TO: ALL HOLDERS OF FORWARD AND AFT ENGINE MOUNT ASSEMBLIES (PW4000) COMPONENT MAINTENANCE MANUAL 71-21-16

REVISION NO. 35 DATED NOV 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 on the Record of Revision Sheet.

CHAPTER/SECTION AND PAGE NO.	DESCRIPTION OF CHANGE
501 REPAIR 5-2 601-604	Added part number 310T4031-12 to REPAIR 5-2 and added penetrant check to reflect the engineering drawing.
REPAIR 4-1 602	Added bearing and housing dimensions to REPAIR 4-1.
REPAIR 9-1 601 701 1018,1020-1021	Edited without technical change.

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BOEING

COMPONENT
MAINTENANCE MANUAL

FORWARD AND AFT ENGINE MOUNT ASSEMBLIES (PW4000)

PART NUMBERS 310T4020-3,-5,-7 THRU -11,-13, -14,-16,-17,-19,-24,-27 310U4020-2,-3,-5,-6

COMPONENT MAINTENANCE MANUAL
WITH
ILLUSTRATED PARTS LIST

265471

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REVISION RECORD

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

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

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TEMPORARY REVISION AND SERVICE BULLETIN RECORD

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		PRR B11480-44	JUL 01/88
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767-71-48		PRR B11480-73	JUL 01/91
	71-12		APR 01/91
	71-28		APR 01/91
	71-14		JUL 01/92
767-71-68			APR 01/93
767-71-0074		PRR B11480-119	JUN 01/95
767-71-68 R1			JUN 01/95
767-71A0087		PRR B12900-124	JUN 01/97
747-71A2283		PRR 85900-151	JUN 01/97
	71-16		MAR 01/98
	71-36		MAR 01/98

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PAGE	DATE	CODE
71-21-16		
TITLE PAGE		
1	MAR 01/01	01.1
2	BLANK	
REVISION RECORD		
1	JUL 10/87	01
2	BLANK	
TR & SB RECORD		
1	MAR 01/98	01.1
2	BLANK	
LIST OF EFFECTIVE PAGES		
*1	NOV 01/05	01
THRU LAST PAGE		
CONTENTS		
1	JUL 10/87	01
2	BLANK	
INTRODUCTION		
1	JUL 10/87	01
2	BLANK	
DESCRIPTION & OPERATION		
1	JAN 01/90	01.1
2	BLANK	
DISASSEMBLY		
301	APR 01/90	01.1
302	BLANK	
CHECK		
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502	JUL 01/03	01.1
503	JUL 01/03	01.1
504	JUL 01/03	01.101
505	JUL 01/03	01.101
506	JUL 01/03	01.1

PAGE	DATE	CODE
REPAIR-GENERAL		
601	JUL 01/03	01.1
602	JUL 01/03	01.1
603	JUN 01/94	01.101
604	BLANK	
REPAIR 1-1		
601	MAR 01/01	01.1
602	MAR 01/01	01.1
603	MAR 01/01	01.1
604	BLANK	
REPAIR 1-2		
601	MAR 01/01	01.1
602	JUN 01/96	01.1
603	MAR 01/01	01.1
604	MAR 01/01	01.1
605	MAR 01/01	01.1
606	MAR 01/01	01.1
607	MAR 01/01	01.1
608	JUN 01/96	01.1
REPAIR 2-1		
601	JUN 01/94	01.1
602	DEC 01/97	01.1
REPAIR 2-2		
601	JUN 01/94	01.1
602	JUN 01/96	01.1
603	JUN 01/94	01.1
604	JUN 01/94	01.101
REPAIR 3-1		
601	JUN 01/94	01.1
602	JUN 01/96	01.1
REPAIR 3-2		
601	JUN 01/94	01.1
602	MAR 01/01	01.1
603	MAR 01/01	01.1
604	JUN 01/96	01.1

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PAGE	DATE	CODE
REPAIR 4-1		
601	JUN 01/94	01.1
*602	NOV 01/05	01.1
REPAIR 5-1		
601	MAR 01/01	01.1
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REPAIR 6-1		
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602	DEC 01/97	01.1
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REPAIR 6-2		
601	NOV 01/99	01.1
602	DEC 01/97	01.1
603	MAR 01/01	01.1
604	MAR 01/01	01.1
605	DEC 01/97	01.101
606	DEC 01/97	01.101
REPAIR 7-1		
601	MAR 01/02	01.1
602	MAR 01/01	01.1
REPAIR 7-2		
601	JUN 01/96	01.1
602	MAR 01/01	01.1
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PAGE	DATE	CODE
REPAIR 8-1		
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602	JUN 01/95	01.1
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REPAIR 8-2		
601	JUN 01/95	01.1
602	JUN 01/96	01.1
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602	JUN 01/95	01.1
603	NOV 01/98	01.1
604	NOV 01/98	01.1
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606	NOV 01/98	01.1
REPAIR 11-1		
601	JUL 01/03	01.1
602	JUL 01/03	01.1
REPAIR 12-1		
601	JUL 10/87	01
602	JUN 01/95	01.1
REPAIR 13-1		
601	JUL 01/88	01.1
602	JUN 01/95	01.1
REPAIR 14-1		
601	JUL 01/92	01.1
602	JUL 01/92	01.1
603	MAR 01/97	01.1
604	MAR 01/97	01.1
605	JUL 01/92	01.1
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PAGE	DATE	CODE
REPAIR 14-2		
601	JUN 01/96	01.1
602	JUN 01/96	01.1
603	JUN 01/96	01.1
604	NOV 01/01	01.1
605	JUL 01/92	01.1
606	MAR 01/97	01.1
607	JUL 01/92	01.1
608	JUL 01/92	01.1
REPAIR 15-1		
601	JUL 01/03	01.1
602	JUL 01/03	01.1
ASSEMBLY		
*701	NOV 01/05	01.1
702	JUL 01/03	01.1
703	JUL 01/03	01.1
704	JUL 01/03	01.1
FITS AND CLEARANCES		
801	NOV 01/01	01.1
802	MAR 01/01	01.1
803	MAR 01/01	01.1
804	JUN 01/96	01.1
805	JUN 01/96	01.1
806	JUN 01/96	01.1
807	JUL 01/03	01.1
808	NOV 01/01	01.1
809	JUL 01/03	01.1
810	JUL 01/03	01.1
811	JUL 01/03	01.1
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ILLUSTRATED PARTS LIST		
1001	JUL 10/87	01
1002	MAR 01/01	01.1
1003	MAR 01/01	01.1
1004	JUL 01/03	01.1
1005	JUL 01/03	01.1
1006	JUL 01/03	01.1
1007	JUL 01/03	01.1
1008	JUL 01/03	01.1

PAGE	DATE	CODE
ILLUSTRATED PARTS LIST		CONT.
1009	JUL 01/03	01.1
1010	JUL 01/03	01.1
1011	JUL 01/03	01.1
1012	JUL 01/03	01.1
1013	JUL 01/03	01.1
1014	MAR 01/01	01.1
1015	MAR 01/02	01.1
1016	MAR 01/01	01.1
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*1021	NOV 01/05	01.1
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1026	MAR 01/01	01.1
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1044	MAR 01/01	01.1
1045	MAR 01/01	01.1
1046	MAR 01/01	01.1
1047	MAR 01/01	01.1
1048	MAR 01/01	01.1
1049	MAR 01/01	01.1
1050	MAR 01/01	01.1

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PAGE	DATE	CODE
ILLUSTRATED PARTS LIST		CONT.
1051	MAR 01/01	01.1
1052	MAR 01/01	01.1
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1055	MAR 01/01	01.1
1056	BLANK	

PAGE	DATE	CODE

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TABLE OF CONTENTS

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

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INTRODUCTION

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

This manual is divided into separate sections:

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

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

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

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

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

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

Verification:

Assembly

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PW 4000 ENGINE MOUNT ASSEMBLIES

DESCRIPTION AND OPERATION

1. The forward and aft engine mount assemblies consist of various hangers, links and parts required to attach PW4000 series engine to the strut.

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DISASSEMBLY

NOTE: Disassemble this component only as necessary to complete fault isolation, determine the serviceability of parts, perform required repairs, and restore the unit to serviceable condition.

1. Disassemble the forward (1, IPL Fig. 1) and aft (1, IPL Fig. 1, Fig. 2, Fig. 3, Fig. 4) engine mount assemblies using standard industry practices and the following procedures.

