TO: ALL HOLDERS OF ENGINE STRUT MOUNT INSTALLATION COMPONENTS COMPONENT MAINTENANCE MANUAL 54-50-21

REVISION NO. 21 DATED JUL 01/05

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
REPAIR 25-1 605-606 REPAIR 26-1 601,605-606	Clarified oversize bushing details REPAIR 25-1 and 26-1.

ENGINE STRUT MOUNT INSTALLATION COMPONENTS

PART NUMBERS

015T1613-4,-5
310T1030-17,-20
310T2030-6,-8,-9
310T2301-1,-2,-3
310T4040-6,-8,-9
311T1710-1,-3
311T1730-1,-3,-4
311T1735-1,-6
311T2090-1
311T2093-1
311T2095-1
311T2096-1 THRU -4
311T2102-1,-2
311T2522-1
311T2730-1,-4,-7
311T2735-1,-13,-21
311T2740-8,-9,-10
311T2790-1,-2
311T2792-1,-2
311T2793-1,-2
311T2796-1
311T3090-3,-4
311T3092-1
311T3093-3,-4
311T3095-1
311T3096-1,-2
311T3102-1 THRU -4
311T3710-1
311T3730-1,-5
311T3735-1,-6

COMPONENT MAINTENANCE MANUAL
WITH
ILLUSTRATED PARTS LIST

PART NUMBERS (CONT)

311T3740-1,-3,-5
311T4710-1,-5,-10
311T4730-1,-3,-6
311T4735-1,-4
311T5090-1
311T5093-1
311T5095-1
311T5700-3
311T5710-1,-7,-13
311T5735-1
311T5780-1,-7,-10
311T5790-1
311T5793-1
311T5795-1

MD5685

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 B12251	APR 01/92
767-54-0081		PRR B12695-2	JUL 01/01
767-54-0080		PRR B12695-3	JUL 01/01
767-54-0082		PRR B12695-4	JUL 01/01
767-54A0083		PRR B12695-6	JUL 01/01
767-54A0069R2		PRR B12669	JUL 01/01
767-54A0062R4			MAR 01/99
767-54A0094			MAR 01/99
767-54-0088		PRR B12695-7	JUL 01/01
		PRR B12695-8	JUL 01/01
		PRR B12695-9	JUL 01/01
767-54-0096			JUL 01/01
767-54-0072			JUL 01/01
767-54-0080R1			MAR 01/04
767-54-0094R1			MAR 01/04

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1	JUL 10/83	01
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TR & SB RECORD		
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2	BLANK	
LIST OF EFFECTIVE PAGES		
*1	JUL 01/05	01
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CONTENTS		
1	APR 10/87	01.101
2	NOV 01/03	01.1
3	JUL 01/01	01.1
4	BLANK	
INTRODUCTION		
1	JUL 10/83	01
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DESCRIPTION & OPERATION		
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2	BLANK	
DISASSEMBLY		
301	JUL 10/83	01
302	BLANK	
CHECK		
501	NOV 01/03	01.1
502	BLANK	

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601	APR 10/87	01.1
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603	JUL 01/90	01.101
604	JUL 01/90	01.101
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602	NOV 01/03	01.1
603	NOV 01/03	01.1
604	NOV 01/03	01.101
REPAIR 2-1		
601	NOV 01/98	01.1
602	MAR 01/99	01.1
603	NOV 01/98	01.101
604	NOV 01/03	01.1
605	NOV 01/03	01.1
606	NOV 01/03	01.101
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601	APR 10/87	01.1
602	APR 10/87	01.1
603	MAR 01/95	01.1
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603	NOV 01/03	01.101
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605	NOV 01/03	01.1
606	BLANK	
REPAIR 5-1		
601	JUL 01/90	01.1
602	BLANK	
REPAIR 6-1		
601	NOV 01/03	01.1
602	BLANK	

* = REVISED, ADDED OR DELETED

PAGE	DATE	CODE
REPAIR 7-1		
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602	BLANK	
REPAIR 8-1		
601	JUL 01/90	01.1
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REPAIR 9-1		
601	NOV 01/03	01.1
602	NOV 01/03	01.101
603	NOV 01/98	01.101
604	NOV 01/03	01.1
605	NOV 01/03	01.1
606	NOV 01/03	01.101
REPAIR 10-1		
601	MAR 01/99	01.1
602	MAR 01/99	01.1
603	NOV 01/03	01.1
604	NOV 01/03	01.1
605	NOV 01/03	01.101
606	BLANK	
REPAIR 11-1		
601	JUL 01/90	01.1
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REPAIR 12-1		
601	NOV 01/03	01.1
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603	NOV 01/98	01.101
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605	NOV 01/03	01.1
606	NOV 01/03	01.1
607	NOV 01/03	01.1
608	NOV 01/03	01.1
REPAIR 13-1		
601	JUL 01/90	01.1
602	BLANK	

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601	JUL 01/90	01.1
602	BLANK	
REPAIR 15-1		
601	APR 10/87	01.1
602	BLANK	
REPAIR 16-1		
601	NOV 01/03	01.1
602	NOV 01/03	01.1
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604	NOV 01/03	01.1
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606	NOV 01/03	01.1
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608	NOV 01/03	01.101
609	NOV 01/03	01.1
610	BLANK	
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605	NOV 01/03	01.1
606	MAR 01/99	01.1
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601	NOV 01/03	01.1
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603	NOV 01/98	01.1
604	BLANK	
REPAIR 19-1		
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602	BLANK	
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601	JUL 01/90	01.1
602	BLANK	

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REPAIR 21-1		
601	JUL 01/90	01.1
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603	MAR 01/99	01.1
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*606	JUL 01/05	01.1
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603	MAR 01/99	01.1
604	MAR 01/99	01.1
605	MAR 01/99	01.1
606	MAR 01/99	01.1
607	MAR 01/99	01.1
608	BLANK	

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603	NOV 01/03	01.101
604	MAR 01/00	01.1
605	MAR 01/00	01.1
606	MAR 01/00	01.1
607	NOV 01/03	01.1
608	NOV 01/03	01.1
609	NOV 01/03	01.1
610	BLANK	
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602	NOV 01/03	01.1
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601	NOV 01/03	01.1
602	NOV 01/03	01.1
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602	NOV 01/03	01.1
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803	NOV 01/03	01.1
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805	NOV 01/03	01.1
806	BLANK	

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1003	MAR 01/04	01.1
1004	MAR 01/04	01.1
1005	MAR 01/04	01.1
1006	MAR 01/04	01.1
1007	MAR 01/04	01.1
1008	MAR 01/04	01.1
1009	MAR 01/04	01.1
1010	MAR 01/04	01.1
1011	MAR 01/04	01.1
1012	BLANK	
1013	MAR 01/04	01.1
1014	MAR 01/04	01.101
1015	MAR 01/04	01.101
1016	MAR 01/04	01.101
1017	MAR 01/04	01.1
1018	MAR 01/04	01.1
1019	MAR 01/04	01.1
1020	MAR 01/04	01.1
1021	MAR 01/04	01.1
1022	MAR 01/04	01.1
1023	MAR 01/04	01.1
1024	MAR 01/04	01.1
1025	MAR 01/04	01.1
1026	MAR 01/04	01.1
1027	MAR 01/04	01.1
1028	MAR 01/04	01.1
1029	MAR 01/04	01.1
1030	MAR 01/04	01.101
1031	MAR 01/04	01.1
1032	MAR 01/04	01.101
1033	MAR 01/04	01.1
1034	MAR 01/04	01.101
1035	MAR 01/04	01.101
1036	MAR 01/04	01.101
1037	MAR 01/04	01.101
1038	MAR 01/04	01.101
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1047	MAR 01/04	01.101
1048	MAR 01/04	01.101
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1050	MAR 01/04	01.1

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TABLE OF CONTENTS

*[1] Special instructions not required. Use standard industry practices.

NOTE: This manual contains maintenance data for various components of the Engine Strut Mount Installation. Maintenance functions which cannot be performed by use of standard industry practices are included for each component.

ENGINE STRUT MOUNT INSTALLATION COMPONENTS

Part Number	Nomenclature
015T1613-4, -5	DIAGONAL BRACE ASSY
310T1030-17,-20	SIDE LINK ASSY
310T2030-6,-8,-9	SIDE LINK ASSY
310T2301-1,-2,-3	FUSE PIN
310T4040-6,-8,-9	SIDE LINK ASSY
311T1710-1,-3	UPPER LINK ASSY
311T1730-1,-3,-4	DIAGONAL BRACE ASSY
311T1735-1,-6	DIAGONAL BRACE ASSY
311T2090-1	FUSE PIN
311T2093-1	FUSE PIN
311T2095-1	BRACE PIN
311T2096-1,-2,-3,-4	SHOULDER BOLT
311T2102-1,-2	FUSE PIN
311T2522-1	LINK FITTING ASSY
311T2730-1,-4,-7	DIAGONAL BRACE ASSY
311T2735-1,-13,-21	DIAGONAL BRACE ASSY
311T2740-8,-9,-10	SIDE LINK ASSY
311T2790-1,-2	FUSE PIN
311T2792-1,-2	ATTACH PIN
311T2793-1,-2	FUSE PIN
311T2796-1	SIDE LINK PIN
311T3090-3	FUSE PIN
311T3090-4	FUSE PIN ASSY
311T3092-1	FUSE PIN
311T3093-3,-4	FUSE PIN
311T3095-1	FUSE PIN
311T3096-1,-2	SHOULDER BOLT
311T3102-1,-2,-3,-4	FUSE PIN
311T3710-1	UPPER LINK ASSY
311T3730-1,-5	DIAGONAL BRACE ASSY
311T3735-1,-6	DIAGONAL BRACE ASSY
311T3740-1,-3,-5	SIDE LINK ASSY
311T4710-1,-3, -5, -10	UPPER LINK ASSY
311T4730-1,-3,-6	DIAGONAL BRACE ASSY

ENGINE STRUT MOUNT INSTALLATION COMPONENTS

Part Number	Nomenclature
311T4735-1,-4	DIAGONAL BRACE ASSY
311T5090-1	FUSE PIN
311T5093-1	FUSE PIN
311T5095-1	BRACE PIN
311T5700-3	SIDE LINK ASSY
311T5710-1,-7,-13	LINK ASSY
311T5735-1	DIAGONAL BRACE ASSY
311T5780-1,-7,-10	BRACE ASSY
311T5790-1	FUSE PIN
311T5793-1	FUSE PIN
311T5795-1	PIN

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

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:

Assembly - 9/22/81

DESCRIPTION AND OPERATION

1. This manual describes several of the miscellaneous components that make up the Engine Strut Mount Installation. None of the parts are operational by themselves.

DISASSEMBLY

1. Use standard industry practices for disassembly of these components and additional procedure in step 2.

CAUTION: DISTANCE BETWEEN BUSHING CENTERLINES OF LOWER AND UPPER SIDE LINK ASSEMBLIES (10, 15, IPL FIG. 1) IS UNIQUE TO EACH POSITION AND EACH AIRPLANE. EQUAL-SIZED ASSEMBLIES TO THOSE REMOVED MUST BE USED TO ENSURE PROPER OPERATION AFTER INSTALLATION.

2. Note distance between bushing centerlines from lower side link assembly (10, IPL Fig. 1) to upper side link assembly (15) for reference during assembly.

CHECK

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

2. Penetrant examine per 20-20-02 -- Diagonal brace (65, 165, IPL Fig. 1; 25J, IPL Fig. 2).

3. Magnetic particle examine per 20-20-01 -- Fuse pins (P/N 310T2301-1, -2, -3, 311T3090-3, 311T3090-5, 311T3093-3, 311T3102-1, 311T2090-1, 311T2093-1, 311T2102-1, 311T2102-2, 311T5090-1, 311T5093- 1, 311T5790-1, 311T5793-1, 311T5795-1), shoulder bolt (P/N 311T3096-1, -2, 311T2096-1, -2, -3, -4), brace pin (P/N 311T2095-1, 311T5095-1), upper link (30, 125, 130, 134), side links (85, 100), adapter ring (P/N 311T3090-6).

REPAIR - GENERAL

1. Content

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

P/N	NAME	REPAIR
311T3710	UPPER LINK ASSY	1-1
311T3730	DIAGONAL BRACE ASSY	2-1
311T3740-1	LOWER SIDE LINK ASSY	3-1
311T3740-3	UPPER SIDE LINK ASSY	4-1
311T3090-3	FUSE PIN	5-1
311T3093	FUSE PIN	6-1
311T3102	FUSE PIN	7-1
311T3096	SHOULDER BOLT	8-1
311T1730	DIAGONAL BRACE ASSY	9-1
311T1710	UPPER LINK ASSY	10-1
311T3090-4	FUSE PIN ASSY	11-1
311T4730	DIAGONAL BRACE ASSY	12-1
311T3092	FUSE PIN	13-1
311T3095	FUSE PIN	14-1
311T3740-5	SIDE LINK ASSY	15-1
311T4710	UPPER LINK ASSY	16-1
311T2730	DIAGONAL BRACE ASSY	17-1
310T2030 310T4040	SIDE LINK ASSY	18-1

P/N	NAME	REPAIR
311T2090 311T2093	FUSE PIN	19-1
311T2095	BRACE PIN	20-1
311T2096	SHOULDER BOLT	21-1
311T2102	FUSE PIN	22-1
311T5090 311T5093	FUSE PIN	23-1
311T5095	BRACE PIN	24-1
311T5780	DIAGONAL BRACE ASSY	25-1
311T5710	UPPER LINK ASSY	26-1
311T2740	SIDE LINK ASSY	27-1
310T2301	FUSE PIN	28-1
311T1735 311T2735 311T3735 311T4735	DIAGONAL BRACE ASSY	29-1
311T5790	FUSE PIN	30-1
311T5793	FUSE PIN	31-1
311T5795	FUSE PIN	32-1

2. Standard Practices

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

20-10-01 Repair and Refinish of High-Strength Steel Parts
20-10-04 Grinding of Chrome Plated Parts
20-30-02 Stripping of Protective Finishes
20-30-03 General Cleaning Procedures
20-41-01 Decoding Table for Boeing Finish Codes
20-41-03 Application of Corrosion Preventives to Closed End Tubes
20-42-02 Low Hydrogen Embrittlement Cadmium - Titanium Alloy Plating
20-42-03 Hard Chrome Plating
20-42-05 Bright Cadmium Plating
20-44-01 Application of Special Purpose Coatings and Finishes
20-50-03 Bearing Installation and Retention
20-50-05 Application of Aluminum Foil and Other Markers

3. Materials

NOTE: Equivalent substitutes may be used.

A. Coating, top -- Type 41 (Ref 20-60-02)

B. Compound, corrosion preventive -- MIL-C-11796, Class 1 (Ref 20-60-02)

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

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

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
⌖	THEORETICAL EXACT POSITION OF A FEATURE (TRUE POSITION)
∅	DIAMETER
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)
Ⓢ	REGARDLESS OF FEATURE SIZE (RFS)
Ⓟ	PROJECTED TOLERANCE ZONE

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 IN RELATION 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 (FULL INDICATOR MOVEMENT)
⌯ 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 IN RELATION 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

True Position Dimensioning Symbols
Figure 601

UPPER LINK ASSEMBLY - REPAIR 1-1

311T3710-1

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

1. Bushing Replacement (20, 25, IPL Fig. 1)

   A. Remove bushing.

   B. Check hole for damage or corrosion and repair if necessary per Par. 2.

   C. Install bushing per 20-50-03.

   D. Machine bushing per Fig. 601. (Parallel tolerance limits applicable to lugs and bushing face only.)

2. Repair

   A. Repair hole for bushing (20, 25)

      (1) Machine upper link (30, IPL Fig. 1), as required to remove discrepancies, per Fig. 601.

      (2) Magnetic particle check per 20-20-01.

      (3) Shot peen bore per 20-10-03, shot No. 170-330, intensity 0.016A, and coverage 2.0.

      (4) Refinish per Par. 4.

      (5) Fabricate an oversize aluminum-nickel-bronze bushing per Fig. 602 to replace bushing (20, 25).

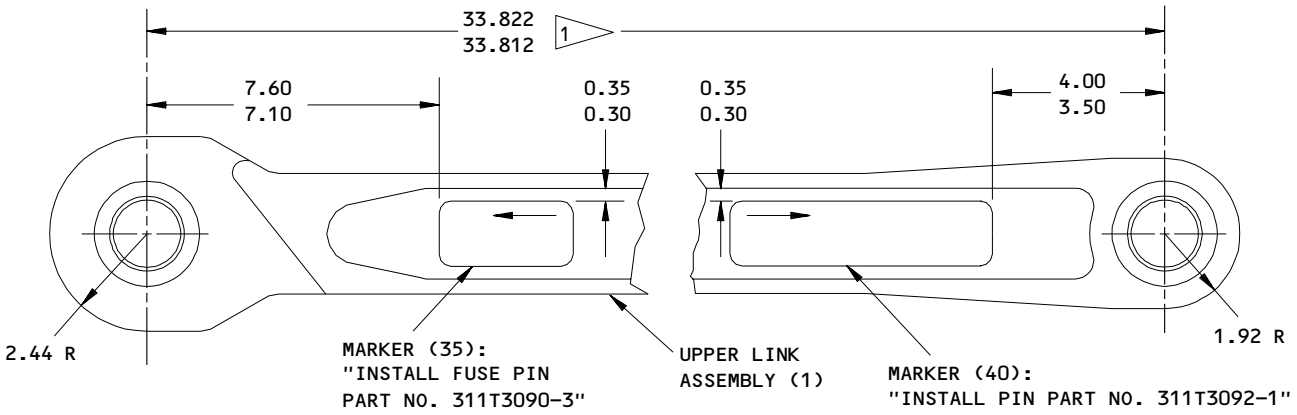
3. Aluminum Foil Marker Replacement (35, 40, IPL Fig. 1)

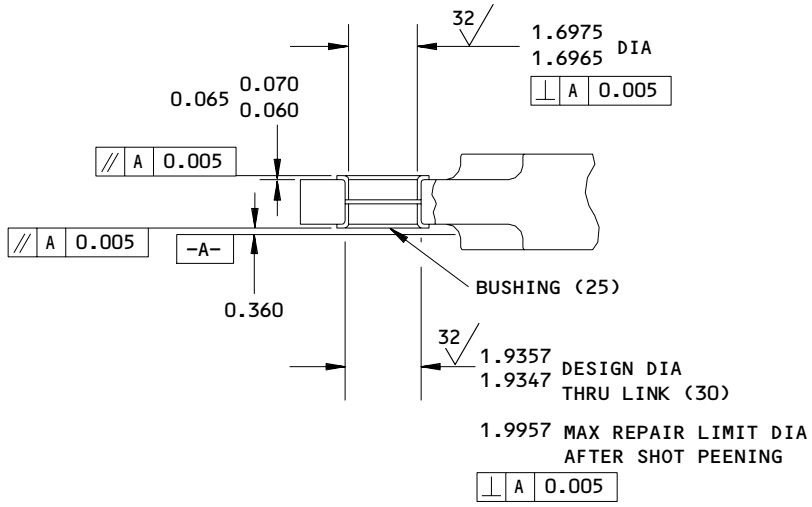
   A. Remove markers, if damaged.

   B. Install markers per 20-50-05 to dimensions shown (Fig. 601). Edge seal markers by overcoating with 20-44-01, type 41 topcoating.

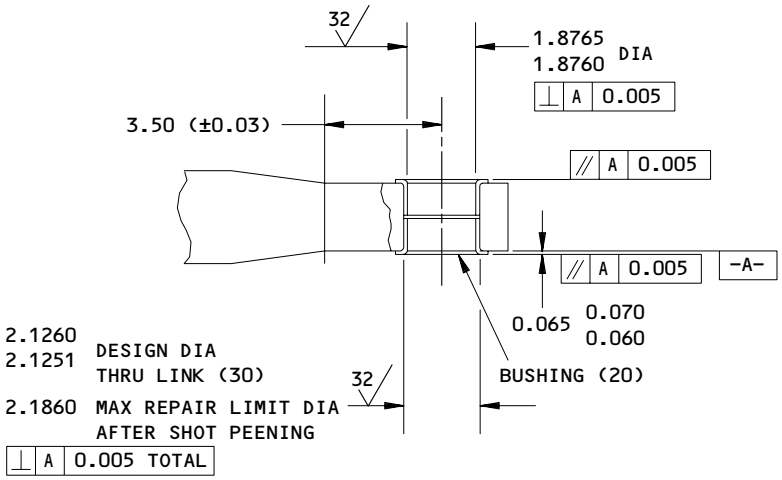
4. Refinish

   A. Upper link (30) -- Passivate (F-17.09). Material: 15-5PH CRES, 180-200 ksi.





311T3710-1
Upper Link Assembly Repair
Figure 601 (Sheet 1)



1 THIS DIMENSION ESTABLISHED FOR 72° F. REPAIRS MADE AT ANY OTHER TEMPERATURE MUST BE ADJUSTED FOR THERMAL EXPANSION WITH THE FOLLOWING FORMULA:

FD = DD + 0.00022*(T2–72°F) WHERE:

FD = THE FINAL DIMENSION ADJUSTED FOR THERMAL EXPANSION IN INCHES
DD = DESIGN DIMENSION AT 72°F IN INCHES
T2 = THE ACTUAL TEMPERATURE IN °F

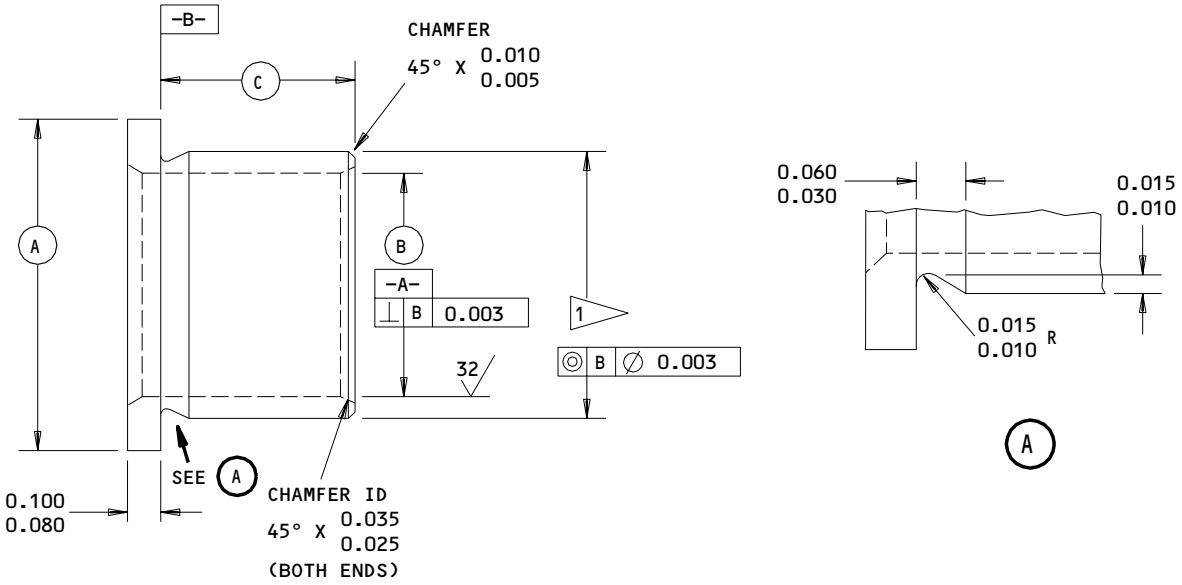
EXAMPLE:
DD = 33.817 ±0.005 INCHES
T2 = 80°F

FD = 33.817 ±0.005 + 0.00022
*(80–72) = 33.819 ±0.005 INCHES

ITEM NUMBERS REFER TO IPL FIG. 1

ALL DIMENSIONS ARE IN INCHES

311T3710–1
Upper Link Assembly Repair
Figure 601 (Sheet 2)



ORIGINAL BUSHING NO. (REF)	(A)	(B)	(C)	INTERFERENCE
20, IPL FIG. 1	2.635 2.615	1.859 1.856	0.975 0.965	0.0033–0.0043
25, IPL FIG. 1	2.190 2.170	1.687 1.684	0.620 0.610	0.0030–0.0039

1 FINAL BUSHING OUTSIDE DIA EQUALS REPAIR DIA OF FITTING PLUS INTERFERENCE.

63 ALL MACHINED SURFACES, EXCEPT AS NOTED

ANGULAR TOLERANCES: ±0.50 DEG

MATERIAL: AL-NI-BRZ PER AMS 4640

FINISH: CADMIUM PLATE PER SOPM 20-42-05, TYPE 2, CLASS 2, (F-15.06) ON OD AND FLANGE ONLY. PENETRANT CHECK PER SOPM 20-20-02 AFTER MACHINING AND BEFORE PLATING

DIMENSIONS APPLY AFTER PLATING

ALL DIMENSIONS ARE IN INCHES

311T3710-1
Oversize Bushing Details
Figure 602

DIAGONAL BRACE ASSEMBLY - REPAIR 2-1

311T3730-1, -5

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

1. Bushing Replacement (45, 50, 55, 60, IPL Fig. 1)

CAUTION: REPLACEMENT BUSHINGS MUST BE MADE TO MEET BUSHINGS SPECIFICATIONS AND INTERFERENCE REQUIREMENTS AS SPECIFIED IN THIS REPAIR. DO NOT REPLACE BUSHINGS (45, 50, 55 AND 60, IPL FIG. 1) BY PURCHASING THE BUSHINGS BASED ON THEIR IPL PART NUMBER BECAUSE THEY DO NOT HAVE THE PROPER INTERFERENCE FIT.

A. Remove and discard bushings.

B. Check bushing hole and surrounding lug for damage or corrosion by penetrant check as shown in SOPM 20-20-02. Repair bushing hole if necessary as shown in par. 2. If cracks are indicated in exterior lug surface, contact Boeing for disposition.

C. Shot peen bushing hole as shown in SOPM 20-10-03. Shot size 230-550, Intensity 0.014 A, Coverage 2.0.

D. Refinish as shown in par. 4.

E. Make replacement bushings as shown in Fig. 602 and as follows:

(1) Bushing Materials

(a) For replacement of bushings (45, 60, IPL Fig. 1)

1) 15-5 CRES rod, solution treated as shown in AMS 5659 Heat treatment -- 180-200 ksi

(b) For replacement of bushings (50, 55, IPL Fig. 1)

1) Aluminum-Nickel-Bronze, AMS 4640

(2) Break all sharp edges.

(3) Do a magnetic particle check to the replacement bushing (45, 60, IPL Fig. 1) as shown in SOPM 20-20-01.

(4) Do a penetrant check to the replacement bushing (50, 55, IPL Fig. 1) as shown in SOPM 20-20-02.

(5) Passivate (F-17.09) the replacement bushing (45, 60, IPL Fig. 1) all over.

(6) Cadmium plate (F-15.06) the replacement bushing (50, 55, IPL Fig. 1) on outside diameter and flange only.

F. Install each bushing by the shrink-fit method as shown in SOPM 20-50-03, except apply Loctite 640 (MIL-R-46082, Type II) retaining compound to bushing hole and flange faying surface.

G. Machine each installed bushing to final inside diameter as shown in Fig. 601.

H. Fillet seal each bushing flange with BMS 5-26 sealant (preferred) or BMS 5-95 sealant.

2. Repair for Diagonal Brace (65, IPL Fig. 1) Bushing Hole (for Bushings 45, 50, 55, 60, IPL Fig. 1)

A. Machine bushing hole to remove damage or corrosion.

B. Check bushing hole for damage by penetrant check as shown in SOPM 20-20-02.

C. Machine bushing hole an additional 0.020 inch (diameter) as an insurance cut to remove any undetectable cracks. See Fig. 601 for maximum repair limit diameter.

D. Break all the edges 0.02-0.04 inch.

E. Check bushing hole for damage by penetrant check as shown in SOPM 20-20-02.

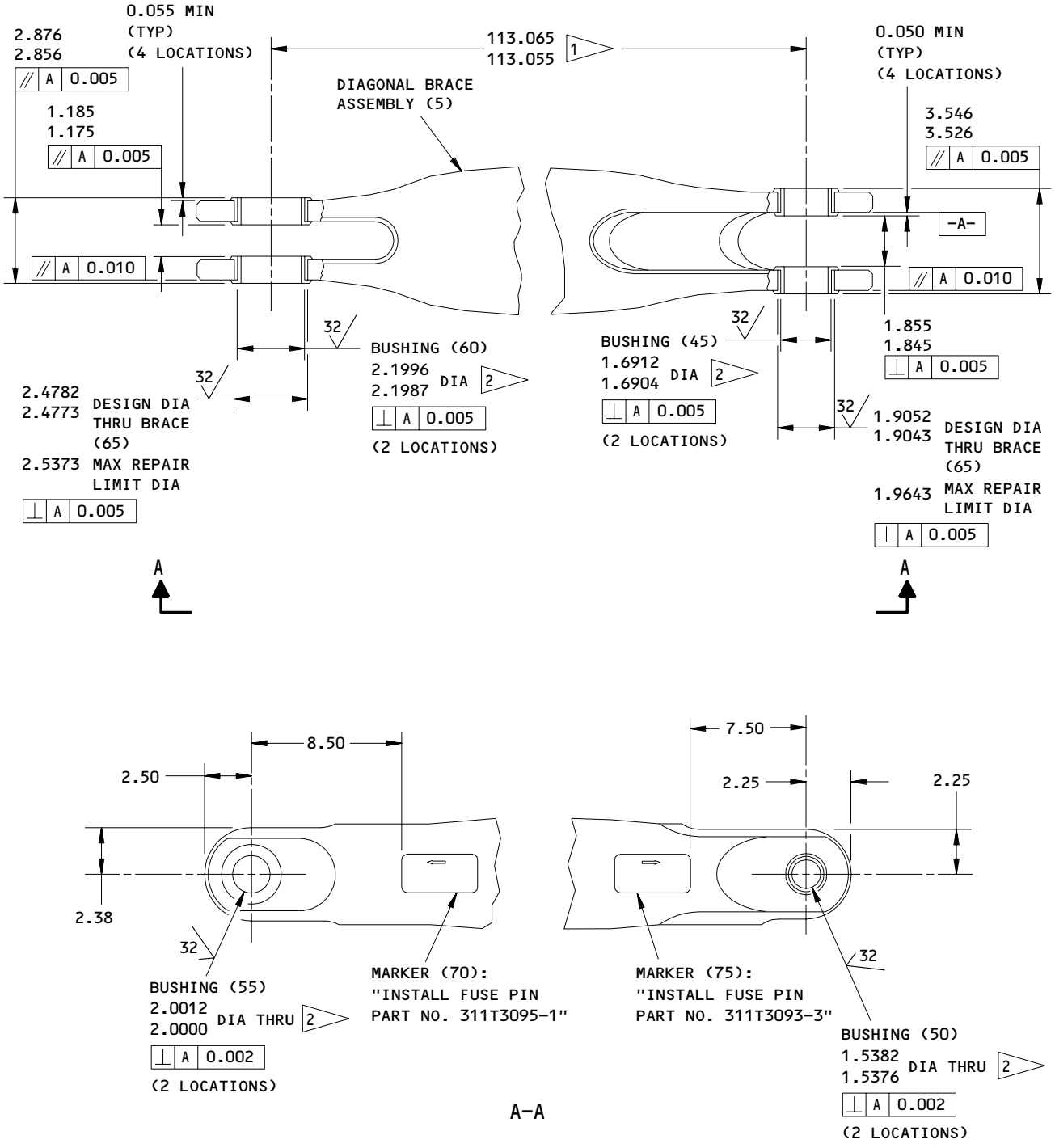
3. Aluminum Foil Marker Replacement (70, 75, IPL Fig. 1)

   A. Remove markers, if damaged.

   B. Install markers per 20-50-05 to dimensions shown (Fig. 601). Edge seal markers by overcoating with 20-44-01, type 41 topcoating.

4. Refinish

   A. Diagonal brace (65) -- Chemically treat (F-17.08) and apply two coats BMS 10-11, type 1 primer (F-20.03) all over, except omit primer from bushing holes. Material: Aluminum alloy.



311T3730-1,-5
Diagonal Brace Assembly Repair
Figure 601 (Sheet 1)

1 THIS DIMENSION ESTABLISHED FOR 72° F. REPAIRS MADE AT ANY OTHER TEMPERATURE MUST BE ADJUSTED FOR THERMAL EXPANSION WITH THE FOLLOWING FORMULA:

FD = DD + 0.00136*(T2-72°F) WHERE:

FD = THE FINAL DIMENSION ADJUSTED FOR THERMAL EXPANSION IN INCHES
DD = DESIGN DIMENSION AT 72°F IN INCHES
T2 = THE ACTUAL TEMPERATURE IN °F

EXAMPLE:
DD = 113.060 ±0.005 INCHES
T2 = 80°F

FD = 113.060 ± 0.005 + 0.00136 *(80-72) = 113.071 ±0.005 INCHES

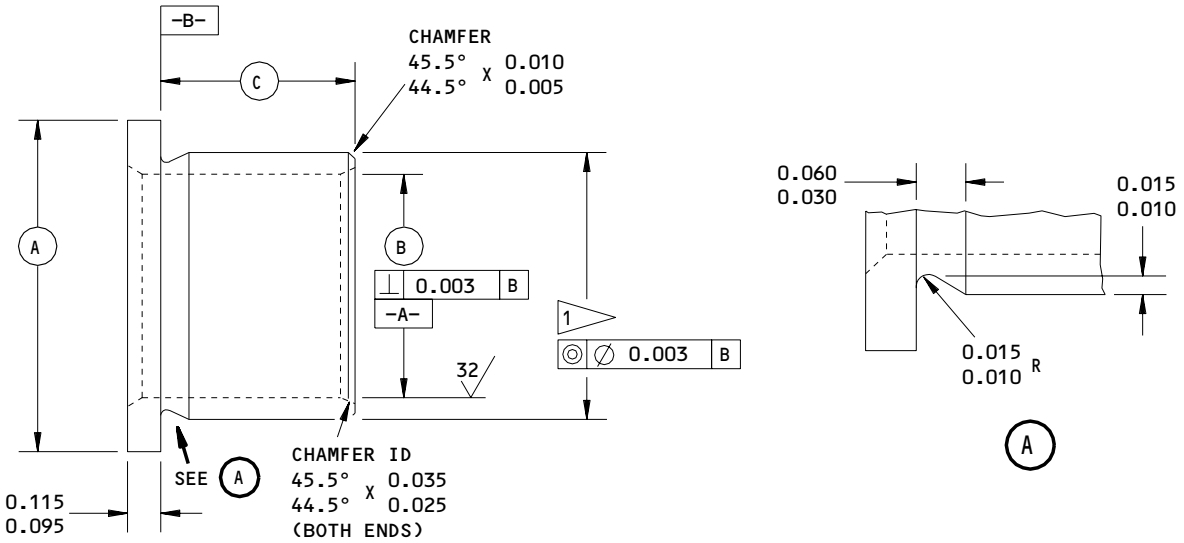
2 TWO HOLES ARE TO BE CONCENTRIC TO COMMON AXIS WITHIN 0.001 INCH T.I.R.

ITEM NUMBERS REFER TO IPL FIG. 1

ALL DIMENSIONS ARE IN INCHES

311T3730-1,-5
Diagonal Brace Assembly Repair
Figure 601 (Sheet 2)

W54125



BUSHING REPLACES IPL FIG. 1 ITEM NO.	A	B	C	INTERFERENCE
45	2.135 2.115	1.687 1.684	0.675 0.665	0.0032 0.0024
50	2.135 2.115	1.531 1.528	0.740 0.725	0.0037 0.0025
55	2.880 2.860	1.999 1.998	0.740 0.725	0.0048 0.0033
60	2.880 2.860	2.186 2.185	0.675 0.665	0.0042 0.0030

1 FINAL BUSHING OUTSIDE DIA EQUALS REPAIR DIA OF FITTING PLUS INTERFERENCE

63 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

DIMENSIONS APPLY AFTER PLATING

ALL DIMENSIONS ARE IN INCHES

311T3730-1,-5
Oversize Bushing Details
Figure 602

LOWER SIDE LINK ASSEMBLY - REPAIR 3-1

311T3740-1

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

1. Bushing Replacement (80, IPL Fig. 1)

   A. Remove bushing.

   B. Check hole for damage or corrosion and repair if necessary per Par. 2.

   C. Install bushing per 20-50-03.

   D. Machine bushing per Fig. 601.

2. Repair

   A. Repair hole for bushing (80, IPL Fig. 1)

      (1) Machine lower side link (85, IPL Fig. 1), as required to remove discrepancies, per Fig. 601.

      (2) Magnetic particle check per 20-20-01, class B.

      (3) Shot peen bore per 20-10-03, shot No. 170-390, intensity 0.006A, and coverage 2.0

      (4) Refinish per Par. 4.

      (5) Fabricate an oversize aluminum-nickel bronze bushing per Fig. 602 to replace bushing (80).

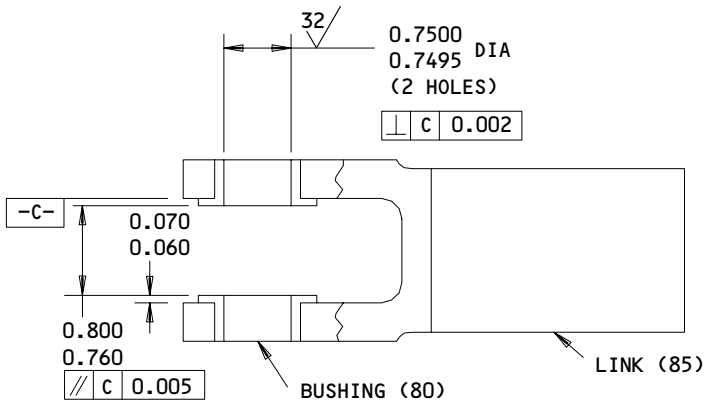
3. Aluminum Foil Marker Replacement (90A, IPL Fig. 1)

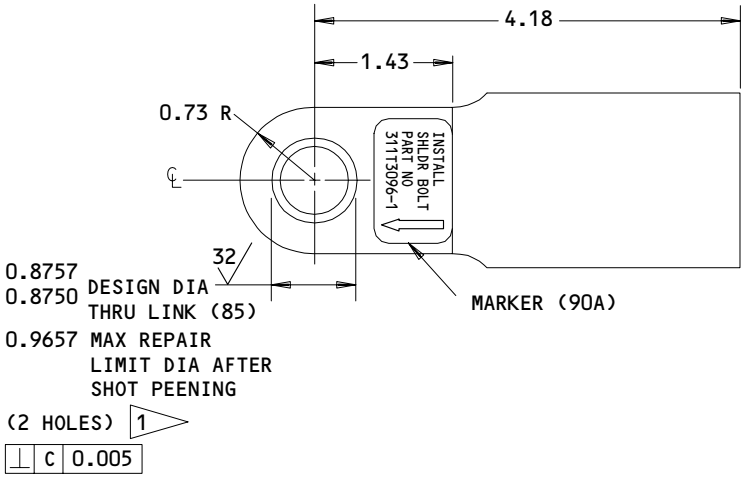
   A. Remove marker, if damaged.

   B. Install marker per 20-50-05 to dimensions shown (Fig. 601). Edge seal marker by overcoating with 20-44-01, type 41 topcoating.

4. Refinish

   A. Lower side link (85) -- Passivate (F-17.09). Material: 15-5PH CRES, 180-200 ksi.





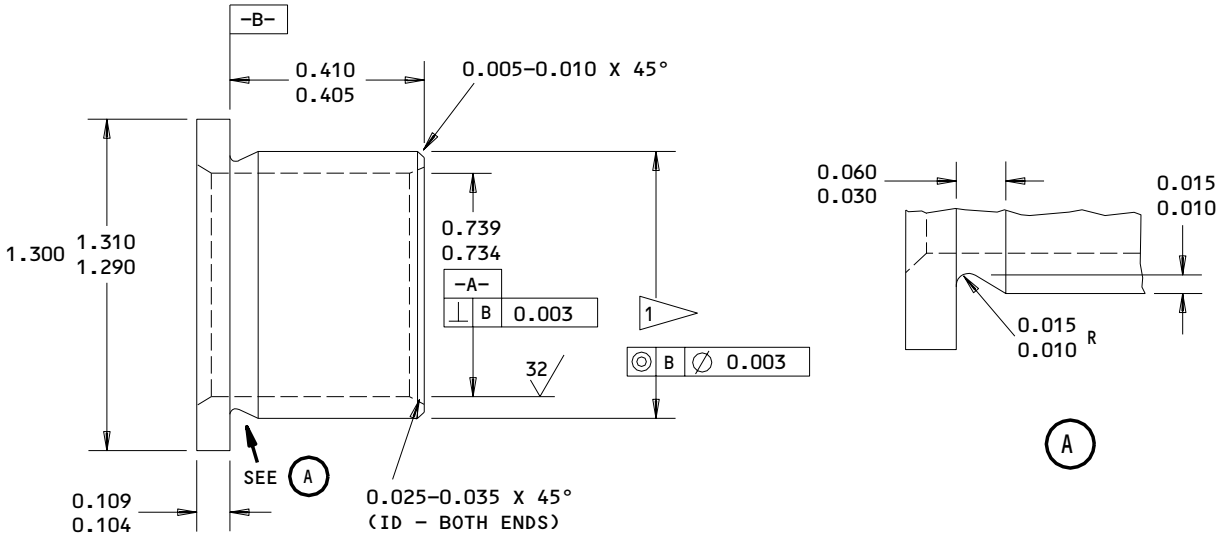
1 TWO HOLES ARE TO BE CONCENTRIC TO COMMON AXIS WITHIN 0.001 INCH T.I.R.

ITEM NUMBERS REFER TO IPL FIG. 1

ALL DIMENSIONS ARE IN INCHES

311T3470-1

Lower Side Link Assembly Repair
Figure 601



1 FINAL BUSHING OUTSIDE DIA EQUALS REPAIR DIA OF FITTING PLUS 0.0013-0.0018 INTERFERENCE

63 ALL MACHINED SURFACES, EXCEPT AS NOTED

ANGULAR TOLERANCES: ±0.50 DEG

MATERIAL: AL-NI-BRZ PER AMS 4640

FINISH: CADMIUM PLATE PER SOPM 20-42-05, TYPE 2, CLASS 2, (F-15.06) ON OD AND FLANGE ONLY. PENETRANT CHECK PER SOPM 20-20-02 AFTER PLATING

DIMENSIONS APPLY AFTER PLATING

ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE SPECIFIED

OVERSIZE REPLACEMENT BUSHING FOR BUSHING (80, IPL FIG. 1)
311T3740-1
Oversize Bushing Details
Figure 602

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UPPER SIDE LINK ASSEMBLY - REPAIR 4-1

311T3740-3, -5

NOTE: Refer to REPAIR - GENERAL for a list of applicable standard procedures.

1. Bushing and Isolator Replacement (95, 97A, IPL Fig. 1)

   A. For upper side link assembly 311T3740-3, do the following:

      (1) Remove the bushing (95).

      (2) Check the hole for damage or corrosion and repair, as necessary, per Par. 2.

      (3) Install bushing per SOPM 20-50-03.

      (4) Machine the bushings (95) as shown in Fig. 601.

   B. For upper side link assembly 311T3740-5, do the following:

      (1) Remove the isolator (97A).

      CAUTION: DO NOT USE LIQUID NITROGEN TO COOL ISOLATORS.

      (2) Install the isolator with wet BMS 10-11, Type 1 primer per SOPM 20-50-03 using dry ice only.

2. Repair

   A. Repair hole for bushing (95, IPL Fig. 1)

      (1) Machine upper side link (100, IPL Fig. 1), as required to remove discrepancies, per Fig. 601.

      (2) Magnetic particle check per 20-20-01, class B.

      (3) Shot peen bore per 20-10-03, shot No. 170-390, intensity 0.006A, and coverage 2.0.

      (4) Refinish per Par. 3.

      (5) Fabricate an oversize aluminum-nickel bronze bushing per Fig. 602 to replace bushing (95).

