normal aft C.G. limit is at fuselage station (F.S.) 207.0 inches to 14,660 pounds, and a straight line taper from 207.0 to 203.3 inches from 14,600 to 20,600 pounds.

All flight C.G.'s must remain within these limits. C.G. limit tables are found in table G-10 and a takeoff and landing longitudinal C.G. limit envelope is found in figure G-8, page G-33.

G.2.7. Weight/Balance and Loading

GENERAL

AH-64A crew member provisions consist of the Pilot and Co-pilot/gunner (CPG) located in the cockpit.

PERSONNEL MOMENTS

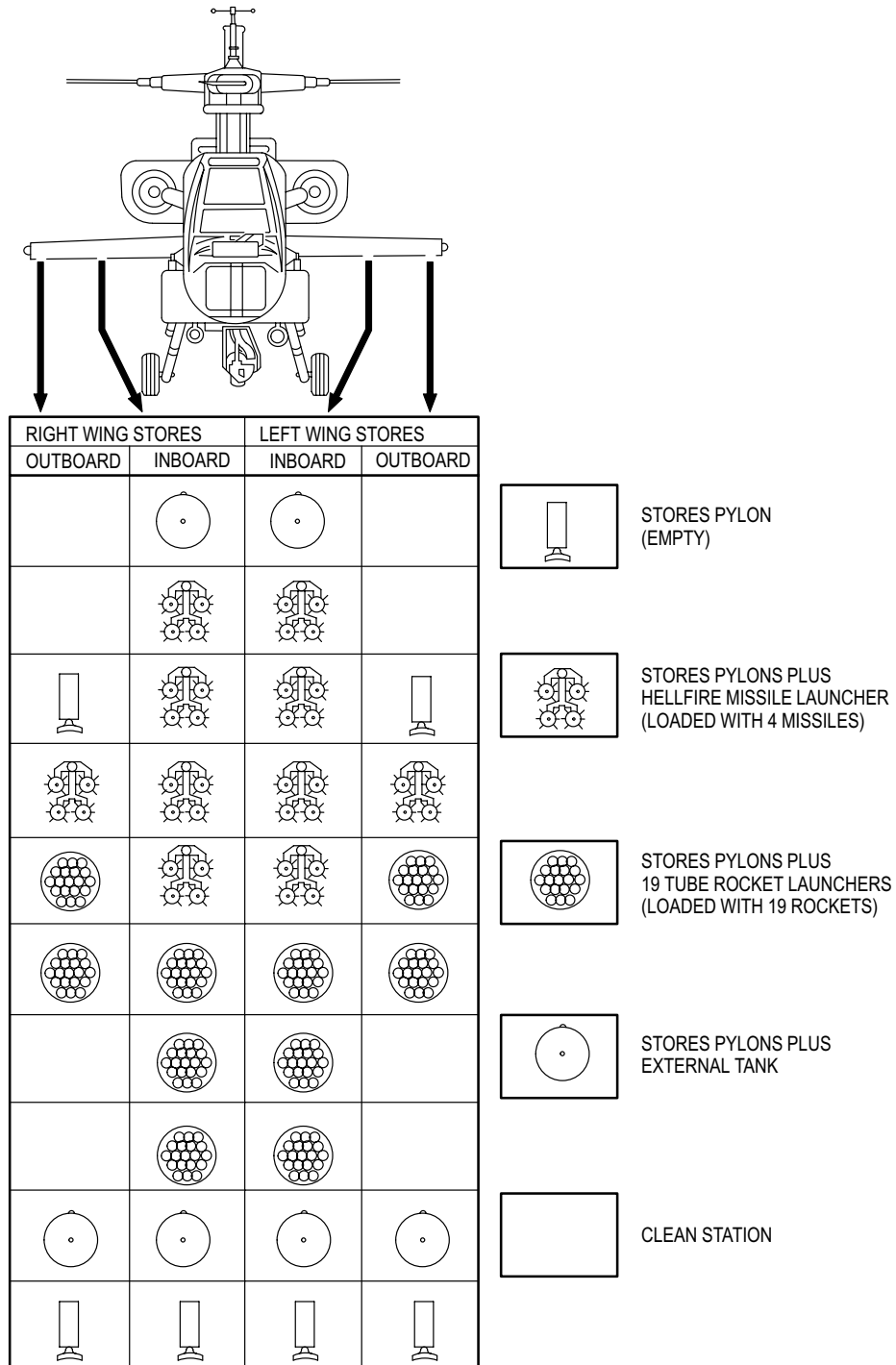
Always try to use the exact weight of each crewmember including all equipment and any personal items stored in the crew station (cockpit). If weighing facilities are not available, then use the best estimate available. Table G-1 presents the crew C.G. with the seat in its nominal location.

**Table G-1. Crew Member Weights**

Crew Member Weight Including Equipment (lb)	Co-pilot Station		Pilot Station	
	Nominal Arm (in)	Moment (in-lb/100)	Nominal Arm (in)	Moment (in-lb/100)
130	82.2	107	143.3	186
140	82.2	115	143.3	201
150	82.2	123	143.3	215
160	82.2	132	143.3	229
170	82.2	140	143.3	244
180	82.2	148	143.3	258
190	82.2	156	143.3	272
200	82.2	164	143.3	287
210	82.2	173	143.3	301
220	82.2	181	143.3	315
230	82.2	189	143.3	330
240	82.2	197	143.3	344
250	82.2	206	143.3	358

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**G.2. LOADING INFORMATION – continued**

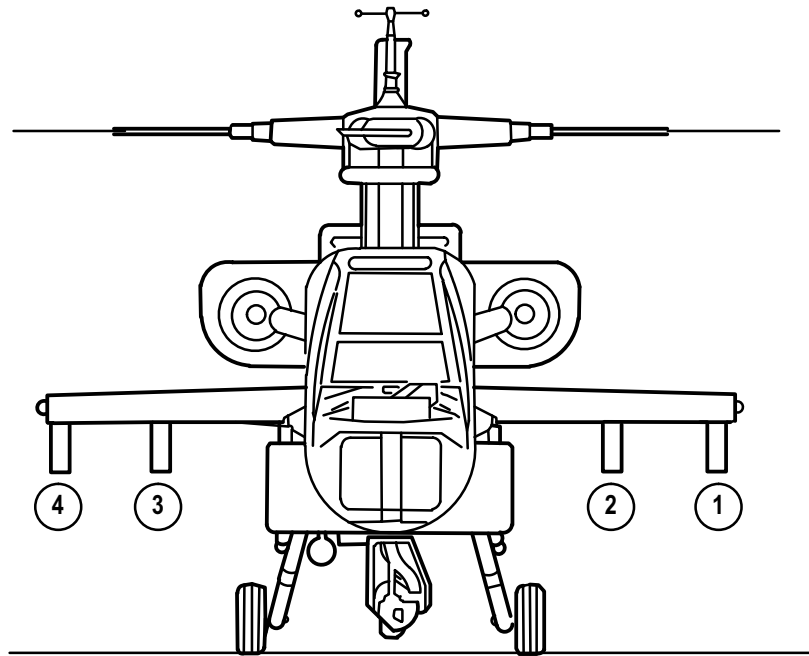


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**Figure G-6. Typical Armament Configurations**

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**G.2. LOADING INFORMATION – continued**



**PYLONS AND LAUNCHERS**

ITEM	STATIONS	WEIGHT of PAIR (lb)	MOMENT (in.-lb/100)
PYLONS – INBOARD or OUTBOARD	2 & 3 or 1 & 4	118.0	235
M-272 HELLFIRE LAUNCHERS	2 & 3 or 1 & 4	278.2	528
M-261 ROCKET LAUNCHERS	2 & 3 or 1 & 4	173.6	344

NOTE

FWD HOOKS ARE AT F.S. 184.5  
(BOTH INBOARD & OUTBOARD PYLONS)

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**Figure G-7. External Stores and Stations**

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**G.2. LOADING INFORMATION – continued**

**Table G-2. External Stores – Auxiliary Tanks and Fuel**

Auxiliary Fuel Tanks

Item	Weight Each (lbs)	Moment (in-lb/100)
Auxiliary Fuel Tanks (each)	140.0	268
Wing Tank Plumbing		
2 Tanks	16.0	35
4 Tanks	20.0	43

Fuel: JP-4 (6.5 lbs/gal)

Condition*	Weight (lbs)	Moment (in-lb/100)	U.S. Gallons
Tank Full	1495.0	2906	230.0
Tank 3/4 Full	1121.3	2180	172.5
Tank 1/2 Full	747.5	1453	115.0
Tank 1/4 Full	373.8	727	57.5

Fuel: JP-5 (6.8 lbs/gal)

Condition*	Weight (lbs)	Moment (in-lb/100)	U.S. Gallons
Tank Full	1564.0	3040	230.0
Tank 3/4 Full	1173.0	2280	172.5
Tank 1/2 Full	782.0	1520	115.0
Tank 1/4 Full	391.0	760	57.5

Fuel: JP-8 (6.7 lbs/gal)

Condition*	Weight (lbs)	Moment (in-lb/100)	U.S. Gallons
Tank Full	1541.0	2996	230.0
Tank 3/4 Full	1155.8	2247	172.5
Tank 1/2 Full	770.5	1498	115.0
Tank 1/4 Full	385.3	749	57.5

\*Tank at 0° (level) attitude



**Installation of an odd number of auxiliary tanks (1 or 3) is not approved.**

**NOTE**

Fuel weight and moment are shown for one tank. Tank and fuel weight and moment must be doubled for two tanks or quadrupled when four tanks are used. Add wing tank plumbing for two or four tanks as appropriate.

