

 **BOEING**
COMPONENT
MAINTENANCE MANUAL

TO: ALL HOLDERS OF AUXILIARY POWER SYSTEM SUPPORT ASSY COMPONENT MAINTENANCE
MANUAL 49-13-11

REVISION NO. 9 DATED MAR 01/99

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 to the Record of Revision Sheet.

CHAPTER/SECTION

AND PAGE NO.

DESCRIPTION OF CHANGE

TITLE PAGE

Added top assemblies 352T0104-3 and 352T0105-19 for
767-400 and updated to current engineering.

1

501

REPAIR 3-1

601-602

REPAIR 3-2

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AUXILIARY POWER SYSTEM SUPPORT ASSEMBLY

PART NUMBERS 352T0102-1,-5 THRU -9
352T0103-1
352T0104-1,-3
352T0105-1,-5 THRU -11,-19

COMPONENT MAINTENANCE MANUAL
WITH
ILLUSTRATED PARTS LIST

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TITLE PAGE

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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

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REVISION RECORD

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TEMPORARY REVISION AND SERVICE BULLETIN RECORD

BOEING SERVICE BULLETIN	BOEING TEMPORARY REVISION	OTHER DIRECTIVE	DATE OF INCORPORATION INTO MANUAL
		MC 4900MM4004	APR 01/93

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TR & SB RECORD

01.1

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			602	APR 01/93	01.1
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			606	BLANK	
REVISION RECORD			REPAIR 2-1		
1	JAN 01/88	01.1	601	APR 01/93	01.1
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TR & SB RECORD			REPAIR 2-2		
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2	BLANK		REPAIR 3-2		
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2	BLANK		*603	MAR 01/99	01.1
DESCRIPTION & OPERATION			*604	MAR 01/99	01.1
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*801	MAR 01/99	01.1			
*802	MAR 01/99	01.1			
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1001	JAN 01/88	01.1			
*1002	MAR 01/99	01.1			
*1003	MAR 01/99	01.1			
*1004	MAR 01/99	01.1			
*1005	MAR 01/99	01.1			
*1006	MAR 01/99	01.1			
1007	BLANK				
*1008	MAR 01/99	01.1			
*1009	MAR 01/99	01.1			
*1010	MAR 01/99	01.1			
*1011	MAR 01/99	01.1			
*1012	MAR 01/99	01.1			
*1013	MAR 01/99	01.1			
*1014	MAR 01/99	01.1			
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*1016	MAR 01/99	01.1			
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01.1

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 | 4. List of Effective Pages |
| 2. Record of Revisions | 5. Table of Contents |
| 3. Temporary Revision &
Service Bulletin Record | 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.

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INTRODUCTION

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352T0102 352T0104
352T0103 352T0105
DASH NUMBERS LIMITED



AUXILIARY POWER SYSTEM SUPPORT ASSEMBLY

DESCRIPTION AND OPERATION

1. This manual describes the forward vertical, lateral and axial support assemblies required to support the auxiliary power unit. Each of the parts are required for installation of the APU, none are operational by themselves.

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DESCRIPTION & OPERATION

01.1

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CHECK

1. Do the visual check for any obvious defects on all parts according to the standard industry practices. Do the checks shown below if the visual check show possible defects on the parts.
2. Do the magnetic check as specified in 20-20-02 for the parts shown below if the visual check show possible defects. Repair or replace the part if any defect is found.
 - A. IPL Fig. 1: Strut (25)
 - B. IPL Fig. 2: Strut (15)
 - C. IPL Fig. 3: Strut (15)
 - D. IPL Fig. 4: Strut (15)
 - E. IPL Fig. 5: Support (10)
 - F. IPL Fig. 6: Support (15)

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CHECK

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REPAIR – GENERAL

1. Content

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

<u>P/N</u>	<u>NAME</u>	<u>REPAIR</u>
352T0102	SUPPORT, FORWARD VERTICAL	1-1, 1-2
352T0103	SUPPORT, AFT VERTICAL	2-1, 2-2
352T0104	SUPPORT, AXIAL	3-1, 3-2
352T0105	SUPPORT, LATERAL	4-1, 4-2

2. Standard Practices

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

20-30-02 Stripping of Protective Finishes
20-41-01 Decoding Table for Boeing Finish Codes
20-50-03 Bearing Installation and Retention

3. Material

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

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

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REPAIR-GENERAL

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4. Dimensioning Symbols

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

—	STRAIGHTNESS	⊕	THEORETICAL EXACT POSITION OF A FEATURE (TRUE POSITION)
□	FLATNESS	∅	DIAMETER
⊥	PERPENDICULARITY (OR SQUARENESS)	S ∅	SPHERICAL DIAMETER
//	PARALLELISM	R	RADIUS
○	ROUNDNESS	SR	SPHERICAL RADIUS
⊙	CYLINDRICITY	()	REFERENCE
⌒	PROFILE OF A LINE	BASIC (BSC) OR	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.
⌒	PROFILE OF A SURFACE	DIM	
◎	CONCENTRICITY	-A-	DATUM
≡	SYMMETRY	Ⓜ	MAXIMUM MATERIAL CONDITION (MMC)
∠	ANGULARITY	Ⓛ	LEAST MATERIAL CONDITION (LMC)
↗	RUNOUT	Ⓢ	REGARDLESS OF FEATURE SIZE (RFS)
↗	TOTAL RUNOUT	Ⓟ	PROJECTED TOLERANCE ZONE
⊔	COUNTERBORE OR SPOTFACE	FIM	FULL INDICATOR MOVEMENT
∇	COUNTERSINK		

EXAMPLES

	STRAIGHT WITHIN 0.002		CONCENTRIC TO C WITHIN 0.0005 DIAMETER
	PERPENDICULAR TO B WITHIN 0.002		SYMMETRICAL WITH A WITHIN 0.010
	PARALLEL TO A WITHIN 0.002		ANGULAR TOLERANCE 0.005 WITH A
	ROUND WITHIN 0.002		LOCATED AT TRUE POSITION WITHIN 0.002 DIA RELATIVE TO DATUM B, REGARDLESS OF FEATURE SIZE
	CYLINDRICAL SURFACE MUST LIE BETWEEN TWO CONCENTRIC CYLINDERS, ONE OF WHICH HAS A RADIUS 0.010 INCH GREATER THAN THE OTHER		AXIS IS TOTALLY WITHIN A CYLINDER OF 0.010-INCH DIAMETER, PERPENDICULAR TO, AND EXTENDING 0.510-INCH ABOVE, DATUM A, MAXIMUM MATERIAL CONDITION
	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		EXACT DIMENSION IS 2.000
	SURFACES MUST LIE WITHIN PARALLEL BOUNDARIES 0.02 INCH APART AND EQUALLY DISPOSED ABOUT TRUE PROFILE	OR 2.000 BSC	
NOTE: DATUM MAY APPEAR AT EITHER SIDE OF TOLERANCE FRAME			

True Position Dimensioning Symbols
 Figure 601

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REPAIR-GENERAL

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SUPPORT ASSY, FORWARD VERTICAL - REPAIR 1-1

| 352T0102-1, -5 thru -9

NOTE: Refer to REPAIR-GEN for list of applicable standard practices.

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

A. Remove bushings.

| B. Install replacement bushings (20) with BMS 5-95 sealant per 20-50-03.
Fillet seal with BMS 5-95 sealant per 20-50-03.

C. Check dimensions and machine as necessary.

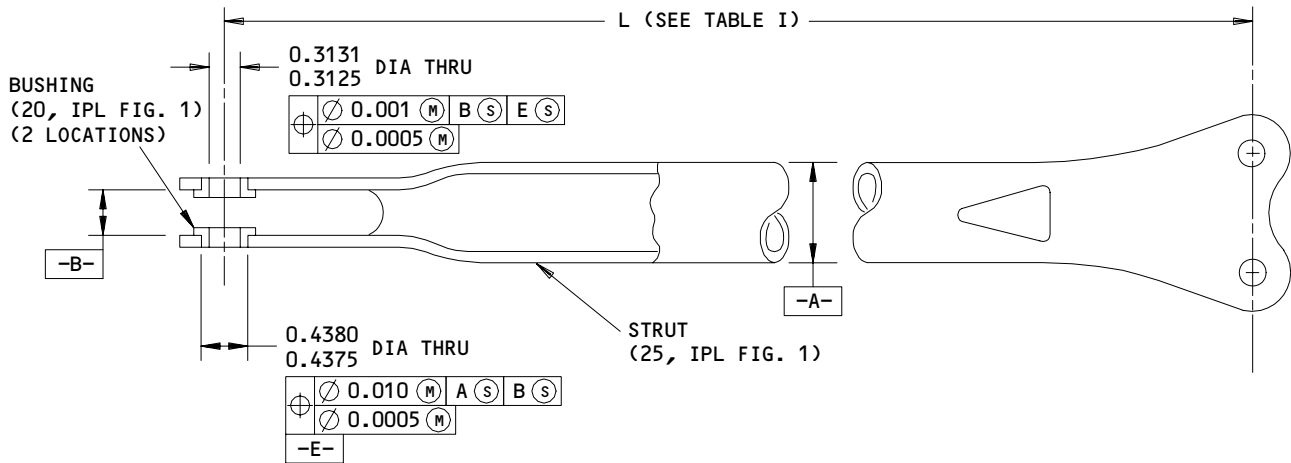
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REPAIR 1-1

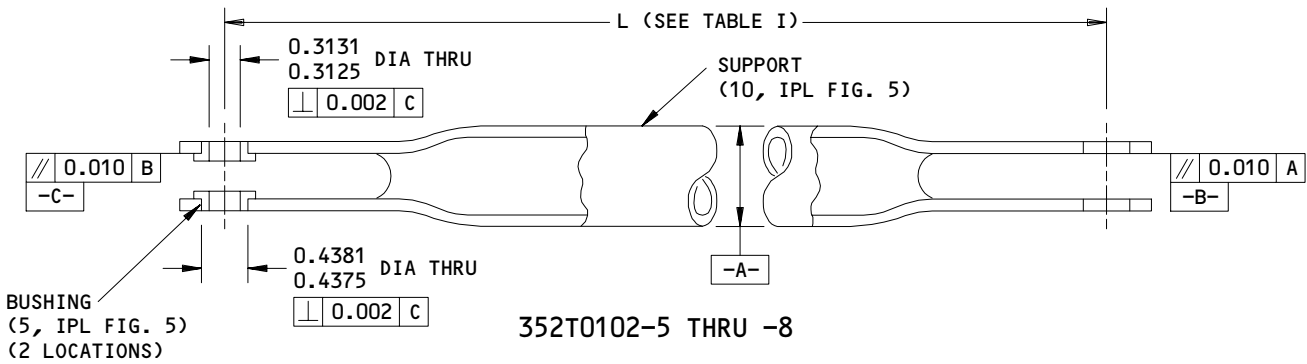
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352T0102-1,-9



352T0102-5 THRU -8

352T0102	L
-1	16.42 16.32
-5	19.45 19.43
-6	17.79 17.77
-7	17.97 17.95
-8	19.63 19.61
-9	24.06 24.04

TABLE I

ITEM NUMBERS REFER TO IPL FIG. 1 AND 5
 ALL DIMENSIONS ARE IN INCHES

352T0102-1,-5 THRU -9
 Bushing Replacement
 Figure 601

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REPAIR 1-1

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STRUT, FORWARD VERTICAL - REPAIR 1-2

352T0102-2, -10 thru -14

NOTE: Refer to REPAIR-GEN for list of applicable standard practices, and to IPL Fig. 1 for item numbers. For repair of surfaces which may require only restoration of original finish, refer to Refinish instructions, Fig. 601.

1. Lug Hole Repair (Fig. 601, IPL Fig. 1)

- A. Machine holes as required, within repair limits, to remove defects.
- B. Manufacture bushings (Fig. 602) as required to compensate for amount of material removed in step (A).
- C. Install bushings per REPAIR 1-1.