2. Inner ball of bearings (35, 150, IPL Fig. 1; 60, IPL Fig. 2; 70, IPL Fig. 3 and 75, IPL Fig. 4) may be replaced, if necessary. Do not remove bearings or bushings unless repair or replacement is necessary.

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CHECK

1. Materials

   A. Anti-sieze Compound -- Never-Seez Pure Nickel Special (replaces Ease-Off 990) (SOPM 20-60-03)

2. Check

   A. Examine all parts for defects by standard industry practices. Refer to FITS AND CLEARANCES for design dimensions and wear limits. If you find visible defects or think there are defects, do a magnetic particle or penetrant check as specified below.

   B. Magnetic particle check (SOPM 20-20-01):

      (1) Forward engine mount assembly (IPL Fig. 1) -- Fitting (135), evener bar (155), link (45), end cap (60, 61), shear pins (125), bearing housing (75), spacer (65).

      (2) Aft engine mount assembly

         (a) (IPL Fig. 2) -- Hanger (160), shear pins (145), bolts (330)

         (b) (IPL Fig. 3) -- Shear pins (110), hanger (135), retainers (365, 374)

         (c) (IPL Fig. 4) -- Hanger (185), bolts (330)

   C. Penetrant check (SOPM 20-20-02):

      (1) Forward engine mount assembly (IPL Fig. 1) -- Washers (25, 100), bolts (15, 90), bolts (335, 335A, 345, 345A).

      (2) Aft engine mount assembly
      (IPL Fig. 2) -- Links (65, 125), pins (35, 100), washers (40, 105), retainers (25, 90), hangar (160A, 160B, 160C, 160D);
      (IPL Fig. 3) -- Links (75, 90), pins (50, 55), washers (40), retainers (25, 30);
      (IPL Fig. 4) -- Links (85, 100), pins (60, 65), washers (50, 545), retainers (30, 35).

   D. Make a check of the run-on torque while you install the nut on the bolt. Monitor the torque necessary to turn the nut until a minimum of two complete threads extends beyond the end of the nut. The torque must be within these limits:

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NUT (IPL Fig. 1)	BOLT (IPL Fig. 1)	RUN-ON TORQUE (LB-IN) (NO AXIAL LOAD)
30	15B	50-400
105	90A	70-600
315	310	50-400

E. Do a check on run-on torque of bolts into barrel nuts as follows:

NOTE: Do this check on all barrel nuts, on not only the used, but also new unused barrel nuts.

(1) Use the bolt and nut specified for the mount installation.

(2) Lubricate the nut and bolt with anti-seize compound.

(3) Hold the barrel nut in a suitable retainer or vise.

(a) Install the bolt into the barrel nut and record the run-on torque required to turn the bolt until a minimum of two complete threads extend below end of nut. This value should be 26 - 100 pound-inches for bolts (115, IPL Fig. 4) and 135-600 pound-inches for bolts (335, 345, IPL Fig. 1).

(b) For new barrel nut (145, IPL Fig. 4) installed with bolts (115, IPL Fig. 4), this value should be 26-100 pound-inches.

(c) For used barrel nuts (145, IPL Fig. 4) installed with bolts (115, IPL Fig. 4), this value should be 14-100 pound-inches.

(d) For new barrel nuts (344, IPL Fig. 1) installed with bolts (335, 345, IPL Fig. 1), this value should be 135-600 pound-inches.

(e) For used barrel nut (344, IPL Fig. 1) installed with bolts (335, 345, IPL Fig. 1),value should be 70-600 pound-inches.

NOTE: Run-on torque is the same as self-locking torque. Refer to SOPM 20-50-01 for more details.

(f) Measure the break-away torque as the bolt is removed. Make sure this torque is not less than 14 pound-inches for bolts (115, IPL Fig. 4) and not less than 70 pound-inches for bolts (335, 345, IPL Fig. 1).

(g) Examine the barrel nut for chipping or cracking of the "vespel" locking insert. Examine the insert retaining collar for signs of deformation and cracks.

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(h) Reject all barrel nuts which do not pass the above tests.

F. Do a check for scratches and gouges on the engine mount components listed in Fig. 501. Repair the damage, within repair limits, by the applicable repair section.

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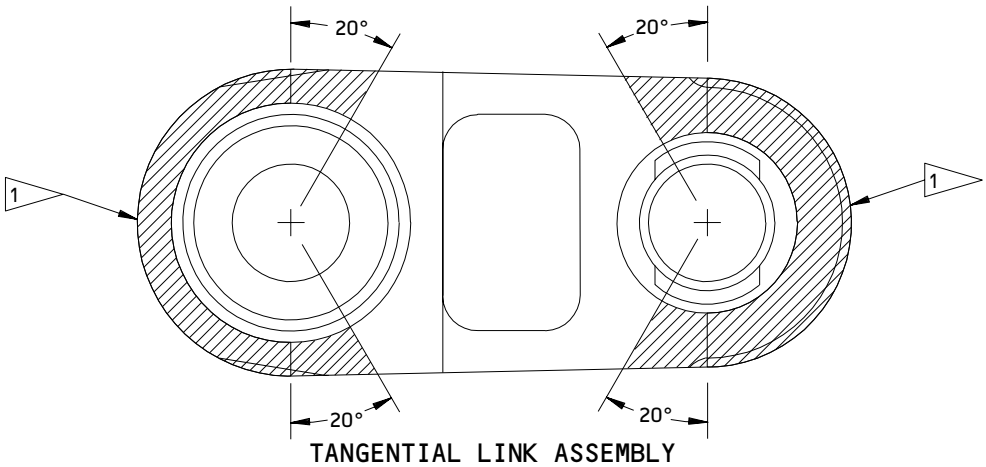
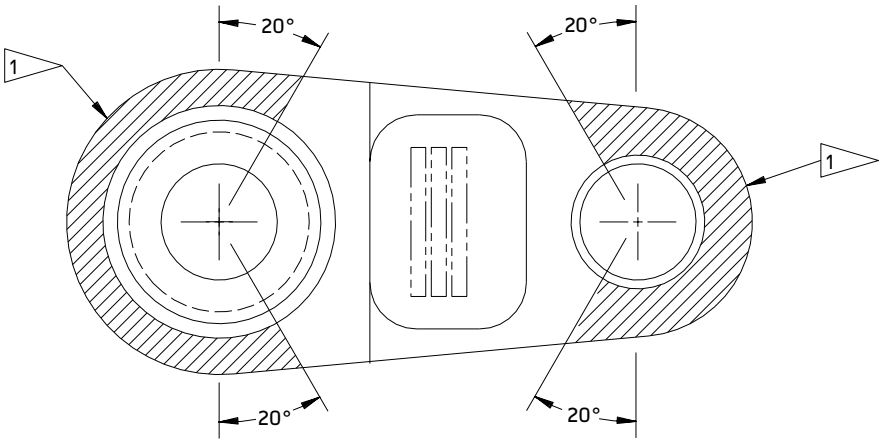
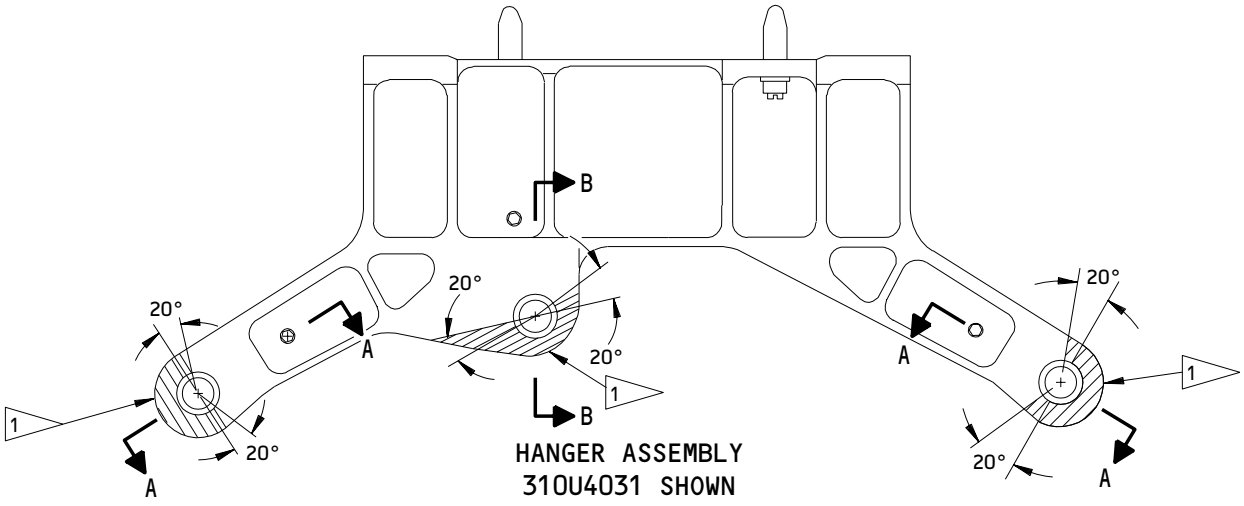


