TO: ALL HOLDERS OF ELEVATOR CONTROLS LEFT AND RIGHT AFT QUADRANT ASSEMBLY
COMPONENT MAINTENANCE MANUAL 27-31-71

REVISION NO. 9 DATED APR 10/87

HIGHLIGHTS

Pages which have been added or revised are outlined below together with the highlights of the revision. Remove and insert the affected pages as listed and enter Revision No. and date on the Record of Revision Sheet.

CHAPTER/SECTION AND PAGE NO.	DESCRIPTION OF CHANGE
INTRODUCTION 1	Added verification completion date.
REPAIR-GEN 603	Updated True Position Dimensioning Symbols.
704-705,709-710	Added arm 251T2340 to Fig. 701 Assembly Details.
1004,1015,1024	Added optional bolt BACB30FMGA7SU and collar BACC30AB6C.
1005-1006,1016-1017, 1019-1020,1022-1023	Added optional blind rivets MS21141 and MS90354.

ELEVATOR CONTROLS LEFT AND RIGHT AFT QUADRANT ASSEMBLY

PART NUMBER 251T2310-9 THRU -12

COMPONENT MAINTENANCE MANUAL
WITH
ILLUSTRATED PARTS LIST

REVISION RECORD

- Retain this record in front of manual. On receipt of revision, insert revised pages in the manual, and enter revision number, date inserted and initial.

REVISION NUMBER	REVISION DATE	DATE FILED	BY	REVISION NUMBER	REVISION DATE	DATE FILED	BY

TEMPORARY REVISION AND SERVICE BULLETIN RECORD

BOEING SERVICE BULLETIN	BOEING TEMPORARY REVISION	OTHER DIRECTIVE	DATE OF INCORPORATION INTO MANUAL
		PRR B10301 PRR B11573	JUL 10/81 OCT 10/86

PAGE	DATE	CODE
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REVISION RECORD		
1	JUL 10/83	01
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TR & SB RECORD		
1	OCT 10/86	01.1
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*1	APR 10/87	01
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*1016	APR 10/87	01.1
*1017	APR 10/87	01.1
*1018	APR 10/87	01.101
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*1022	APR 10/87	01.1

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INTRODUCTION

The instructions in this manual provide the information necessary to perform maintenance functions ranging from simple checks and replacement to complete shop-type repair.

This manual is divided into separate sections:

1. Title Page
2. Record of Revisions
3. Temporary Revision & Service Bulletin Record
4. List of Effective Pages
5. Table of Contents
6. Introduction
7. Procedures & IPL Sections

Refer to the Table of Contents for the page location of applicable sections. An asterisked flagnote *[ ] in place of the page number indicates that no special instructions are provided since the function can be performed using standard industry practices.

The beginning of the REPAIR section includes a list of the separate repairs, a list of applicable standard Boeing practices, and an explanation of the True Position Dimensioning symbols used.

An explanation of the use of the Illustrated Parts List is provided in the Introduction to that section.

All weights and measurements used in the manual are in English units, unless otherwise stated. When metric equivalents are given they will be in parentheses following the English units.

Design changes, optional parts, configuration differences and Service Bulletin modifications create alternate part numbers. These are identified in the Illustrated Parts List (IPL) by adding an alphabetical character to the basic item number. The resulting item number is called an alpha-variant. Throughout the manual, IPL basic item number references also apply to alpha-variants unless otherwise indicated.

Verification:

Disassembly: JAN 8/87
Assembly: JAN 8/87

ELEVATOR CONTROLS LEFT AND RIGHT AFT QUADRANT ASSEMBLY

DESCRIPTION AND OPERATION

1. The left and right aft quadrant assemblies are located in the tail section of the airplane and connected together with a rod assembly. Each aft quadrant assembly consists of a quadrant assembly and arm assemblies, a stop arm, and an output arm mounted on a tube assembly. The aft quadrant assemblies transmit input from the control column via cables to the feel unit, autopilot actuators and elevator control units.

2. Leading Particulars for 251T2310-9, -11 Assemblies (approximate)

   Length -- 48 inches
   Width -- 15 inches
   Height -- 14 inches
   Weight -- 6 pounds (251T2310-9)
   -- 11 pounds (251T2310-11)

3. Leading Particulars for 251T2310-10, -12 Assemblies (approximate)

   Length -- 42 inches
   Width -- 16 inches
   Height -- 14 inches
   Weight -- 9 pounds (251T2310-10)
   -- 14 pounds (251T2310-12)

DISASSEMBLY

1. Parts Replacement (IPL Fig. 1)

   NOTE: The following parts are recommended for replacement. Unless otherwise specified, actual replacement of parts may be based on in-service experience.

   A. Rivets (15, 55, 70, 75, 80, 170, 173, 175, 200, 205, 285, 295, 330, 380).

2. Disassembly (IPL Fig. 1)

   WARNING: USE EXTREME CARE WHEN REMOVING SPRING (160) TO PREVENT INJURY TO PERSONNEL OR DAMAGE TO PARTS. SPRING IS HEAVILY LOADED.

   A. Carefully remove spring (160) from pivot arm assembly (140D) and crank arm assembly (165B).

   B. Remove rivets (15) and bearing arm assembly (10) from tube assembly (335 or 340).

      NOTE: Do not disassemble arm assembly (10) unless necessary for repair or replacement.

   C. For 251T2310-11, -12, remove rivets (380) and arm (365) from tube assembly (335 or 340).

      NOTE: Do not disassemble arm (365) and weight (370) unless necessary for repair or replacement.

   D. Remove rivets (55) and output arm (50) from tube assembly (335 or 340).

   E. For 251T2310-9, -11, remove rivets (70, 75) and quadrant assembly (60) from tube assembly (335). For 251T2310-10, -12, remove rivets (70, 80) and quadrant assembly (65) from tube assembly (340).

      NOTE: Do not remove rivets and spacers from quadrant assembly (60 or 65) unless necessary for repair or replacement.

   F. Remove bolt (110A), washer (120A), nut (125A), bushing (130A), bearing (135A), spacer (115A) and pivot arm assembly (140D) from crank arm assembly (165B).

      NOTE: Do not remove bearing (145A) or bushing (150) from pivot arm assembly (140D) unless necessary for repair or replacement.

   G. Remove rivets (170, 173, 175) and crank arm assembly (165B) from tube assembly (335 or 340).

H. For 251T2310-9, -11, remove parts (190, 280, 290, 325) as follows:

(1) Remove rivets (200) and feel arm assembly (190) from tube assembly (335).

NOTE: Do not disassemble feel arm assembly (190) unless necessary for repair or replacement.

(2) Remove rivets (285) and autopilot arm (280) from tube assembly (335).

(3) Remove rivets (295, 330), support arm assembly (290), and stop arm (325) from tube assembly (335). Break fay seal and separate stop arm (325) from support arm assembly (290).

NOTE: Do not disassemble support arm assembly (290) unless necessary for repair or replacement.

I. For 251T2310-10, -12, remove parts (195, 325) as follows:

(1) Remove rivets (205, 330) and unit consisting of feel arm assembly (195) and stop arm (325).

(2) Remove nuts (220) and washers (215) from bolts (208), then remove stop arm (325) from feel arm assembly (195). Install temporary spacers (210), if desired, washers (215), and nuts (220) on feel arm assembly (195).

NOTE: Spacers (210) are used to fill out grip length of bolts (208) when stop arm (325) is not attached. Spacers are not part of assembled configuration, and usage after disassembly is optional. Do not disassemble feel arm assembly (195) unless necessary for repair or replacement.

CLEANING

1. Clean all parts except bearings using standard industry practices (Ref 20-30-03).

2. Clean teflon sealed bearings (25, 135, 145, 235, 237, 305, IPL Fig. 1) per manufacturer's instructions.

CHECK

1. Check all parts for obvious defects in accordance with standard industry practices.

2. Magnetic particle check per 20-20-01 -- Spring (160, IPL Fig. 1).

3. Penetrant check per 20-20-02 -- Arm (40, 45, 50, 155B, 185B, 250, 255, 260, 265, 270, 275, 280, 320, 325, 365, IPL Fig. 1), quadrant (100, 105), tube assembly (335).

4. Check spring (160, IPL Fig. 1).

   A. Extend spring to 6.03-6.09 inches and check that load is 57.7-63.7 pounds.

   B. Extend spring to 7.62-7.68 inches and check that load is 100.5-111.5 pounds.

REPAIR - GENERAL

1. Content

A. Repair, refinish and replacement procedures are included in separate repair sections as follows:

P/N	NAME	REPAIR
251T2312	ARM, OUTPUT	1-1
251T2313	ARM, CRANK	2-1
251T2314	QUADRANT, LEFT	3-1
251T2315	QUADRANT, RIGHT	3-1
251T2317	ARM, FEEL	4-1
251T2318	ARM, FEEL	5-1
251T2320	ARM, BEARING	6-1
251T2321	ARM, PIVOT	7-1
251T2335	ARM, SUPPORT	8-1
- - -	MISC PARTS REFINISH	9-1

2. Standard Practices

A. Refer to the following standard practices as applicable, for details of procedures in individual repairs.

20-30-02 Stripping of Protective Finishes
20-30-03 General Cleaning Procedures
20-41-01 Decoding Table for Boeing Finish Codes
20-41-02 Application of Chemical and Solvent Resistant Finishes
20-43-01 Chromic Acid Anodizing
20-50-03 Bearing Installation and Retention

3. Materials

NOTE: Equivalent substitutes may be used.

A. Sealant -- BMS 5-95 (Ref 20-60-04)

B. Primer -- BMS 10-11, type 1 (Ref 20-60-02)

C. Grease -- BMS 3-24 (Ref 20-60-03)

4. Dimensioning Symbols

A. Standard True Position Dimensioning Symbols used in applicable repair procedures are shown in Fig. 601.

—	STRAIGHTNESS
▱	FLATNESS
⊥	PERPENDICULARITY (OR SQUARENESS)
//	PARALLELISM
○	ROUNDNESS
⌭	CYLINDRICITY
⌒	PROFILE OF A LINE
⌓	PROFILE OF A SURFACE
◎	CONCENTRICITY
⌯	SYMMETRY
∠	ANGULARITY
↗	RUNOUT
⌰	TOTAL RUNOUT
⌴	COUNTERBORE OR SPOTFACE
⌵	COUNTERSINK
⌖	THEORETICAL EXACT POSITION OF A FEATURE (TRUE POSITION)
∅	DIAMETER
S∅	SPHERICAL DIAMETER
R	RADIUS
SR	SPHERICAL RADIUS
()	REFERENCE
BASIC (BSC) OR [DIM]	A THEORETICALLY EXACT DIMENSION USED TO DESCRIBE SIZE, SHAPE OR LOCATION OF A FEATURE FROM WHICH PERMISSIBLE VARIATIONS ARE ESTABLISHED BY TOLERANCES ON OTHER DIMENSIONS OR NOTES.
[-A-]	DATUM
Ⓜ	MAXIMUM MATERIAL CONDITION (MMC)
Ⓛ	LEAST MATERIAL CONDITION (LMC)
Ⓢ	REGARDLESS OF FEATURE SIZE (RFS)
Ⓟ	PROJECTED TOLERANCE ZONE
FIM	FULL INDICATOR MOVEMENT

EXAMPLES

— | 0.002	STRAIGHT WITHIN 0.002
⊥ | B | 0.002	PERPENDICULAR TO B WITHIN 0.002
// | A | 0.002	PARALLEL TO A WITHIN 0.002
○ | 0.002	ROUND WITHIN 0.002
⌭ | 0.010	CYLINDRICAL SURFACE MUST LIE BETWEEN TWO CONCENTRIC CYLINDERS, ONE OF WHICH HAS A RADIUS 0.010 INCH GREATER THAN THE OTHER
⌒ | A | 0.006	EACH LINE ELEMENT OF THE SURFACE AT ANY CROSS SECTION MUST LIE BETWEEN TWO PROFILE BOUNDARIES 0.006 INCH APART RELATIVE TO DATUM PLANE A
⌓ | A | 0.020	SURFACES MUST LIE WITHIN PARALLEL BOUNDARIES 0.02 INCH APART AND EQUALLY DISPOSED ABOUT TRUE PROFILE
◎ | C | ∅ 0.0005	CONCENTRIC TO C WITHIN 0.0005 DIAMETER
⌯ | A | 0.010	SYMMETRICAL WITH A WITHIN 0.010
∠ | A | 0.005	ANGULAR TOLERANCE 0.005 WITH A
⌖ | B | ∅ 0.002 Ⓢ	LOCATED AT TRUE POSITION WITHIN 0.002 DIA RELATIVE TO DATUM B, REGARDLESS OF FEATURE SIZE
⊥ | A | ∅ 0.010 Ⓜ 0.510 Ⓟ	AXIS IS TOTALLY WITHIN A CYLINDER OF 0.010-INCH DIAMETER, PERPENDICULAR TO, AND EXTENDING 0.510-INCH ABOVE, DATUM A, MAXIMUM MATERIAL CONDITION
[2.000] OR 2.000 BSC	EXACT DIMENSION IS 2.000

(NOTE THAT ⌓ | A | 0.020 MAY ALSO APPEAR AS ⌓ | 0.020 | A)

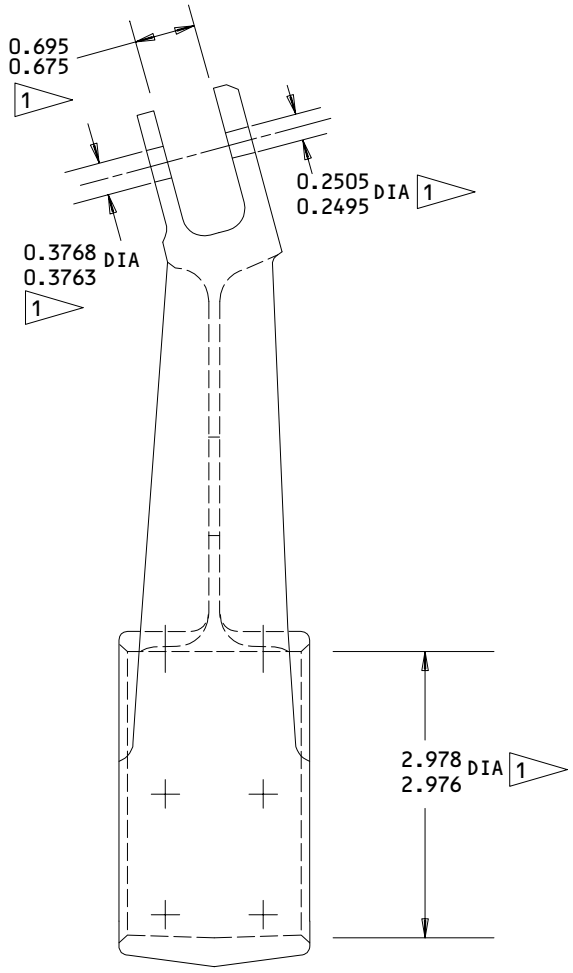
True Position Dimensioning Symbols
Figure 601

OUTPUT ARM - REPAIR 1-1

251T2312-4, -6

1. Plating Repair

NOTE: Repair consists of restoration of original finish. Refer to Refinish instructions, Fig. 601 and to REPAIR-GEN for list of applicable standard practices.



REFINISH

CHROMIC ACID ANODIZE (F-17.04) AND APPLY TWO COATS OF BMS 10-11, TYPE 1 PRIMER (F-20.03) EXCEPT AS NOTED

1 OMIT PRIMER

MATERIAL: AL ALLOY

ALL DIMENSIONS ARE IN INCHES

Output Arm - Plating Repair
Figure 601

31048

CRANK ARM ASSEMBLY - REPAIR 2-1

251T2313-7, -8

NOTE: Refer to REPAIR-GEN for list of applicable standard practices. For repair of surfaces which may only require restoration of original finish, refer to Refinish instructions.