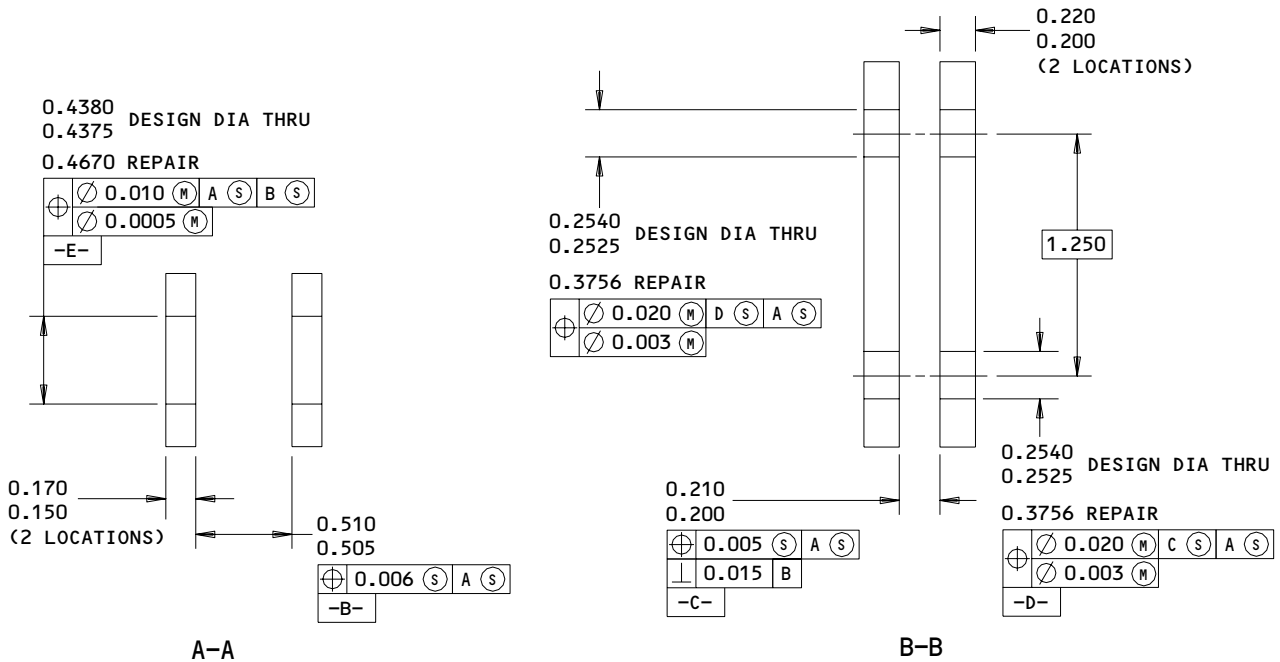
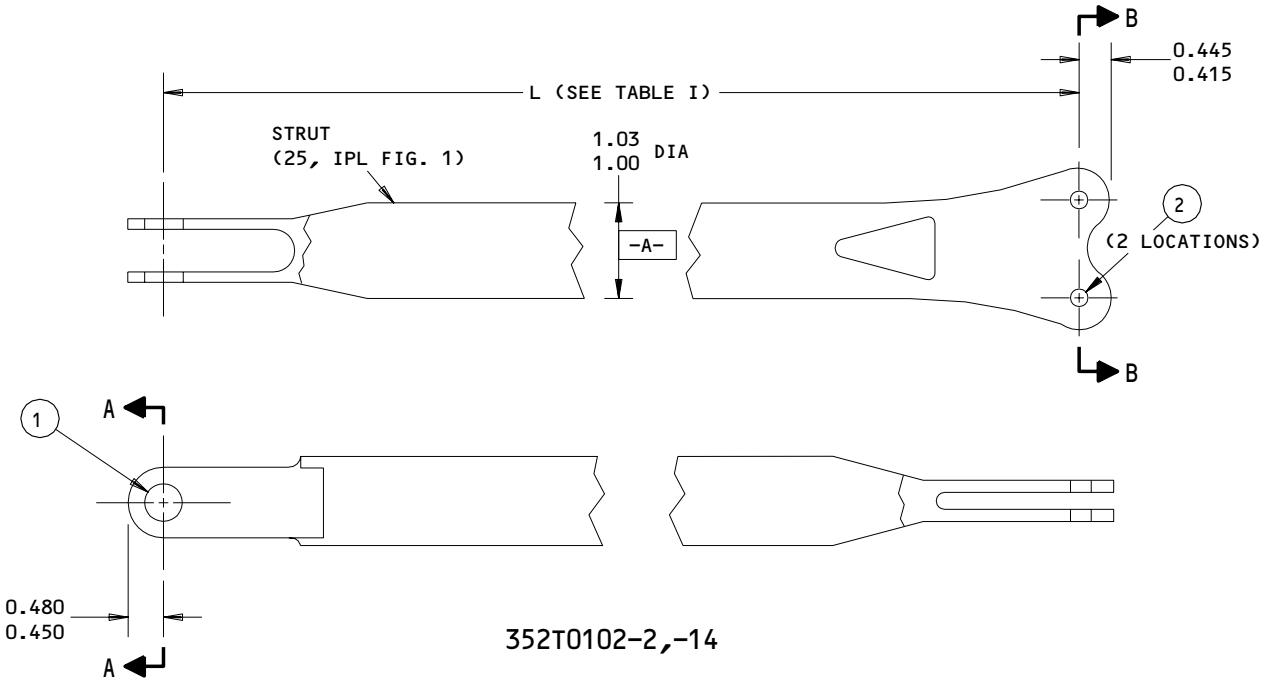
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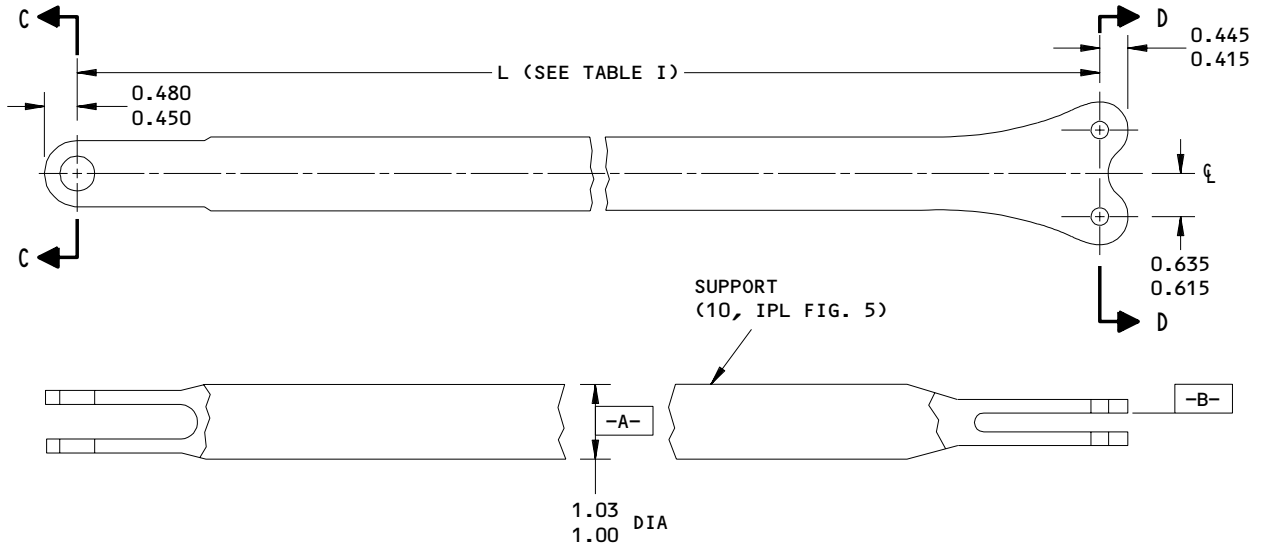
352T0102-2,-10 THRU -14

Lug Hole Repair and Refinish
 Figure 601 (Sheet 1)

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REPAIR 1-2
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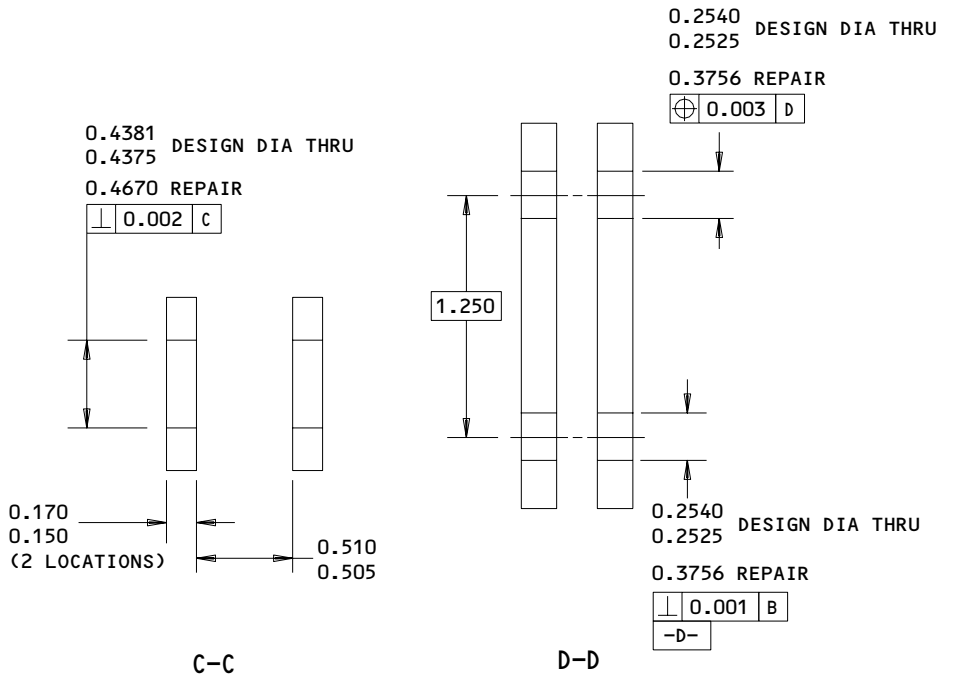
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352T0102-10 THRU -13

352T0102	L
-2	16.42 16.32
-10	19.45 19.43
-11	17.79 17.77
-12	17.97 17.95
-13	19.63 19.61
-14	24.06 24.04

TABLE I



REFINISH

PASSIVATE (F-17.09) ALL OVER

125/ ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

MATERIAL: 15-5PH CRES, 150-170 KSI

BREAK SHARP CORNERS 0.03-0.06 R

ALL DIMENSIONS ARE IN INCHES

352T0102-2,-10 THRU -14

Lug Hole Repair and Refinish
 Figure 601 (Sheet 2)

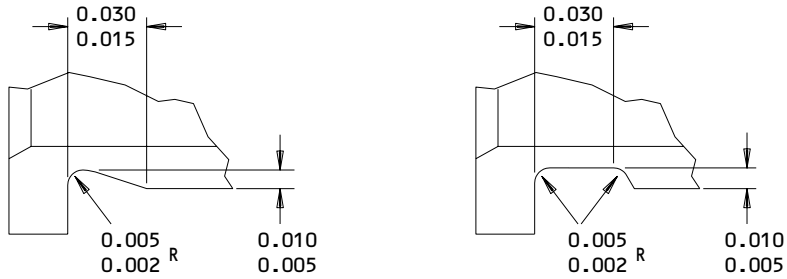
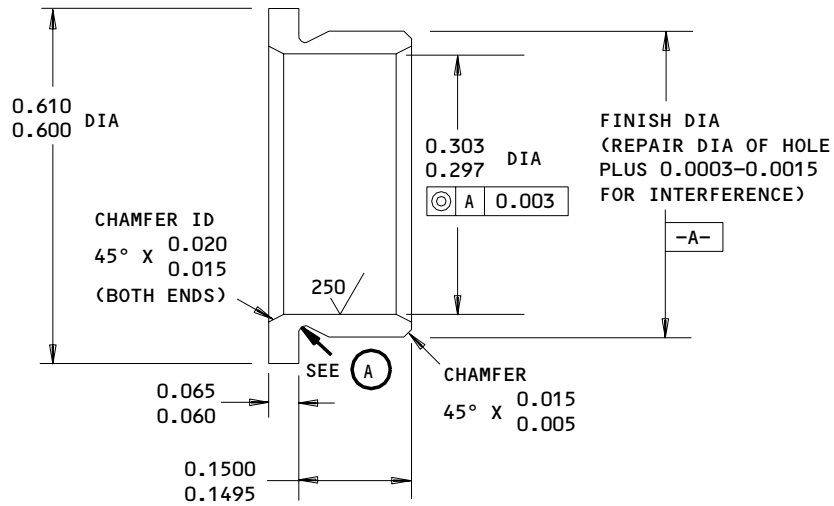
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REPAIR 1-2

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(A)

63/ ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

BREAK SHARP EDGES

PASSIVATE (F-17.13)

MATERIAL: 15-5PH CRES (180-200 KSI)

ALL DIMENSIONS ARE IN INCHES

HOLE LOCATION (1) FIG. 601

352T0102-2,-10 THRU -14
 Oversize Bushing Details
 Figure 602 (Sheet 1)

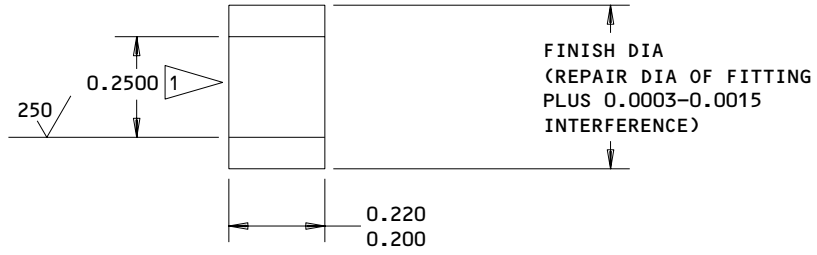
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
REPAIR 1-2


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 MACHINE BUSHING TO FINISH DIAMETER
AFTER INSTALLATION

 ALL MACHINED SURFACES UNLESS
SHOWN DIFFERENTLY

MATERIAL: 17-4PH CRES (180-200 KSI)
PASSIVATE (F-17.03) ALL OVER.

ALL DIMENSIONS ARE IN INCHES

HOLE LOCATION  FIG. 601

352T0102-2,-10 THRU -14
Oversize Bushing Details
Figure 602 (Sheet 2)

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REPAIR 1-2

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SUPPORT ASSEMBLY, AFT VERTICAL - REPAIR 2-1

352T0103-1

NOTE: Refer to REPAIR-GEN for list of applicable standard practices.