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**G.2. LOADING INFORMATION – continued**

**Table G-3. 2.75 inch Rocket Loading for H519 or Dummy**

Item	Qty	Inboard Station 2, 3 or Outboard Station 1, 4	
		Accum. Wt. (lbs)	Moment (in-lb/ 100)
Rocket	1	20.6	41
Rocket	2	41.2	81
Rocket	3	61.8	122
Rocket	4	82.4	162
Rocket	5	103.0	203
Rocket	6	123.6	243
Rocket	7	144.2	284
Rocket	8	164.8	324
Rocket	9	185.4	365
Rocket	10	206.0	406
Rocket	11	226.6	446
Rocket	12	247.2	487
Rocket	13	267.8	527
Rocket	14	288.4	568
Rocket	15	309.0	608
Rocket	16	329.6	649
Rocket	17	350.2	690
Rocket	18	370.8	730
Rocket	19	391.4	771

**Table G-4. 2.75 inch Rocket Loading for MPSM Warhead with MK66 Motor**

Item	Qty	Inboard Station 2, 3 or Outboard Station 1, 4	
		Accum. Wt. (lbs)	Moment (in-lb/ 100)
Rocket	1	27.1	51
Rocket	2	54.2	102
Rocket	3	81.3	154
Rocket	4	108.4	205
Rocket	5	135.5	257
Rocket	6	162.6	308
Rocket	7	189.7	359
Rocket	8	216.8	411
Rocket	9	243.9	462
Rocket	10	271.0	513
Rocket	11	298.1	565
Rocket	12	325.2	616
Rocket	13	352.3	667
Rocket	14	379.4	719
Rocket	15	406.5	770
Rocket	16	433.6	821
Rocket	17	460.7	873
Rocket	18	487.8	924
Rocket	19	514.9	975

**Table G-5. Hellfire Missile Loading**

Item	Quantity	Inboard Station 2, 3 or Outboard Station 1, 4	
		Accum. Wt. (lbs)	Moment (in-lb/ 100)
Missile	1	99.9	191
Missile	2	199.8	381
Missile	3	299.7	573
Missile	4	399.6	762

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**G.2. LOADING INFORMATION – continued**

**AMMUNITION LOADING**

Table G-6 presents M-788 or M-789 30mm linkless aluminum case ammunition accumulated weight and moment (in-lb/100) to a capacity of 1200 rounds. Approximately 104 rounds are in the right chute and the remainder are in the magazine. Refer to bottom of the table for conversion to ADEN or DEFA ammunition.

**Table G-6. Ammunition Loading for M788 or M-789 30mm Rounds (Aluminum Cartridges)**

Number of Rounds	Weight (lbs)	Moment (in-lb/100)
50	38.5	42
100	77.0	110
150	115.5	222
200	154.0	269
250	192.5	346
300	231.0	427
350	269.5	504
400	308.0	585
450	346.5	662
500	385.0	744
550	423.5	819
600	462.0	905
650	500.5	988
700	539.0	1063
750	577.5	1146
800	616.0	1221
850	654.5	1304
900	693.0	1379
950	731.5	1462
1000	770.0	1537
1050	808.5	1620
1100	847.0	1696
1150	885.5	1778
1200	924.0	1868

**NOTE**

- When ADEN (brass cartridges) are used, multiply weight and moment by 1.354.
- When DEFA (steel cartridges) are used, multiply weight and moment by 1.343.

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**G.2. LOADING INFORMATION – continued**

**Table G-7. Aircraft Survivability Equipment Chaff Dispenser and Cartridges**

Item	Weight (lbs)	Moment (in-lb/100)
Chaff Dispenser (empty) + Payload Module	9.0	44
30 Chaff Cartridges	10.0	49
Total Chaff Dispenser + 30 Cartridges	19.0	93

**CARGO LOADING**

There are two aft storage bays on the helicopter. The left aft storage bay contains the flyaway equipment kit and the survival kit bay may carry a survival equipment kit and/or personal equipment. The flyaway equipment kit and the survival equipment kit are basic weight items and are listed on Chart A (DD Form 365-1).

Personal items or extra equipment that has not been identified as basic weight must be entered on Form F (DD Form 365-4). All extra cargo should be weighed so that exact weight and moments are used for the weight and balance computations. If weighing facilities are not available, weight should be estimated in terms of probable maximum weight to reduce the possibility of exceeding the aft C.G. limits.

**CAUTION**

When AFT storage bays are loaded, the AFT C.G. can be exceeded.

**Table G-8. Storage Bay and Survival Kit Bay Equipment**

Left Aft Storage Bay		Left Aft Survival Kit Bay	
Accum. Wt. (lbs)	Moment (in-lb/100)	Accum. Wt. (lbs)	Moment (in-lb/100)
5	14	5	16
10	29	15	47
15	43	30	95
20	57	45	142
30	86	50	164
40	114	65	213
45	128	80	262
50	143	90	279
*60	171	95	320
		*100	337
* Max. Load 60 lb @ 15 lb/ft <sup>2</sup>		* Max. Load 100 lb @ 15 lb/ft <sup>2</sup>	

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G.2. LOADING INFORMATION – continued

Table G-9. Main Tanks – Fuel Loading

JP-4 Density = 6.5 lb/gal  
 JP-5 Density = 6.8 lb/gal  
 JP-8 Density = 6.7 lb/gal

Forward Tank					Aft Tank				
Weight (lbs)	Moment 100	U.S. Gallons JP-4	U.S. Gallons JP-5	U.S. Gallons JP-8	Weight (lbs)	Moment 100	U.S. Gallons JP-4	U.S. Gallons JP-5	U.S. Gallons JP-8
50	75	7.7	7.4	7.5	50	127	7.7	7.4	7.5
100	151	15.4	14.7	14.9	100	255	15.4	14.7	14.9
150	226	23.1	22.1	22.4	150	382	23.1	22.1	22.4
200	301	30.8	29.4	29.9	200	510	30.8	29.4	29.9
250	377	38.5	36.8	37.3	250	637	38.5	36.8	37.3
300	452	46.2	44.1	44.8	300	765	46.2	44.1	44.8
350	527	53.8	51.5	52.2	350	892	53.8	51.5	52.2
400	602	61.5	58.8	59.7	400	1020	61.5	58.8	59.7
450	678	69.2	66.2	67.2	450	1147	69.2	66.2	67.2
500	753	76.9	73.5	74.6	500	1275	76.9	73.5	74.6
550	828	84.6	80.9	82.1	550	1402	84.6	80.9	82.1
600	904	92.3	88.2	89.6	600	1530	92.3	88.2	89.6
650	979	100.0	95.6	97.0	650	1657	100.0	95.6	97.0
700	1054	107.7	102.9	104.5	700	1785	107.7	102.9	104.5
750	1130	115.4	110.3	111.9	750	1912	115.4	110.3	111.9
800	1205	123.1	117.6	119.4	800	2040	123.1	117.6	119.9
850	1281	130.8	125.0	126.9	850	2167	130.8	125.0	126.9
900	1365*	138.5	132.4	134.3	900	2295	138.5	132.4	134.3
950	1450*	146.2	139.7	141.8	950	2422	146.2	139.7	141.8
1000	1535*	153.8	147.1	149.3	1000	2550	153.9	147.1	149.3
1012	1555	155.7 (full)	—	—	1050	2677	161.5	154.4	156.7
1043	1603	—	—	155.7 (full)	1100	2805	169.2	161.8	164.2
1059	1627	—	155.7 (full)	—	1150	2932	176.9	169.1	171.6
					1200	3060	184.6	176.5	179.1
					1250	3187	192.3	183.8	186.6
					1300	3315	200.0	191.2	194.0
					1350	3442	207.7	198.5	201.5
					1400	3570	215.4	205.9	209.0
					1430	3646	220.0 (full)	—	—
					1474	3758	—	—	220.0 (full)
					1496	3815	—	220.0 (full)	—

**NOTE**

\*Moment varies slightly with fuel density. Moments listed are based on JP-4 @ 6.5 lb/gal. These values may be used for JP-5 or JP-8 as the variation with fuel density is small.

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**G.2. LOADING INFORMATION – continued**

**Table G-10. Center of Gravity Table: Normal C.G. Limits in Fuselage Station**

Gross Weight Pounds	Fwd	Limit	Moment/100							Aft	Limit
	C.G. Var	Mom 100	C.G. 201	C.G. 202	C.G. 203	C.G. 204	C.G. 205	C.G. 206	C.G. 207	Mom 100	C.G. Var
11000			22110	22220	22330	22440	22550	22660	22770		
11100			22311	22422	22533	22644	22755	22866	22977		
11200			22512	22624	22736	22848	22960	23072	23184		
11300			22713	22826	22939	23052	23165	23278	23391		
11400			22914	23028	23142	23256	23370	23484	23598		
11500			23115	23230	23345	23460	23575	23690	23805		
11600			23316	23432	23548	23664	23780	23896	24012		
11700			23517	23634	23751	23868	23985	24102	24219		
11800			23718	23836	23954	24072	24190	24308	24426		
11900			23919	24038	24157	24276	24395	24514	24633		
12000			24120	24240	24360	24480	24600	24720	24840		
12100			24321	24442	24563	24684	24805	24926	25047		
12200			24522	24644	24766	24888	25010	25132	25254		
12300			24723	24846	24969	25092	25215	25338	25461		
12400			24924	25048	25172	25296	25420	25544	25668		
12500			25125	25250	25375	25500	25625	25750	25875		
12600			25326	25452	25578	25704	25830	25956	26082		
12700			25527	25654	25781	25908	26035	26162	26289		
12800			25728	25856	25984	26112	26240	26368	26496		
12900			25929	26058	26187	26316	26445	26574	26703		
13000			26130	26260	26390	26520	26650	26780	26910		
13100			26331	26462	26593	26724	26855	26986	27117		
13200			26532	26664	26796	26928	27060	27192	27324		
13300			26733	26866	26999	27132	27265	27398	27531		
13400			26934	27068	27202	27336	27470	27604	27738		
13500			27135	27270	27405	27540	27675	27810	27945		
13600			27336	27472	27608	27744	27880	28016	28152		
13700			27537	27674	27811	27948	28085	28222	28359		
13800			27738	27876	28014	28152	28290	28428	28566		
13900			27939	28078	28217	28356	28495	28634	28773		
14000			28140	28280	28420	28560	28700	28840	28980		
14100			28341	28482	28623	28764	28905	29046	29187		
14200			28542	28684	28826	28968	29110	29252	29394		
14300			28743	28886	29029	29172	29315	29458	29601		
14400			28944	29088	29232	29376	29520	29664	29808		