1. Bushing Replacement (IPL Fig. 1, 601)

   A. Remove bushing (180)

   B. Press fit new bushing per 20-50-03 with wet sealant.

   C. Roller stake bushing per 20-50-03 using standard tools ST922C or FDSB28B.

      CAUTION: DO NOT MACHINE STAKED SURFACE.

   D. Chamfer bushing to dimension.

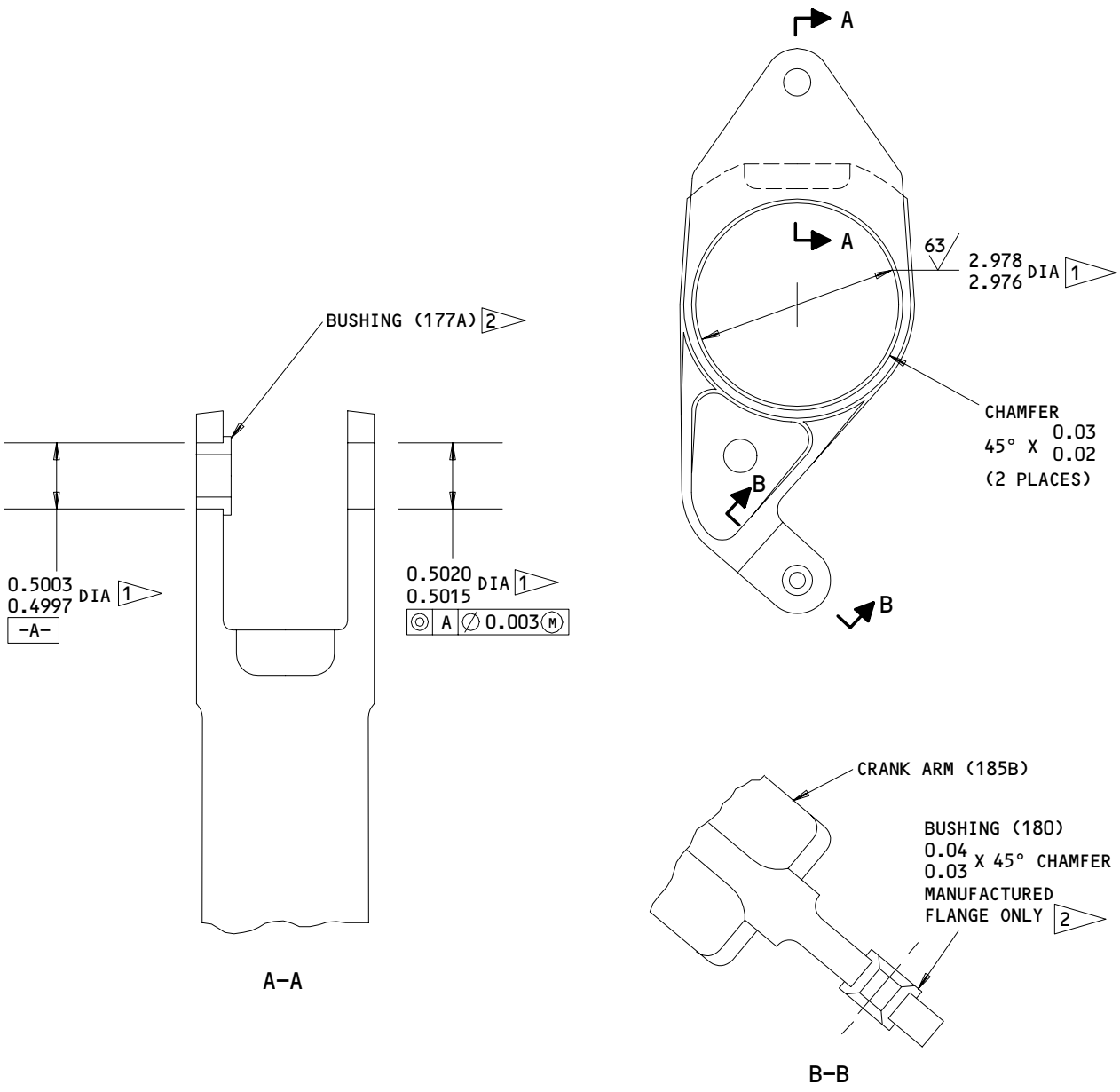
   E. Seal bushing flange with sealant.

2. Bushing Replacement (IPL Fig. 1, 601)

   A. Remove bushing (177A).

   B. Press fit new bushing per 20-50-03 with wet sealant.

   C. Fillet seal bushing flange with wet sealant per 20-50-03.



REFINISH

CRANK ARM (185B, 185C) -- CHROMIC ACID ANODIZE (F-17.04) AND APPLY TWO COATS OF BMS 10-11, TYPE 1 PRIMER (F-20.03) EXCEPT AS NOTED IN 1

MATERIAL: AL ALLOY

ALL DIMENSIONS ARE IN INCHES

1 OMIT PRIMER THIS SURFACE

2 FILLET SEAL BUSHING FLANGES WITH WET BMS 5-95 SEALANT

251T2313-7,-8

Crank Arm Assembly - Replacement Details and Refinish
Figure 601

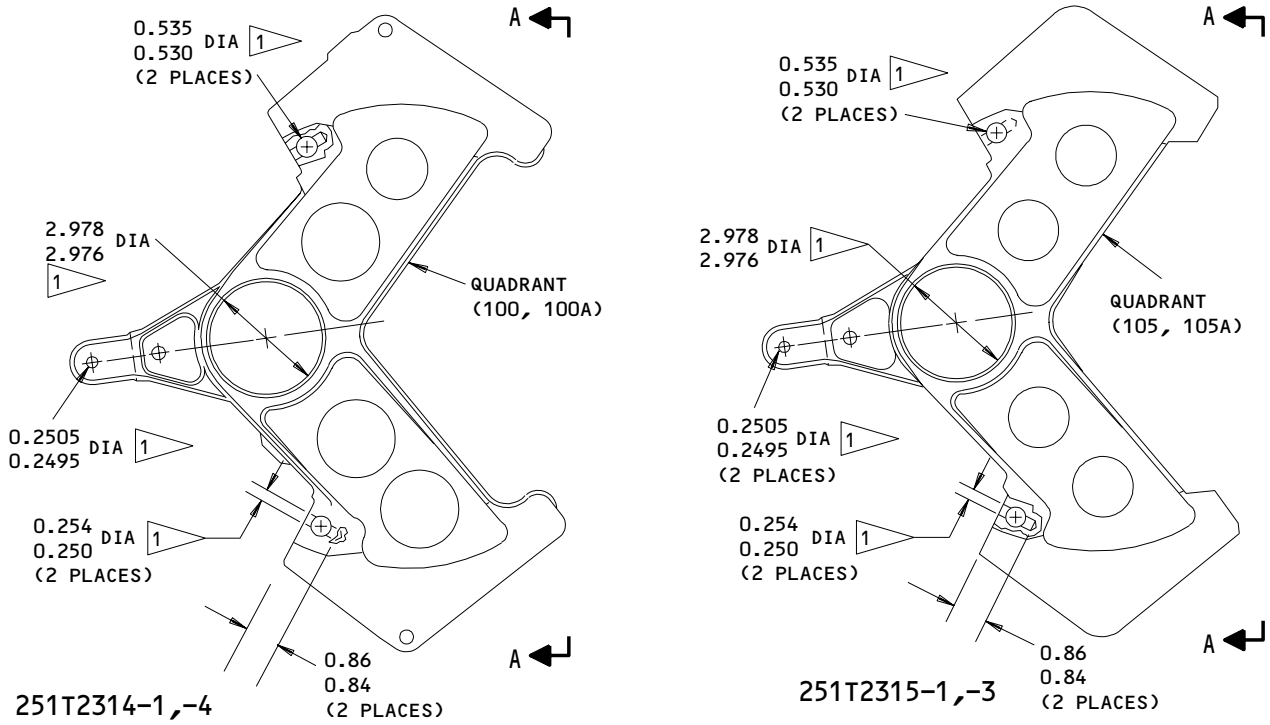
31051

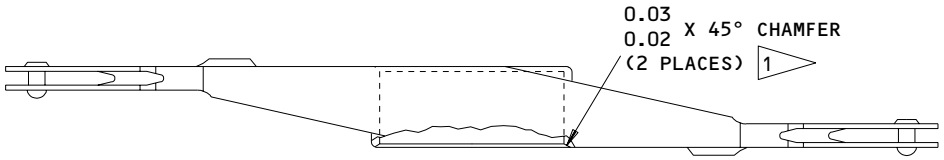
QUADRANT ASSEMBLY - REPAIR 3-1

251T2314-1, -4
251T2315-1, -3

1. Plating Repair

NOTE: Repair consists of restoration of original finish. Refer to Refinish instructions, Fig. 601 and to REPAIR-GEN for list of applicable standard practice.





ROTATED 90° CLOCKWISE
A-A

REFINISH

QUADRANT (100, 100A, 105, 105A) -- CHROMIC ACID ANODIZE (F-17.04) AND APPLY TWO COATS OF BMS 10-11, TYPE 1 PRIMER (F-20.03) EXCEPT AS NOTED

1 OMIT PRIMER THIS SURFACE

MATERIAL: AL ALLOY

ALL DIMENSIONS ARE IN INCHES

Quadrant Assembly - Plating Repair
Figure 601

FEEL ARM ASSEMBLY - REPAIR 4-1

251T2317-1, -3

NOTE: Refer to REPAIR-GEN for list of applicable standard practices. For repair of surfaces which may only require stripping and restoration of original finish, refer to Refinish instruction, Fig. 601.

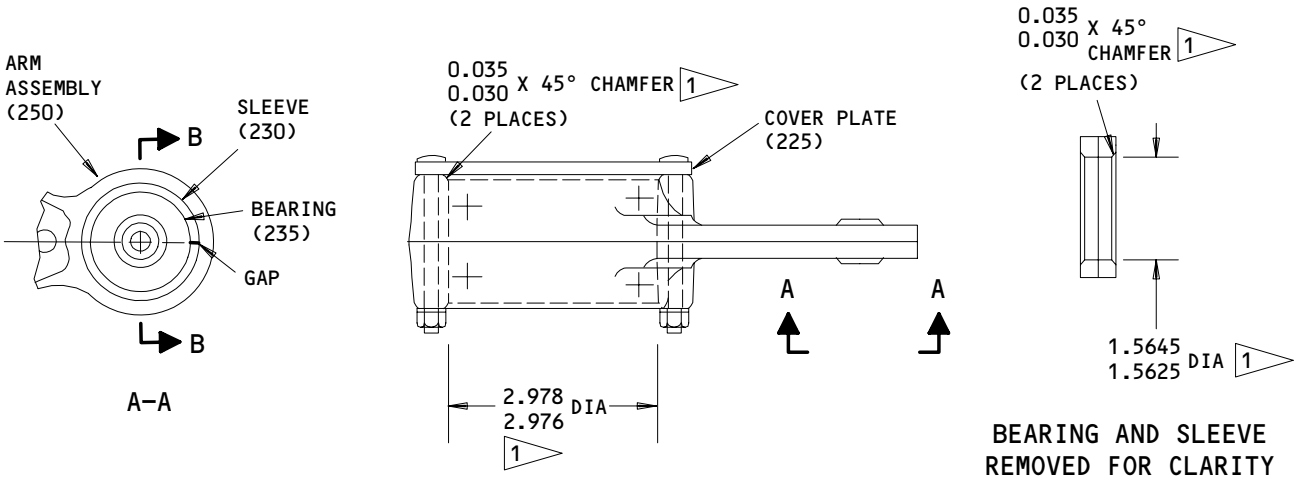
1. Bearing Replacement (Fig. 601)

   A. Remove bearing (235) and sleeve (230).

   B. Orient sleeve as shown within ± 15 degrees and install new bearing and sleeve per 20-50-03 with wet sealant.

   C. Roller swage sleeve per 20-50-03 and fill gap with sealant.

      NOTE: Maximum breakout torque for bearing must not exceed 10 pound-inches after installation.



REFINISH

ARM ASSEMBLY (250) -- MANUALLY APPLY COLORED CHEMICAL COATING (F-17.10) ON MACHINED OR BARED SURFACES. APPLY ONE COAT OF BMS 10-11, TYPE 1 PRIMER (F-20.02) ALL OVER EXCEPT AS NOTED

1 OMIT PRIMER THIS SURFACE

MATERIAL: AL ALLOY

ALL DIMENSIONS ARE IN INCHES

Feel Arm Assembly - Bearing Replacement and Refinish
Figure 601

31058

FEEL ARM ASSEMBLY - REPAIR 5-1

251T2318-1, -3

NOTE: Refer to REPAIR-GEN for list of applicable standard practices. For repair of surfaces which may only require restoration of original finish, refer to Refinish instruction, Fig. 601.

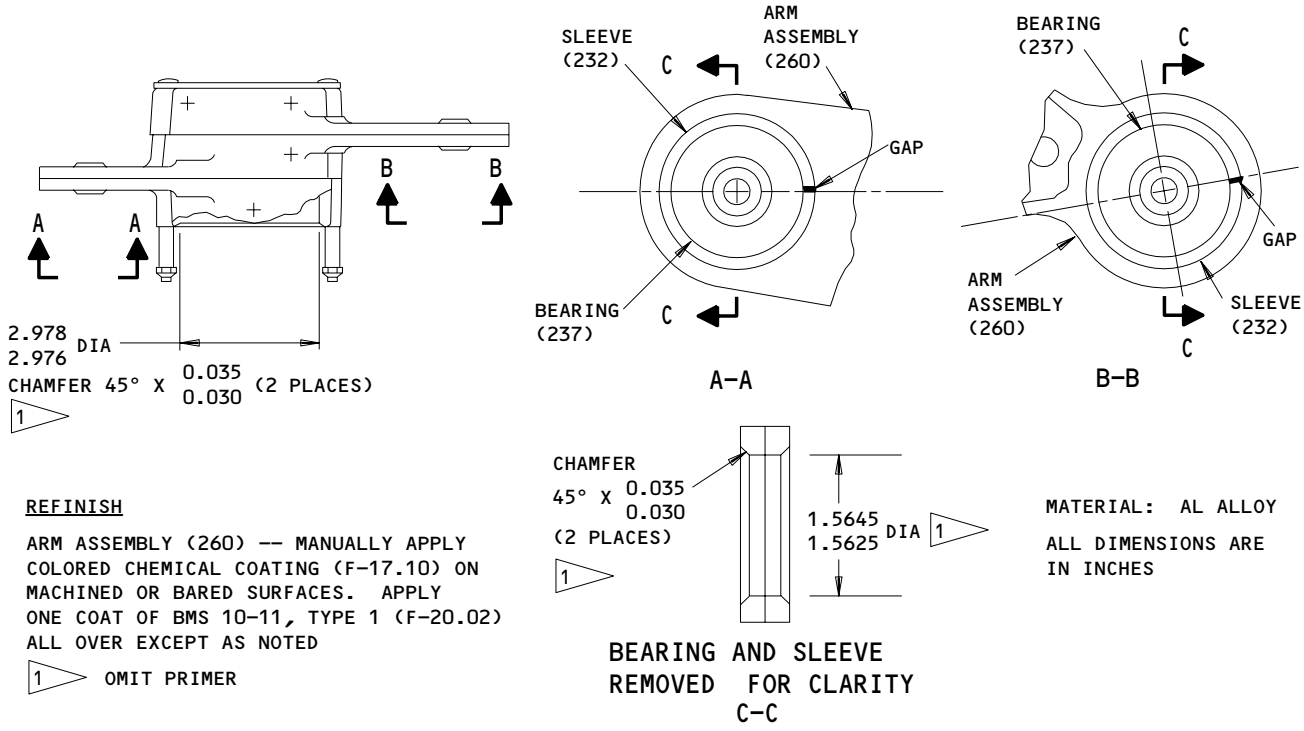
1. Bearing Replacement (IPL Fig. 1, 601)

   A. Remove bearings (237) and sleeves (232).

   B. Orient sleeve gap as shown within ± 15 degrees and install sleeve and bearing per 20-50-03 with wet BMS 5-95 sealant.

   C. Roller swage sleeve per 20-50-03 and fill gap with BMS 5-95 sealant.

      NOTE: Maximum breakout torque for bearing must not exceed 10 pound-inches after installation.