TANGENTIAL LINK ASSEMBLY
310T3032-1,-3



310T3032-5,-7,-9



HANGER ASSEMBLY
310U4031 SHOWN
310T4031 AND
310T4032 SIMILAR

Scratch and Gouge Check - Engine Mount Components
Figure 501 (Sheet 1)

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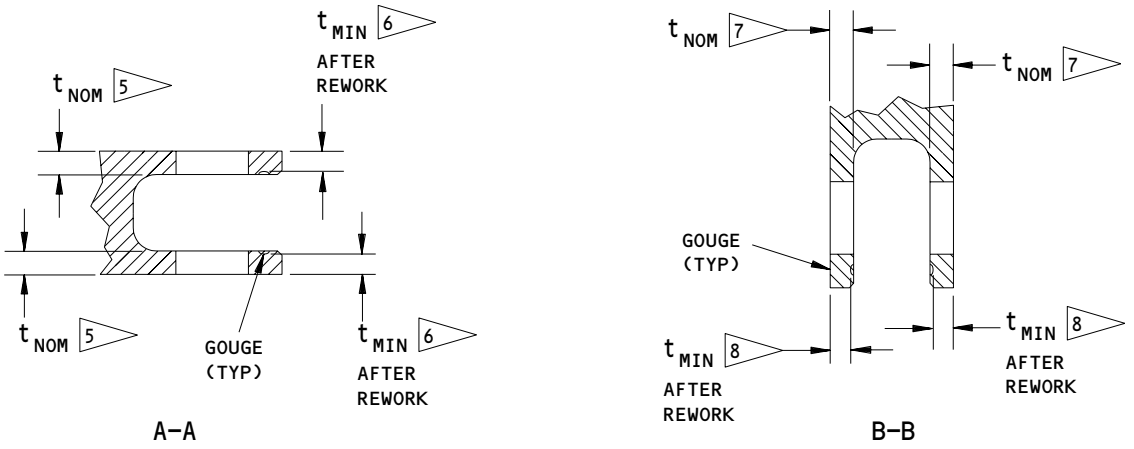
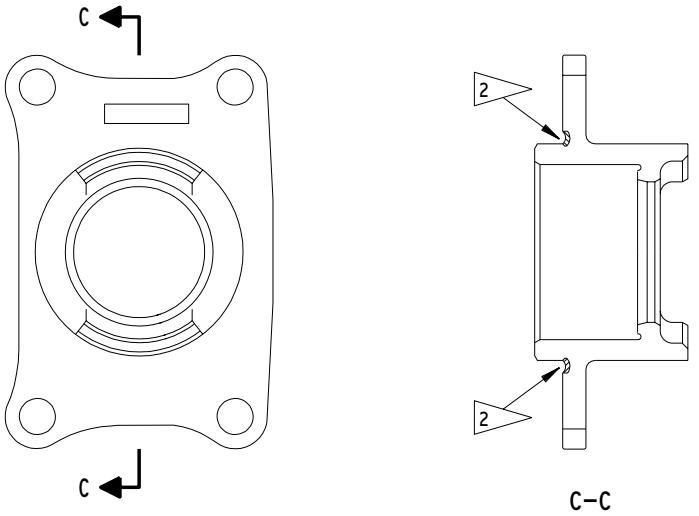


FITTING ASSEMBLY
310T4021



BEARING HOUSING
310T4025

Scratch and Gouge Check – Engine Mount Components
Figure 501 (Sheet 2)

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NOMENCLATURE	PART NUMBER	MAXIMUM REPAIRABLE GOUGE DEPTH (INCHES)	
		GENERAL 3	RESTRICTED 4
HANGER ASSEMBLY	310U4031	0.03	0.01
HANGER ASSEMBLY	310T4031	0.03	0.01
HANGER ASSEMBLY	310T4032	0.03	0.01
LINK ASSEMBLY – TANGENTIAL	310T3032-1,-3	0.03	0.005
LINK ASSEMBLY – TANGENTIAL	310T3032-5,-7,-9	0.03	--
LINK ASSEMBLY – CENTER	310T3033-1,-3,-5,-7	0.03	--
LINK ASSEMBLY – THRUST	310T4023-1,-3,-5,-7	0.05	--
BAR ASSEMBLY – EVENER	310T4022-1,-3	0.05	--
FITTING ASSEMBLY	310T4021	0.10	2
HOUSING – BEARING	310T4025	0.05	2

NOTE: SEE APPLICABLE REPAIR SECTION FOR REPAIR PROCEDURE.

1 RESTRICTED AREA. SEE 4 FOR MAXIMUM REPAIRABLE GOUGE DEPTH

2 NO SCRATCHES OR GOUGES PERMITTED IN AREAS SHOWN

3 MAXIMUM REPAIRABLE GOUGE DEPTH ALL OVER BUT NOT IN RESTRICTED AREAS SHOWN

4 MAXIMUM REPAIRABLE GOUGE DEPTH IN RESTRICTED AREAS SHOWN

5 t_{NOM} = 0.417 – 0.427 IS DESIGN DIMENSION OF LUG THICKNESS

6 t_{MIN} = 0.407 IS MINIMUM LUG THICKNESS AFTER BLEND REPAIR (TYP)

7 t_{NOM} = 0.495–0.505 IS DESIGN DIMENSION OF LUG THICKNESS

8 t_{MIN} = 0.450 IS MINIMUM LUG THICKNESS AFTER BLEND REPAIR (TYP)

Scratch and Gouge Check – Engine Mount Components
Figure 501 (Sheet 3)

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REPAIR - GENERAL

1. Content

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

P/N	NAME	REPAIR
310T4021	FITTING ASSY	1-1, 1-2
310T4022	EVENER BAR ASSY	2-1, 2-2
310T4023	THRUST LINK ASSY	3-1, 3-2
310T4025	BEARING HOUSING	4-1
310T4031	HANGER ASSY	5-1, 5-2
310T3032	TANGENTIAL LINK ASSY	6-1, 6-2
310T3033	CENTER LINK ASSY	7-1, 7-2
310U4031	HANGER ASSY	8-1, 8-2
310T3150	PIN	9-1
310T3152	BOLT	10-1
BACB30PN20-93	BOLT	10-1
- - -	MISCELLANEOUS PARTS REFINISH	11-1
310T3037	SHEAR PIN	12-1
310T4038	SHEAR PIN	13-1
310T4032	HANGER ASSY	14-1, 14-2
310T4012	HINGE PIN	15-1

2. Standard Practices

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

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20-10-01 Repair and Refinish of High Strength Steel Parts
20-20-01 Magnetic Particle Inspection
20-20-02 Penetrant Methods of Inspection
20-30-02 Stripping of Protective Finishes
20-41-01 Decoding Table for Boeing Finish Codes
20-50-03 Bearing and Bushing Replacement
20-50-13 Application of Protective Coatings
20-60-01 Cleaning Materials
20-60-02 Finishing Materials
20-60-04 Miscellaneous Materials

3. Material

NOTE: Equivalent substitutes can be used.

A. Protective Coating -- BMS 14-4, Type 1 (SOPM 20-60-02)

B. Protective Coating -- BMS 14-4, Type 2 (SOPM 20-60-02)

C. Sealant -- BMS 5-63 (SOPM 20-60-04)

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

E. Methyl Ethyl Ketone -- (SOPM 20-60-01)

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4. Dimensioning Symbols

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

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

EXAMPLES

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

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

True Position Dimensioning Symbols
Figure 601

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FITTING ASSEMBLY - REPAIR 1-1

310T4021-1, -7

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

1. Bushing Replacement

   A. Press out old bushings.

   B. Install new bushings per SOPM 20-50-03 using BMS 5-63 sealant.

   C. Machine ID of bushings and chamfer as shown in Fig. 601.

2. Shear Pin Hole Repair (Fig. 601, IPL Fig. 1)

   A. After shear pin hole has been oversized, install BACB28W20E085 bushing or equivalent by shrink-fit method using wet BMS 5-63 sealant per 20-50-03.