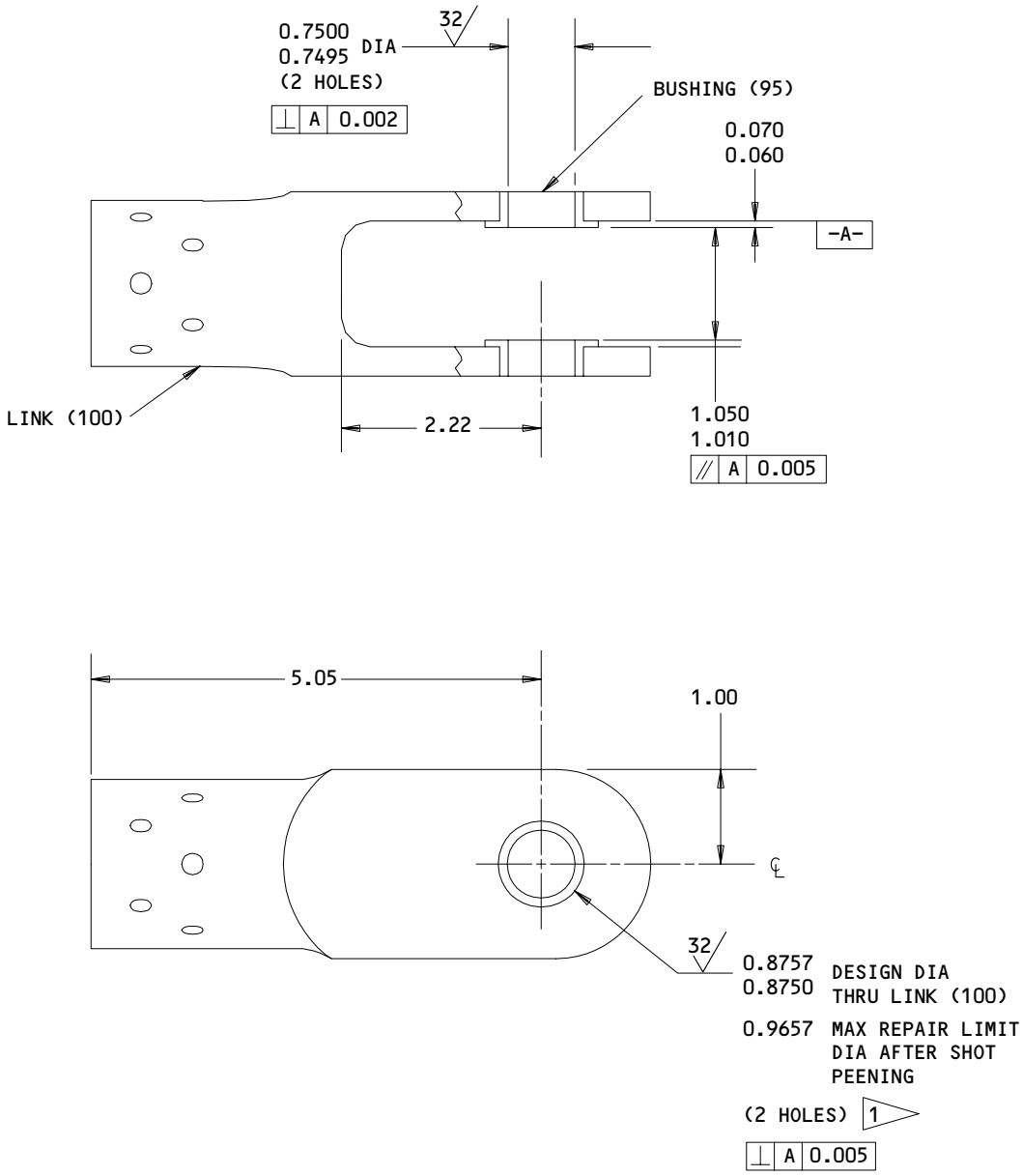
3. Aluminum Foil Marker Replacement, (102,IPL Fig. 1)

   A. Remove marker, if damaged.

   B. Install marker per 20-50-05. Edge seal marker by overcoating with 20-44-01, type 41 topcoating.

4. Refinish

   A. Upper side link (100) -- Passivate (F-17.09). Material: 15-5PH CRES, 180-200 ksi.

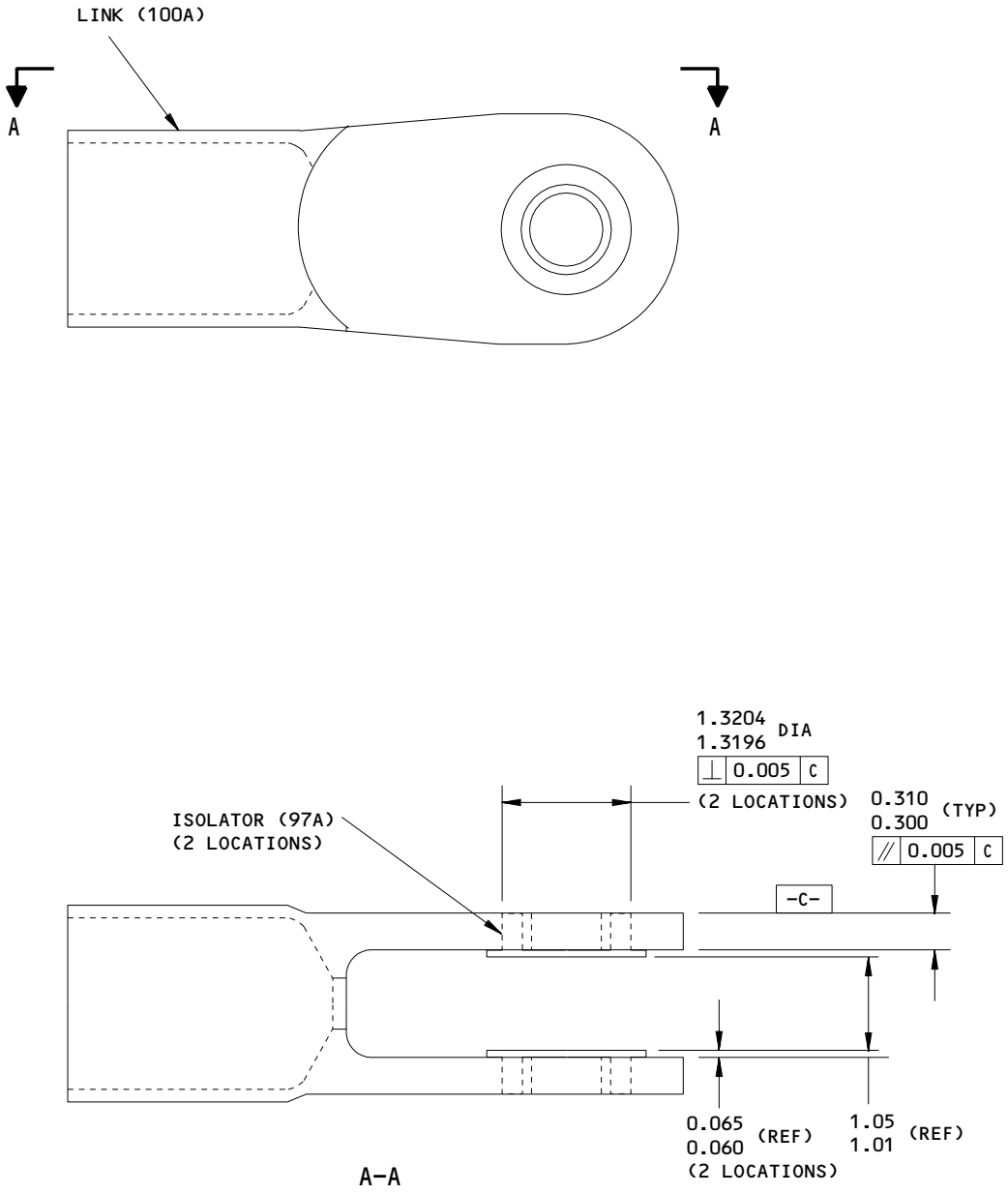


1 TWO HOLES ARE TO BE CONCENTRIC TO COMMON AXIS WITHIN 0.001 INCH T.I.R.

ITEM NUMBERS REFER TO IPL FIG. 1

ALL DIMENSIONS ARE IN INCHES

311T3740-3
Upper Side Link Assembly Repair
Figure 601



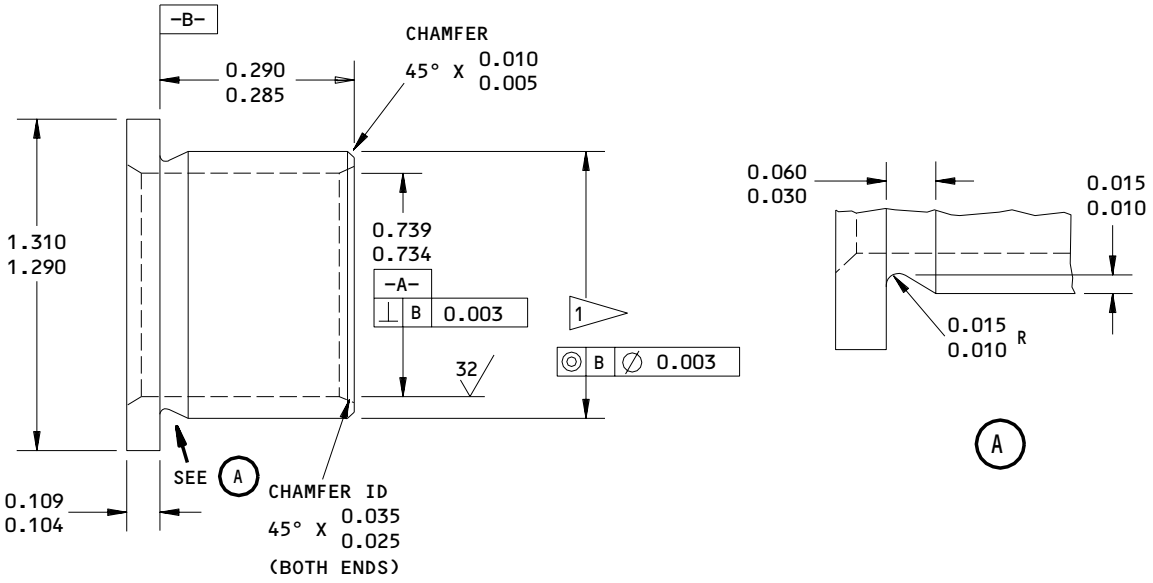
63 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

ITEM NUMBERS REFER TO IPL FIG. 1

ALL DIMENSIONS ARE IN INCHES

311T3740-5
Upper Side Link Assembly Repair
Figure 602

W54116



1 FINAL BUSHING OUTSIDE DIAMETER EQUALS REPAIR DIAMETER OF FITTING PLUS 0.0013–0.0018 INTERFERENCE

63 ALL MACHINED SURFACES, EXCEPT AS NOTED

ANGULAR TOLERANCES: ±0.50 DEG

MATERIAL: AL–NI–BRZ PER AMS 4640

FINISH: CADMIUM PLATE PER SOPM 20–42–05, TYPE 2, CLASS 2, (F–15.06) ON OD AND FLANGE ONLY. PENETRANT CHECK PER SOPM 20–20–02 AFTER PLATING

DIMENSIONS APPLY AFTER PLATING

ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE SPECIFIED

OVERSIZE REPLACEMENT BUSHING FOR BUSHING (95, IPL FIG. 1)
311T3740–3
Oversize Bushing Details
Figure 603

FUSE PIN - REPAIR 5-1

311T3090-3

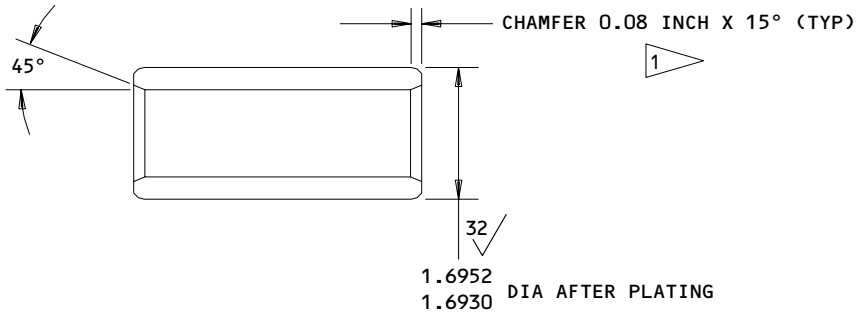
CAUTION: FUSE PINS WITH DAMAGED OR ALTERED BASE METAL ARE NOT SERVICEABLE. DAMAGED OR ALTERED BASE METAL DESTROYS FUSE PIN INTEGRITY. REPAIR CONSISTS OF RESTORATION OF FINISH ONLY.

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

1. Refinish

   A. Chrome plate outside diameter per 20-42-03, single plate thickness 0.003 inch minimum (F-15.03). Grind per 20-10-04 to dimensions shown in Fig. 601. Apply wipe-on primer (F-19.45) to chromed areas.

   B. Cadmium plate inside surfaces (0.0002-0.0004 inch) (F-15.02), apply two coats BMS 10-11, type 1 primer (F-20.03), then clean and apply MIL-C-11796, class 1 corrosion preventive compound (F-19.03) to a minimum thickness of 0.05 inch. Material: 4330M steel, 33 Rc max.



1 CHROME RUNOUT 0.08 INCH BOTH ENDS PIN DIAMETER

ALL DIMENSIONS ARE IN INCHES

311T3090-3
Fuse Pin Refinish
Figure 601

FUSE PIN - REPAIR 6-1

311T3093-3, -4

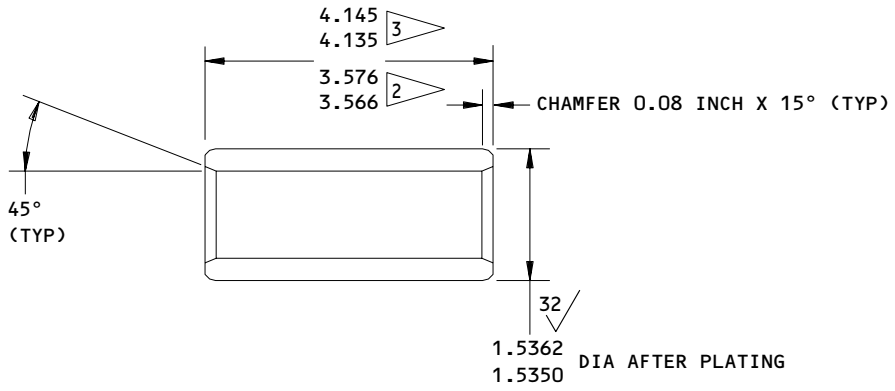
CAUTION: FUSE PINS WITH DAMAGED OR ALTERED BASE METAL ARE NOT SERVICEABLE. DAMAGED OR ALTERED BASE METAL DESTROYS FUSE PIN INTEGRITY. REPAIR CONSISTS OF RESTORATION OF FINISH ONLY.

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

1. Refinish

   A. Chrome plate outside diameter per 20-42-03, single plate thickness 0.003 inch minimum (F-15.03). Grind per 20-10-04 to dimensions shown in Fig. 601. Apply wipe-on primer (F-19.45) to chromed areas.

   B. Cadmium plate inside surfaces (0.0002-0.0004 inch) (F-15.02), apply two coats BMS 10-11, type 1 primer (F-20.03), then clean and apply MIL-C-11796, class 1 corrosion preventive compound (F-19.03) to a minimum thickness of 0.05 inch. Material: 4330M steel, 33 Rc max.



1 CHROME RUNOUT 0.08 INCH BOTH ENDS PIN DIAMETER

2 FOR 311T3093-3

3 FOR 311T3093-4

ALL DIMENSIONS ARE IN INCHES

311T3093-3,-4
Fuse Pin Refinish
Figure 601

FUSE PIN - REPAIR 7-1

311T3102-1, -2, -3, -4

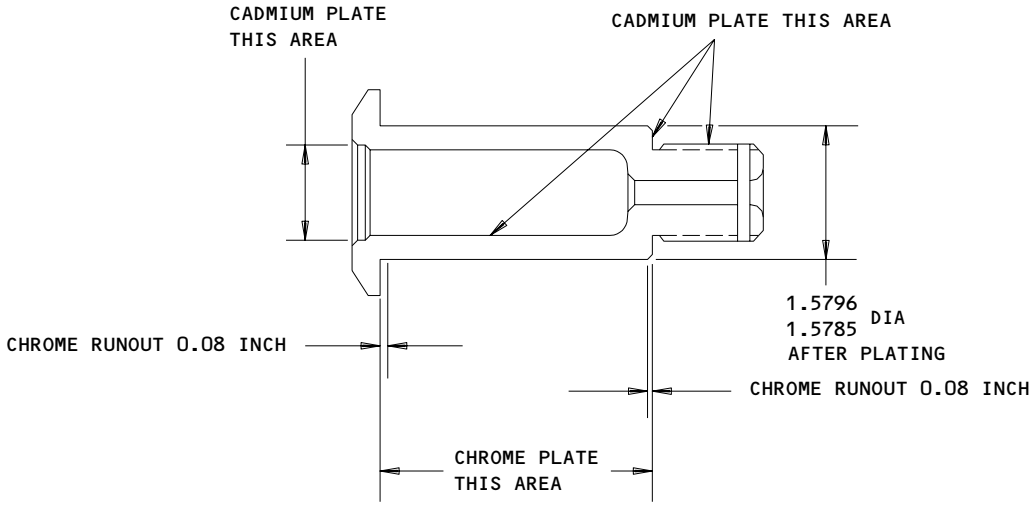
CAUTION: FUSE PINS WITH DAMAGED OR ALTERED BASE METAL ARE NOT SERVICEABLE. DAMAGED OR ALTERED BASE METAL DESTROYS FUSE PIN INTEGRITY. REPAIR CONSISTS OF RESTORATION OF FINISH ONLY.

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

1. Refinish

   A. Chrome plate outside diameter per 20-42-03 (Fig. 601), single plate thickness 0.003 inch minimum (F-15.03). Grind per 20-10-04 to dimensions shown in Fig. 601. Apply wipe-on primer (F-19.45) to chromed area.

   B. Cadmium plate indicated areas (Fig. 601) to a thickness of 0.0002-0.0004 inch (F-15.02). Apply wipe-on primer (F-19.45) to threads. Apply two coats BMS 10-11, type 1 primer (F-20.03) to other areas, then clean and coat bore using MIL-C-11796, class 1 corrosion preventive compound (F-19.03) to a minimum thickness of 0.05 inch. Material: 4330M or 4340 steel, 33 Rc max.



ALL DIMENSIONS ARE IN INCHES

311T3102-1,-2,-3,-4
Fuse Pin Refinish
Figure 601

SHOULDER BOLT - REPAIR 8-1

311T3096-1, -2

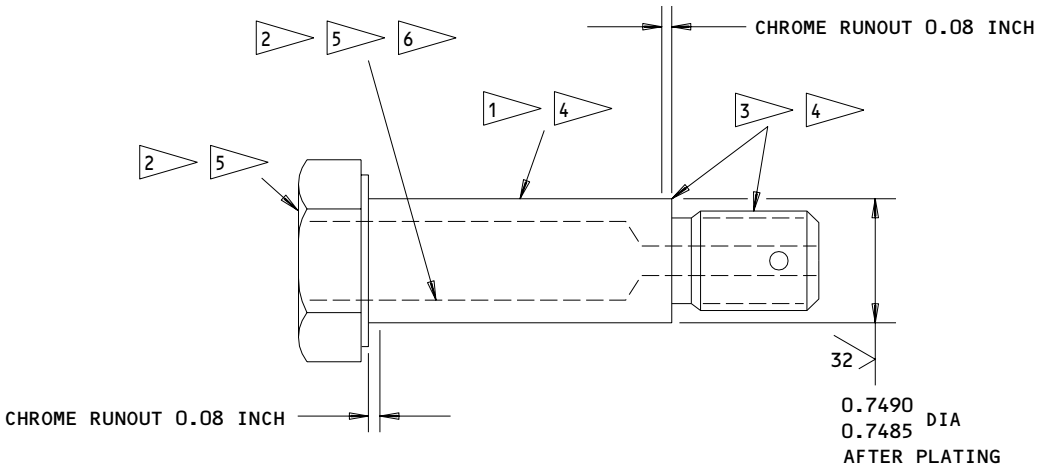
CAUTION: SHOULDER BOLTS WITH DAMAGED OR ALTERED BASE METAL ARE NOT SERVICEABLE. DAMAGED OR ALTERED BASE METAL DESTROYS SHOULDER BOLT INTEGRITY. REPAIR CONSISTS OF RESTORATION OF FINISH ONLY.

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

1. Refinish

   A. Chrome plate per 20-42-03 (F-15.03) per Fig. 601. No plating permitted in fillet radii. Grind per 20-10-04 to dimensions shown in Fig. 601.

   B. Cadmium plate indicated areas per 20-42-05 and Fig. 601. Apply two coats BMS 10-11, type 1 primer (F-20.03), except omit primer from threads and chromed areas. Apply wipe-on primer (F-19.45) to threads and chromed area. Clean and coat bore using MIL-C-11796, class 1 corrosion preventive compound (F-19.03) to a minimum thickness of 0.05 inch. Material: 4330M steel, 180-200 ksi for 311T3096-1, 15-5 PH CRES, 180-200 ksi for 311T3096-2.



1 CHROME PLATE PER 20-42-03 (F-15.03)
SINGLE PLATE THICKNESS:

0.003 INCH MIN FOR 311T3096-1
0.005-0.0010 INCH FOR 311T3096-2

2 CADMIUM PLATE PER 20-42-05 TYPE 3,
CLASS 3

3 CADMIUM PLATE PER 20-42-05:
TYPE 2, CLASS 3 FOR 311T3096-1
TYPE 3, CLASS 3 (F-15.02) FOR 311T3096-2

4 APPLY WIPE-ON PRIMER (F-19.45) TO
THREADS AND CHROMED AREA

5 APPLY TWO COATS BMS 10-11, TYPE 1 PRIMER
(F-20.03)

6 CLEAN AND COAT BORE USING MIL-C-11796,
CLASS 1, CORROSION PREVENTIVE COMPOUND
PER 20-41-03 (F-19.03)

311T3096-1,-2
Shoulder Bolt Refinish
Figure 601

DIAGONAL BRACE ASSEMBLY - REPAIR 9-1

311T1730-1, -3, -4

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

1. Bushing Replacement (145, 150, 155, 160, IPL Fig. 1)

CAUTION: REPLACEMENT BUSHINGS MUST BE MADE TO MEET BUSHINGS SPECIFICATIONS AND INTERFERENCE REQUIREMENTS AS SPECIFIED IN THIS REPAIR. DO NOT REPLACE BUSHINGS (145, 150, 155 AND 160, IPL FIG. 1) BY PURCHASING THE BUSHINGS BASED ON THEIR IPL PART NUMBER BECAUSE THEY DO NOT HAVE THE PROPER INTERFERENCE FIT.

A. Remove and discard bushings.

B. Check bushing hole and surrounding lug for damage or corrosion by penetrant check as shown in SOPM 20-20-02. Repair bushing hole if necessary as shown in par. 2. If cracks are indicated in exterior lug surface, contact Boeing for disposition.

C. Shot Peening requirements:

(1) For 311T1730-1 or -3 diagonal brace assy, shot peen the bushing holes as shown in SOPM 20-10-03, Shot size 230-550, Intensity 0.014A, Coverage 2.0.

(2) For 311T1730-4 diagonal brace assembly, if the bushing hole size is increased by more than 0.004 inches on the diameter, Shot peen the bushing holes as shown in SOPM 20-10-03, Shot size 230-550, Intensity 0.014A, Coverage 2.0.

D. Refinish as shown in par. 4.

E. Make replacement bushings as shown in Fig. 602 and as follows:

(1) Bushing Materials

(a) For replacement of bushings (150, 160, IPL Fig. 1)

1) 15-5 CRES rod, solution treated as shown in AMS 5659 Heat treatment -- 180-200 ksi

(b) For replacement of bushings (145, 155, IPL Fig. 1)

1) Aluminum-Nickel-Bronze, AMS 4640

(2) Break all sharp edges.

(3) Do a magnetic particle check to the replacement bushing (150, 160, IPL Fig. 1) as shown in SOPM 20-20-01.

(4) Do a penetrant check to the replacement bushing (145, 155, IPL Fig. 1) as shown in SOPM 20-20-02.

(5) Passivate (F-17.09) the replacement bushing (150, 160, IPL Fig. 1) all over.

(6) Cadmium plate (F-15.06) the replacement bushing (145, 155, IPL Fig. 1) on outside diameter and flange only.

F. Install each bushing by the shrink-fit method as shown in SOPM 20-50-03, except apply Loctite 640 (MIL-R-46082, Type II) retaining compound to bushing hole and flange faying surface.

G. Machine each installed bushing to final inside diameter as shown in Fig. 601.

H. Fillet seal each bushing flange with BMS 5-26 sealant (preferred) or BMS 5-95 sealant.

2. Repair for Diagonal Brace (165, IPL Fig. 1) Bushing Hole (for Bushings 145, 150, 155, 160, IPL Fig. 1)

A. Machine bushing hole to remove damage or corrosion.

B. Check bushing hole for damage by penetrant check as shown in SOPM 20-20-02.

C. Machine bushing hole an additional 0.020 inch (diameter) as an insurance cut to remove any undetectable cracks. See Fig. 601 for maximum repair limit diameter.

D. Break all the edges 0.02-0.04 inch.

E. Check bushing hole for damage by penetrant check as shown in SOPM 20-20-02.

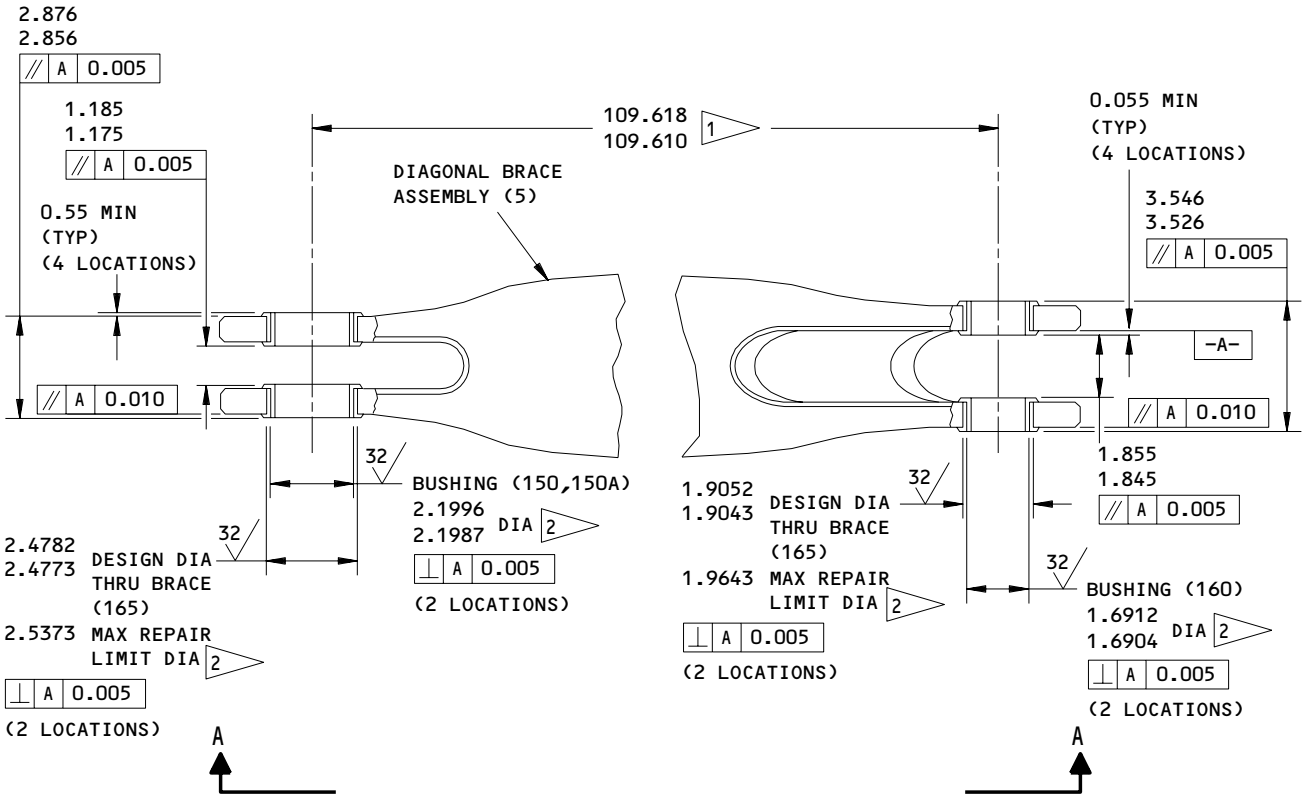
3. Aluminum Foil Marker Replacement (170, 175, IPL Fig. 1)

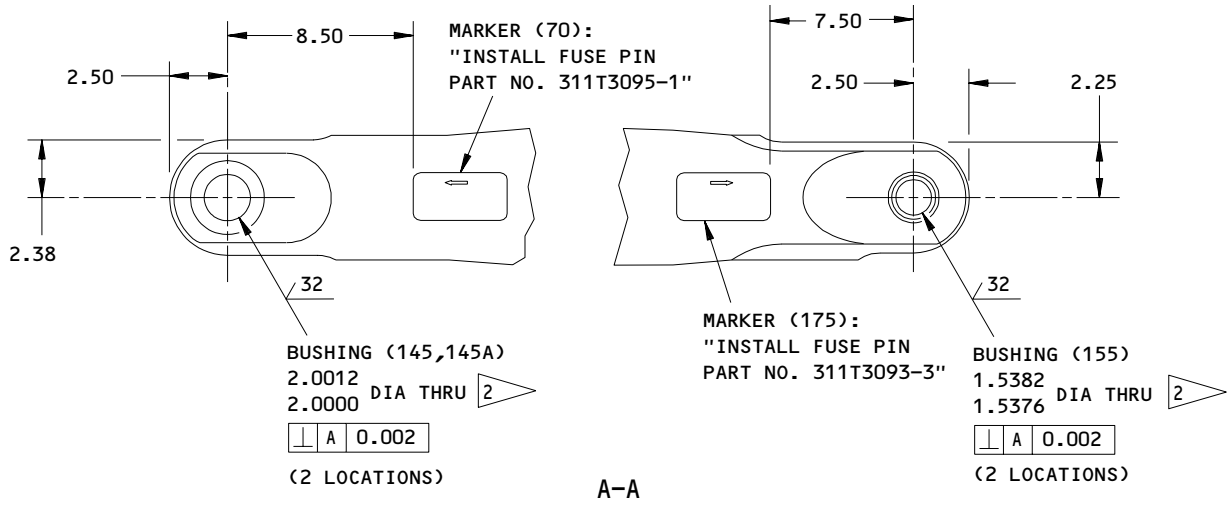
A. Remove markers, if damaged.

B. Apply markers (170, 175) per 20-50-05, Fig. 601. Edge seal markers by overcoating with 20-44-01, type 41 topcoating.

4. Refinish

A. Diagonal brace (165) -- Chemically treat (F-17.08) and apply two coats of BMS 10-11, type 1 primer (F-20.03) all over, except omit primer from bushing holes. Material: Aluminum alloy.





A-A

311T1730-1,-3,-4
Diagonal Brace Assembly Repair
Figure 601 (Sheet 1)

20158

1 THIS DIMENSION ESTABLISHED FOR 72° F. REPAIRS MADE AT ANY OTHER TEMPERATURE MUST BE ADJUSTED FOR THERMAL EXPANSION WITH THE FOLLOWING FORMULA:

FD = DD + 0.00132*(T2–72°F) WHERE:

FD = THE FINAL DIMENSION ADJUSTED FOR THERMAL EXPANSION IN INCHES
DD = DESIGN DIMENSION AT 72°F IN INCHES
T2 = THE ACTUAL TEMPERATURE IN °F

EXAMPLE:
DD = 109.614 ±0.004 INCHES
T2 = 80°F

FD = 109.614 ±0.004 + 0.00132 *(80–72) = 109.625 ±0.004 INCHES

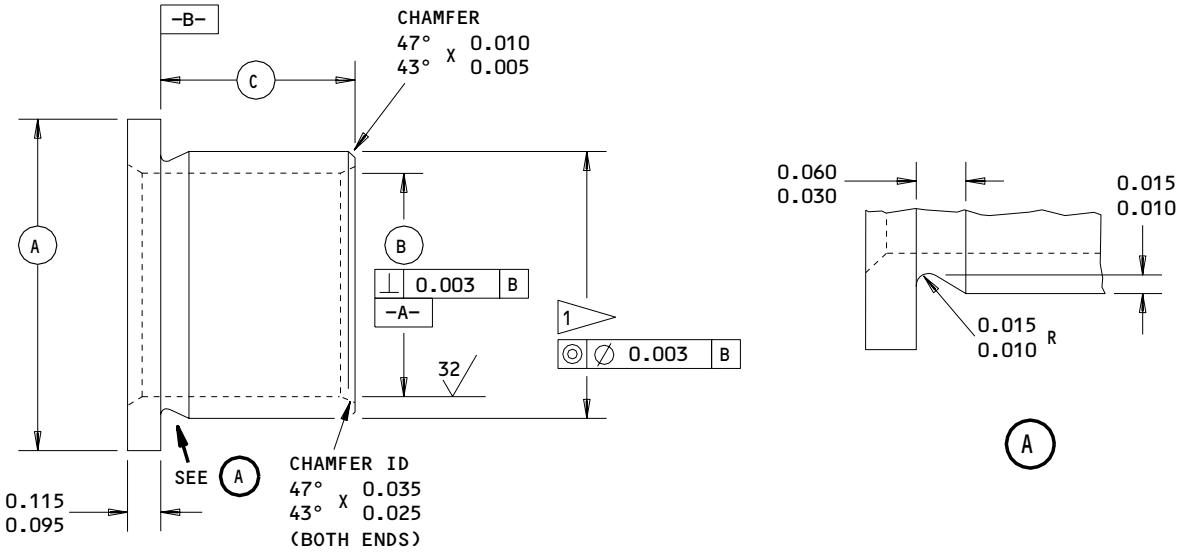
2 TWO HOLES ARE TO BE CONCENTRIC TO COMMON AXIS WITHIN 0.001 INCH T.I.R.

ITEM NUMBERS REFER TO IPL FIG. 1

ALL DIMENSIONS ARE IN INCHES

311T1730-1,-3,-4
Diagonal Brace Assembly Repair
Figure 601 (Sheet 2)

W54146



BUSHING REPLACES IPL FIG. 1 ITEM NO.	A	B	C	INTERFERENCE
145	2.880 2.860	1.999 1.998	0.740 0.725	0.0048 0.0033
150	2.880 2.860	2.186 2.185	0.675 0.665	0.0043 0.0030
155	2.135 2.115	1.531 1.528	0.740 0.725	0.0037 0.0025
160	2.135 2.115	1.687 1.684	0.675 0.665	0.0032 0.0023

1 FINAL BUSHING OUTSIDE DIA EQUALS REPAIR DIA OF FITTING PLUS INTERFERENCE.

63 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

DIMENSIONS APPLY AFTER PLATING

ALL DIMENSIONS ARE IN INCHES UNLESS SHOWN DIFFERENTLY

311T1730-1,-3
Oversize Bushing Details
Figure 602

UPPER LINK ASSEMBLY - REPAIR 10-1

311T1710-1, -3

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

1. Bushing Replacement (105, 110, 115, 120, IPL Fig. 1)

   NOTE: The inner bushings (items 105, 115) are made from Al-Ni-Br material, and are installed into the outer bushings (items 110, 120) which are made from 15-5PH CRES to create a 'nested bushing' configuration. The inner bushings may be removed and replaced, if worn, without replacement of the outer bushings, if there are no indications which require the removal and replacement of the outer bushings.

   A. Remove inner bushing (105, 115)

   B. Check outer bushing (110, 120) for damage or corrosion. Damage such as scratches or light corrosion in outer bushing inner diameter may be removed by machining up to maximum design diameter. If corrosion is visible around flange edges, outer bushing must be removed and hole must be repaired as shown in par. 2.

   C. If outer bushing is removed, check hole for damage or corrosion and repair if necessary as shown in par. 2.

   D. Install bushing as shown in SOPM 20-50-03.

   E. Machine installed bushing to final diamter as shown in Fig. 601.

   F. Fillet seal bushing flange using BMS 5-95 sealant.

2. Repair

   A. Repair hole for bushing (105, 110, 115, 120)

      (1) Machine upper link (125, 130 IPL Fig. 1), as required to remove discrepancies, per Fig. 601.

      (2) Magnetic particle check per 20-20-01, class A critical.

      (3) Shot peen bore per 20-10-03, shot No. 170-330, intensity 0.016A and coverage 2.0.

      (4) Refinish per Par. 4.

      (5) Fabricate an oversize 15-5PH CRES bushing per Fig. 602 to replace bushing (110, 120).

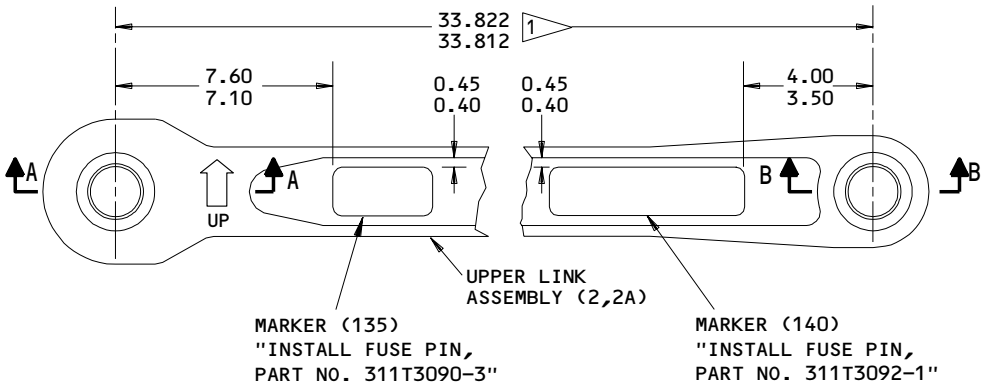
3. Aluminum Foil Marker Replacement (135, 140, IPL Fig. 1)

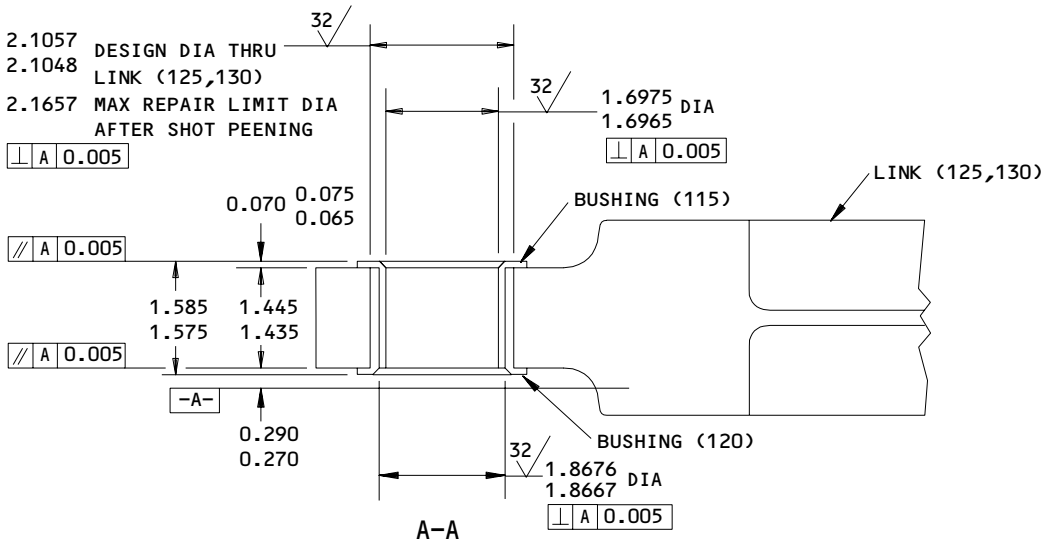
   A. Remove markers, if damaged.

   B. Install markers per 20-50-05 to dimensions shown (Fig. 601). Edge seal markers by overcoating with 20-44-01, type 41 topcoating.

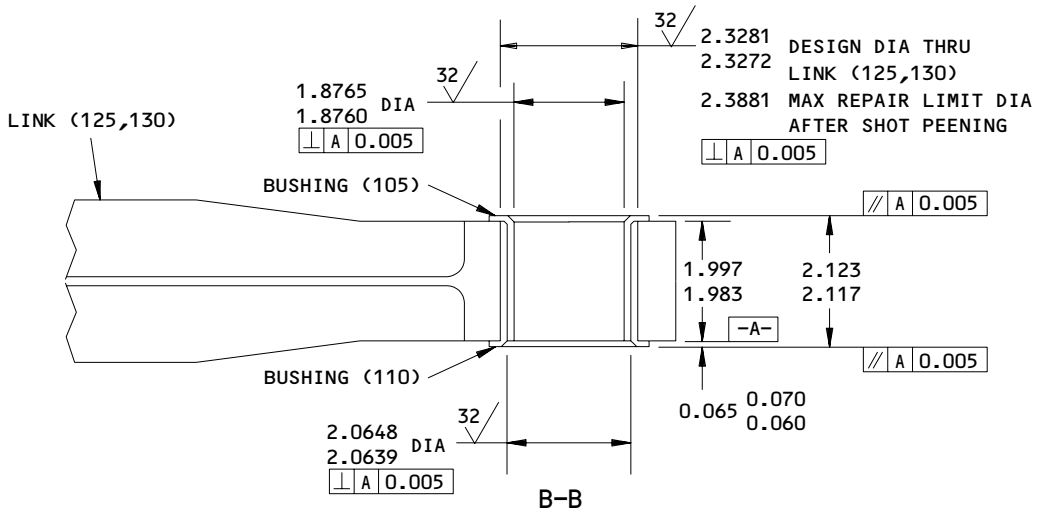
4. Refinish

   A. Upper link (125, 130) -- Cadmium titanium alloy plate (0.0002-0.0005 inch thick), bake 12 hours minimum at 350-400°F, and apply chromate post-plate treatment per 20-42-02 (F-15.01). Apply two coats BMS 10-11, type 1 primer (F-20.03) all over, except apply only one coat primer to bushed holes. Allow primer to dry prior to bushing installation. Material: 4330M steel, RC 33 maximum.





311T1710-1,-3
Upper Link Assembly Repair
Figure 601 (Sheet 1)



1 THIS DIMENSION ESTABLISHED FOR 72° F. REPAIRS MADE AT ANY OTHER TEMPERATURE MUST BE ADJUSTED FOR THERMAL EXPANSION WITH THE FOLLOWING FORMULA:

FD = DD + 0.00024*(T2-72°F) WHERE:

FD = THE FINAL DIMENSION ADJUSTED FOR THERMAL EXPANSION IN INCHES
DD = DESIGN DIMENSION AT 72°F IN INCHES
T2 = THE ACTUAL TEMPERATURE IN °F

EXAMPLE:
DD = 33.817 ±0.005 INCHES
T2 = 80°F

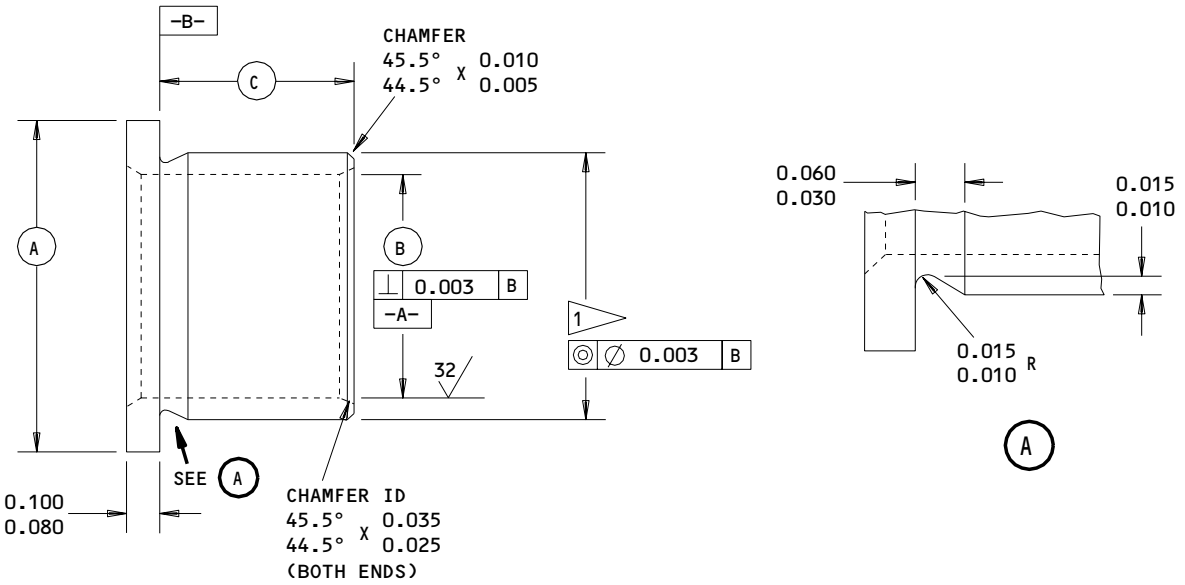
FD = 33.817 ±0.005 + 0.00024
*(80-72) = 33.819 ±0.005 INCHES

ITEM NUMBERS REFER TO IPL FIG. 1

ALL DIMENSIONS ARE IN INCHES

311T1710-1,-3
Upper Link Assembly Repair
Figure 601 (Sheet 2)

W54193



BUSHING REPLACES IPL FIG. 1 ITEM NO.	BUSHING TYPE 2	A	B	C	INTERFERENCE	MATERIAL
105	INNER	2.710 2.690	1.871 1.867	2.032 2.012	0.0041 0.0031	Al-Ni-BRONZE AS SHOWN IN AMS 4640
110	OUTER	2.710 2.690	2.059 2.055	1.980 1.960	0.0047 0.0035	15-5PH CRES AS SHOWN IN AMS 5659, 180-200 KSI
115	INNER	2.450 2.430	1.692 1.688	1.482 1.462	0.0038 0.0028	Al-Ni-BRONZE AS SHOWN IN AMS 4640
120	OUTER	2.450 2.430	1.862 1.858	1.430 1.410	0.0042 0.0032	15-5PH CRES AS SHOWN IN AMS 5659, 180-200 KSI

1 FINAL BUSHING OUTSIDE DIA EQUALS REPAIR DIA OF FITTING PLUS INTERFERENCE.

2 OUTER BUSHINGS ARE INSTALLED IN THE UPPER LINK.
INNER BUSHINGS ARE INSTALLED IN THE OUTER BUSHINGS TO FORM A NESTED BUSHING CONFIGURATION.

63 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

FINISH:
PASSIVATE AS SHOWN IN SOPM 20-30-03, METHOD 2 (F-17.09) ALL OVER. CADMIUM PLATE AS SHOWN IN SOPM 20-42-05, TYPE 2, CLASS 2, (F-15.06) ON OD AND FLANGE ONLY. MAGNETIC PARTICLE CHECK AS SHOWN IN SOPM 20-20-01, CLASS B AFTER PLATING

DIMENSIONS APPLY AFTER PLATING

ALL DIMENSIONS ARE IN INCHES UNLESS SHOWN DIFFERENTLY

311T1730-1,-3
Oversize Bushing Details
Figure 602

FUSE PIN ASSEMBLY - REPAIR 11-1

311T3090-4

CAUTION: FUSE PINS WITH DAMAGED OR ALTERED BASE METAL ARE NOT SERVICEABLE. DAMAGED OR ALTERED BASE METAL DESTROYS FUSE PIN INTEGRITY. REPAIR CONSISTS OF RESTORATION OF FINISH ONLY.

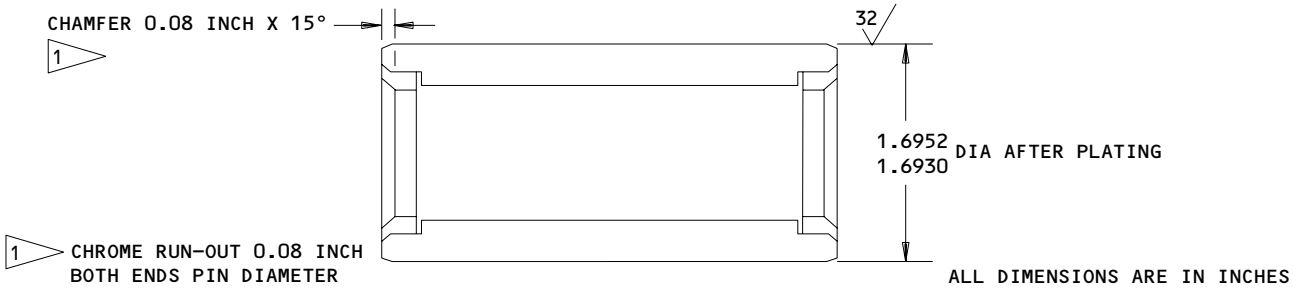
NOTE: Refer to REPAIR-GEN for list of applicable standard practices.

1. Refinish

   A. Fuse pin (P/N 311T3090-5) -- Cadmium plate per 20-42-05, type 2, class 3 inside surfaces (0.0002-0.0004 inch) (F-15.02). Chrome plate outside diameter per 20-42-03, single plate thickness 0.003 inch minimum (F-15.03). Grind per 20-10-04 to dimensions shown in Fig. 601. Material: 4330M or 4340 steel, 33 Rc max.

   B. Adapter ring (P/N 311T3090-6) -- Cadmium plate (0.0002-0.0004 inch) per 20-42-05, type 2, class 3. Material: 4330M or 4340 steel, 33 Rc max.

   C. Fuse pin assembly (P/N 311T3090-4) -- Apply wipe-on primer (F-19.45) to chromed areas. Apply two coats BMS 10-11, type 1 primer (F-20.03) to inside surfaces, then clean and apply MIL-C-11796, class 1 corrosion preventive compound (F-19.03) to inside surfaces to a minimum thickness of 0.05 inch.



311T3090-4
Fuse Pin Assembly Refinish
Figure 601

20251

DIAGONAL BRACE ASSEMBLY - REPAIR 12-1

311T4730-1, -3, -6

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

1. Bushing Replacement (5, 10, 15, 20, IPL Fig. 2)

CAUTION: REPLACEMENT BUSHINGS MUST BE MADE TO MEET BUSHINGS SPECIFICATIONS AND INTERFERENCE REQUIREMENTS AS SPECIFIED IN THIS REPAIR. DO NOT REPLACE BUSHINGS (5, 10, 15 AND 20, IPL FIG. 2) BY PURCHASING THE BUSHINGS BASED ON THEIR IPL PART NUMBER BECAUSE THEY DO NOT HAVE THE PROPER INTERFERENCE FIT.

A. Remove and discard bushings.

B. Check bushing hole and surrounding lug for damage or corrosion by penetrant check as shown in SOPM 20-20-02. Repair bushing hole if necessary as shown in par. 2. If cracks are indicated in exterior lug surface, contact Boeing for disposition.

C. If more than 0.002 inch diameter is removed, it is required that machined surfaces be shot peened. Shot peen bushing hole as shown in SOPM 20-10-03. Shot size 230-550, Intensity 0.014 A, Coverage 2.0.

D. Refinish as shown in par. 4.

E. Make replacement bushings as shown in Fig. 603 and as follows:

(1) Bushing Materials

(a) For replacement of bushings (5, 20, IPL Fig. 2)

1) 15-5 CRES rod, solution treated as shown in AMS 5659 Heat treatment -- 180-200 ksi

(b) For replacement of bushings (10, 15, IPL Fig. 2)

1) Aluminum-Nickel-Bronze, AMS 4640

(2) Break all sharp edges.

(3) Do a magnetic particle check to the replacement bushing (5, 20, IPL Fig. 2) as shown in SOPM 20-20-01.

(4) Do a penetrant check to the replacement bushing (10, 15, IPL Fig. 2) as shown in SOPM 20-20-02.

(5) Passivate (F-17.09) the replacement bushing (5, 20, IPL Fig. 2) all over.

(6) Cadmium plate (F-15.06) the replacement bushing (10, 15, IPL Fig. 2) on outside diameter and flange only.

F. Install each bushing by the shrink-fit method as shown in SOPM 20-50-03, except apply Loctite 640 (MIL-R-46082, Type II) retaining compound to bushing hole and flange faying surface.

G. Machine each installed bushing to final inside diameter as shown in Fig. 601 and 602.

H. Fillet seal each bushing flange with BMS 5-26 sealant (preferred) or BMS 5-95 sealant.

2. Repair for Diagonal Brace (25, IPL Fig. 2) Bushing Hole (for Bushings 5, 10, 15, 20, IPL Fig. 2)

A. Machine bushing hole to remove damage or corrosion.

B. Check bushing hole for damage by penetrant check as shown in SOPM 20-20-02.

C. Machine bushing hole an additional 0.020 inch (diameter) as an insurance cut to remove any undetectable cracks. See Fig. 601 and 602 for maximum repair limit diameter.