Feel Arm Assembly - Bearing Replacement and Refinish
Figure 601

31156

BEARING ARM ASSEMBLY - REPAIR 6-1

251T2320-1, -6

NOTE: Refer to REPAIR-GEN for list of applicable standard practices. For repair of surfaces which may only require stripping and restoration of original finish, refer to Refinish instruction, Fig. 601.

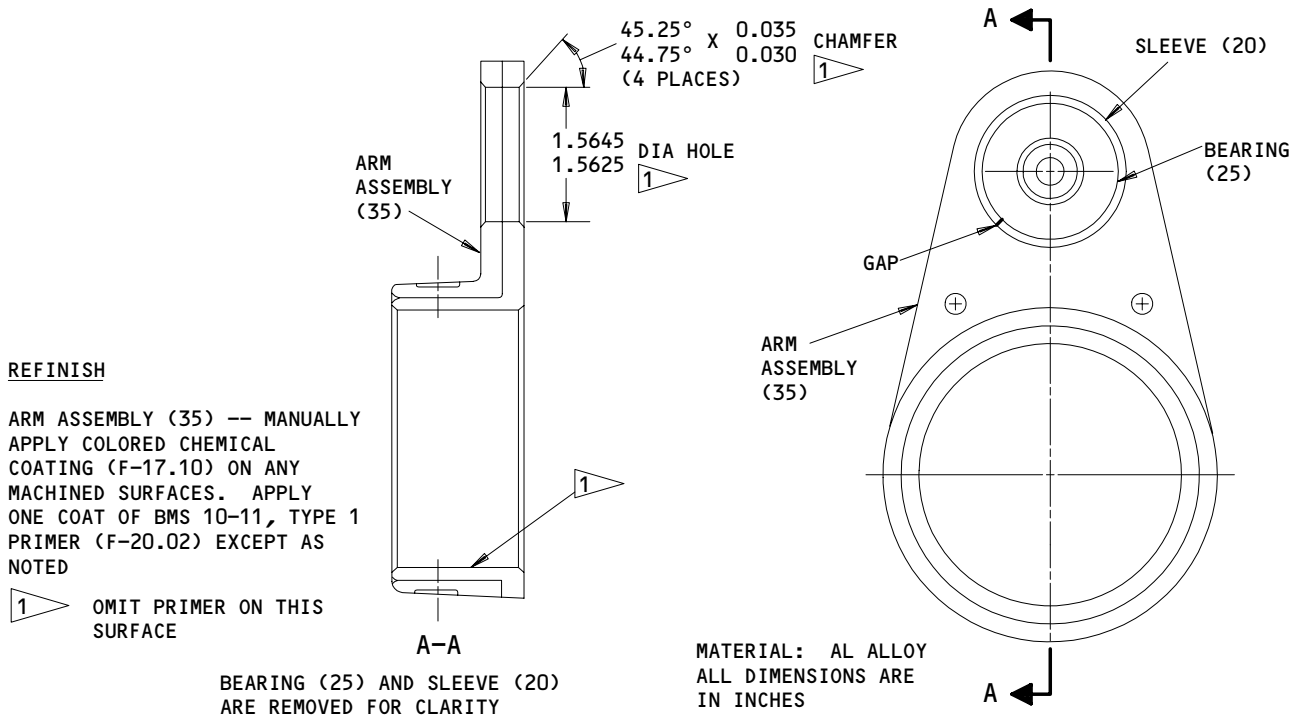
1. Bearing Replacement (Fig. 601)

   A. Remove bearing 25, IPL Fig. 1) and sleeve (20) from arms (40, 45).

   B. Orient gap in sleeve as shown and install new bearing and sleeve in housing with wet BMS 5-95 sealant per 20-50-03.

   C. Roller swage sleeve per 20-50-03 and fill gap with BMS 5-95 sealant.

      NOTE: Maximum breakout torque for bearing must not exceed 10 pound-inches after installation.



Bearing Arm Assembly - Bearing Replacement and Refinish
Figure 601

7543

PIVOT ARM ASSEMBLY - REPAIR 7-1

251T2321-11, -12

NOTE: Refer to REPAIR-GEN for list of applicable standard practices. For repair of surfaces which may only require restoration of original finish, refer to Refinish instruction, Fig. 601.

1. Bearing Replacement (Fig. 601)

   A. Remove bearing (145A, IPL Fig. 1) from pivot arm assembly (140D).

   B. Install and roller swage new bearing with BMS 3-24 grease per 20-50-03.

2. Bushing Replacement (Fig. 601)

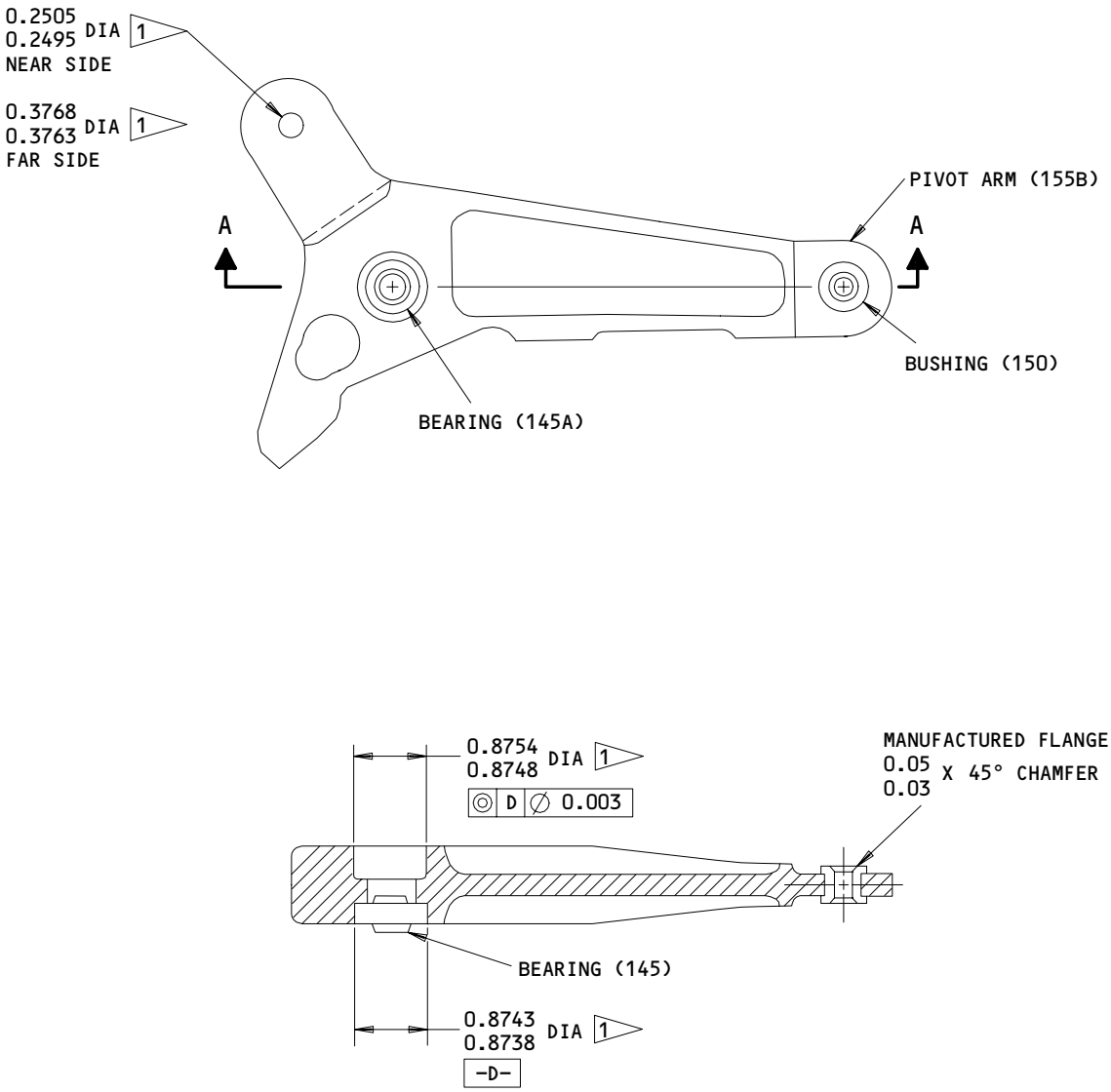
   A. Remove bushing (150) from pivot arm assembly (140D).

   B. Install new bushing per 20-50-03 except use BMS 5-95 wet sealant.

   C. Roller stake bushing (150) per 20-50-03 using standard tools ST922C or FDSB28B.

   CAUTION: DO NOT MACHINE STAKED SURFACE OF BUSHING.

   D. Chamfer bushing (150) to dimension shown.



A-A

REFINISH

PIVOT ARM (155B)-- CHROMIC ACID ANODIZE (F-17.04) APPLY TWO COATS BMS 10-11, TYPE 1, PRIMER (F-20.03), EXCEPT AS NOTED IN 1

1 OMIT PRIMER THIS SURFACE.

MATERIAL: AL ALLOY

ALL DIMENSIONS ARE IN INCHES

251T2321-11, -12

Pivot Arm - Replacement Details and Refinish
Figure 601

SUPPORT ARM ASSEMBLY - REPAIR 8-1

251T2335-1, -3

NOTE: Refer to REPAIR-GEN for list of applicable standard practices. For repair of surfaces which may only require restoration of original finish, refer to Refinish instructions, Fig. 601.

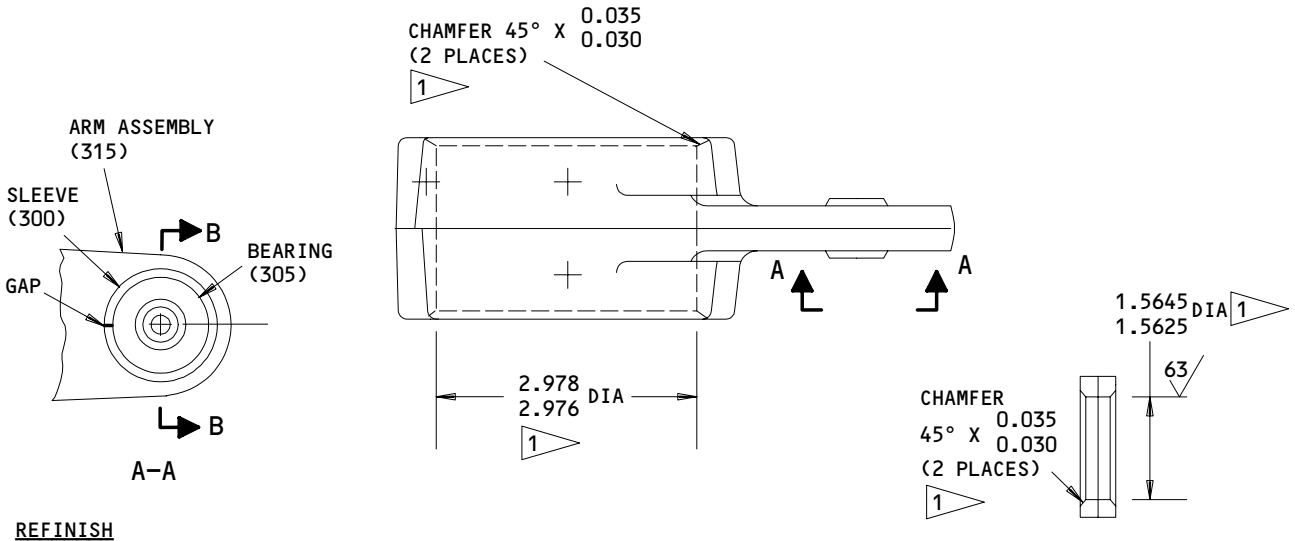
1. Bearing Replacement (IPL Fig. 1, Fig. 601)

   A. Remove bearing (305) and sleeve (300).

   B. Orient sleeve gap as shown within ± 15 degrees and install sleeve and bearing per 20-50-03 with BMS 5-95 sealant.

   C. Roller swage sleeve per 20-50-03 and fill gap with BMS 5-95 sealant.

      NOTE: Maximum breakout torque for bearing must not exceed 10 pound-inches after installation.



REFINISH

ARM ASSEMBLY (315) -- MANUALLY APPLY COLORED CHEMICAL COATING (F-17.10) ON MACHINED OR BARED SURFACES. APPLY ONE COAT OF BMS 10-11, TYPE 1 PRIMER (F-20-02) ALL OVER EXCEPT AS NOTED

1 OMIT PRIMER

BEARING AND SLEEVE REMOVED FOR CLARITY
B-B

MATERIAL: AL ALLOY

ALL DIMENSIONS ARE IN INCHES

Support Arm Assembly - Bearing Replacement and Refinish
Figure 601

MISCELLANEOUS PARTS REFINISH - REPAIR 9-1

1. Repair of parts listed in figure 601 consists of restoration of original finish.

IPL FIG & ITEM	MATERIAL	FINISH
Fig. 1		
Spring (160)	17-7PH CRES	Passivate (F-17.09).
Cover Plate (225)	Al alloy	Chemical treat both surfaces and apply one coat BMS 10-11, type 1 primer (F-18.06).
Autopilot Arm (280)	Al alloy	Chromic acid anodize (F-17.04) plus two coats BMS 10-11, type 1 primer (F-20.03), except omit primer on 0.2495-0.2505 inch diameter holes and 2.976-2.978 inch bore.
Stop Arm (325)	Al alloy	Chromic acid anodize (F-17.04) and apply one coat BMS 10-11, type 1 primer (F-20.02) except omit primer on 2.976-2.978 bore, chamfer, and 0.323-0.327 inch diameter hole.
Arm (365)	Al alloy	Chromic acid anodize and apply one coat BMS 10-11, type 1 primer (F-18.13) except omit primer on 2.980-2.978 bore.
Weight (370)	Sintered Tungsten	Apply one coat BMS 10-11, type 1 primer (F-20.02)

Refinish Details
Figure 601

ASSEMBLY

1. Materials and Equipment

NOTE: Equivalent substitutes may be used.

A. Sealant -- BMS 5-95 (Ref 20-60-04)

B. Primer -- BMS 10-11, type 1 (Ref 20-60-02)

C. Drill Jig Equipment -- A27082-1

D. Deleted

2. Assembly (IPL Fig. 1, 701)

NOTE: Install all rivets with BMS 5-95 sealant.

Install all arms and quadrants on tube assembly (335 or 340) using BMS 5-95 on faying surfaces and fillet seal with BMS 5-95 sealant.

A. Assemble left aft quadrant assembly, 251T2310-9, -11, as follows:

(1) If new tube assembly (335) is being installed, install tube assembly on drill jig A27082-1 (or use dimensions in Fig. 701), and drill 0.199-0.202 rivet holes.

(2) Install output arm (50) on tube assembly (335) with rivets (55).

(3) For 251T2310-11, install arm (365) on tube assembly (335) with rivets (380).

(4) Install bearing arm assembly (10) on tube assembly (335) with rivets (15).

(5) Install left quadrant assembly (60) on tube assembly (335) with rivets (70, 75).

(6) Install crank arm assembly (165B) on tube assembly (335) with rivets (170, 173, 175).

(7) Install spacer (115A) and bearing (135A) with MIL-G-23827 grease per 20-50-03 on pivot arm assembly (140D).

(8) Install pivot arm assembly (140D) on crank arm assembly (165B) with bushing (130A), bolt (110A), washer (120A), and nut (125A). Install bushing (130A) with MIL-G-23827 grease per 20-50-03. Do not install spring (160) at this time.

(9) Install stop arm (325) on tube assembly (335) with rivets (330).

(10) Install support arm assembly (290) on tube assembly (335) with rivets (295). Fay seal between support arm assembly (290) and stop arm (325).