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

A. Remove bushings.

B. Install replacement bushings (5, 10) with BMS 3-24 grease per 20-50-03.

C. Check dimensions and machine as necessary.

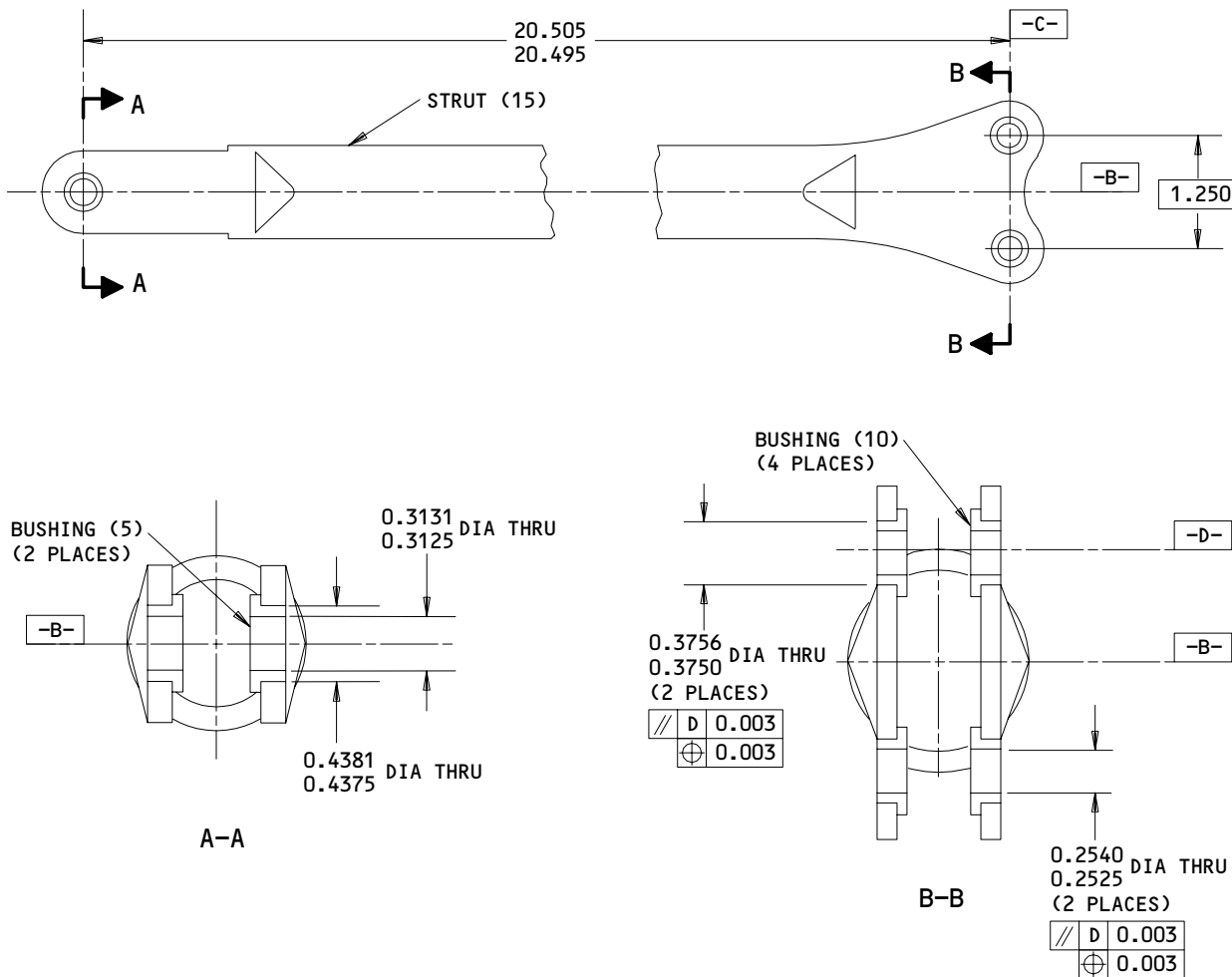
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REPAIR 2-1

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ALL DIMENSIONS ARE IN INCHES
 ITEM NUMBERS REFER TO IPL FIG. 2

352T0103-1
 Bushing Replacement
 Figure 601

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REPAIR 2-1

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STRUT, AFT VERTICAL - REPAIR 2-2

352T0103-2

NOTE: Refer to REPAIR-GEN for list of applicable standard practices, and to IPL Fig. 2 for item numbers. For repair of surfaces which may require only restoration of original finish, refer to Refinish instructions, Fig. 601.

1. Lug Hole Repair (Fig. 601, IPL Fig. 2)
 - A. Machine holes as required, within repair limits, to remove defects.
 - B. Manufacture bushings (Fig. 602) as required to compensate for amount of material removed in step A.
 - C. Install bushings per REPAIR 2-1.

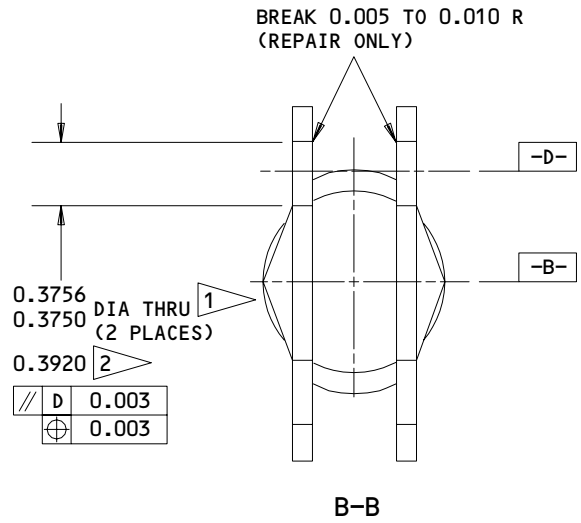
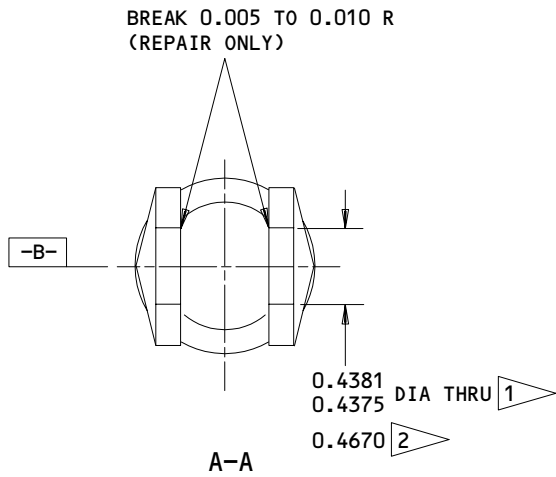
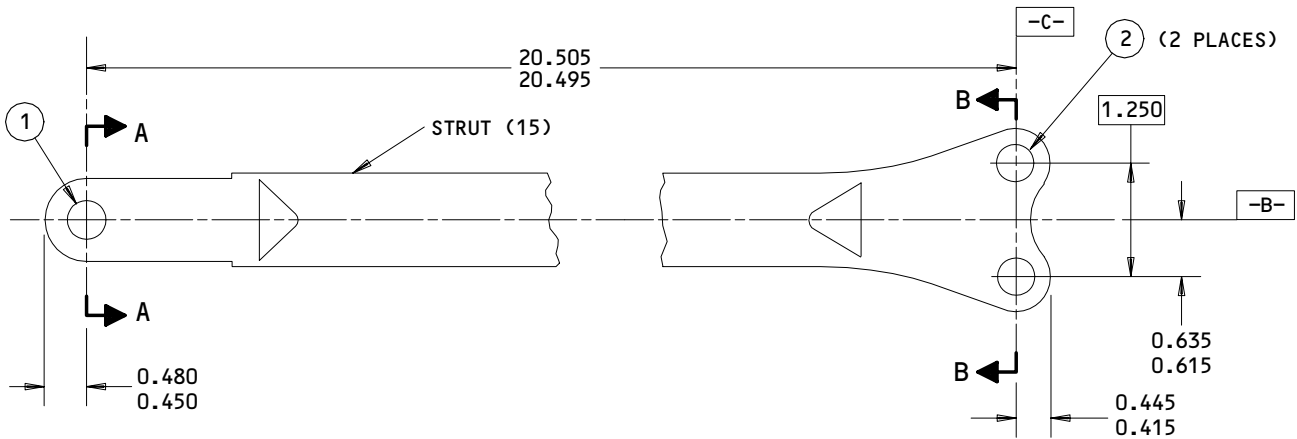
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REPAIR 2-2

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REFINISH

PASSIVATE (F-17.09) ALL OVER

1 DESIGN DIMENSION

2 REPAIR DIMENSION

MATERIAL: 15-5PH CRES, 150-170 KSI

125 MACHINED SURFACES

BREAK SHARP CORNERS 0.03-0.06 R

ALL DIMENSIONS ARE IN INCHES

ITEM NUMBERS REFER TO IPL FIG. 2

352T0103-2
 Lug Hole Repair
 Figure 601

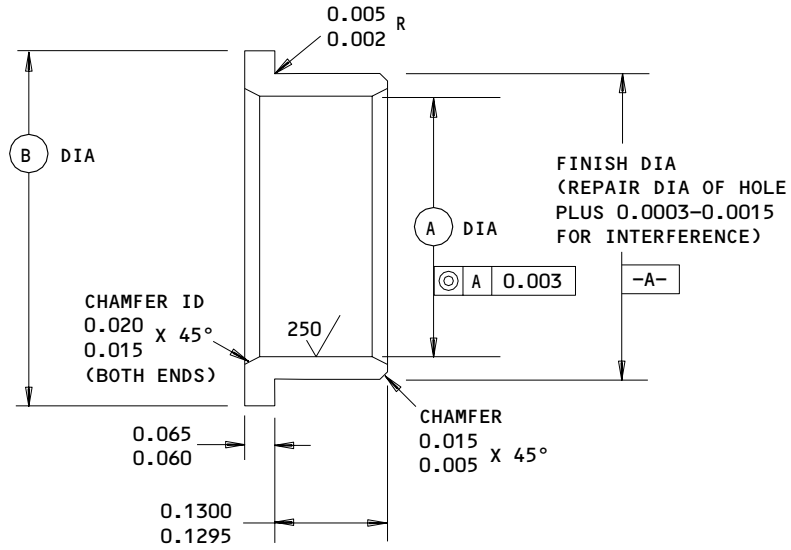
49-13-11

REPAIR 2-2

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HOLE LOCATION (FIG. 601)	A	B
1	0.303 0.297	0.610 0.600
2	0.241 0.234	0.540 0.530

63/ MACHINED SURFACES EXCEPT AS NOTED
 BREAK SHARP EDGES
 PASSIVATE (F-17.13) ALL OVER EXCEPT IN BORE
 MATERIAL: 15-5PH CRES (180-200 KSI)
 ALL DIMENSIONS ARE IN INCHES

352T0103-2
 Oversize Bushing Details
 Figure 602

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REPAIR 2-2

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SUPPORT ASSEMBLY, AXIAL - REPAIR 3-1

| 352T0104-1, -3

NOTE: Refer to REPAIR-GEN for list of applicable standard practices.

1. Bushing Replacement (Fig. 601, IPL Fig. 3)
 - A. Remove bushings.
 - B. Install replacement bushings (5, 10) per 20-50-03.
 - C. Check dimensions and machine as necessary.

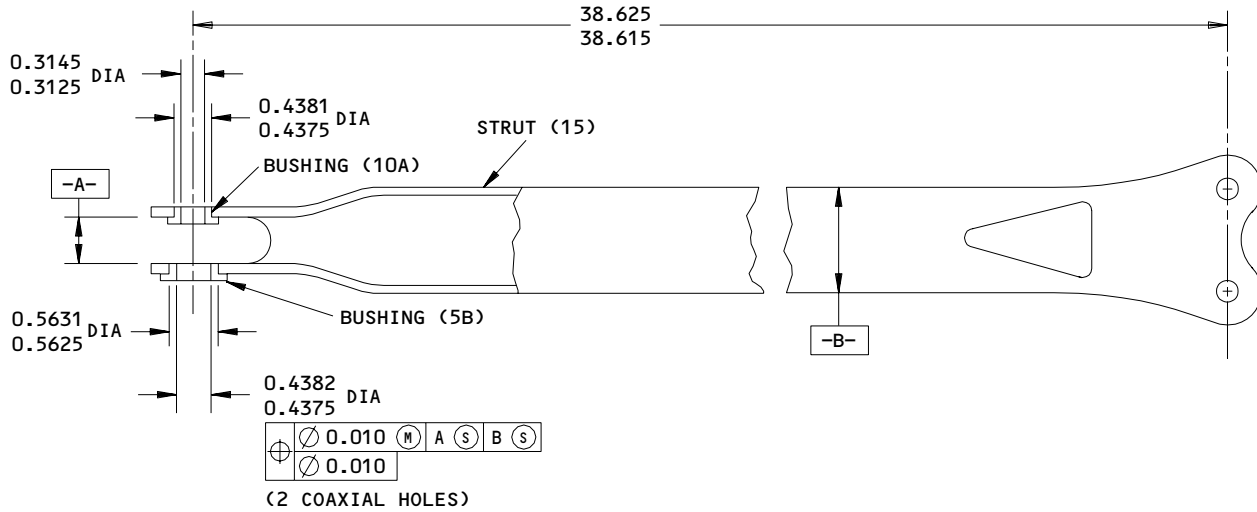
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REPAIR 3-1