D. Break all the edges 0.02-0.04 inch.

E. Check bushing hole for damage by penetrant check as shown in SOPM 20-20-02.

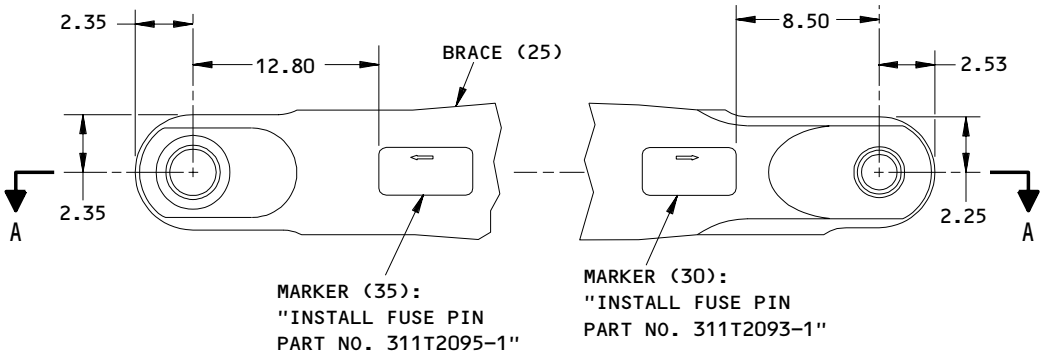
3. Aluminum Foil Marker Replacement (30, 35, IPL Fig. 2)

A. Remove marker, if required.

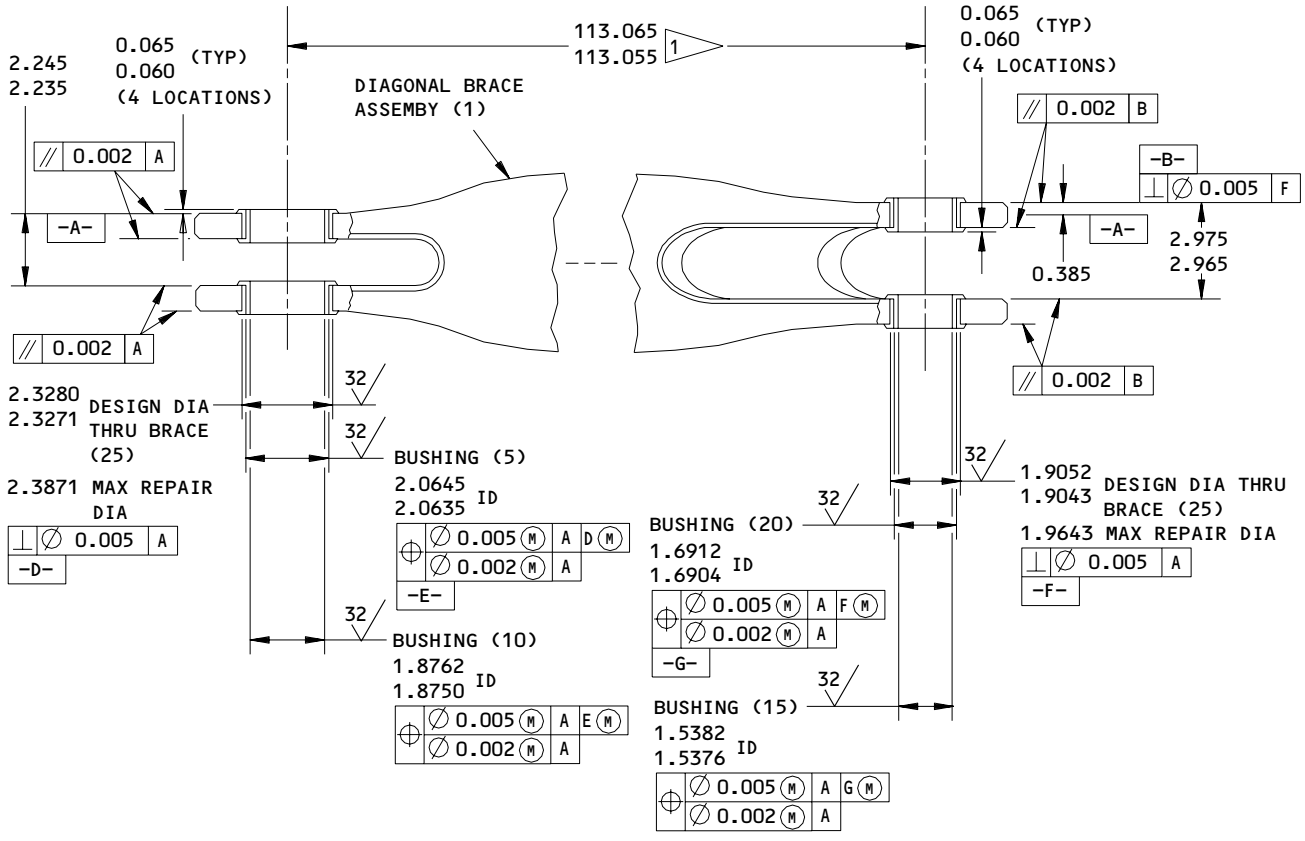
B. Apply marker per 20-50-05, Fig. 601. Edge seal marker by overcoating with 20-44-01, type 41 topcoating.

4. Refinish

A. Diagonal brace (25) -- Chemically treat (F-17.08). Apply two coats BMS 10-11, type 1 primer per 20-41-02 (F-20.03) all over, except omit primer from bushing holes. Material: Aluminum alloy.



311T4730-1,-3



A-A

311T4730-1,-3
Diagonal Brace Assembly Repair
Figure 601 (Sheet 1)

F

1 THIS DIMENSION ESTABLISHED FOR 72° F. REPAIRS MADE AT ANY OTHER TEMPERATURE MUST BE ADJUSTED FOR THERMAL EXPANSION WITH THE FOLLOWING FORMULA:

FD = DD + 0.00136*(T2–72°F) WHERE:

FD = THE FINAL DIMENSION ADJUSTED FOR THERMAL EXPANSION IN INCHES
DD = DESIGN DIMENSION AT 72°F IN INCHES
T2 = THE ACTUAL TEMPERATURE IN °F

EXAMPLE:
DD = 113.060 ±0.005 INCHES
T2 = 80°F

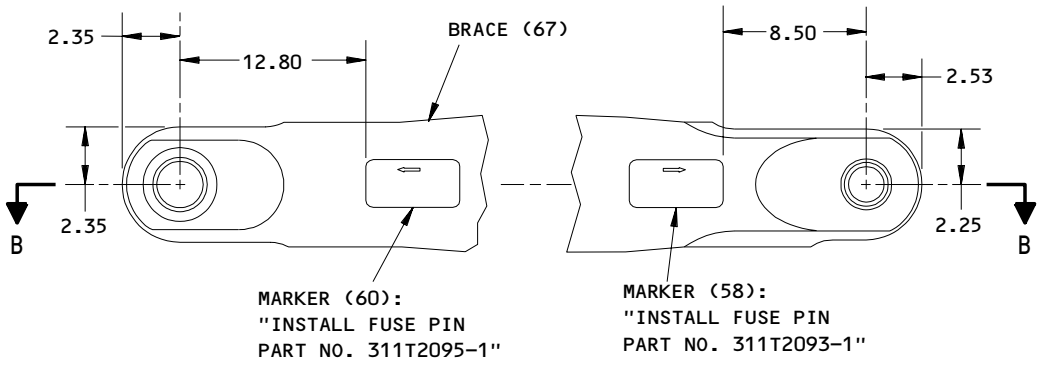
FD = 113.060 ±0.005 + 0.00136 *(80–72) = 113.071 ±0.005 INCHES

ITEM NUMBERS REFER TO IPL FIG. 1

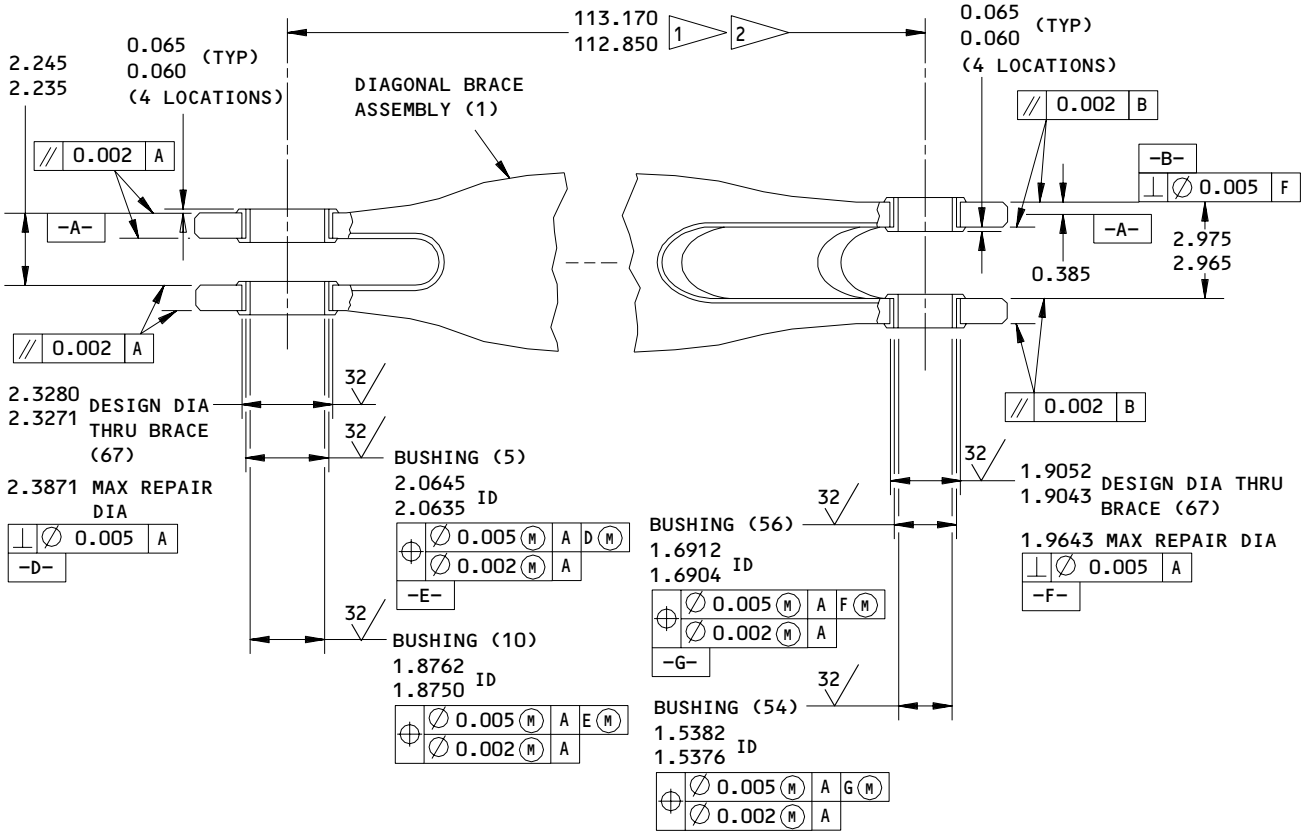
ALL DIMENSIONS ARE IN INCHES

311T4730-1,-3
Diagonal Brace Assembly Repair
Figure 601 (Sheet 2)

W54194



311T4730-6



B-B

311T473-6
Diagonal Brace Assembly Repair
Figure 602 (Sheet 1)

H77663

1 THIS DIMENSION ESTABLISHED FOR 72° F. REPAIRS MADE AT ANY OTHER TEMPERATURE MUST BE ADJUSTED FOR THERMAL EXPANSION WITH THE FOLLOWING FORMULA:

FD = DD + 0.00136*(T2–72°F) WHERE:

FD = THE FINAL DIMENSION ADJUSTED FOR THERMAL EXPANSION IN INCHES
DD = DESIGN DIMENSION AT 72°F IN INCHES
T2 = THE ACTUAL TEMPERATURE IN °F

EXAMPLE:
DD = 113.060 ±0.005 INCHES
T2 = 80°F

FD = 113.060 ±0.005 + 0.00136 *(80–72) = 113.071 ±0.005 INCHES

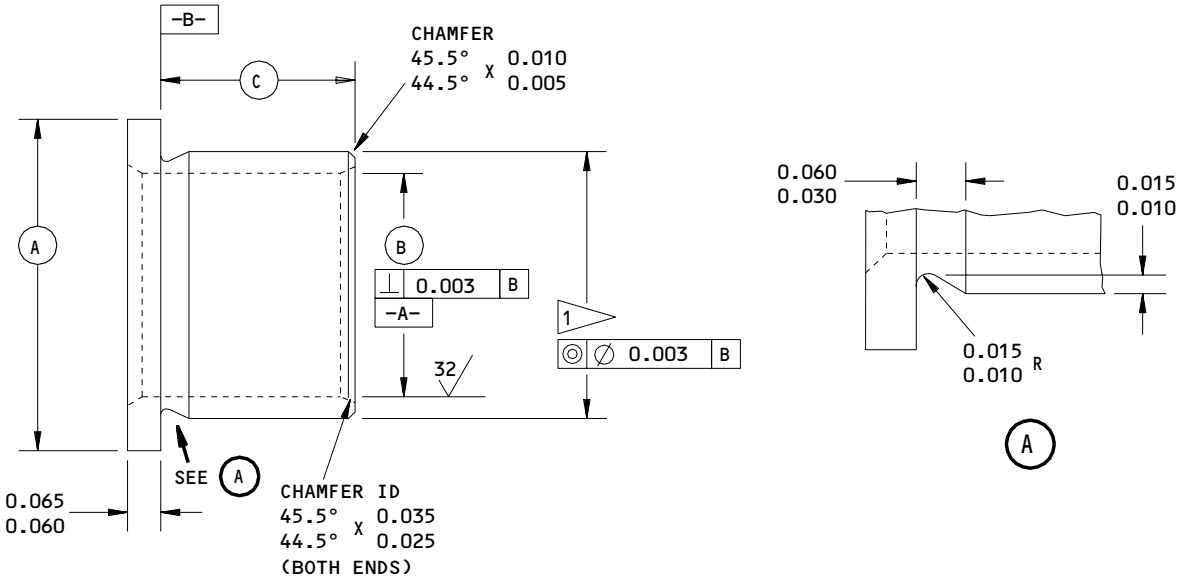
2 THE CENTER TO CENTER DIMENSION WAS DETERMINED AT FACTORY INSTALLATION. THE BRACE IS MARKED WITH AIRPLANE NUMBER, ENGINE POSITION AND CENTER TO CENTER DIMENSION ±0.010

ITEM NUMBERS REFER TO IPL FIG. 2

ALL DIMENSIONS ARE IN INCHES

311T473-6
Diagonal Brace Assembly Repair
Figure 602 (Sheet 2)

W54196



BUSHING REPLACES IPL FIG. 2 ITEM NO.	A	B	C	INTERFERENCE
5	2.760 2.740	2.051 2.050	0.910 0.900	0.0040 0.0029
10	2.760 2.740	1.861 1.860	0.975 0.960	0.0045 0.0031
15,54	2.135 2.115	1.531 1.528	1.035 1.020	0.0037 0.0025
20,56	2.135 2.115	1.687 1.684	0.970 0.960	0.0032 0.0024

1 FINAL BUSHING OUTSIDE DIA EQUALS REPAIR DIA OF FITTING PLUS INTERFERENCE

63 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

DIMENSIONS APPLY AFTER PLATING

ALL DIMENSIONS ARE IN INCHES

311T4730-1,-3,-6
Oversize Bushing Details
Figure 603

FUSE PIN - REPAIR 13-1

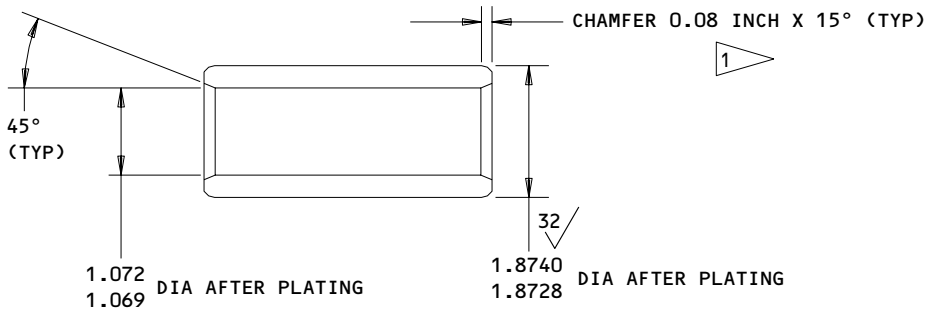
311T3092-1

CAUTION: FUSE PINS WITH DAMAGED OR ALTERED BASE METAL ARE NOT SERVICEABLE. DAMAGED OR ALTERED BASE METAL DESTROYS FUSE PIN INTEGRITY. REPAIR CONSISTS OF RESTORATION OF FINISH ONLY.

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

1. Refinish

   A. Chrome plate outside diameter per 20-42-03, single plate thickness 0.003 inch minimum (F-15.03). Grind per 20-10-04 to dimensions shown in Fig. 601.



1 CHROME RUNOUT 0.08 INCH BOTH ENDS PIN DIAMETER

ALL DIMENSIONS ARE IN INCHES

311T3092-1
Fuse Pin Refinish
Figure 601

210737

FUSE PIN - REPAIR 14-1

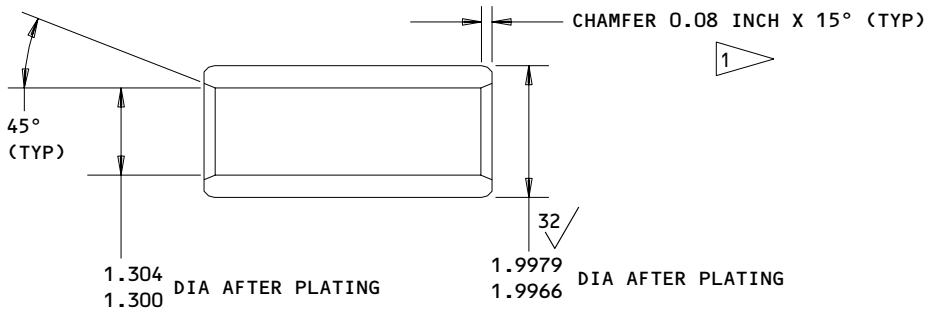
311T3095-1

CAUTION: FUSE PINS WITH DAMAGED OR ALTERED BASE METAL ARE NOT SERVICEABLE. DAMAGED OR ALTERED BASE METAL DESTROYS FUSE PIN INTEGRITY. REPAIR CONSISTS OF RESTORATION OF FINISH ONLY.

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

1. Refinish

   A. Chrome plate outside diameter per 20-42-03, single plate thickness 0.003 inch minimum (F-15.03). Grind per 20-10-04 to dimensions shown in Fig. 601.



1 CHROME RUNOUT 0.08 INCH BOTH ENDS PIN DIAMETER

ALL DIMENSIONS ARE IN INCHES

311T3095-1
Fuse Pin Refinish
Figure 601

210735

SIDE LINK ASSEMBLY - REPAIR 15-1

311T3740-5

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

1. Isolator Replacement (97, IPL Fig. 1)

   A. Remove isolators

   B. CAUTION: DO NOT USE LIQUID NITROGEN TO COOL ISOLATORS OR DAMAGE MAY RESULT.

   C. Install isolators per 20-50-03, using dry ice only for cooling purposes. Apply wet BMS 10-11, type 1 primer to isolator before installing.

2. Aluminum Foil Marker Replacement (102, IPL Fig. 1)

   A. Remove marker, if damaged.

   B. Install marker per 20-50-05. Edge seal marker by overcoating with 20-44-01, type 41 topcoating.

3. Refinish

   A. Side link (100A) -- Passivate (F-17.09). Material: 15-5PH CRES, 180-200 ksi.

UPPER LINK ASSEMBLY - REPAIR 16-1

311T4710-1, -3, -5, -10

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

1. Bushing Replacement (105, 110, 115, 120, IPL Fig. 1)

   CAUTION: REPLACEMENT BUSHINGS MUST BE MADE TO MEET BUSHINGS SPECIFICATIONS AND INTERFERENCE REQUIREMENTS AS SPECIFIED IN THIS REPAIR. IF AN INSURANCE CUT IS MADE ON UPPER LINK, DO NOT REPLACE BUSHING (105, 110, 115, 120 IPL Fig. 1) BY PURCHASING THE BUSHINGS BASED ON THEIR IPL PART NUMBER BECAUSE THEY DO NOT HAVE THE PROPER INTERFERENCE FIT.

   A. Remove and discard bushing.

   B. Check bushing hole and surrounding lug for damage or corrosion by magnetic particle check, Class A Critical, as shown in SOPM 20-20-01. Repair bushing hole if necessary as shown in par. 2. If cracks are indicated in exterior lug surface, contact Boeing for disposition.

   C. Shot peen bushing hole all surfaces including hole interior as shown in SOPM 20-10-03. Shot size 170-330., Intensity 0.016A, Coverage 2. 0.

   D. Refinish as shown in par. 4.

   E. Make replacement bushings for (105, 105B, 110, 110B, 115, 115B, 115C, 120, 120B, 120C, IPL Fig. 1) as shown in Fig. 603, 604 and as follows:

      (1) Break all the sharp edges.

      (2) Do a magnetic particle check to the replacement bushings (105B, 110, 115B, 120, IPL Fig. 1) as shown in SOPM 20-20-01.

(3) Do a penetrant inspection to the replacement bushings (105, 110B, 115, 115C, 120B, 120C, IPL Fig. 1) as shown in SOPM 20-20-02.

(4) Passivate (F-17.25) the replacement bushings (105B, 110, 115B, 120, IPL Fig. 1) all over.

(5) Cad plate (F-15.06) the outside diameter and flanges of replacement bushings (105, 110, 115, 120, IPL Fig. 1).

F. Install each bushing by shrink-fit method as shown in SOPM 20-50-03 except apply Loctite 640 (MIL-R-46082, Type II) retaining compound to bushing hole and flange faying surface.

G. Machine each installed bushing to final inside diameter as shown in Fig. 601 or 602.

H. Fillet seal each bushing flange with BMS 5-26 sealant (preferred) or BMS 5-95 sealant.

2. Repair for Upper Link (133 IPL Fig. 1) Bushing Hole (for bushings (105, 105B, 110, 110B, 115, 115B, 115C, 120, 120B, 120C, IPL Fig. 1)

A. Machine bushing hole for remove damage or corrosion.

B. Check bushing hole for damage by magnetic particle check as shown in SOPM 20-20-01.

C. Machine bushing hole an additional 0.010 inch (diameter) as an insurance cut to remove any undetectable cracks. Refer to Fig. 601 or Fig. 602 for maximum repair limit diameter.

D. Break all the edges 0.02-0.03 inch.

3. Aluminum Foil Marker Replacement (137, 138, 140, 141, 141D, 143, IPL Fig. 1)

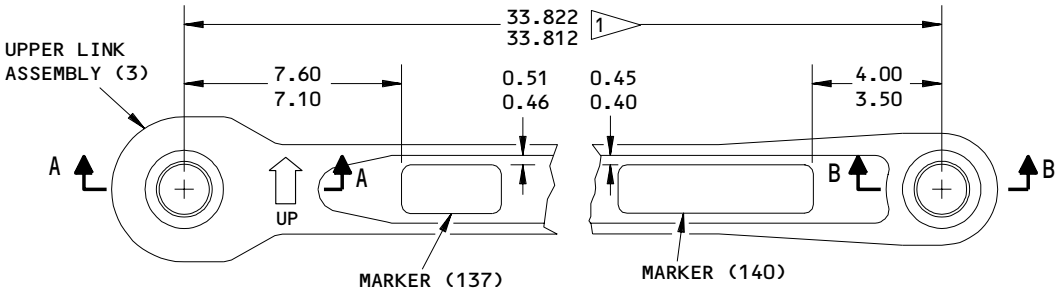
A. Remove markers, if damaged.

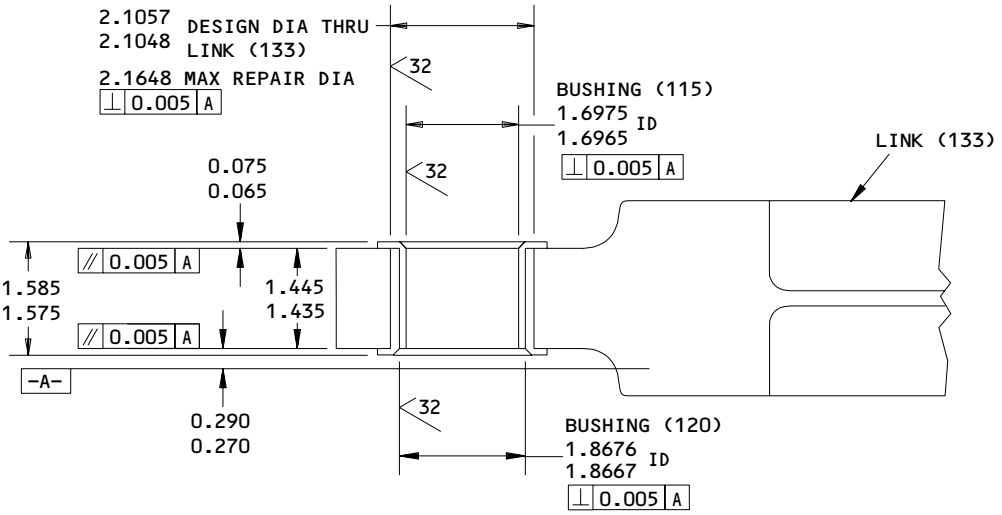
B. Install markers per 20-50-05 to dimensions shown (Fig. 601). Edge seal markers by overcoating with 20-44-01, type 41 topcoating.

4. Refinish

A. Upper link (133) -- Cadmium titanium alloy plate (0.0002-0.0005 inch thick), bake 12 hours minimum at 350-400°F, and apply chromate post-plate treatment per 20-42-02 (F-15.01). Apply two coats BMS 10-11, type 1 primer (F-20.03) all over, except omit primer from bushed holes. Material: 4330M steel, RC 33 maximum.

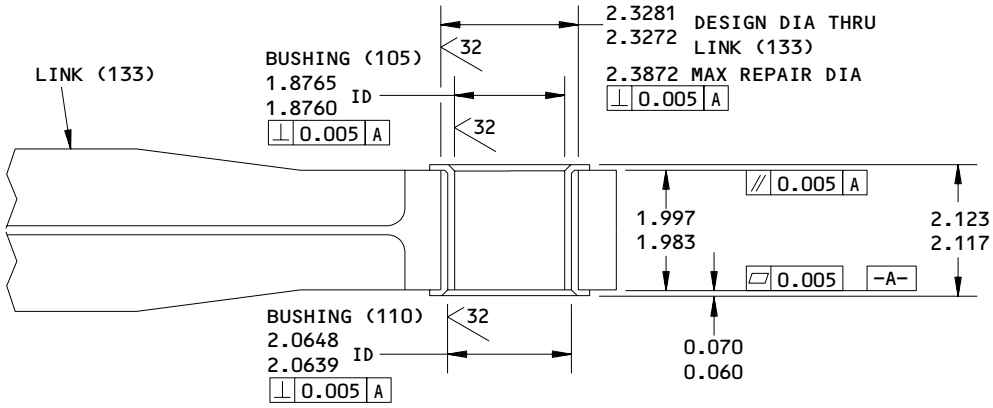
B. Upper link (133A, 133B) -- Passivate (F-17.25). Material: 15-5PH forged block or bar per AMS 5659 solution treated. Heat treat 180-200 KSI.





A-A

311T4710-1
Upper Link Assembly Repair
Figure 601 (Sheet 1)



B-B

1 THIS DIMENSION ESTABLISHED FOR 72° F. REPAIRS MADE AT ANY OTHER TEMPERATURE MUST BE ADJUSTED FOR THERMAL EXPANSION WITH THE FOLLOWING FORMULA:

FD = DD + 0.00022*(T2-72°F) WHERE:

FD = THE FINAL DIMENSION ADJUSTED FOR THERMAL EXPANSION IN INCHES
DD = DESIGN DIMENSION AT 72°F IN INCHES
T2 = THE ACTUAL TEMPERATURE IN °F

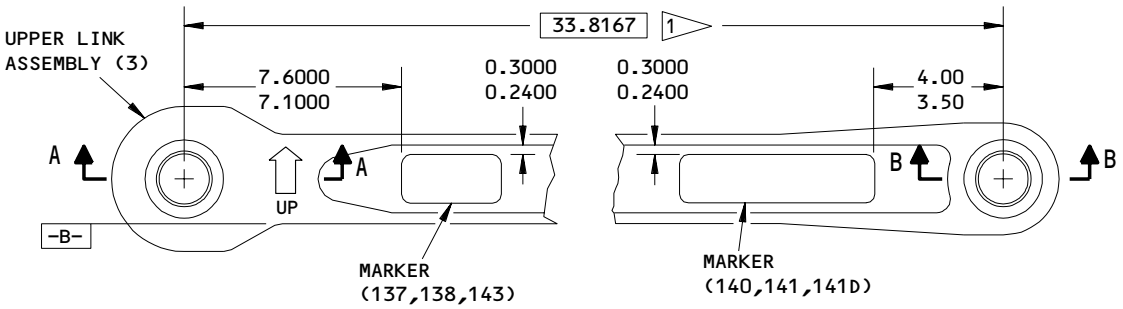
EXAMPLE:
DD = 33.817 ±0.005 INCHES
T2 = 80°F

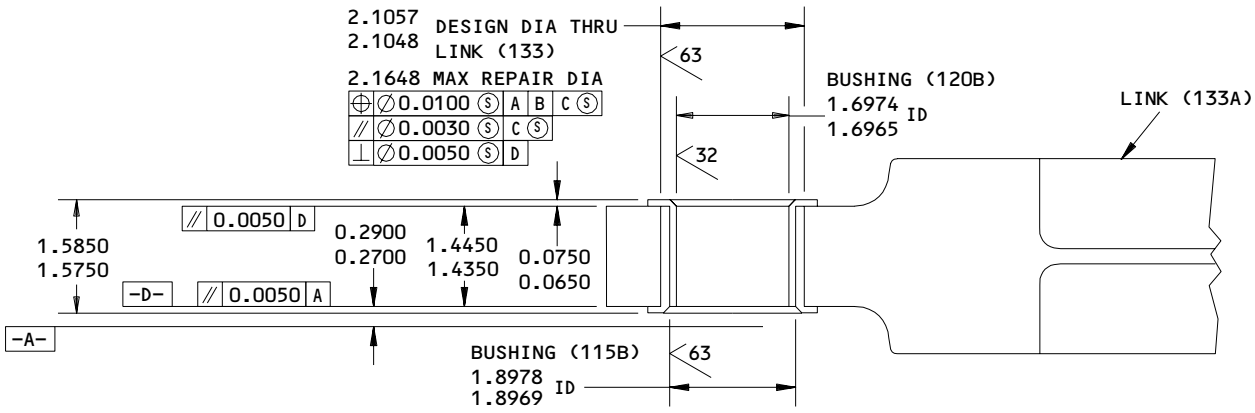
FD = 33.817 ±0.005 + 0.00022*
(80-72) = 33.819 ±0.005 INCHES

ITEM NUMBERS REFER TO IPL FIG. 1

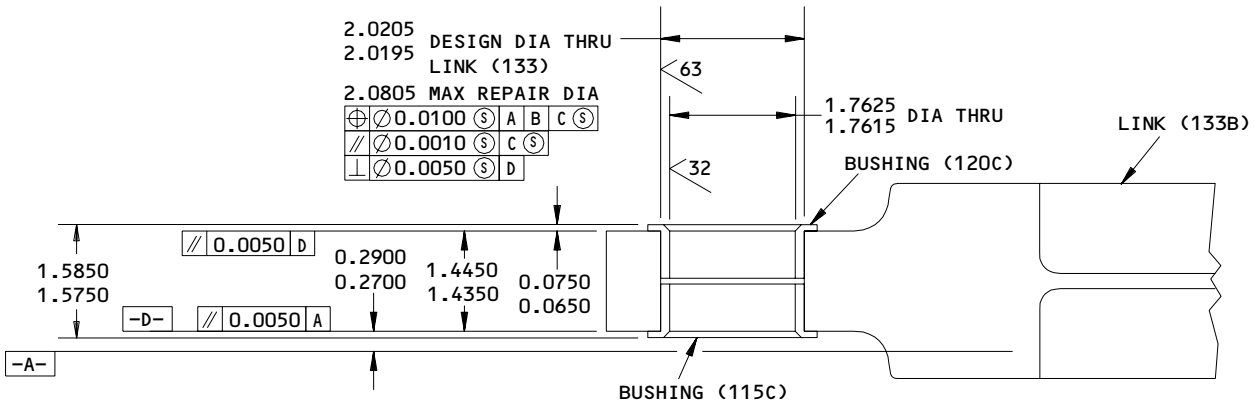
ALL DIMENSIONS ARE IN INCHES

311T1730-1
Upper Link Assembly Repair
Figure 601 (Sheet 2)





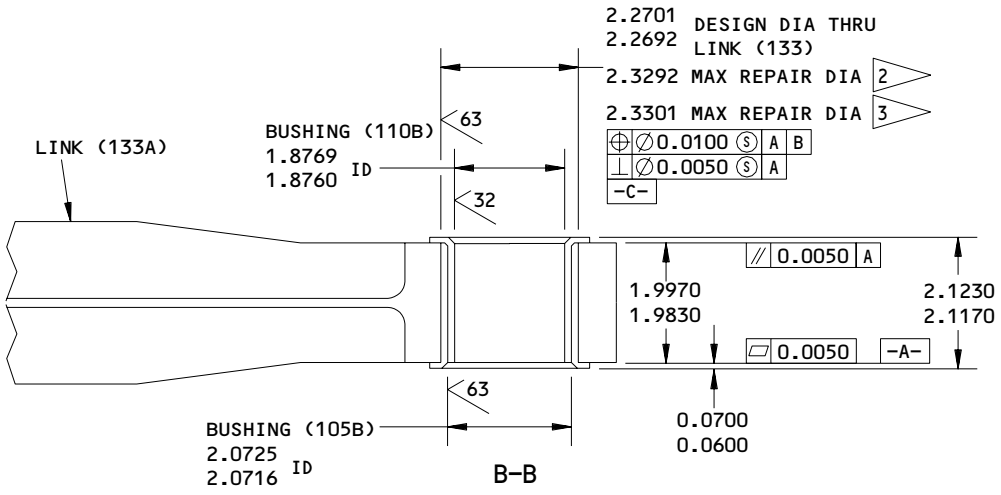
311T4710-3,-5
A-A



311T4710-10
A-A

311T4710-3,-5,-10
Upper Link Assembly Repair
Figure 602 (Sheet 1)

KD3360



1 THIS DIMENSION ESTABLISHED FOR 72° F. REPAIRS MADE AT ANY OTHER TEMPERATURE MUST BE ADJUSTED FOR THERMAL EXPANSION WITH THE FOLLOWING FORMULA:

FD = DD + 0.00022*(T2-72°F) WHERE:

FD = THE FINAL DIMENSION ADJUSTED FOR THERMAL EXPANSION IN INCHES
DD = DESIGN DIMENSION AT 72°F IN INCHES
T2 = THE ACTUAL TEMPERATURE IN °F

EXAMPLE:
DD = 33.8167
T2 = 80°F

FD = 33.8167 ±0.00022*(80-72) = 33.8185 INCHES

2 FOR 311T4710-3,-5

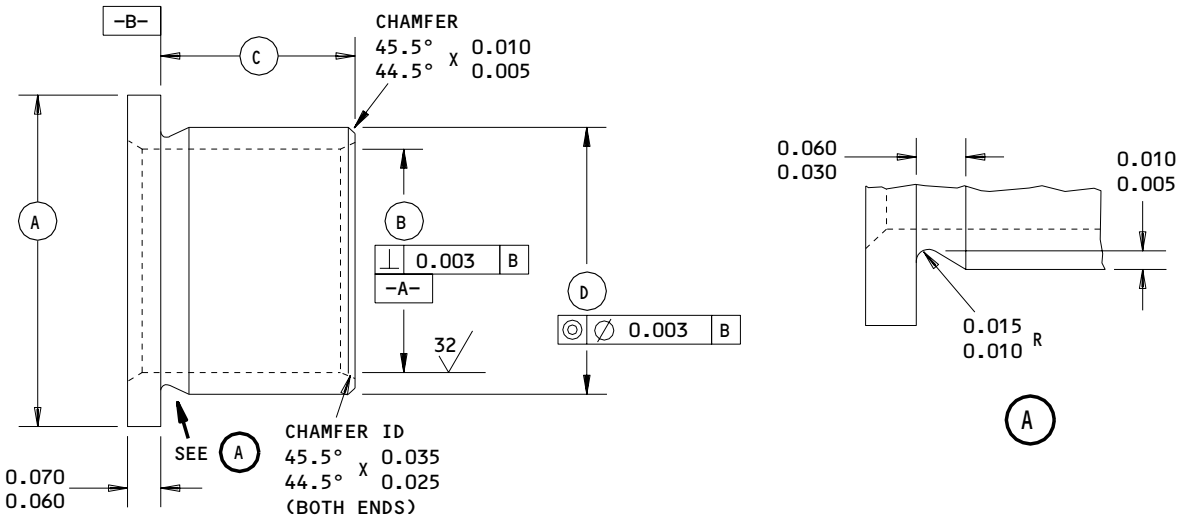
3 FOR 311T4710-10

ITEM NUMBERS REFER TO IPL FIG. 1

ALL DIMENSIONS ARE IN INCHES

311T4710-3,-5,-10
Upper Link Assembly Repair
Figure 602 (Sheet 2)

K03361



BUSHING REPLACES IPL FIG. 1 ITEM NO.	A	B	C	D	INTER-FERENCE	MATERIAL
105	2.710 2.690	1.871 1.867	2.032 2.012	2.0655 2.0650 ▷2	---	Al-Ni-BRONZE (UNSC630O) AS SHOWN IN AMS 4640
105B	2.710 2.690	2.0696 2.0686	1.9800 1.9600	▷1	0.0039 0.0025	15-5PH CRES BAR AS SHOWN IN AMS 5659, HEAT TREAT: 180-200 KSI
110	2.710 2.690	2.059 2.055	1.980 1.960	▷1 ▷4	0.0039 0.0025	15-5PH CRES BAR AS SHOWN IN AMS 5659, HEAT TREAT: 180-200 KSI
110B	2.710 2.690	1.8740 1.8730	2.0320 2.0120	2.0762 2.0757	---	Al-Ni-BRONZE (UNSC630O) AS SHOWN IN AMS 4640
115	2.450 2.430	1.692 1.688	1.482 1.462	1.8682 1.8677 ▷3	---	Al-Ni-BRONZE (UNSC630O) AS SHOWN IN AMS 4640
115B	2.450 2.430	1.8949 1.8939	1.4300 1.4100	▷1	0.0036 0.0022	15-5PH CRES BAR AS SHOWN IN AMS 5659, HEAT TREAT: 180-200 KSI
120	2.450 2.430	1.862 1.858	1.430 1.410	▷1 ▷4	0.0036 0.0022	15-5PH CRES BAR AS SHOWN IN AMS 5659, HEAT TREAT: 180-200 KSI
120B	2.450 2.430	1.6945 1.6935	1.4820 1.4620	2.2317 2.2312	---	Al-Ni-BRONZE (UNSC630O) AS SHOWN IN AMS 4640

▷1 FINAL BUSHING OUTSIDE DIA EQUALS REPAIR DIA OF FITTING PLUS INTERFERENCE

▷2 BEFORE PLATING. AFTER CADMIUM PLATING (F-15.06) OUTSIDE DIA IS 2.0657-2.0666 PLATING ON OUTSIDE DIA AND FLANGE ONLY

▷3 BEFORE PLATING. AFTER PLATING OUTSIDE DIA IS 1.8684-1.8693. PLATING ON OUTSIDE DIA AND FLANGE ONLY

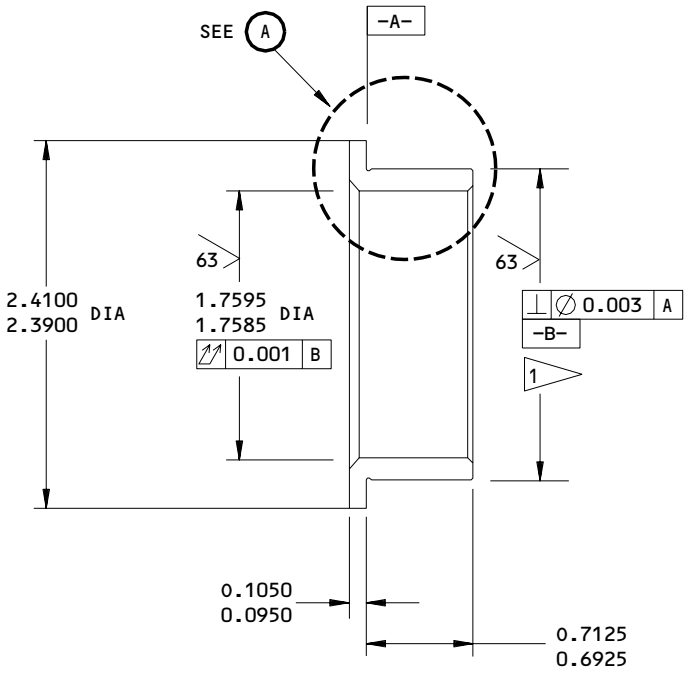
▷4 AFTER CADMIUM PLATING (F-15.06). PLATING ON OUTSIDE DIA AND FLANGE ONLY

63 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

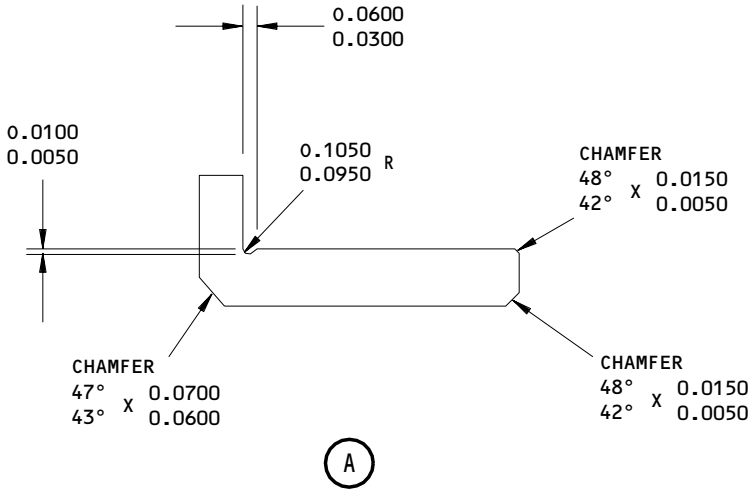
DIMENSIONS APPLY AFTER PLATING

ALL DIMENSIONS ARE IN INCHES

311T4710
Upper Links Replacements and Oversize Bushing Details
Figure 603



OVERSIZE REPLACEMNT FOR BUSHINGS (115C,200C)



1 FINAL BUSHING OUTSIDE DIAMETER EQUALS DIAMETER OF FITTING PLUS INTERFERENCE OF 0.0027-0.0044

125 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

MATERIAL: AL-NI-BR BAR PER AMS 4640

ITEM NUMBERS REFER TO IPL FIG. 1

ALL DIMENSIONS ARE IN INCHES

Oversize Bushing Details
Figure 604

DIAGONAL BRACE ASSEMBLY - REPAIR 17-1

311T2730-1, -4, -7

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

1. Bushing Replacement (5, 10, 15, 20, IPL Fig. 2)

CAUTION: REPLACEMENT BUSHINGS MUST BE MADE TO MEET BUSHINGS SPECIFICATIONS AND INTERFERENCE REQUIREMENTS AS SPECIFIED IN THIS REPAIR. DO NOT REPLACE BUSHINGS (5, 10, 15, 20 IPL FIG. 2) BY PURCHASING THE BUSHINGS BASED ON THEIR IPL PART NUMBER BECAUSE THEY DO NOT HAVE THE PROPER INTERFERENCE FIT.

A. Remove and discard bushings.

B. Check bushing hole and surrounding lug for damage or corrosion by penetrant check as shown in SOPM 20-20-02. Repair bushing hole if necessary as shown in par. 2. If cracks are indicated in exterior lug surface, contact Boeing for disposition.

C. Shot peen bushing hole as shown in SOPM 20-10-03. Shot size 230-550, Intensity 0.014 A, Coverage 2.0.

D. Refinish as shown in par. 4.

E. Make replacement bushings as shown in Fig. 602 and as follows:

(1) Bushing Materials

(a) For replacement of bushings (5, 20, IPL Fig. 2)

1) 15-5 CRES rod, solution treated as shown in AMS 5659 Heat treatment -- 180-200 ksi

(b) For replacement of bushings (10, 15, IPL Fig. 2)

1) Aluminum-Nickel-Bronze, AMS 4640

(2) Break all sharp edges.

(3) Do a magnetic particle check to the replacement bushing (5, 20, IPL Fig. 2) as shown in SOPM 20-20-01.

(4) Do a penetrant check to the replacement bushing (10, 15, IPL Fig. 2) as shown in SOPM 20-20-02.

(5) Passivate (F-17.09) the replacement bushing (5, 20, IPL Fig. 2) all over.

(6) Cadmium plate (F-15.06) the replacement bushing (10, 15, IPL Fig. 2) on outside diameter and flange only.

F. Install each bushing by the shrink-fit method as shown in SOPM 20-50-03, except apply Loctite 640 (MIL-R-46082, Type II) retaining compound to bushing hole and flange faying surface.

G. Machine each installed bushing to final inside diameter as shown in Fig. 601.

H. Fillet seal each bushing flange with BMS 5-26 sealant (preferred) or BMS 5-95 sealant.

2. Repair for Diagonal Brace (25, IPL Fig. 2) Bushing Hole (for Bushings 5, 10, 15, 20, IPL Fig. 2)

A. Machine bushing hole to remove damage or corrosion.

B. Check bushing hole for damage by penetrant check as shown in SOPM 20-20-02.

C. Machine bushing hole an additional 0.020 inch (diameter) as an insurance cut to remove any undetectable cracks. See Fig. 601 for maximum repair limit diameter.

D. Break all the edges 0.02-0.04 inch.

E. Check bushing hole for damage by penetrant check as shown in SOPM 20-20-02.

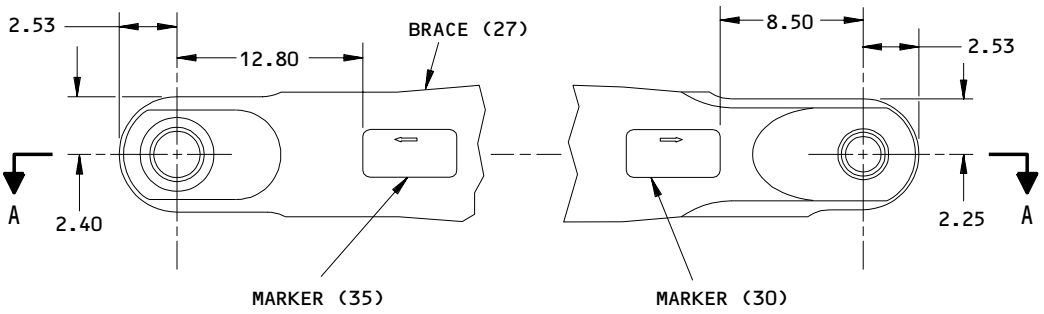
3. Aluminum Foil Marker Replacement (30, 35, IPL Fig. 2)

A. Remove marker, if required.

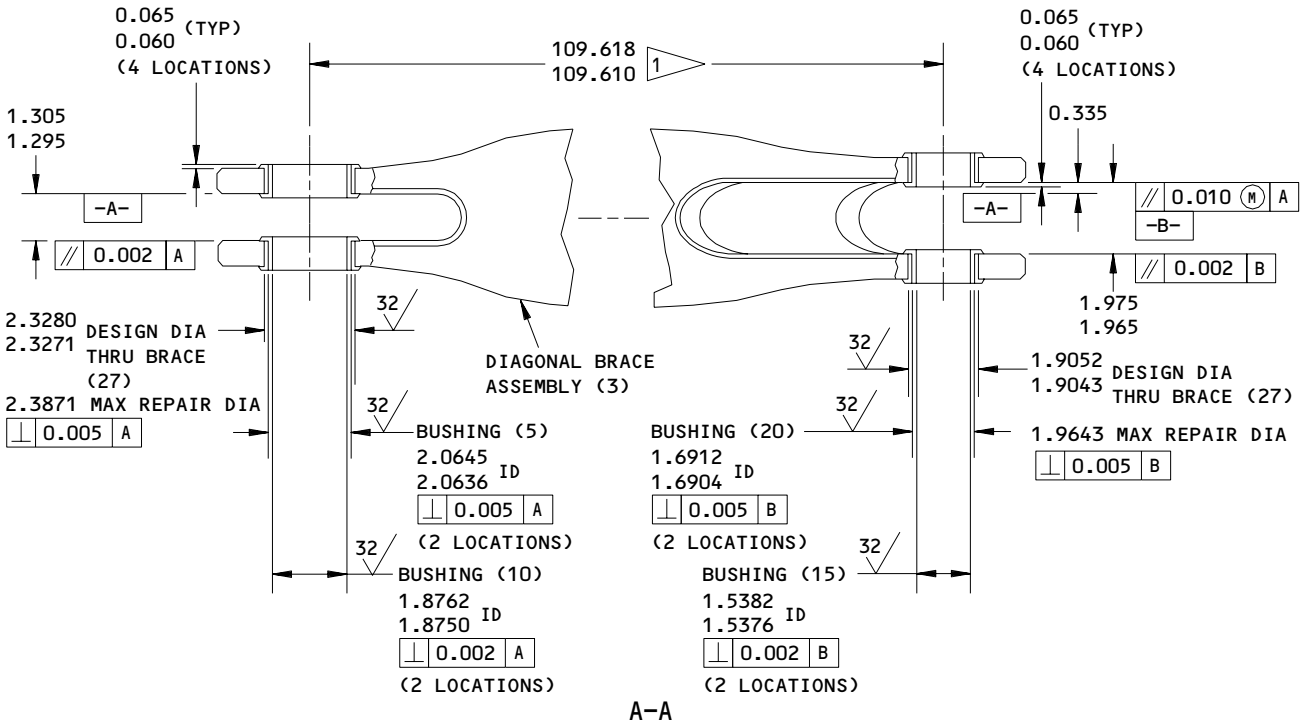
B. Apply marker per 20-50-05, Fig. 601. Edge seal marker by overcoating with 20-44-01, type 41 topcoating.

4. Refinish

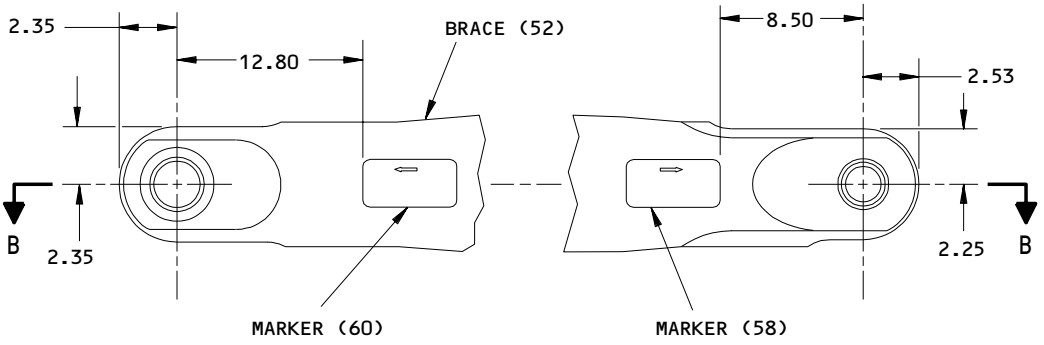
A. Diagonal brace (27) -- Chemically treat (F-17.08). Apply two coats BMS 10-11, type 1 primer per 20-41-02 (F-20.03) all over, except omit primer from bushing holes. Material: Aluminum alloy.