(11) Install autopilot arm (280) on tube assembly (335) with rivets (285).

(12) Install left feel arm assembly (190) on tube assembly (335) with rivets (200).

WARNING: USE EXTREME CARE WHEN INSTALLING SPRING (160). SPRING IS HEAVILY LOADED.

(13) Attach spring (160) to crank arm assembly (165B) and pivot arm assembly (140D).

B. Assemble right aft quadrant assembly, 251T2310-10, -12, as follows:

(1) If new tube assembly (340) is being installed, install tube assembly on drill jig A27082-1 (or use dimensions in Fig. 701), and drill 0.199-0.202 diameter rivet holes.

(2) Install output arm (50) on tube assembly (340) with rivets (55).

(3) For 251T2310-12, install arm (365) on tube assembly (340) with rivets (380).

(4) Install bearing arm assembly (10) on tube assembly (340) with rivets (15).

(5) Install right quadrant assembly (65) on tube assembly (340) with rivets (70, 80).

(6) Install crank arm assembly (165B) on tube assembly (340) with rivets (170, 173, 175).

(7) Install spacer (115A) and bearing (135A) with MIL-G-25827 grease per 20-50-03 on pivot arm assembly (140D).

(8) Install pivot arm assembly (140D) on crank arm assembly (160B) with bushing (130A), bolt (110A), washer (120A), and nut (125A). Install bushing (130A) with MIL-G-23827 grease per 20-50-03. Do not install spring (160) at this time.

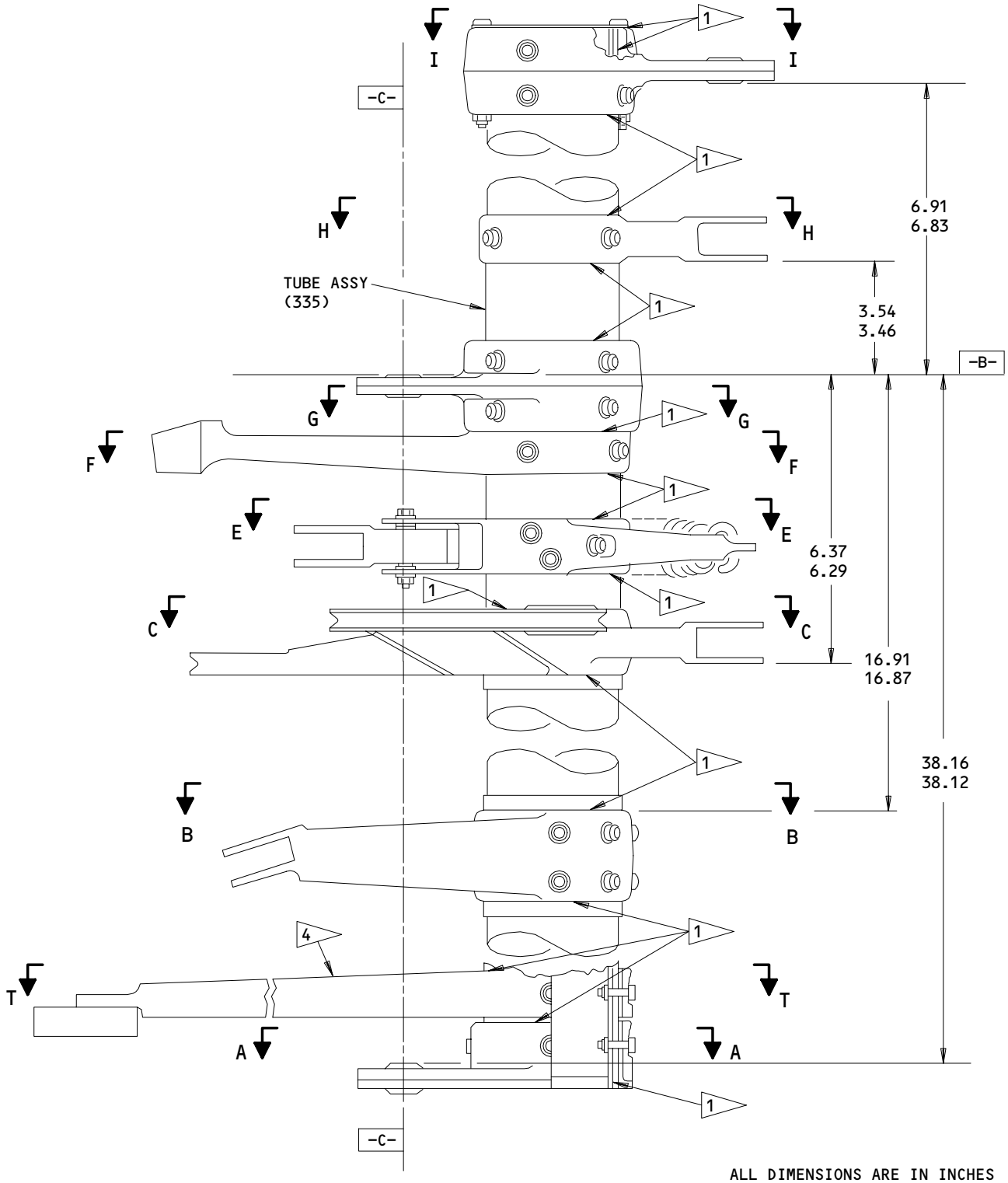
(9) Remove temporary spacers (210), if installed, from right feel arm assembly (195). Secure stop arm (325) on right feel arm assembly (195) with bolts (208), washers (215) and nuts (220). Fay seal between stop arm (325) and right feel arm assembly (195). Discard temporary spacers (210).

(10) Install parts assembled in 2.B.(8) on tube assembly (340) with rivets (205).

WARNING: USE EXTREME CARE WHEN INSTALLING SPRING (160). SPRING IS HEAVILY LOADED.

(11) Attach spring (160) to crank assembly (165B) and pivot arm assembly (140D).

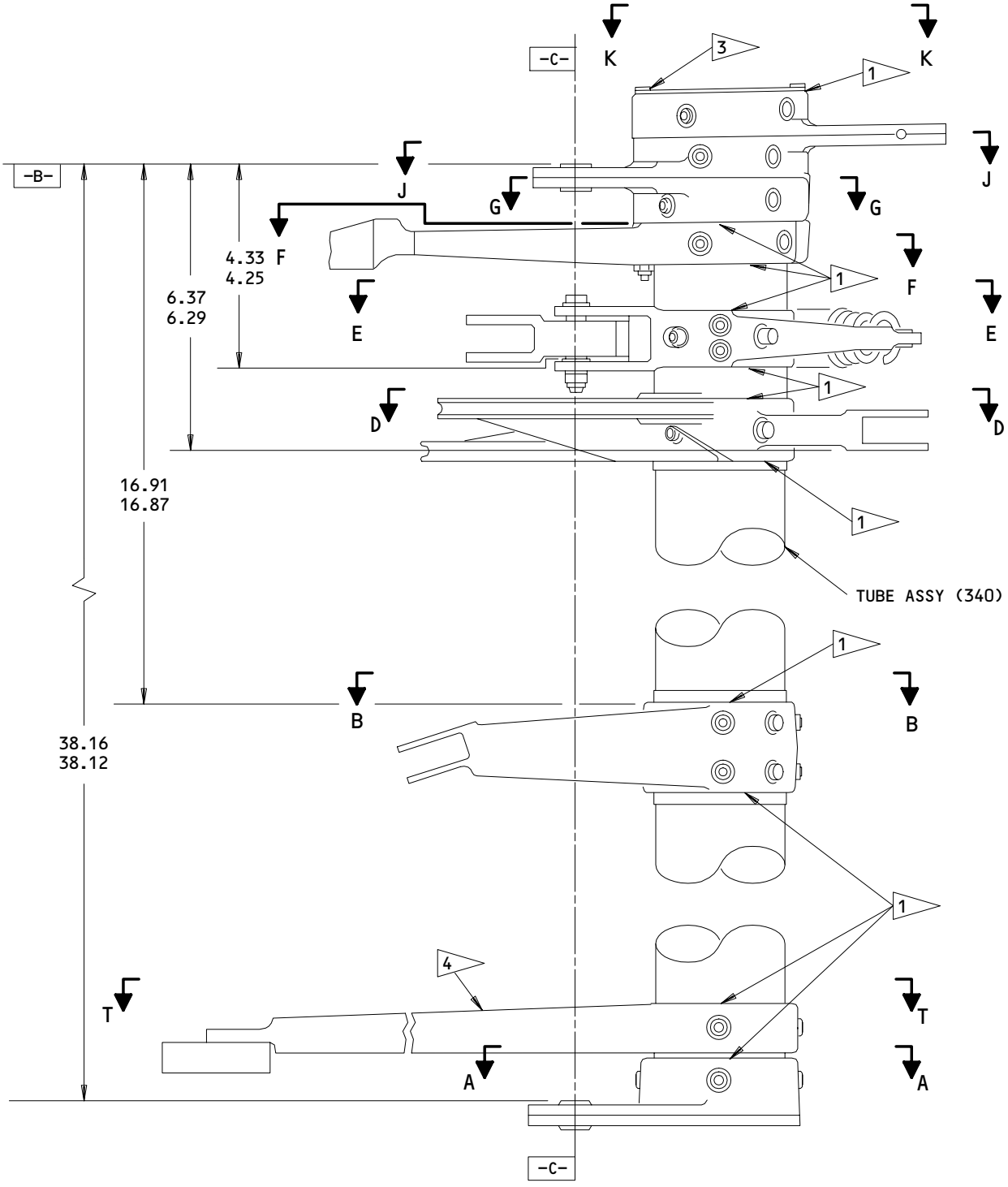
3. Prepare and store component in accordance with standard industry practices.



ALL DIMENSIONS ARE IN INCHES

LEFT AFT QUADRANT ASSY
251T2310-9,-11
Assembly Details
Figure 701 (Sheet 1)

31151

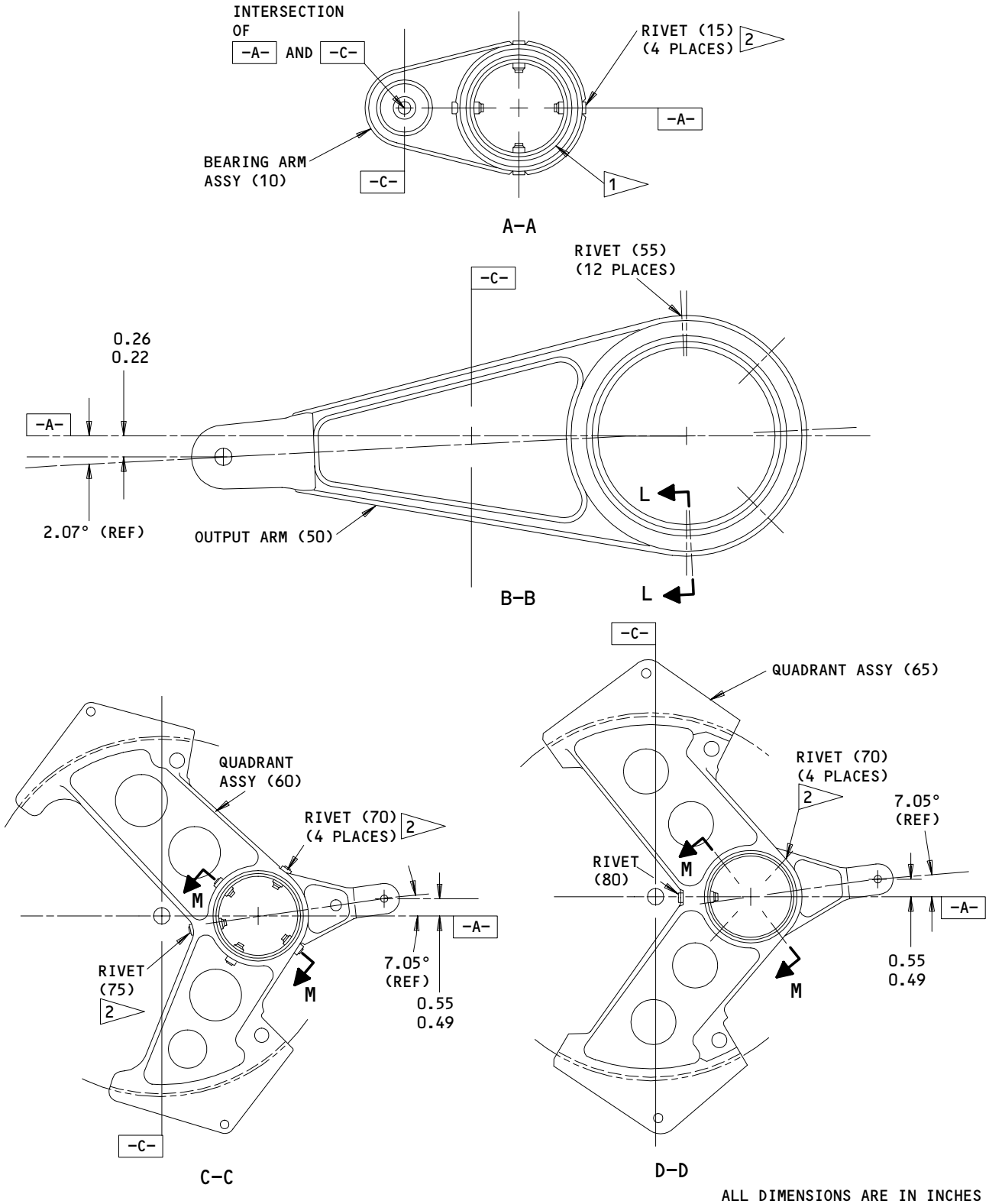


RIGHT AFT QUADRANT ASSY
251T2310-10,-12

ALL DIMENSIONS ARE IN INCHES

Assembly Details
Figure 701 (Sheet 2)

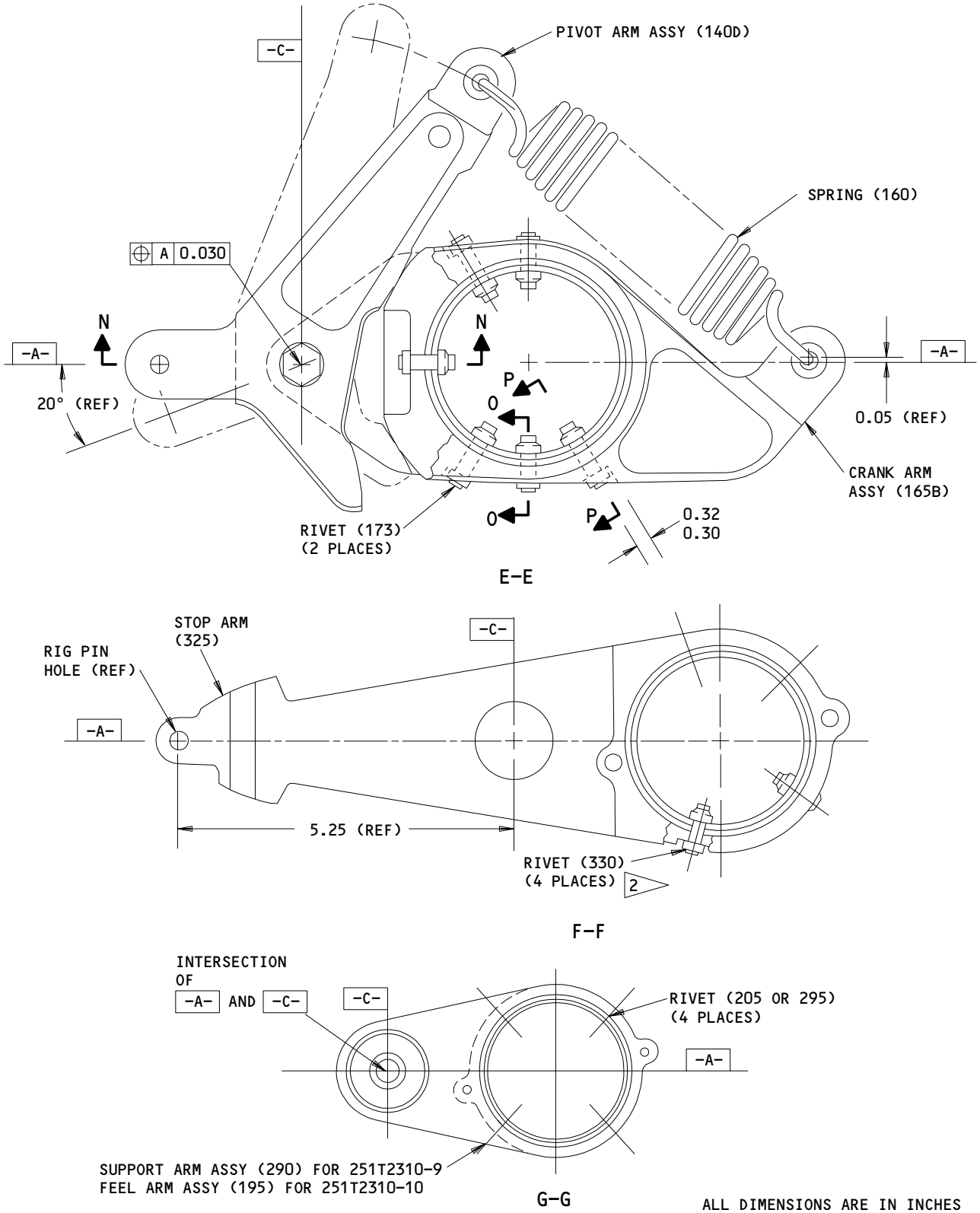
31152



ALL DIMENSIONS ARE IN INCHES

Assembly Details
Figure 701 (Sheet 3)