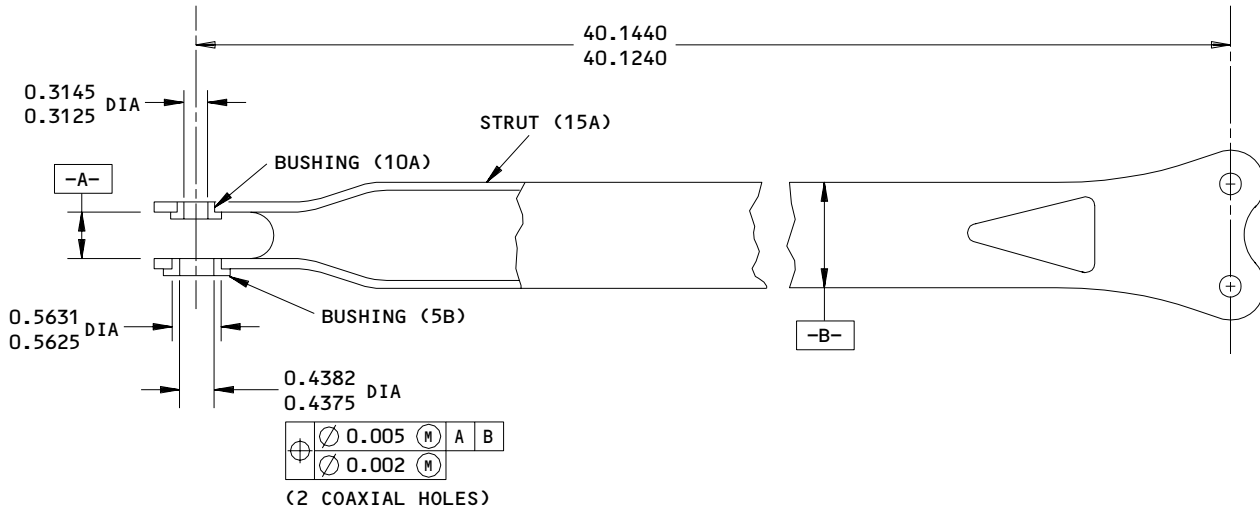
01.1

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352T0104-1



352T0104-3

ALL DIMENSIONS ARE IN INCHES
 ITEM NUMBERS REFER TO IPL FIG. 3

352T0104-1,-3
 Support Assembly Repair
 Figure 601

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REPAIR 3-1

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STRUT, AXIAL - REPAIR 3-2

352T0104-2, -4

NOTE: Refer to REPAIR-GEN for list of applicable standard practices, and to IPL Fig. 3 for item numbers. For repair of surfaces which may require only restoration of original finish, refer to Refinish instructions, Fig. 601.

1. Lug Hole Repair (Fig. 601, IPL Fig. 3)
 - A. Machine as required, within repair limits, to remove defects.
 - B. Manufacture bushings (Fig. 602 and 603) as required to compensate for amount of material removed in step A.
 - C. Install bushings per REPAIR 3-1.

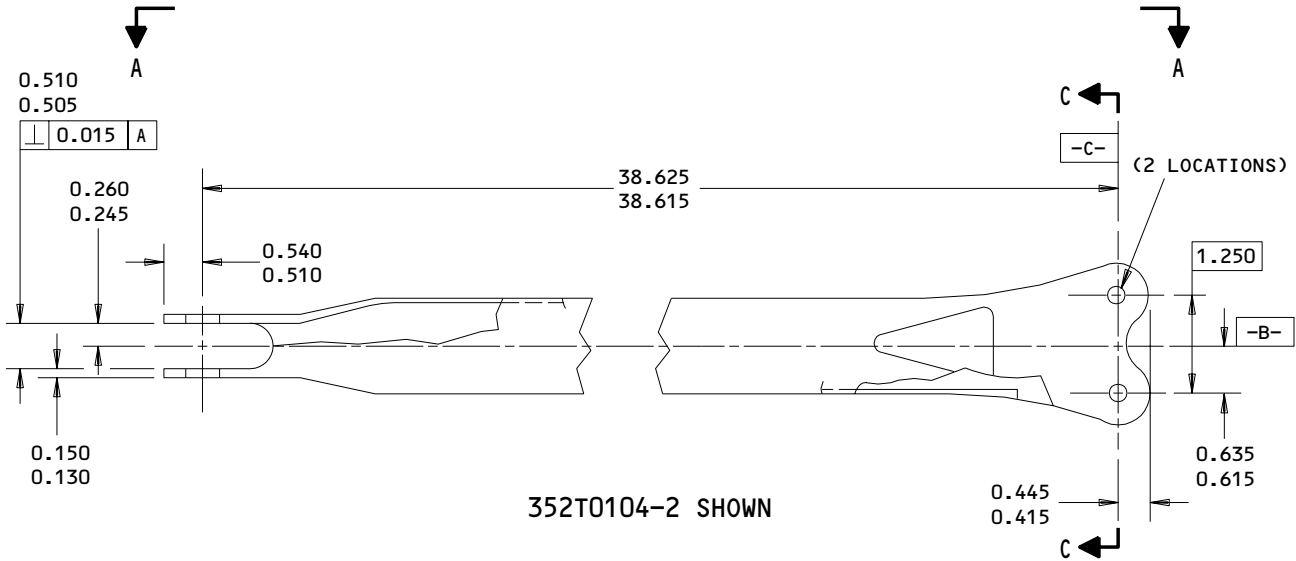
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REPAIR 3-2

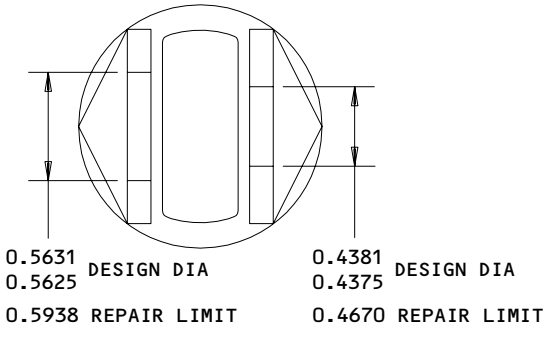
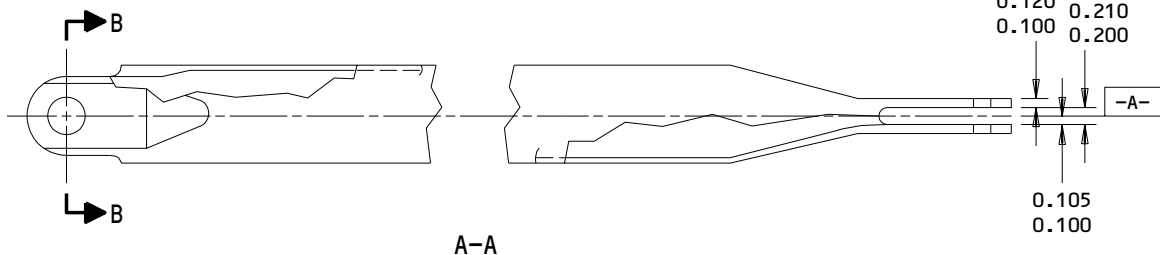
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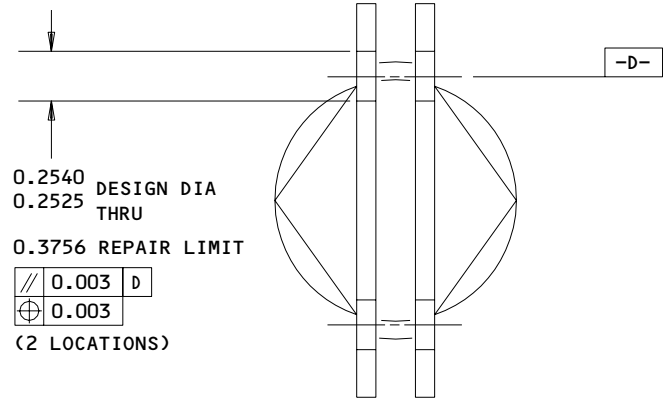
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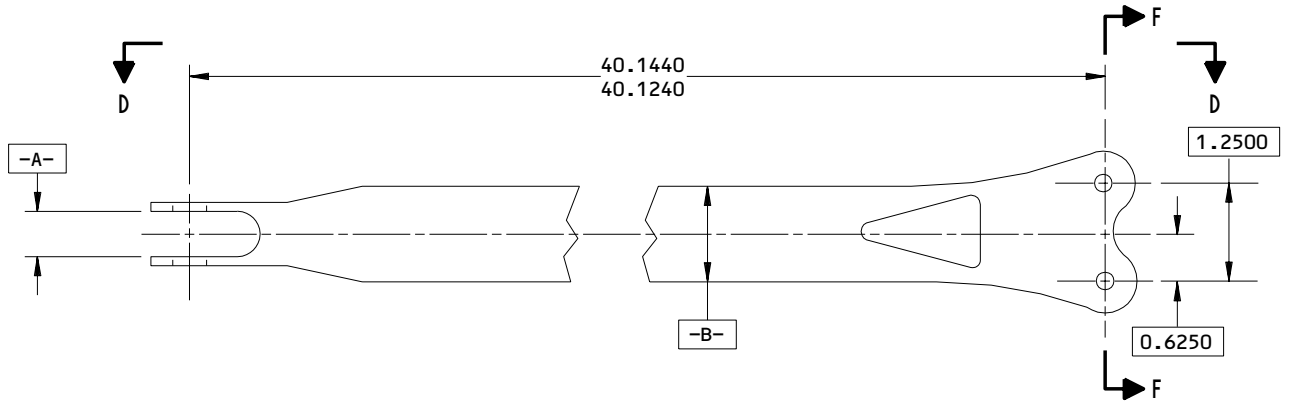


B-B

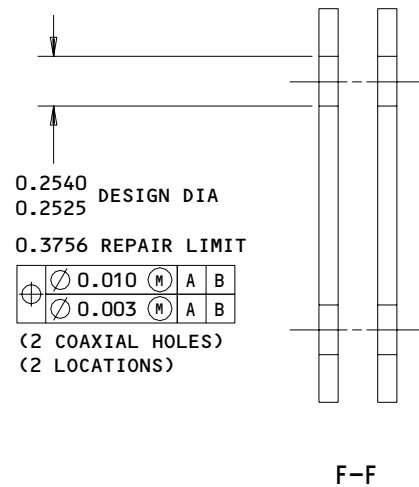
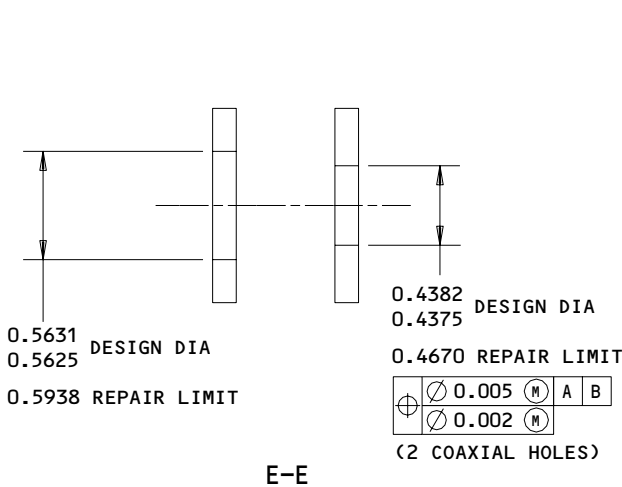
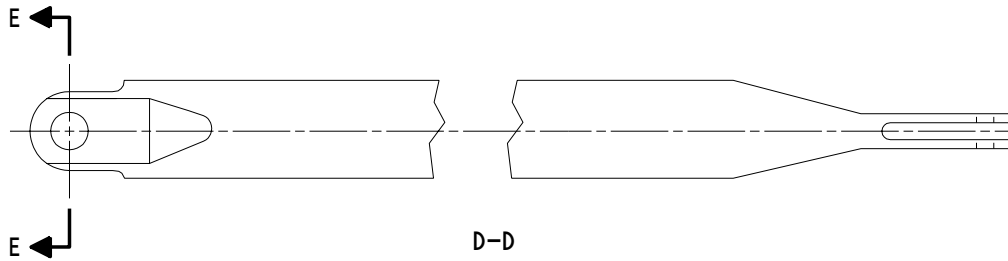


C-C

352T0104-2,-4
 Strut Repair
 Figure 601 (Sheet 1)



352T0104-4 SHOWN



REFINISH
 PASSIVATE (F-17.09) ALL OVER

125/ ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

MATERIAL: 15-5PH CRES, 150-170 KSI

BREAK SHARP CORNERS 0.03-0.06 R

ALL DIMENSIONS ARE IN INCHES

ITEM NUMBERS REFER TO IPL FIG. 3

352T0104-2,-4
 Strut Repair
 Figure 601 (Sheet 2)

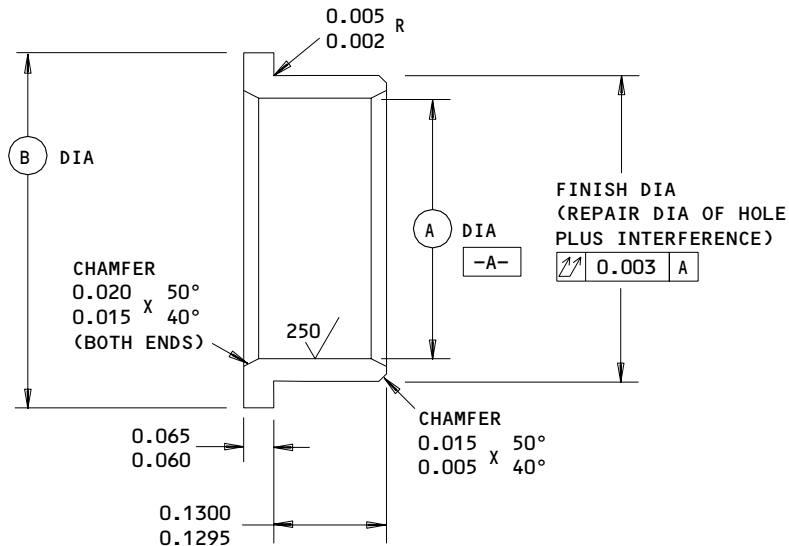
49-13-11

REPAIR 3-2

01.1

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OVERSIZE REPLACEMENT FOR BUSHING (5B,10A)