Normal Longitudinal Center of Gravity Limits

GO TO NEXT PAGE

**G.2. LOADING INFORMATION – continued**

**Table G-10. Center of Gravity Table: Normal C.G. Limits in Fuselage Station – continued**

Gross Weight Pounds	Fwd	Limit	Moment/100							Aft	Limit
	C.G. Var	Mom 100	C.G. 201	C.G. 202	C.G. 203	C.G. 204	C.G. 205	C.G. 206	C.G. 207	Mom 100	C.G. Var
14500			29145	29290	29435	29580	29725	29870	30015		
14600			29346	29492	29638	29784	29930	30076	30222		
14700			29547	29694	29841	29988	30135	30282		30426	207.0
14800			29748	29896	30044	30192	30340	30488		30624	206.9
14900			29949	30098	30247	30396	30545	30694		30822	206.9
15000			30150	30300	30450	30600	30750	30900		31020	206.8
15100			30351	30502	30653	30804	30955	31106		31219	206.7
15200			30552	30704	30856	31008	31160	31312		31416	206.7
15300			30753	30906	31059	31212	31365	31518		31614	206.6
15400			30954	31108	31262	31416	31570	31724		31812	206.6
15500			31155	31310	31465	31620	31775	31930		32010	206.5
15600			31356	31512	31668	31824	31980	32136		32207	206.5
15700			31557	31714	31871	32028	32185	32342		32404	206.4
15800			31758	31916	32074	32232	32390	32548		32602	206.3
15900			31959	32118	32277	32436	32595	32754		32799	206.3
16000			32160	32320	32480	32640	32800	32960		32996	206.2
16100			32361	32522	32683	32844	33005	33166		33193	206.2
16200			32562	32724	32886	33048	33210	33372		33390	206.1
16300			32763	32926	33089	33252	33415	33578		33586	206.1
16400			32964	33128	33292	33456	33620			33783	206.0
16500			33165	33330	33495	33660	33825			33979	205.9
16600			33366	33532	33698	33864	34030			34176	205.9
16700			33567	33734	33901	34068	34235			34372	205.8
16800			33768	33936	34104	34272	34440			34568	205.8
16900			33969	34138	34307	34476	34645			34764	205.7
17000			34170	34340	34510	34680	34850			34960	205.6
17100			34371	34542	34713	34884	35055			35155	205.6
17200			34572	34744	34916	35088	35260			35351	205.5
17300			34773	34946	35119	35292	35465			35547	205.5
17400			34974	35148	35322	35496	35670			35742	205.4
17500			35175	35350	35525	35700	35875			35937	205.4
17600			35376	35552	35728	35904	36080			36132	205.3
17700			35577	35754	35931	36108	36285			36327	205.2
17800			35778	35956	36134	36312	36490			36522	205.2
17900			35979	36158	36337	36516	36695			36717	205.1

Normal Longitudinal Center of Gravity Limits

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**G.2. LOADING INFORMATION – continued**

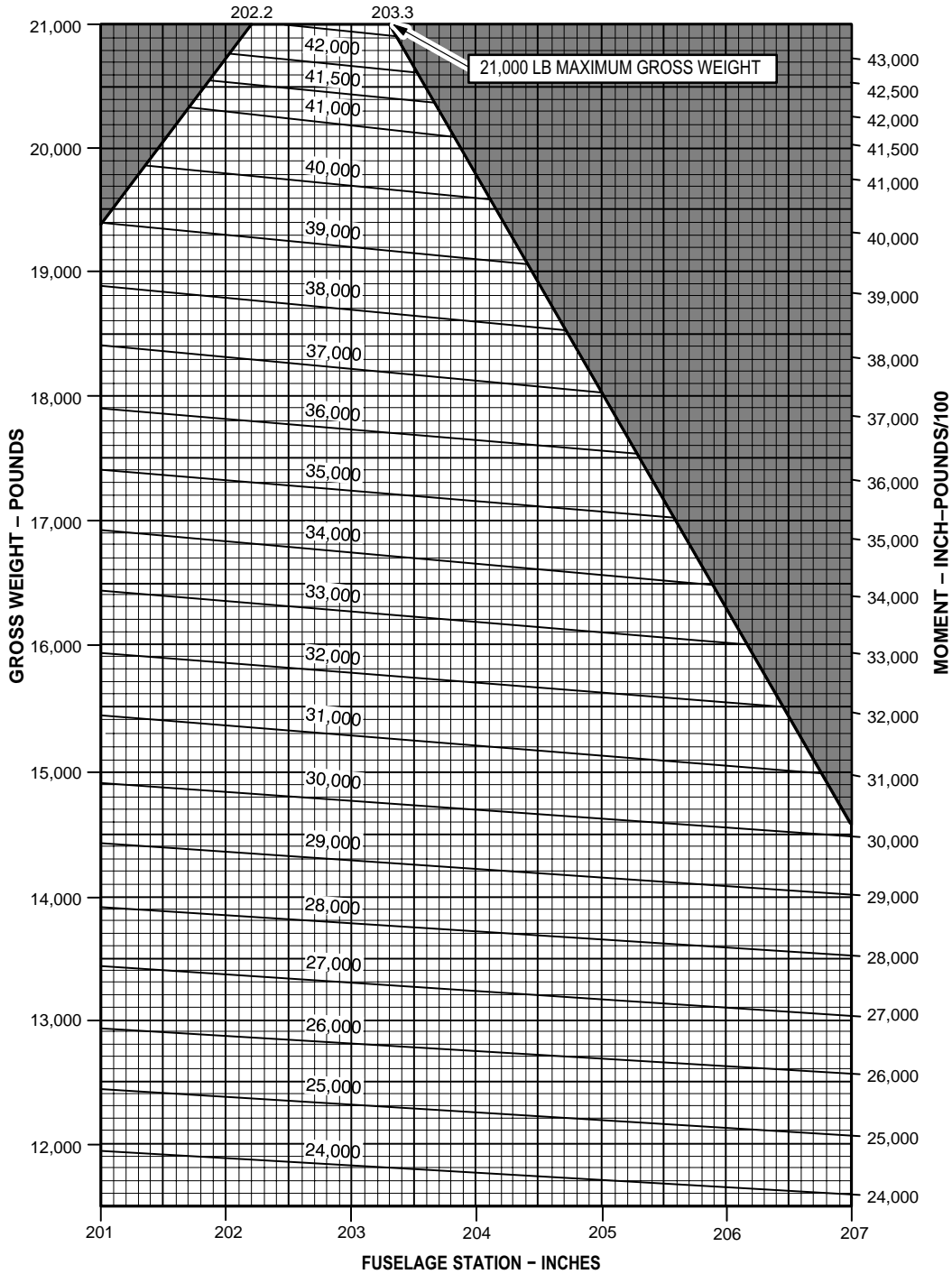
**Table G-10. Center of Gravity Table: Normal C.G. Limits in Fuselage Station – continued**

Gross Weight Pounds	Fwd	Limit	Moment/100							Aft	Limit
	C.G. Var	Mom 100	C.G. 201	C.G. 202	C.G. 203	C.G. 204	C.G. 205	C.G. 206	C.G. 207	Mom 100	C.G. Var
18000			36180	36360	36540	36720	36900			36912	205.1
18100			36381	36562	36743	36924	37105			37106	205.0
18200			36582	36764	36946	37128	37310			37301	205.0
18300			36783	36966	37149	37332				37495	204.9
18400			36984	37168	37352	37536				37690	204.8
18500			37185	37370	37555	37740				37884	204.8
18600			37386	37572	37758	37944				38078	204.7
18700			37587	37774	37961	38148				38272	204.7
18800			37788	37976	38164	38352				38465	204.6
18900			37989	38178	38367	38556				38659	204.5
19000			38190	38380	38570	38760				38853	204.5
19100			38391	38582	38773	38964				39046	204.4
19200			38592	38784	38976	39168				39239	204.4
19300			38793	38986	39179	39372				39432	204.3
19400	201.0	38994	38994	39188	39382	39576				39626	204.3
19500	201.1	39210		39390	39585	39780				39819	204.2
19600	201.2	39425		39592	39788	39984				40011	204.1
19700	201.2	39641		39794	39991	40188				40204	204.1
19800	201.3	39857		39996	40194	40392				40397	204.0
19900	201.4	40074		40198	40397	40596				40589	204.0
20000	201.5	40290		40400	40600	40800				40782	203.9
20100	201.5	40507		40602	40803	41004				40974	203.9
20200	201.6	40723		40804	41006	41208				41166	203.8
20300	201.7	40940		41006	41209	41412				41358	203.7
20400	201.8	41157		41208	41412	41616				41550	203.7
20500	201.8	41374		41410	41615	41820				41742	203.6
20600	201.9	41591		41612	41818	42024				41934	203.6
20700	202.0	41809		41814	42021	42228				42125	203.5
20800	202.1	42026			42224	42432				42317	203.4
20900	202.1	42244			42427	42636				42508	203.4
21000	202.2	42462			42630	42840				42699	203.3

Normal Longitudinal Center of Gravity Limits

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G.2. LOADING INFORMATION – continued



AH-64A – TAKEOFF AND LANDING LONGITUDINAL CENTER OF GRAVITY LIMITS

M04-3587-7A

Figure G-8. Take Off and Landing Center of Gravity Limits

END OF TASK


## APPENDIX H TOOL IDENTIFICATION LIST

### SECTION I. INTRODUCTION

#### H.1. SCOPE

This appendix lists the tools you will need to maintain the AH-64A helicopter. This listing is for informational purposes only and is not authority to requisition the listed items.