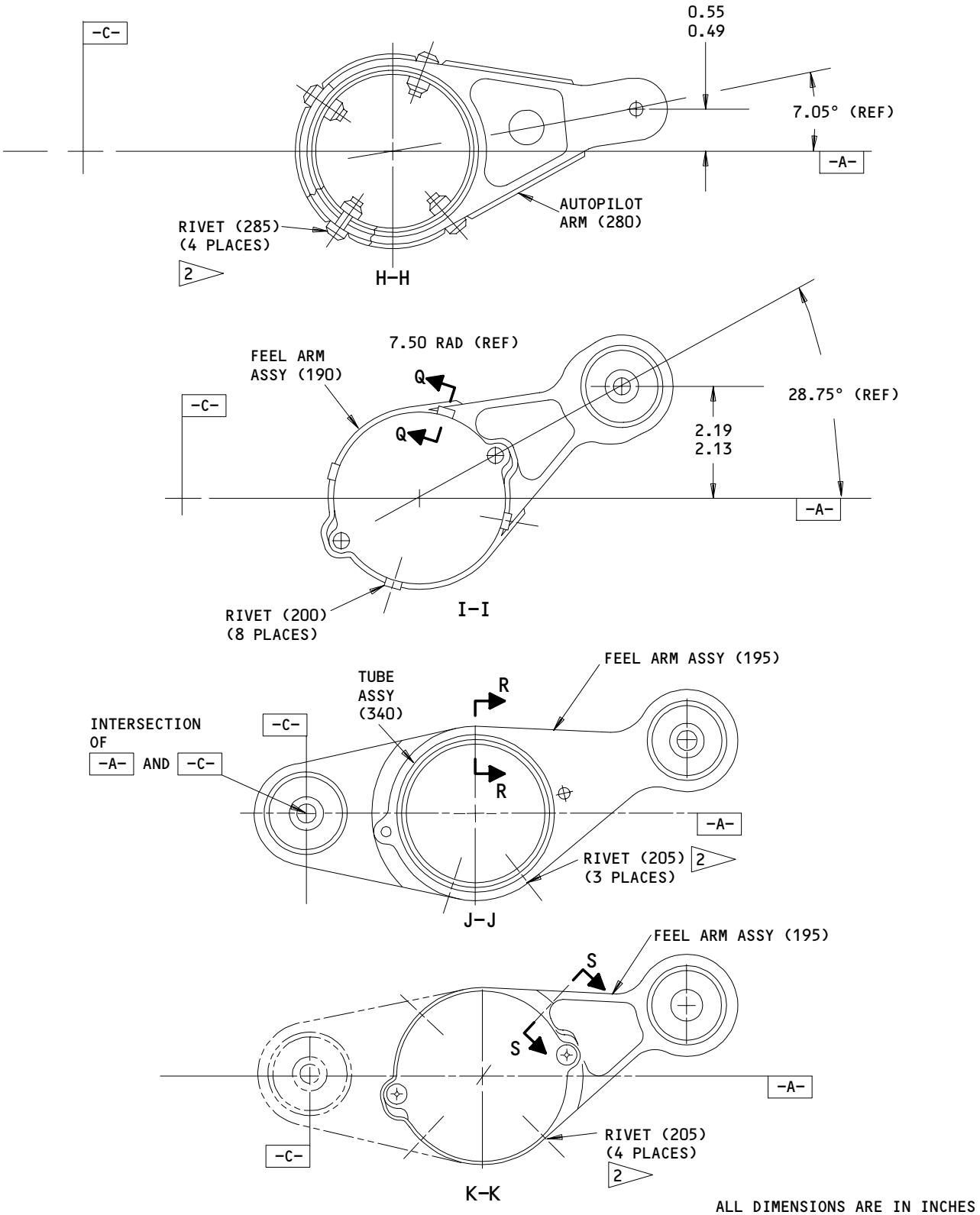
31154



ALL DIMENSIONS ARE IN INCHES

Assembly Details
Figure 701 (Sheet 4)

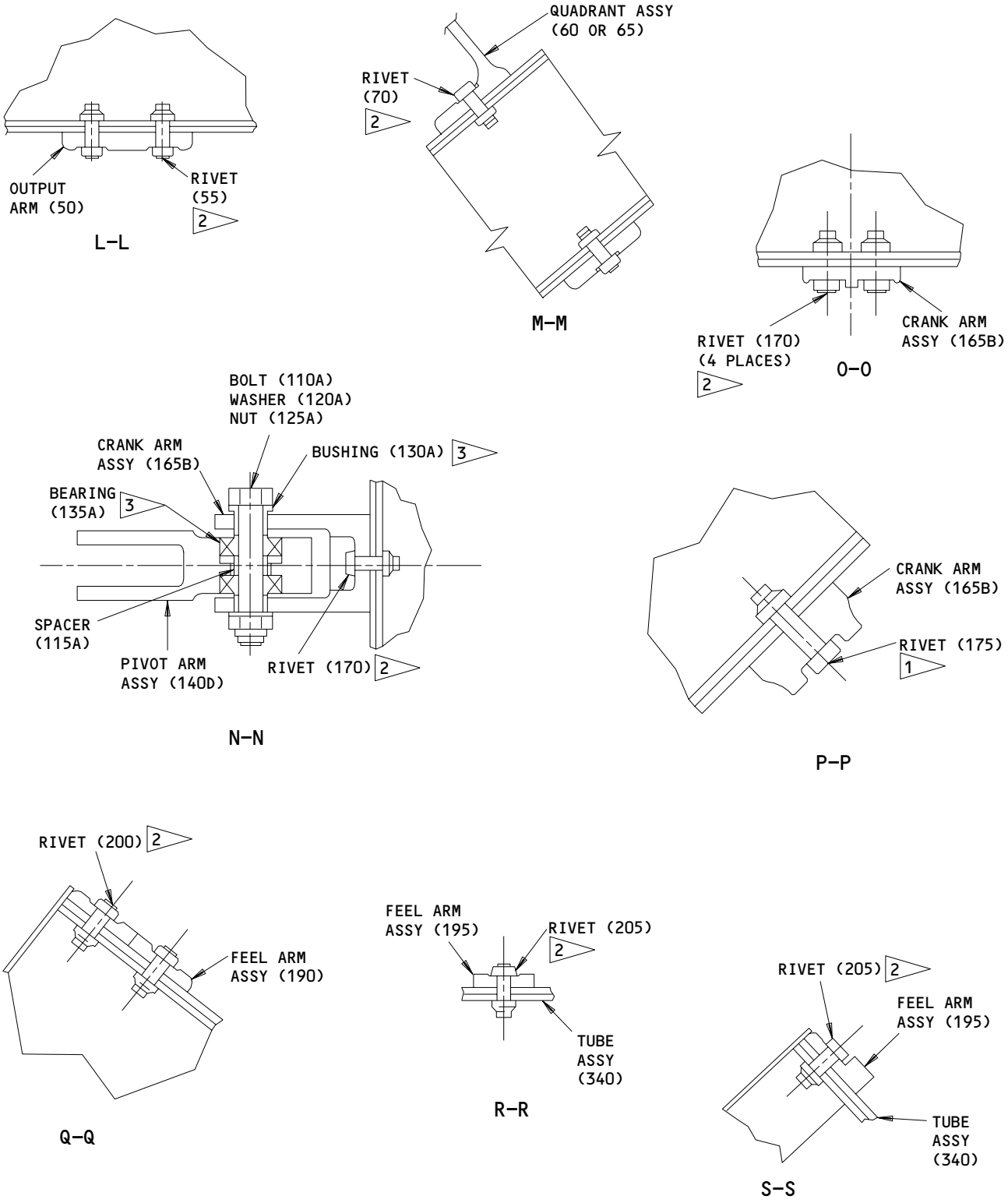
31157



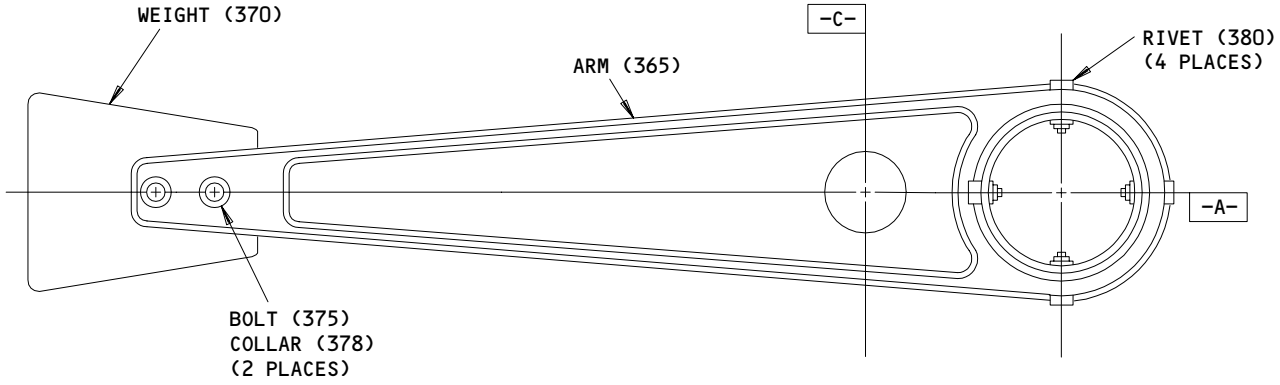
ALL DIMENSIONS ARE IN INCHES

Assembly Details
Figure 701 (Sheet 5)

31158



Assembly Details
Figure 701 (Sheet 6)



T-T

1 FAY SEAL AND FILLET SEAL WITH BMS 5-95 SEALANT

2 INSTALL RIVETS WITH BMS 5-95 SEALANT

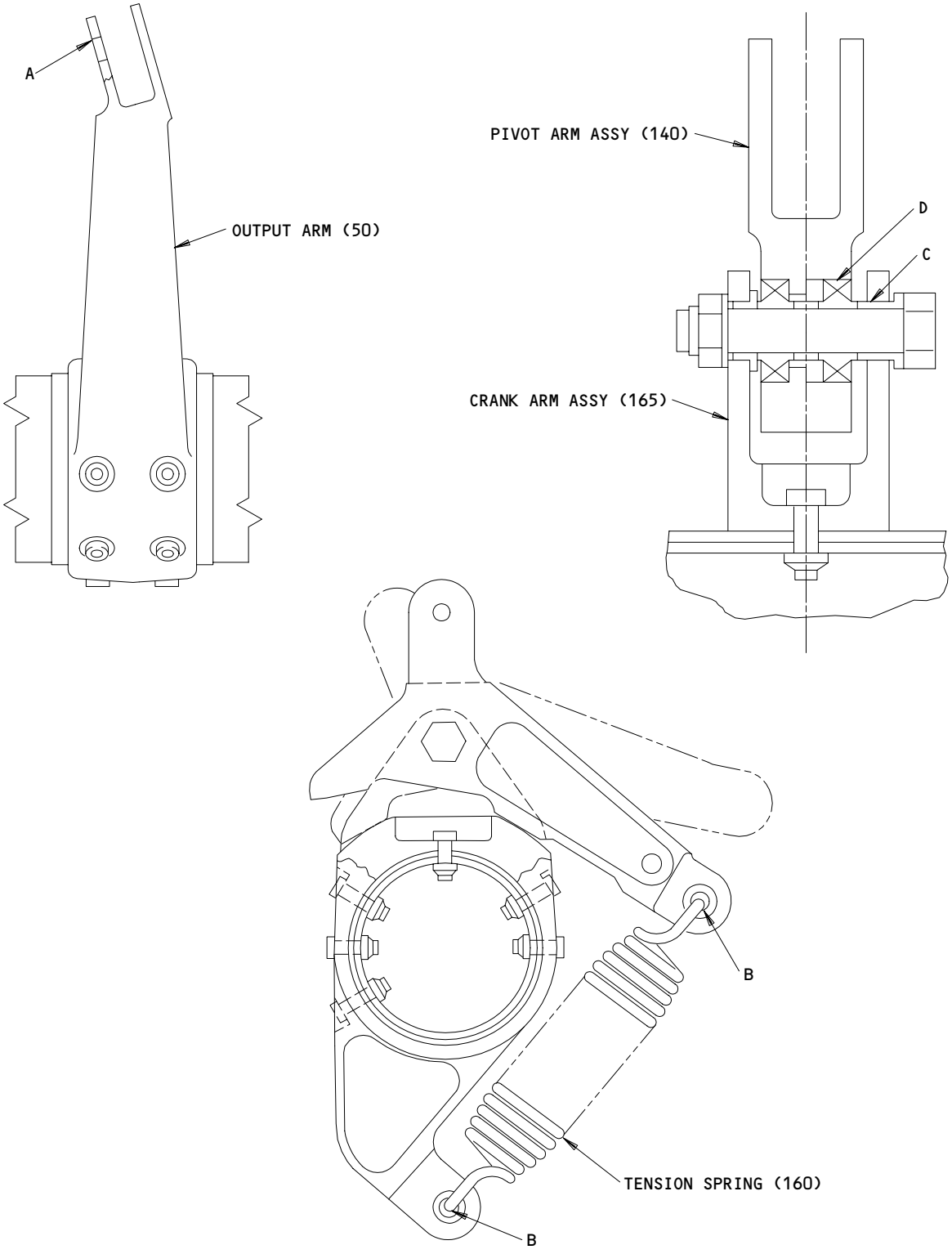
3 INSTALL BUSHING OR BEARING WITH MIL-G-23827 GREASE

4 251T2310-11,-12 ONLY

Assembly Details
Figure 701 (Sheet 7)

253976

FITS AND CLEARANCES



Fits and Clearances
Figure 801 (Sheet 1)

Ref Letter Fig.801	Mating Item No. IPL Fig.	Design Dimension				Service Wear Limit		
		Dimension		Assembly Clearance *[1]		Dimension		Maximum Clearance
		Min	Max	Min	Max	Min	Max	
A	ID 50 OD *[2]	0.3763 0.3756	0.3768 0.3761	0.0002	0.0012	0.3751	0.3772	0.002
B	ID 150,180 OD 160					2	1	
C	ID 185B OD 130A	0.5015 0.5006	0.5020 0.5013	0.0002	0.0014	0.5000	0.5025	0.0025
D	ID 140D OD 135A	0.8748 0.8745	0.8754 0.8750	-0.0002	0.0009	0.8740	0.8760	0.0020

1 IF WEAR GROOVE IN BUSHING (150,180) EXCEEDS 0.020 IN DEPTH REPLACE BUSHING

2 IF SPRING (160) WIRE DIAMETER AT ATTACH POINT IS REDUCED BY 0.020 REPLACE SPRING

*[1] NEGATIVE VALUES DENOTE INTERFERENCE FIT
*[2] INSTALLATION PART NAS77-4-25

ALL DIMENSIONS ARE IN INCHES

Fits and Clearances
Figure 801 (Sheet 2)

179273

SPECIAL TOOLS/FIXTURES

NOTE: Equivalent substitutes may be used.