   B. Hone or grind ID of bushing to 1.2505-1.2495 inches with a surface roughness of 63 microinches and clean.

   C. Install shear pin (125B) and tighten nut (115A) to 630-950 lb-in. Check the fit of the new shear pin (125B) and make sure the neck of the pin does not make contact with the engine mount fitting (135) when rotated and orbited. If contact is made, drill or ream the smaller bore up to a maximum of 0.550 inch.

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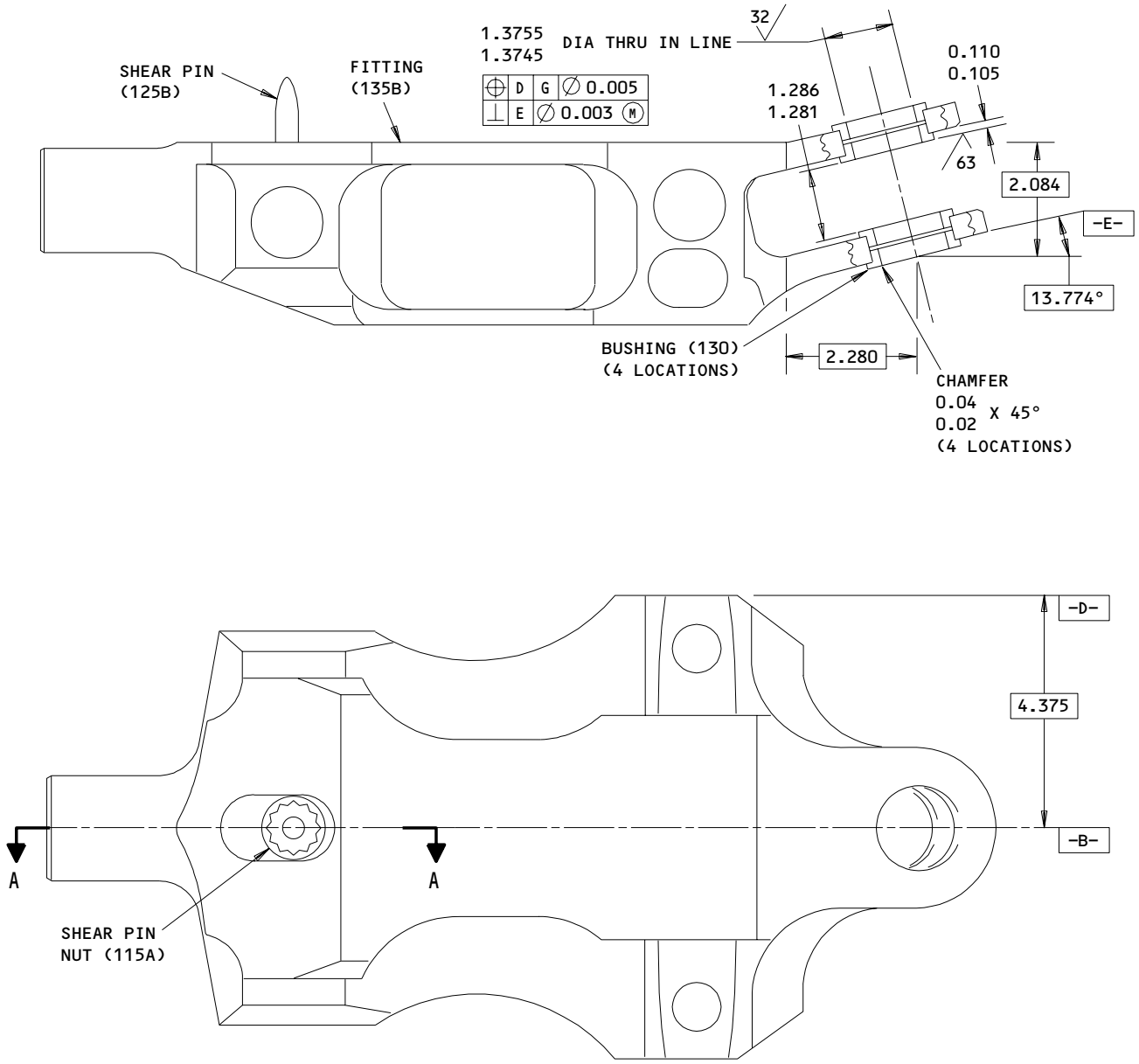

310T4021-1,-7
Bushing and Shear Pin Replacement
Figure 601 (Sheet 1)

265473

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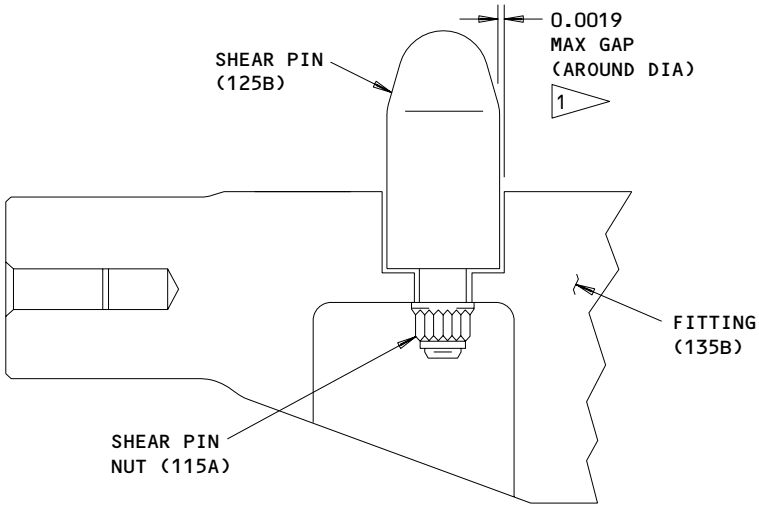
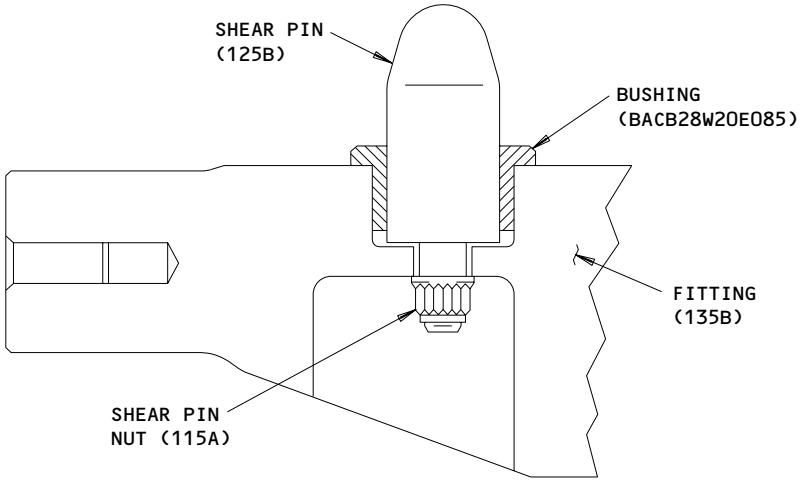


WITHOUT SHEAR PIN HOLE REPAIR
A-A



WITH SHEAR PIN HOLE REPAIR
A-A

REFINISH

PASSIVATE (F-17.09)

1 TWO HOLES CONCENTRIC TO COMMON AXIS WITHIN 0.001 FIM AND CONCENTRIC TO HOLE IN FITTING 0.005 FIM

125 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

ITEM NUMBERS REFER TO IPL FIG. 1

ALL DIMENSIONS ARE IN INCHES

310T4021-1,-7
Bushing and Shear Pin Replacement
Figure 601 (Sheet 2)

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FITTING - REPAIR 1-2

310T4021-2, -3, -4, -5, -6, -8

NOTE: Refer to REPAIR - GENERAL for applicable standard practices. If only the repair of the parts initial finish is necessary, refer to REFINISH instructions, Fig. 601.