#### H.2. EXPLANATION OF COLUMNS

- a. Column (1) – Item number. This number is assigned to the entry in the listing for referencing when required.
  - b. Column (2) – Item Name. Indicates the name of the item and, if required, a description to identify the item.
  - c. Column (3) – National Stock Number. This is the national stock number assigned to the item.
  - d. Column (4) – Part Number. This is the manufacturer's part number of the item.
- 

## SECTION II. TOOL IDENTIFICATION LIST

(1) Item Number	(2) Item Name	(3) National Stock Number	(4) Part Number
1	Adapter, fuselage jack	1560-01-226-7551	7-262120027-9
2	Adapter, socket wrench, 1/2 x 3/4-inch drive	5120-00-227-8088	A-A-2172
3	Adapter, socket wrench, 1/2 x 3/8-inch drive	5120-00-240-8702	A-A-2172
4	Adapter, socket wrench, 1/4 x 3/8-inch drive	5120-00-227-8095	A-A-2172
5	Adapter, socket wrench, 3/4 x 1/2-inch drive	5120-00-144-5207	A-A-2172
6	Adapter, socket wrench, 3/8 x 1/2-inch drive	5120-00-240-8703	A-A-2172
7	Adapter, socket wrench, 3/8 x 1/4-inch drive	5120-00-224-9219	A-A-2172
8	Adapter, static port		99801-5 (see App D, make item)
9	Adapter, test	4920-01-082-9216	70700-20602-042
10	Adapter, test	4920-01-357-2019	140054
11	Adapter, torque wrench, box end, 1/4 x 3/8-inch drive	5120-01-065-3237	FRES-8
12	Adapter, torque wrench, box end, 5/16 x 3/8-inch drive	5120-01-112-4496	AS954
13	Adapter, torque wrench, box end, 5/8 x 1/2-inch drive	5120-01-173-6252	SRES-20
14	Adapter, torque wrench, box end, 5/8 x 3/8-inch drive	5120-01-076-2388	FRES20
15	Adapter, torque wrench, box end, 9/16 x 1/2-inch drive	5120-01-173-6253	SRES-18
16	Adapter, torque wrench, tail rotor	5120-01-307-4127	7-262110046
17	Adapter, torque wrench, #16 spline x 3/8-inch drive	5120-00-867-5517	FRES-16
18	Adapter, torque wrench, #22 spline x 1/2-inch drive	5120-01-173-6251	SRES22
19	Adapter, torque wrench, 3/4 x 3/4-inch drive	5120-01-337-8686	7-362110085
20	Adapter, torque wrench, 3/4 x 3/8-inch drive	5120-01-076-5814	FRES24
21	Adapter, torque wrench, 5/16 x 3/8-inch drive	5120-00-867-5514	XWS2149TYPE4SIZE1
22	Adapter, torque wrench, 7/16 x 3/8-inch drive	5120-00-867-5516	XWS2149TYPE4SIZE3
23	Adapter assembly	5130-00-099-3685	102463
24	Adapter assembly, rotor blades	1730-01-249-4008	7-262110028
25	Adapter kit, airframe	4920-01-240-6743	7-262100011-605
26	Adjuster assembly, tension	1670-00-212-1149	A300A
27	Apron, laboratory, light duty	8415-00-234-9253	MC111
28	Balancing kit, blade	4920-01-040-7816	B4591
29	Bar, telescopic, 44-inch x 3/4-inch drive	5120-00-490-3762	AN8507

(1) Item Number	(2) Item Name	(3) National Stock Number	(4) Part Number
30	Bead breaker, tire	4910-00-856-0586	5372-010
31	Bit, screwdriver, flat tip, 3/16-inch	5120-00-293-2057	445-1
32	Bit, screwdriver, flat tip, 9/32-inch	5120-00-293-2053	SDM213
33	Bit, screwdriver, phillips, #2	5120-00-595-8197	SDM222
34	Bit, screwdriver, torque set cross, #4	5120-00-888-5829	EX212-4
35	Bit, screwdriver, #1 phillips	5120-00-223-6971	440-1
36	Bit, screwdriver, #2 torque set, cross tip	5120-00-082-8529	212-2
36A	Bit, screwdriver, torque set cross, 3/8	5130-00-511-0210	TS170-3/8
37	Bit set, screwdriver, 3/16 - 5/8-inch hexagon x 1/2-inch drive	5120-00-678-5057	SKA311S
38	Blade, hand hacksaw, 10-inch, 32 teeth per inch	5110-00-277-4589	HSS1032
38A	Blade, thickness guage	5120-00-720-6497	667-3
39	Bolt, eye	5306-01-181-8356	7-262110020
40	Bolt, shear, 1 1/8-inch x 1/4-20	5306-00-818-7516	NAS1304-18
41	Bolt, shear, 1 9/16-inch x 1/4-20	5306-00-826-5338	NAS1304-25
42	Bottle, applicator	8125-00-488-7952	Z/1306016/07952/ NPT/2
42A	Bridge, capacitance-resistance	6625-01-297-5303	PSD 60-1AF
43	Brush, cleaning aircraft	7920-00-685-3969	MILB23958
43A	Brush, cleaning aircraft	7920-00-282-2470	7920-00-282-2470
44	Brush, wire, scratch	7920-00-291-5815	D-1416
45	Brush, wire, tube, 1-inch diameter x 2-inch	7920-00-900-3587	84S-1000
46	Cable assembly, power, electrical, 8-inch, 2-wire	6150-00-937-0520	01700-61607
47	Cable assembly, power, electrical, 20-foot	6150-01-147-0359	NFGC-500
48	Cable assembly, power, electrical, 50-foot	6150-00-682-3460	11647741
49	Cage, tire inflation	4910-00-204-3170	A-A-1726
50	Caliper, micrometer, inside, 0.20 - 1.00-inch	5210-00-221-1918	GGG-C-105
51	Caliper, micrometer, outside, 0.000 - 0.100-inch	5210-00-540-2973	T230R
52	Caliper set, micrometer, outside, 0.000 - 6.000-inch	5210-00-554-7134	GGG-C-105
53	Caliper, micrometer, outside, 6.000 - 7.000-inch	5210-00-790-1899	1947V
54	Caliper, vernier, inside/outside, 0.300 - 24/ 0 - 24-inch	5210-00-234-8017	GGG-C-111
55	Caliper, inside, 8-inch	5210-00-229-3060	42
56	Caliper, micrometer, inside, 2 - 12-inch	5210-00-221-1921	GGG-C-105
57	Cap, tube, 1/4-inch	4730-00-640-0632	AFP241-04
58	Cap, tube, 3/8-inch	4730-00-618-3572	MS21914-6
59	Caps, vise jaw, 4-inch	5120-00-221-1506	GGG-C-137
60	C clamp, 3-inch	5120-00-180-0907	A-A-429
61	C clamp, 6-inch	5120-00-203-6431	A-A-431
62	Chain assembly, single leg	4010-00-516-8405	627728A
63	Charger, battery	6130-01-286-0607	100000
63A	Chip breaker	3455-01-227-9580	AT511



(1) Item Number	(2) Item Name	(3) National Stock Number	(4) Part Number
64	Cleaner, vacuum, electric	7910-00-526-1959	306
65	Cleaner, vacuum, pneumatic	7910-00-807-3704	15-A1080
66	Cleaning gun, pneumatic	4940-01-225-1502	3306K76
67	Compressor unit, reciprocating	4310-00-075-3311	LP832ENG1
68	Cord assembly, electrical	5995-01-304-8149	7-262100009-601
69	Crane, aircraft mounted	1730-01-246-1351	7-262100002-603
70	Crowfoot attachment, socket wrench, open end box, 11/16 x 3/8-inch drive	5120-00-236-2261	GGG-C-1507
71	Crowfoot attachment, socket wrench, open end box, 1 1/16 x 3/8-inch drive	5120-00-181-6764	GGG-C-1507
72	Crowfoot attachment, socket wrench, open end box, 1 1/2 x 1/2-inch drive	5120-00-181-6755	AF-48
73	Crowfoot attachment, socket wrench, open end box, 1 13/16 x 1/2-inch drive	5120-00-181-6752	GGG-C-1507
74	Crowfoot attachment, socket wrench, open end box, 1 1/4 x 1/2-inch drive	5120-00-181-6759	AF-40
75	Crowfoot attachment, socket wrench, open end box, 1 1/8 x 1/2-inch drive	5120-00-229-2773	AF-36
76	Crowfoot attachment, socket wrench, open end box, 13/16 x 3/8-inch drive	5120-00-189-7895	AN8508-13A
77	Crowfoot attachment, socket wrench, open end box, 1 x 3/8-inch drive	5120-00-229-2772	AN8508-16A
78	Crowfoot attachment, socket wrench, open end box, 1 3/8 x 1/2-inch drive	5120-00-181-6757	AF-44
79	Crowfoot attachment, socket wrench, open end box, 1 3/16 x 1/2-inch drive	5120-00-229-2774	AN8508-19
80	Crowfoot attachment, socket wrench, open end box, 15/16 x 3/8-inch drive	5120-00-935-7391	
81	Crowfoot attachment, socket wrench, open end box, 3/4 x 3/8-inch drive	5120-00-189-7898	AN8508-12A
82	Crowfoot attachment, socket wrench, open end box, 3/8 x 1/4-inch drive	5120-00-541-4072	AN8508-6A
83	Crowfoot attachment, socket wrench, open end box, 5/16 x 1/4-inch drive	5120-00-888-8000	TMRX10
84	Crowfoot attachment, socket wrench, open end box, 7/16 x 1/4-inch drive	5120-00-541-4073	GGG-C-1507
85	Crowfoot attachment, socket wrench, open end box, 9/16 x 1/4-inch drive	5120-00-541-4074	AN8508-9A
86	Crowfoot attachment, socket wrench, open end box, 7/8 x 3/8-inch drive	5120-00-181-6765	AN8508-14A
87	Crowfoot attachment, socket wrench, open end, 1 1/16 x 3/8-inch drive	5120-00-184-8405	FC34