1. Drill Jig Equipment -- A27082-1

2. Deleted

ILLUSTRATED PARTS LIST

1. This section lists and illustrates replaceable or repairable component parts. The Illustrated Parts Catalog contains a complete explanation of the Boeing part numbering system.

2. Indentures show parts relationships as follows:

    Assembly
      Detail Parts for Assembly
      Subassembly
      Attaching Parts for Subassembly
        Detail Parts for Subassembly

    Detail Installation Parts (Included only if installation parts may be returned to shop as part of assembly)

3. One use code letter (A, B, C, etc.) is assigned in the EFF CODE column for each variation of top assembly. All listed parts are used on all top assemblies except when limitations are shown by use code letter opposite individual part entries.

4. Letter suffixes (alpha-variants) are added to item numbers for optional parts, Service Bulletin modification parts, configuration differences (except left- and right-hand parts), product improvement parts, and parts added between two sequential item numbers. The alpha-variant is not shown on illustrations when appearance and location of all variants of the part is the same.

5. Service Bulletin modifications are shown by the notations PRE SB XXXX and POST SB XXXX.

    A. When a new top assembly part number is assigned by Service Bulletin, the notations appear at the top assembly level only. The configuration differences at detail part level are then shown by use code letter.

    B. When the top assembly part number is not changed by the Service Bulletin, the notations appear at the detail part level.

6. Parts Interchangeability

Optional (OPT)	The parts are optional to and interchangeable with other parts having the same item number.
Supersedes, Superseded By (SUPSDS, SUPSD BY)	The part supersedes and is not interchangeable with the original part.
Replaces, Replaced By (REPLS, REPLD BY)	The part replaces and is interchangeable with, or is an alternate to, the original part.

VENDORS

06710 VALLEY-TODECO INCORPORATED
12975 BRADLEY AVENUE
SYLMAR,CALIFORNIA 91342

06725 AIR INDUSTRIES CORPORATION
12570 KNOTT STREET
GARDEN GROVE, CALIFORNIA 92641

06950 VSI CORP SCREWCORP DIV
13001 EAST TEMPLE AVENUE
CITY OF INDUSTRY, CALIFORNIA 91746

08524 DEUTSCH FASTENER CORPORATION
PO BOX 92925 7001 WEST IMPERIAL HIGHWAY
LOS ANGELES, CALIFORNIA 90045

15653 KAYNAR MFG COMPANY INC KAYLOCK DIV
PO BOX 3001 800 SOUTH STATE COLLEGE BLVD
FULLERTON, CALIFORNIA 92634

17943 FEDERAL MANUFACTURING CORPORATION
6910 FARMDALE AVENUE
NORTH HOLLYWOOD, CALIFORNIA 91605

21335 TEXTRON INC FAFNIR BEARING DIVISION
37 BOOTH STREET
NEW BRITAIN, CONNECTICUT 06050

23294 AVALON MACHINE PRODUCTS INC
15337 ALLEN STREET
PARAMOUNT, CALIFORNIA 90723

27624 P.B. FASTENER DIV OF PAUL R BRILES INC
1700 WEST 132ND STREET
GARDENA, CALIFORNIA 90249

38443 TRW INC BEARING DIV
402 CHANDLER STREET
JAMESTOWN, NEW YORK 14701

43991 FAG BEARING INCORPORATED
HAMILTON AVENUE
STAMFORD, CONNECTICUT 06904

VENDORS

52828 REPUBLIC FASTENER MFG CORP
1300 RANCHO CONEJO BLVD
NEWBURY PARK, CALIFORNIA 91320

70265 ALL POWER MANUFACTURING COMPANY
13141 MOLETTE STREET
SANTE FE SPRINGS, CALIFORNIA 90670

71087 BOOTS ACFT NUT DIV TOWNSEND CO SEE TEXTRON INC CHERRY
FASTENER TOWNSEND DIV V11815

72962 ESNA DIV OF AMERACE CORP
2330 VAUXHALL ROAD
UNION, NEW JERSEY 07083

80539 SPS TECHNOLOGIES INC AEROSPACE PRODUCTS DIV
2701 SOUTH HARBOR BOULEVARD
SANTA ANA, CALIFORNIA 92702

92215 VOI-SHAN DIV OF VSI CORP
8463 HIGUERA STREET
CULVER CITY, CALIFORNIA 90230

94892 MASTER MACHINE PRODUCTS CORPORATION
2069 RANDOLPH STREET
HUNTINGTON PARK, CALIFORNIA 90255

97928 LITTON FASTENING SYSTEMS DIV OF LITTON SYSTEMS INC
3969 PARAMONT BOULEVARD
LAKEWOOD, CALIFORNIA 90712

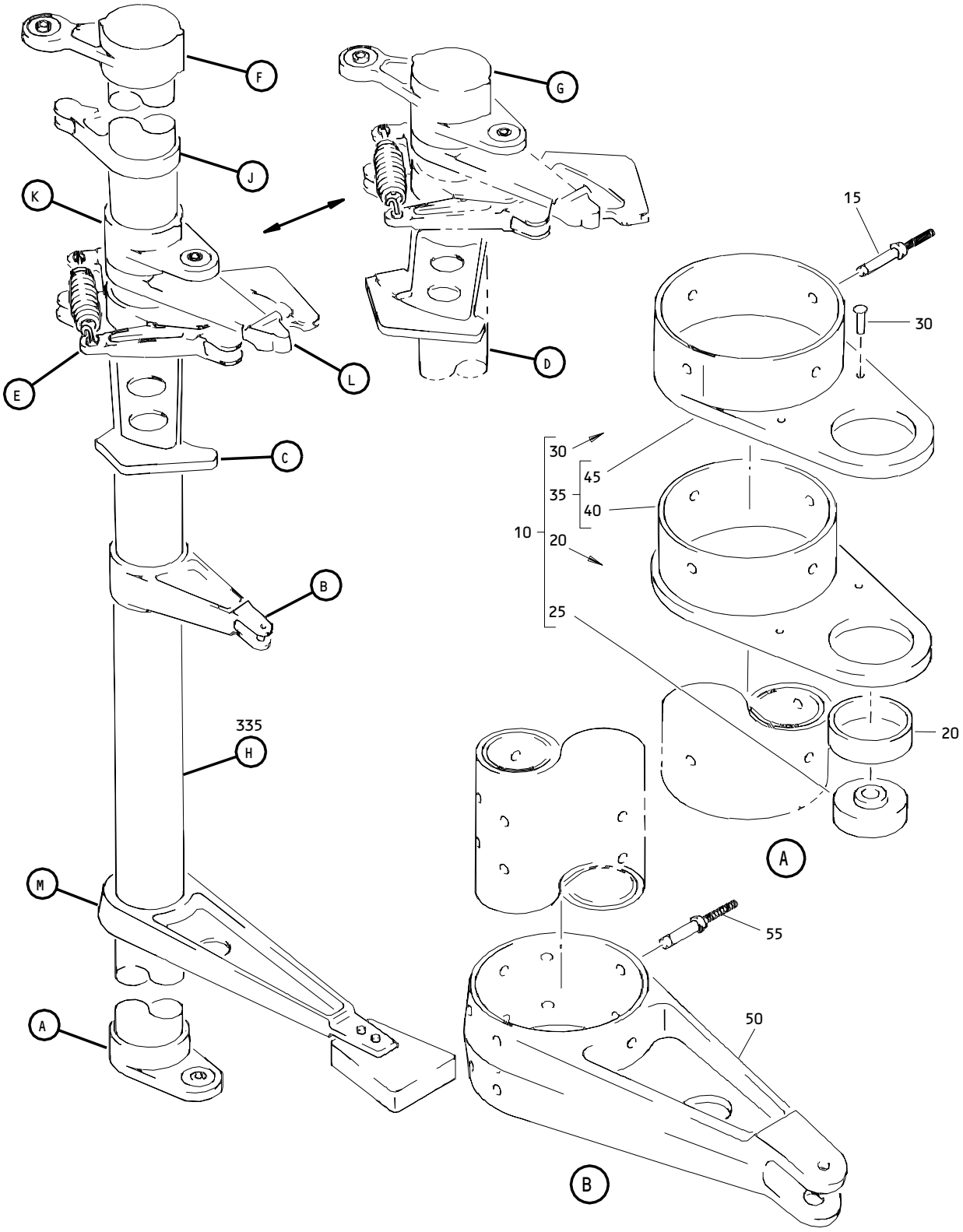
PART NUMBER	AIRLINE PART NO.	FIG.	ITEM	TTL REQ
AN960PD10L		1	215	2
AN960PD616		1	120A	1
BACB10AR6		1	25	1
		1	235	1
		1	237	2
		1	305	1
BACB10BX4		1	135	1
		1	145	1
BACB10BX6		1	135A	1
		1	145A	1
BACB28B4-385P		1	150	1
		1	180	1
BACB28Y4C22		1	152	1
BACB30FM6A7SU		1	15D	4
		1	380A	4
BACB30FM8A20		1	375	1
BACB30NF6-24		1	110A	1
BACC30AB6C		1	17	4
		1	382	4
BACN10JC3		1	220	2
BACN10JC4		1	125	1
BACN10JC6		1	125A	1
BACR15CE6KE		1	30	2
BACR15FT5AD		1	85	2
		1	240	2
		1	245	4
		1	310	2
BRH10-3		1	220	2
BRH10-6		1	125A	1
HHMKSP6		1	25	1
		1	235	1
		1	237	2
		1	305	1
H10-3BAC		1	220	2
H10-4BAC		1	125	1
H10-6BAC		1	125A	1
KP6A		1	135A	1
		1	145A	1

PART NUMBER	AIRLINE PART NO.	FIG.	ITEM	TTL REQ
KP6AFS428		1	135A	1
		1	145A	1
KP6A2TS		1	135A	1
		1	145A	1
LLKP6A		1	135A	1
		1	145A	1
MKSP6		1	25	1
		1	235	1
		1	237	2
		1	305	1
MKSP6-2TS		1	25	1
		1	235	1
		1	237	2
		1	305	1
MKSP6E9440A		1	25	1
		1	235	1
		1	237	2
		1	305	1
MKSP6FS428		1	25	1
		1	235	1
MKSP6FS428		1	237	2
		1	305	1
MKSP63TT		1	25	1
		1	235	1
		1	237	2
		1	305	1
MS21141-0606P		1	55B	12
		1	55C	12
		1	70B	4
		1	70C	4
		1	170B	5
		1	170C	5
		1	200B	8
		1	200C	8
		1	205B	11
		1	205C	11
		1	285B	4
		1	285C	4
		1	295B	8
		1	295C	8
		1	330C	4
		1	330D	4

PART NUMBER	AIRLINE PART NO.	FIG.	ITEM	TTL REQ
MS21141-0608P		1	173B	2
		1	173C	2
MS21141-0609P		1	175B	1
		1	175C	1
MS21141-0613P		1	75B	4
MS21141-0615P		1	80B	1
MS21141U0607P		1	15B	4
		1	15C	4
		1	380	4
MS90354-0606		1	55	12
		1	70	4
		1	170	5
		1	200	8
		1	205	11
		1	285	4
		1	295	8
		1	330	4
MS90354-0607		1	15	4
MS90354-0608		1	173	2
MS90354-0609		1	175	1
		1	175C	1
MS90354-0613		1	75	1
		1	75C	1
MS90354-0615		1	80	1
		1	80C	1
MS90354S0606		1	55A	12
		1	70A	4
		1	170A	5
		1	200A	8
		1	205A	11
		1	285A	4
		1	295A	8
		1	330B	4
MS90354S0607		1	15A	4
MS90354S0608		1	173A	2
MS90354S0609		1	175A	1
MS90354S0613		1	75A	1
MS90354S0615		1	80A	1
NAS42HT5-17		1	95	2
		1	90A	2
NAS43DD3-60		1	210	2
NAS43HT6-16		1	115A	1
NAS623-3-24		1	207	2
NAS623-3-62		1	208	2
NAS77-6-18		1	177A	1
NAS77-6-32		1	130A	1

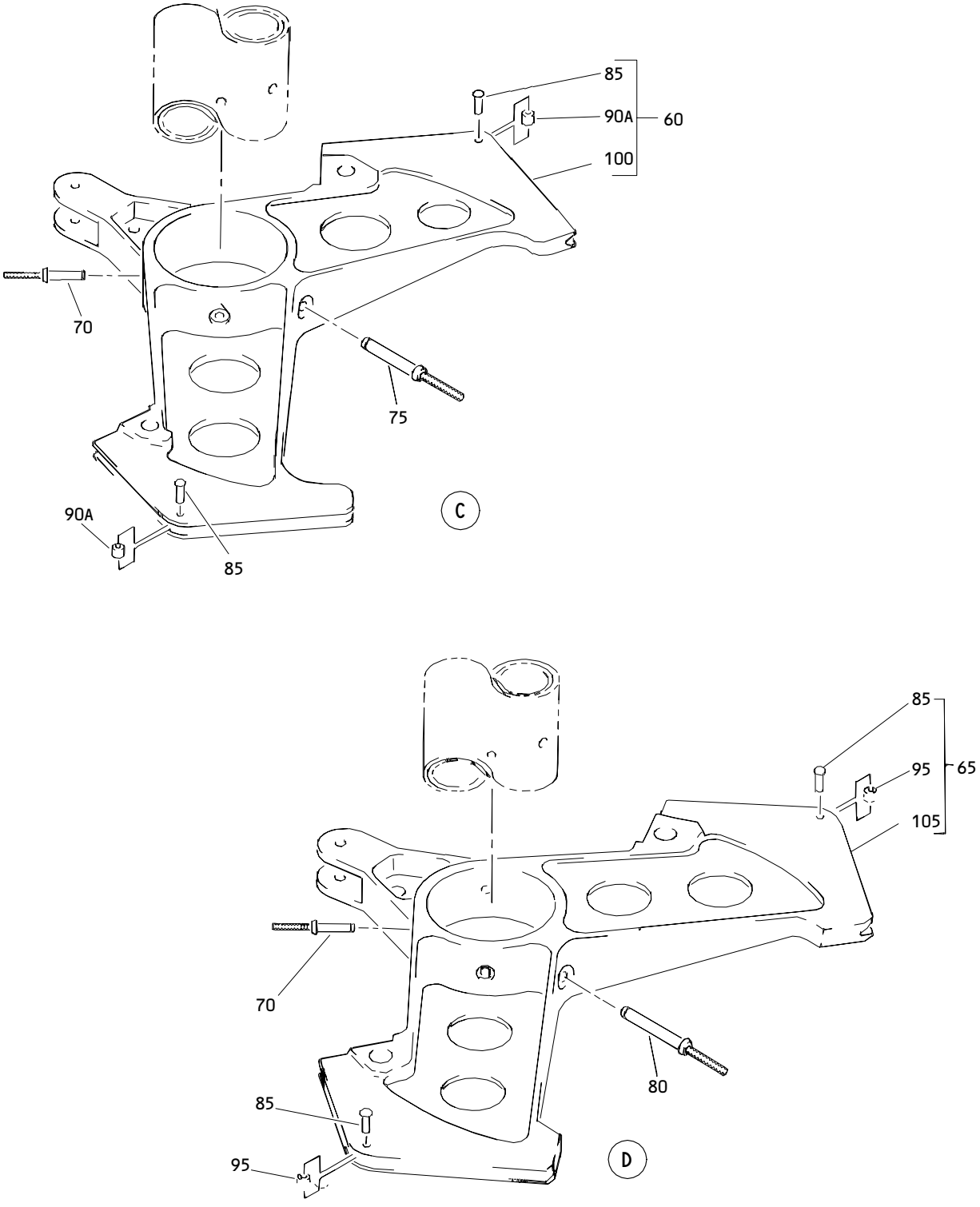
PART NUMBER	AIRLINE PART NO.	FIG.	ITEM	TTL REQ
NS202101-02		1	220	2
NS202101-048		1	125	1
RMLH9075-3W		1	220	2
RMLH9075-4W		1	125	1
RMLH9075-6		1	125A	1
T6S1032J		1	220	2
T6S428J		1	125	1
VN303A02		1	220	2
VN303A048		1	125	1
251T2310-10		1	5C	RF
251T2310-8		1	5B	
251T2310-9		1	1C	RF
251T2310-11		1	1D	RF
251T2310-12		1	5D	RF
251T2311-1		1	335	1
251T2311-2		1	340	1
251T2311-3		1	345	1
251T2311-4		1	350	1
251T2311-5		1	355	1
251T2311-6		1	360	1
251T2312-4		1	50	1
251T2312-6		1	50A	1
251T2313-10		1	185C	1
251T2313-7		1	165B	1
251T2313-8		1	165C	1
251T2313-9		1	185B	1
251T2314-1		1	60	1
251T2314-2		1	100	1
251T2314-4		1	60A	1
251T2314-5		1	100A	1
251T2315-1		1	65	1
251T2315-3		1	65A	1
251T2315-4		1	105	1
251T2315-5		1	105A	1
251T2316-1		1	280	1
251T2316-3		1	280A	1
251T2317-1		1	190	1
251T2317-2		1	250	1
251T2317-3		1	190A	1
251T2317-4		1	250A	1
251T2317-5		1	225	1
251T2318-1		1	195	1
251T2318-2		1	260	1