REPLACES BUSHING ITEM NO.	A	B	INTER- FERENCE
5B	0.428 0.422	0.790 0.780	0.0005 0.0017
10A	0.303 0.297	0.610 0.600	0.0003 0.0015

63/ ALL MACHINED SURFACES UNLESS SHOWN
DIFFERENTLY

BREAK SHARP EDGES

FINISH: PASSIVATE (F-17.13) ALL OVER

MATERIAL: 15-5PH CRES

HEAT TREAT: Rc 40-43 (180-200 KSI)

ALL DIMENSIONS ARE IN INCHES

352T0104-2,-4
 Oversize Bushing Details
 Figure 602

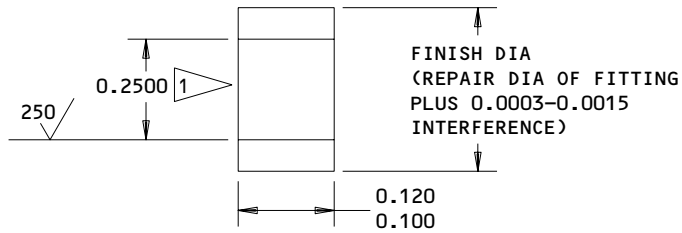
49-13-11

REPAIR 3-2

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01.1



1 MACHINE BUSHING TO FINISH DIAMETER
AFTER INSTALLATION

63 ALL MACHINED SURFACES
FINISH: PASSIVATE (F-17.03) ALL OVER.
MATERIAL: 17-4PH CRES
HEAT TREAT: Rc 40-43 (180-200 KSI)
ALL DIMENSIONS ARE IN INCHES

352T0104-2,-4
Repair Bushing Details
Figure 603

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REPAIR 3-2

01.1

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SUPPORT ASSEMBLY, LATERAL - REPAIR 4-1

352T0105-1, -5 thru -11, -19

NOTE: Refer to REPAIR-GEN for list of applicable standard practices.

1. Bushing Replacement (Fig. 601, IPL Fig. 4 and 6)

- A. Remove bushings.
- B. Install replacement bushings (5, 10) with BMS 3-24 grease per 20-50-03.
- C. Check dimensions and machine as necessary.

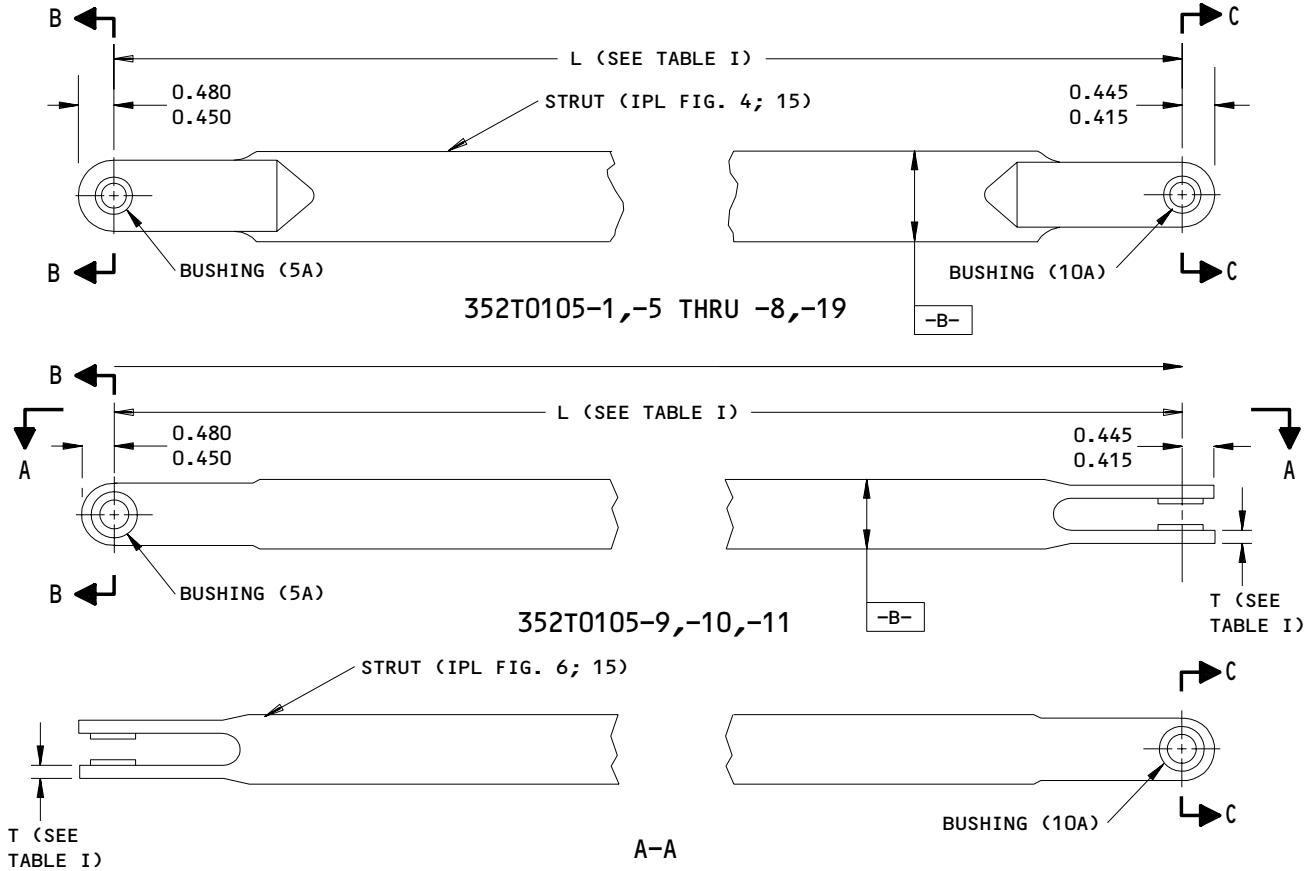
49-13-11

REPAIR 4-1

01.1

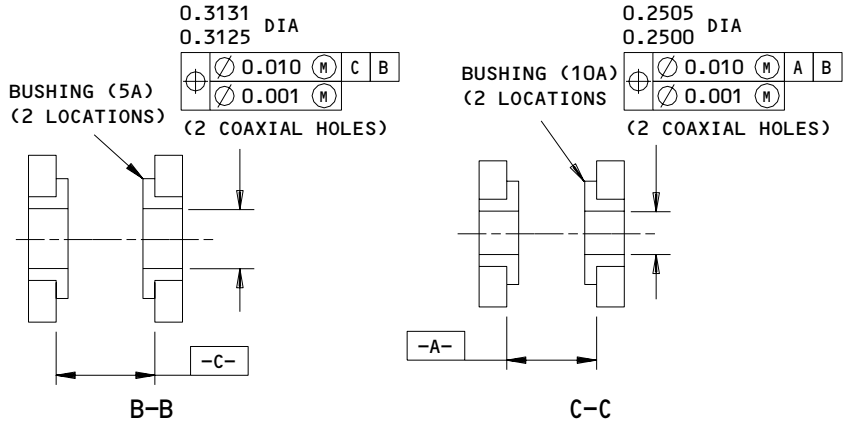
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352T0105	L	T
-1	24.9050 24.8950	0.1500 0.1300
-5	32.9900 32.9700	0.1700 0.1500
-6	31.9800 31.9600	
-7	32.0900 32.0700	
-8	33.1000 33.0800	
-9	22.3750 22.3650	
-10	21.5350 21.5250	
-11	14.6750 14.6650	
-19	25.0583 25.0383	0.1520 0.1280

TABLE I



ALL DIMENSIONS ARE IN INCHES

352T0105-1,-5 THRU -11,-19
 Support Assembly Repair
 Figure 601

STRUT, LATERAL - REPAIR 4-2

352T0105-2, -12 thru -18, -20

NOTE: Refer to REPAIR-GEN for list of applicable standard practices, and to IPL Fig. 4 and 6 for item numbers. For repair of surfaces which may require only restoration of original finish, refer to Refinish instructions, Fig. 601.

1. Lug Hole Repair (Fig. 601, IPL Fig. 4 and 6)

- A. Machine as required, within repair limits, to remove defects.
- B. Manufacture bushings (Fig. 602) as required to compensate for amount of material removed in step (A).
- C. Install bushings per REPAIR 4-1.

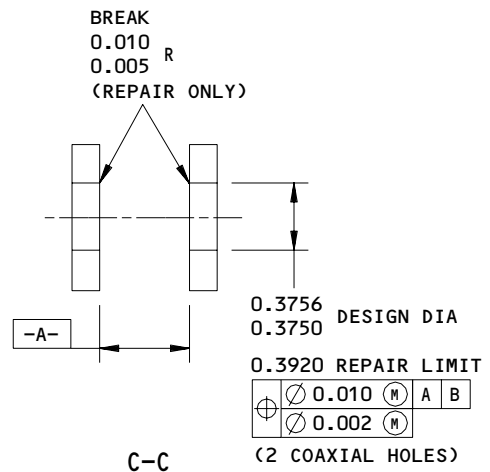
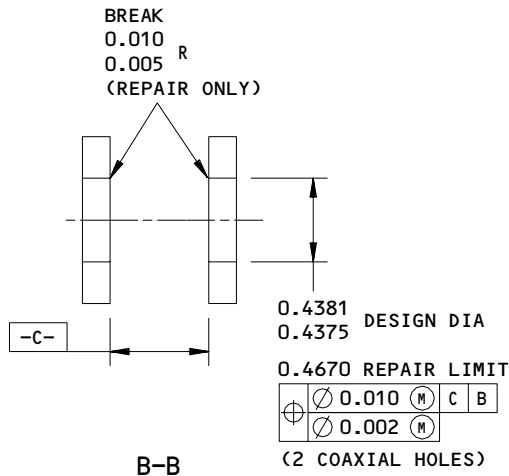
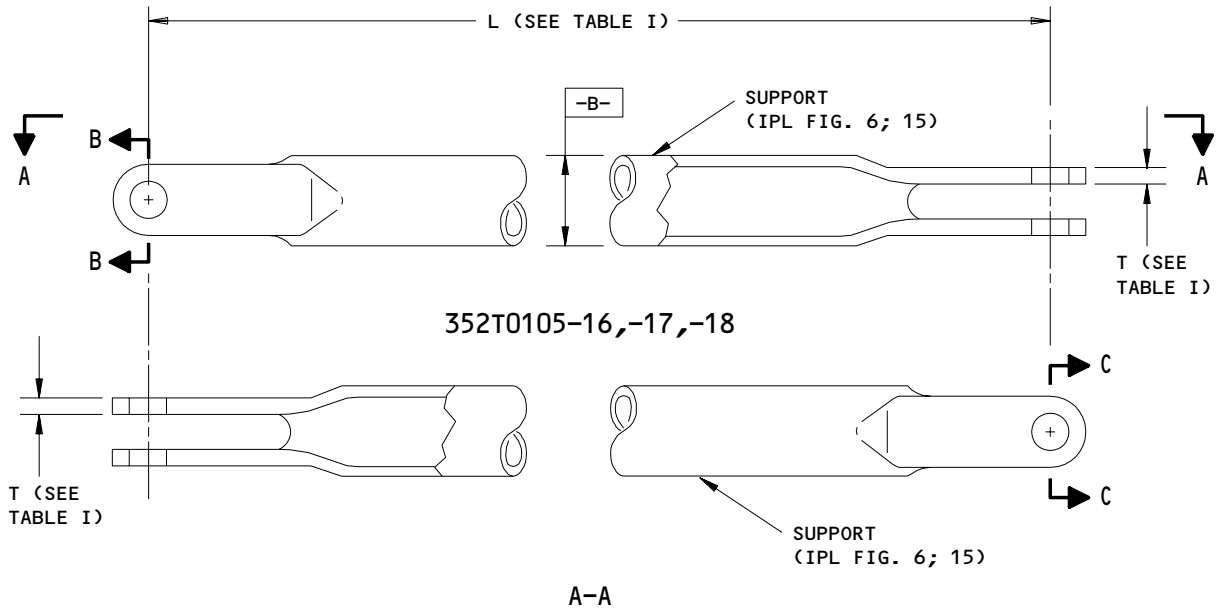
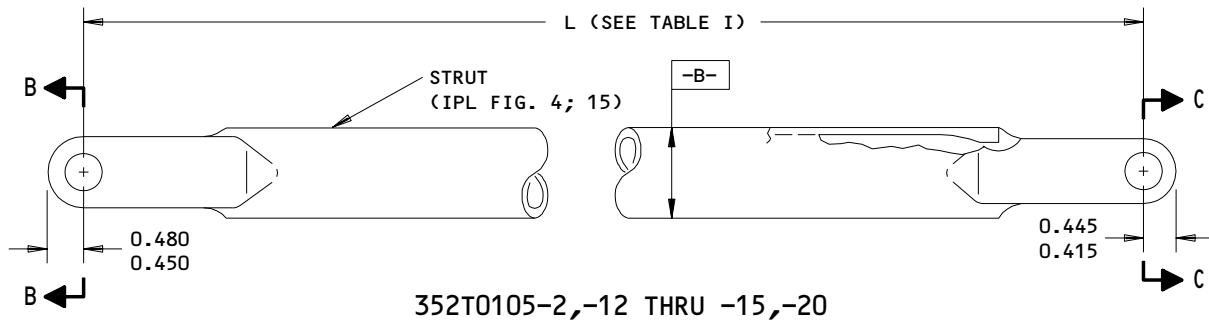
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REPAIR 4-2