(1) Item Number	(2) Item Name	(3) National Stock Number	(4) Part Number
88	Crowfoot attachment, socket wrench, open end, 1 1/2 x 3/8-inch drive	5120-00-184-8412	GGG-C-1507
89	Crowfoot attachment, socket wrench, open end, 1 1/4 x 3/8-inch drive	5120-00-293-2567	GGG-C-1507
90	Crowfoot attachment, socket wrench, open end, 1 1/8 x 3/8-inch drive	5120-00-517-7021	FC-36
91	Crowfoot attachment, socket wrench, open end, 1/2 x 3/8-inch drive	5120-00-184-8384	T7
92	Crowfoot attachment, socket wrench, open end, 13/16 x 3/8-inch drive	5120-00-184-8401	GGG-C-1507
93	Crowfoot attachment, socket wrench, open end, 1 x 3/8-inch drive	5120-00-595-8213	AN8506-10
94	Crowfoot attachment, socket wrench, open end, 1 3/8 x 3/8-inch drive	5120-00-222-7970	TRX12
95	Crowfoot attachment, socket wrench, open end, 1 5/16 x 3/8-inch drive	5120-00-184-8409	GGG-C-1507
96	Crowfoot attachment, socket wrench, open end, 2 3/4 x 3/8-inch drive	5120-00-184-8432	GGG-C-1507
97	Crowfoot attachment, socket wrench, open end, 3/4 x 3/8-inch drive	5120-00-184-8400	FC24A
98	Crowfoot attachment, socket wrench, open end, 5/8 x 3/8-inch drive	5120-00-184-8398	GGG-C-1507
99	Crowfoot attachment, socket wrench, open end, 7/16 x 3/8-inch drive	5120-00-184-8383	FC14
100	Crowfoot attachment, socket wrench, open end, 7/8 x 3/8-inch drive	5120-00-541-4071	FC28A
101	Crowfoot attachment, socket wrench, open end, 9/16 x 3/8-inch drive	5120-00-184-8397	FC24A
102	Cup, paint, spray gun	4940-00-190-5164	81-500
103	Cup, viscosity	6605-01-073-7107	1052551
104	Cutter assembly, fly	5110-00-708-3505	7083505
105	Cylinder, graduated, laboratory, 100-milliliters	6640-00-420-6000	NNN-C-9410
105A	Demagnetizer	5950-00-633-7247	50651
106	Detector kit, chemical agent	6665-01-294-8859	51-8073
107	Die set, metal stamping	5110-00-289-0002	GGGD280
108	Discharger, electrostatic, 8-inch	5920-01-154-4719	5020-8 INCHES
109	Dowel, 1/4 x 1 7/16-inch		
110	Dowel, 1/4 x 1.92-inch	5510-00-240-0067	A-A-1975
111	Dowel, 3/16 x 5/16-inch		
112	Driftpin, 1/2 x 4-inch long	5120-00-239-0036	TGGX2TY1
113	Driftpin, 3/4 x 6-inch long	5120-00-239-0037	TCGX2TY1
114	Driftpin, 7/8 x 7 3/4-inch long, brass	5120-00-505-5918	15-5-47AC

(1) Item Number	(2) Item Name	(3) National Stock Number	(4) Part Number
115	Drill, pneumatic, portable, 1/2-inch	5130-00-640-6343	00D691
116	Drill, pneumatic, portable, 3/8-inch	5130-00-862-2832	CP3008LA1250- 100JAANDC94339
117	Drill, twist, # 40	5133-00-189-9285	11397
118	Drill, twist, # 41	5133-00-189-9286	R18
119	Drill, twist, # 51	5133-00-189-9296	DBE51
120	Drill, twist, 11/32-inch	5133-00-227-9665	10023
120A	Drill, twist, 13/16-inch	5133-00-917-3911	CSE525A
121	Driver, stud, lockring	5120-01-257-5771	S131D24
121A	Etcher, Electric: Vibrator type, 120V, 60 Hz	5130-00-596-8404	MIL-E-3118
122	Extension, socket wrench, 16-inch x 3/4-inch drive	5120-00-227-8079	A-A-2170
123	Extension, socket wrench, 3-inch x 3/4-inch drive	5120-00-273-9208	A-A-2170
124	Extension, socket wrench, 5-inch x 1/2-inch drive	5120-00-243-7326	A-A-2170
125	Extension, socket wrench, 5-inch x 3/4-inch drive	5120-01-193-8537	47163
126	Extinguisher, fire, carbon dioxide	4210-00-270-4512	CS4210-0007ACLH
127	Extractor, circuit	5120-00-758-6653	1731
128	Extractor set, screw	5120-00-610-1888	A-A-283 SZ1-9
129	Faceshield, industrial	4240-00-056-0014	H3-WB5
130	Fan, centrifugal	4140-01-105-6326	NF17-8T
131	Filler and bleeder	4910-00-245-1832	AF5
132	Fixture, aircraft maintenance	4920-01-339-1225	140065
133	Fixture, aircraft maintenance	4920-01-339-1226	140036
134	Fixture, aircraft maintenance	4920-01-355-3383	140125
135	Fixture, mount		7-362110029
136	Fixture, tail rotor	4920-01-226-7423	7-363100002
137	Fluid service unit	1730-00-102-8665	E159-1000
138	Fluorescent inspection kit	6635-00-566-5198	FMI
138A	Foam cleaning system	4940-01-041-5680	9388-1027
139	Frame, hand hacksaw, 10 - 12-inch blade	5110-00-289-9657	163-20
140	Funnel, 1-quart	7240-00-404-9793	A-A-1663
141	Gage, cylinder, 0.3700 - 0.6300-inch	5210-01-016-5851	B1-12100
142	Gage, cylinder, 0.6300 - 1.0000-inch	5210-01-016-5852	B1-12101
143	Gage, cylinder, 1.0000 - 1.5300-inch	5210-01-019-0814	B1-12102
144	Gage, cylinder, 1.5000 - 2.1600-inch	5210-01-016-5853	B1-12103
145	Gage, depth, dial indicator, 0.000 - 0.125-inch	5210-00-710-4359	643J
146	Gage, depth, micrometer, 0 - 12-inch	5210-00-826-5368	GGG-C-105
147	Gage, gap setting, 0.002 - 0.040-inch	5210-00-031-1504	28

(1) Item Number	(2) Item Name	(3) National Stock Number	(4) Part Number
148	Gage, gap setting, 0.010 - 0.030-inch	5210-01-053-2571	FB359
149	Gage, height, 0 - 18-inch	5210-00-067-7118	599-586-18
150	Gage, inspection, tail rotor antiftail		743E04 (see App D, make item)
151	Gage, small hole, 0.400 - 0.500-inch	5210-00-221-2083	GGG-G-17
152	Gage, thickness, 0.0015 - 0.0250-inch	5210-00-221-1999	F71371
153	Generator set, gasoline engine	6115-00-156-0306	B6B
153A	Generator Removal/Installation Tool		7-562126001-601
154	Gloves, chemical protective, size 10	8415-00-266-8677	ZZ-G-381
155	Gloves, heat protective, large	8415-00-929-8112	G7202-11
156	Goggles, industrial	4240-00-052-3776	A-A-1110
157	Grinder, hand, die, pneumatic	5130-00-005-8717	136GLF-240
158	Gun, air blow	4940-00-333-5541	DGA520
159	Gun, sealant, hand, 4-ounce	5120-00-952-3507	221830
160	Gun, sealant, hand, 8-ounce	5120-00-165-4013	221832
161	Handle, socket wrench, 18 - 30-inch telescoping x 3/4-inch drive	5120-00-099-8544	FAC01022
162	Heater, duct type, portable	4520-01-071-7191	MODELFC-400-1
163	Heater, gun type, electric	4940-00-785-1162	MIL-H-45193
164	Heating tool kit, compressed air/nitrogen	4940-01-037-1413	975096/HT900-B
165	Holder, sheet metal, edge grip	5120-00-197-5344	GGG-H-575
166	Hose assembly, air duct	4720-01-324-0233	NFRA-8X
167	Hose assembly, air duct, air breathing	4240-01-061-9321	469713
168	Hose assembly, nonmetallic	4720-00-356-8577	V2130D
169	Hose, compressed air, inline	4240-01-251-8159	ED1313B-50
170	Handle, socket wrench, hinged, 14-inch x 1/2-inch drive	5120-00-236-7590	A-A-2164
171	Handle, socket wrench, hinged, 9-inch x 1/2-inch drive	5120-00-221-7958	A-A-2164
172	Handle, socket wrench, ratchet, 1/2-inch drive	5120-00-230-6385	A-A-2165
173	Handle, socket wrench, hinged, 3/4-inch drive	5120-00-221-7959	A-A-2164
174	Headset, microphone	5965-01-128-1410	MIL-H-83511/2
175	Holder, screwdriver bit, 1/4-inch drive	5120-00-528-2891	825
176	Indicator, dial, 0.001 - 0.200-inch	5210-00-277-8840	A-A-234B
177	Insert, wrench	5120-00-473-7702	7082136
178	Insert, seal	5120-01-344-1016	140004
179	Insert, seal	5120-01-344-1315	140008
180	Installation tool	4920-01-175-5934	70700-20129-041
181	Installation tool, captive	5120-00-169-3003	H8603-10

(1) Item Number	(2) Item Name	(3) National Stock Number	(4) Part Number
182	Installation tool, plastic strap	5120-00-781-7891	GS2B
183	Jack, aircraft landing gear, 5-ton	1730-00-516-2018	53D22020
184	Jack, hydraulic, tripod, 3-ton	1730-00-734-9382	2010-25
185	Jack, hydraulic, tripod, 7.5-ton	1730-00-391-7921	982S
186	Jackscrew, transmission	1730-01-181-9271	7-262110015
187	Key set, socket head, L-style	5120-00-935-4641	AW1020K
188	Key, socket head screw, L-handle, 9/64-inch	5120-00-889-2163	AW4 1/2
188A	Kit, aircraft cleaning	7920-00-490-6046	251M
189	Kit, fuel cell	1730-01-181-9274	7-262100016-601
190	Kit, identification	6630-00-831-5932	61B25042
191	Kit, gun, rivet pin	5130-00-596-4506	353-53
192	Kit, lube drain	1730-01-193-9858	7-262100007
193	Kit, repair, Raychem	4920-01-252-0361	CE-1603200
194	Kit, sling set	1730-01-246-6781	7-262100005-607
195	Kit, spreader bar	5180-01-345-6602	140098
196	Kit, weighing	6670-00-148-9395	155800-03
197	Knife, craftsman's	5110-00-293-1585	GGG-K-00450
198	Knife, pocket, 2-blade	5110-00-240-5943	GGG-K-484
199	Knife, putty, 1 1/4-inch blade	5120-00-221-1536	GGG-K-0481
200	Lead, electrical, 6-inch	5995-00-810-6536	MS25083
201	Lead, test, connector plug & terminal clip	6625-00-878-3600	1959-72-0
202	Level, precision, master, 15-inch	5220-00-241-3609	199
202A	Light, ultraviolet, metals examining	6635-00-760-5448	B14N-RB1400-3B156
203	Locks, strut		7-362110078
204	Lubricant packer, bearing	4930-01-353-8520	140145
205	Lubricating gun, hand	4930-00-253-2478	1142
205A	Magnetometer	6635-00-391-0058	2480
206	Magnifier, monocular, 5X & 12X	6650-00-133-7743	11728227
207	Maintenance kit, aircraft	4920-01-311-1130	7-262110013
208	Maintenance kit, electronic equipment	6625-01-023-8009	17794PRC350CLHA
209	Maintenance platform	1730-00-624-0684	A108
210	Maintenance platform	4940-01-188-2773	7-262100010
211	Maintenance platform, aircraft	1730-00-294-8883	54J6345
212	Mallet, rawhide	5120-00-222-2220	GGG-H-33
213	Mallet, rubber, 1 3/4 & 2 3/4-inch	5120-00-293-3399	GGG-H-33
214	Mask, air line	4240-01-251-9403	RA-100
215	Multimeter	6625-01-139-2512	T00377
216	Nipple, tube, 3/16-inch	4730-00-866-1834	MS24392D3
217	Nose assembly	5130-00-847-8422	99-614