311T2730-1,-4

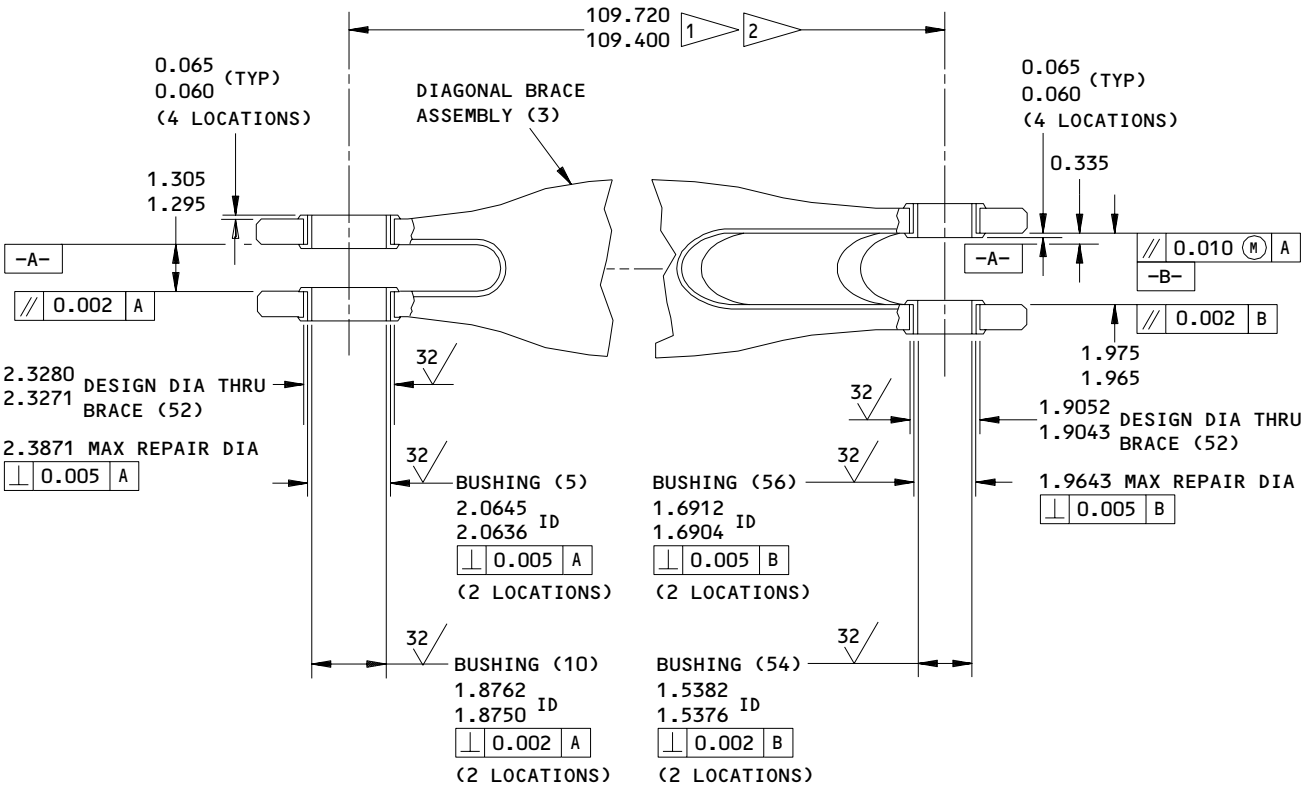


A-A



311T2730-7

311T2730-1,-4,-7
Diagonal Brace Assembly Repair
Figure 601 (Sheet 1)



B-B

1 THIS DIMENSION ESTABLISHED FOR 72° F. REPAIRS MADE AT ANY OTHER TEMPERATURE MUST BE ADJUSTED FOR THERMAL EXPANSION WITH THE FOLLOWING FORMULA:

FD = DD + 0.00132*(T2-72°F) WHERE:

FD = THE FINAL DIMENSION ADJUSTED FOR THERMAL EXPANSION IN INCHES
DD = DESIGN DIMENSION AT 72°F IN INCHES
T2 = THE ACTUAL TEMPERATURE IN °F

EXAMPLE:
DD = 109.614 ±0.004 INCHES
T2 = 80°F

FD = 109.614 ±0.004 + 0.00132*
(80-72) = 109.625 ±0.004 INCHES

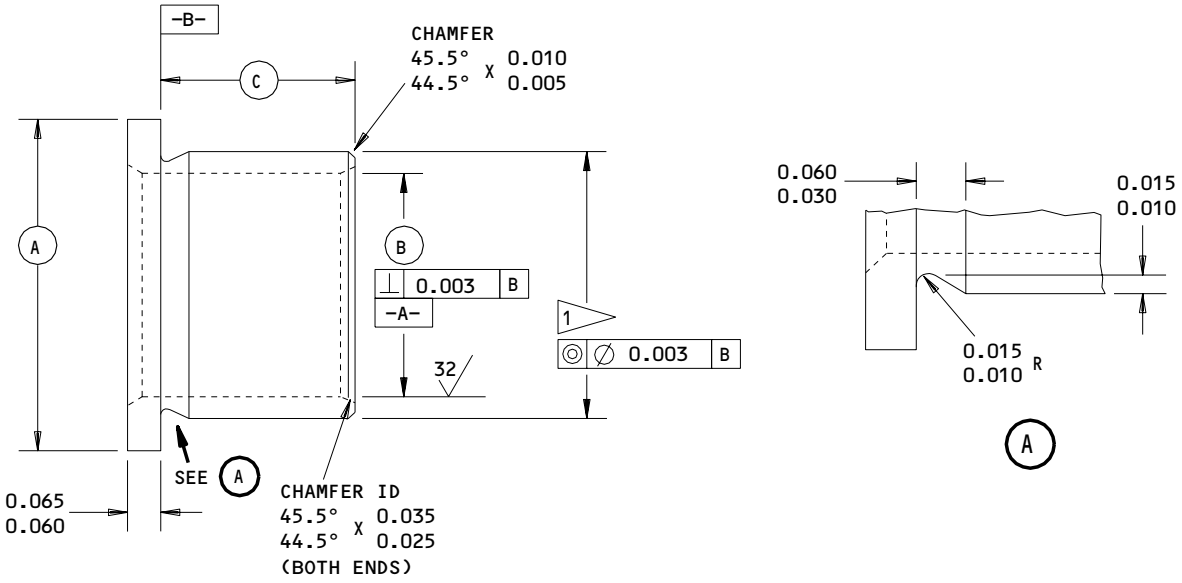
2 THE CENTER TO CENTER DIMENSION WAS DETERMINED AT FACTORY INSTALLATION. THE BRACE IS MARKED WITH AIRPLANE NUMBER, ENGINE POSITION AND CENTER TO CENTER DIMENSION, ±0.010

ITEM NUMBERS REFER TO IPL FIG. 2

ALL DIMENSIONS ARE IN INCHES

311T2730-1,-4,-7
Diagonal Brace Assembly Repair
Figure 601 (Sheet 2)

H77678



BUSHING REPLACES IPL FIG. 2 ITEM NO.	A	B	C	INTERFERENCE
5	2.760 2.740	2.051 2.050	0.910 0.900	0.0040 0.0028
10	2.760 2.740	1.861 1.860	0.975 0.960	0.0045 0.0031
15,54	2.135 2.115	1.531 1.528	1.035 1.020	0.0037 0.0025
20,56	2.135 2.115	1.687 1.684	0.970 0.960	0.0032 0.0023

1 FINAL BUSHING OUTSIDE DIA EQUALS REPAIR DIA OF FITTING PLUS INTERFERENCE

63 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

DIMENSIONS APPLY AFTER PLATING

ALL DIMENSIONS ARE IN INCHES

311T4730-1,-3,-6
Oversize Bushing Details
Figure 602

KD2765

SIDE LINK ASSEMBLY - REPAIR 18-1
310T2030-6, -8, -9
310T4040-6, -8, -9
310T5700-3

NOTE: Refer to REPAIR - GENERAL for a list of applicable standard procedures.

1. Bushing Replacement (80A, 95A; IPL Fig. 1)

   A. Remove bushing.

   B. Install bushing per 20-50-03.

   C. Machine bushing per Fig. 601, 602.

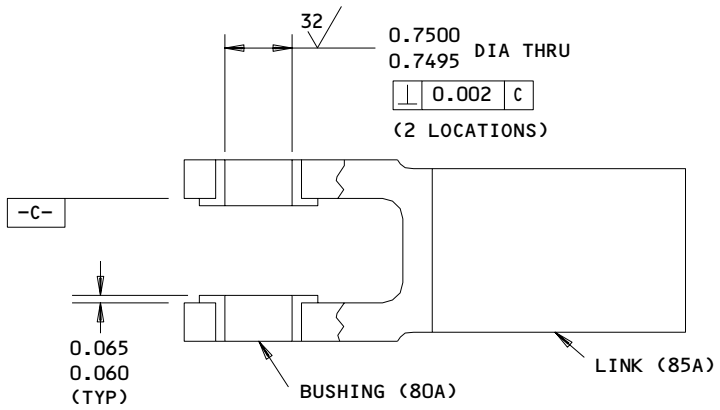
2. Aluminum Foil Marker Replacement (102A, IPL Fig. 1)

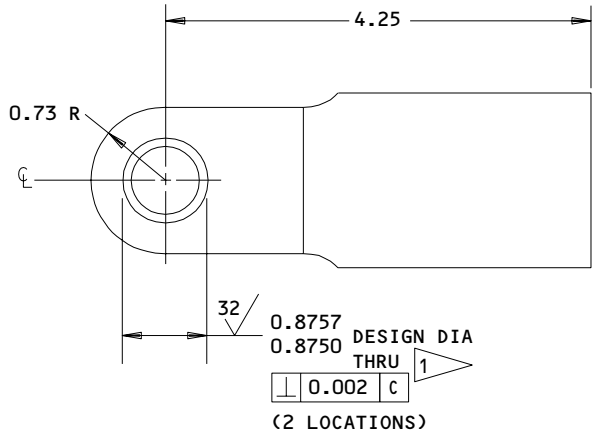
   A. Remove marker, if damaged.

   B. Install marker per 20-50-05 to dimensions shown (Fig. 601). Edge seal marker by overcoating with 20-44-01, type 41 topcoating.

3. Refinish

   A. Lower side link (85A, 100A, 100B) -- Passivate (F-17.09). Material: 15-5PH CRES, 180-200 ksi.





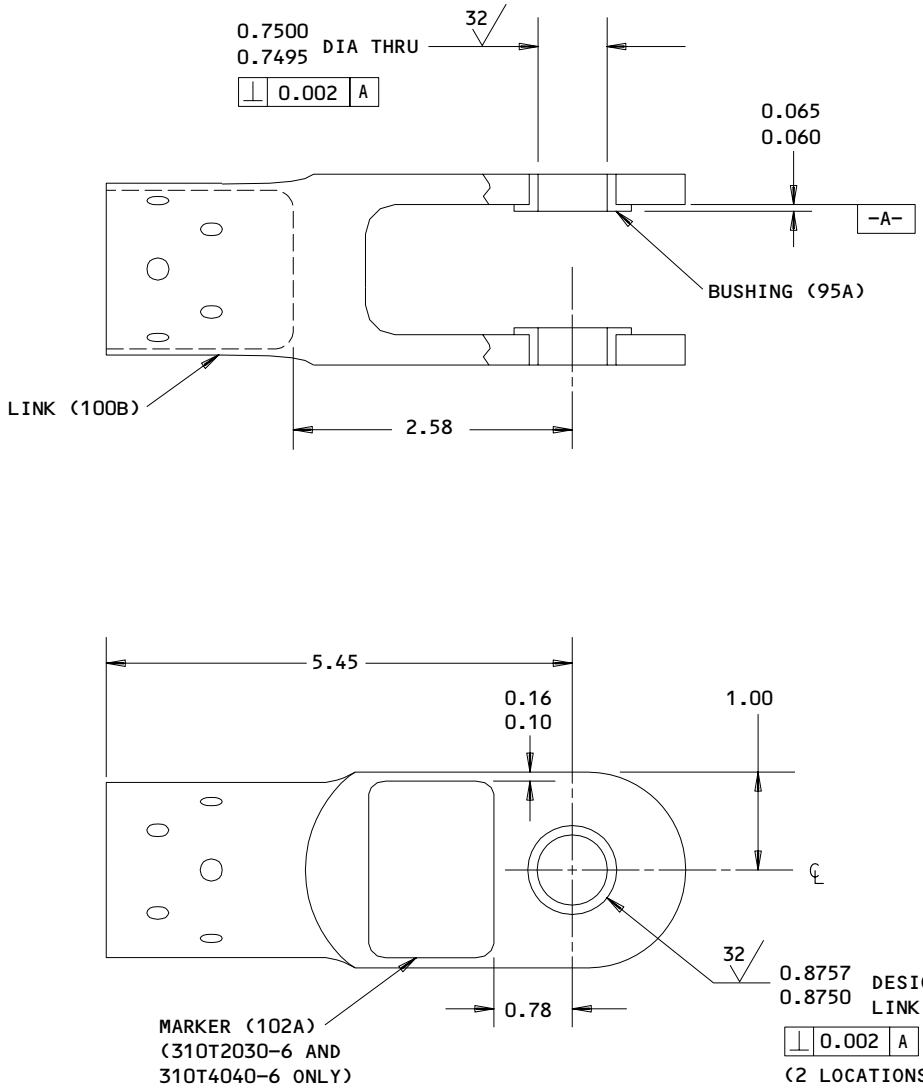
1 TWO HOLES ARE TO BE CONCENTRIC TO COMMON AXIS WITHIN 0.001 INCH T.I.R.

ITEM NUMBERS REFER TO IPL FIG. 1

ALL DIMENSIONS ARE IN INCHES

310T2030-6,-8,-9; 310T4040-6,-8,-9; 311T5700-3
Side Link Assembly Repair
Figure 601

251523



1 TWO HOLES ARE TO BE CONCENTRIC TO COMMON AXIS WITHIN 0.001 INCH T.I.R.

ITEM NUMBERS REFER TO IPL FIG. 1

ALL DIMENSIONS ARE IN INCHES

310T2030-6,-8,-9; 310T4040-6,-8,-9; 311T5700-3
Upper Side Link Assembly Repair
Figure 602

FUSE PIN - REPAIR 19-1

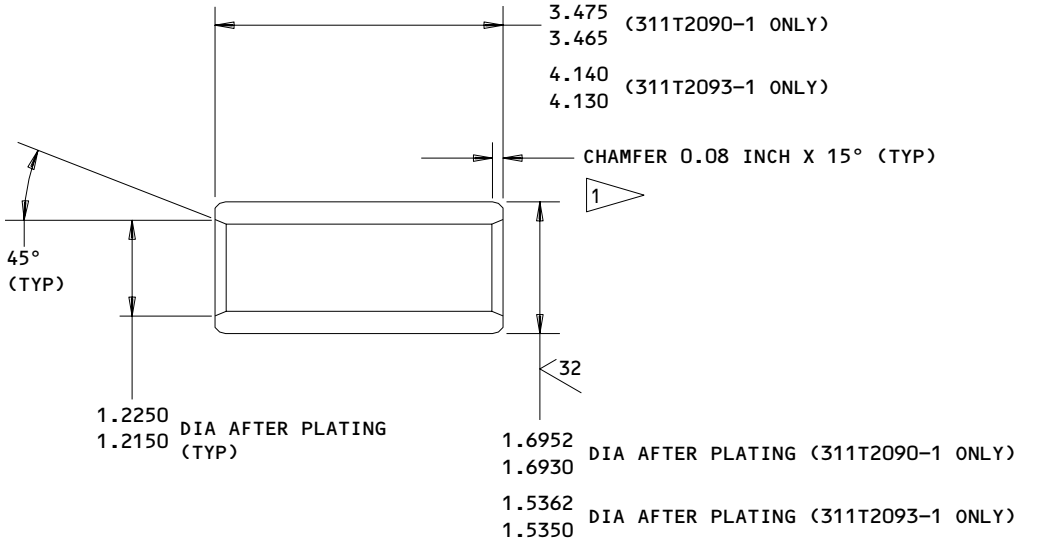
311T2090-1
311T2093-1

CAUTION: FUSE PINS WITH DAMAGED OR ALTERED BASE METAL ARE NOT SERVICEABLE. DAMAGED OR ALTERED BASE METAL DESTROYS FUSE PIN INTEGRITY. REPAIR CONSISTS OF RESTORATION OF FINISH ONLY.

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

1. Refinish

A. Outside diameter: Chrome plate per 20-42-03, single plate thickness 0.003 inch minimum (F-15.03). Wipe primer on the areas chrome plated (F-19.45). Inside and ends: cadmium plate (F-15.02). Apply two coats BMS 10-11, type 1 primer per 20-41-02 (F-20.03). Then clean and coat with corrosion preventive compound per 20-41-03 (F-19.03) minimum thickness of 0.005 inch.



311T2090-1
311T2093-1
Fuse Pin Refinish
Figure 601

766055

BRACE PIN - REPAIR 20-1

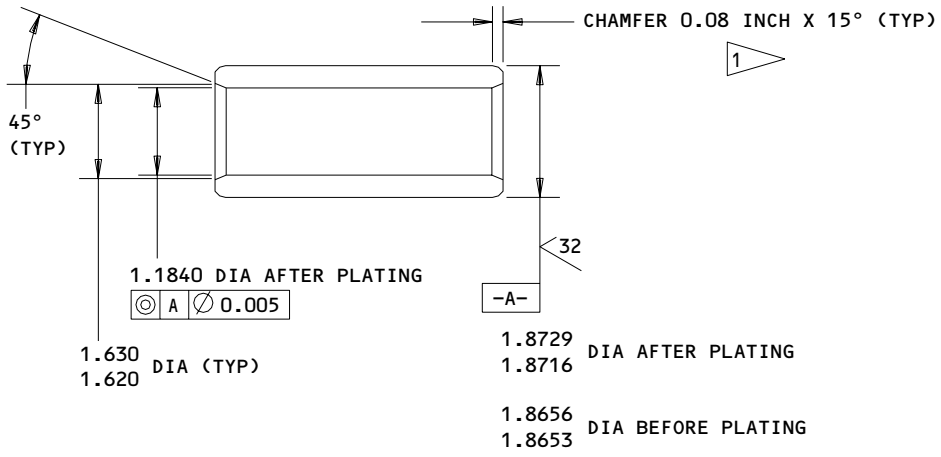
311T2095-1

CAUTION: FUSE PINS WITH DAMAGED OR ALTERED BASE METAL ARE NOT SERVICEABLE. DAMAGED OR ALTERED BASE METAL DESTROYS FUSE PIN INTEGRITY. REPAIR CONSISTS OF RESTORATION OF FINISH ONLY.

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

1. Refinish

   A. Outside: Chrome plate per 20-42-03, single plate thickness 0.003 inch minimum (F-15.03). Inside and ends: Passivate (F-17.09). Material: 15-5PH, 150-170 ksi.



1 CHROME RUNOUT 0.08 INCH BOTH ENDS PIN DIAMETER

ALL DIMENSIONS ARE IN INCHES

311T2095-1
Brace Pin Refinish
Figure 601

771130

SHOULDER BOLT - REPAIR 21-1

311T2096-1 THRU -4

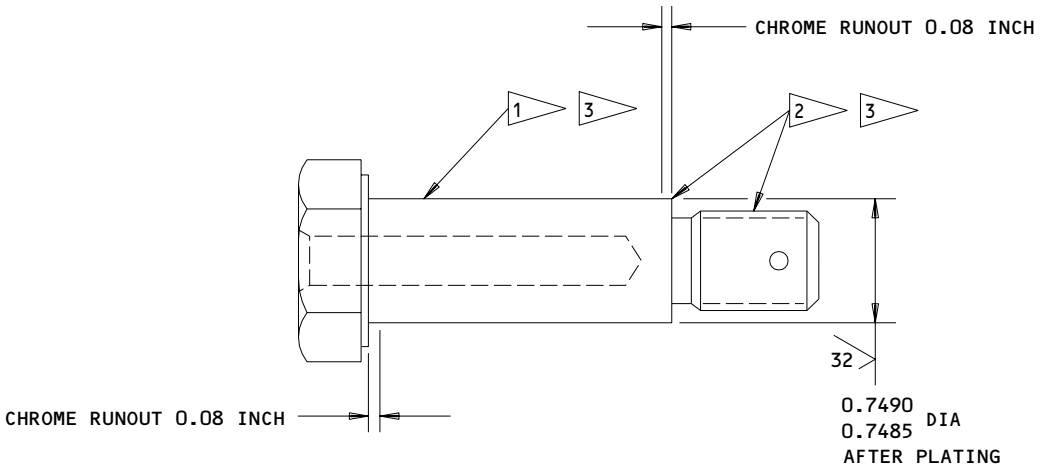
CAUTION: SHOULDER BOLTS WITH DAMAGED OR ALTERED BASE METAL ARE NOT SERVICEABLE. DAMAGED OR ALTERED BASE METAL DESTROYS SHOULDER BOLT INTEGRITY. REPAIR CONSISTS OF RESTORATION OF FINISH ONLY.

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

1. Refinish

A. Chrome plate per 20-42-03 (F-15.03) per Fig. 601. No plating permitted in fillet radii. Grind per 20-10-04 to dimensions shown in Fig. 601.

B. Cadmium plate 0.0002 to 0.0004 inch thick the indicated areas per 20-42-05 and Fig. 601. Apply wipe-on primer (F-19.45) to threads and chromed area. Material: 15-5PH CRES, 180-200 ksi.



1 CHROME PLATE PER 20-42-03 (F-15.03)
SINGLE PLATE THICKNESS 0.005-0.0010 INCH

2 CADMIUM PLATE PER 20-42-05 0.0002 TO
0.0004 INCH THICK (F-15.02)

3 APPLY WIPE-ON PRIMER (F-19.45) TO
THREADS AND CHROMED AREA

311T2096-1 THRU -4
Shoulder Bolt Refinish
Figure 601

766067

FUSE PIN - REPAIR 22-1

311T2102-1, -2

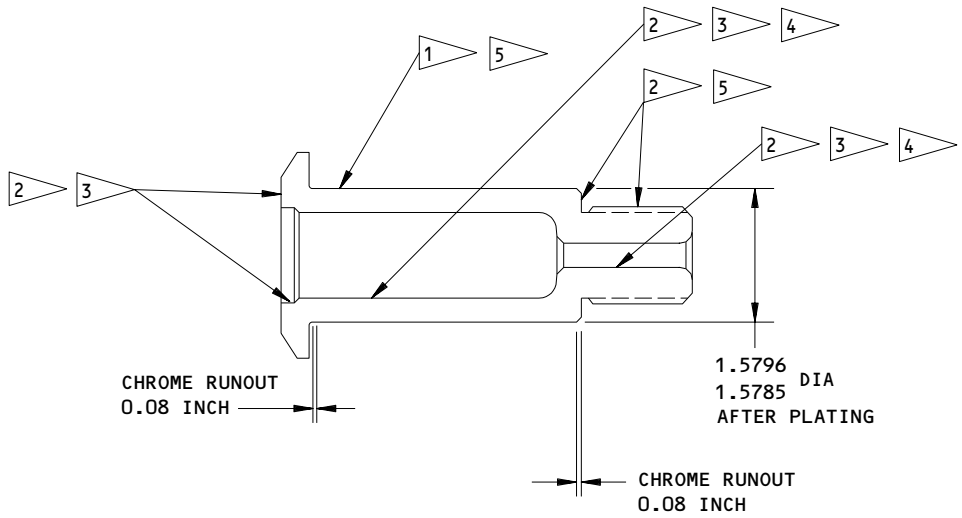
CAUTION: FUSE PINS WITH DAMAGED OR ALTERED BASE METAL ARE NOT SERVICEABLE. DAMAGED OR ALTERED BASE METAL DESTROYS FUSE PIN INTEGRITY. REPAIR CONSISTS OF RESTORATION OF FINISH ONLY.

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

1. Refinish

   A. Chrome plate outside diameter per 20-42-03 (Fig. 601), single plate thicknes 0.003 inch minimum (F-15.03). Grind per 20-10-04 to dimensions shown in Fig. 601. Apply wipe-on primer (F-19.45) to chromed area.

   B. Cadmium plate indicated areas (Fig. 601) to a thickness of 0.0002-0.0004 inch (F-15.02). Apply wipe-on primer (F-19.45) to threads. Apply two coats BMS 10-11, type 1 primer (F-20.03) to other areas, then clean and coat bore using MIL-C-11796, class 1 corrosion preventive compound (F-19.03) to a minimum thickness of 0.05 inch. Material: 4330M or 4340 steel, 33 Rc max.



1. CHROME PLATE PER 20-42-03 (F-15.03) SINGLE PLATE THICKNESS 0.003 INCH MINIMUM
2. CADMIUM PLATE PER 20-42-05 0.0002 TO 0.0004 INCH THICK (F-15.02)
3. APPLY TWO COATS BMS 10-11, TYPE 1 PRIMER PER 20-41-02 (F-20.03)
4. CLEAN AND COAT A MINMUM OF 0.05 INCH THICKNESS WITH MIL-C-11796, CLASS 1 CORROSION PREVENTIVE COMPOUND PER 20-41-03 (F-19.03)
5. APPLY WIPE-ON PRIMER (F-19.45) TO THE THREADS AND CHROMED AREA

ALL DIMENSIONS ARE IN INCHES

311T2102-1,-2
Fuse Pin Refinish
Figure 601

766076

FUSE PIN - REPAIR 23-1

311T5090-1
311T5093-1

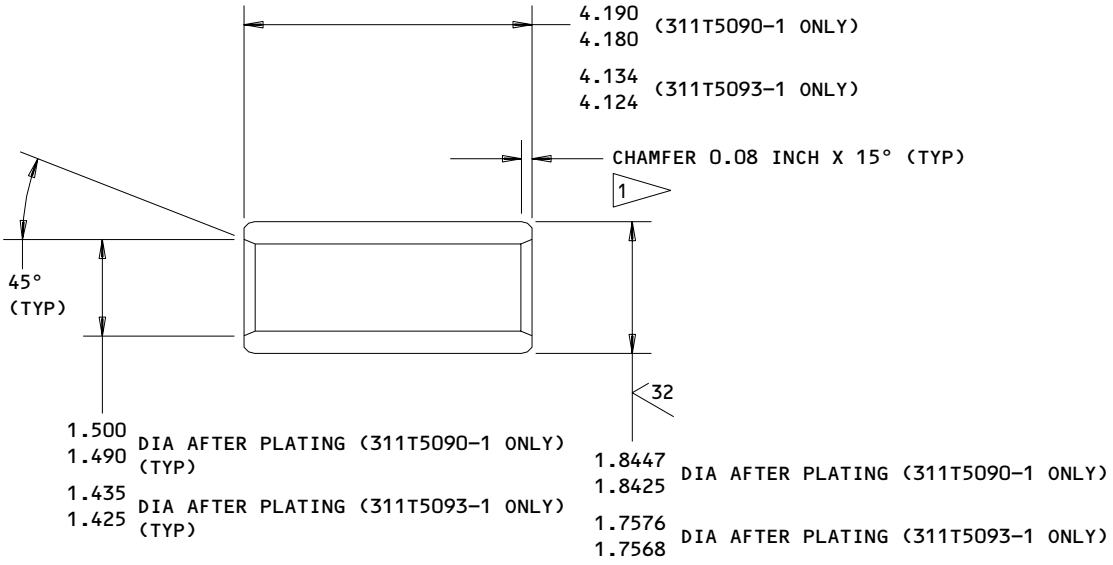
CAUTION: FUSE PINS WITH DAMAGED OR ALTERED BASE METAL ARE NOT SERVICEABLE. DAMAGED OR ALTERED BASE METAL DESTROYS FUSE PIN INTEGRITY. REPAIR CONSISTS OF RESTORATION OF FINISH ONLY.

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

1. Refinish

A. Chrome plate outside diameter per 20-42-03, single plate thickness 0.003 inch minimum (F-15.03). Wipe primer on the areas chrome plated (F-19.45).

B. Cadmium plate (F-15.02) the inside and the ends. Apply two coats of BMS 10-11, type 1 primer per 20-41-02 (F-20.03). Clean and coat with corrosion preventive compound per 20-41-03 (F-19.03) minimum thickness of 0.05 inch. Material: 4330M steel, Rc 33 maximum.



311T5090-1
311T5093-1
Fuse Pin Refinish
Figure 601

766089

BRACE PIN - REPAIR 24-1

311T5095-1

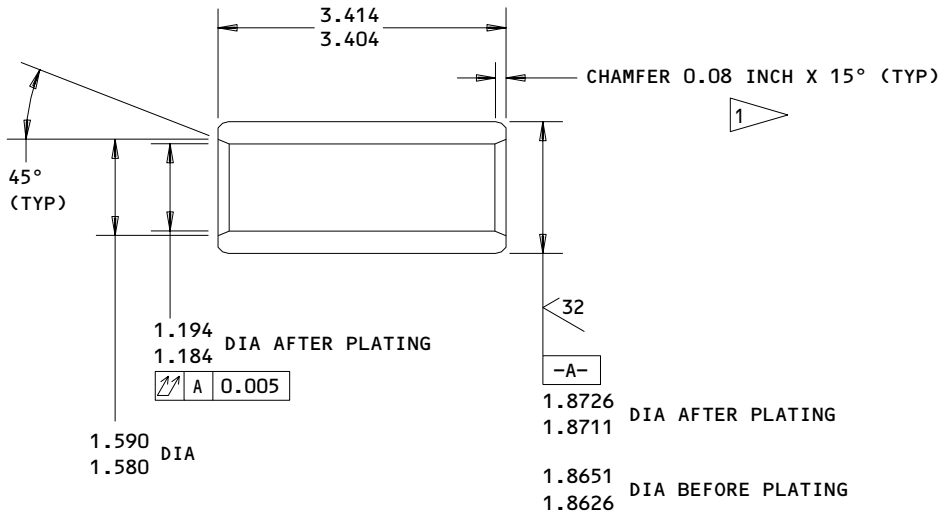
CAUTION: FUSE PINS WITH DAMAGED OR ALTERED BASE METAL ARE NOT SERVICEABLE. DAMAGED OR ALTERED BASE METAL DESTROYS FUSE PIN INTEGRITY. REPAIR CONSISTS OF RESTORATION OF FINISH ONLY.

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

1. Refinish

   A. Chrome Plate outside diameter per 20-42-03 (F-15.03) single plate thickness 0.003 inch minimum. Throw-in permitted on the inside. Grind the outside per 20-10-04 to the dimensions shown in Fig. 601.

   B. Passivate (F-17.09) the inside and the ends. Material: 15-5PH, 150-170 ksi.



311T5095-1
Brace Pin Refinish
Figure 601

771131

DIAGONAL BRACE ASSEMBLY - REPAIR 25-1

311T5780-1, -7, -10

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

1. Bushing Replacement (5A, 10A, 15A, 20A IPL Fig. 2)

CAUTION: REPLACEMENT BUSHINGS MUST BE MADE TO MEET BUSHINGS SPECIFICATIONS AND INTERFERENCE REQUIREMENTS AS SPECIFIED IN THIS REPAIR. DO NOT REPLACE BUSHINGS (5A, 10A, 15A, 20A IPL Fig. 2) BY PURCHASING THE BUSHINGS BASED ON THEIR IPL PART NUMBER BECAUSE THEY DO NOT HAVE THE PROPER INTERFERENCE FIT.

A. Remove and discard bushings.

B. Check bushing hole and surrounding lug for damage or corrosion by penetrant check as shown in SOPM 20-20-02. Repair bushing hole if necessary as shown in par. 2. If cracks are indicated in exterior lug surface, contact Boeing for disposition.

C. Shot peen bushing hole as shown in SOPM 20-10-03. Shot size 230-550., Intensity 0.014 A, Coverage 2.0.

D. Refinish as shown in par. 4.

E. Make replacement bushings as shown in Fig. 602 and as follows:

(1) Bushing Material

(a) For replacement of bushings (10A, 20A IPL Fig. 2)

1) 15-5 CRES rod, solution treated as shown in AMS 5659, Heat treatment - 180-200 KSI.

(b) For replacement of bushings (5A, 15A IPL Fig. 2)

1) Aluminum-Nickel-Bronze, AMS 4640

(2) Break all sharp edges.

(3) Do a magnetic particle check to the replacement bushing (10A, 20A IPL Fig. 2) as shown in SOPM 20-20-01.

(4) Do a penetrant check to the replacement bushing (5A, 15A IPL Fig. 2) as shown in SOPM 20-20-02.

(5) Passivate (F-17.09) the replacement bushing (10A, 20A IPL Fig. 2) all over.

(6) Cadmium plate (F-15.06) the replacement bushing (5A, 15A IPL Fig. 2) on outside diameter and flange only.

F. Install each bushing by shrink-fit method as shown in SOPM 20-50-03 except apply Loctite 640 (MIL-R-46082, Type II) retaining compound to bushing hole and flange faying surface.

G. Machine each installed bushing to final inside diameter as shown in Fig. 601.

H. Fillet seal each bushing flange with BMS 5-26 sealant (preferred) or BMS 5-95 sealant.

2. Repair for Diagonal Brace (25 IPL FIg. 2) Bushing Hole (for bushings 5A, 10A, 15A, 20A IPL Fig. 2)

A. Machine bushing hole to remove damage or corrosion.

B. Check bushing hole for damage by penetrant check as shown in SOPM 20-20-02.

C. Machine bushing hole an additional 0.020 inch (diameter) as an insurance cut to remove any undetectable cracks. Refer to Fig. 601 for maximum repair limit diameter.

D. Break all the edges 0.02-0.04 inch.

E. Check bushing hole for damage by penetrant check as shown in SOPM 20-20-02.

3. Aluminum Foil Marker Replacement (40, 45, IPL Fig. 2)

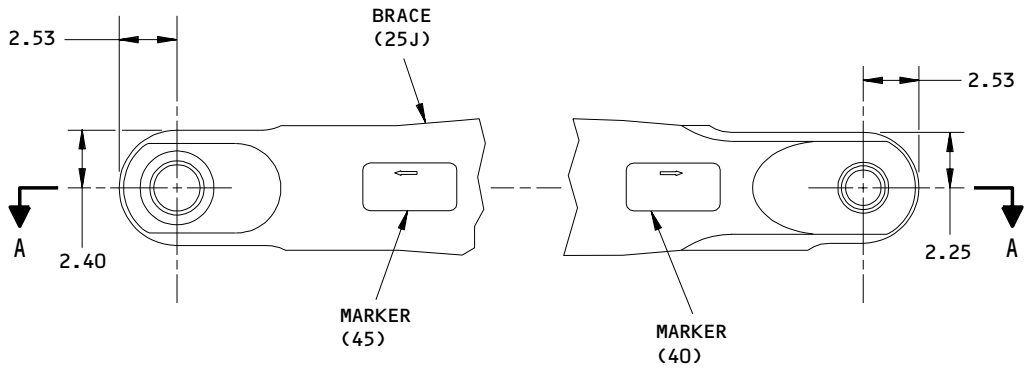
   A. Remove marker, if required.

   B. Apply marker per 20-50-05, Fig. 601. Seal marker by overcoating with 20-44-01, type 41 topcoating.

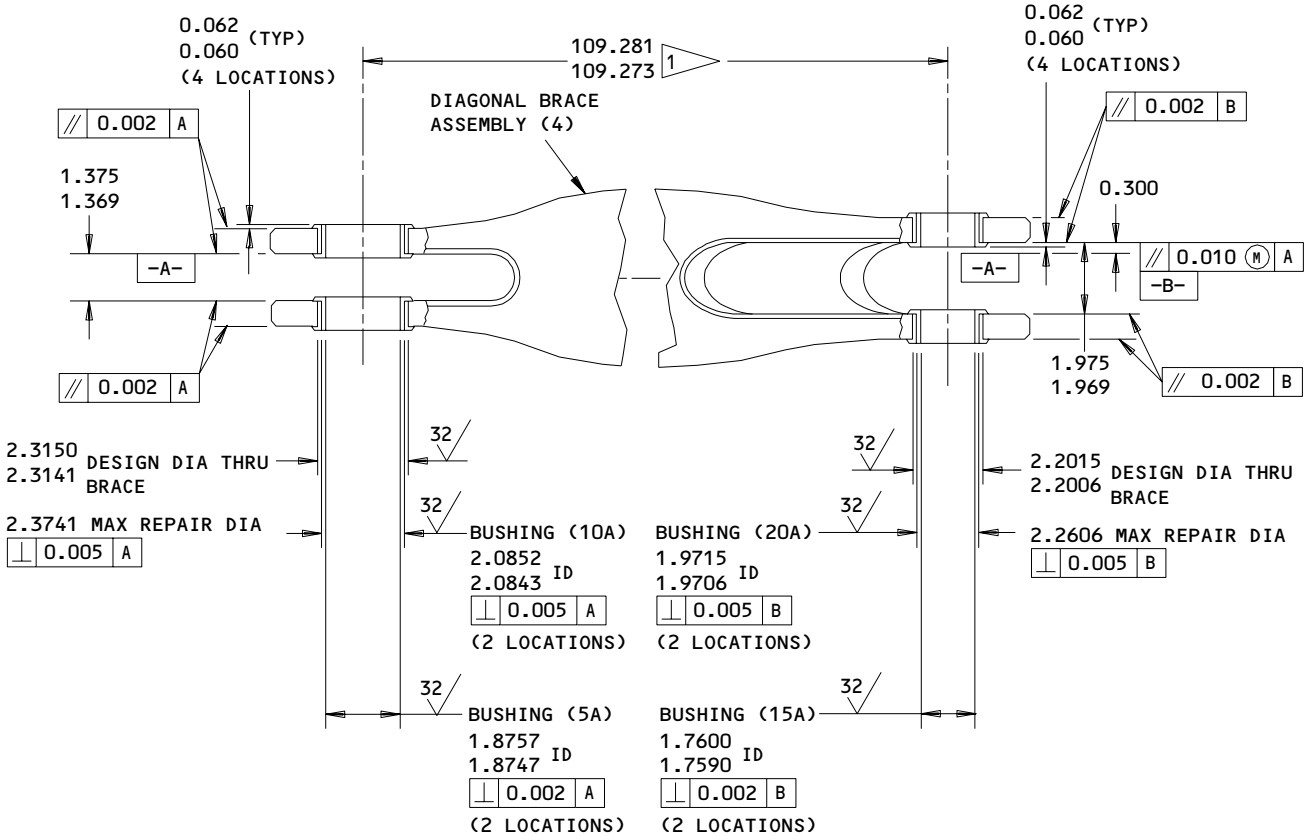
4. Refinish

   A. Diagonal brace (25J) -- Chemically treat (F-17.08). Apply two coats BMS 10-11, type 1 primer per 20-41-02 (F-20.03) all over, except omit primer from bushing holes. Material: Aluminum alloy.

   B. Bushings (5A, 10A, 15A, 20A) -- Cadmium plate per 20-42-05 (F-15.06) the bushing outside diameter and flanges. Material: 15-5PH, 180-200 ksi.



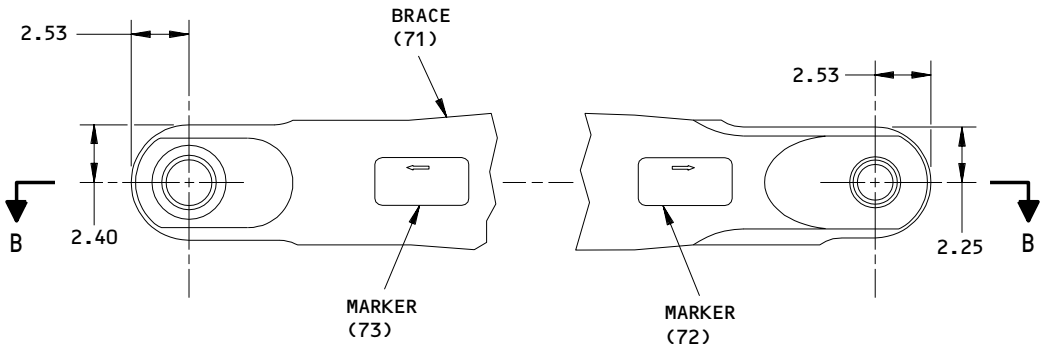
311T5780-1 SHOWN
311T5780-7 SIMILAR



A-A

311T5780-1,-7,-10
Diagonal Brace Assembly Repair
Figure 601 (Sheet 1)

766111



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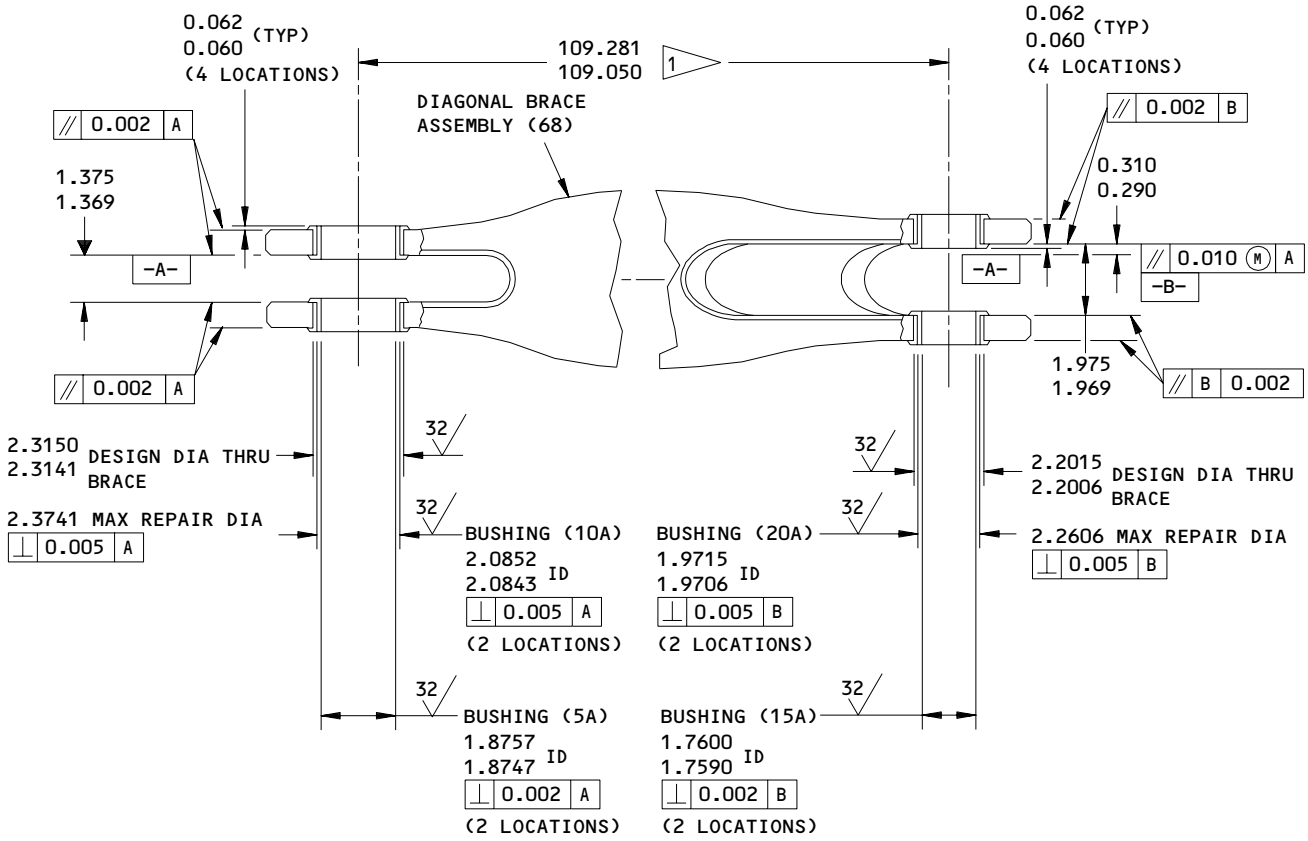


B-B

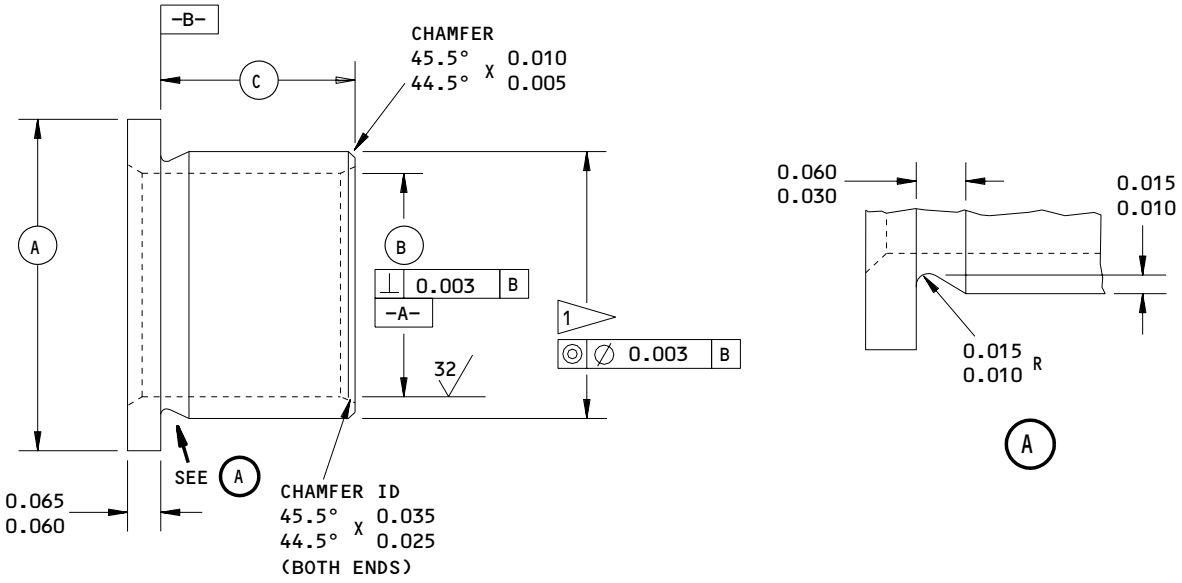
1 THIS DIMENSION ESTABLISHED FOR 72° F.
REPAIRS MADE AT ANY OTHER TEMPERATURE
MUST BE ADJUSTED FOR THERMAL EXPANSION

ITEM NUMBERS REFER TO IPL FIG. 2

ALL DIMENSIONS ARE IN INCHES

311T5780-1,-7,-10
Diagonal Brace Assembly Repair
Figure 601 (Sheet 2)

H78521



BUSHING REPLACES IPL FIG. 2 ITEM NO.	A	B	C	INTERFERENCE
5A	2.560 2.540	1.8607 1.8577	0.975 0.965	0.0046 0.0031
10A	2.560 2.540	2.0723 2.0693	0.910 0.900	0.0039 0.0028
15A	2.460 2.440	1.7480 1.7450	1.035 1.020	0.0043 0.0030
20A	2.460 2.440	1.9616 1.9586	0.970 0.960	0.0034 0.0024

1 FINAL BUSHING OUTSIDE DIA EQUALS REPAIR DIA OF FITTING PLUS INTERFERENCE

63 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

DIMENSIONS APPLY AFTER PLATING

ALL DIMENSIONS ARE IN INCHES

311T5780-1,-7,-10
Oversize Bushing Details
Figure 602

KD2772

UPPER LINK ASSEMBLY - REPAIR 26-1

311T5710-1, -7, -13

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

1. Bushing Replacement (105, 110, 115, 120, IPL Fig. 1)

   CAUTION: REPLACEMENT BUSHINGS MUST BE MADE TO MEET BUSHINGS SPECIFICATIONS AND INTERFERENCE REQUIREMENTS AS SPECIFIED IN THIS REPAIR. IF AN INSURANCE CUT IS MADE ON UPPER LINK, DO NOT REPLACE BUSHINGS (105, 110, 115, 120, IPL Fig. 1) BY PURCHASING THE BUSHINGS BASED ON THEIR IPL PART NUMBER BECAUSE THEY DO NOT HAVE THE PROPER INTERFERENCE FIT.

   A. Remove and discard bushings.

   B. Check bushing hole and surrounding lug for damage or corrosion by magnetic particle check, Class A Critical, as shown in SOPM 20-20-01. Repair bushing hole if necessary as shown in par. 2. If cracks are indicated in exterior lug surface, contact Boeing for disposition.

   C. Shot peen bushing hole all surfaces including hole interior as shown in SOPM 20-10-03. Shot size 170-330, Intensity 0.016 A, Coverage 2.0.

   D. Refinish as shown in par. 4.

   E. Make replacement bushings for (105A, 105C, 115B, 115D, 120, IPL Fig. 1) as shown in Fig. 603 and as follows:

      (1) Bushing Materials - 15-5 CRES rod, solution treated as shown in AMS 5659. Heat treatment - 180-200 KSI

      (2) Break all sharp edges.

(3) Do a magnetic particle check to the replacement bushing as shown in SOPM 20-20-01.

(4) Passivate (F-17.09) the replacement bushing all over.

F. Make replacement bushings for (110A, 110C, 115, 120A, IPL Fig. 1) as shown in Fig. 603 and as follows:

(1) Bushing Materials - Aluminum-Nickel-Bronze, AMS 4640

(2) Break all sharp edges.

(3) Do a penetrant check to the replacement bushing as shown in SOPM 20-20-02.

(4) Cadmium plate (F-15.06) the replacement bushing on outside diameter and flange only.

G. Install each bushings by shrink-fit method as shown in SOPM 20-50-03 except apply Loctite 640 (MIL-R-46082, Type II) retaining compound to bushing hole and flange faying surface.

H. Machine each installed bushing to final inside diameter as shown in Fig. 601 or Fig. 602.

I. Fillet seal each bushing flange with BMS 5-26 sealant (preferred) or BMS 5-95 sealant.

2. Repair for Upper Link (134, IPL Fig. 1) Bushing Hole (for bushings 105, 110, 115, 120, IPL Fig. 1)

A. Machine bushing hole to remove damage or corrosion.

B. Check bushing hole for damage by magnetic particle check as shown in SOPM 20-20-01.

C. Machine bushing hole an additional 0.010 inch (diameter) as an insurance cut to remove any undetectable cracks. Refer to Fig. 601 or 602 for maximum repair limit diameter.