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

   A. Machine hole as required up to repair limit to remove defects per Fig. 601.

   B. Shot peen.

   C. After shot peen, 0.002 inch maximum material may be removed to achieve required finish and dimensions.

   D. Manufacture bushing (Fig. 602) as required to compensate for material removed in step A.

   E. Install bushings per REPAIR 1-1.

2. Journal Repair (Fig. 601, IPL Fig. 1)

   A. Remove existing thin dense chrome plate per 20-30-02.

   B. Machine fitting to remove possible corrosion down to repair limit to restore journal to 0.0004 cylindricity and 0.005 diameter true position location per 20-10-02, 20-10-01.

   C. Shot peen machined surfaces per 20-10-03.

   D. If fitting does not require machining to restore cylindricity and true positioning, replate with thin dense chrome plate (F-14.892) per 20-42-03. Thin dense chrome plate allowable thickness is 0.0002-0.0007 inch. Thin dense chrome plate must achieve dimensions without grinding.

   E. If material removed in step 2.B. exceeds the thickness of the thin dense chrome plate, apply hard chrome plate (F-15.03) per 20-42-03 to achieve design dimension after plating and grinding. Allow 0.080-inch chrome plate runout. Hard chrome plate allowable thickness is 0.003-0.012 inch. Grind hard chrome plate per 20-10-04.

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3. Shear Pin Hole Repair (Fig. 601, IPL Fig. 1)

   A. Counterbore shear pin hole in fitting (135) to 1.4380-1.4375-inch diameter to a depth of 0.92 inch with fillet radius of 0.060-0.040 inch and surface roughness of 63 microinches. Clean hole, deburr and penetrant inspect. Maximum offset between centerlines of large bore and small bore at bottom of hole is 0.0100 inch. Install shear pin per Repair 1-1.

4. Scratch and Gouge Repair

   NOTE: See Fig. 501 for maximum repairable gouge depth all over and in restricted areas.

   A. Blend out scratches and gouges to 1.00-inch minimum radius.

   B. Shot peen blended area per 20-10-03.

   C. Refinish per Fig. 601.

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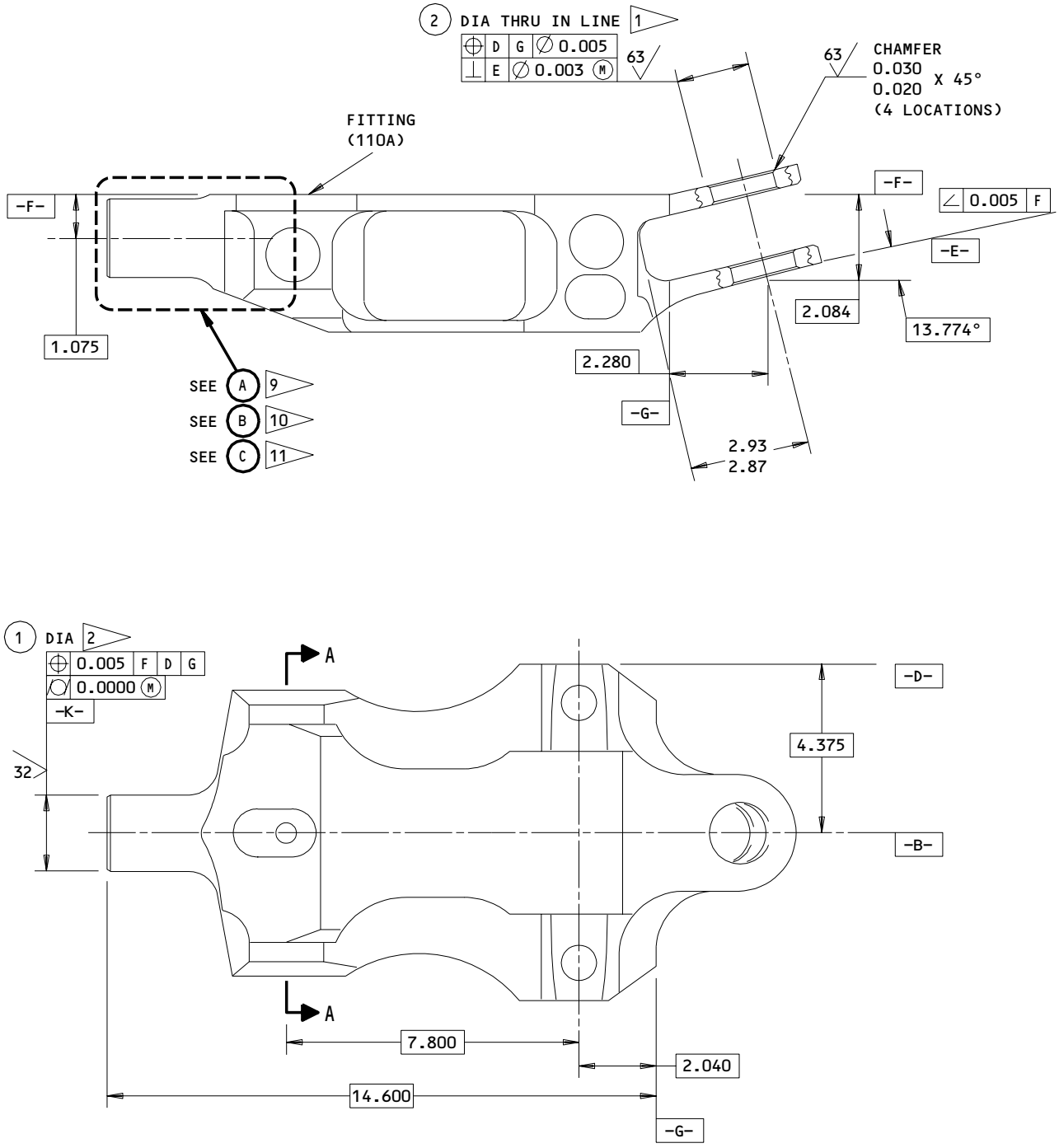

310T4021-2,-3,-4,-5,-6,-8
Fitting Repair
Figure 601 (Sheet 1)

817383

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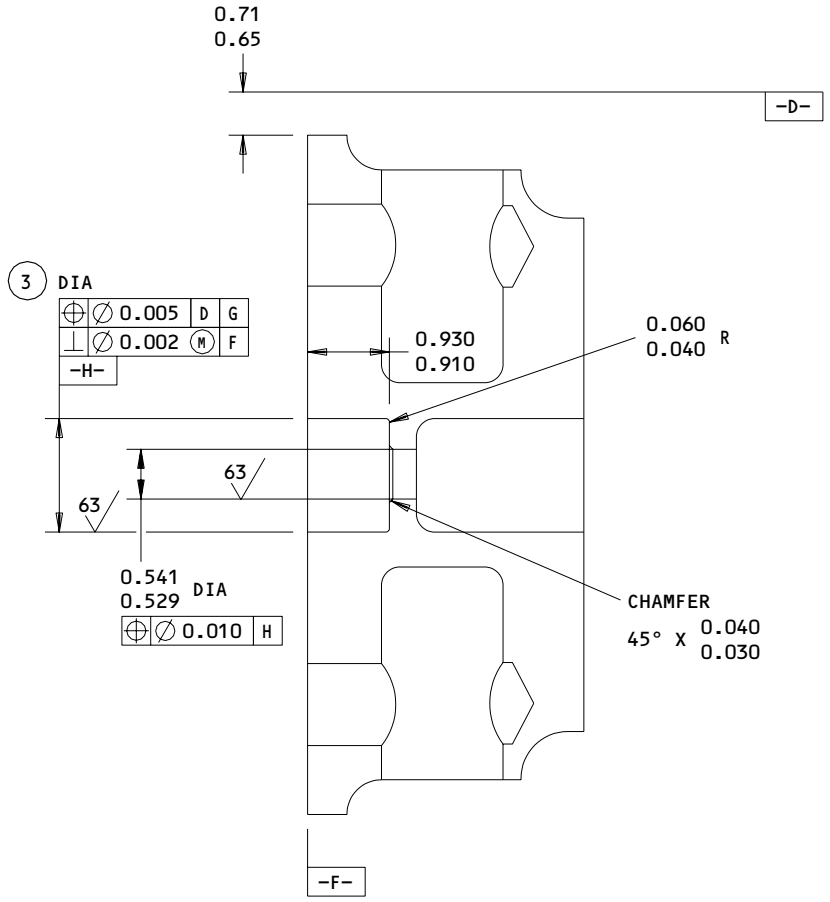