(1) Item Number	(2) Item Name	(3) National Stock Number	(4) Part Number
218	Ohmmeter	6625-01-125-3471	24700
219	Ohmmeter assembly	6625-01-102-0052	102282
220	Oiler, hand	4930-00-262-8870	A-A-50477A
221	Oven precision		MODEL 28
222	Pail, utility, 14-quart	7240-00-160-0455	A-A-1273
223	PC Shunt bar	1005-01-241-4925	5020 4IN
224	Pin set, rigging	1730-01-165-0957	7-262110001
225	Pilot, body seal		AT 2290-4-1 (CAGEC 08844)
226	Plate, surface, 10 x 12-inch	5220-00-293-3556	10539031-1
227	Pliers, retaining ring	5120-00-088-9393	PRS34
228	Pliers, retaining ring	5120-01-280-4703	2011
229	Pliers, slip jointing, slotted jaw, camloc	5120-00-321-4507	4P3
230	Plug, expansion		140057
231	Power supply	6130-00-148-1796	6269B
232	Power unit, aircraft	1730-01-144-1897	83-360A
233	Protractor fixture	1730-01-220-8033	A3012559
234	Press, arbor, hand operated,	3444-00-243-2654	0
235	Press, arbor, hand operated, hydraulic, 2-ton	3444-00-223-8359	1 1-2
236	Press, arbor, hand operated, hydraulic, 10-ton	3444-00-163-4338	A-A-51195 SIZE 10
237	Press, hydraulic, portable	4940-00-181-3206	28623
238	Protractor assembly	5220-00-212-8747	F7710
239	Puller, mechanical	5120-01-315-2795	7-362110086
240	Puller attachment, mechanical	5120-00-355-6220	1151
241	Puller kit, universal	5180-00-009-5048	CG2545AB
242	Puller kit, universal	5180-00-027-7651	GGG-P-643
243	Puller kit, universal	5180-00-089-3660	A57QB
244	Puller kit, universal	5180-00-423-1596	PE12
245	Puller kit, universal	5180-00-945-0186	679641
245A	Puller kit, universal	5180-01-122-8378	CG-40C-B
246	Puller set, gear and seal	5120-00-146-9621	CJ105AB
247	Puller set, oil seal	5120-00-566-2845	PWA3762
248	Pump unit, breathable	4310-01-084-9665	ADP-3-CA
249	Punch, drift pin, 3/16 x 3 1/2-inch long	5120-00-223-1015	GGG-P-831
250	Punch, drive pin, 1/16-inch	5120-00-240-6082	41P4009
251	Punch, drive pin, 3/32-inch	5120-00-242-3435	3 1-TOOL3
252	Punch set, drive pin	5120-00-883-3003	GGG-P-831
253	Reamer, hand, adjustable, 17/32 - 19/32-inch	5110-00-260-1706	610HS SIZE B
253A	Reamer, hand, adjustable, 25/32 - 27/32-inch	5110-00-260-1717	610HS SIZE F

(1) Item Number	(2) Item Name	(3) National Stock Number	(4) Part Number
254	Reducer, tube	4730-01-015-5878	4RU1-316
255	Removal tool, bearing		SK-101590-601 (see App D, make item)
256	Removal tool, bearing		SK-101590-603 (see App D, make item)
257	Removal tool, bearing		SK-101590-605 (see App D, make item)
257A	Removal/Installation tool, bearing		AH64-0013 (see App D, make item)
258	Removal tool, socket	5120-01-097-5219	CTJ-R06
259	Repair kit, bulkhead bushing 35.5		140081
260	Repair tool, pneumatic tire valve	5120-00-308-3809	3522
261	Resistor, thermal, temperature probe	5905-01-085-1580	80T-150U
262	Respirator, air filtering, adjustable	4240-00-883-6519	85556
263	Respirator, air filtering, large	4240-01-248-8057	471373
264	Respirator, air filtering, medium	4240-01-248-8054	485220
265	Respirator, air filtering, small	4240-01-248-8055	485222
266	Retainer assembly	5120-00-693-8070	220928
267	Rigging kit, aircraft maintenance, flight control	4920-01-360-9612	7-262100003-605
268	Riveter, blind, hand	5120-00-224-9296	C6000-10-32
269	Riveter, blind, pneumatic	5130-00-178-9980	G715
270	Roller, hand, 2-inch wide	5120-00-243-9401	6523520
271	Rope, fibrous	4020-00-630-4873	MIL-R-30500
272	Scale, weighing, 0.0 - 10.0-pound	6670-00-240-5821	IN10
273	Scale, weighing, 0.0 - 50.0-pound	6670-00-254-4634	IN10
274	Screw, cap, socket head, 1/4-20	5305-01-PAD-7756	NAS1352-4H36P
275	Screwdriver bit set and handle	5120-00-870-6928	CRA 180 BK
276	Screwdriver, offset, phillips, #1 & #2	5120-00-256-9014	ST012A
277	Screws	5305-00-637-1125	MS35214-29
278	Scriber, machinist's	5120-00-221-7063	68WITHOUTKNIFE- POINT
279	Set, driver, bushing	5120-00-150-7761	27795
280	Set, driver, bushing	5120-00-150-7762	27794
280A	Set, file, hand	5110-00-204-2685	
281	Set, jackscrew	4920-01-395-5208	140052
282	Set, test lead	6625-01-213-8840	6-112092
283	Setscrew, 5/16-24	5305-01-191-3114	NAS1081C5A5
284	Shears, bent trimmers, 12-inch	5110-00-203-9642	GGG-S-00278
285	Shears, metal cutting, hand, 10-inch	5110-00-273-0128	GGG-S-291
286	Shears, metal cutting, hand, 12-inch	5110-00-293-0089	012
287	Shears, pinking, 9-inch	5110-00-162-2202	CB9

(1) Item Number	(2) Item Name	(3) National Stock Number	(4) Part Number
288	Shot bag	4935-01-148-6170	78071
289	Sling, aircraft maintenance	1730-01-220-8476	7-267310016
290	Sling assembly, air vehicle	1730-01-165-6861	7-262110009-601
291	Sling, lifting, engine	4920-01-108-3484	21C7081G02
292	Sling, universal, rotor	1730-01-166-3543	FDC-5850-1
293	Socket, socket wrench, deep, 1 x 1/2-inch drive	5120-00-935-7453	AL-32
294	Socket, socket wrench, deep, 1 1/8 x 1/2-inch drive	5120-00-935-7454	AL-36
295	Socket, socket wrench, deep, 1 1/8 x 3/4-inch drive	5120-00-239-0021	A-A-1394
296	Socket, socket wrench, deep, 1/4 x 1/4-inch drive	5120-00-817-1187	AS954
297	Socket, socket wrench, deep, 15/16 x 1/2-inch drive	5120-00-935-7452	AL-30
298	Socket, socket wrench, deep, 3/4 x 1/2-inch drive	5120-00-242-3349	A-A-1398
299	Socket, socket wrench, deep, 3/4 x 3/8-inch drive	5120-00-935-7444	AS954
300	Socket, socket wrench, deep, 3/8 x 3/8-inch drive	5120-00-142-5152	AS954
301	Socket, socket wrench, deep, 5/16 x 1/4-inch drive	5120-00-104-1735	AS954
302	Socket, socket wrench, deep, 5/16 x 3/8-inch drive	5120-00-935-7472	AS954
302A	Socket, socket wrench, deep, 7/16 x 1/4 inch drive	5120-01-366-8316	MD-146
303	Socket, socket wrench, thin wall	5120-01-335-0968	STMD14
304	Socket, socket wrench, 11/16 x 1/2-inch drive	5120-00-935-7421	A-22
305	Socket, socket wrench, 1 1/16 x 1/2-inch drive	5120-00-935-7427	A-34
306	Socket, socket wrench, 1 1/2 x 1/2-inch drive	5120-00-277-1465	B107.1 CL1STA
307	Socket, socket wrench, 1 13/16 x 3/4-inch drive	5120-00-199-7768	A-A-1394
308	Socket, socket wrench, 1 1/4 x 1/2-inch drive	5120-00-189-7917	A-A-1399
309	Socket, socket wrench, 1 1/4 x 3/4-inch drive	5120-00-235-5871	A-A-1394
310	Socket, socket wrench, 1 1/8 x 1/2-inch drive	5120-00-189-7914	A-A-1399
311	Socket, socket wrench, 13/16 x 1/2-inch drive	5120-00-935-7423	A-26
312	Socket, socket wrench, 1 3/4 x 3/4-inch drive	5120-00-199-7767	A-A-1394
312A	Socket, socket wrench, 1 3/4 x 3/4-inch drive	5120-01-378-5400	LDH562
313	Socket, socket wrench, 1 3/8 x 3/4-inch drive	5120-00-189-7930	A-A-1394
314	Socket, socket wrench, 1 5/16 x 3/4-inch drive	5120-00-232-5681	A-A-1394
315	Socket, socket wrench, 1 7/16 x 1/2-inch drive	5120-00-189-7931	A-A-1399
315A	Socket, socket wrench, 5/8 x 1/2-inch drive	5120-00-935-7447	A-A-1398
316	Socket, socket wrench, 9/16 x 1/2-inch drive	5120-00-935-7420	A-18
317	Socket, wrench, face spanner, nose gearbox shaft locknut	5120-01-314-7145	T-114095
318	Socket set, locknut	5120-01-344-2644	140079
319	Socket wrench, face spanner	5120-01-339-1841	140012-1