PART NUMBER	AIRLINE PART NO.	FIG.	ITEM	TTL REQ
251T2318-3		1	195A	1
251T2318-4		1	260A	1
251T2319-4		1	325	1
251T2319-5		1	325A	1
251T2320-1		1	10	1
251T2320-2		1	40	1
251T2320-3		1	45	1
251T2320-4		1	35	1
251T2320-6		1	10A	1
251T2320-7		1	40A	1
251T2320-8		1	45A	1
251T2320-9		1	35A	1
251T2321-1		1	140	
251T2321-11		1	140D	1
251T2321-12		1	140E	1
251T2321-8		1	155B	1
251T2321-9		1	155C	1
251T2322-2		1	160	1
251T2327-1		1	255	2
		1	265	1
251T2327-3		1	255A	2
		1	265A	1
251T2328-1		1	270	1
251T2328-3		1	270A	1
251T2329-1		1	275	1
		1	320	2
251T2329-3		1	275A	1
		1	320A	2
251T2335-1		1	290	1
251T2335-2		1	315	1
251T2335-3		1	290A	1
251T2335-4		1	315A	1
251T2340-1		1	365	1
251T2340-3		1	365A	1
251T2341-1		1	370	1
69-38919-18		1	20	1
		1	230	1
		1	232	2
69-38919-18		1	300	1
96-02		1	220	2
96-048		1	125	1
96-064		1	125A	1



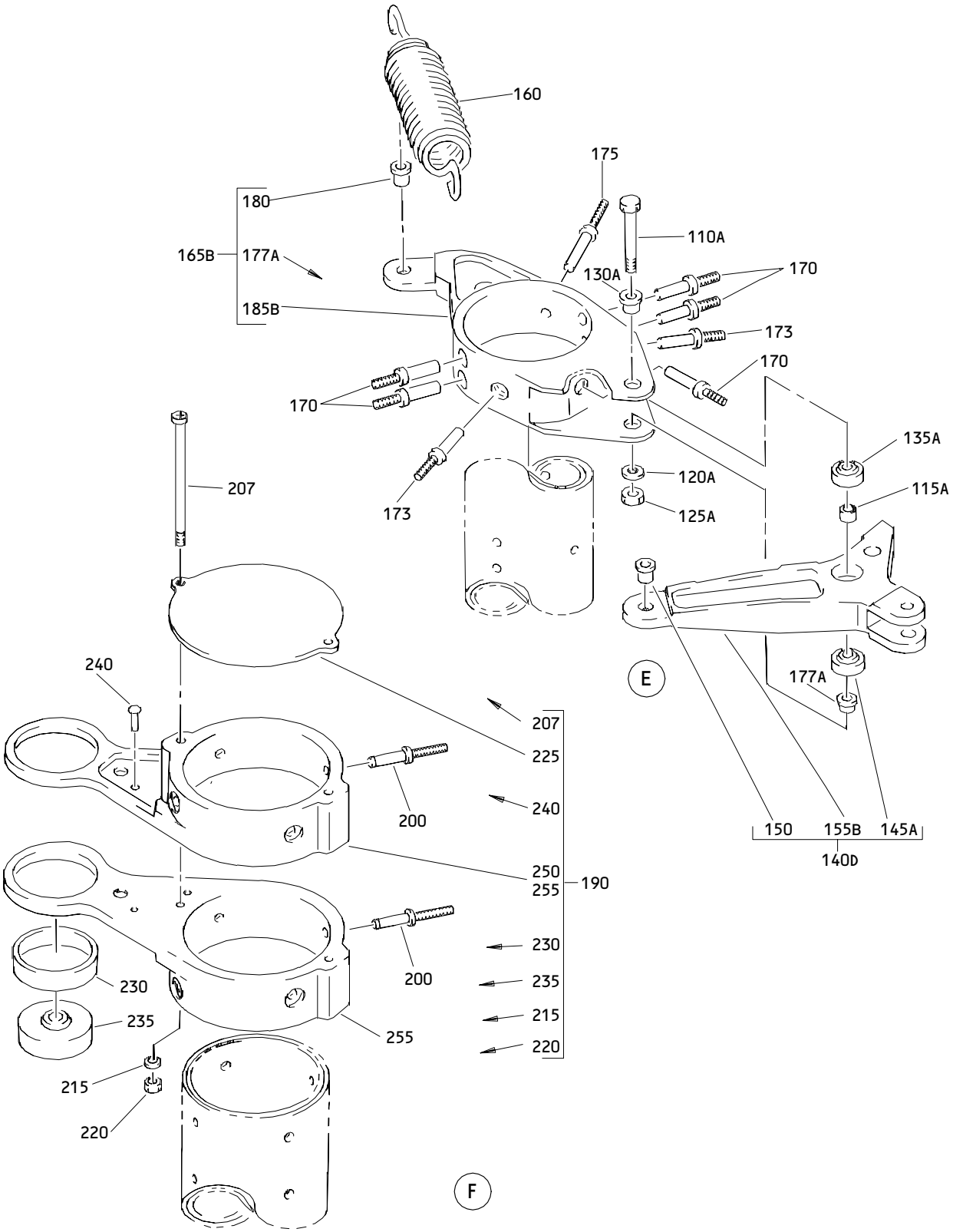
Elevator Control Left and Right Aft Quadrant Assembly
Figure 1 (Sheet 1)

T54997

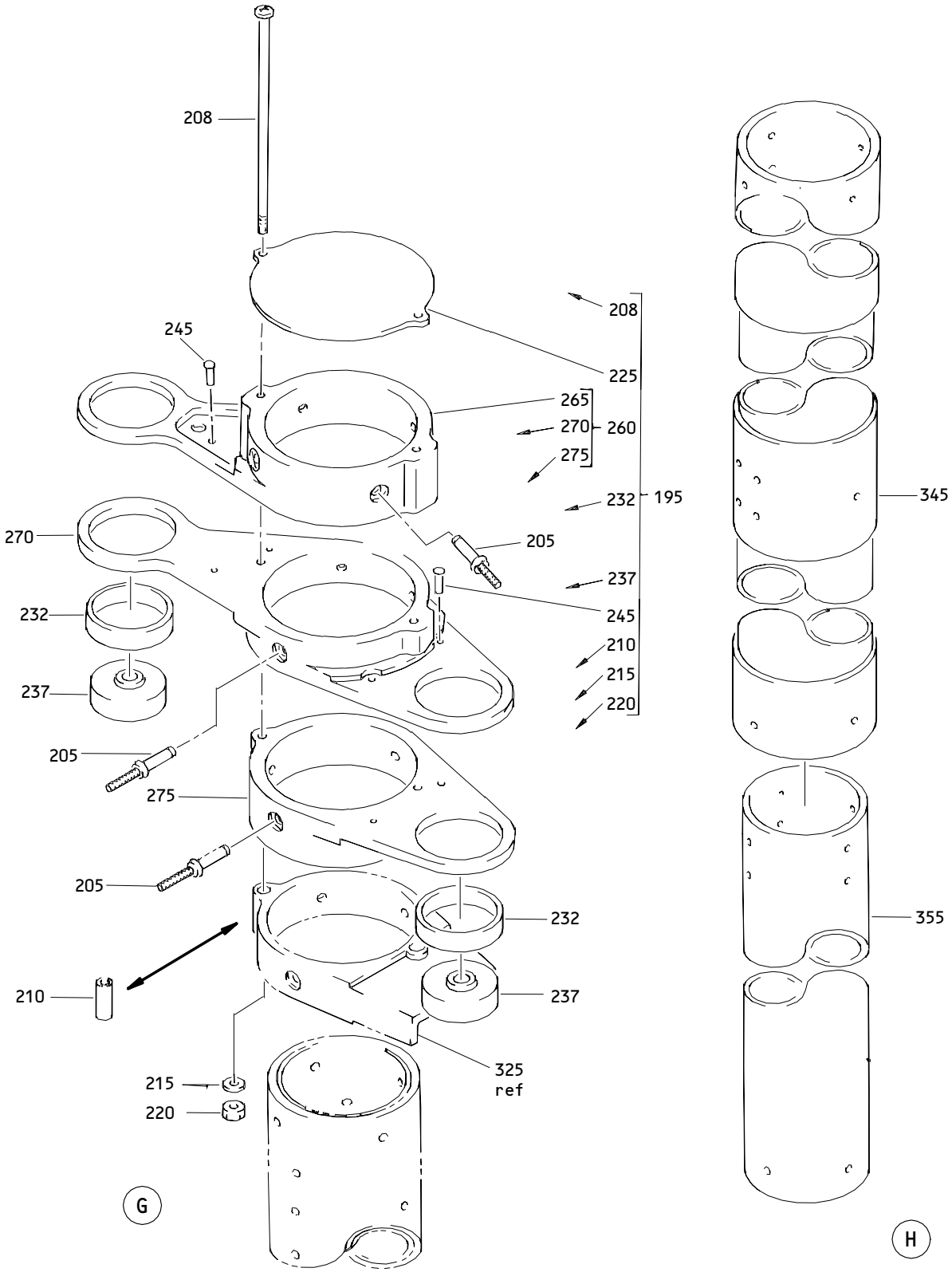


Elevator Control Left and Right Aft Quadrant Assembly
Figure 1 (Sheet 2)

T54998

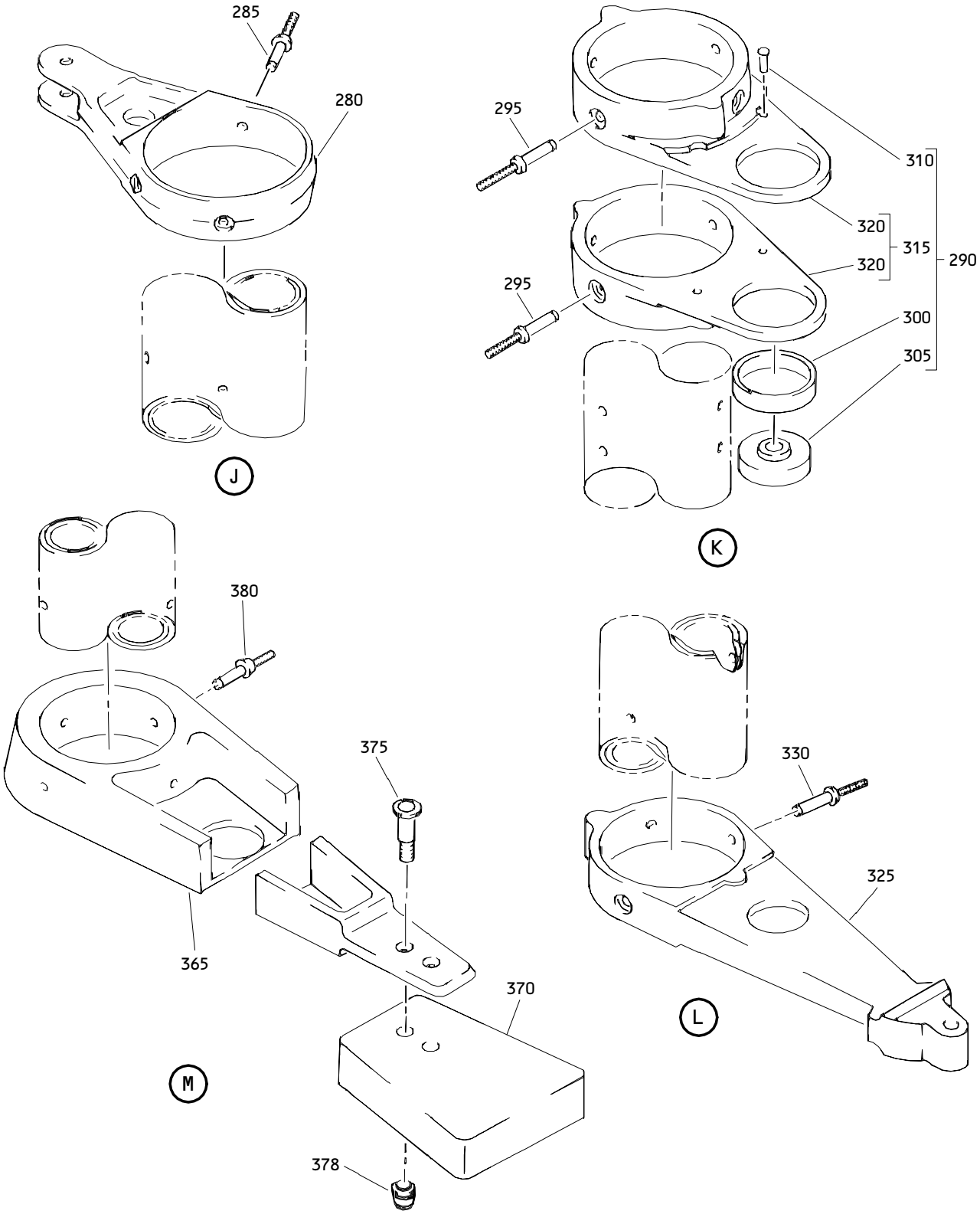


Elevator Control Left and Right Aft Quadrant Assembly
Figure 1 (Sheet 3)



Elevator Control Left and Right Aft Quadrant Assembly
Figure 1 (Sheet 4)

T55064



Elevator Control Left and Right Aft Quadrant Assembly
Figure 1 (Sheet 5)