D. Break all the edges 0.02-0.03 inch.

3. Aluminum Foil Marker Replacement (136, 142, IPL Fig. 1)

   A. Remove marker, if required.

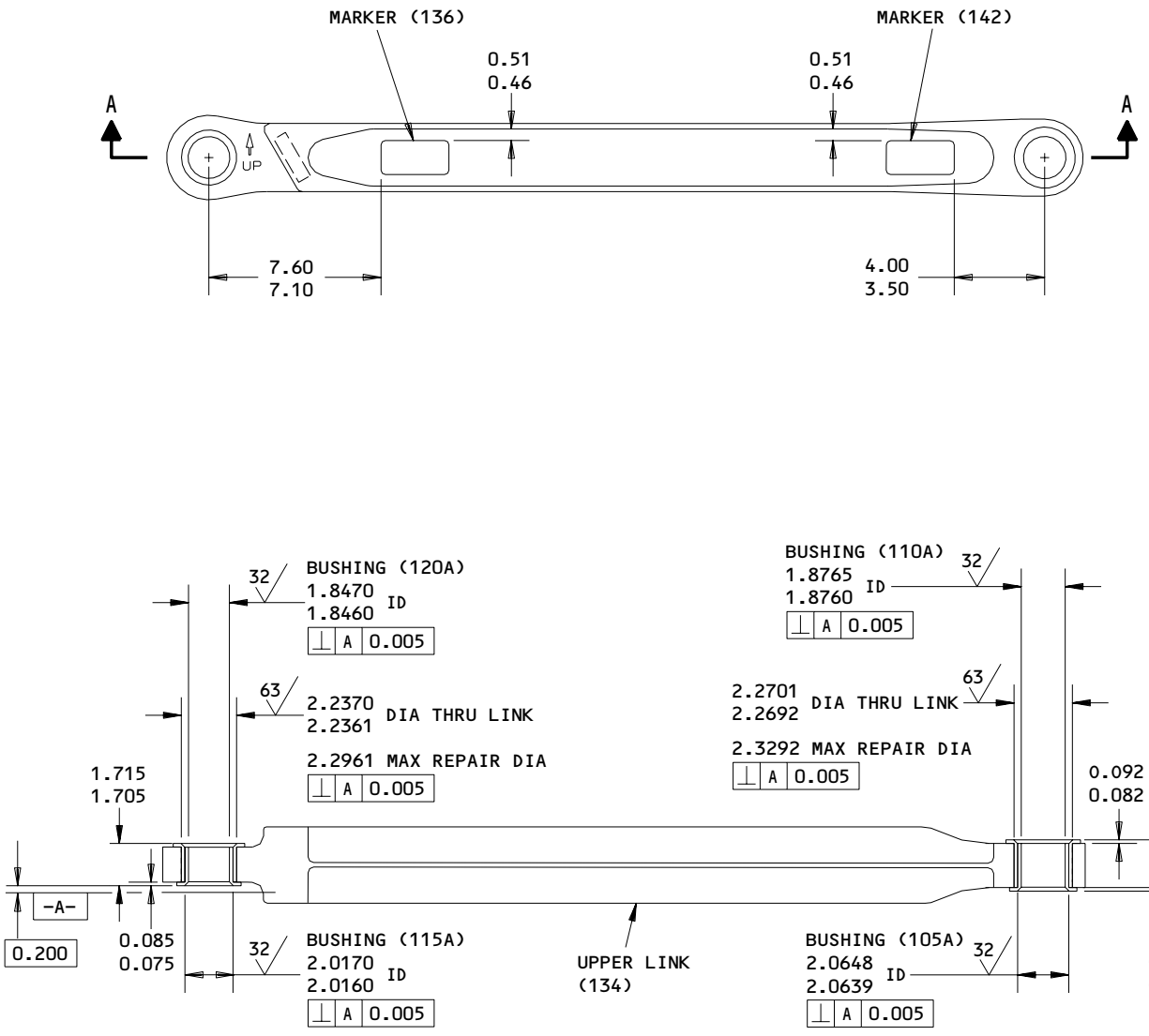
   B. Apply marker per 20-50-05, Fig. 601. Edge seal marker by overcoating with 20-44-01, type 41 topcoating.

4. Refinish

   A. Upper link (134), bushing (105A, 110A, 115A, 120A) -- Passivate (F-17.09). Material: 15-5PH, 180-200 ksi.

   B. Upper link ( ) -- Passivate (F-17.25) plus one coat of BMS 10-11, Type I primer (F-20.02) in bores. Material: 15-5PH CRES bar or forged block per AMS 5659 solution treated, 180-200 KSI.

   C. Bushings (110A, 120A) -- No finish (F-25.01). Material Al-Ni-BR bar (UNS C63000) per AMS 4640 annealed.



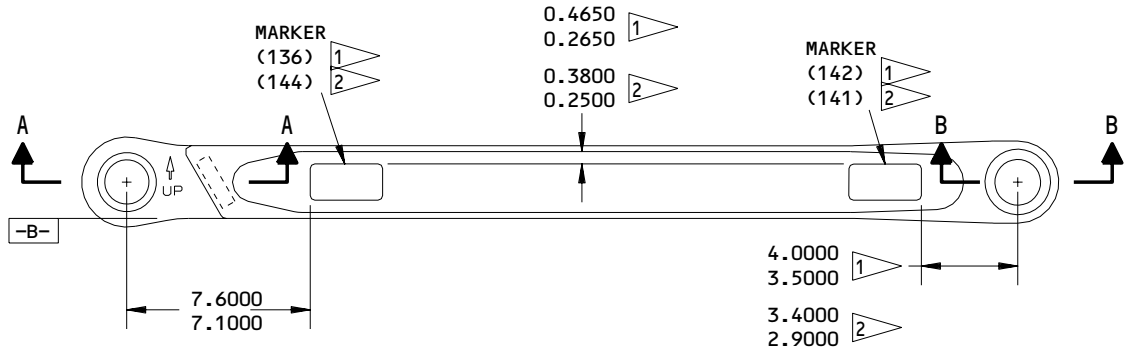
A-A

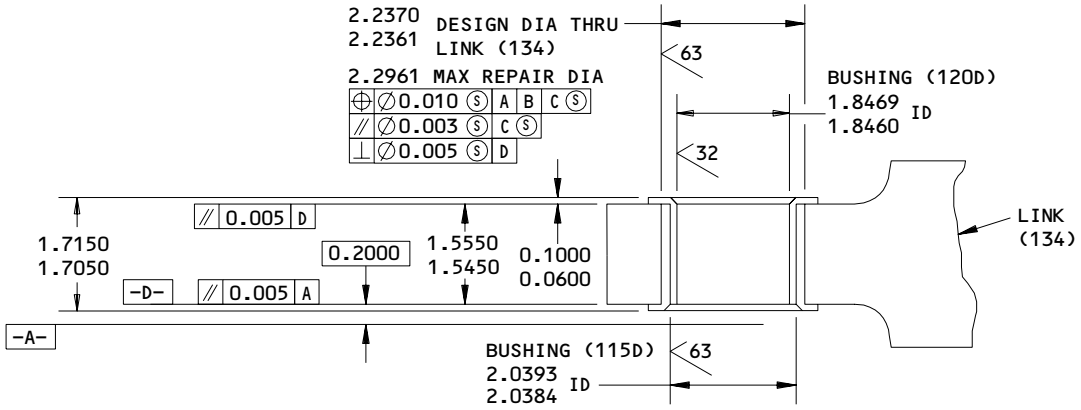
ITEM NUMBERS REFER TO IPL FIG. 1

ALL DIMENSIONS ARE IN INCHES

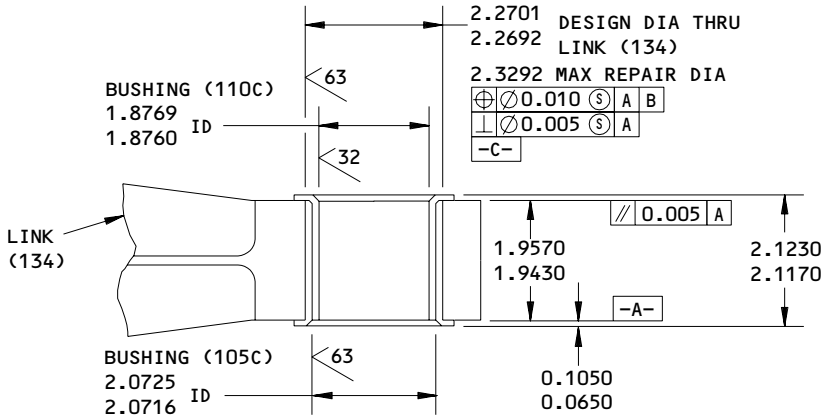
311T5710-1
Upper Link Assembly
Figure 601

766341





A-A



B-B

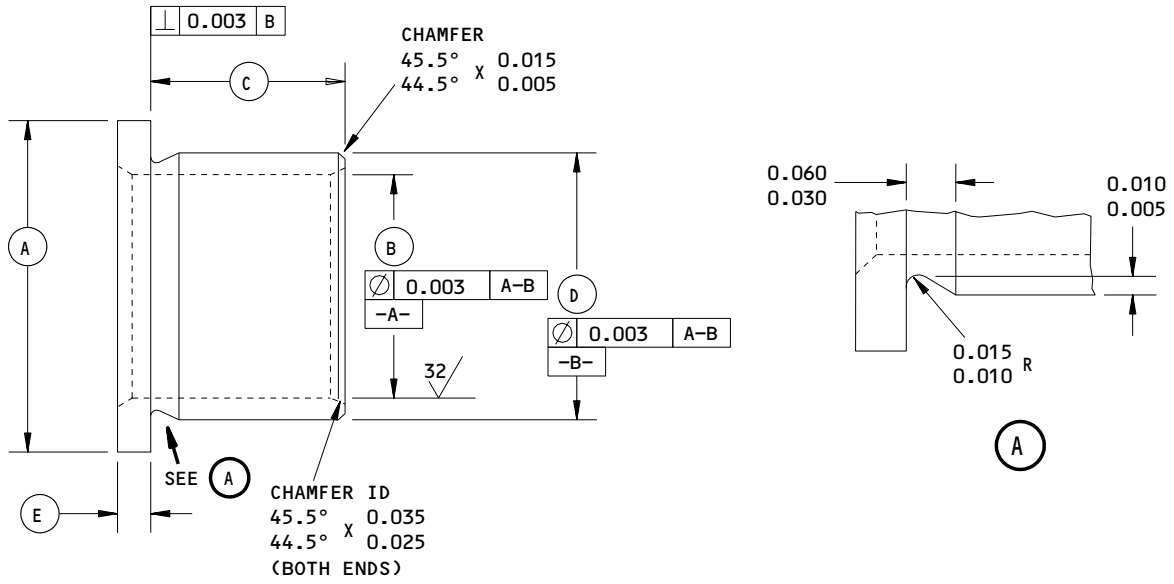
1 311T5710-7
2 311T5710-13

ITEM NUMBERS REFER TO IPL FIG. 1

ALL DIMENSIONS ARE IN INCHES

311T5710-7,-13
Upper Link Assembly
Figure 602

K03609



BUSHING REPLACES IPL FIG. 1 ITEM NO.	A	B	C	D	E	INTER-FERENCE	MATERIAL
105A	2.660 2.640	2.0515 2.0485	1.940 1.920	1	0.115 0.095	0.0039 0.0025	15-5PH CRES BAR AS SHOWN IN AMS 5659, HEAT TREAT: 180-200 KSI
105C	2.660 2.640	2.0696 2.0686	1.9400 1.9200	1	0.110 0.100	0.0039 0.0025	15-5PH CRES BAR AS SHOWN IN AMS 5659, HEAT TREAT: 180-200 KSI
110A	2.660 2.640	1.8615 1.8585	2.020 2.000	2.0667 2.0658	0.115 0.095	---	Al-Ni-BRONZE ROD AS SHOWN IN AMS 4640
110C	2.660 2.640	1.8740 1.8730	2.0150 1.9950	2.0762 2.0757	0.110 0.100	---	Al-Ni-BRONZE ROD AS SHOWN IN AMS 4640
115A	2.580 2.560	2.0015 1.9985	1.540 1.520	1	0.105 0.085	0.0038 0.0024	15-5PH CRES BAR AS SHOWN IN AMS 5659, HEAT TREAT: 180-200 KSI
115D	2.580 2.560	2.0364 2.0354	1.5400 1.5200	1	0.105 0.090	0.0038 0.0024	15-5PH CRES BAR AS SHOWN IN AMS 5659, HEAT TREAT: 180-200 KSI
120A	2.580 2.560	1.8325 1.8295	1.600 1.580	2.0190 2.0181	0.105 0.085	---	Al-Ni-BRONZE ROD AS SHOWN IN AMS 4640
120D	2.580 2.560	1.8440 1.8430	1.6100 1.5900	2.0429 2.0424	0.105 0.095	---	Al-Ni-BRONZE ROD AS SHOWN IN AMS 4640

1 FINAL BUSHING OUTSIDE DIA EQUALS REPAIR DIA OF FITTING PLUS INTERFERENCE

63 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

DIMENSIONS APPLY AFTER PLATING

ALL DIMENSIONS ARE IN INCHES

311T5710-3 thru -6
Oversize Bushing Details
Figure 603

KD2831

SIDE LINK ASSEMBLY - REPAIR 27-1

311T2740-1, -2, -5, -7, -8, -9, -10

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

1. 311T2740-1, -2, -5, -7 Side Link Bushing Replacement (80A, 95A, IPL Fig. 1)

   A. Remove bushing.

   B. Check hole for damage or repair if necessary per par. 2.

   C. Install bushing per 20-50-03.

   D. Machine bushing per Fig. 601.

2. 311T2740-8 Side Link Bushing Replacement (15, IPL Fig. 5)

   CAUTION: REPLACEMENT BUSHING MUST BE MADE TO MEET BUSHING SPECIFICATIONS AND INTERFERENCE REQUIREMENTS IN THIS REPAIR. IF AN INSURANCE CUT IS MADE ON SIDE LINK, DO NOT REPLACE BUSHING (15, IPL FIG. 5) BY PURCHASING THE BUSHING BASED ON THE IPL PART NUMBER BECAUSE IT DOES NOT HAVE THE PROPER INTERFERENCE FIT.

   A. Remove and discard bushing.

   B. Check bushing hole and surrounding lug for damage or corrosion by magnetic particle check, Class A Critical, as shown in SOPM 20-20-01. Repair bushing hole if necessary as shown in par. 5. If cracks are indicated in exterior lug surface, contact Boeing for disposition.

   C. Shot peen bushing hole all surfaces including hole interior as shown in SOPM 20-10-03, Intensity 0.014-0.016 A, Coverage 2.0.

D. Refinish as shown in par. 7.

E. Make replacement bushings for (15, IPL Fig. 5) as shown in Fig. 602 and as follows:

(1) Bushing Materials - 15-5 CRES rod, solution trated as shown in AMS 5659. Heat treatment - 180-200 KSI.

(2) Break all sharp edges.

(3) Do a magnetic particle check to the replacement bushing (15, IPL Fig. 5) as shown in SOPM 20-20-01.

(4) Passivate (F-17.09) the replacement bushing (15, IPL Fig. 5) all over.

F. Install each bushings by shrink-fit method as shown in SOPM 20-50-03 except, apply BMS 5-63 sealant under flange only (sealant not required in bushing hole).

G. Machine each installed bushing to final inside diameter as shown in Fig. 601.

H. Fillet seal each bushing flange with BMS 5-63 sealant.

3. Repair for 311T2740-8 Side Link Bushing Hole for Bushing (15, IPL Fig. 5).

A. Machine bushing hole to remove damage or corrosion.

B. Check bushing hole for damage by magnetic particle check as shown in SOPM 20-20-01.

C. Machine bushing hole an additional 0.010 inch (diameter) as an insurance cut to remove any undetectable cracks. Refer to Fig. 601 for maximum repair limit diameter.

D. Machine 0.02 to 0.03 inch by 45-degree chamfer in both sides of bushing hole.

4. Replacement of Isolator (20, IPL Fig. 5) in 311T2740-9 Side Link.

A. Install isolator (20) as shown in SOPM 20-50-03 except do not cool below -60 °F. Do not use dry ice or liquid nitrogen. Apply BMS 5-63 sealant under flange only (sealant is not required in bore).

B. Fillet seal flanges using BMS 5-63.

5. Replacement of Bushings (25, 30, IPL Fig. 5) in 311T2740-10 Side LInk

A. Install bushings as shown in SOPM 20-50-03.

B. Machine installed bushings to diameter shown in Fig. 601.

6. Aluminum Foil Marker Replacement (102A, IPL Fig. 1)

A. Remove marker if damaged.

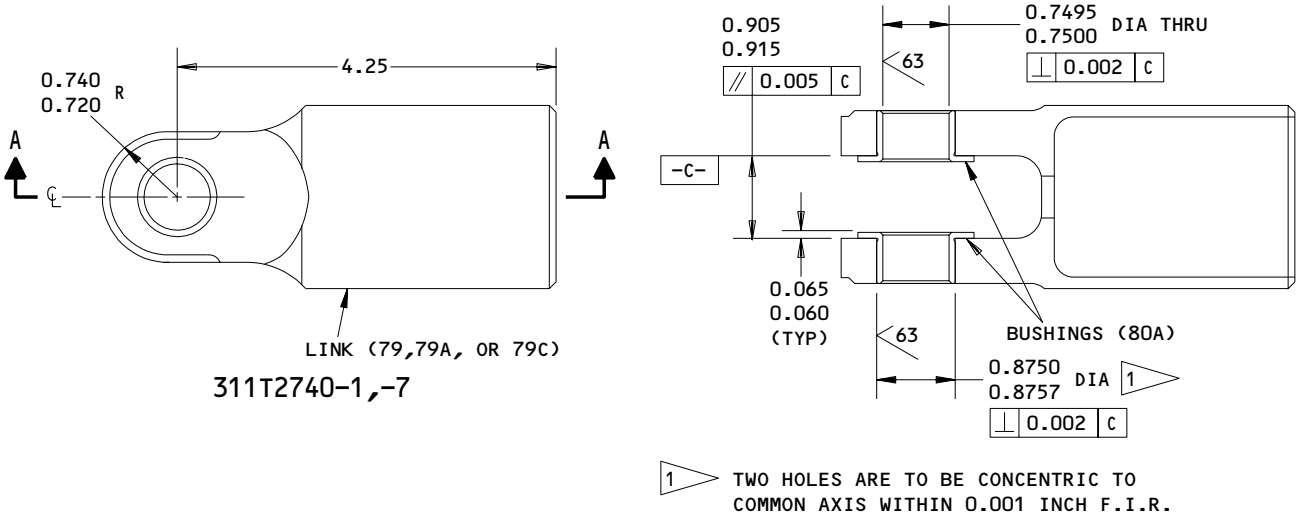
B. Install marker per 20-50-05 to dimensions shown (Fig. 601). Edge seal marker by overcoating with 20-44-01, type 41 top coating.

7. Refinish

A. Side link (85A, 85B, 100B, IPL Fig. 1; 35, 40, IPL Fig. 5), bushing (80A, 95A, IPL FIg. 1; 15, IPL Fig. 5), isolator (20, IPL Fig. 5) -- Passivate (F-17.09) Material: 15-5 PH, 180-200 ksi

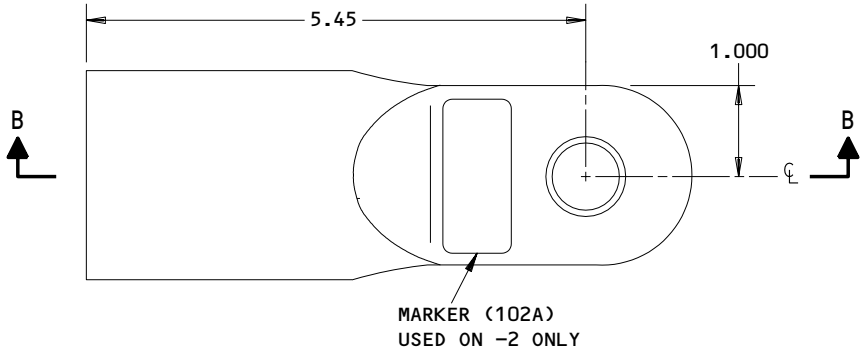
B. Bushing (25, 30, IPL Fig. 5) -- No finish (F-25.01), Material: Aluminum Bronze per AMS 4640.

C. Side link (45, IPL Fig. 5) -- No finish (F-25.01), Material: TI-6AL-4V

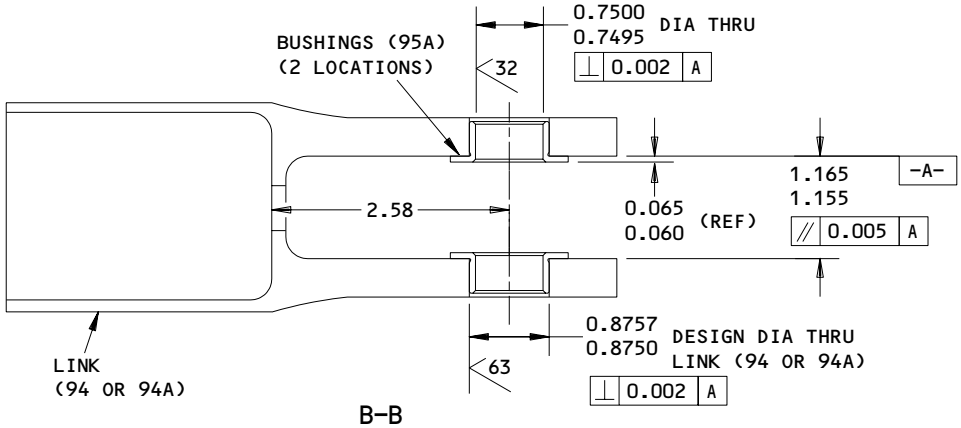


311T2740-1,-7

A-A



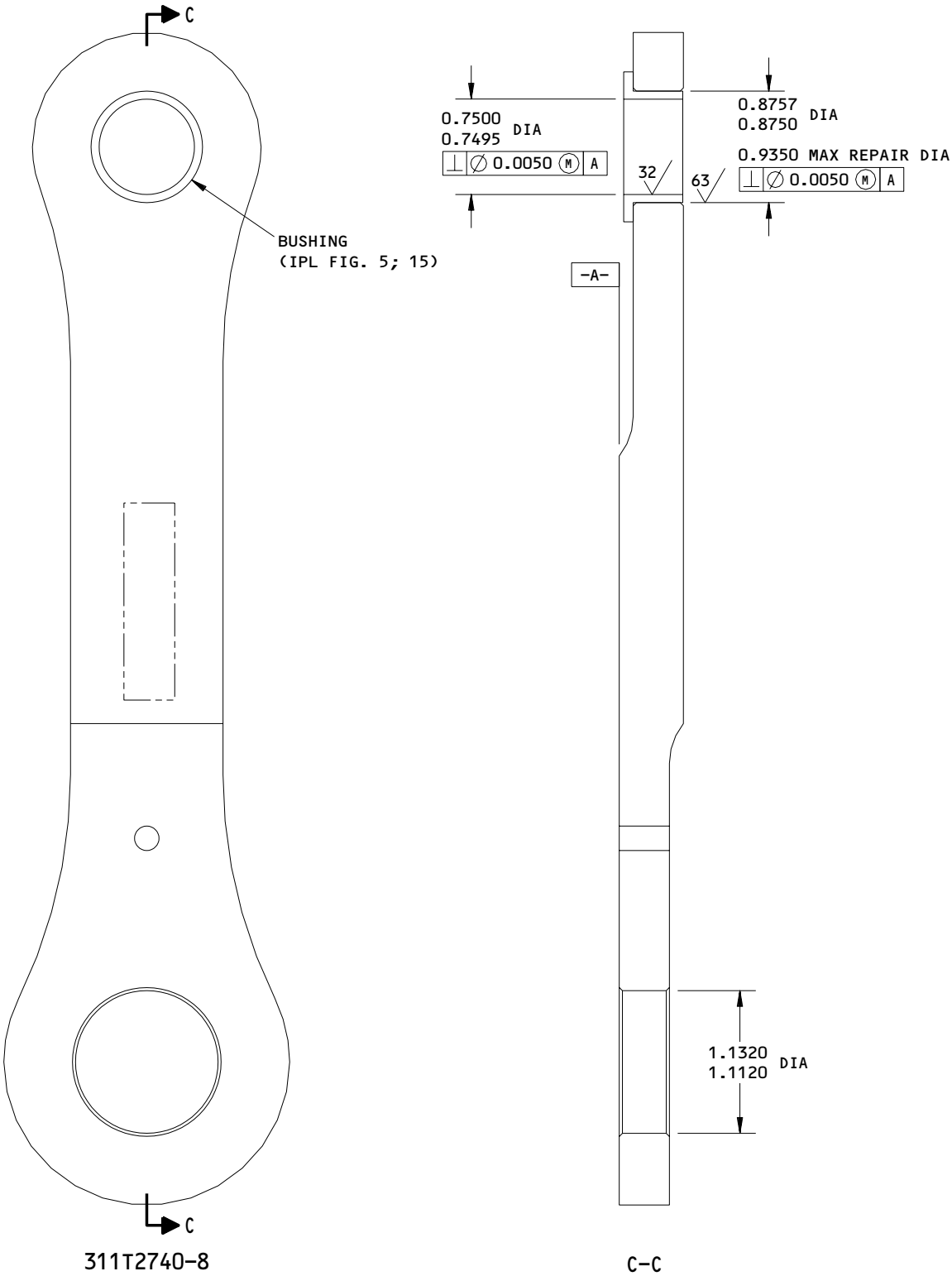
311T2740-2,-5



B-B

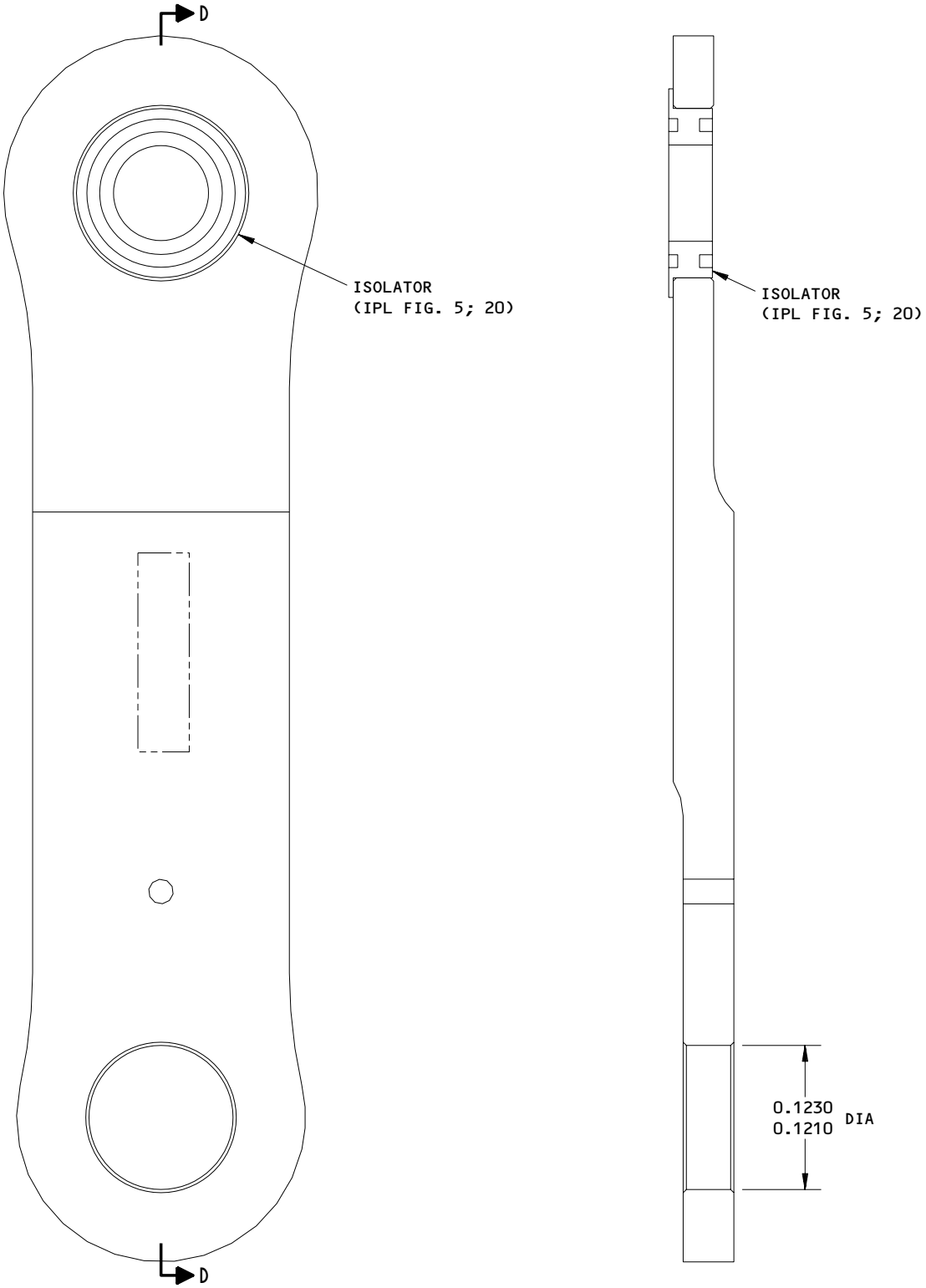
311T2740-1,-2,-5,-7,-8,-9,-10
Side Link Assembly Repair
Figure 601 (Sheet 1)

817692



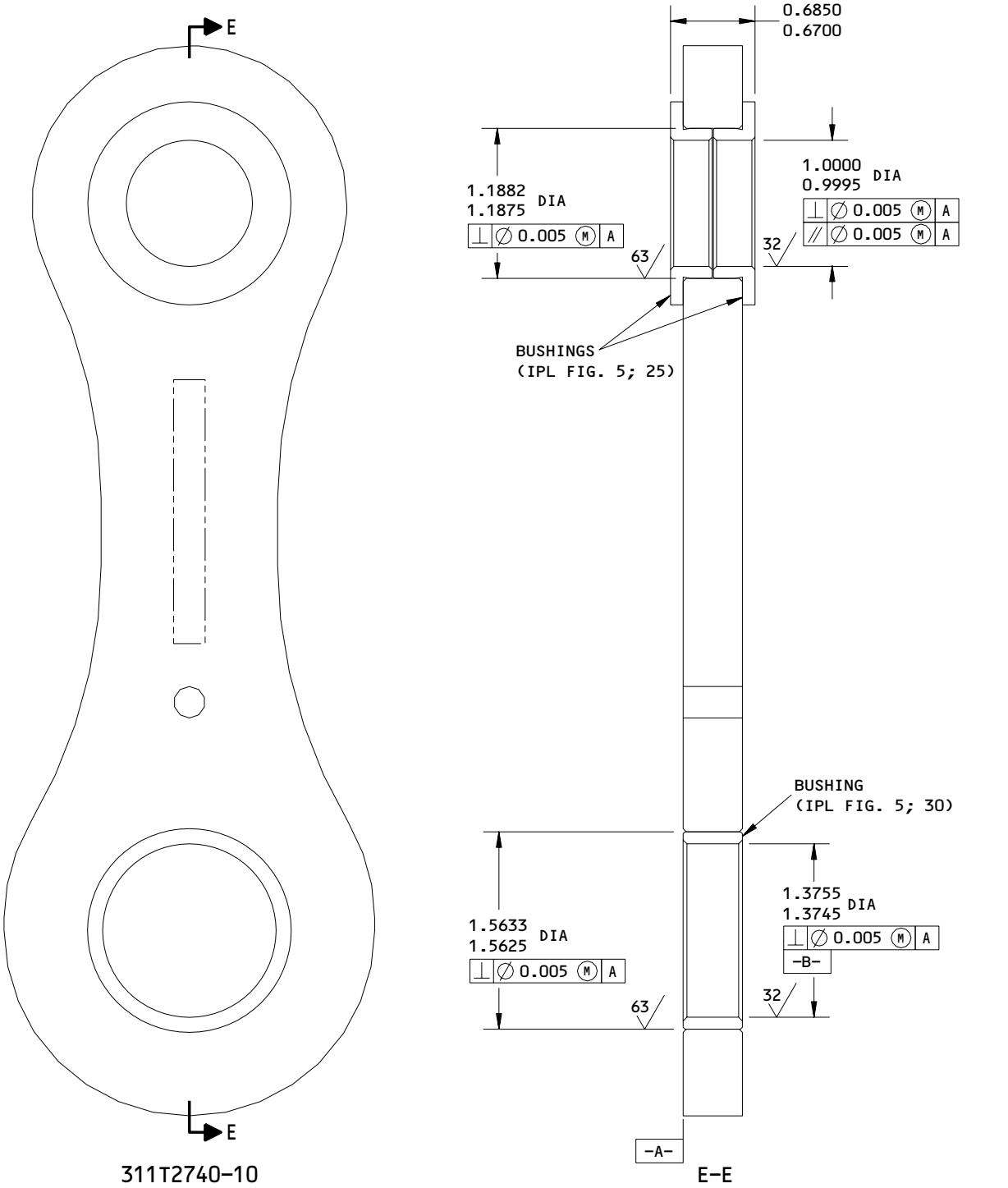
311T2740-1,-2,-5,-7,-8,-9,-10
Side Link Assembly Repair
Figure 601 (Sheet 2)

817859



311T2740-1,-2,-5,-7,-8,-9,-10
Side Link Assembly Repair
Figure 601 (Sheet 3)

KD3953



ITEM NUMBERS REFER TO IPL FIG. 1, UNLESS SHOWN DIFFERENTLY

ALL DIMENSIONS ARE IN INCHES

311T2740-1,-2,-5,-7,-8,-9,-10
Side Link Assembly Repair
Figure 601 (Sheet 4)

K03954

FUSE PIN - REPAIR 28-1

310T2301-1, -2, -3

CAUTION: FUSE PINS WITH DAMAGED OR ALTERED BASE METAL ARE NOT SERVICEABLE. DAMAGED OR ALTERED BASE METAL DESTROYS FUSE PIN INTEGRITY. REPAIR CONSISTS OF RESTORATION OF FINISH ONLY.

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

1. Refinish

A. Remove chrome plating by grinding as shown in SOPM 20-10-04.

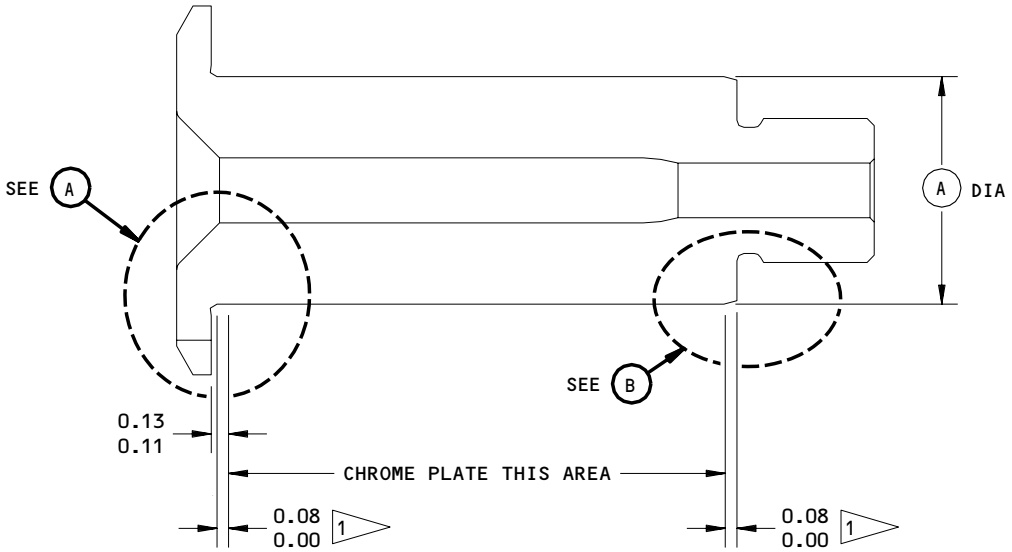
B. Do a magnetic particle check as shown in SOPM 20-20-01, Inspection Class A, Critical prior to plating.

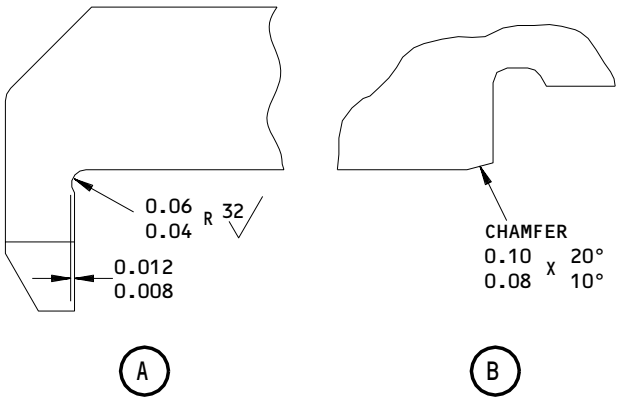
C. Chrome plate outside diamter as shown in Fig. 601 and SOPM 20-42-03 (F-15.34), except bake at 375°F ±25 degrees, 8 hours minimum, 0.003 inch minimum buildup thickness. Runout chrome plate smoothly at each end as shown in Fig. 601. Do not extend chrome plate into fillet radius.

D. Grind to Diameter After Chrome Plate as shown in Fig. 601 and SOPM 20-10-04.

E. Do a magnetic particle check as shown in SOPM 20-20-01, Inspection Class A, Critical.

F. Apply wipe-on primer (F-19.45) to chromed areas.





FUSE PIN PART NO.	A	
	DIA BEFORE PLATING	DIA AFTER PLATING
310T2301-1,-2	1.5725 1.5715	1.5796 1.5785
310T2301-3	1.7935 1.7925	1.8005 1.7995

1 CHROME PLATE RUNOUT

63 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

ALL DIMENSIONS ARE IN INCHES

310T2301-1,-2,-3
Fuse Pin Refinish
Figure 601

H77752

DIAGONAL BRACE ASSEMBLY - REPAIR 29-1

311T1735-1, -6
311T2735-1, -13, -21
311T3735-1, -6
311T4735-1, -4
311T5735-1

1. Bushing Replacement for Diagonal Braces

A. End fittings (25, 45, IPL Fig. 4) may be removed from diagonal brace to replace the bushing, but it is not required.

NOTE: If end fittings are removed, note the number of spacers (15, IPL Fig. 4) installed (if any) for reinstallation upon completion of bushing replacement.

CAUTION: RESTRAINT METHODS MOVED DURING REMOVAL OF END FITTINGS MUST PREVENT DAMAGE TO ALIGNMENT PINS (75).

B. Remove and discard bushings.

C. Check bushing hole and surrounding lug for damage or corrosion by penetrant check, as shown in SOPM 20-20-02. Repair bushing hole if necessary as shown in par. 2. If cracks are indicated in exterior lug surface, contact Boeing for disposition.

D. If required because bushing hole size exceeds Fig. 601 design diameter, make replacement outer bushings as shown in Fig. 602 and as follows:

(1) Bushing Materials - 15-5 CRES bar, solution treated as shown in AMS 5659. Heat treat - 180-200 KSI

(2) Break all sharp edges.

(3) Do a magnetic particle check to the replacement outer bushing as shown in SOPM 20-20-01.

(4) Passivate (F-17.09) the replacement outer bushing all over.

E. Install each bushing by shrink-fit method as shown in SOPM 20-50-03 except apply Loctite 640 (MIL-R-46082, Type II) retaining compound to bushing hole and flange faying surface.

F. Machine each installed bushing to final inside diameter as shown in Fig. 601.

G. Fillet seal each bushing flange with BMS 5-26 sealant (preferred) or BMS 5-95 sealant.

H. Install end fitting (25, 45, IPL Fig. 4) and spacer(s) (15, IPL Fig. 4) if removed to install bushings as follows:

CAUTION: RESTRAINT METHODS USED DURING INSTALLATION OF END FITTINGS MUST PREVENT DAMAGE TO ALIGNMENT PINS (75).

(1) Apply parting agent to the end of the tube and the end fitting. Fay surface seal both sides to spacer(s) with BMS 5-2 sealant.

NOTE: Do not cover the edge of the spacer with sealant.

(2) Apply anti-sieze compound such as Bostik Never-Seez Pure Nickel Special, to nut (20).

NOTE: Do not use lead compounds such as Ease-Off 990 as it has a negative effect on nickel-based alloys.

(3) Install bolts (5) with BMS 3-27 applied to bolt shank.

(4) Verify locking torque of lubed bolts in barrel nuts is 50 inch-lbs (4.17 foot-lbs) prior to bolt seating.

(5) Tighten all (4) bolts to 50% of final torque and then tighten to final torque range of 3600-4400 inch-lbs (300-367 foot-lbs).

(6) Verify each bolt end extends past the barrel nut 0.078 inch minimum and 0.270 inch maximum.

2. Repair for Diagonal Brace End Fitting Bushing Hole

NOTE: Diagonal braces in this repair are made from titanium (6AL-4V) as shown in MIL-T-9047 and should be machined as shown in SOPM 20-10-07, Class 2.

A. Machine bushing hole to remove damage or corrosion.

B. Check bushing hole for damage corrosion by penetrant check, as shown in SOPM 20-20-02.

C. Machine bushing hole an additional 0.020 inch (diameter) as an insurance cut to remove any udetectable cracks. Refer to Fig. 601 for maximum repair limit diameter.

D. Break all the edges 0.02-0.06 inch.

E. Shot peen bushing hole all surfaces including hole interior as shown in SOPM 20-10-03. Intensity 0.014 A - 0.019 A, Coverage 2.0.

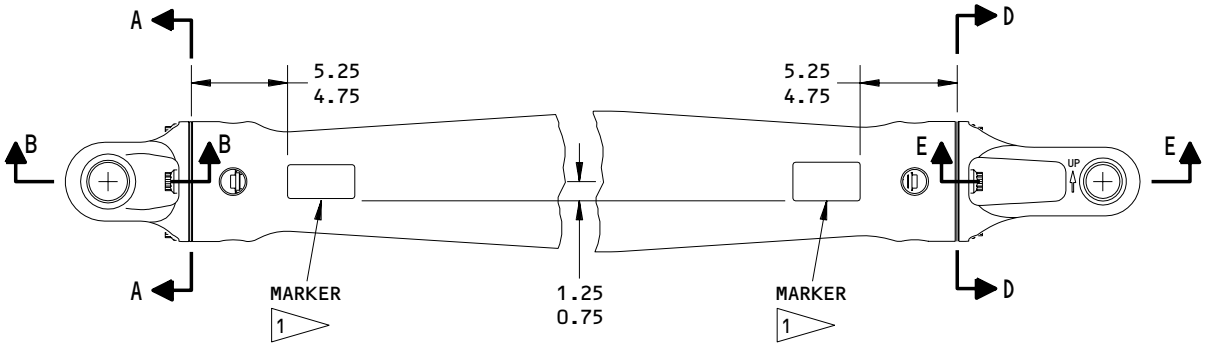
3. Aluminum Foil Marker Replacement

A. Remove marker, if required.

B. Apply marker as shown in SOPM 20-50-05 and Fig. 601. Edge seal marker by overcoating as shown in SOPM 20-44-01, Type 41 topcoating.