(1) Item Number	(2) Item Name	(3) National Stock Number	(4) Part Number
320	Socket wrench attachment, screwdriver, hi-torque, 1/4-inch	5130-01-009-1219	HTS-3
321	Socket wrench attachment, screwdriver, 1/2-inch hexagon x 1/2-inch drive	5120-00-243-1676	VA1676
322	Socket wrench attachment, screwdriver, 3/16-inch hexagon x 1/4-inch drive	5120-00-935-4612	TMA6
323	Socket wrench attachment, screwdriver, 3/16-inch hexagon x 3/8-inch drive	5120-00-683-8597	FA6A
324	Socket wrench attachment, screwdriver, 5/32-inch hexagon x 1/4-inch drive	5120-00-596-0940	VA0940
325	Socket wrench attachment, screwdriver, 5/32-inch hexagon x 1/4-inch drive, 5-inch blade	5120-00-104-1732	TMA5MOD5IN-BLADE
326	Socket wrench attachment, screwdriver, 5/8-inch hexagon x 1/2-inch drive	5120-00-105-8955	SA20A
327	Socket wrench attachment, screwdriver, 7/32-inch hexagon x 3/8-inch drive	5120-00-596-8511	VA8511
328	Socket wrench attachment, screwdriver, 7/64-inch hexagon x 1/4-inch drive	5120-00-761-2015	VA2015
329	Socket wrench attachment, screwdriver, 9/64-inch hexagon x 1/4-inch drive	5120-00-044-1718	SM105-753
330	Socket wrench attachment, screwdriver, 9/64-inch hexagon x 3/8-inch drive	5120-00-935-7474	FA4.5A
331	Soldering iron, electric	3439-00-585-6057	WS570
332	Soldering iron, electric, 25-watt	3439-00-277-6577	WS570
333	Soldering iron, electric, 5-watt	3439-00-853-8760	TL905U
334	Soldering gun	3439-00-542-0396	8200G3
335	Spanner attachment set, socket wrench, 1 3/4 - 4-inch, 1/2-inch drive	5120-00-513-1754	AN8515-1
336	Spanner attachment set, socket wrench, 3/4 - 2-inch, 3/8-inch drive	5120-00-596-8652	AN8514-1
337	Spatula set, 3-piece	5120-00-056-3237	TS1275-K
338	Spectacles, vision	4240-01-301-8711	AV-40
339	Spray gun, paint	4940-00-203-5639	
340	Square, combination, 12-inch	5210-00-078-8949	GGG-S-656
341	Staking tool, roller	5110-01-163-0258	RST1013
342	Stopwatch	6645-00-250-4680	A-A-2580
343	Strainer, paint	5120-00-541-2028	2831162
344	Stand, aircraft tail, tripod	1730-00-257-5353	K12402
344A	Stencil set, marking	7520-00-298-7043	A-A-130
345	Strap assembly	1670-01-100-6161	FDC-1730-254
345A	Strap pack inspection kit	6650-01-289-8505	IF8C5-10
346	Strap, wrist grounding, large	4240-01-165-8865	CP407/C6-L

(1) Item Number	(2) Item Name	(3) National Stock Number	(4) Part Number
347	Tap, thread cutting, 1/4-inch - 28 UNF	5136-00-227-8609	A-A-625
348	Tape, measuring, 100-ft	5210-00-221-1882	GGGT106TYPE2 CLASSBCASEV
348A	T cable	5995-01-390-6986	PSDAF-113
349	Tester, hydraulic hose assembly	4940-00-868-6991	MIL-T-25456B
350	Tester, pitot and static systems	4920-01-030-7569	S6-21312
351	Tester, pyrometer and thermocouple	6695-01-149-5810	5500
352	Tester, spring resiliency, 0 - 100-pound	6635-00-578-5285	PPT00
353	Tester, spring resiliency, 0 - 25-pound	6635-00-242-1451	MST25
353A	Test equipment, helicopter rotor head balance and blade track run	4920-01-180-7610	7-262100008
354	Deleted		
354A	Test fixture, hydraulic	4920-00-619-8114	T3430
354B	Test set, Aviation Vibration Analysis	6625-01-282-3746	29313100
355	Test set, indicator, fuel quantity	4920-00-109-5066	TF579
356	Test set, pylon ejector	4920-01-226-7552	2952D24393
357	Test stand, hydraulic	4920-01-119-8795	79009-100
358	Test stand, hydraulic, portable	4920-00-141-8801	MIL-T-7612D
359	Test stand, hydraulic system components	4920-00-144-5581	7454
360	Thermometer, self indicating, liquid, 20 - 110 °C	6685-00-851-4577	14-985B
361	Threading set, screw	5180-00-698-7972	41-8789-930-100
362	Tiedown kit, aircraft mooring	1730-00-089-7806	AA1730-1301
363	Tiedown kit, aircraft mooring	1730-01-350-6733	7-262100004-609
364	Tire inflator assembly	6685-00-124-4336	M83352/1
365	Tool, adjusting, rod and link		140188
366	Tool, cork stopper removal		743F263
367	Tool, insert installation		TK0101032
368	Tool, removal, lockring	3455-00-318-5494	BT-1567
369	Tool set, rotor brake	4920-01-397-4094	140034
370	Tool, special purpose	5120-01-135-3072	AD1494
370A	Tool, spar debond repair, AH-64-Apache		RTI-SP-01-696
371	Tool kit, aircraft maintenance	5180-00-323-4944	SC518099CLA07
372	Tool kit, aircraft maintenance	5180-00-003-5267	SC518099CLA13
373	Tool kit, aircraft maintenance	5180-00-987-9816	SC518095CLB09
374	Tool kit, aircraft maintenance, tail rotor strap pack centering		140016
375	Tool kit, aircraft maintenance, upper seal removal/installation	5180-01-320-2908	64-001-1234
376	Tool kit, aircraft mechanic's	5180-00-323-4692	SC518099CLA01
377	Tool kit, airframe repairman's	5180-00-323-4876	SC518099CLA02
378	Tool kit, electrical	5180-00-323-4915	SC518099CLA06
379	Tool kit, electronic	5180-00-064-5178	TK101GISSUE6
380	Tool kit, fluid adapter	5180-00-008-5658	KM9RF9806


(1) Item Number	(2) Item Name	(3) National Stock Number	(4) Part Number
381	Tool kit, fluid adapter	5180-00-008-5659	KM9RF9808
382	Tool kit, fluid adapter	5180-00-008-5660	KM9RF9810
383	Tool kit, fluid adapter	5180-00-008-5661	KM9RF9812
384	Tool kit, hydraulic	5180-00-323-4891	SC518099CLA03
385	Tool kit, installation	5180-00-008-5637	KM9RF9816
386	Tool kit, installation	5180-00-008-5657	KM9RF9804
387	Tool kit, installing, #5 & #6 stud	5180-00-739-7031	TTA5/TTA6
387A	Tool kit, pin-plug removal	5180-01-039-4919	CUTA2180103B
388	Tool kit, resilient mount, tail rotor fork		140048
389	Tool kit, riveter	5180-01-089-1229	G-704BCMR
390	Tool kit, special	4920-01-180-7613	7-267300001-613
391	Tool kit, special		7-263100001-601
391A	Tool kit, special		7-263100001-603
392	Tool kit, staking		140151
393	Tool kit, swaging	5180-01-115-7008	D12102C-15-H10
394	Tool set, bushing, vertical stabilizer		140166
395	Towbar, aircraft	1730-00-967-9556	AA1730-1251
396	Trailer, rail type	1730-00-435-7818	22142
397	Transmission kit, removal	1730-01-183-4432	7-262100006-601
398	Truck, hand, nitrogen	1740-01-327-6831	FPNC-01
399	Tube, bleeder, hydraulic brake	4910-00-490-3773	47A6141
400	Universal joint, socket, 3/8 x 3/8-inch drive	5120-00-224-9215	A-A-2169
401	V-block	3460-01-093-0129	9130
402	Vise, machinist's, 4-inch	5120-00-967-1565	10608335-1
403	Washer, flat	5310-01-121-5534	AN960JD416L
404	Weight, scale, turbine	6635-00-451-3742	PWA16600-104
405	Wrench, adjustable, 10-inch	5120-00-449-8083	A-A-2344
406	Wrench, adjustable, 15-inch	5120-00-423-6728	A-A-2344
407	Wrench, bearing nut, engine nose gearbox		140069
408	Wrench, box & open, 11/16-inch	5120-00-895-9572	GGG-W-645
409	Wrench, box & open, 15/16-inch	5120-00-895-9575	GGG-W-645
410	Wrench, box, 1 1/16 & 1 1/8-inch	5120-00-228-9521	A-A-1342
411	Wrench, box, 1 1/4 & 1 5/16-inch	5120-00-184-8676	A-A-1342
412	Wrench, box, 15/16 & 1-inch	5120-00-204-2670	A-A-1342
413	Wrench, mast support	4920-01-249-4003	7-263110003
413A	Wrench, mast support		7-263110003-601
414	Wrench, open end, single head, 11/16-inch	5120-00-081-9075	A-A-1354
415	Wrench, open end, 1 11/16 & 1 7/8-inch	5120-00-081-9100	ANSI B107.6
416	Wrench, open end, 1 1/16 & 1 1/4-inch	5120-00-187-7134	A-A-1356
417	Wrench, open end, 1 & 1 1/8-inch	5120-00-187-7133	A-A-1356