A-A

310T4021-2,-3,-4,-5,-6,-8
Fitting Repair
Figure 601 (Sheet 2)

A32330

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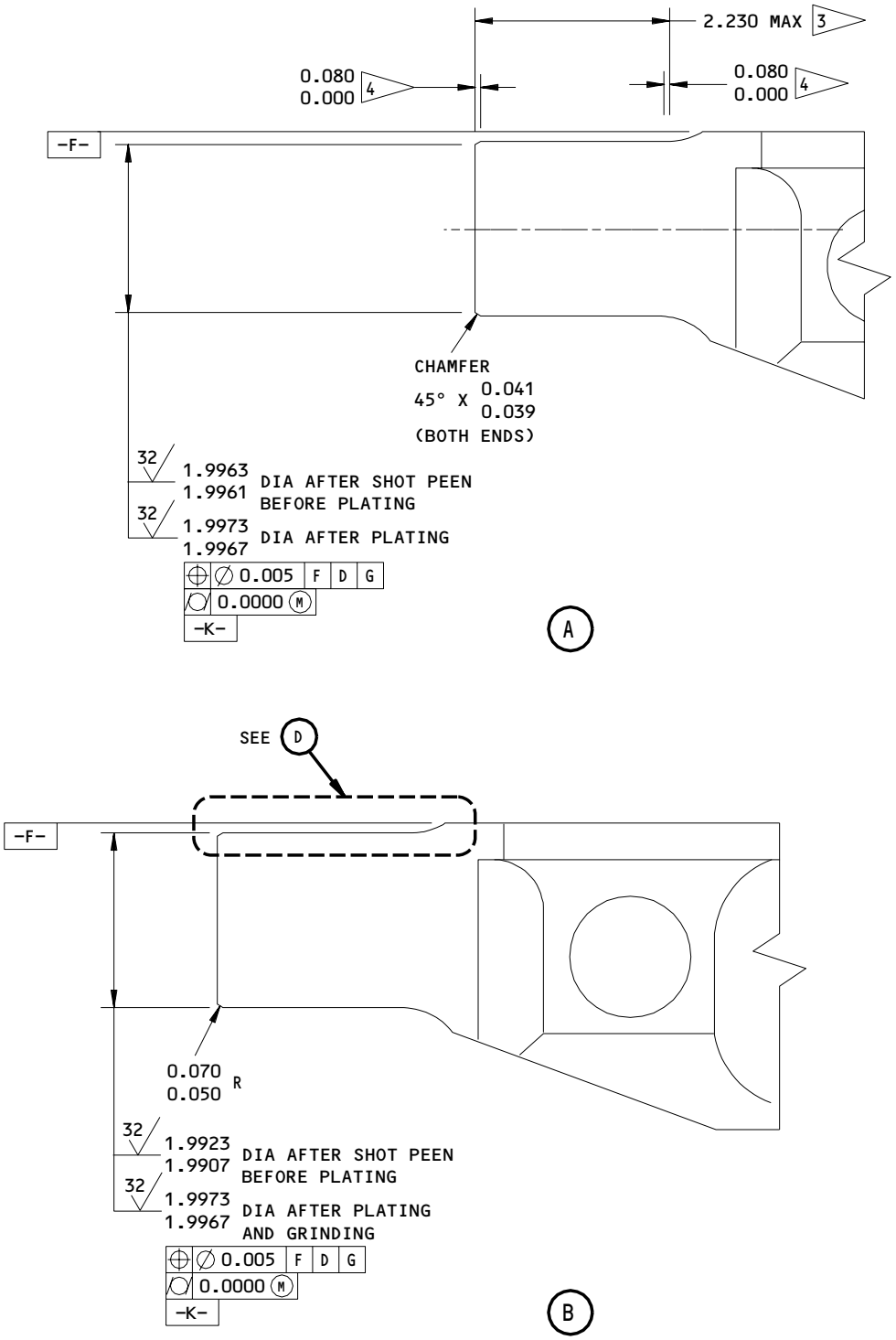

310T4021-2,-3,-4,-5,-6,-8
Fitting Repair
Figure 601 (Sheet 3)

817391

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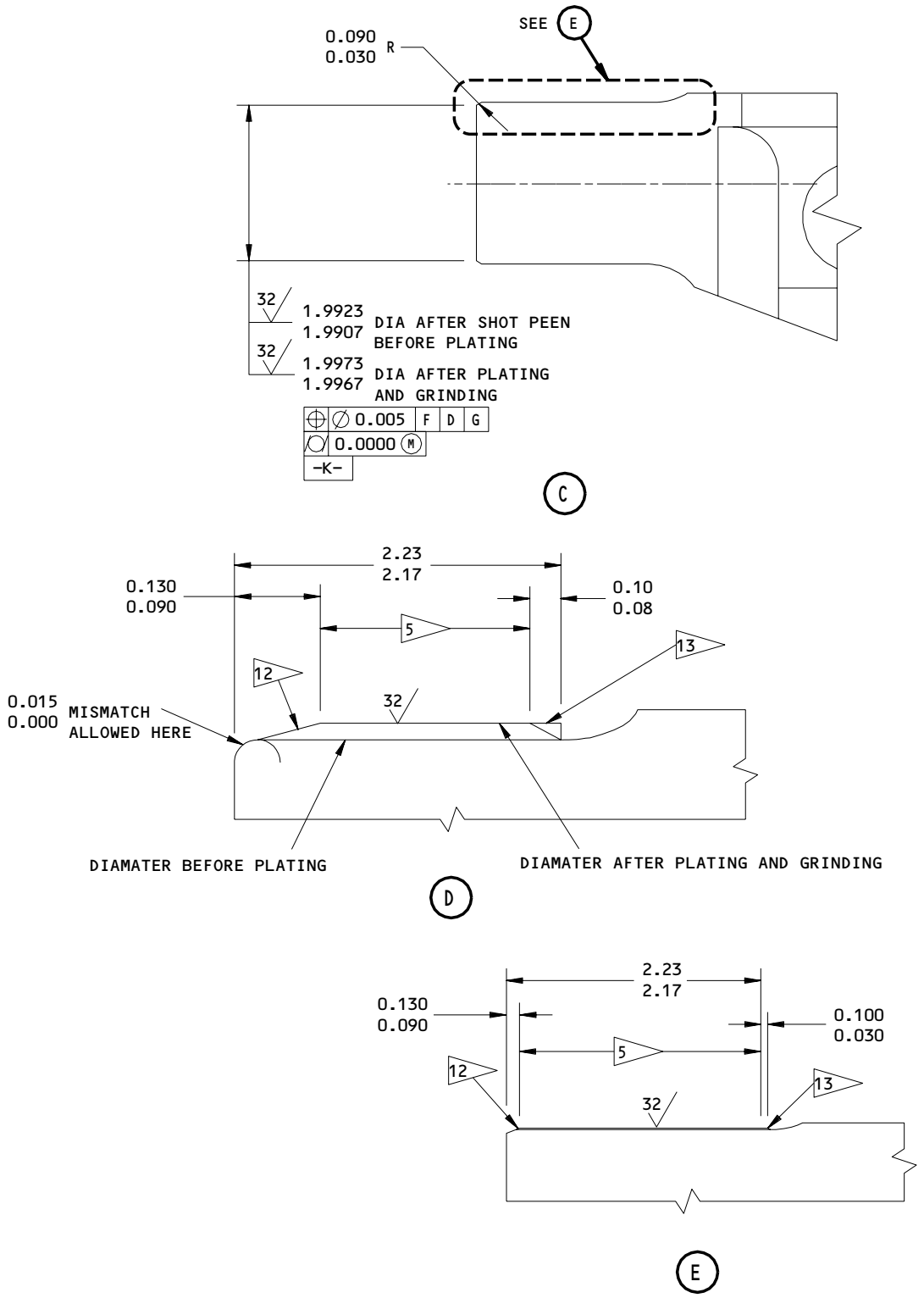

310T4021-2,-3,-4,-5,-6,-8
Fitting Repair
Figure 601 (Sheet 4)

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	(1)	(2)	(3)
DESIGN DIM	1.9973 1.9967	1.5633 1.5625	1.2505 1.2495
REPAIR LIMIT	1.9713 ▷6	1.6233 ▷7	1.4380 1.4375 ▷8

REFINISH

PASSIVATE (F-17.09)

▷1 DIMENSION AFTER SHOT PEEN.