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01.1



352T0105-2,-12 THRU -18,-20
 Strut Repair
 Figure 601 (Sheet 1)

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REPAIR 4-2
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01.1

352T0105	L	T
-2	24.9050 24.8950	0.1500 0.1300
-12	32.9900 32.9700	0.1700 0.1500
-13	31.9800 31.9600	
-14	32.0900 32.0700	
-15	33.1000 33.0800	
-16	22.3750 22.3650	
-17	21.5350 21.5250	
-18	14.6750 14.6650	
-20	25.0583 25.0383	0.1520 0.1280

TABLE I

REFINISH

PASSIVATE (F-17.09) ALL OVER

REPAIR

125/ ALL MACHINED SURFACES

BREAK SHARP CORNERS 0.03-0.06 R

MATERIAL: 15-5PH CRES, 150-170 KSI

ALL DIMENSIONS ARE IN INCHES

352T0105-2,-12 THRU -18,-20
 Strut Repair
 Figure 601 (Sheet 2)

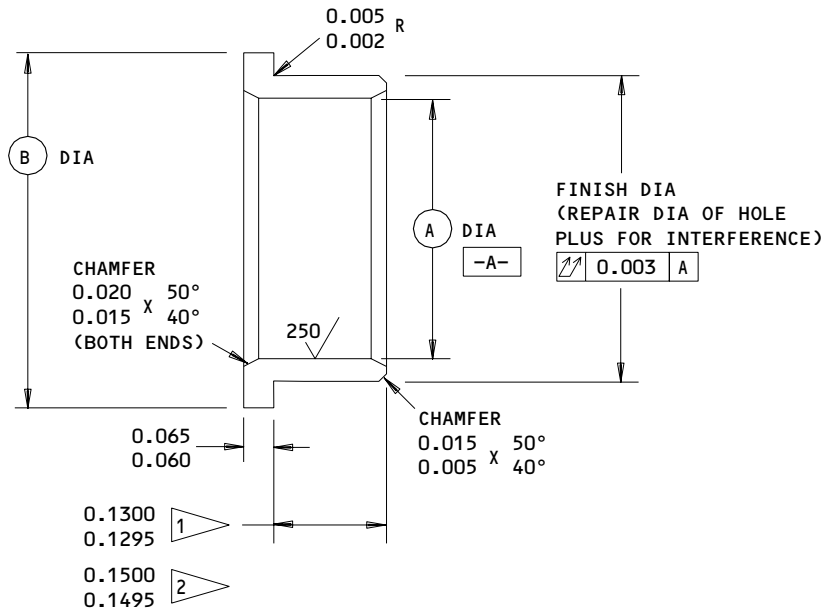
49-13-11

REPAIR 4-2

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01.1



OVERSIZE REPLACEMENT FOR BUSHING (5B,10A)

REPLACES BUSHING ITEM NO.	A	B	INTER- FERENCE
5B	0.303 0.297	0.610 0.600	0.0003 0.0015
10A	0.241 0.234	0.540 0.530	0.0003 0.0015

63/ ALL MACHINED SURFACES UNLESS
SHOWN DIFFERENTLY

BREAK SHARP EDGES

FINISH: PASSIVATE (F-17.13) ALL OVER

MATERIAL: 15-5PH CRES

HEAT TREAT: Rc 40-43 (180-200 KSI)

ALL DIMENSIONS ARE IN INCHES

- 1 BUSHING BACB28APXX-13
- 2 BUSHING BACB28APXX-15

352T0105-2,-12 THRU -18,-20
 Oversize Bushing Details
 Figure 602

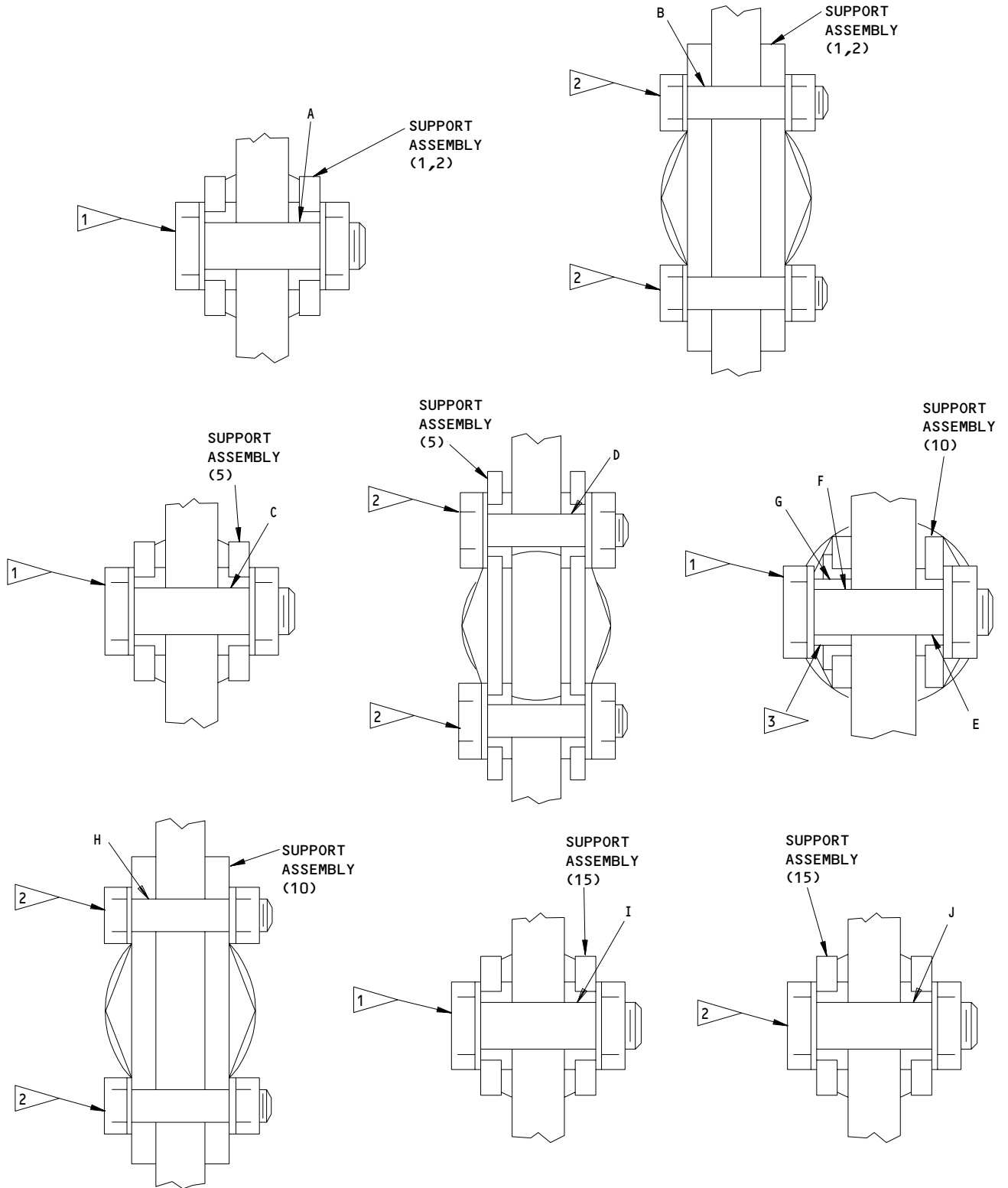
49-13-11

REPAIR 4-2

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










01.1






ALL ITEM NUMBERS REFER TO IPL FIG. 1

Fits and Clearances
 Figure 801 (Sheet 1)

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REF LETTER	REF IPL		DESIGN DIMENSION*				SERVICE WEAR LIMIT*		
	FIG. NO.	MATING ITEM NO.	DIMENSION		ASSEMBLY CLEARANCE		DIMENSION		MAXIMUM CLEARANCE
			MIN	MAX	MIN	MAX	MIN	MAX	
A	1 5	ID 20	0.3125	0.3131	0.0005	0.0016	0.3053	0.3194	0.0141
		OD 	0.3115	0.3120					
B	1 5	ID 25	0.2525	0.2540	0.003	0.005	0.2440	0.2591	0.0151
		OD 	0.2490	0.2495					
C	2	ID 5	0.3125	0.3131	0.0005	0.0016	0.3053	0.3203	0.0150
		OD 	0.3115	0.3120					
D	2	ID 10	0.2525	0.2540	0.003	0.005	0.2440	0.2591	0.0151
		OD 	0.2490	0.2495					
E	3	ID 10	0.3125	0.3140	0.0005	0.0025	0.3053	0.3203	0.0150
		OD 	0.3115	0.3120					
F		ID 	0.3125	0.3130	0.0005	0.0015	0.3053	0.3193	0.0140
		OD 	0.3115	0.3120					
G	3	ID 5	0.4375	0.4382	0.0005	0.0017	0.4278	0.4470	0.0192
		OD 	0.4365	0.4370					
H	3	ID 15	0.2525	0.2540	0.003	0.005	0.2440	0.2591	0.0151
		OD 	0.2490	0.2495					
I	4 6	ID 5	0.3125	0.3131	0.0005	0.0010	0.3053	0.3203	0.0150
		OD 	0.3115	0.3120					
J	4 6	ID 10	0.2500	0.2505	0.0005	0.0015	0.2440	0.2555	0.0115
		OD 	0.2490	0.2495					

* ALL DIMENSION ARE IN INCHES

-  BACB30LE5 BOLT OR NAS6705 BOLT
(USED ON INSTALLATION)
-  BACB30LE4 BOLT OR NAS6704 BOLT
(USED ON INSTALLATION)
-  BACB28AK05 BUSHING (USED ON INSTALLATION)

Fits and Clearances
Figure 801 (Sheet 2)

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FITS AND CLEARANCES
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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.

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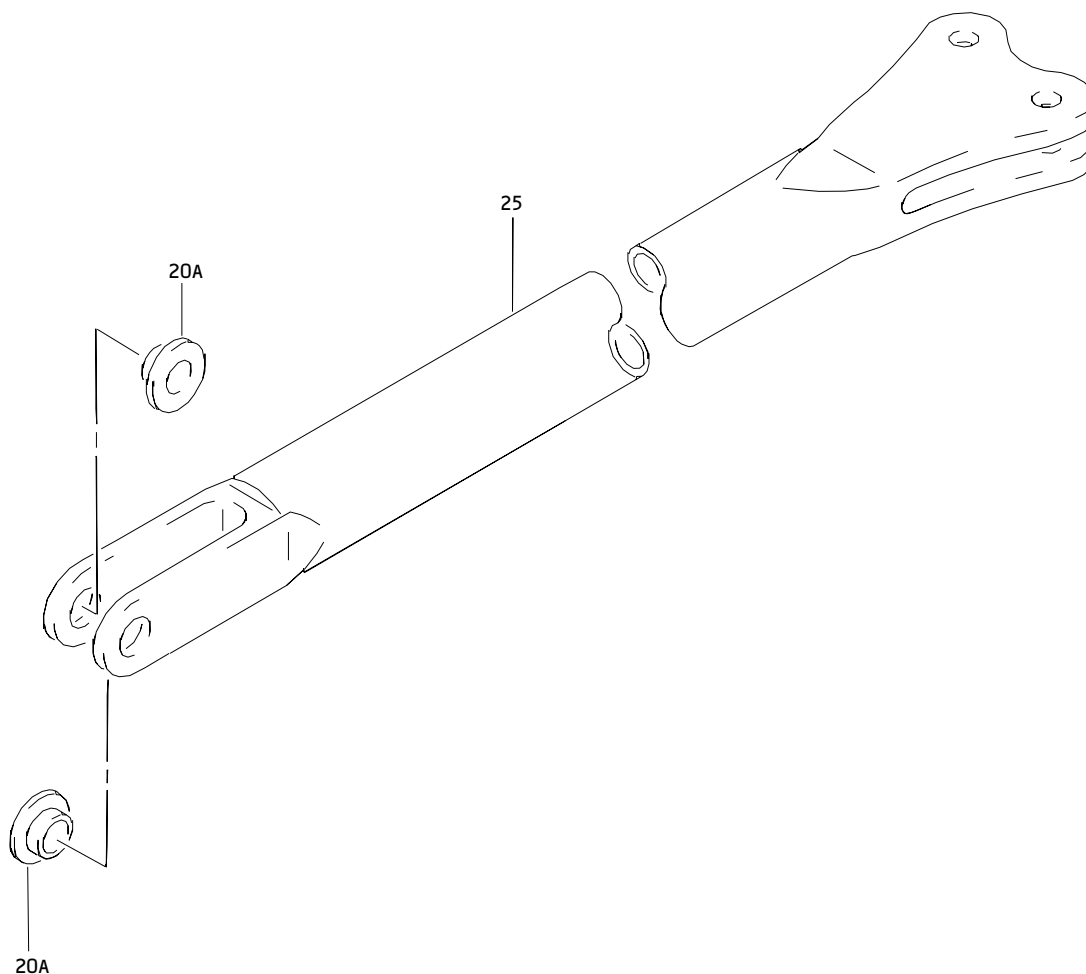
PART NUMBER	AIRLINE PART NO.	FIG.	ITEM	TTL REQ
BACB28AP05-013		3	10A	1
BACB28AP04-010		2	10A	4
BACB28AP04-013		4	10A	2
		6	10	2
BACB28AP05-013		2	5A	2
		4	5A	2
BACB28AP05-015		1	20A	2
		4	5B	2
		5	5	2
		6	5	2
BACB28AP07-013		3	5B	1
352T0102-1		1	1	RF
352T0102-10		5	10	1
352T0102-11		5	10A	1
352T0102-12		5	10B	1
352T0102-13		5	10C	1
352T0102-14		1	25B	1
352T0102-2		1	25	1
352T0102-5		1	2	RF
		5	1	RF
352T0102-6		1	2A	RF
		5	1A	RF
352T0102-7		1	2B	RF
		5	1B	RF
352T0102-8		1	2C	RF
		5	1C	RF
352T0102-9		1	1B	RF
352T0103-1		1	5	RF
		2	1	RF
352T0103-2		2	15	1
352T0104-1		1	10	RF
		3	1	RF
352T0104-2		3	15	1
352T0104-3		1	10A	RF
		3	1A	RF
352T0104-4		3	15A	10
352T0105-1		1	15	RF
		4	1	RF