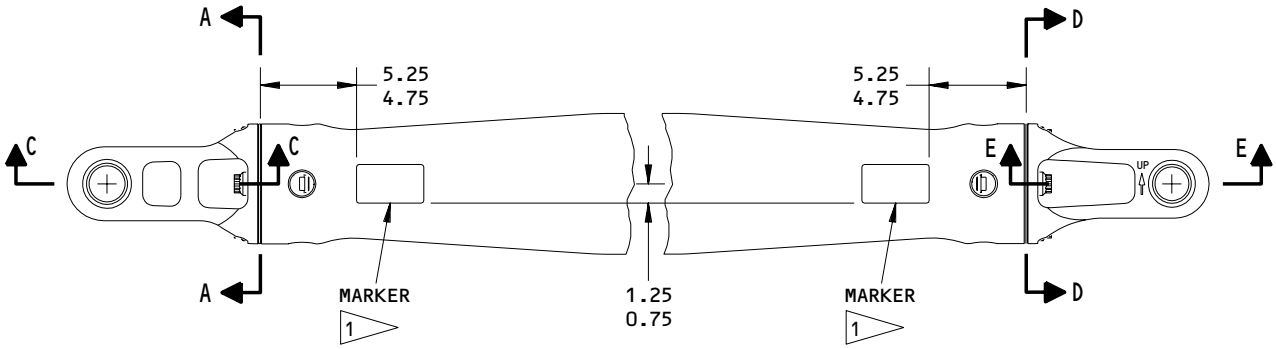
4. Refinish

A. Diagonal brace and end fittings - Apply no finish (F-25.01). Material: TI 6AL-4V.



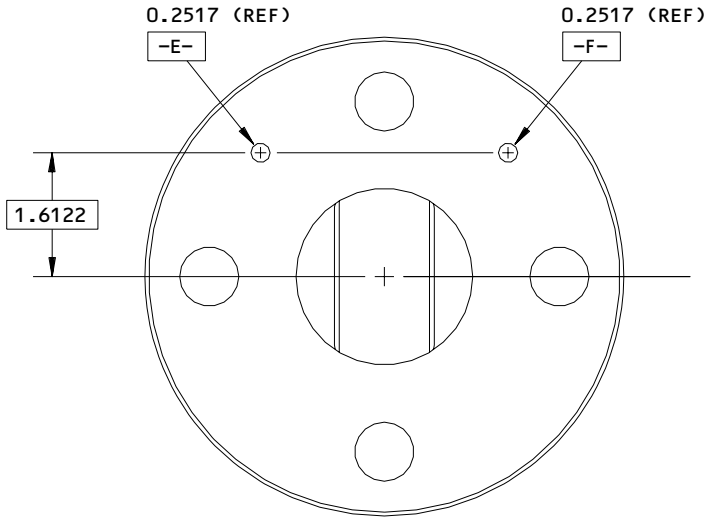
311T1735, 311T2735, 311T3735, 311T4735

SEE (A) FOR 311T5735



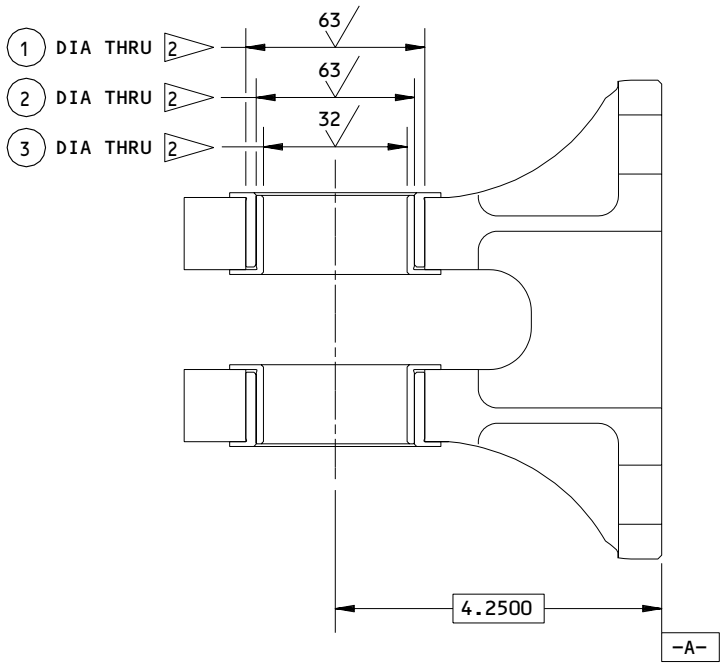
311T5735

(A)

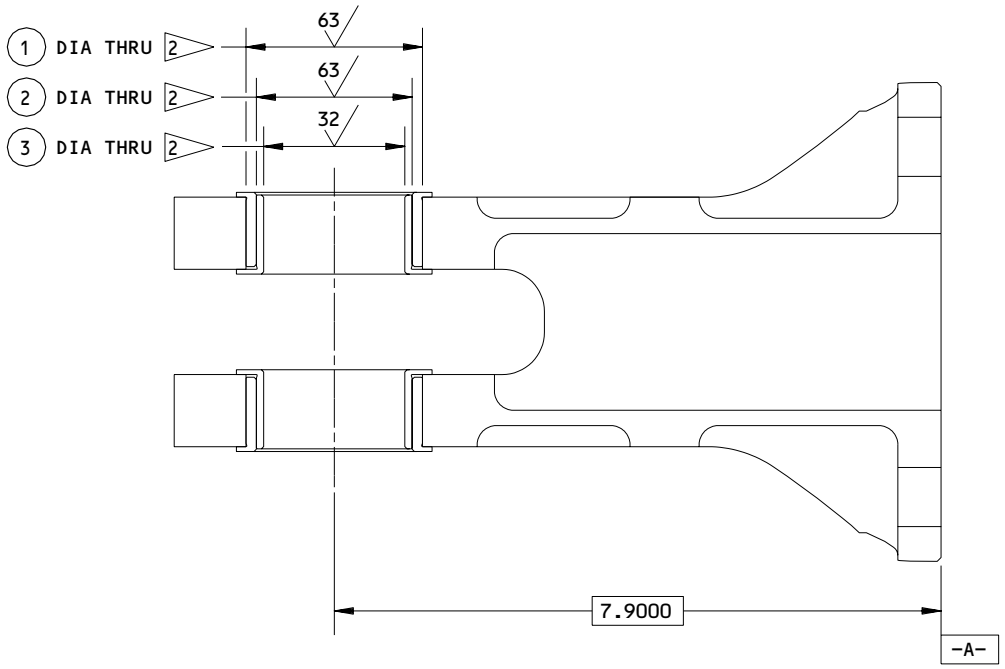


311T1735, 311T2735, 311T3735, 311T4735, 311T5735
A-A

311T1735,311T2735,311T3735,311T4735,311T5735
Diagonal Brace Assembly Repair
Figure 601 (Sheet 1)



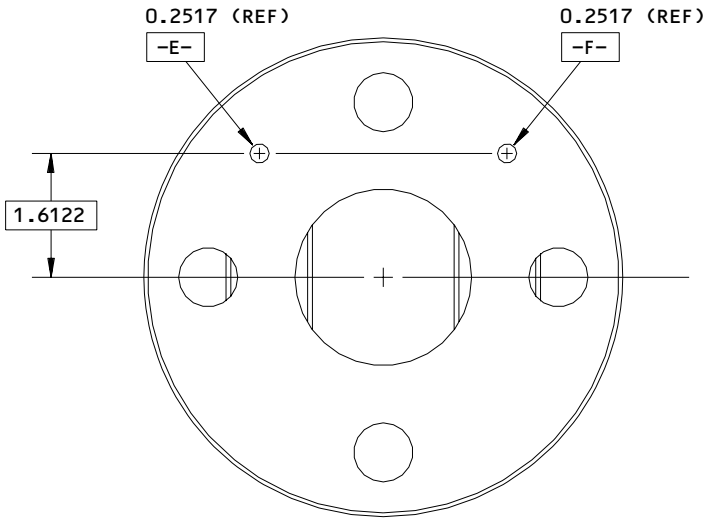
311T1735, 311T2735, 311T3735, 311T4735
B-B



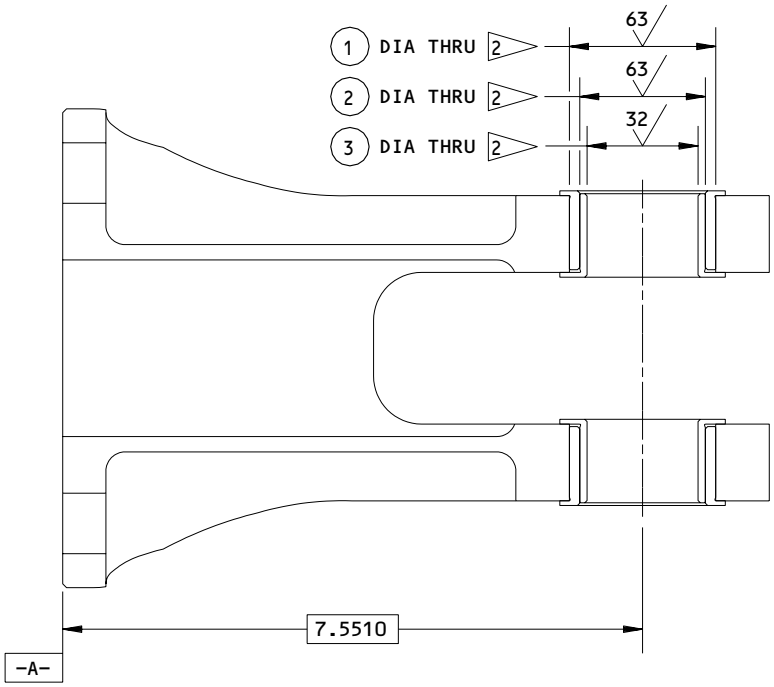
311T5735
C-C

311T1735,311T2735,311T3735,311T4735,311T5735
Diagonal Brace Assembly Repair
Figure 601 (Sheet 2)

L07937



311T5735
D-D



311T1735, 311T2735, 311T3735, 311T4735, 311T5735
E-E

311T1735,311T2735,311T3735,311T4735,311T5735
Diagonal Brace Assembly Repair
Figure 601 (Sheet 3)

Assembly Part No.	End Fitting				Outer Bushing		Inner Bushing	
	SIDE ATTACHED	DIAGONAL BRACE PART NO.	(1) DESIGN DIA	(1) MAX REPAIR DIA	PART NO.	(2) DIA AFTER INSTALLATION	PART NO.	(3) DIA AFTER INSTALLATION
311T1735-1, -6	STRUT	311T1735-2	2.4782 2.4773	2.5373	311T1735-4	2.2277 2.2268	311T1735-5	2.0012 2.0003
	WING	311T2735-9	1.9052 1.9043	1.9643	311T2735-11	1.6900 1.6891	311T2735-12	1.5385 1.5376
311T2735-1	STRUT	311T2735-5	2.3280 2.3271	2.3871	311T2735-7	2.0629 2.0620	311T1735-8	1.8762 1.8773
	WING	311T2735-9	1.9052 1.9043	1.9643	311T2735-11	1.6900 1.6891	311T2735-12	1.5385 1.5376
311T3735-1, -6	STRUT	311T1735-2	2.4782 2.4773	2.5373	311T1735-4	2.2277 2.2268	311T1735-5	2.0012 2.0003
	WING	311T2735-9	1.9052 1.9043	1.9643	311T2735-11	1.6900 1.6891	311T2735-12	1.5385 1.5376
311T4735-1	STRUT	311T2735-5	2.3280 2.3271	2.3871	311T2735-7	2.0629 2.0620	311T1735-8	1.8762 1.8773
	WING	311T2735-9	1.9052 1.9043	1.9643	311T2735-11	1.6900 1.6891	311T2735-12	1.5385 1.5376
311T5735-1	STRUT	311T5735-4	2.3139 2.3130	2.3730	311T5735-6	2.0832 2.0823	311T5735-7	1.8757 1.8748
	WING	311T5735-8	2.2006 2.1997	2.2597	311T5735-10	1.9698 1.9689	311T5735-11	1.7599 1.7590
311T2735-13	STRUT	311T2735-14	2.3280 2.3271	---	311T2735-7	2.0629 2.0620	311T2735-8	1.8763 1.8753
	WING	311T2735-16	2.3004 2.2995	---	311T2735-18	2.1032 2.1023	311T2735-19	1.8524 1.8515
311T4735-4	STRUT	311T2735-5	2.3280 2.3271	2.3871	311T2735-7	2.0629 2.0620	311T2735-8	1.8762 1.8753
	WING	311T5735-8	2.2006 2.1997	2.2597	311T5735-10	1.9698 1.9689	311T5735-11	1.7599 1.7590

1 SEE IPL FOR ITEM AND PART NUMBERS

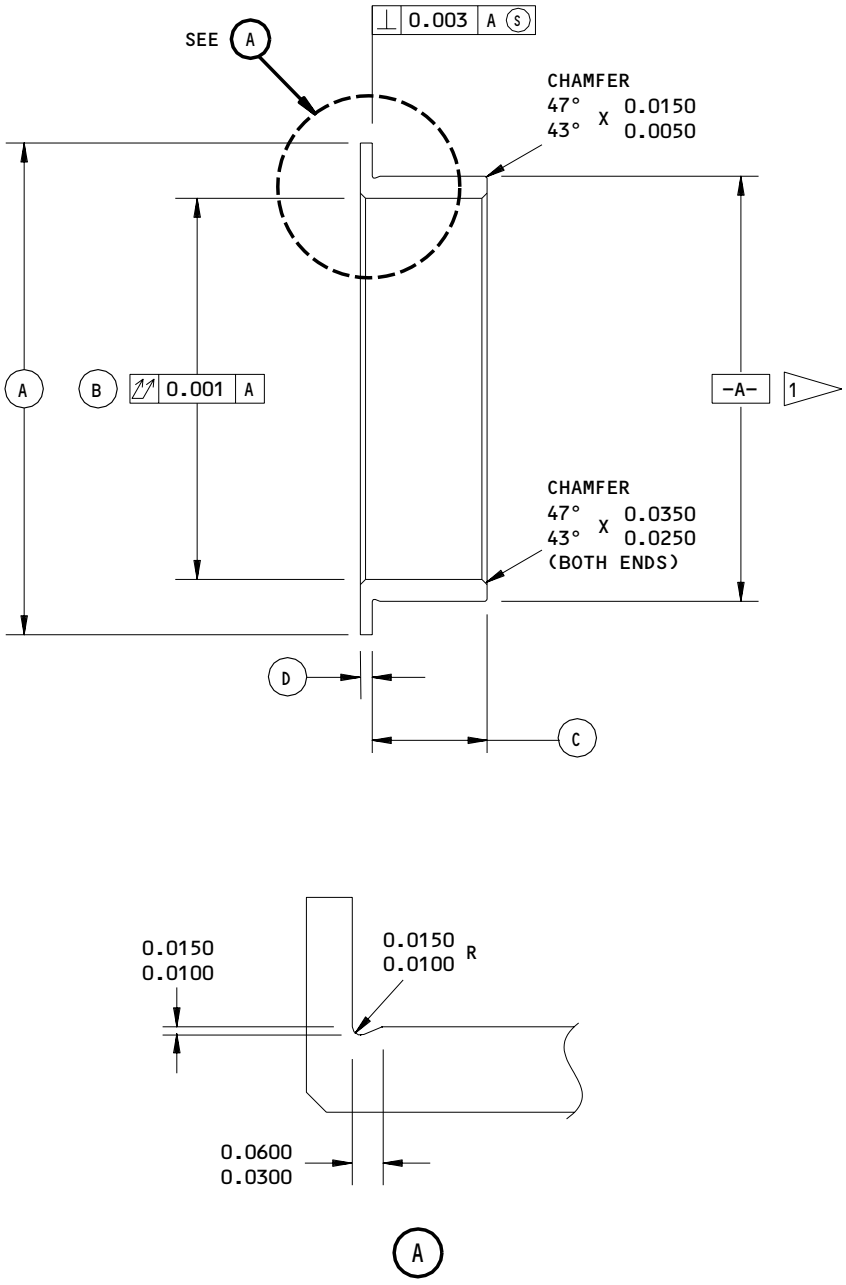
ALL DIMENSIONS ARE IN INCHES

2

⌖	∅ 0.005 Ⓜ	A	E Ⓜ	F Ⓜ	
	∅ 0.001 Ⓜ	A	E Ⓜ	F Ⓜ	
//	∅ 0.001 Ⓜ	A	E Ⓜ	F Ⓜ	

311T1735,311T2735,311T3735,311T4735,311T5735
Diagonal Brace Assembly Repair
Figure 601 (Sheet 4)

L07940



Oversize Bushing Details
Figure 602 (Sheet 1)

W54447

REPLACEMENT FOR BUSHING PART NUMBER	(A)	(B)	(C)	(D)	INTERFERENCE	MATERIAL
311T1735-4	2.8800 2.8500	2.2248 2.2238	0.6750 0.6650	0.0715 0.0665	0.0028 0.0042	15-5PH CRES 180-200 KSI
311T2735-7	2.7600 2.7400	2.0600 2.0590	0.9100 0.9000	0.0650 0.0600	0.0026 0.0040	15-5PH CRES 180-200 KSI
311T2735-11	2.1350 2.1150	1.6871 1.6861	0.9700 0.9600	0.0650 0.0600	0.0018 0.0032	15-5PH CRES 180-200 KSI
311T2735-18	2.5700 2.5500	2.1003 2.0993	0.6200 0.6100	0.0650 0.0600	0.0027 0.0041	15-5PH CRES 180-200 KSI
311T5735-6	2.5600 2.5400	2.0803 2.0793	0.9100 0.9000	0.0635 0.0585	0.0025 0.0039	15-5PH CRES 180-200 KSI
311T5735-10	2.4600 2.4400	1.9669 1.9659	0.9700 0.9600	0.0635 0.0585	0.0023 0.0037	15-5PH CRES 180-200 KSI

1 FINAL BUSHING OUTSIDE DIAMETER EQUALS DIAMETER OF FITTING PLUS INTERFERENCE

63 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

FINISH: PASSIVATE F-17.25 ALL OVER

ITEM NUMBERS REFER TO IPL FIG. 1

ALL DIMENSIONS ARE IN INCHES

Oversize Bushing Details
Figure 602 (Sheet 2)

W54473

FUSE PIN - REPAIR 30-1
311T5790-1

CAUTION: FUSE PINS WITH DAMAGED OR ALTERED BASE METAL ARE NOT SERVICEABLE. DAMAGED OR ALTERED BASE METAL DESTROYS FUSE PIN INTEGRITY. REPAIR CONSISTS OF RESTORATION OF FINISH ONLY.

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

1. Refinish

A. Remove the chrome plating as shown in SOPM 20-10-04.

B. Passivate (F-17.25) all surfaces of the fuse pin (19E) other than the chrome plate, runout, and primer (F-20-02) areas.

C. Do a magnetic particle inspection as shown in SOPM 20-20-01, Inspection Class A, Critical prior to plating.

D. Shot peen the surface shown in Fig. 601 per SOPM 20-10-03, Intensity 0.012A, Coverage 2.0.

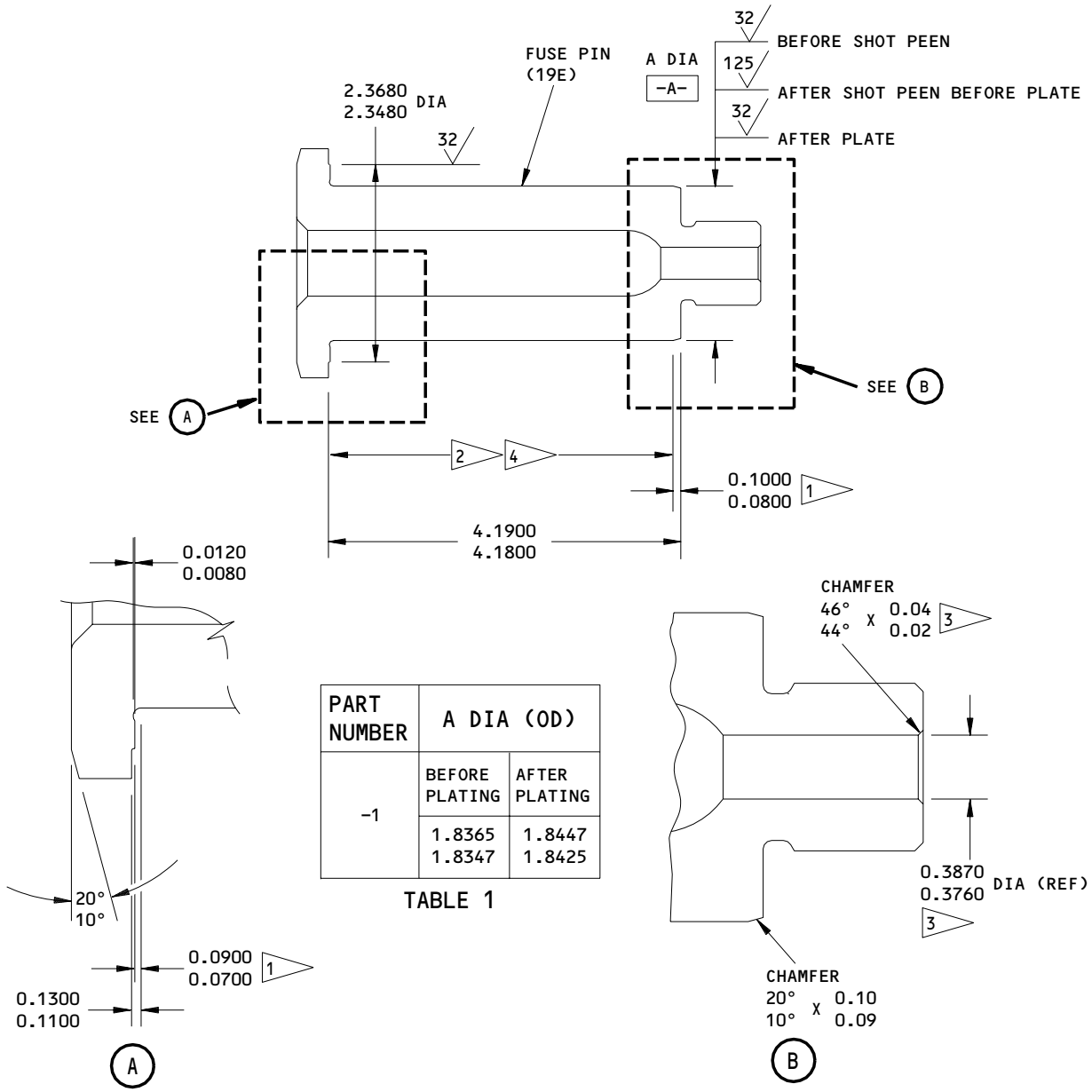
E. Apply chrome plate (F-15.34) the outside diameter as shown in Fig. 601, except bake at 375 ±25°F, 8 hours minimum. Runout chrome plate smoothly at each end as shown in Fig. 601. Do not extend chrome plate into the fillet radius.

F. Grind the outside diameter per SOPM 20-10-04 to obtain surface finish and dimensions shown in Fig. 601.

G. Do a magnetic particle inspection as shown in SOPM 20-20-01, Inspection Class A, Critical.

H. Apply wipe-on primer (F-19.45) to the chrome plated areas.

I. Apply BMS 10-11, Type 1 primer (F-20.02) to the surfaces shown in Fig. 601.



PART NUMBER	A DIA (OD)	
	BEFORE PLATING	AFTER PLATING
-1	1.8365 1.8347	1.8447 1.8425

TABLE 1

1 CHROME PLATE RUNOUT

2 CHROME PLATE (F-15.34) AND APPLY PRIMER (F-19.45) TO THIS SURFACE

3 APPLY BMS 10-11, TYPE 1 PRIMER (F-20.02) TO THIS SURFACE

4 SHOT PEEN THIS SURFACE

63 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

MATERIAL: 15-5PH CRES 140-150 KSI

ITEM NUMBERS REFER TO IPL FIG. 1

ALL DIMENSIONS ARE IN INCHES

311T5790-1
Fuse Pin Refinish
Figure 601

W54555

FUSE PIN - REPAIR 31-1
311T5793-1

CAUTION: FUSE PINS WITH DAMAGED OR ALTERED BASE METAL ARE NOT SERVICEABLE. DAMAGE OR ALTERED BASE METAL DESTROYS FUSE PIN INTEGRITY. REPAIR CONSISTS OF RESTORATION OF FINISH ONLY.

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

1. Refinish

A. Remove the chrome plating as shown in SOPM 20-10-04.

B. Passivate (F-17.25) all surfaces of the fuse pin (4Z) other than the chrome plate and runout areas.

C. Do a magnetic particle inspection as shown in SOPM 20-20-01, Inspection Class A, Critical prior to plating.

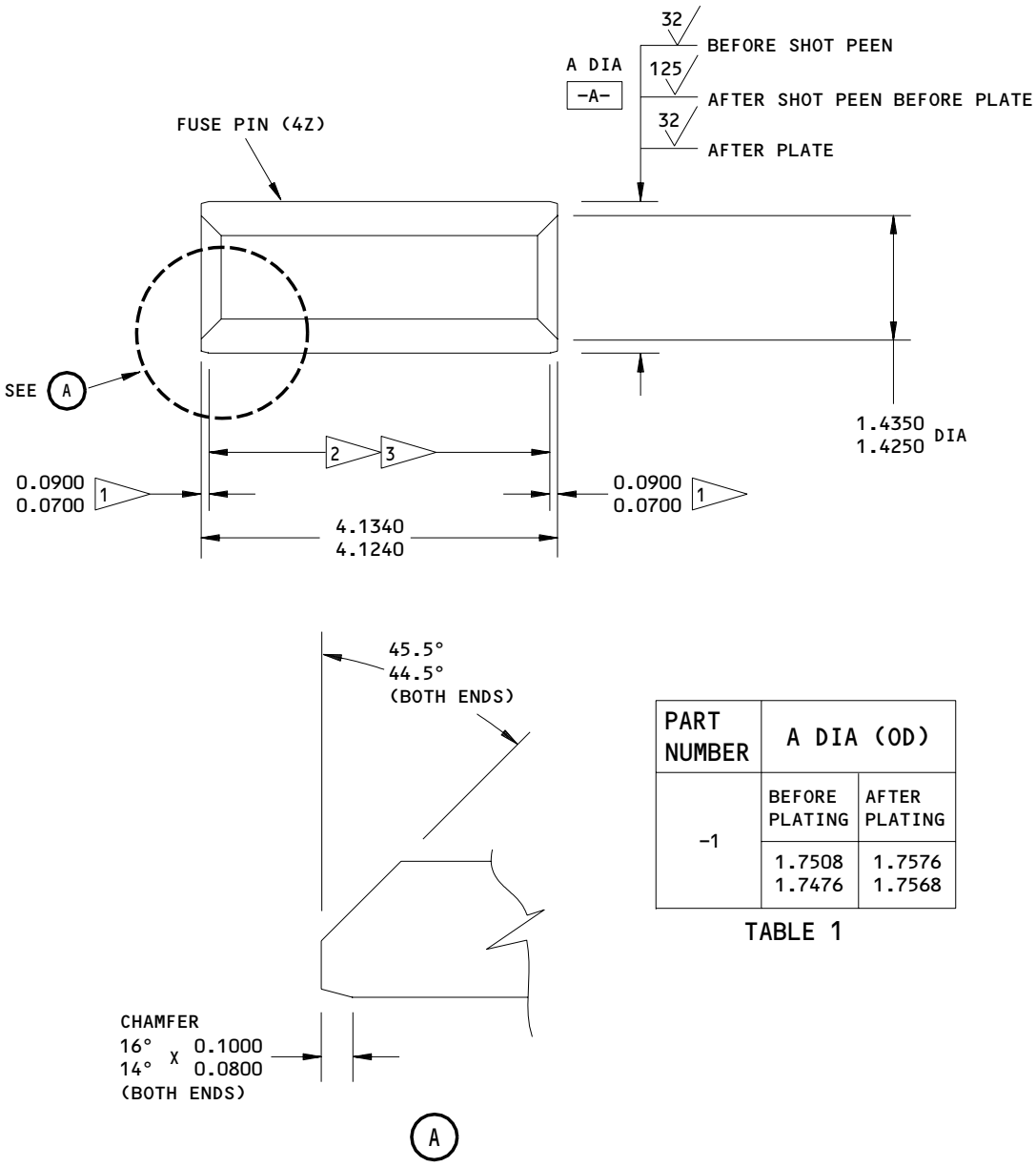
D. Shot peen the surface shown in Fig. 601 per SOPM 20-10-03. Intensity 0.012A, Coverage 2.0.

E. Apply chrome plate (F-15.34) the outside diameter as shown in Fig. 601, except bake at 375 ±25°F, 8 hours minimum. Runout chrome plate smoothly at each end as shown in Fig. 601.

F. Grind the outside diameter per SOPM 20-10-04 to obtain surface finish and dimensions shown in Fig. 601.

G. Do a magnetic particle inspection as shown in SOPM 20-20-01, Inspection Class A, Critical.

H. Apply wipe-on primer (F-19.45) to the chrome plated areas.



PART NUMBER	A DIA (OD)	
	BEFORE PLATING	AFTER PLATING
-1	1.7508 1.7476	1.7576 1.7568

TABLE 1

1 CHROME PLATE RUNOUT

2 CHROME PLATE (F-15.34) AND APPLY PRIMER (F-19.45) TO THIS SURFACE

3 SHOT PEEN THIS SURFACE

63 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

MATERIAL: 15-5PH CRES 140-150 KSI

ITEM NUMBERS REFER TO IPL FIG. 1

ALL DIMENSIONS ARE IN INCHES

311T5793-1
Fuse Pin Refinish
Figure 601

W54570

PIN - REPAIR 32-1
311T5795-1

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

1. Refinish

A. Remove the chrome plating as shown in SOPM 20-10-04.

B. Passivate (F-17.25) all surfaces of the fuse pin (4R) other than the chrome plate and runout areas.

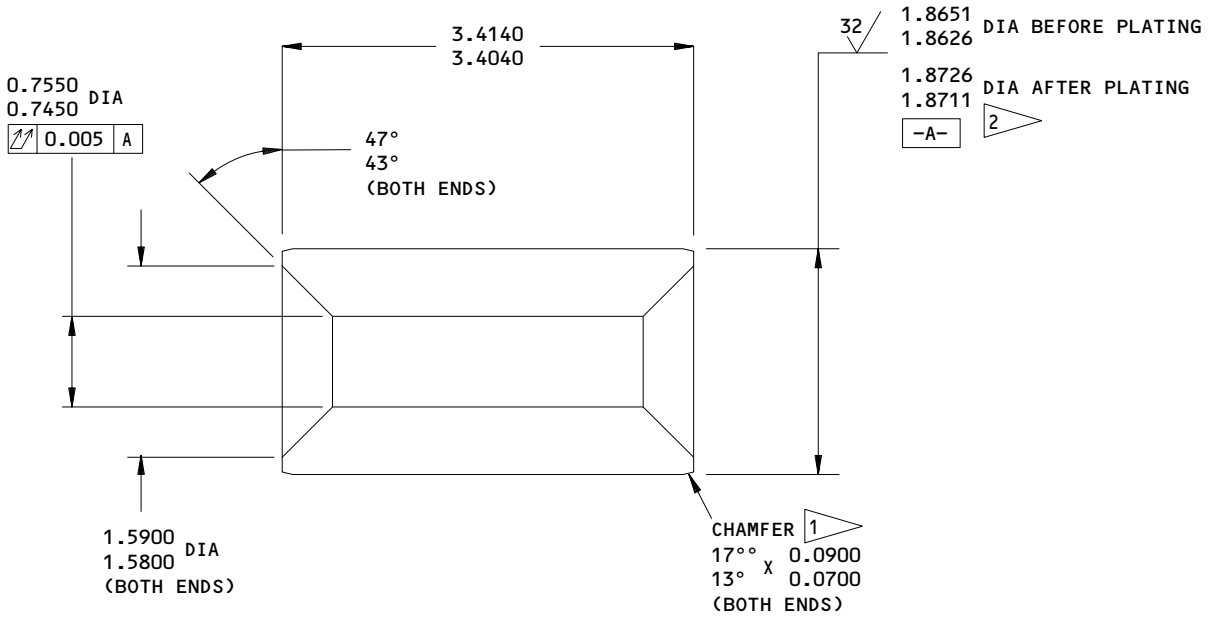
C. Do a magnetic particle inspection as shown in SOPM 20-20-01, Inspection Class B, Critical prior to plating.

D. Shot peen the surface shown in Fig. 601 per SOPM 20-10-03. Intensity 0.016A, Coverage 2.0.

E. Apply chrome plate (F-15.34) the outside diameter as shown in Fig. 601. Runout chrome plate smoothly at each end as shown in Fig. 601.

F. Grind the outside diameter per SOPM 20-10-04 to obtain surface finish and dimensions shown in Fig. 601.

G. Do a magnetic particle inspection as shown in SOPM 20-20-01, Inspection Class B, Critical.



1 CHROME PLATE RUNOUT

2 CHROME PLATE (F-15.34) THIS SURFACE

63 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

MATERIAL: 15-5PH CRES 150-170 KSI

ITEM NUMBERS REFER TO IPL FIG. 1

ALL DIMENSIONS ARE IN INCHES

311T5795-1
Pin Refinish
Figure 601

W54590

ASSEMBLY

1. Materials

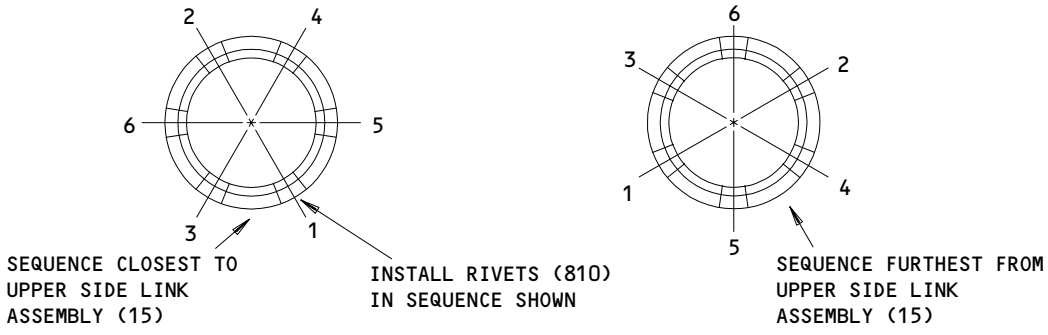
   A. Primer -- BMS 10-11, type 1 (Ref 20-60-02)

2. Assembly

   A. Use standard industry practices for assembly of these components, and additional procedure in step B.

   CAUTION: DISTANCE BETWEEN BUSHING CENTERLINES OF LOWER AND UPPER SIDE LINK ASSEMBLIES (10, 15, IPL FIG. 1) IS UNIQUE TO EACH POSITION AND EACH AIRPLANE. ASSEMBLIES EQUAL IN LENGTH TO THOSE REMOVED MUST BE USED TO ENSURE PROPER OPERATION AFTER INSTALLATION.

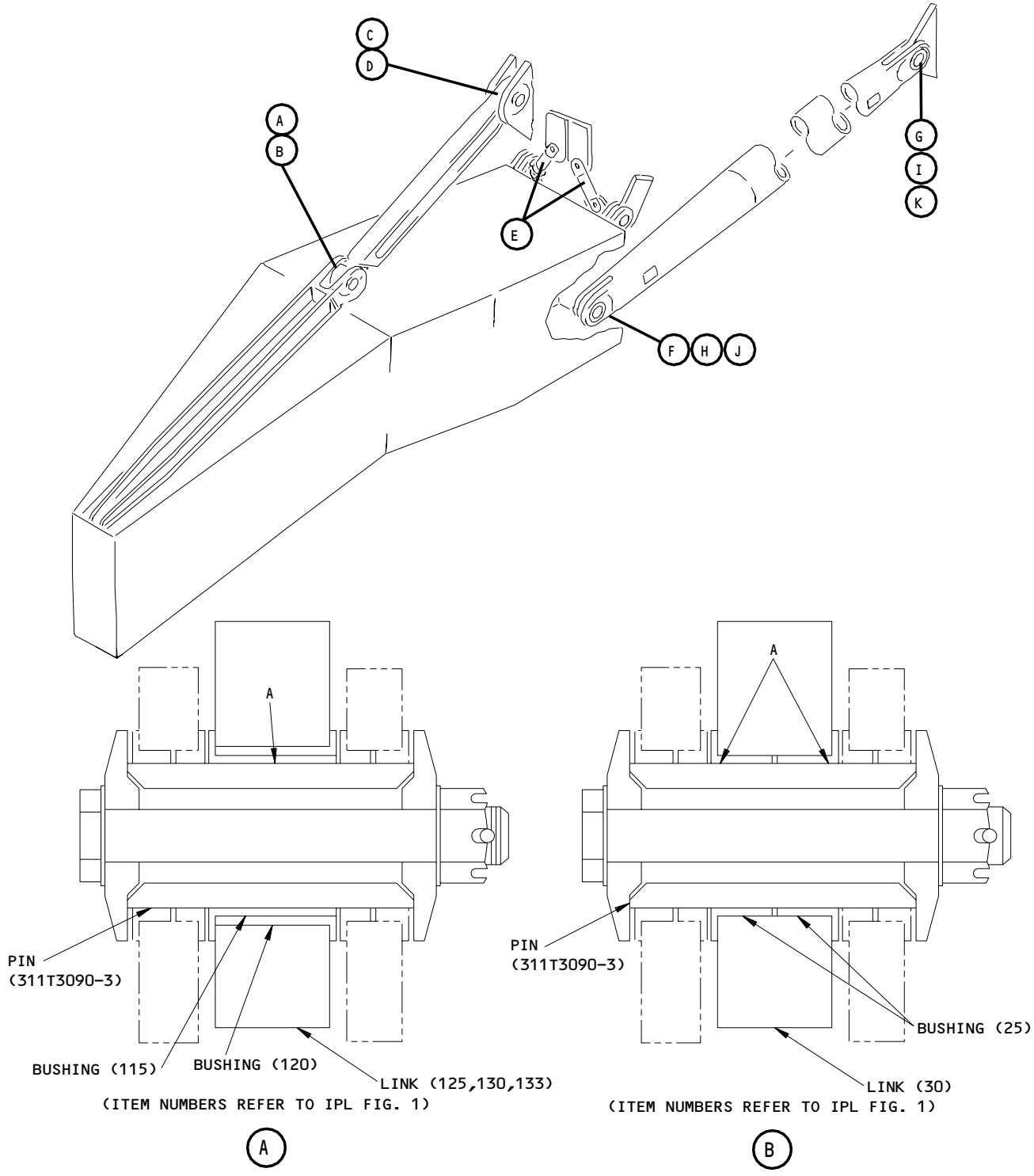
   B. Position lower side link assembly (10, IPL Fig. 1) and upper side link assembly (15) to distance noted in Disassembly. Drill twelve holes (0.260-0.263 inch diameter) to match corresponding part. Apply wet BMS 10-11, type 1 primer to all areas of holes, and immediately install rivets (810) in sequence shown (Fig. 701).



Rivet Installation
Figure 701

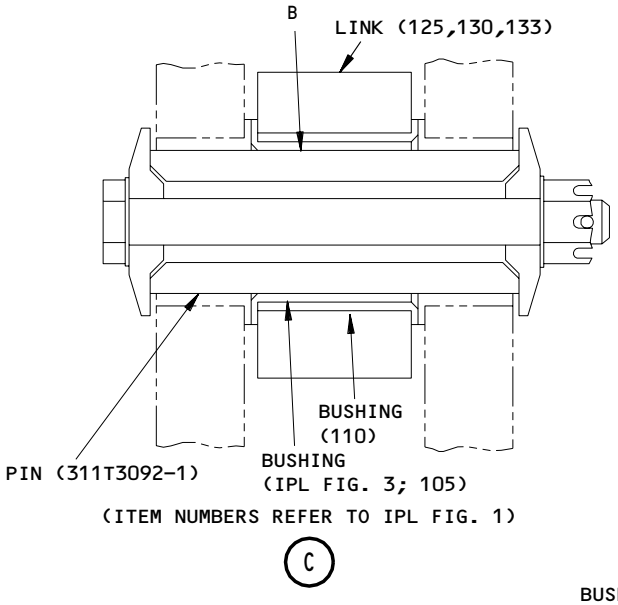
151

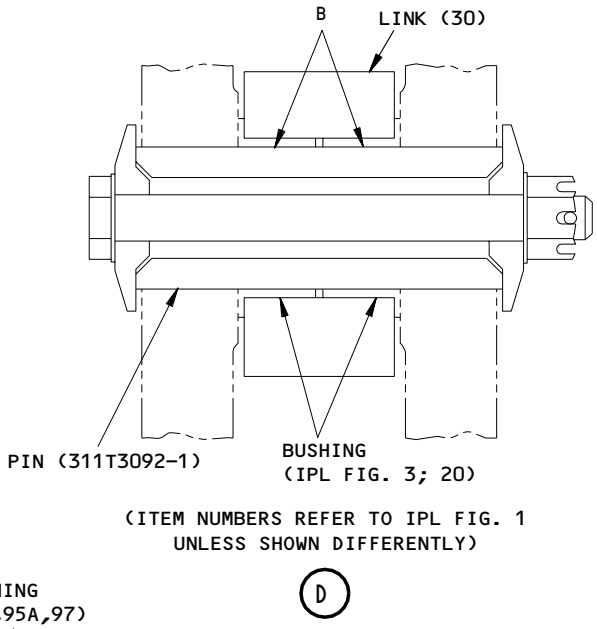
FITS AND CLEARANCES

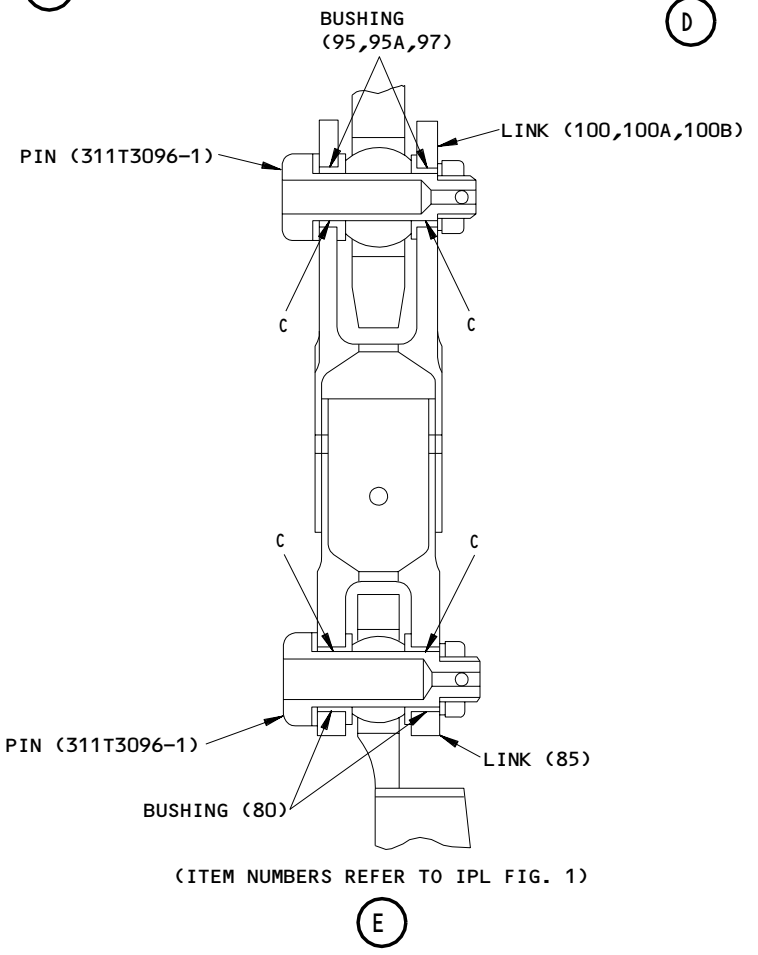


Fits and Clearances
Figure 801 (Sheet 1)

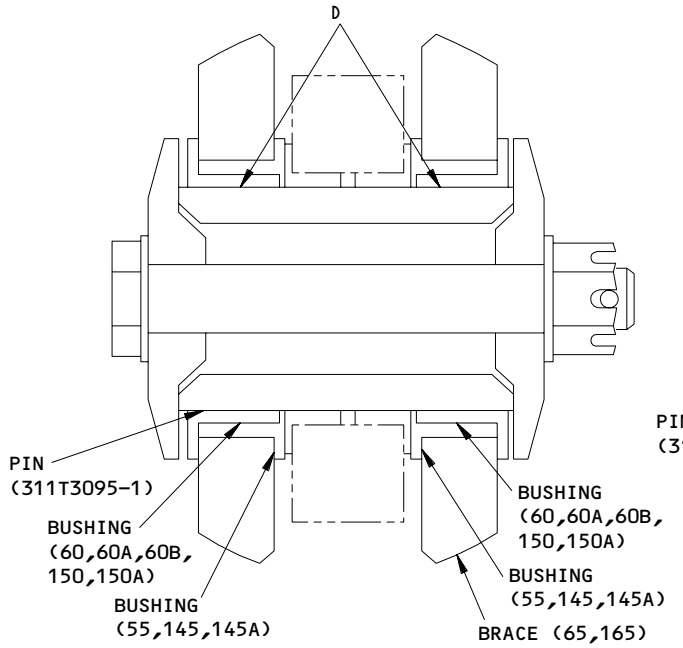
210364





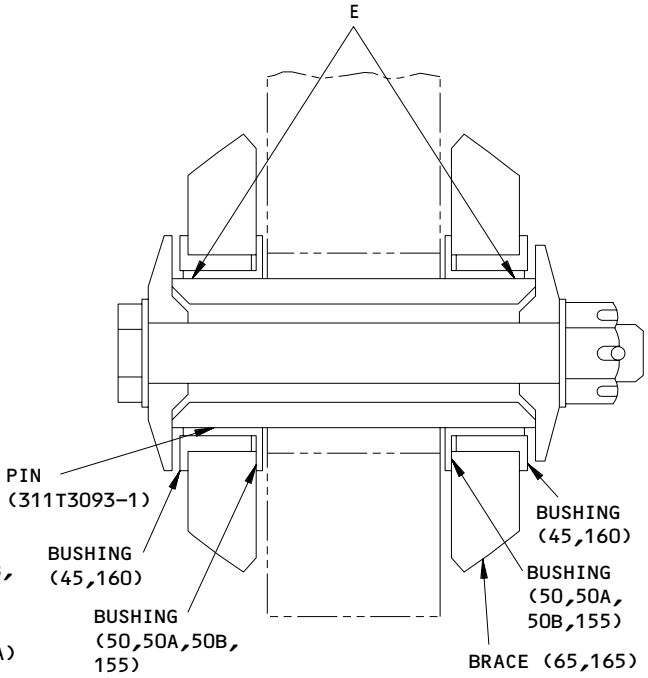


Fits and Clearances
Figure 801 (Sheet 2)



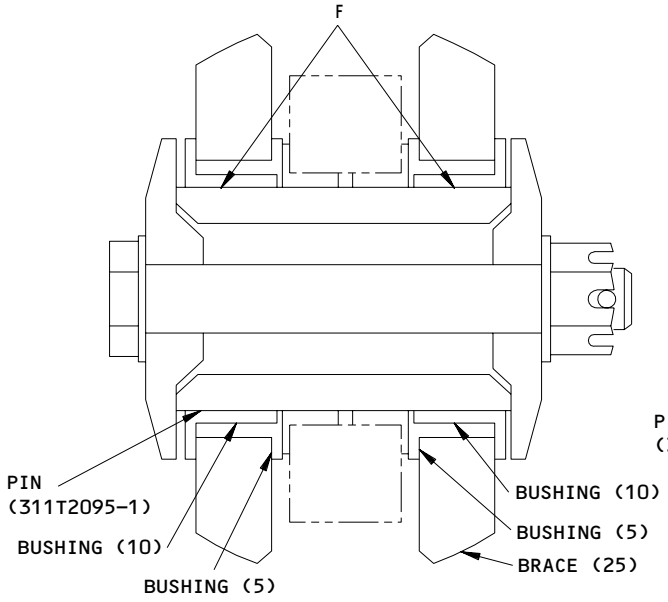
(ITEM NUMBERS REFER TO IPL FIG. 1)

F



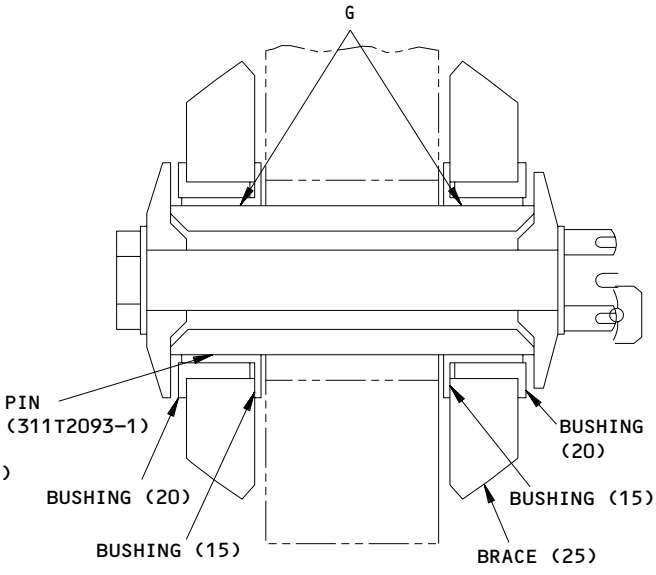
(ITEM NUMBERS REFER TO IPL FIG. 1)

G



(ITEM NUMBERS REFER TO IPL FIG. 2)

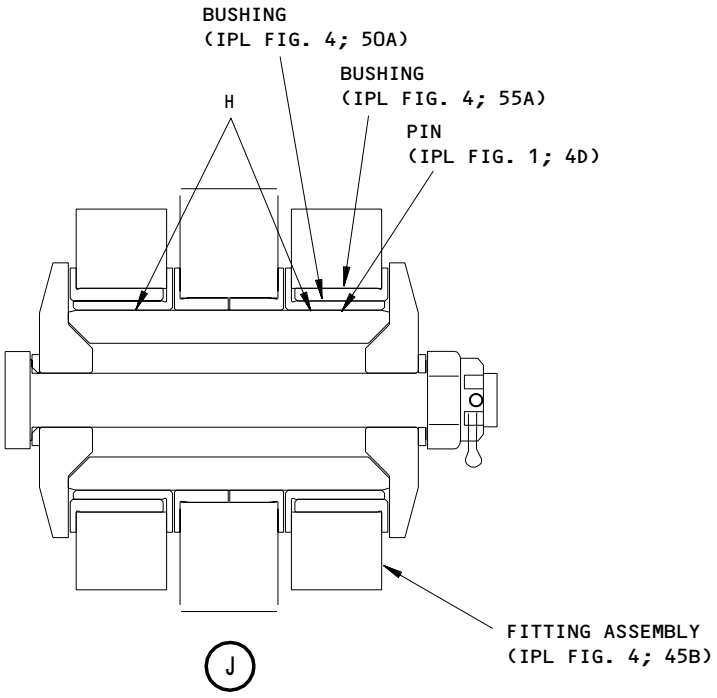
H

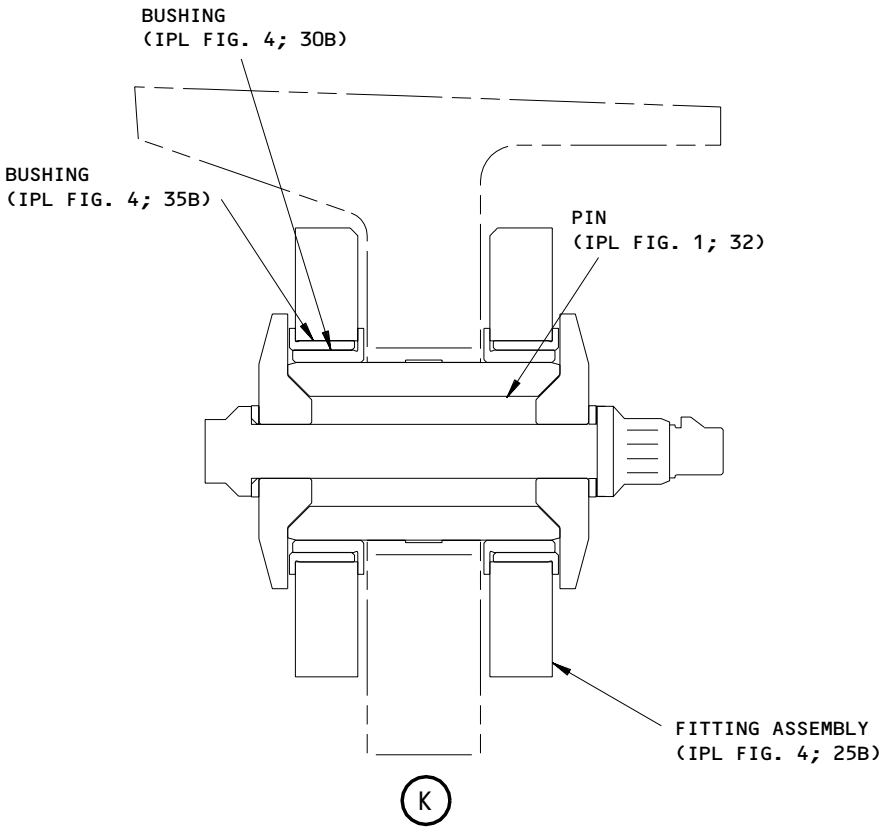


(ITEM NUMBERS REFER TO IPL FIG. 2)

I

Fits and Clearances
Figure 801 (Sheet 3)





Fits and Clearances
Figure 801 (Sheet 4)

REF LETTER	REF IPL		DESIGN DIMENSION*				SERVICE WEAR LIMIT*		
	FIG. NO.	MATING ITEM NO.	DIMENSION		ASSEMBLY CLEARANCE 1		DIMENSION		MAXIMUM CLEARANCE
			MIN	MAX	MIN	MAX	MIN	MAX	
A	1 ID 25,115		1.6965	1.6975	0.0013	0.0045		1.6986	0.0056
	1 OD 2		1.6930	1.6952			1.6919		
B	3 ID 20,105		1.8760	1.8765	0.0020	0.0037		1.8784	0.0056
	1 OD 3		1.8728	1.8740			1.8709		
C	1 ID 80,95,95A,97		0.7495	0.7500	0.0005	0.0015		0.7519	0.0034
	1 OD 4		0.7485	0.7490			0.7466		
D	1 ID 60,60A,60B,150,150A		2.0000	2.0012	0.0021	0.0046		2.0023	0.0057
	1 OD 5		1.9966	1.9979			1.9955		
E	1 ID 50,155		1.5376	1.5382	0.0014	0.0032		1.5406	0.0056
	1 OD 6		1.5350	1.5362			1.5326		
F	2 ID 10		1.8750	1.8762	0.0021	0.0046		1.8784	0.0056
	1 OD 4D,4M		1.8716	1.8729			1.8706		
G	2 ID 15		1.5376	1.5382	0.0014	0.0032		1.5406	0.0056
	1 OD 4B		1.5350	1.5362			1.5326		
H	4 ID 50		1.9966	1.9979	0.0024	0.0046		2.0046	0.0080
	1 OD 4P		2.0003	2.0012			1.9932		
	4 ID 50A		1.8716	1.8729	0.0024	0.0046		1.8786	0.0070
	1 OD 4D,4M		1.8753	1.8762			1.8692		
	4 ID 50B		1.8711	1.8726	0.0022	0.0046		1.8786	0.0075
	1 OD 4R		1.8748	1.8757			1.8682		
I	4 ID 30		1.5350	1.5362	0.0014	0.0035		1.5410	0.0060
	1 OD 3Y		1.5376	1.5385			1.5325		
I	4 ID 30A		1.7590	1.7599	0.0014	0.0031		1.7638	0.0070
	1 OD 4Z		1.7568	1.7576			1.7529		