▷2 PLATE DIAMETER TO SIZE AS SHOWN IN ▷3 ▷4 ▷5

▷3 THIN DENSE CHROME PLATE (F-14.892) (THICKNESS 0.0002-0.0007 INCH) AS SHOWN IN SOPM 20-42-03 TO DESIGN DIMENSION. DO NOT GRIND AFTER PLATING. HONE USING 600 GRIT PAPER

▷4 CHROME PLATE RUNOUT AREA

▷5 THICK CHROME PLATE (F-15.03) THIS AREA. CHROME PLATE THICKNESS 0.0030-0.0120 INCH AFTER GRINDING

▷6 REPAIR LIMIT FOR REPAIR BY THICK CHROME PLATE BUILDUP

▷7 REPAIR LIMIT FOR REPAIR BY INSTALLATION OF OVERSIZE BUSHING

▷8 REAM HOLE TO THIS DIAMETER TO REPAIR BY INSTALLATION OF BUSHING BACB28W20E085

▷9 310T4021-2,-3

▷10 310T4021-4,-5

▷11 310T4021-6,-8

▷12 PLATING RUNOUT TAPER 63 MICROINCHES OR BETTER

▷13 PLATING RUNOUT - EDGE OR TAPER THIS END ONLY, 63 MICROINCHES ON TAPER OR BETTER

REPAIR

125 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

MATERIAL: 15-5PH CRES BAR OR FORGED BLOCK, AMS 5659 SOLUTION TREATED. HT TR 180-200 KSI

MAGNETIC PARTICLE INSPECT AS SHOWN IN SOPM 20-20-01, CLASS A CRITICAL

SHOT PEEN ALL OVER INCLUDING HOLES AS SHOWN IN SOPM 20-10-03:
- SHOT NUMBER: 170-330
- INTENSITY: 0.016A
- COVERAGE: 2.0

ITEM NUMBERS REFER TO IPL FIG. 1

ALL DIMENSIONS ARE IN INCHES

310T4021-2,-3,-4,-5,-6,-8
Fitting Repair
Figure 601 (Sheet 5)

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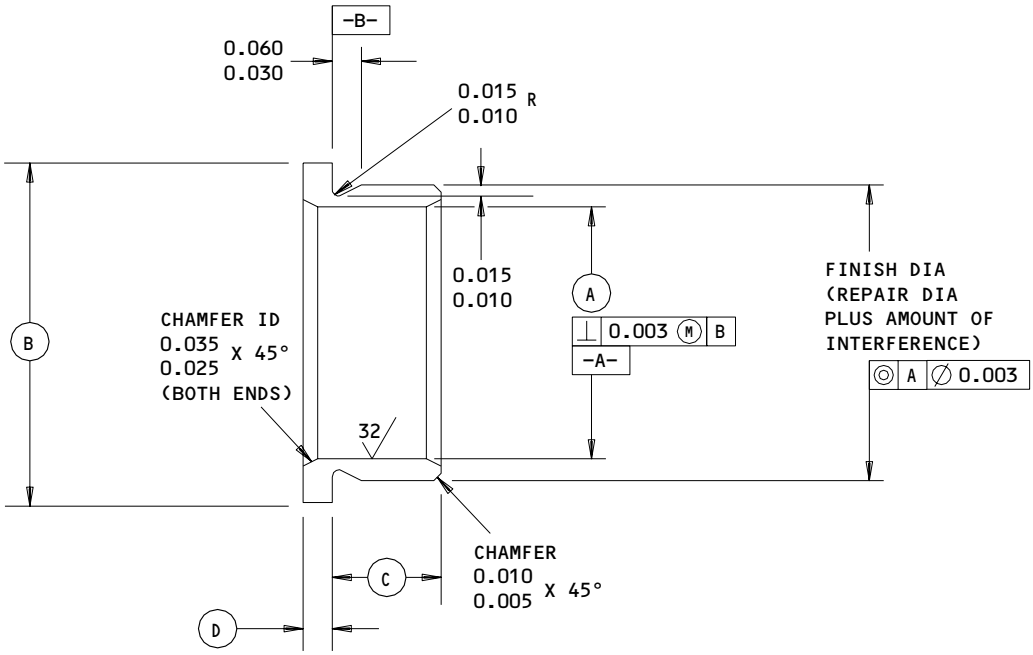

HOLE LOCATION (FIG. 601)	A	B	C	D	INTERFERENCE
7 2	1.3755 1.3745	1.850 1.830	0.253 0.248	0.110 0.105 1	0.0027 0.0010

FINISH

PASSIVATE (F-17.09) ALL OVER.

1 THIS DIMENSION IS NET - ALLOW 0.01-0.015 INCH EXCESS FOR MACHINING OF FLANGE FACE AFTER INSTALLATION OF BUSHING

2 REPLACES BUSHING (IPL FIG. 1; 130) 302T0200-2

63 MACHINED SURFACES EXCEPT AS NOTED

BREAK SHARP EDGES

MATERIAL: 15-5PH CRES PER AMS 5659

HEAT TREAT 180-200 KSI

MAGNETIC PARTICLE CHECK

ALL DIMENSIONS ARE IN INCHES

310T4021-2,-3,-4,-5
Oversize Bushing Detail
Figure 602

A32449

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EVENER BAR ASSEMBLY - REPAIR 2-1

310T4022-1, -3

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

1. Bushing Replacement (Fig. 601)

   A. Remove old bushings and install new bushings using shrink-fit method.

   B. Machine ID and flange face of bushings to dimension and finish shown.

2. Bearing Replacement (Fig. 601)

   A. Install bearing using wet BMS 5-63 sealant and roller swage per 20-50-03.

   B. Push out load test per 20-50-03. Push out load 2335 pounds.

   C. Install balls and hold in place with aluminum wire until unit is installed.

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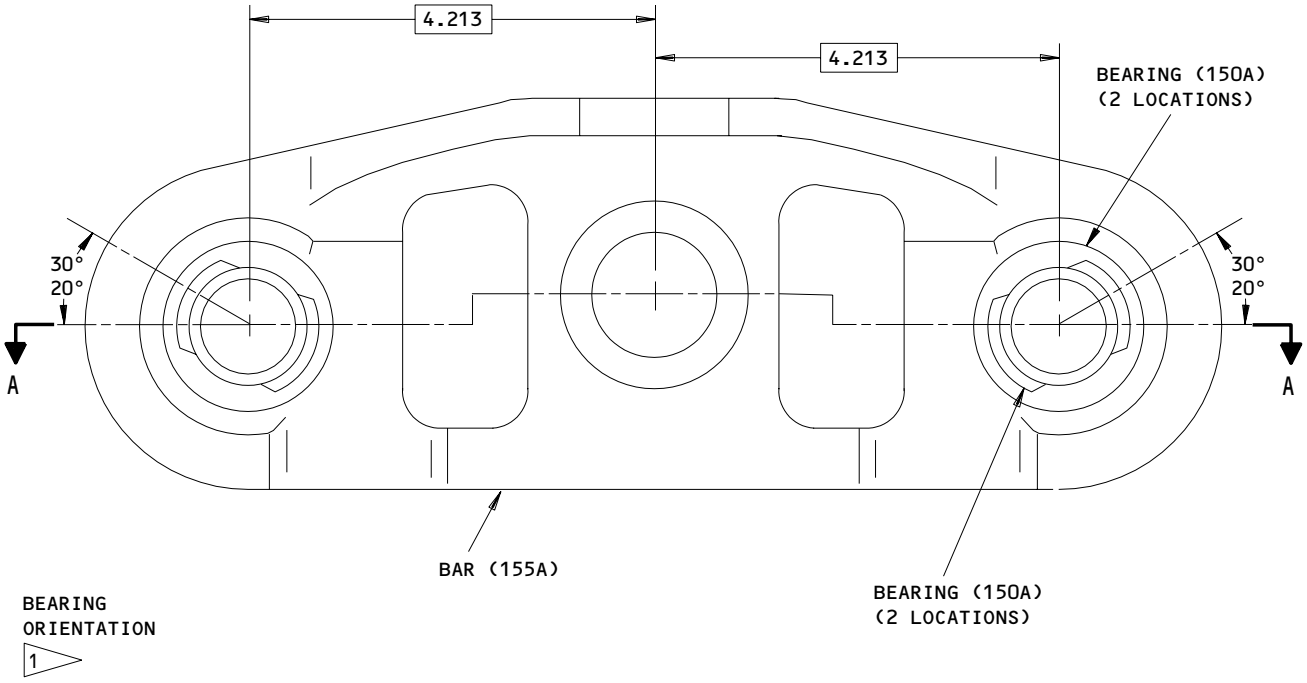