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 ILLUSTRATED PARTS LIST
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PART NUMBER	AIRLINE PART NO.	FIG.	ITEM	TTL REQ
352T0105-10		1	16A	RF
		6	1A	RF
352T0105-11		1	16B	RF
		6	1B	RF
352T0105-12		4	15B	1
352T0105-16		6	15	1
352T0105-17		6	15A	1
352T0105-18		6	15B	1
352T0105-19		1	15F	RF
		4	1F	RF
352T0105-2		4	15	1
352T0105-5		1	15B	RF
		4	1B	RF
352T0105-6		1	15C	RF
		4	1C	RF
352T0105-7		1	15D	RF
		4	1D	RF
352T0105-8		1	15E	RF
		4	1E	RF
352T0105-9		1	16	RF
		6	1	RF

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Auxiliary Power System Forward Vertical Support Assembly
Figure 1

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ILLUSTRATED PARTS LIST
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FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01- -1	352T0102-1		SUPPORT ASSY-AUX PWR SYS FWD VERT.	A	RF
R -1A	352T0102-3		DELETED		
R -1B	352T0102-9		SUPPORT ASSY-AUX PWR SYS FWD VERT.	E	RF
R -2	352T0102-5		SUPPORT ASSY-AUX PWR SYS FWD VERT.	F	RF
R -2A	352T0102-6		(FOR DETAILS SEE FIG. 5) SUPPORT ASSY-AUX PWR SYS FWD VERT.	G	RF
R -2B	352T0102-7		(FOR DETAILS SEE FIG. 5) SUPPORT ASSY-AUX PWR SYS FWD VERT.	H	RF
R -2C	352T0102-8		(FOR DETAILS SEE FIG. 5) SUPPORT ASSY-AUX PWR SYS FWD VERT.	J	RF
-3	352N1001-1		DELETED		
-5	352T0103-1		SUPPORT ASSY-AUX PWR SYS AFT VERT.	B	RF
-5A	352T0103-3		(FOR DETAILS SEE FIG. 2) DELETED		
-10	352T0104-1		SUPPORT ASSY-AUX PWR SYS AXIAL	C	RF
R -10A	352T0104-3		(FOR DETAILS SEE FIG. 3) SUPPORT ASSY-AUX PWR SYS AXIAL	S	RF
-15	352T0105-1		(FOR DETAILS SEE FIG. 3) SUPPORT ASSY-AUX PWR SYS LATERAL	D	RF
-15A	352T0105-3		(FOR DETAILS SEE FIG. 4) DELETED		
R -15B	352T0105-5		SUPPORT ASSY-AUX PWR SYS LATERAL	K	RF
R -15C	352T0105-6		(FOR DETAILS SEE FIG. 4) SUPPORT ASSY-AUX PWR SYS LATERAL	L	RF
R -15D	352T0105-7		(FOR DETAILS SEE FIG. 4) SUPPORT ASSY-AUX PWR SYS LATERAL	M	RF
R -15E	352T0105-8		(FOR DETAILS SEE FIG. 4) SUPPORT ASSY-AUX PWR SYS LATERAL	N	RF
			(FOR DETAILS SEE FIG. 4)		

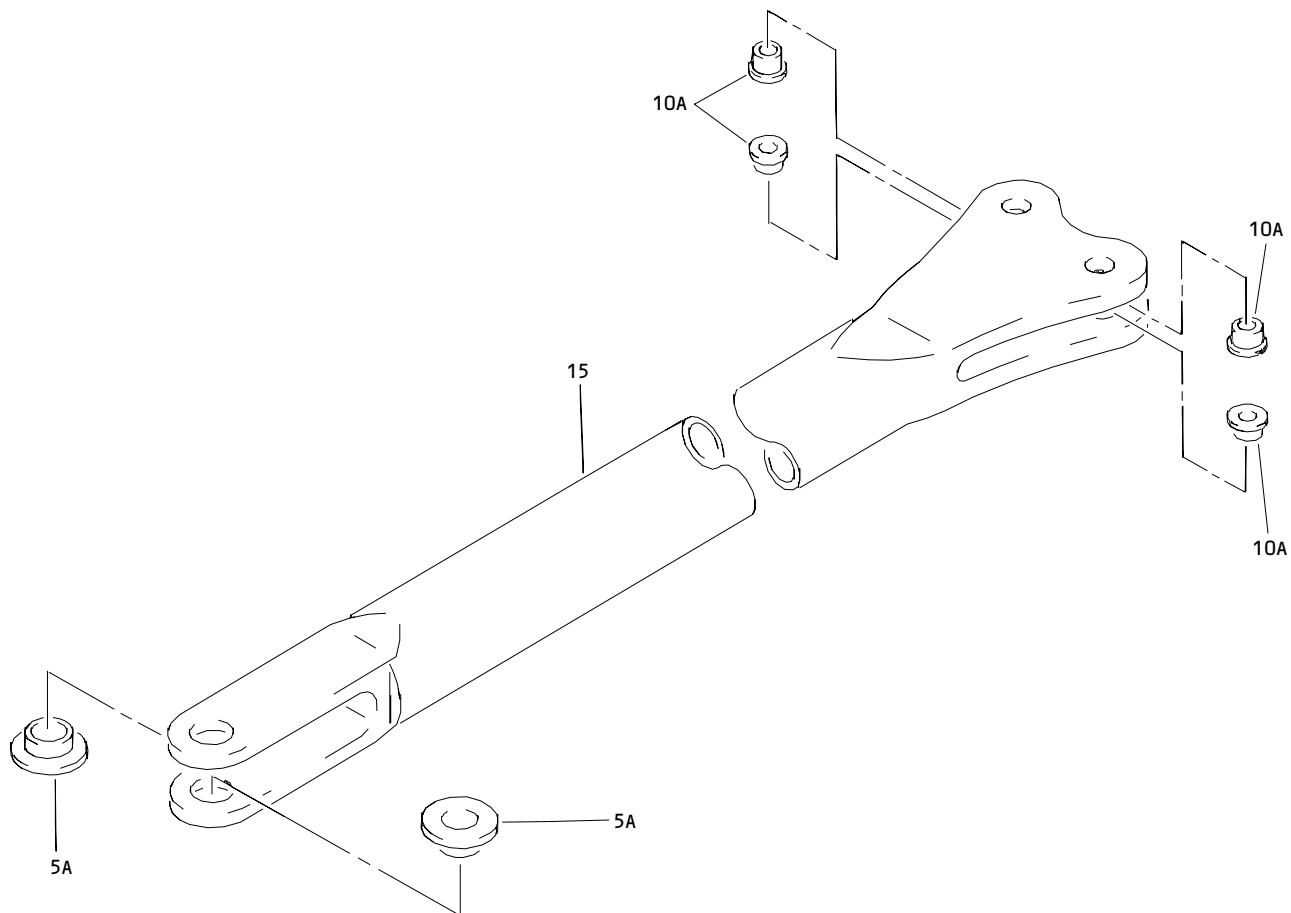
49-13-11

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
R 01-15F	352T0105-19		SUPPORT ASSY-AUX PWR SYS LATERAL (FOR DETAILS SEE FIG. 4)	T	RF
R -16	352T0105-9		SUPPORT ASSY-AUX PWR SYS LATERAL (FOR DETAILS SEE FIG. 6)	P	RF
R -16A	352T0105-10		SUPPORT ASSY-AUX PWR SYS LATERAL (FOR DETAILS SEE FIG. 6)	Q	RF
R -16B	352T0105-11		SUPPORT ASSY-AUX PWR SYS LATERAL (FOR DETAILS SEE FIG. 6)	R	RF
R 20	BACB28AP05015		DELETED		
R 20A	BACB28AP05-015		.BUSHING	A,E	2
25	352T0102-2		.STRUT	A	1
R -25A	352T0102-4		DELETED		
R -25B	352T0102-14		.STRUT	E	1

- Item Not Illustrated

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Auxiliary Power System Aft Vertical Support Assembly
Figure 2

49-13-11

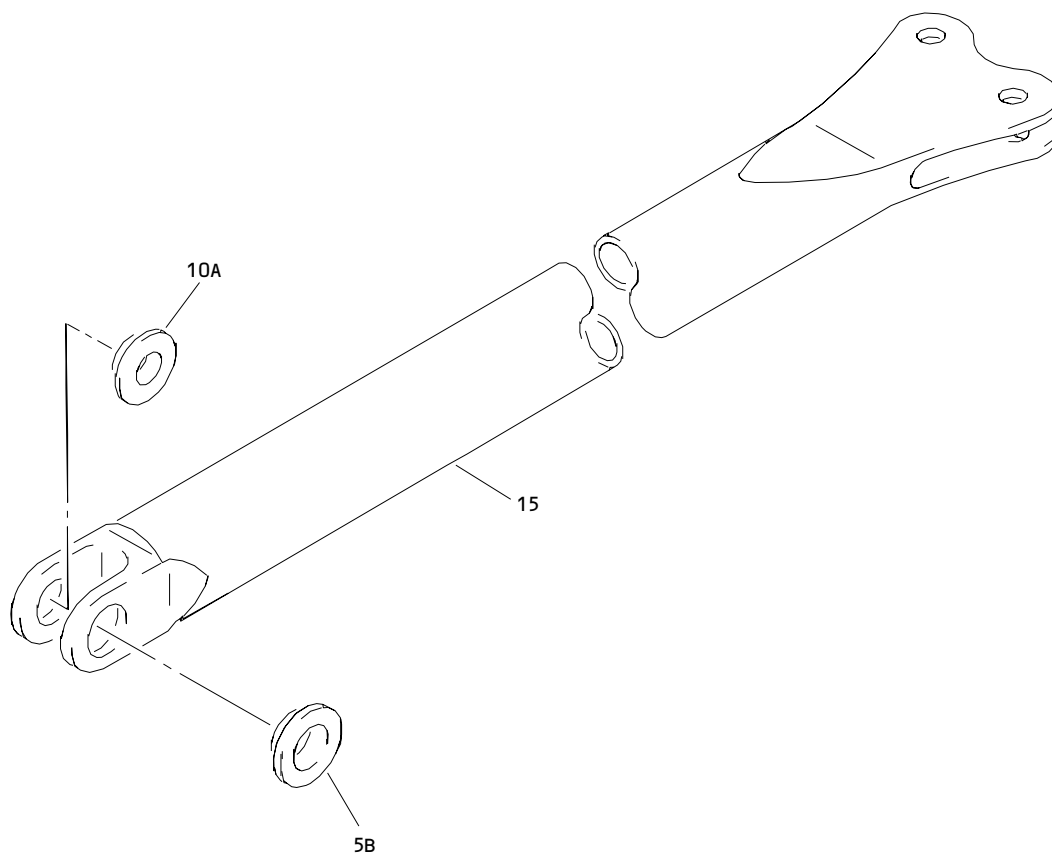
ILLUSTRATED PARTS LIST
01.1 Page 1008
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FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE	EFF CODE	QTY PER ASSY
			1234567		
02- -1	352T0103-1		SUPPORT ASSY-AUX PWR SYS AFT VERT	B	RF
-1A	352T0103-3		DELETED		
5	BACB28AP05013		DELETED		
R 5A	BACB28AP05-013		.BUSHING	B	2
10	BACB28AP04010		DELETED		
R 10A	BACB28AP04-010		.BUSHING	B	4
15	352T0103-2		.STRUT	B	1
-15A	352T0103-4		DELETED		

- Item Not Illustrated

49-13-11

ILLUSTRATED PARTS LIST
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Auxiliary Power System Axial Support Assembly
Figure 3