ALL DIMENSIONS ARE IN INCHES

1 NEGATIVE VALUES DENOTE INTERFERENCE FIT
2 PIN (311T3090-3)
3 PIN (311T3092-1)
4 PIN (311T3096-1)
5 PIN (311T3095-1)
6 PIN (311T3093-3)

Fits and Clearances
Figure 801 (Sheet 5)

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

13636 BARRY WRIGHT CORP CONTROL DIV
2323 VALLEY STREET
BURBANK, CALIFORNIA 91505-1336
FORMERLY BARRY DIVISION OF BARRY WRIGHT CORP

56878 SPS TECHNOLOGIES INC AEROSPACE AND INDUSTRIAL PRODUCTS DIV
301 HIGHLAND AVE
JENKINTOWN, PENNSYLVANIA 19046
FORMERLY STANDARD PRESSED STEEL

76005 LORD CORP AEROSPACE PRODUCTS DIV
1635 WEST 12TH STREET, PO BOX 10039
ERIE, PENNSYLVANIA 16514
FORMERLY LORD MANUFACTURING COMPANY
FORMERLY LORD CORP LORD KINEMATICS

80201 CHICAGO RAWHIDE
900 N. STATE STREET
ELGIN, ILLINOIS 60123-2193
FORMERLY CR INDUSTRIES

97393 SHUR-LOK CORPORATION
2541 WHITE ROAD PO BOX 19584
IRVINE, CALIFORNIA 92713
FORMERLY SHUR LOK CORP VB0060
FORMERLY IN SANTA ANA, CALIFORNIA 92714

PART NUMBER	AIRLINE PART NO.	FIG.	ITEM	TTL REQ
BACB28AP12P033		3	5	4
BACB28AU12D039B		5	15	1
BACB28AU16B023A		5	25	2
BACB28AW22B047A		5	30	1
BACB30US12K37		4	5	8
BACB30UU12C31D		1	17H	RF
BACW10BP12ACU		4	10	8
BAC27TPP0001		1	35	1
		1	135	1
BAC27TPP0002		1	40	1
		1	140	1
BAC27TPP0018		1	70	1
		1	170	1
		4	105	1
		6	32	1
BAC27TPP0019		1	75	1
		1	175	1
		4	120	1
		6	42	1
BAC27TPP0020		1	90A	1
		1	102	1
BAC27TPP0283		2	30	1
		6	45	1
BAC27TPP0284		2	35	1
		4	110	1
		6	35	1
BAC27TPP0290		1	102A	1
BAC27TPP0343		1	137	1
BAC27TPP0504		2	40	1
		6	50	1
BAC27TPP0505		2	45	1
		6	40	1
BAC27TPP0506		1	136	1
BAC27TPP0507		1	142	1
BAC27TPP562		1	835	1
BAC27TPP563		1	835B	1
BAC27TPP673		1	35A	1
		1	138	1
BAC27TPP674		1	40A	1
		1	141	1
BAC27TPP675		1	144	1
BAC27TPP676		4	90	1
BAC27TPP677		4	95	1

PART NUMBER	AIRLINE PART NO.	FIG.	ITEM	TTL REQ
BAC27TPP678		4	115	1
BAC27TPP680		1	143	1
BAC27TPP681		4	100	1
BAC27TPP682		1	141D	1
BAC27TPP701		4	125	1
B60-806829		1	97A	2
		5	20	1
LM324-6		1	97A	2
		5	20	1
MS16555-647		4	75	4
MS90354-0803		1	76	12
MS90354-0804		1	77	18
SL4157CB12B		4	20	8
S302T002-1		1	97A	2
		5	20	1
015T0779-10		1	815	2
015T0779-11		1	820	2
015T0779-12		1	825	2
015T0779-13		1	830	2
015T1613-4		1	6E	RF
015T1613-5		1	5D	RF
302T0200-117		2	5	2
		6	10	2
302T0200-118		2	10	2
		6	5	2
302T0200-119		2	15	2
		6	20	2
302T0200-120		2	20	2
		6	25	2
302T0200-121		1	95A	2
302T0200-122		1	80A	2
302T0200-16		1	55	2
		1	145	2
302T0200-17		1	60	2
		1	150	2

PART NUMBER	AIRLINE PART NO.	FIG.	ITEM	TTL REQ
302T0200-18		1	80	2
302T0200-19		1	95	2
302T0200-23		1	20	2
302T0200-24		1	25	2
302T0200-25		1	50	2
		1	155	2
		6	20B	2
302T0200-31		1	105	1
302T0200-32		1	110	1
302T0200-39		1	115	1
302T0200-40		1	120	1
302T0200-44		1	45	2
		1	160	2
		6	25B	2
302T0200-52		1	55A	2
		1	145A	2
302T0200-53		1	60A	2
		1	150A	2
302T0200-91		3	10	4
310T1030-17		1	10A	RF
310T1030-20		1	10B	RF
310T2030-6		1	15B	RF
310T2030-8		1	15D	RF
310T2030-9		1	15G	RF
310T2301-1		1	17G	RF
		1	19	RF
310T2301-2		1	19A	RF
310T3102-5		1	1B	RF
310T4040-6		1	15C	RF
310T4040-8		1	15E	RF
310T4040-9		1	15H	RF
311T1710-1		1	2	RF
311T1710-2		1	125	1
311T1710-3		1	2A	RF

PART NUMBER	AIRLINE PART NO.	FIG.	ITEM	TTL REQ
311T1710-4		1	130	1
311T1730-1		1	6	RF
311T1730-2		1	165	1
311T1730-3		1	6A	RF
311T1730-4		1	6B	RF
311T1730-5		1	165B	1
311T1735-1		1	6C	RF
		4	1B	RF
311T1735-2		4	45	1
311T1735-3		4	60	1
311T1735-4		4	55	2
311T1735-5		4	50	2
311T1735-6		1	6D	RF
		4	1K	RF
311T1735-7		1	6F	RF
		4	1M	RF
311T2090-1		1	4	RF
311T2102-2		1	3L	RF
311T2522-1		1	18	RF
		3	1A	RF
311T2522-2		3	15	1
311T2730-1		1	8	RF
		2	3	RF
311T2730-3		2	27A	1
311T2730-4		1	8A	RF
		2	3A	RF
311T2730-5		6	30A	1
311T2730-6		6	15A	1
311T2730-7		1	8E	RF
		6	1B	RF
311T2735-1		1	8B	RF
		4	1E	RF

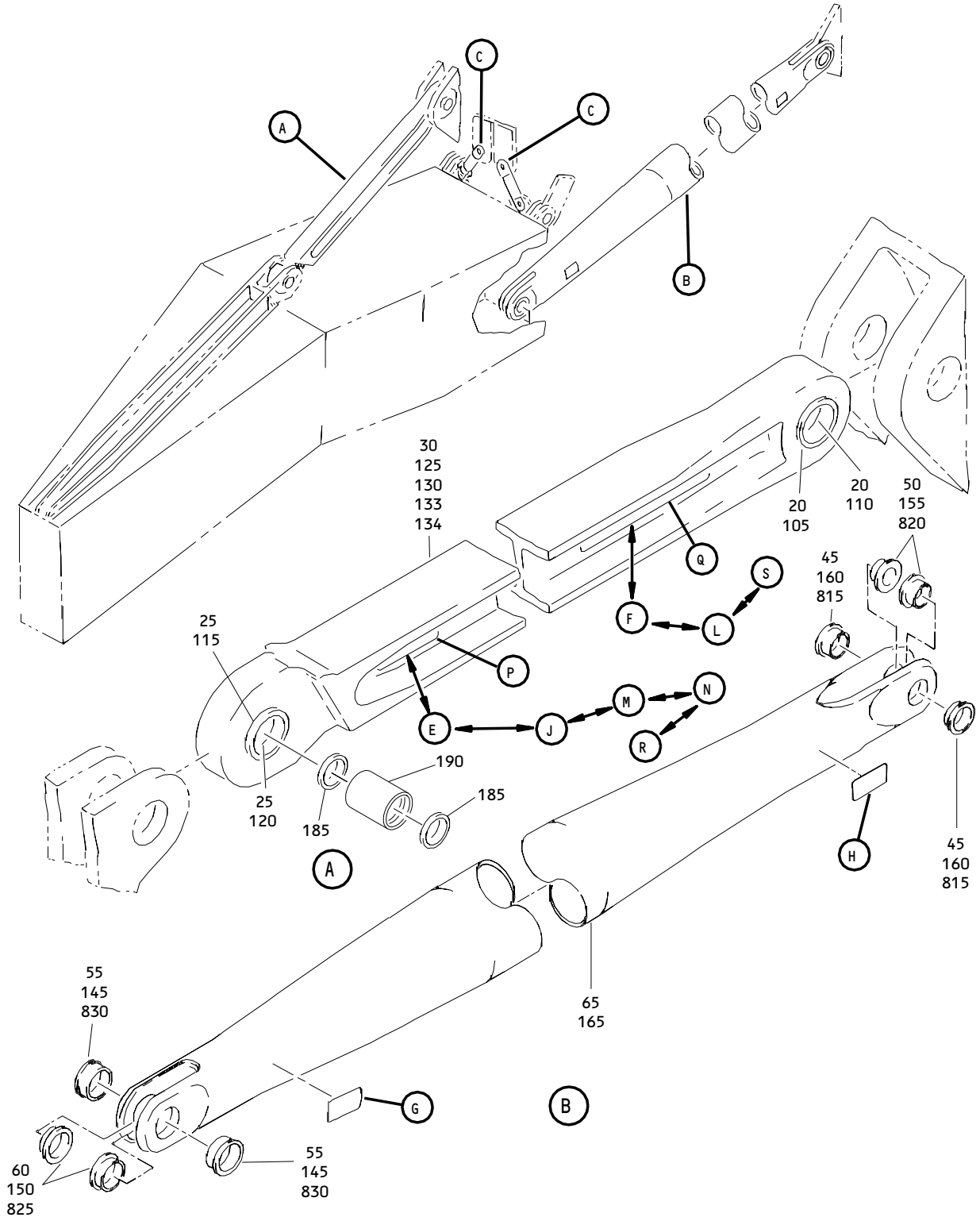
PART NUMBER	AIRLINE PART NO.	FIG.	ITEM	TTL REQ
311T2735-10		4	40	1
311T2735-11		4	35	2
311T2735-12		4	30	2
311T2735-13		1	8C	RF
		4	1F	RF
311T2735-14		4	45B	1
311T2735-15		4	60B	1
311T2735-16		4	25B	1
311T2735-17		4	40B	1
311T2735-18		4	35B	2
311T2735-19		4	30B	2
311T2735-2		4	70A	1
311T2735-21		1	8D	RF
		4	1G	RF
311T2735-3		4	85A	1
311T2735-4		4	80	8
311T2735-5		4	45A	1
311T2735-6		4	60A	1
311T2735-7		4	55A	2
311T2735-8		4	50A	2
311T2735-9		4	25	1
311T2736-3		4	15	2
311T2740-1		1	79	1
311T2740-10		1	16B	RF
		5	10	RF
311T2740-2		1	94	1
311T2740-3		1	85A	1
311T2740-4		1	100B	1
311T2740-5		1	94A	1
311T2740-6		1	85B	1
311T2740-7		1	79A	1
311T2740-8		1	16	RF
		5	1A	RF
311T2740-9		1	16A	RF
		5	5	RF
311T2741-1		5	35	1
311T2741-2		5	40	1
311T2741-9		5	45	1
311T2790-1		1	19C	RF
311T2790-2		1	19D	RF
311T2792-1		1	3M	RF
311T2792-2		1	3N	RF
311T2793-1		1	3Y	RF
311T2793-2		1	3Z	RF
311T2796-1		1	4K	RF

PART NUMBER	AIRLINE PART NO.	FIG.	ITEM	TTL REQ
311T3090-3		1	4T	RF
311T3090-4		1	4U	RF
311T3090-5		1	190	1
311T3090-6		1	185	2
311T3092-1		1	4V	RF
311T3093-3		1	4W	RF
311T3093-4		1	4X	RF
311T3095-1		1	4P	RF
311T3096-1		1	17	RF
311T3096-2		1	17A	RF
311T3096-3		1	17F	RF
311T3102-1		1	17B	RF
311T3102-2		1	17C	RF
311T3102-3		1	17D	RF
311T3102-4		1	17E	RF
311T3710-1		1	1A	RF
311T3710-3		1	30	1
311T3730-1		1	5	RF
311T3730-4		1	65	1
		6	30	1
311T3730-5		1	5A	RF
		6	15	1
311T3735-1		1	5B	RF
		4	1A	RF
311T3735-6		1	5C	RF
		4	1J	RF
311T3735-7		1	5E	RF
		4	1L	RF
311T3740-1		1	78	1
311T3740-2		1	85	1
311T3740-3		1	93	1

PART NUMBER	AIRLINE PART NO.	FIG.	ITEM	TTL REQ
311T3740-4		1	100	1
311T3740-5		1	93A	1
311T3740-6		1	100A	1
311T4710-1		1	3	RF
311T4710-10		1	3C	RF
311T4710-11		1	133B	1
311T4710-12		1	115C	1
		1	120C	1
311T4710-2		1	133	1
311T4710-3		1	3F	RF
311T4710-4		1	133A	1
311T4710-5		1	3B	RF
311T4710-6		1	115B	1
311T4710-7		1	110B	1
311T4710-8		1	105B	1
311T4710-9		1	120B	1
311T4730-1		1	7	RF
		2	1	RF
311T4730-2		2	25	1
311T4730-3		1	7A	RF
		2	1A	RF
311T4730-6		1	7D	RF
		6	1A	RF
311T4735-1		1	7B	RF
		4	1C	RF
311T4735-2		4	70	1
311T4735-3		4	85	1
311T4735-4		1	7C	RF
		4	1D	RF
311T5090-1		1	4N	RF
311T5700-3		1	15F	RF

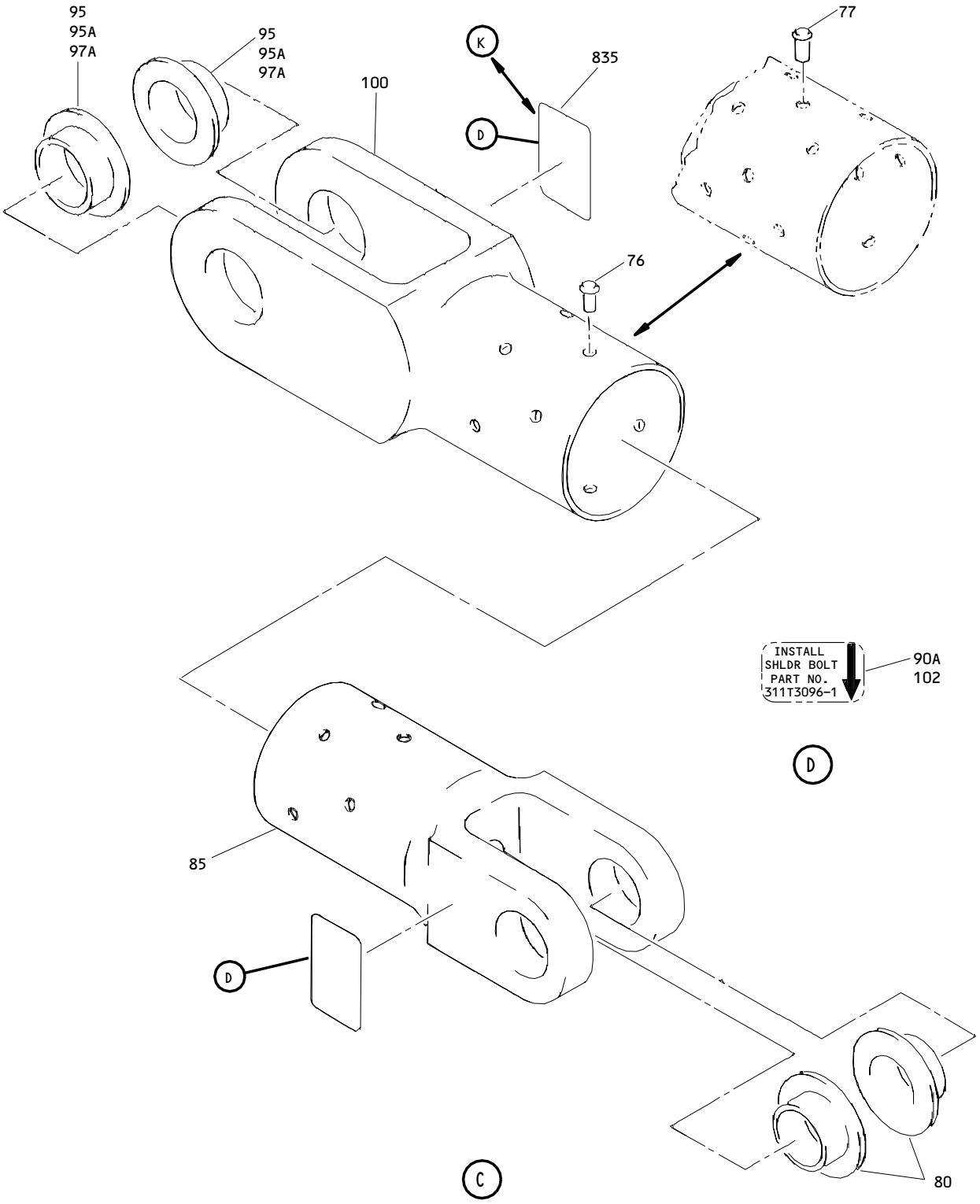
PART NUMBER	AIRLINE PART NO.	FIG.	ITEM	TTL REQ
311T5710-1		1	3A	RF
311T5710-10		1	120D	1
311T5710-11		1	105C	1
311T5710-12		1	110C	1
311T5710-13		1	3E	RF
311T5710-2		1	134	1
311T5710-3		1	115A	1
311T5710-4		1	120A	1
311T5710-5		1	105A	1
311T5710-6		1	110A	1
311T5710-7		1	3D	RF
311T5710-8		1	134A	1
311T5710-9		1	115D	1
311T5735-1		1	9B	RF
		4	1H	RF
311T5735-10		4	35A	2
311T5735-11		4	30A	2
311T5735-2		4	70B	1
311T5735-3		4	85B	1
311T5735-4		4	45C	1
311T5735-5		4	65	1
311T5735-6		4	55B	2
311T5735-7		4	50B	2
311T5735-8		4	25A	1
311T5735-9		4	40A	1
311T5780-1		1	9	RF
		2	4	RF
311T5780-10		1	9C	RF
		6	1C	RF
311T5780-2		2	25J	1
311T5780-3		2	10A	2
		6	10A	2
311T5780-4		2	5A	2
		6	5A	2
311T5780-5		2	20A	2
		6	25A	2
311T5780-6		2	15A	2
		6	20A	2
311T5780-7		1	9A	RF
		2	4A	RF
311T5780-8		6	30B	1

PART NUMBER	AIRLINE PART NO.	FIG.	ITEM	TTL REQ
311T5780-9		6	15B	1
311T5790-1		1	19E	RF
311T5793-1		1	4Z	RF
311T5795-1		1	4R	RF
94667ACB12B		4	20A	8
95001-1		1	97A	2
95002-1		5	20	1

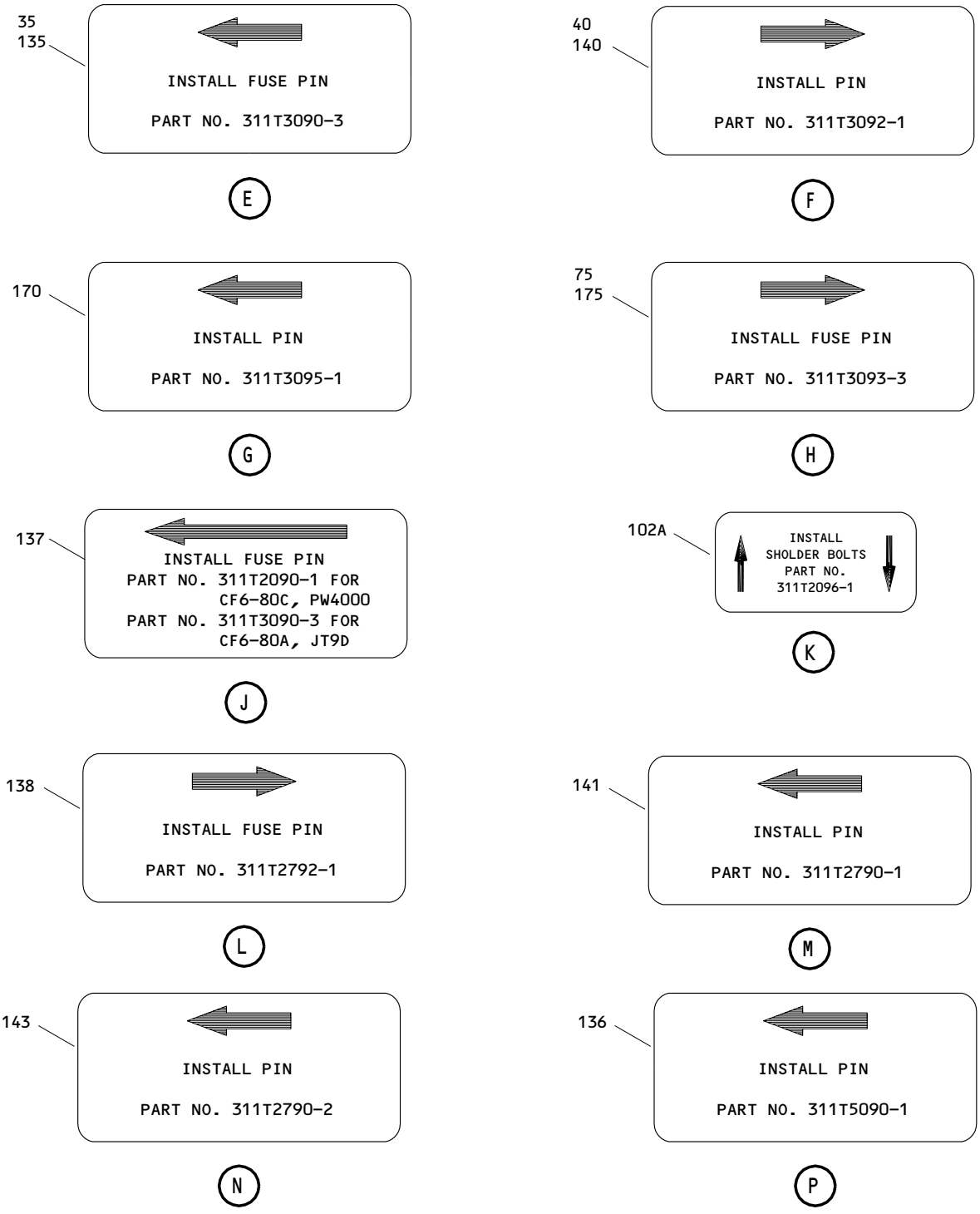


Engine Strut Mount Installation Components
Figure 1 (Sheet 1)

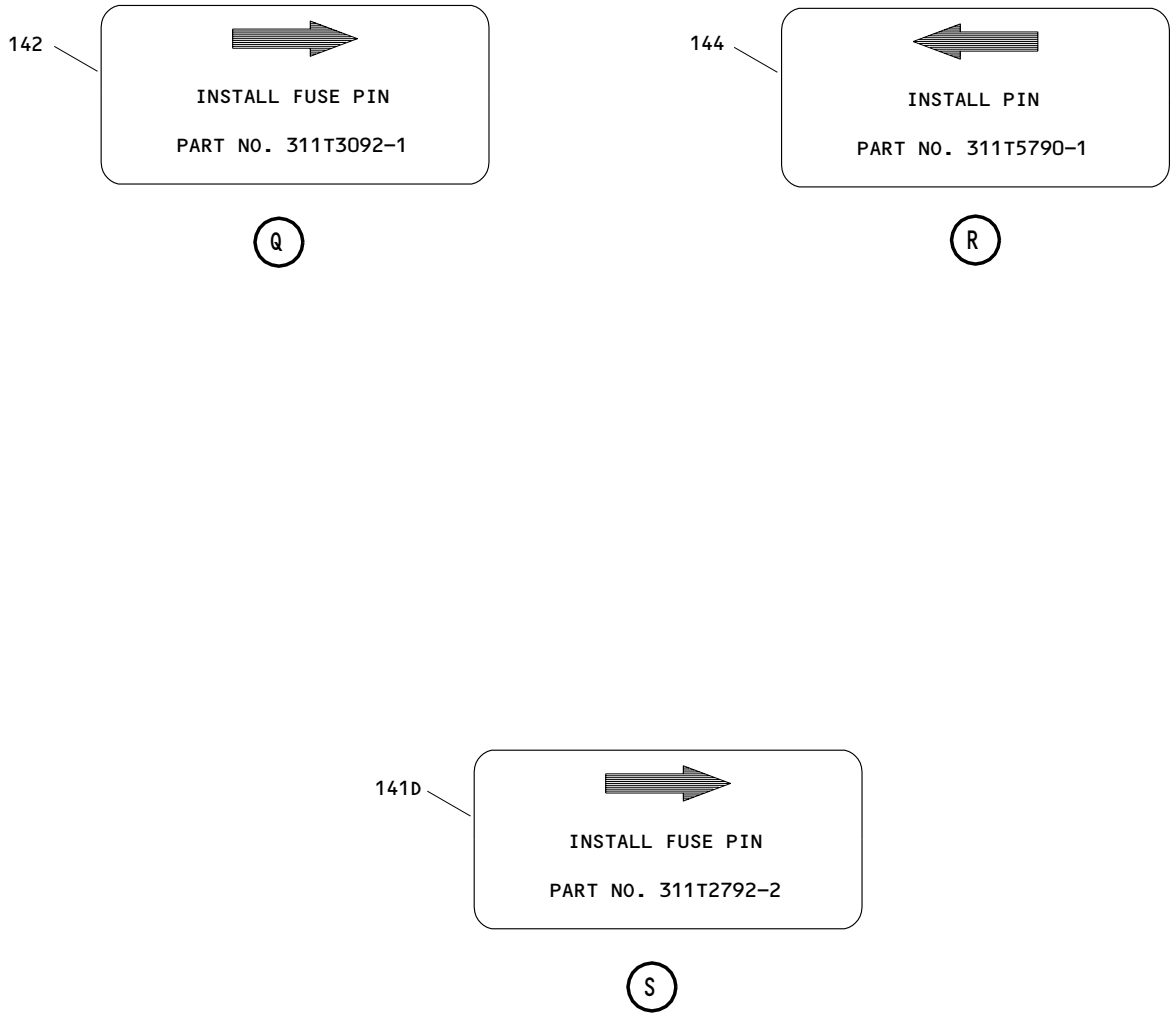
T57283



Engine Strut Mount Installation Components
Figure 1 (Sheet 2)



Engine Strut Mount Components Installation
Figure 1 (Sheet 3)



Engine Strut Mount Components Installation
Figure 1 (Sheet 4)

KD3861

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01-			ENGINE STRUT MOUNT INSTL COMPONENTS		
-1A	311T3710-1		LINK ASSY-UPR, NAC STRUT (PRE SB 767-54-0080R1) (PRE SB 767-54-0088)	A	RF
-1B	310T3102-5		LINK ASSY-UPR (REWORK) (POST SB 767-54-0080R1) (POST SB 767-54-0088)	CN	RF
-2	311T1710-1		LINK ASSY-UPR, NAC STRUT, CF6-80	E	RF
-2A	311T1710-3		LINK ASSY-UPR, NAC STRUT, CF6-80	F	RF
-3	311T4710-1		LINK ASSY-UPR, NAC STRUT, PW4056 (PRE SB 767-54-0080R1)	M	RF
-3A	311T5710-1		LINK ASSY-UPR, NAC STRUT, RB211-524H	AE	RF
-3B	311T4710-5		LINK ASSY-UPR, NAC STRUT, PW4056, CF6-80A, CF6-80C (POST SB 767-54-0080R1) (POST SB 767-54-0088)	AY	RF
-3C	311T4710-10		LINK ASSY-UPR, NAC STRUT, PW4056	AZ	RF
-3D	311T5710-7		LINK ASSY-UPR, NAC STRUT, RB211-524H (PRE SB 767-54-0088)	BA	RF
-3E	311T5710-13		LINK ASSY-UPR, NAC STRUT, RB211-524H (POST SB 767-54-0088)	BB	RF
-3F	311T4710-3		LINK ASSY-UPR, NAC STRUT, PW4056 (PRE SB 767-54-0080R1) (PRE SB 767-54-0088)	CP	RF
-3L	311T2102-2		PIN-FUSE, MID SPAR, NAC STRUT (PRE SB 767-54-0080R1)	CK	RF
-3M	311T2792-1		PIN-ATTACH, WING UPR LINK, HEADED (POST SB 767-54-0080R1) (POST SB 767-54-0088)	BY	RF
-3N	311T2792-2		PIN-ATTACH, WING UPR LINK, HEADED	BZ	RF

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01-					
-3Y	311T2793-1		PIN-FUSE, DIAG BRACE, STRAIGHT BORE (POST SB 767-54-0080R1) (POST SB 767-54-0081) (PRE SB 767-54-0096)	BC	RF
-3Z	311T2793-2		PIN-FUSE, DIAG BRACE, STRAIGHT BORE	BD	RF
-4	311T2090-1		PIN-FUSE, STRUT UPR LINK (PRE SB 767-54-0080R1) (PRE SB 767-54-0088)	S	RF
-4B	311T2093-1		PIN-FUSE, DIAG BRACE	T	RF
-4D	311T2095-1		PIN-DIAG BRACE NAC STRUT	U	RF
-4F	311T2096-1		BOLT-SHOULDER, SIDE LINK, NAC STRUT	V	RF
-4G	311T2096-2		BOLT-SHOULDER, SIDE LINK, NAC STRUT (PRE SB 767-54-0080R1)	W	RF
-4H	311T2096-3		BOLT-SHOULDER, SIDE LINK, NAC STRUT (PRE SB 767-54-0080R1)	X	RF
-4J	311T2096-4		BOLT-SHOULDER, SIDE LINK, NAC STRUT (PRE SB 767-54-0080R1)	Y	RF
-4K	311T2796-1		PIN-SIDE LINK, NAC STRUT (POST SB 767-54-0080R1) (POST SB 767-54-0081)	CA	RF
-4L	311T2102-1		PIN-FUSE, MID SPAR, NAC STRUT (PRE SB 767-54-0080R1)	Z	RF
-4M	311T2095-1		PIN-DIAG BRACE, NAC STRUT	CB	RF
-4N	311T5090-1		PIN-FUSE, STRUT UPR LINK, RB211-524H (PRE SB 767-54-0088)	AA	RF
-4P	311T3095-1		PIN-DIAG BRACE, NAC STRUT	CC	RF
-4Q	311T5093-1		PIN-FUSE, DIAG BRACE, RB211-524H (PRE SB 767-54-0082)	AB	RF
-4R	311T5795-1		PIN-DIAG BRACE, NAC STRUT, RB211 (PRE SB 767-54-0082)	CD	RF
-4S	311T5095-1		PIN-DIAG BRACE, NAC STRUT, RB211-524H (PRE SB 767-54-0082)	AC	RF

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01-					
-4T	311T3090-3		PIN-FUSE, STRUT UPR LINK (PRE SB 767-54-0088)	AJ	RF
-4U	311T3090-4		PIN ASSY-FUSE, STRUT UPR LINK (PRE SB 767-54-0088)	AK	RF
-4V	311T3092-1		PIN-UPR LINK, WING (PRE SB 767-54-0080R1) (PRE SB 767-54-0088)	AL	RF
-4W	311T3093-3		PIN-FUSE, DIAG BRACE, UPR WING FTG (PRE SB 767-54-0080R1) (PRE SB 767-54-0081)	AM	RF
-4X	311T3093-4		PIN-FUSE, DIAG BRACE, UPR WING FTG (PRE SB 767-54-0080R1) (PRE SB 767-54-0081)	AN	RF
-4Y	311T3095-1		PIN-DIAG BRACE NAC STRUT	AP	RF
-4Z	311T5793-1		PIN-FUSE, DIAG BRACE, STRAIGHT BORE (POST SB 767-54-0081) (POST SB 767-54-0082) (POST SB 767-54-0096)	BH	RF
-5	311T3730-1		BRACE ASSY-DIAG, NAC STRUT (PRE SB 767-54A0094R1) (PRE SB 767-54A0094R2)	B	RF
-5A	311T3730-5		BRACE ASSY-DIAG, NAC STRUT (PRE SB 767-54-0080R1) (PRE SB 767-54A0094R1) (PRE SB 767-54A0094R2)	H	RF
-5B	311T3735-1		BRACE ASSY-DIAG, NAC STRUT, JT9D ENG (POST SB 767-54-0080R1) (FOR DETAILS SEE FIG. 4)	BJ	RF
-5C	311T3735-6		BRACE ASSY-DIAG, NAC STRUT, JT9D ENG (POST SB 767-54A0094R1) (PRE SB 767-54A0094R2) (FOR DETAILS SEE FIG. 4)	CH	RF
-5D	015T1613-5		BRACE ASSY-DIAG (POST SB 767-54A0094R1) (POST SB 767-54A0094R2)	CQ	RF

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01-					
-5E	311T3735-7		BRACE ASSY-DIAG, NAC STRUT, JT9D ENG (POST SB 767-54A0094R2) (FOR DETAILS SEE FIG. 4)	CT	RF
-6	311T1730-1		BRACE ASSY-DIAG, NAC STRUT (PRE SB 767-54-0081) (PRE SB 767-54A0094R1) (PRE SB 767-54A0094R2)	G	RF
-6A	311T1730-3		BRACE ASSY-DIAG, NAC STRUT (PRE SB 767-54-0081) (PRE SB 767-54A0094R1) (PRE SB 767-54A0094R2)	J	RF
-6B	311T1730-4		BRACE ASSY-DIAG, NAC STRUT (PRE SB 767-54-0081) (PRE SB 767-54A0094R1) (PRE SB 767-54A0094R2)	AX	RF
-6C	311T1735-1		BRACE ASSY-DIAG, NAC STRUT, CF6-80A ENG (POST SB 767-54-0081) (FOR DETAILS SEE FIG. 4)	BK	RF
-6D	311T1735-6		BRACE ASSY-DIAG, NAC STRUT, CF6-80A ENG (POST SB 767-54A0094R1) (PRE SB 767-54A0094R2) (FOR DETAILS SEE FIG. 4)	CJ	RF
-6E	015T1613-4		BRACE ASSY-DIAG (POST SB 767-54A0094R1) (POST SB 767-54A0094R2)	CR	RF
-6F	311T1735-7		BRACE ASSY-DIAG, NAC STRUT, CF6-80A ENG (POST SB 767-54A0094R2) (FOR DETAILS SEE FIG. 4)	CU	RF

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01-					
-7	311T4730-1		BRACE ASSY-DIAG, NAC STRUT, PW4056 ENG (PRE SB 767-54-0080R1) (FOR DETAILS SEE FIG. 2)	K	RF
-7A	311T4730-3		BRACE ASSY-DIAG, NAC STRUT, PW4056 ENG (PRE SB 767-54-0080R1) (FOR DETAILS SEE FIG. 2)	AW	RF
-7B	311T4735-1		BRACE ASSY-DIAG, NAC STRUT, PW4000 ENG (POST SB 767-54-0080R1) (PRE SB 767-54-0096) (FOR DETAILS SEE FIG. 4)	BL	RF
-7C	311T4735-4		BRACE ASSY-DIAG, NAC STRUT, PW4000 ENG (POST SB 767-54-0080R1) (POST SB 767-54-0096) (FOR DETAILS SEE FIG. 4)	BM	RF
-7D	311T4730-6		BRACE ASSY-DIAG, NAC STRUT, PW4056 ENG (PRE SB 767-54-0080R1) (FOR DETAILS SEE FIG. 6)	BV	RF
-8	311T2730-1		BRACE ASSY-DIAG, NAC STRUT, CF6-80C ENG (FOR DETAILS SEE FIG. 2)	N	RF
-8A	311T2730-4		BRACE ASSY-DIAG, NAC STRUT, CF6-80C ENG (PRE SB 767-54-0081) (FOR DETAILS SEE FIG. 2)	AV	RF
-8B	311T2735-1		BRACE ASSY-DIAG, NAC STRUT, CF6-80C2 ENG (PRE SB 767-54-0096) (FOR DETAILS SEE FIG. 4)	BN	RF
-8C	311T2735-13		BRACE ASSY-DIAG, NAC STRUT, CF6-80C2 ENG, 747-400ER (FOR DETAILS SEE FIG. 4)	BP	RF
-8D	311T2735-21		BRACE ASSY-DIAG, NAC STRUT, CF6-80C2 ENG (POST SB 767-54-0081) (POST SB 767-54-0096) (FOR DETAILS SEE FIG. 4)	BQ	RF
-8E	311T2730-7		BRACE ASSY-DIAG, NAC STRUT, CF6-80C ENG (PRE SB 767-54-0081) (FOR DETAILS SEE FIG. 6)	BW	RF

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01-					
-9	311T5780-1		BRACE ASSY-DIAG, NAC STRUT, RB211-524H (PRE SB 767-54-0082) (FOR DETAILS SEE FIG. 2)	AF	RF
-9A	311T5780-7		BRACE ASSY-DIAG, NAC STRUT, RB211-524H (PRE SB 767-54-0082) (FOR DETAILS SEE FIG. 2)	AU	RF
-9B	311T5735-1		BRACE ASSY-DIAG, NAC STRUT, RB211-524H (POST SB 767-54-0082) (FOR DETAILS SEE FIG. 4)	BR	RF
-9C	311T5780-10		BRACE ASSY-DIAG, NAC STRUT, RB211-524H (PRE SB 767-54-0082) (FOR DETAILS SEE FIG. 6)	BX	RF
-10	311T3740-1		DELETED		
-10A	310T1030-17		LINK ASSY-SIDE, CF6-80 ENG (PRE SB 767-54-0081)	C	RF
-10B	310T1030-20		LINK ASSY-SIDE, CF6-80 ENG (PRE SB 767-54-0081)	D	RF
-15	311T3740-3		DELETED		
-15A	311T3740-5		DELETED		
-15B	310T2030-6		LINK ASSY-SIDE, CF6-80C ENG	P	RF
-15C	310T4040-6		LINK ASSY-SIDE, PW4056 ENG	Q	RF
-15D	310T2030-8		LINK ASSY-SIDE, CF6-80C ENG	L	RF
-15E	310T4040-8		LINK ASSY-SIDE, PW4056 ENG	R	RF
-15F	311T5700-3		LINK ASSY-SIDE (PRE SB 767-54-0082)	AD	RF
-15G	310T2030-9		LINK ASSY-SIDE, CF6-80C ENG	AH	RF
-15H	310T4040-9		LINK ASSY-SIDE, PW4056 ENG	AG	RF

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01-					
-16	311T2740-8		LINK ASSY-SIDE, NAC STRUT (POST SB 767-54-0080R1) (POST SB 767-54-0081) (POST SB 767-54-0082) (FOR DETAILS SEE FIG. 5)	BS	RF
-16A	311T2740-9		LINK ASSY-SIDE, NAC STRUT (PRE SB 767-54-0081) (FOR DETAILS SEE FIG. 5)	BT	RF
-16B	311T2740-10		LINK ASSY-SIDE, NAC STRUT (FOR DETAILS SEE FIG. 5)	BU	RF
-17	311T3096-1		BOLT-SHOULDER, SIDE LINK, NAC STRUT (PRE SB 767-54-0080R1) (PRE SB 767-54-0081)	AQ	RF
-17A	311T3096-2		BOLT-SHOULDER, SIDE LINK, NAC STRUT (PRE SB 767-54-0080R1)	AR	RF
-17B	311T3102-1		PIN-FUSE, MID SPAR, NAC STRUT (PRE SB 767-54-0080R1)	AS	RF
-17C	311T3102-2		PIN-FUSE, MID SPAR, NAC STRUT (PRE SB 767-54-0080R1)	AT	RF
-17D	311T3102-3		PIN-FUSE, MID SPAR, NAC STRUT (PRE SB 767-54-0080R1)	CL	RF
-17E	311T3102-4		PIN-FUSE, MID SPAR, NAC STRUT	CM	RF
-17F	311T3096-3		BOLT-SHOULDER, SIDE LINK, NAC STRUT (PRE SB 767-54-0080R1)	CR	RF
-17G	310T2301-1		PIN-FUSE (POST SB 767-54-0080R1)	CS	RF
-17H	BACB30UU12C31D		BOLT-SHOULDER, SIDE LINK, NAC STRUT (POST SB 767-54-0080R1)	CU	RF

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01-					
-18	311T2522-1		FITTING ASSY-LINK, FAN COWL SPRT BEAM (FOR DETAILS SEE FIG. 3)	AY	RF
-19	310T2301-1		PIN-FUSE, STRAIGHT BORE, HEADED (POST SB 767-54-0080R1) (POST SB 767-54-0081)	BE	RF
-19A	310T2301-2		PIN-FUSE, STRAIGHT BORE, HEADED (PRE SB 767-54-0080R1) (PRE SB 767-54-0081)	BF	RF
-19B	310T2301-3		PIN-FUSE, STRAIGHT BORE, HEADED	BG	RF
-19C	311T2790-1		PIN-FUSE, STRAIGHT BORE, HEADED (POST SB 767-54-0080R1) (POST SB 767-54-0088)	CE	RF
-19D	311T2790-2		PIN-FUSE, STRAIGHT BORE, HEADED	CF	RF
-19E	311T5790-1		PIN-FUSE, STRAIGHT BORE, HEADED (POST SB 767-54-0088)	CG	RF
20	302T0200-23		.BUSHING	A,CN	2
25	302T0200-24		.BUSHING	A,CN	2
30	311T3710-3		.LINK	A,CN	1
35	BAC27TPP0001		.MARKER-ALUMINUM FOIL	A	1
-35A	BAC27TPP673		.MARKER-ALUMINUM FOIL	CN	1
40	BAC27TPP0002		.MARKER-ALUMINUM FOIL	A	1
-40A	BAC27TPP674		.MARKER-ALUMINUM FOIL	CN	1
45	302T0200-44		.BUSHING	B,H	2
50	302T0200-25		.BUSHING	B,H	2
55	302T0200-16		.BUSHING- (OPT ITEM 55A)	B	2
-55A	302T0200-52		.BUSHING- (OPT ITEM 55)	B	2
-55B	302T0200-52		.BUSHING-	H	2
-55C	302T0200-16		DELETED		
60	302T0200-17		.BUSHING- (OPT ITEM 60A)	B	2
-60A	302T0200-53		.BUSHING- (OPT ITEM 60)	B	2

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01-					
-60B	302T0200-53		.BUSHING-	H	2
-60C	302T0200-17		DELETED		
65	311T3730-4		.BRACE	B,H	1
70	BAC27TPP0018		.MARKER-ALUMINUM FOIL	B,H	1
75	BAC27TPP0019		.MARKER-ALUMINUM FOIL	B,H	1
76	MS90354-0803		.RIVET	C,D	12
77	MS90354-0804		.RIVET	L,P-R ,AD,A F,AG, AH	18
-78	311T3740-1		.LINK ASSY- (PRE SB 767-54-0080R1) (PRE SB 767-54-0081)	C,D	1
-79	311T2740-1		.LINK ASSY	L,P-R	1
-79A	311T2740-7		.LINK ASSY- (PRE SB 767-54-0080R1)	AG,AH	1
-79B	311T2740-1		.LINK ASSY- (OPT ITEM 79C)	AD	1
-79C	311T2740-7		.LINK ASSY- (OPT ITEM 79B) (PRE SB 767-54-0080R1)	AD	1
80	302T0200-18		..BUSHING	C,D	2
-80A	302T0200-122		..BUSHING	L,P-R ,AD,A G,AH	2
85	311T3740-2		..LINK	C,D	1
-85A	311T2740-3		..LINK- (USED ON ITEM 79B)	L,P-R ,AD	1
-85B	311T2740-6		..LINK- (USED ON ITEM 79C)	AD,AG ,AH	1
90	BAC27TPP20		DELETED		

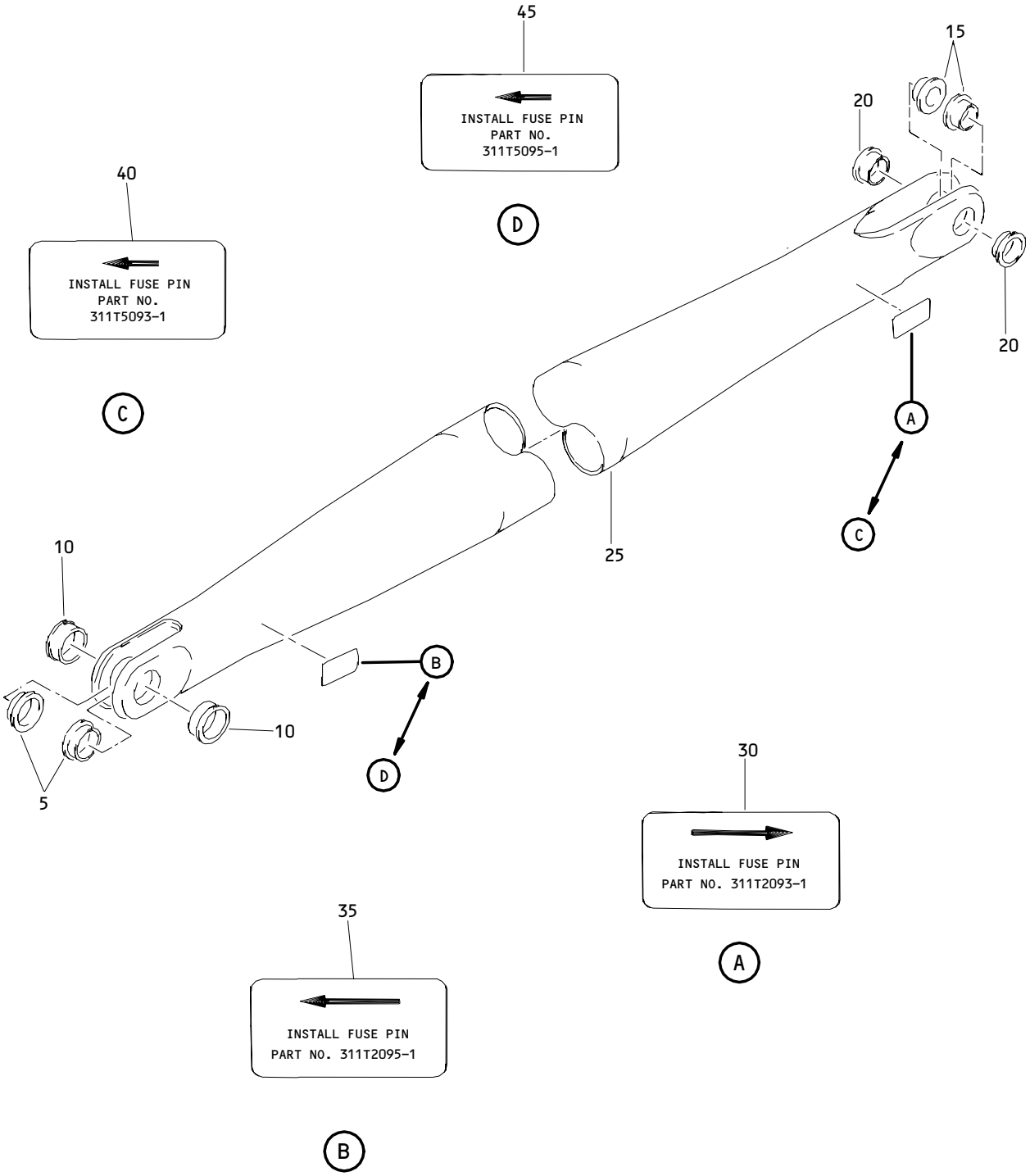
FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01-					
90A	BAC27TPP0020		..MARKER-ALUMINUM FOIL	C,D	1
-93	311T3740-3		.LINK ASSY- (311T3740-5 TOGETHER WITH 310T3151-22 WASHER AND 310T3151-23 WASHER I/W 311T3740-3 TOGETHER WITH BACW10BP10APU WASHER, BACW10BP12ACU WASHER AND BACW10BP12APU WASHER IN OUTBOARD POSITION ON CF6-8 POWERED AIRPLANES ONLY) (PRE SB 767-54-0080R1) (PRE SB 767-54-0081)	C	1
-93A	311T3740-5		.LINK ASSY- (311T3740-5 TOGETHER WITH 310T3151-22 WASHER AND 310T3151-23 WASHER I/W 311T3740-3 TOGETHER WITH BACW10BP10APU WASHER, BACW10BP12ACU WASHER AND BACW10BP12APU WASHER IN OUTBOARD POSITION ON CF6-8 POWERED AIRPLANES ONLY)	D	1
-94	311T2740-2		.LINK ASSY	P,Q	1
-94A	311T2740-5		.LINK ASSY- (PRE SB 767-54-0080R1)	L,R,AD,AG,AH	1
95	302T0200-19		..BUSHING	C	2

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01-					
95A	302T0200-121		..BUSHING	L,P-R ,AD,A G,AH	2
97	S302T002-1		DELETED		
97A	B60-806829		..ISOLATOR- (V80201) (SPEC S302T002-1) (OPT 95001-1 (V13636)) (OPT LM324-6 (V76005))	D	2
100	311T3740-4		..LINK	C	1
-100A	311T3740-6		..LINK	D	1
-100B	311T2740-4		..LINK	L,P-R ,AD,A G,AH	1
102	BAC27TPP0020		..MARKER-ALUMINUM FOIL	C,D	1
102A	BAC27TPP0290		..MARKER-ALUMINUM FOIL	P,Q	1
105	302T0200-31		.BUSHING	E,F,M	1
-105A	311T5710-5		.BUSHING	AE	1
-105B	311T4710-8		.BUSHING	AY,AZ ,CP	1
-105C	311T5710-11		.BUSHING	BA,BB	1
110	302T0200-32		.BUSHING	E,F,M	1
-110A	311T5710-6		.BUSHING	AE	1
-110B	311T4710-7		.BUSHING	AY,AZ ,CP	1
-110C	311T5710-12		.BUSHING	BA,BB	1
115	302T0200-39		.BUSHING	E,F,M	1
-115A	311T5710-3		.BUSHING	AE	1
-115B	311T4710-6		.BUSHING	AY,CP	1
-115C	311T4710-12		.BUSHING	AZ	1
-115D	311T5710-9		.BUSHING	BA,BB	1
120	302T0200-40		.BUSHING	E,F,M	1
-120A	311T5710-4		.BUSHING	AE	1
-120B	311T4710-9		.BUSHING	AY,CP	1
-120C	311T4710-12		.BUSHING	AZ	1
-120D	311T5710-10		.BUSHING	BA,BB	1
125	311T1710-2		.LINK-UPR	E	1
130	311T1710-4		.LINK-UPR	F	1
133	311T4710-2		.LINK-UPR	M	1
-133A	311T4710-4		.LINK-UPR	AY,CP	1