T55065

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01-					
-1	251T2310-3		DELETED		
-1A	251T2310-5		DELETED		
-1B	251T2310-7		DELETED		
-1C	251T2310-9		QUADRANT ASSY-ELEV CONT L AFT	A	RF
-1D	251T2310-11		QUADRANT ASSY-ELEV CONT L AFT	C	RF
-5	251T2310-4		DELETED		
-5A	251T2310-6		DELETED		
-5B	251T2310-8		DELETED		
-5C	251T2310-10		QUADRANT ASSY-ELEV CONT R AFT	B	RF
-5D	251T2310-12		QUADRANT ASSY-ELEV CONT R AFT	D	RF
10	251T2320-1		.ARM ASSY-LWR BRG (OPT ITEM 10A)		1
-10A	251T2320-6		.ARM ASSY-LWR BRG (OPT ITEM 10) ATTACHING PARTS		1
15	MS90354-0607		.RIVET-BLIND (OPT ITEMS 15A,15B)	AB	4
-15A	MS90354S0607		.RIVET-BLIND (OPT ITEMS 15,15B)	AB	4
-15B	MS21141U0607P		.RIVET-BLIND (OPT ITEMS 15,15A) -------*-------	AB	4
-15C	MS21141U0607P		.RIVET-BLIND (OPT ITEM 15D USED WITH ITEM 17)	CD	4
-15D	BACB30FM6A7SU		.BOLT-(OPT ITEM 15C)	CD	4
-17	BACC30AB6C		.COLLAR-(USED WITH ITEM 15D)	CD	4
20	69-38919-18		..SLEEVE		1
25	MKSP6		..BEARING- (V38443) (SPEC BACB10AR6) (OPT HHMKSP6 (V38443)) (OPT MKSP6-2TS (V43991)) (OPT MKSP6E9440A (V21335)) (OPT MKSP6FS428 (V21335)) (OPT MKSP63TT (V43991))		1

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01-					
30	BACR15CE6KE		..RIVET-		2
35	251T2320-4		..ARM ASSY- (USED ON ITEM 10)		1
-35A	251T2320-9		..ARM ASSY- (USED ON ITEM 10A)		1
40	251T2320-2		...ARM-INNER (USED ON ITEM 35)		1
-40A	251T2320-7		...ARM-INNER (USED ON ITEM 35A)		1
45	251T2320-3		...ARM-OUTER (USED ON ITEM 35)		1
-45A	251T2320-8		...ARM ASSY-OUTER (USED ON ITEM 35A)		1
50	251T2312-4		.ARM-OUTPUT (OPT ITEM 50A)		1
-50A	251T2312-6		.ARM-OUTPUT (OPT ITEM 50)		1
			ATTACHING PARTS		
55	MS90354-0606		.RIVET-BLIND (OPT ITEMS 55A,55B)	AB	12
-55A	MS90354S0606		.RIVET-BLIND (OPT ITEMS 55,55B)	AB	12
-55B	MS21141-606P		.RIVET-BLIND (OPT ITEMS 55,55A)	AB	12
-55C	MS21141-606P		.RIVET-BLIND	CD	12
			-------*-------		
60	251T2314-1		.QUADRANT ASSY-L (OPT ITEM 60A)	AC	1
-60A	251T2314-4		.QUADRANT ASSY-L (OPT ITEM 60)	AC	1
65	251T2315-1		.QUADRANT ASSY-R (OPT ITEM 65A)	BD	1
-65A	251T2315-3		.QUADRANT ASSY-R (OPT ITEM 65)	BD	1
			ATTACHING PARTS		
70	MS90354-0606		.RIVET-BLIND (OPT ITEMS 70A,70B)	AB	4
-70A	MS90354S0606		.RIVET-BLIND (OPT ITEMS 70,70B)	AB	4
-70B	MS21141-0606P		.RIVET-BLIND (OPT ITEMS 70,70A)	AB	4
-70C	MS21141-0606P		.RIVET-BLIND	CD	4
75	MS90354-0613		.RIVET-BLIND (OPT ITEMS 75A,75B)	A	1

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01-					
-75A	MS90354S0613		.RIVET-BLIND (OPT ITEMS 75,75B)	A	1
-75B	MS21141-0613P		.RIVET-BLIND (OPT ITEMS 75,75A)	A	1
-75C	MS90354-613		.RIVET-BLIND	C	1
80	MS90354-0615		.RIVET-BLIND (OPT ITEMS 80A,80B)	B	1
-80A	MS90354S0615		.RIVET-BLIND (OPT ITEMS 80,80B)	B	1
-80B	MS21141-0615P		.RIVET-BLIND (OPT ITEMS 80,80A)	B	1
-80C	MS90354-615		.RIVET-BLIND -------*-------	D	1
85	BACR15FT5AD		..RIVET		2
90	NAS42HT5-19		DELETED		
90A	NAS42HT5-19		..SPACER-RIVET	AC	2
95	NAS42HT5-17		..SPACER-RIVET	BD	2
100	251T2314-2		..QUADRANT- (USED ON ITEM 60)	AC	1
-100A	251T2314-5		..QUADRANT- (USED ON ITEM 60A)	AC	1
105	251T2315-4		..QUADRANT- (USED ON ITEM 65)	BD	1
-105A	251T2315-5		..QUADRANT- (USED ON ITEM 65A)	BD	1
110	BACB30NF4-22		DELETED		
110A	BACB30NF6-24		.BOLT- (V06710) (SPEC BACB30NF6-24) (V06725) (V06950) (V08524) (V17943) (V27624) (V58678) (V80539) (V92215) (V97928)		1
115	NAS43HT4-18		DELETED		
115A	NAS43HT6-16		.SPACER		1
120	AN960PD416		DELETED		
120A	AN960PD616		.WASHER		1
125	BRH10-4		DELETED		

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01-					
125A	BRH10-6		.NUT- (V52828) (SPEC BACN10JC6) (OPT H10-6BAC (V15653)) (OPT RMLH9075-6 (V72962)) (OPT 96-064 (V80539))		1
130	NAS77-4-30		DELETED		
130A	NAS77-6-32		.BUSHING		1
135	KP4A		DELETED		
135A	KP6A		.BEARING- (V38443) (SPEC BACB10BX6) (OPT KP6AFS428 (V21335)) (OPT KP6A2TS (V43991)) (OPT LLKP6A (V38443))		1
140	251T2321-1		DELETED		
140A	251T2321-4		DELETED		
140B	251T2321-6		DELETED		
140C	251T2321-7		DELETED		
140D	251T2321-11		.ARM ASSY-PIVOT (OPT ITEM 140E)		1
-140E	251T2321-12		.ARM ASSY-PIVOT (OPT ITEM 140D)		1
145	KP4A		DELETED		
145A	KP6A		..BEARING- (V38443) (SPEC BACB10BX6) (REFER TO ITEM 135A FOR OPTIONAL PARTS)		1
150	BACB28B4-385P		..BUSHING- (V23294) (SPEC BACB28B4-385P) (OPT BACB28B4-385P (V70265)) (OPT BACB28B4-385P (V94892))		1

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01-					
152	BACB28Y4C22		..BUSHING		1
155	251T2321-2		DELETED		
-155A	251T2321-5		DELETED		
155B	251T2321-8		..ARM-PIVOT (USED ON ITEM 140D)		1
-155C	251T2321-9		..ARM-PIVOT (USED ON ITEM 140E)		1
160	251T2322-2		.SPRING-TENSION		1
165	251T2313-1		DELETED		
-165A	251T2313-4		DELETED		
165B	251T2313-7		.ARM ASSY-CRANK (OPT ITEM 165C)		1
-165C	251T2313-8		.ARM ASSY-CRANK (OPT ITEM 165B) ATTACHING PARTS		1
170	MS90354-0606		.RIVET-BLIND (OPT ITEMS 170A,170B)	AB	5
-170A	MS90354S0606		.RIVET-BLIND (OPT ITEMS 170,170B)	AB	5
-170B	MS21141-0606P		.RIVET-BLIND (OPT ITEMS 170,170A)	AB	5
-170C	MS21141-0606P		.RIVET-BLIND	CD	5
173	MS90354-0608		.RIVET-BLIND (OPT ITEMS 173A,173B)	AB	2
-173A	MS90354S0608		.RIVET-BLIND (OPT ITEMS 173,173B)	AB	2
-173B	MS21141-0608P		.RIVET-BLIND (OPT ITEMS 173,173A)	AB	2
-173C	MS21141-0608P		.RIVET-BLIND	CD	2
175	MS90354-0609		.RIVET-BLIND (OPT ITEMS 175A,175B)	AB	1
-175A	MS90354S0609		.RIVET-BLIND (OPT ITEMS 175,175B)	AB	1
-175B	MS21141-0609P		.RIVET-BLIND (OPT ITEMS 175,175A)	AB	1
-175C	MS90354-0609		.RIVET-BLIND -------*-------	CD	1
177	NAS77-4-10		DELETED		
177A	NAS77-6-18		..BUSHING		1
180	BACB28B4-385P		..BUSHING- (V23294) (REFER TO ITEM 150 FOR OPTIONAL PARTS)		1

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01-					
185	251T2313-2		DELETED		
-185A	251T2313-3		DELETED		
185B	251T2313-9		..ARM-CRANK (USED ON ITEM 165B)		1
-185C	251T2313-10		..ARM-CRANK (USED ON ITEM 165C)		1
190	251T2317-1		.ARM ASSY-FEEL (OPT ITEM 190A)	AC	1
-190A	251T2317-3		.ARM ASSY-FEEL (OPT ITEM 190)	AC	1
195	251T2318-1		.ARM ASSY-FEEL (OPT ITEM 195A)	BD	1
-195A	251T2318-3		.ARM ASSY-FEEL (OPT ITEM 195) ATTACHING PARTS	BD	1
200	MS90354-0606		.RIVET-BLIND (OPT ITEMS 200A,200B)	A	8
-200A	MS90354S0606		.RIVET-BLIND (OPT ITEMS 200,200B)	A	8
-200B	MS21141-0606P		.RIVET-BLIND (OPT ITEMS 200,200A)	A	8
-200C	MS21141-0606P		.RIVET-BLIND	C	8
205	MS90354-0606		.RIVET-BLIND (OPT ITEMS 205A,205B)	B	11
-205A	MS90354S0606		.RIVET-BLIND (OPT ITEMS 205,205B)	B	11
-205B	MS21141-0606P		.RIVET-BLIND (OPT ITEMS 205,205A)	B	11
-205C	MS21141-0606P		.RIVET-BLIND -------*-------	D	11

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01-					
207	NAS623-3-24		..SCREW	AC	2
208	NAS623-3-62		..SCREW	BD	2
210	NAS43DD3-60		..SPACER *[1]	BD	2
215	AN960PD10L		..WASHER		2
220	BRH10-3		..NUT- (V52828) (SPEC BACN10JC3) (OPT H10-3BAC (V15653)) (OPT NS202101-02 (V80539)) (OPT RMLH9075-3W (V72962)) (OPT T6S1032J (V71087)) (OPT VN303A02 (V92215)) (OPT 96-02 (V80539))		2
225	251T2317-5		..PLATE-COVER		1
230	69-38919-18		..SLEEVE	AC	1
232	69-38919-18		..SLEEVE	BD	2
235	MKSP6		..BEARING- (V38443) (SPEC BACB10AR6) (REFER TO ITEM 25 FOR OPTIONAL PARTS)	AC	1
237	MKSP6		..BEARING- (V38443) (SPEC BACB10AR6) (REFER TO ITEM 25 FOR OPTIONAL PARTS)	BD	2
240	BACR15FT5AD		..RIVET	AC	2
245	BACR15FT5AD		..RIVET	BD	4
250	251T2317-2		..ARM ASSY- (USED ON ITEM 190)	AC	1
-250A	251T2317-4		..ARM ASSY- (USED ON ITEM 190A)	AC	1
255	251T2327-1		...ARM-UPR (USED ON ITEM 250)	AC	2
-255A	251T2327-3		...ARM-UPR (USED ON ITEM 250A)	AC	2
260	251T2318-2		..ARM ASSY- (USED ON ITEM 195)	BD	1

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01-					
-260A	251T2318-4		..ARM ASSY-	BD	1
			(USED ON ITEM 195A)		
265	251T2327-1		...ARM-UPR	BD	1
			(USED ON ITEM 260)		
-265A	251T2327-3		...ARM-UPR	BD	1
			(USED ON ITEM 260A)		
270	251T2328-1		...ARM-CTR	BD	1
			(USED ON ITEM 260)		
-270A	251T2328-3		...ARM-CTR	BD	1
			(USED ON ITEM 260A)		
275	251T2329-1		...ARM-LWR	BD	1
			(USED ON ITEM 260)		
-275A	251T2329-3		...ARM-LWR	BD	1
			(USED ON ITEM 260A)		
280	251T2316-1		.ARM-AUTOPILOT	AC	1
			(OPT ITEM 280A)		
280A	251T2316-3		.ARM-AUTOPILOT	AC	1
			(OPT ITEM 280)		
			ATTACHING PARTS		
285	MS90354-0606		.RIVET-BLIND	A	4
			(OPT ITEMS 285A,285B)		
-285A	MS90354S0606		.RIVET-BLIND	A	4
			(OPT ITEMS 285,285B)		
-285B	MS21141-0606P		.RIVET-BLIND	A	4
			(OPT ITEMS 285,285A)		
-285C	MS21141-0606P		.RIVET-BLIND	C	4
			-------*-------		
290	251T2335-1		.ARM ASSY-SPRT	AC	1
			(OPT ITEM 290A)		
-290A	251T2335-3		.ARM ASSY-SPRT	AC	1
			(OPT ITEM 290)		
			ATTACHING PARTS		
295	MS90354-0606		.RIVET-BLIND	A	8
			(OPT ITEMS 295A,295B)		
-295A	MS90354S0606		.RIVET-BLIND	A	8
			(OPT ITEMS 295,295B)		
-295B	MS21141-0606P		.RIVET-BLIND	A	8
			(OPT ITEMS 295,295A)		
-295C	MS21141-0606P		.RIVET-BLIND	C	8
			-------*-------		

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01-					
300	69-38919-18		..SLEEVE	AC	1
305	MKSP6		..BEARING- (V38443) (SPEC BACB10AR6) (REFER TO ITEM 25 FOR OPTIONAL PARTS)	AC	1
310	BACR15FT5AD		..RIVET-	AC	2
315	251T2335-2		..ARM ASSY- (USED ON ITEM 290)	AC	1
-315A	251T2335-4		..ARM ASSY- (USED ON ITEM 290A)	AC	1
320	251T2329-1		...ARM-LWR (USED ON ITEM 315)	AC	2
-320A	251T2329-3		...ARM-LWR (USED ON ITEM 315A)	AC	2
325	251T2319-4		.ARM-STOP (OPT ITEM 325A)		1
-325A	251T2319-5		.ARM-STOP (OPT ITEM 325) ATTACHING PARTS		1
330	MS90354-0606		.RIVET-BLIND (OPT ITEMS 330B,330C)	AB	4
-330A	MS90354-0606		DELETED		
-330B	MS90354S0606		.RIVET-BLIND (OPT ITEMS 330,330C)	AB	4
-330C	MS21141-0606P		.RIVET-BLIND (OPT ITEMS 330,330B)	AB	4
-330D	MS21141-0606P		.RIVET-BLIND -------*-------	CD	4
335	251T2311-1		.TUBE ASSY-QUADRANT	AC	1
-340	251T2311-2		.TUBE ASSY-QUADRANT	BD	1
345	251T2311-3		..TUBE-OUTER	AC	1
-350	251T2311-4		..TUBE-OUTER	BD	1
355	251T2311-5		..TUBE-INNER	AC	1
-360	251T2311-6		..TUBE-INNER	BD	1
365	251T2340-1		.ARM- (OPT ITEM 365A)	CD	1
365A	251T2340-3		.ARM- (OPT ITEM 365) ATTACHING PARTS	CD	1

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01-					
370	251T2341-1		.WEIGHT	CD	1
375	BACB30FM8A20		.BOLT	CD	2
378	BACC30AB8C		.COLLAR	CD	2
380	MS21141U0607P		.RIVET-BLIND (OPT ITEM 380A USED WITH ITEM 382)	CD	4
-380A	BACB30FM6A7SU		.BOLT-(OPT ITEM 380)	CD	4
-382	BACC30AB6C		.COLLAR-(USED WITH ITEM 380A)	CD	4
			-------*-------		

*[1] USE TEMPORARILY TO HOLD ASSEMBLY TOGETHER. REMOVE BEFORE INSTALLATION ON TUBE ASSEMBLY.