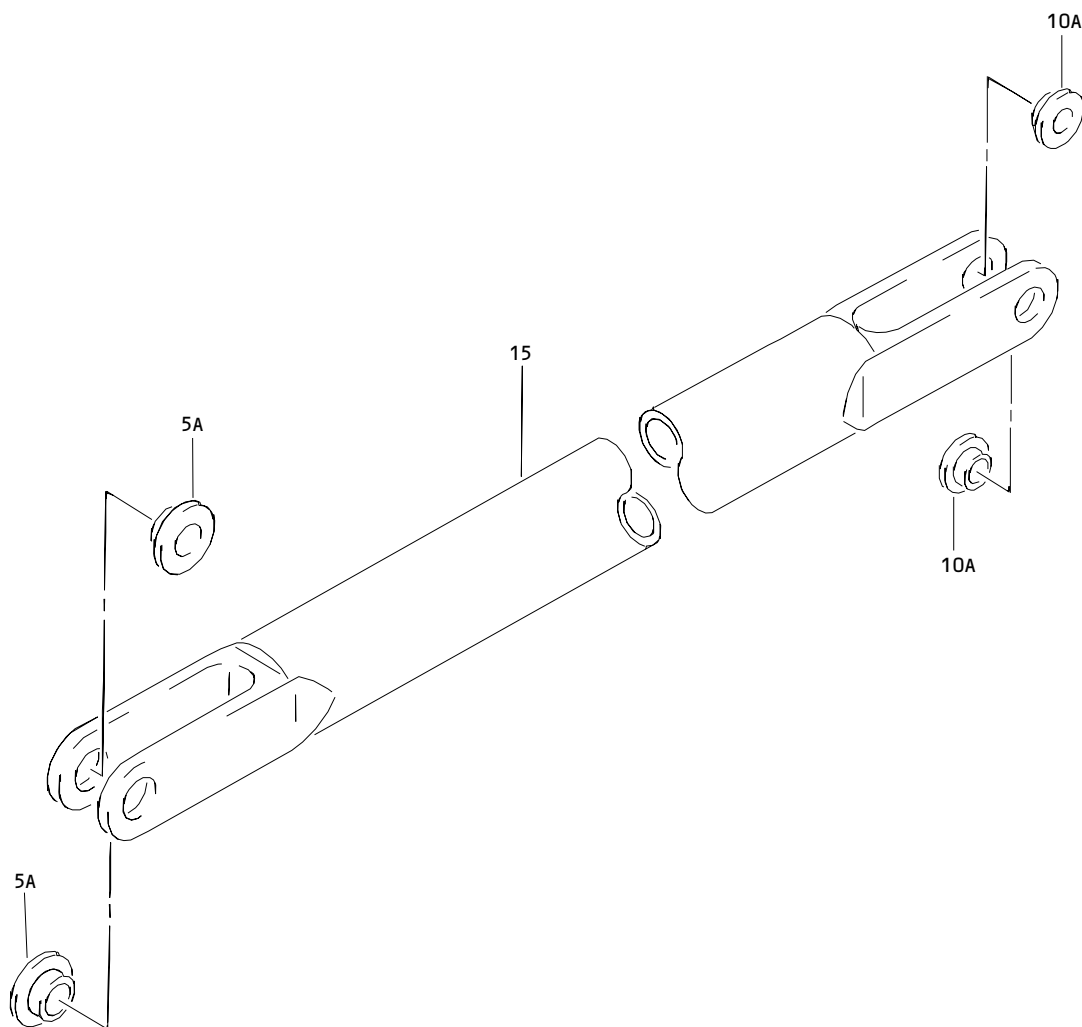
49-13-11

ILLUSTRATED PARTS LIST
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FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
03- -1	352T0104-1		SUPPORT ASSY-AUX PWR SYS AXIAL	C	RF
R -1A	352T0104-3		SUPPORT ASSY-AUX PWR SYS AXIAL	S	RF
5	BACB28AP07013		DELETED		
5A	BACB28AP04-013		DELETED		
R 5B	BACB28AP07-013		.BUSHING	C,S	1
10	BACB28AP05013		DELETED		
R 10A	BACB28AP05-013		.BUSHING	C,S	1
15	352T0104-2		.STRUT	C	1
R -15A	352T0104-4		.STRUT	S	1

- Item Not Illustrated

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Auxiliary Power System Lateral Support Assembly
Figure 4

49-13-11

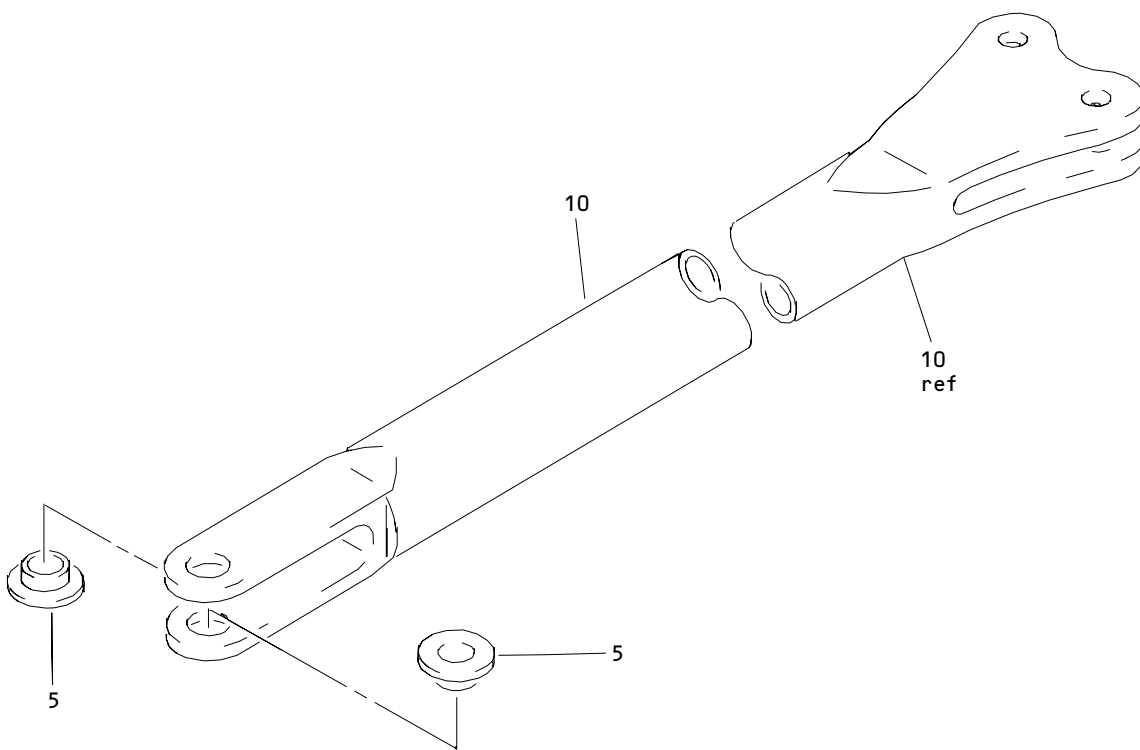
ILLUSTRATED PARTS LIST
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FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
04- -1	352T0105-1		SUPPORT ASSY-AUX PWR SYS LATERAL	D	RF
-1A	352T0105-3		DELETED		
R -1B	352T0105-5		SUPPORT ASSY-AUX PWR SYS LATERAL	K	RF
R -1C	352T0105-6		SUPPORT ASSY-AUX PWR SYS LATERAL	L	RF
R -1D	352T0105-7		SUPPORT ASSY-AUX PWR SYS LATERAL	M	RF
R -1E	352T0105-8		SUPPORT ASSY-AUX PWR SYS LATERAL	N	RF
R -1F	352T0105-19		SUPPORT ASSY-AUX PWR SYS LATERAL	T	RF
5	BACB28AP05013		DELETED		
R 5A	BACB28AP05-013		.BUSHING	D,T	2
R -5B	BACB28AP05-015		.BUSHING	K-N	2
10	BACB28AP04013		DELETED		
R 10A	BACB28AP04-013		.BUSHING	D,K-N ,T	2
15	352T0105-2		.STRUT	D	1
-15A	352T0105-4		DELETED		
R -15B	352T0105-12		.STRUT	K	1
R -15C	352T0105-13		.STRUT	L	1
R -15D	352T0105-14		.STRUT	M	1
R -15E	352T0105-15		.STRUT	N	1
R -15F	352T0105-20		.SUPPORT	T	1

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Auxiliary Power System Forward Vertical Support Assembly
Figure 5

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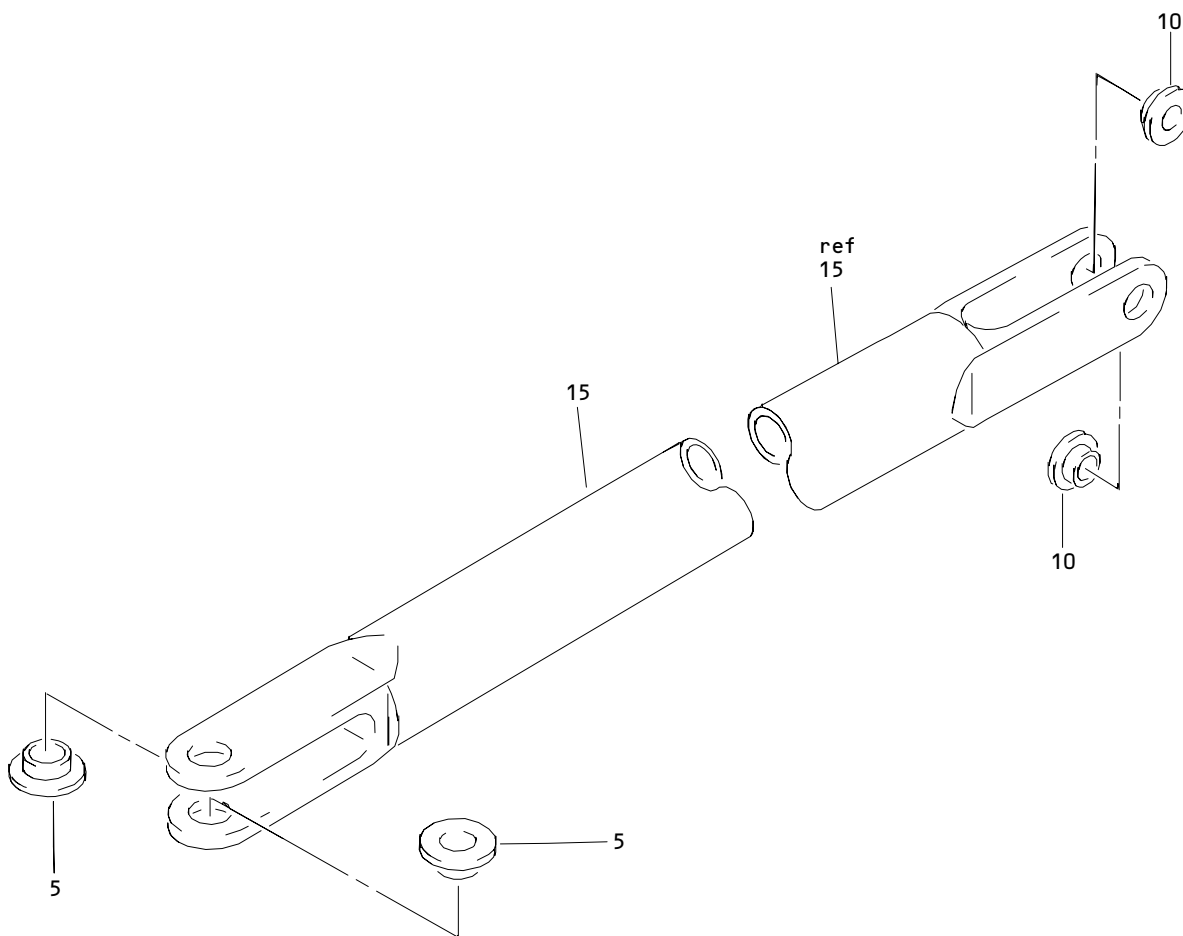
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FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
R 05- -1	352T0102-5		SUPPORT ASSY-AUX PWR SYS FWD VERT.	F	RF
R -1A	352T0102-6		SUPPORT ASSY-AUX PWR SYS FWD VERT.	G	RF
R -1B	352T0102-7		SUPPORT ASSY-AUX PWR SYS FWD VERT.	H	RF
R -1C	352T0102-8		SUPPORT ASSY-AUX PWR SYS FWD VERT.	J	RF
R 5	BACB28AP05-015		.BUSHING	F-J	2
R 10	352T0102-10		.SUPPORT	F	1
R -10A	352T0102-11		.SUPPORT	G	1
R -10B	352T0102-12		.SUPPORT	H	1
R -10C	352T0102-13		.SUPPORT	J	1

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Auxiliary Power System Forward Vertical Support Assembly
Figure 6

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FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
R 06- -1	352T0105-9		SUPPORT ASSY-AUX PWR SYS LATERAL	P	RF
R -1A	352T0105-10		SUPPORT ASSY-AUX PWR SYS LATERAL	Q	RF
R -1B	352T0105-11		SUPPORT ASSY-AUX PWR SYS LATERAL	R	RF
R 5	BACB28AP05-015		.BUSHING	P-R	2
R 10	BACB28AP04-013		.BUSHING	P-R	2
R 15	352T0105-16		.SUPPORT	P	1
R -15A	352T0105-17		.SUPPORT	Q	1
R -15B	352T0105-18		.SUPPORT	R	1

- Item Not Illustrated

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FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE	EFF CODE	QTY PER ASSY
			1234567		
07-					
-1	352N1001-1		DELETED		
5	BACB28AP05013		DELETED		
10	BACB28AP07013		DELETED		
10A	BACB28AP07-013		DELETED		
15	352N1001-2		DELETED		

- Item Not Illustrated

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