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01-					
-133B	311T4710-11		.LINK-UPR	AZ	1
134	311T5710-2		.LINK-UPR	AE	1
-134A	311T5710-8		.LINK-UPR	BA,BB	1
135	BAC27TPP0001		.MARKER-ALUMINUM FOIL	E,F	1
136	BAC27TPP0506		.MARKER-ALUMINUM FOIL	AE,BA	1
137	BAC27TPP0343		.MARKER-ALUMINUM FOIL	M,CP	1
138	BAC27TPP673		.MARKER-ALUMINUM FOIL	AY	1
140	BAC27TPP0002		.MARKER-ALUMINUM FOIL	E,F,M,CP	1
141	BAC27TPP674		.MARKER-ALUMINUM FOIL	AY,BB	1
141D	BAC27TPP682		.MARKER-ALUMINUM FOIL	AZ	1
142	BAC27TPP0507		.MARKER-ALUMINUM FOIL	AE,BA	1
143	BAC27TPP680		.MARKER-ALUMINUM FOIL	AZ	1
144	BAC27TPP675		.MARKER-ALUMINUM FOIL	BB	1
145	302T0200-16		.BUSHING- (OPT ITEM 145A)	G	2
-145A	302T0200-52		.BUSHING- (OPT ITEM 145)	G	2
-145B	302T0200-52		.BUSHING	J,AX	2
-145C	302T0200-16		DELETED		
150	302T0200-17		.BUSHING- (OPT ITEM 150A)	G	2
-150A	302T0200-53		.BUSHING- (OPT ITEM 150)	G	2
-150B	302T0200-53		.BUSHING	J,AX	2
-150C	302T0200-17		DELETED		
155	302T0200-25		.BUSHING	G,J,AX	2
160	302T0200-44		.BUSHING	G,J,AX	2

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01-					
165	311T1730-2		.BRACE	G,J,AX	1
-165A	311T1730-4		DELETED		
-165B	311T1730-5		.BRACE	AJ	1
170	BAC27TPP0018		.MARKER-ALUMINUM FOIL	G,J,AX	1
175	BAC27TPP0019		.MARKER-ALUMINUM FOIL	G,J,AX	1
185	311T3090-6		.ADAPTER-RING	AK	2
190	311T3090-5		.PIN-FUSE	AK	1
			INSTALLATION PARTS	L,R,AG,AH,CQ,CR	
810	MS90354-0803		DELETED		
815	015T0779-10		BUSHING-BLANK	CQ,CR	2
820	015T0779-11		BUSHING-BLANK	CQ,CR	2
825	015T0779-12		BUSHING-BLANK	CQ,CR	2
830	015T0779-13		BUSHING-BLANK	CQ,CR	2
835	BAC27TPP562		MARKER	L,AG,AH	1
-835A	BAC27TPP562		MARKER- (LIMITED)	R	1
-835B	BAC27TPP563		MARKER- (LIMITED)	R	1

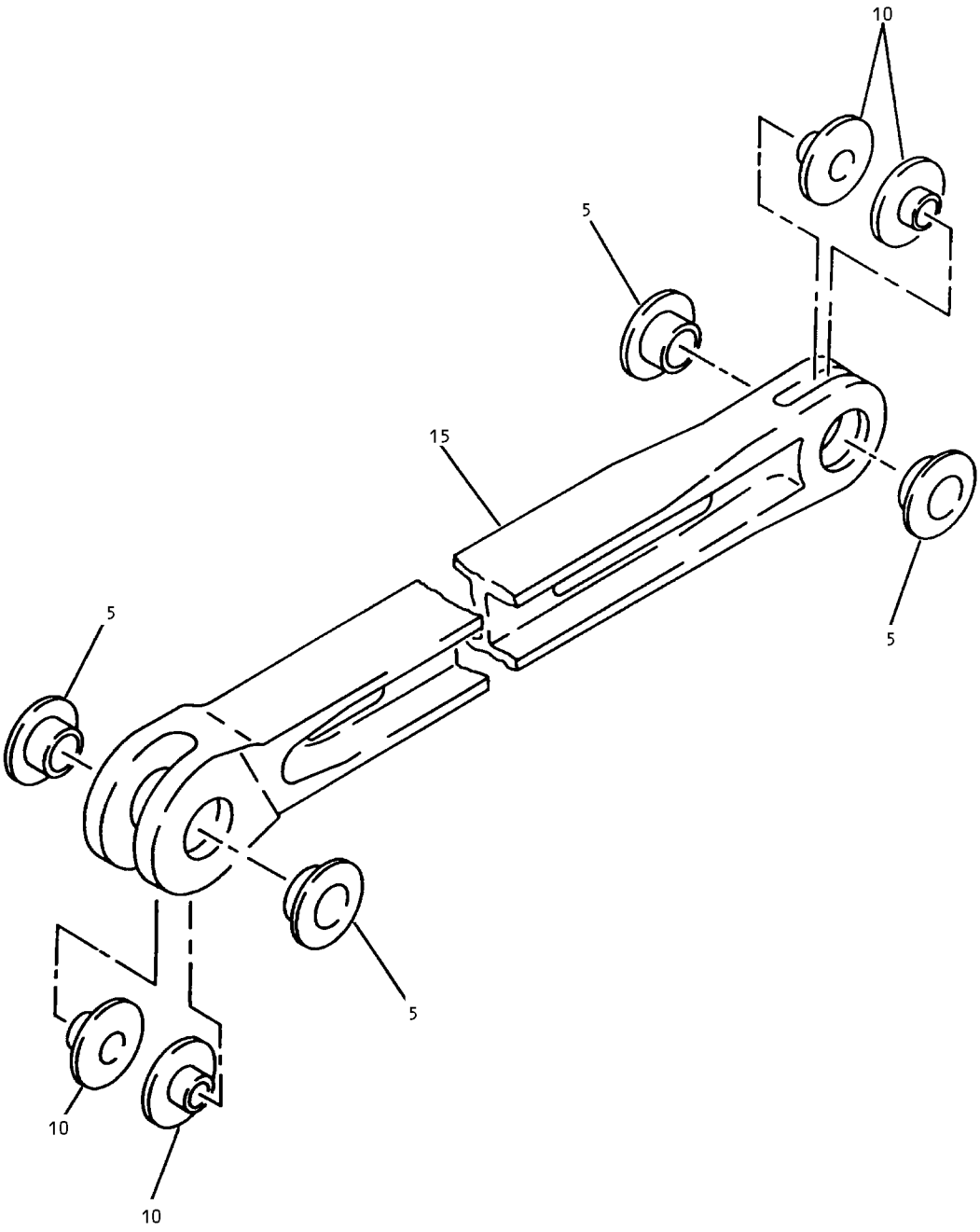
- Item Not Illustrated



PW 4056 Engine Nacelle Strut Diagonal Brace Assembly
Figure 2

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
02-					
-1	311T4730-1		BRACE ASSY-DIAG, NAC STRUT, PW4056 ENG (PRE SB 767-54-0080R1)	K	RF
-1A	311T4730-3		BRACE ASSY-DIAG, NAC STRUT, PW4056 ENG	AW	RF
-3	311T2730-1		BRACE ASSY-DIAG, NAC STRUT, CF6-80C ENG	N	RF
-3A	311T2730-4		BRACE ASSY-DIAG, NAC STRUT, CF6-80C ENG (PRE SB 767-54-0081)	AV	RF
-4	311T5780-1		BRACE ASSY-DIAG, NAC STRUT, RB211-524H (PRE SB 767-54-0082)	AF	RF
-4A	311T5780-7		BRACE ASSY-DIAG, NAC STRUT, RB211-524H ENG (PRE SB 767-54-0082)	AU	RF
5	302T0200-117		.BUSHING	K,N,AV,AW	2
-5A	311T5780-4		.BUSHING-FLANGED	AF,AU	2
10	302T0200-118		.BUSHING	K,N,AV,AW	2
-10A	311T5780-3		.BUSHING-FLANGED	AF,AU	2
15	302T0200-119		.BUSHING	K,N,AV,AW	2
-15A	311T5780-6		.BUSHING-FLANGED	AF,AU	2
20	302T0200-120		.BUSHING	K,N,AV,AW	2
-20A	311T5780-5		.BUSHING-FLANGED	AF,AU	2
25	311T4730-2		.BRACE	K,AW	1
-25J	311T5780-2		.BRACE	AF,AU	1
-27	311T2730-2		DELETED		
-27A	311T2730-3		.BRACE	N,AV	1
30	BAC27TPP0283		.MARKER-ALUMINUM FOIL	K,N,AV,AW	1
35	BAC27TPP0284		.MARKER-ALUMINUM FOIL	K,N,AV,AW	1
40	BAC27TPP0504		.MARKER-ALUMINUM FOIL	AF,AU	1
45	BAC27TPP0505		.MARKER-ALUMINUM FOIL	AF,AU	1

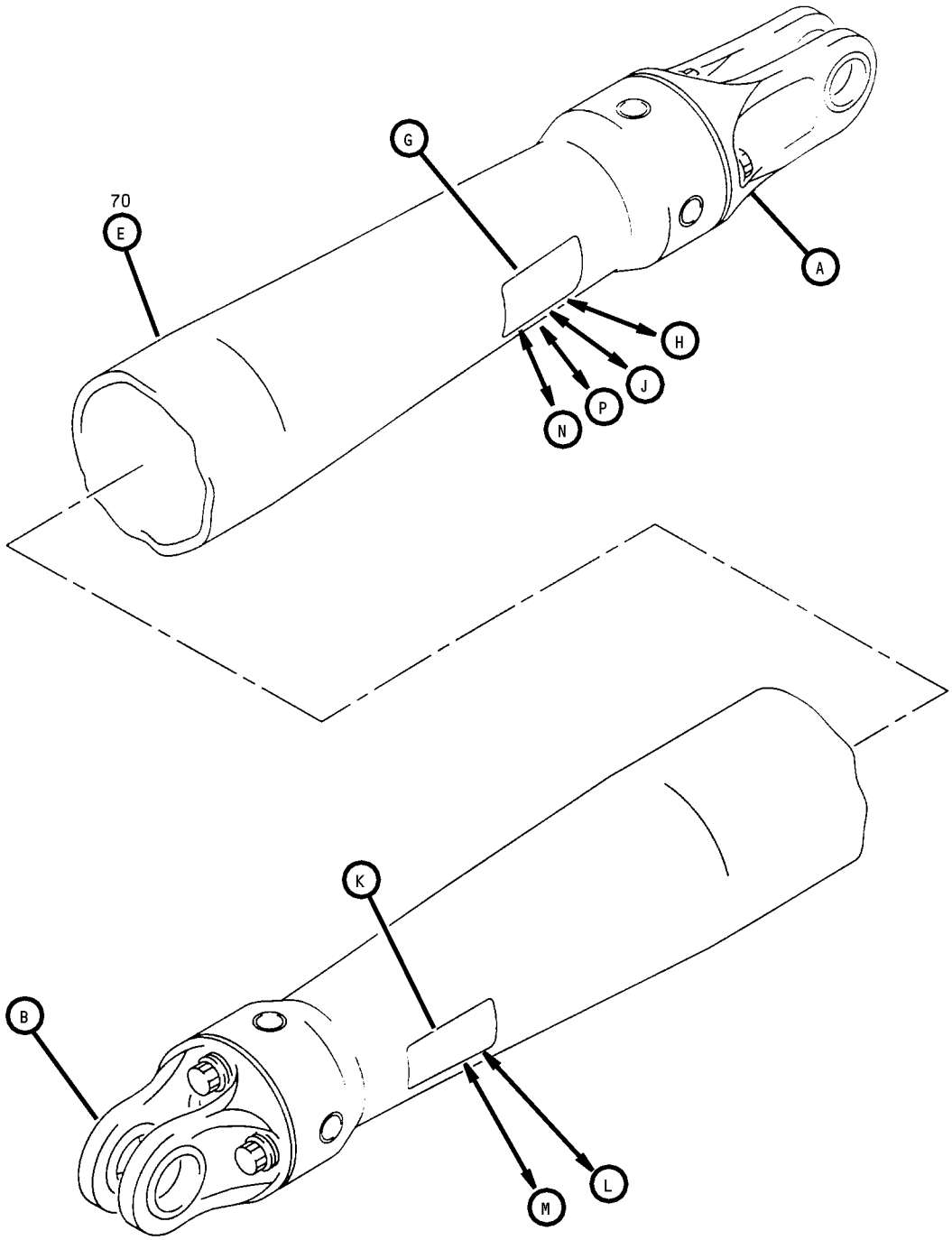
- Item Not Illustrated



Fan Cowl Support Beam Link Fitting Assembly
Figure 3

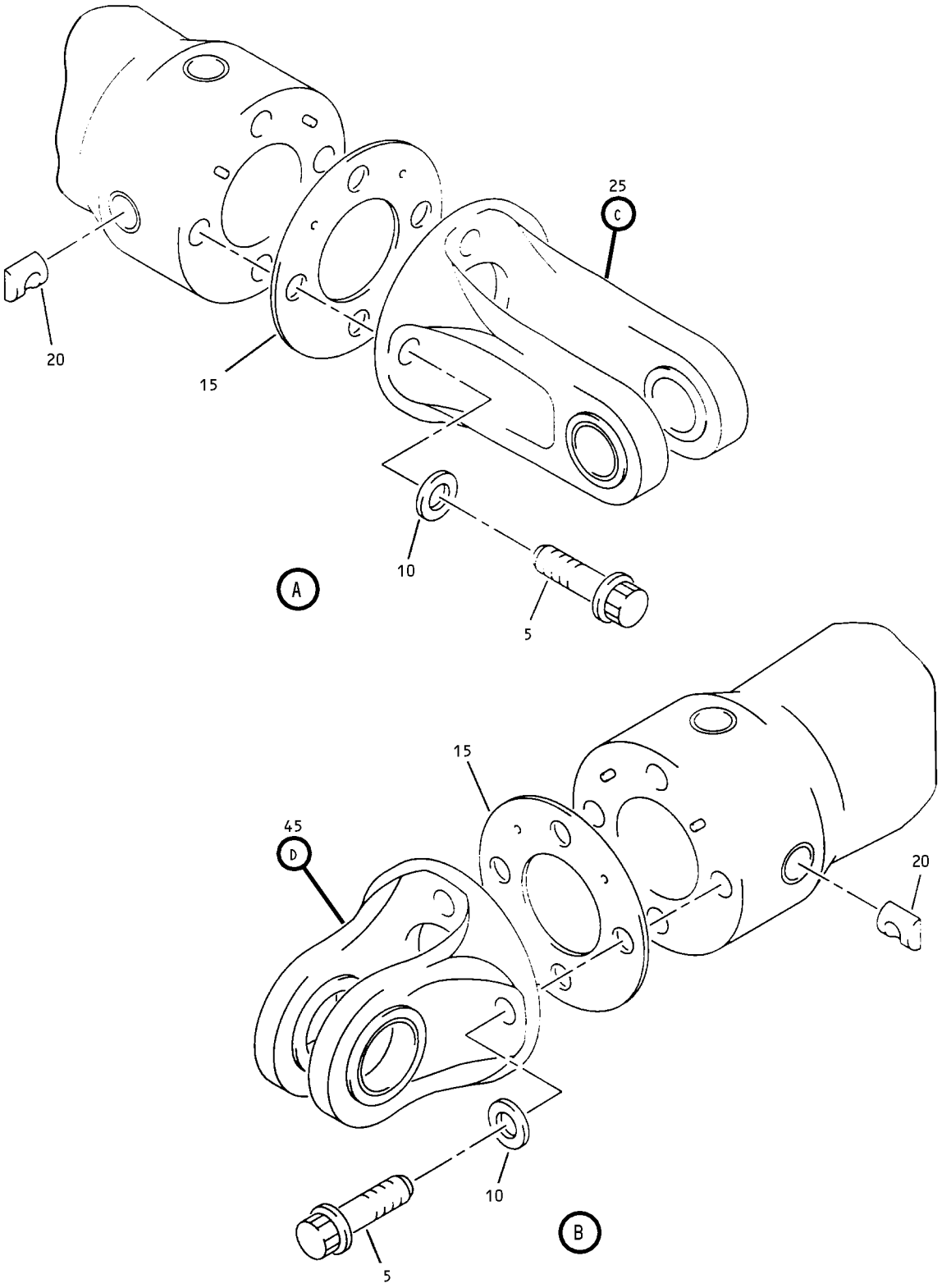
FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
03-					
-1A	311T2522-1		FITTING ASSY-LINK, FAN COWL SPRT BEAM	AY	RF
5	BACB28AP12P033		.BUSHING	AY	4
10	302T0200-91		.BUSHING	AY	4
15	311T2522-2		.FITTING	AY	1

- Item Not Illustrated



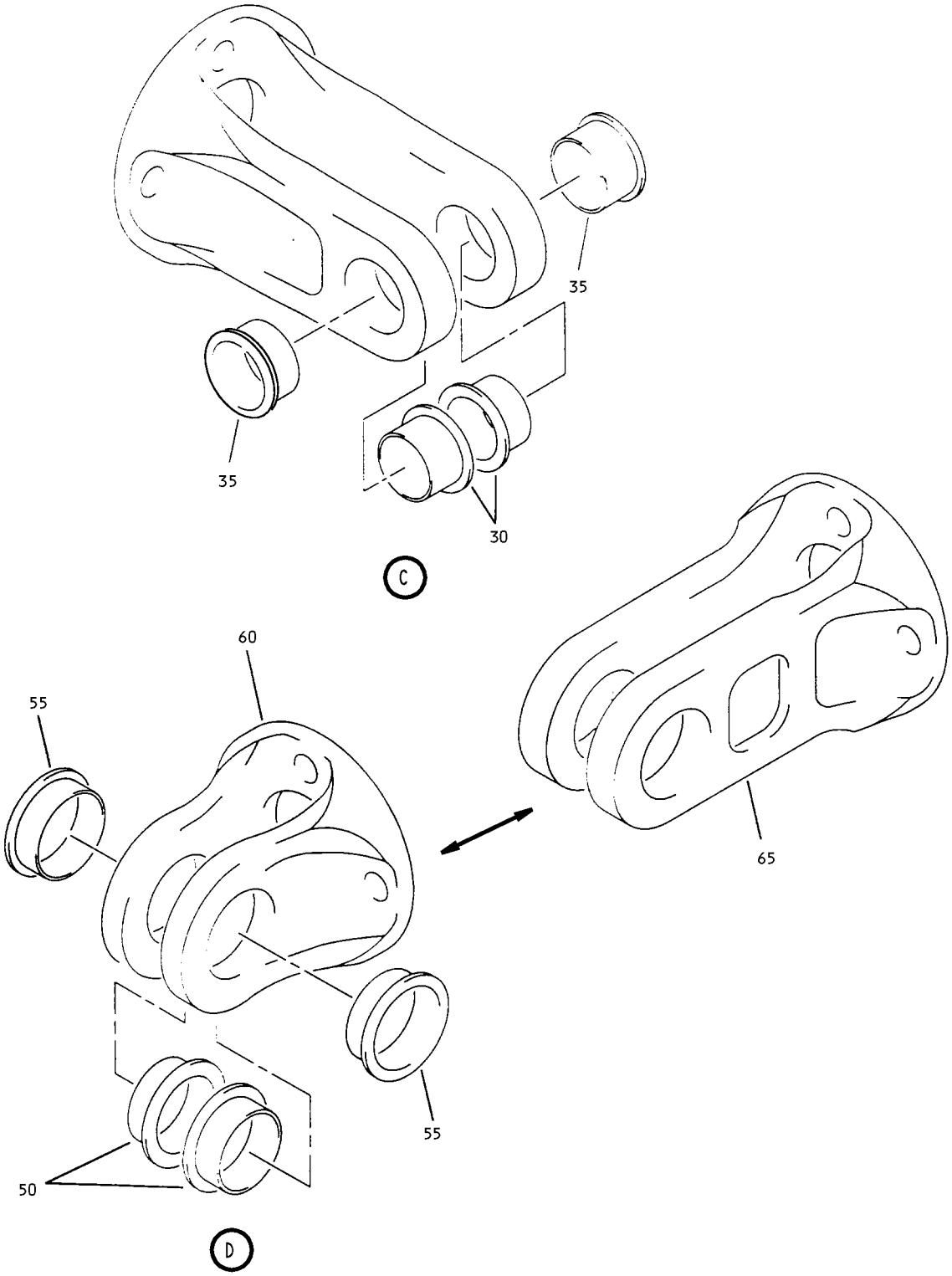
Diagonal Brace Assembly
Figure 4 (Sheet 1)

KD3869

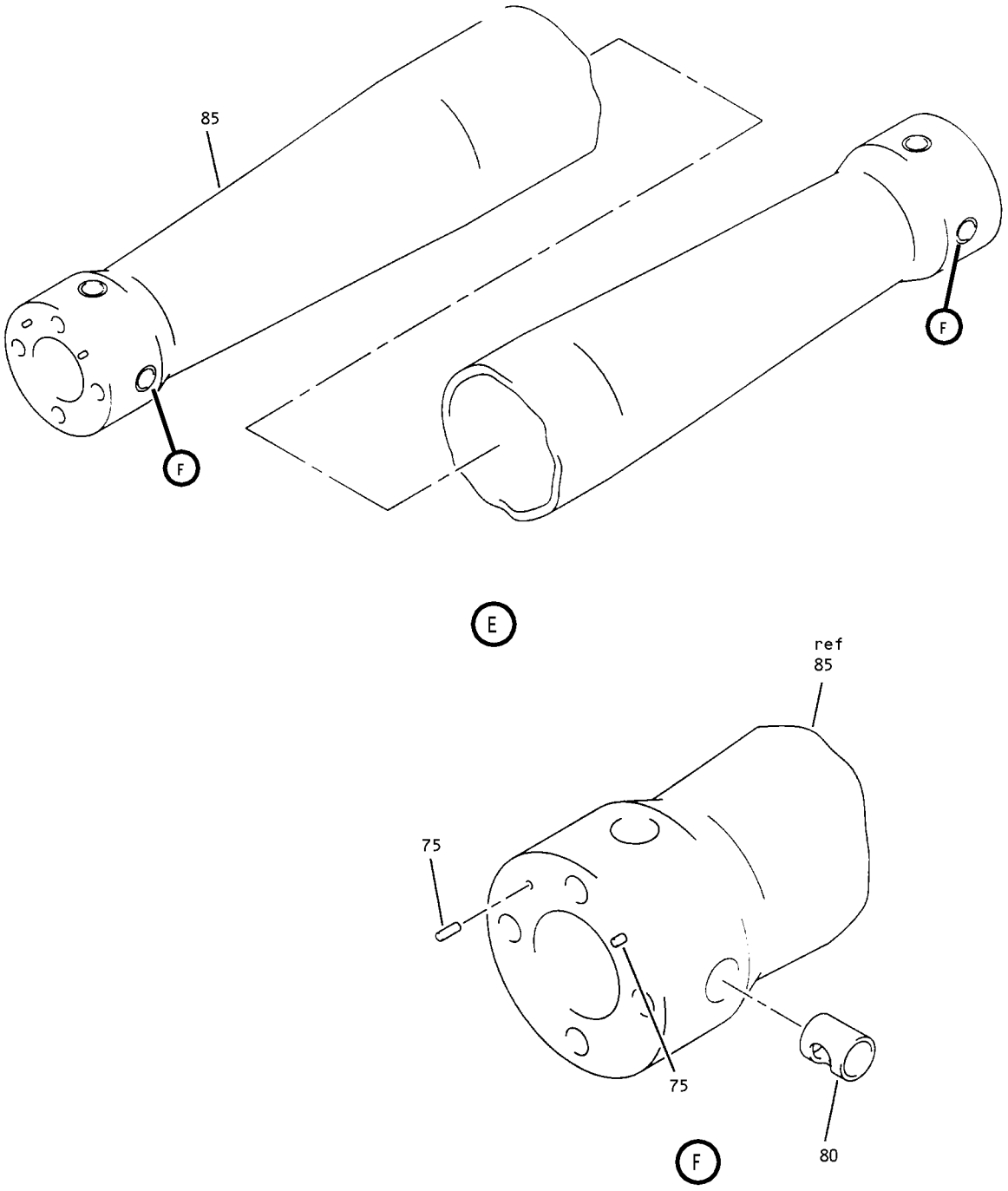


Diagonal Brace Assembly
Figure 4 (Sheet 2)

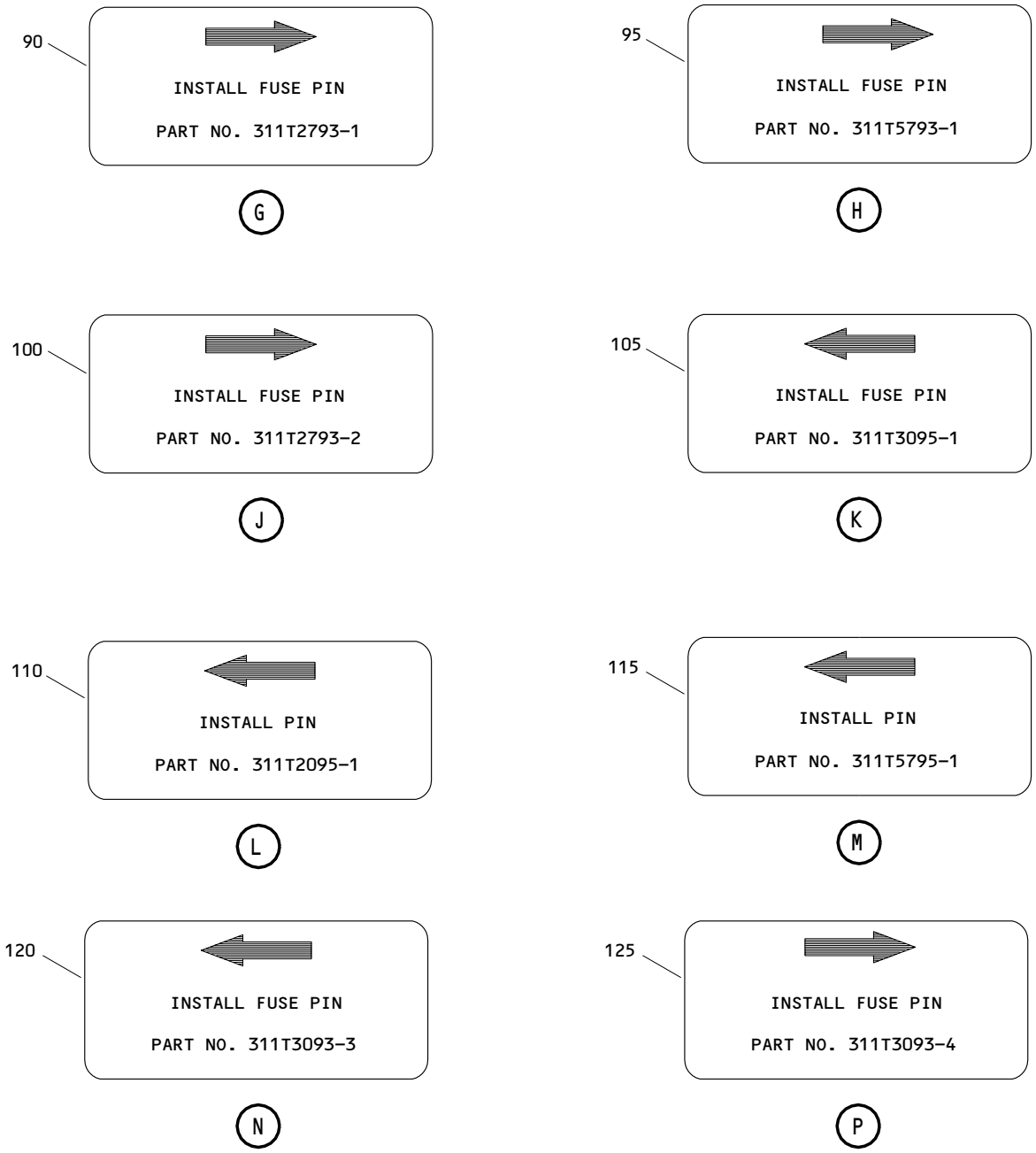
KD3878



Diagonal Brace Assembly
Figure 4 (Sheet 3)



Diagonal Brace Assembly
Figure 4 (Sheet 4)



Diagonal Brace Assembly
Figure 4 (Sheet 5)

KD3936

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
04-			DIAG BRACE ASSY,NAC STRUT		
-1A	311T3735-1		BRACE ASSY-DIAG, NAC STRUT, JT9D ENG (POST SB 767-54-0080R1)	BJ	RF
-1B	311T1735-1		BRACE ASSY-DIAG, NAC STRUT, CF6-80A ENG	BK	RF
-1C	311T4735-1		BRACE ASSY-DIAG, NAC STRUT, PW4000 ENG (POST SB 767-54-0080R1) (PRE SB 767-54-0096)	BL	RF
-1D	311T4735-4		BRACE ASSY-DIAG, NAC STRUT, PW4000 ENG (POST SB 767-54-0096)	BM	RF
-1E	311T2735-1		BRACE ASSY-DIAG, NAC STRUT, CF6-80C2 ENG (PRE SB 767-54-0096)	BN	RF
-1F	311T2735-13		BRACE ASSY-DIAG, NAC STRUT, CF6-80C2 ENG	BP	RF
-1G	311T2735-21		BRACE ASSY-DIAG, NAC STRUT, CF6-80C2 ENG (POST SB 767-54-0096)	BQ	RF
-1H	311T5735-1		BRACE ASSY-DIAG, NAC STRUT, RB211-524H ENG (POST SB 767-54-0082)	BR	RF
-1J	311T3735-6		BRACE ASSY-DIAG, NAC STRUT, JT9D ENG (POST SB 767-54A0094R1) (PRE SB 767-54A0094R2)	CH	RF
-1K	311T1735-6		BRACE ASSY-DIAG, NAC STRUT, CF6-80A ENG (POST SB 767-54A0094R1) (PRE SB 767-54A0094R2)	CJ	RF
-1L	311T3735-7		BRACE ASSY-DIAG, NAC STRUT, JT9D ENG (POST SB 767-54A0094R2)	CT	RF
-1M	311T1735-7		BRACE ASSY-DIAG, NAC STRUT, CF6-80A ENG (POST SB 767-54A0094R2)	CU	RF

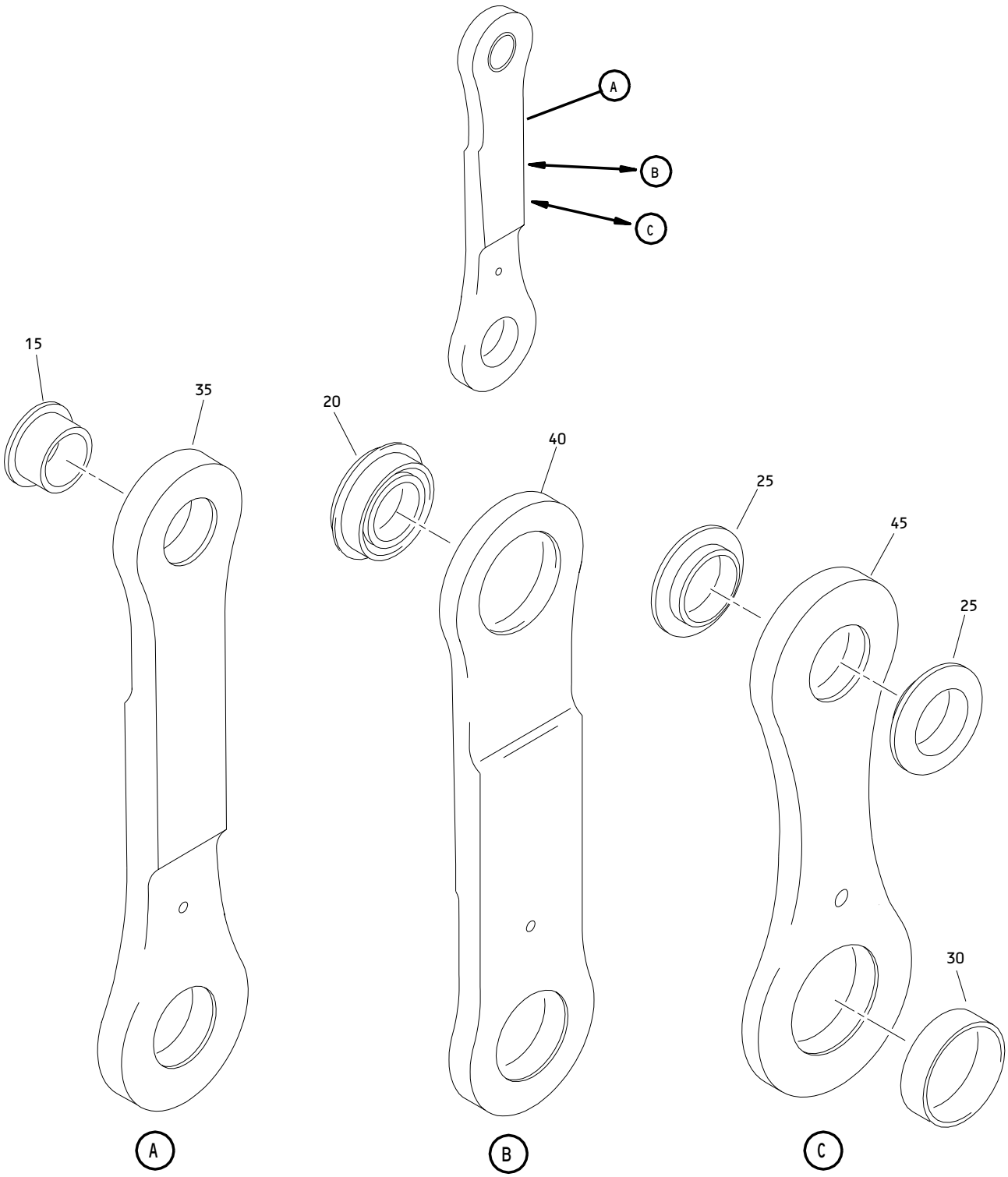
FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
04-5	BACB30US12K37		.BOLT	BJ-BR,CH,CJ,CT,CU	8
10	BACW10BP12ACU		.WASHER	BJ-BR,CH,CJ,CT,CU	8
15	311T2736-3		.SPACER	BJ-BR,CH,CJ,CT,CU	2
20	SL4157CB12B		.NUT ASSY-BARREL (V97393) (OPT ITEM 20A)	BJ-BR,CH,CJ,CT,CU	8
-20A	94667ACB12B		.NUT ASSY-BARREL (V56878) (OPT ITEM 20)	BJ-BR,CH,CJ,CT,CU	8
25	311T2735-9		.FITTING ASSY-END (PRE SB 767-54-0096)	BJ-BL,BN,CH,CJ	1
-25A	311T5735-8		.FITTING ASSY-END	BM,BQ,BR	1
-25B	311T2735-16		.FITTING ASSY-END	BP	1
-25C	311T5735-8		.FITTING ASSY-END (POST SB 767-54-0096)	BJ-BL,BN,CH,CJ	1
-25D	311T2735-9		.FITTING ASSY-END	CT,CU	1

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
04-					
30	311T2735-12		..BUSHING- (USED ON ITEMS 25, 25D)	BJ-BL ,BN,C H,CJ, CT,CU	2
-30A	311T5735-11		..BUSHING- (USED ON ITEMS 25A, 25C)	BJ-BN ,BQ,B R,CH, CJ	2
-30B	311T2735-19		..BUSHING	BP	2
35	311T2735-11		..BUSHING- (USED ON ITEMS 25, 25D)	BJ-BL ,BN,C H,CJ, CT,CU	2
-35A	311T5735-10		..BUSHING- (USED ON ITEMS 25A, 25C)	BJ-BN ,BQ,B R,CH, CJ	2
-35B	311T2735-18		..BUSHING	BP	2
40	311T2735-10		..FITTING- (USED ON ITEMS 25, 25D)	BJ-BL ,BN,C H,CJ, CT,CU	1
-40A	311T5735-9		..FITTING- (USED ON ITEMS 25A, 25C)	BJ-BN ,BQ,B R,CH, CJ	1
-40B	311T2735-17		..FITTING	BP	1
45	311T1735-2		.FITTING ASSY-END	BJ,BK ,CH,C J,CT, CU	1
-45A	311T2735-5		.FITTING ASSY-END	BL-BN ,BQ	1
-45B	311T2735-14		.FITTING ASSY-END	BP	1
-45C	311T5735-4		.FITTING ASSY-END	BR	1

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
04-					
50	311T1735-5		..BUSHING	BJ,BK,CH,CJ,CT,CU	2
-50A	311T2735-8		..BUSHING	BL-BQ	2
-50B	311T5735-7		..BUSHING	BR	2
55	311T1735-4		..BUSHING	BJ,BK,CH,CJ,CT,CU	2
-55A	311T2735-7		..BUSHING	BL-BQ	2
-55B	311T5735-6		..BUSHING	BR	2
60	311T1735-3		..FITTING	BJ,BK,CH,CJ,CT,CU	1
-60A	311T2735-6		..FITTING	BL-BN,BQ	1
-60B	311T2735-15		..FITTING	BP	1
65	311T5735-5		..FITTING	BR	1
70	311T4735-2		.TUBE ASSY	BJ,BL,BM,CH,CT	1
-70A	311T2735-2		.TUBE ASSY	BK,BN-BQ,CJ,CU	1
-70B	311T5735-2		.TUBE ASSY	BR	1
75	MS16555-647		..PIN-STRAIGHT	BJ-BR,CH,CJ,CT,CU	4
80	311T2735-4		..BUSHING-SLEEVE	BJ-BR,CH,CJ,CT,CU	8
85	311T4735-3		..TUBE	BJ,BL,BM,CH,CT	1
-85A	311T2735-3		..TUBE	BK,BN-BQ,CJ,CU	1
-85B	311T5735-3		..TUBE	BR	1

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
04-					
90	BAC27TPP676		.MARKER-ALUMINUM FOIL (PRE SB 767-54-0096)	BJ-BL ,BN	1
95	BAC27TPP677		.MARKER-ALUMINUM FOIL	BM,BQ ,BR	1
95A	BAC27TPP677		.MARKER-ALUMINUM FOIL (POST SB 767-54-0096)	BJ-BL ,BN	1
100	BAC27TPP681		.MARKER-ALUMINUM FOIL	BP	1
105	BAC27TPP0018		.MARKER-ALUMINUM FOIL	BJ,BK ,CH,C J,CT, CU	1
110	BAC27TPP0284		.MARKER-ALUMINUM FOIL	BL-BQ	1
115	BAC27TPP678		.MARKER-ALUMINUM FOIL	BR	1
120	BAC27TPP0019		.MARKER-ALUMINUM FOIL	CH,CJ	1
125	BAC27TPP701		.MARKER-ALUMINUM FOIL	CT,CU	1

- Item Not Illustrated

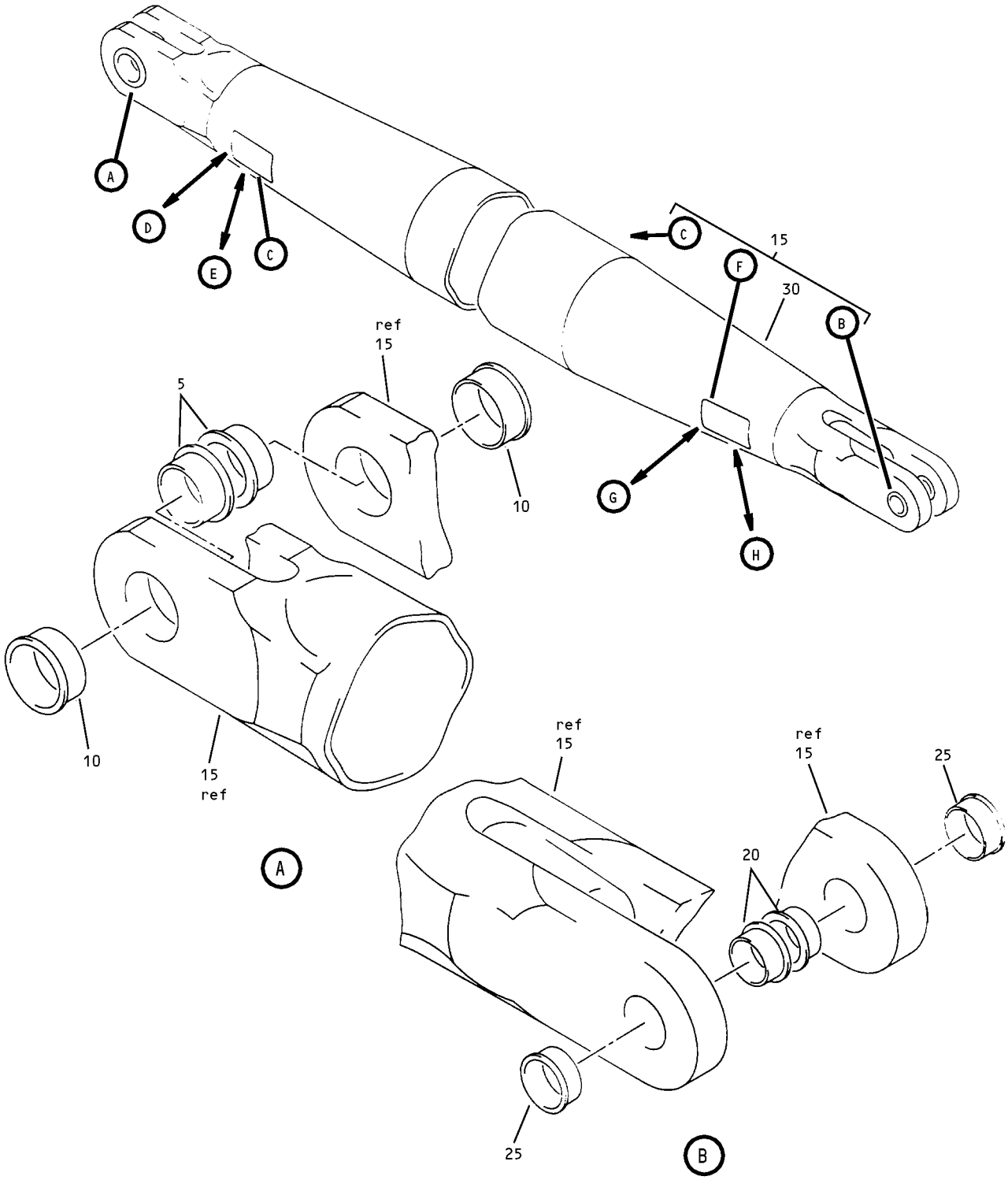


Side Link Assembly
Figure 5

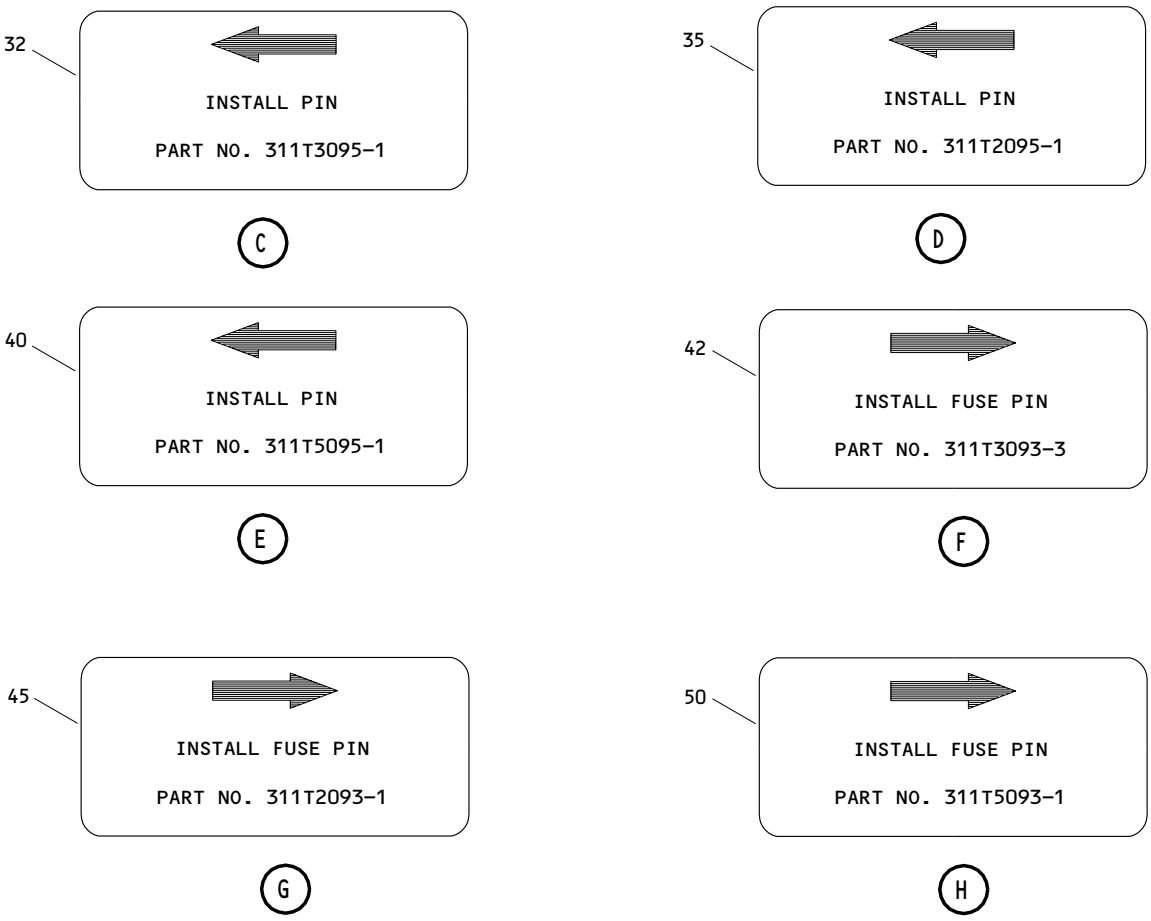
KD4069

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
05-					
-1A	311T2740-8		LINK ASSY-SIDE, NAC STRUT (POST SB 767-54-0080R1) (POST SB 767-54-0081) (POST 767-54-0082)	BS	RF
-5	311T2740-9		LINK ASSY-SIDE, NAC STRUT (POST SB 767-54-0081)	BT	RF
-10	311T2740-10		LINK ASSY-SIDE, NAC STRUT	BU	RF
15	BACB28AU12D039B		.BUSHING	BS	1
20	B60-806829		.ISOLATOR- (V80201) (SPEC S302T002-1) (OPT 95002-1 (V13636)) (OPT LM324-6 (V76005))	BT	1
25	BACB28AU16B023A		.BUSHING	BU	2
30	BACB28AW22B047A		.BUSHING	BU	1
35	311T2741-1		.LINK	BS	1
40	311T2741-2		.LINK	BT	1
45	311T2741-9		.LINK	BU	1

- Item Not Illustrated



Diagonal Brace Assembly
Figure 6 (Sheet 1)



Diagonal Brace Assembly
Figure 6 (Sheet 2)

KD4078

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
06-			DIAG BRACE ASSY,NAC STRUT		
-1A	311T4730-6		BRACE ASSY-DIAG, NAC STRUT, PW4056 ENG	BV	RF
-1B	311T2730-7		BRACE ASSY-DIAG, NAC STRUT, CF6-80C ENG (PRE SB 767-54-0081)	BW	RF
-1C	311T5780-10		BRACE ASSY-DIAG, NAC STRUT, RB211-524H ENG (PRE SB 767-54-0082)	BX	RF
5	302T0200-118		.BUSHING	BV,BW	2
-5A	311T5780-4		.BUSHING	BX	2
10	302T0200-117		.BUSHING	BV,BW	2
-10A	311T5780-3		.BUSHING	BX	2
15	311T3730-5		.BRACE ASSY	BV	1
-15A	311T2730-6		.BRACE ASSY	BW	1
-15B	311T5780-9		.BRACE ASSY	BX	1
20	302T0200-119		..BUSHING	BW	2
-20A	311T5780-6		..BUSHING	BX	2
-20B	302T0200-25		..BUSHING	BV	2
25	302T0200-120		..BUSHING	BW	2
-25A	311T5780-5		..BUSHING	BX	2
-25B	302T0200-44		..BUSHING	BV	2
30	311T3730-4		..BRACE	BV	1
-30A	311T2730-5		..BRACE	BW	1
-30B	311T5780-8		..BRACE	BX	1
32	BAC27TPP0018		..MARKER-ALUMINUM FOIL	BV	1
35	BAC27TPP0284		..MARKER-ALUMINUM FOIL	BW	1
40	BAC27TPP0505		..MARKER-ALUMINUM FOIL	BX	1
42	BAC27TPP0019		..MARKER-ALUMINUM FOIL	BV	1

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
06-					
45	BAC27TPP0283		..MARKER-ALUMINUM FOIL	BW	1
50	BAC27TPP0504		..MARKER-ALUMINUM FOIL	BX	1

- Item Not Illustrated