(1) Item Number	(2) Item Name	(3) National Stock Number	(4) Part Number
418	Wrench, open end, 1 1/2 & 1 5/8-inch	5120-00-184-8439	A-A-1356
419	Wrench, open end, 1 1/4 & 1 5/16-inch	5120-00-277-2321	A-A-1356
420	Wrench, open end, 1 3/16 & 1 1/4-inch	5120-00-155-9367	A-A-1351
421	Wrench, open end, 1 3/8 & 1 7/16-inch	5120-00-277-2324	A-A-1356
422	Wrench, open end, 1 5/8 & 1 13/16-inch	5120-00-081-9099	ANSI B107.6
423	Wrench, open end, 5/8 & 11/16-inch	5120-00-277-8301	A-A-1356
424	Wrench, open end, 7/8 & 15/16-inch	5120-00-187-7131	A-A-1356
425	Wrench, pipe, strap, 12-inch	5120-00-242-3249	D170X
426	Wrench, pipe, strap, 18-inch	5120-00-262-8491	318M0016P001
427	Wrench set, spanner, 0 - 5-inch	5120-00-215-1882	STC 80117-1
428	Wrench, socket	5120-01-351-3464	7-263110002
428A	Wrench, socket		7-263110002-601
429	Wrench, spanner		MS8516-7
430	Wrench, spanner		140144
431	Wrench, spanner		7-363100021
432	Wrench, spanner, socket, rotor brake		140017
433	Wrench, torque, click type, 1/2-inch drive, 700 - 1600 inch-pound	5120-00-270-3121	TCI-1600
434	Wrench, torque, click type, 1/4-inch drive, 10 - 50 inch-pound	5120-00-902-9436	GGG-W-686
435	Wrench, torque, click type, 1/4-inch drive, 30 - 150 inch-pound	5120-00-542-4489	GGG-W-00686
436	Wrench, torque, click type, 1/4-inch drive, 30 - 200 inch-pound	5120-01-112-4843	QJ117B
437	Wrench, torque, click type, 1/4-inch hexagon drive, 1 - 100 inch-ounce	5120-00-943-0941	A-A-2414
438	Wrench, torque, click type, 3/4-inch drive, 100 - 500 foot-pound	5120-00-902-3550	GGG-W-00686
439	Wrench, torque, click type, 3/8-inch drive, 0 - 300 inch-pound	5120-00-776-1841	TE25A
440	Wrench, torque, click type, 3/8-inch drive, 15 - 75 foot-pound	5120-00-554-7292	GGG-W-00686
441	Wrench, torque, click type, 3/8-inch drive, 30 - 150 inch-pound	5120-00-133-4098	TCI-150RA 3/Q
442	Wrench, torque, click type, 3/8-inch drive, 150 - 750 inch-pound	5120-00-821-3441	GGG-W-00686
443	Wrench, torque, deflecting frame, 3/4-inch drive, 0 - 600 foot-pound	5120-00-996-0019	A-A-1274
444	Wrench, torque, dial indicator, 1/2-inch drive, 0 - 175 foot-pound	5120-00-640-6364	

(1) Item Number	(2) Item Name	(3) National Stock Number	(4) Part Number
444A	Wrench, torque, dial indicator, 1/4-inch drive, 0 - 10 inch-pound	5120-00-618-4433	A-A-1274
445	Wrench, torque, dial indicator, 1/4-inch drive, 0 - 30 inch-pound	5120-00-117-4832	A-A-2411
446	Wrench, torque, dial indicator, 1/4-inch drive, 0 - 75 inch-pound	5120-00-585-8434	A-A-2411
447	Wrench, torque, dial indicator, 3/8-inch drive, 0 - 600 inch-pound	5120-00-288-8865	A-A-2411

By Order of the Secretary Of the Army:

Official:



MILTON H. HAMILTON

*Administrative Assistant to the  
Secretary of the Army*

06967

**GORDON R. SULLIVAN**  
*General, United States Army  
Chief of Staff*

DISTRIBUTION :

To be distributed in accordance with DA Form 12-31-E, block no. 3448, requirements for TM 1-1520-238-23-9.

## ***These are the instructions for sending an electronic 2028***

The following format must be used if submitting an electronic 2028. The subject line must be exactly the same and all fields must be included; however, only the following fields are mandatory: 1, 3, 4, 5, 6, 7, 8, 9, 10, 13, 15, 16, 17, and 27.

From: "Whomever" [whomever@avma27.army.mil](mailto:whomever@avma27.army.mil)  
To: [2028@redstone.army.mil](mailto:2028@redstone.army.mil)  
Subject DA Form 2028

1. **From:** Joe Smith
2. **Unit:** home
3. **Address:** 4300 Park
4. **City:** Hometown
5. **St:** MO
6. **Zip:** 77777
7. **Date Sent:** 19-OCT-93
8. **Pub no:** 55-2840-229-23
9. **Pub Title:** TM
10. **Publication Date:** 04-JUL-85
11. **Change Number:** 7
12. **Submitter Rank:** MSG
13. **Submitter FName:** Joe
14. **Submitter MName:** T
15. **Submitter LName:** Smith
16. **Submitter Phone:** 123-123-1234
17. **Problem:** 1
18. **Page:** 2
19. **Paragraph:** 3
20. **Line:** 4
21. **NSN:** 5
22. **Reference:** 6
23. **Figure:** 7
24. **Table:** 8
25. **Item:** 9
26. **Total:** 123
27. **Text:**

This is the text for the problem below line 27.



THEN ... JOT DOWN THE DOPE ABOUT IT ON THIS FORM, CAREFULLY TEAR IT OUT, FOLD IT AND DROP IT IN THE MAIL!

# SOMETHING WRONG WITH THIS PUBLICATION?

FROM: (PRINT YOUR UNIT'S COMPLETE ADDRESS)

PFC John DOE  
CO 4 3rd Engineer Bn  
Ft. Leonardwood, MD 63108

DATE SENT

10 January 1999

PUBLICATION NUMBER

TM 1-1520-238-23-9

PUBLICATION DATE

30 December 1998

PUBLICATION TITLE

AVUM/AVIM Manual for AH64 Helicopter

BE EXACT PIN-POINT WHERE IT IS

IN THIS SPACE, TELL WHAT IS WRONG AND WHAT SHOULD BE DONE ABOUT IT:

PAGE NO	PARA-GRAPH	FIGURE NO	TABLE NO
6	2-1 a		
B1		4-3	

In line 6 of paragraph 2-1a the manual states the engine has 6 cylinders. The engine on my set only has 4 cylinders. Change the manual to show 4 cylinders.

Callout 16 in figure 4-3 is pointed at a bolt. In key to figure 4-3, item 16 is called a shim. Please correct one or the other

PRINTED NAME, GRADE OR TITLE, AND TELEPHONE NUMBER

JOHN DOE, PFC (268) 317-7111

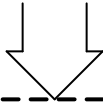
SIGN HERE

JOHN DOE *John Doe*



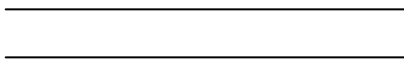


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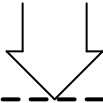
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TEAR ALONG PERFORATED LINE



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PAGE NO	PARA-GRAPH	FIGURE NO	TABLE NO

PRINTED NAME, GRADE OR TITLE, AND TELEPHONE NUMBER

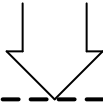
SIGN HERE

**DA FORM 2028-2**  
1 JUL 79

PREVIOUS EDITIONS ARE OBSOLETE.  
DRSTS-M verprint2, 1 Nov 80

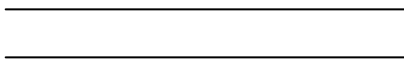
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# The Metric System and Equivalents

## Linear Measure

1 centimeter = 10 millimeters = .39 inch  
 1 decimeter = 10 centimeters = 3.94 inches  
 1 meter = 10 decimeters = 39.37 inches  
 1 dekameter = 10 meters = 32.8 feet  
 1 hectometer = 10 dekameters = 328.08 feet  
 1 kilometer = 10 hectometers = 3,280.8 feet

## Weights

1 centigram = 10 milligrams = .15 grain  
 1 decigram = 10 centigrams = 1.54 grains  
 1 gram = 10 decigrams = .035 ounce  
 1 dekagram = 10 grams = .35 ounce  
 1 hectogram = 10 dekagrams = 3.52 ounces  
 1 kilogram = 10 hectograms = 2.2 pounds  
 1 quintal = 100 kilograms = 220.46 pounds  
 1 metric ton = 10 quintals = 1.1 short tons

## Liquid Measure

1 centiliter = 10 milliliters = .34 fl. ounces  
 1 deciliter = 10 centiliters = 3.38 fl. ounces  
 1 liter = 10 deciliters = 33.81 fl. ounces  
 1 dekaliter = 10 liters = 2.64 gallons  
 1 hectoliter = 10 dekaliters = 26.42 gallons  
 1 kiloliter = 10 hectoliters = 264.18 gallons

## Square Measure

1 sq. centimeter = 100 sq. millimeters = .155 sq. inch  
 1 sq. decimeter = 100 sq. centimeters = 15.5 sq. inches  
 1 sq. meter (centare) = 100 sq. decimeters = 10.76 sq. feet  
 1 sq. dekameter (are) = 100 sq. meters = 1,076.4 sq. feet  
 1 sq. hectometer (hectare) = 100 sq. dekameters = 2.47 acres  
 1 sq. kilometer = 100 sq. hectometers = .386 sq. mile

## Cubic Measure

1 cu. centimeter = 1000 cu. millimeters = .06 cu. inch  
 1 cu. decimeter = 1000 cu. centimeters = 61.02 cu. inches  
 1 cu. meter = 1000 cu. decimeters = 35.31 cu. feet

## Approximate Conversion Factors

<i>To change</i>	<i>To</i>	<i>Multiply by</i>	<i>To change</i>	<i>To</i>	<i>Multiply by</i>
inches	centimeters	2.540	ounce–inches	newton–meters	.007062
feet	meters	.305	centimeters	inches	.394
yards	meters	.914	meters	feet	3.280
miles	kilometers	1.609	meters	yards	1.094
square inches	square centimeters	6.452	kilometers	miles	.621
square feet	square meters	.093	square centimeters	square inches	.155
square yards	square meters	.836	square meters	square feet	10.764
square miles	square kilometers	2.590	square meters	square yards	1.196
acres	square hectometers	.405	square kilometers	square miles	.386
cubic feet	cubic meters	.028	square hectometers	acres	2.471
cubic yards	cubic meters	.765	cubic meters	cubic feet	35.315
fluid ounces	milliliters	29.573	cubic meters	cubic yards	1.308
pints	liters	.473	milliliters	fluid ounces	.034
quarts	liters	.946	liters	pints	2.113
gallons	liters	3.785	liters	quarts	1.057
ounces	grams	28.349	liters	gallons	.264
pounds	kilograms	.454	grams	ounces	.035
short tons	metric tons	.907	kilograms	pounds	2.205
pound–feet	newton–meters	1.356	metric tons	short tons	1.102
pound–inches	newton–meters	.11296			

## Temperature (Exact)

° F Fahrenheit temperature      5/9 (after subtracting 32)      Celsius temperature      ° C