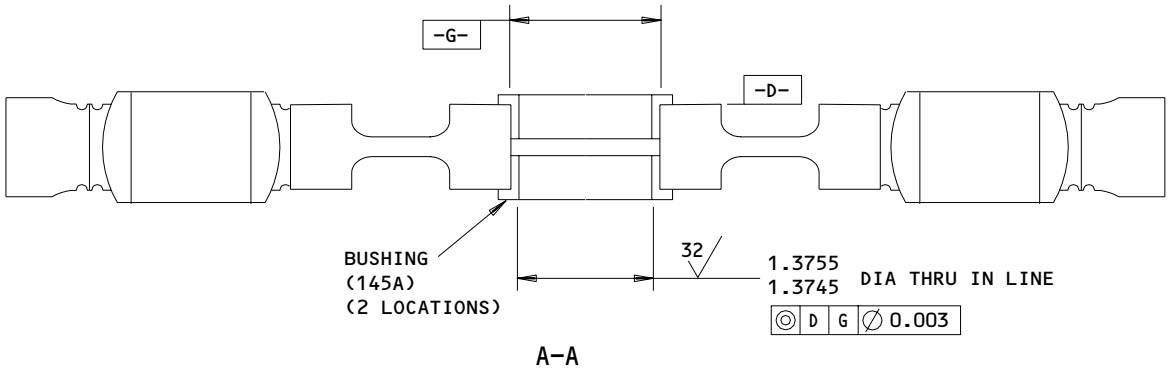

A-A

1 BEARING SLOT ORIENTATION SHOWN IS FOR INSTALLATION OF REPLACEMENT BEARINGS. IF THE BEARING IS OTHERWISE SERVICEABLE, DO NOT REPLACE SOLELY BECAUSE THE SLOT IS MISORIENTED.

125 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

ALL DIMENSIONS ARE IN INCHES

ITEM NUMBERS REFER TO IPL FIG. 1

310T4022-1,-3
Parts Replacement and Bar Refinish
Figure 601

265474

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EVENER BAR - REPAIR 2-2

310T4022-2, -4

NOTE: Refer to REPAIR - GENERAL for applicable standard practices. If only the repair of the parts initial finish is necessary, refer to REFINISH instructions, Fig. 601.

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

   A. Machine holes as required up to repair limit to remove defects per Fig. 601.

   B. Shot peen

   C. After shot peen, 0.002 inch maximum material may be removed to achieve required finish and dimensions.

   D. Manufacture oversize bushing as required per Fig. 602 to compensate for removal of material in step 1.A.

   E. Install bushings per REPAIR 2-1.

2. Bearing Hole Repair (Fig. 601, IPL Fig. 1)

   A. Machine holes as required to remove defects to the nearest hole diameter for oversize bearing outer diameter per Fig. 601.

   B. Machine 45° chamfers on both sides of the hole to the 0.055 to 0.045 inch size required for swaging the outer race of the bearing.

   C. Shot peen the machined hole.

   D. Install the oversize bearing per REPAIR 2-1.

3. Scratch and Gouge Repair

   NOTE: See Fig. 501 for maximum repairable gouge depth all over and in restricted areas.

   A. Blend out scratches and gouges to 1.00-inch maximum radius.

   B. Shot peen blended area per 20-10-03.

   C. Refinish per Fig. 601.

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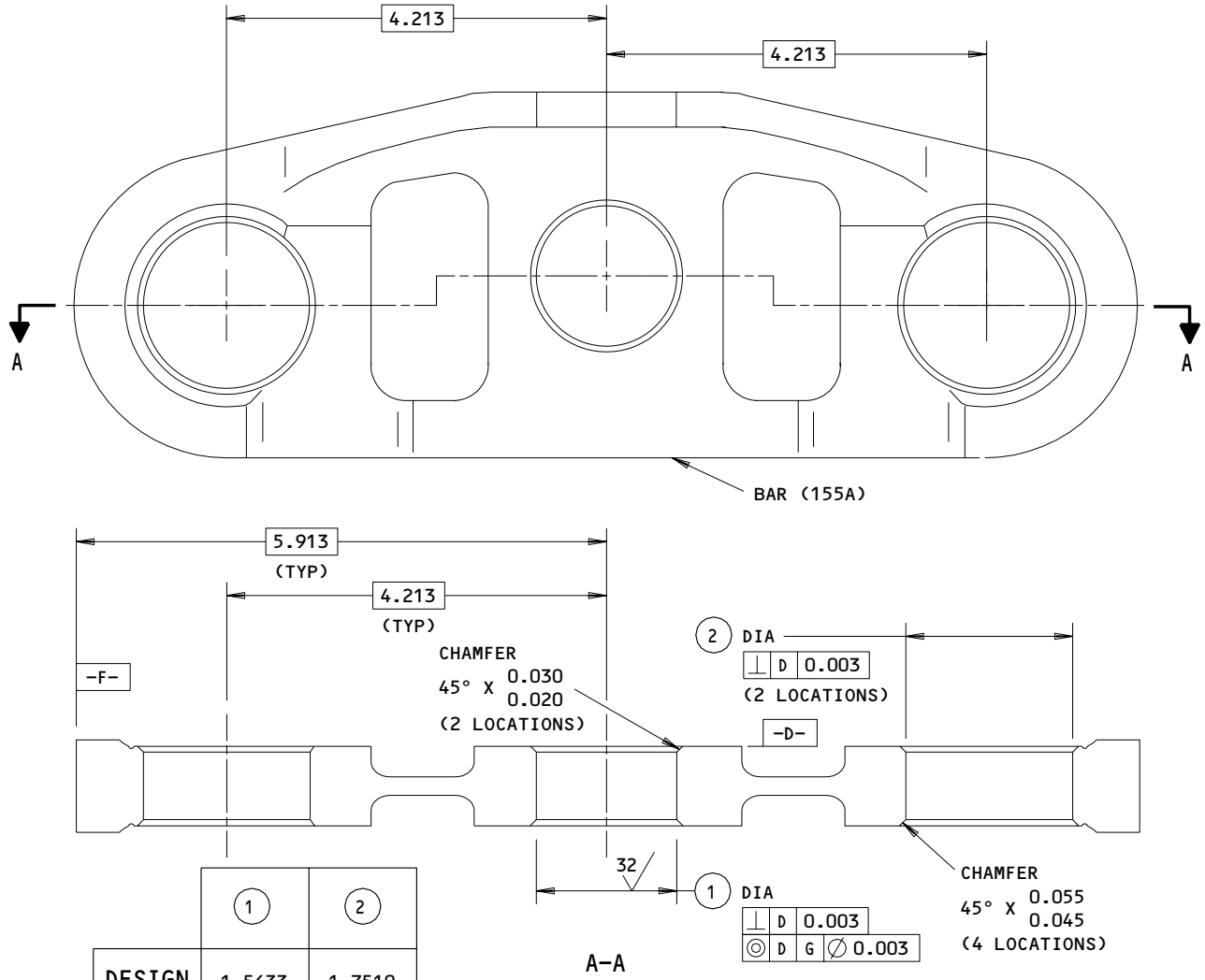

	1	2
DESIGN DIM	1.5633 1.5625	1.7510 1.7500
REPAIR LIMIT	1.6233 1	2

REFINISH

PASSIVATE (F-17.09) BUT NOT ON FINISH ON THE BEARINGS.

1 MAXIMUM DIAMETER FOR REPAIR BY INSTALLATION OF REPAIR BUSHING.

2 SEE OVERSIZE BEARING INFORMATION IN FIGURE 601, SHEET 2.

REPAIR

125 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

MATERIAL: 15-5PH CRES BAR OR FORGED BLOCK, AMS 5659 SOLUTION TREATED. HT TR 180-200 KSI

MAGNETIC PARTICLE CHECK AS SHOWN IN SOPM 20-20-01, CLASS A CRITICAL

SHOT PEEN ALL OVER INCLUDING HOLES AS SHOWN IN SOPM 20-10-03:
SHOT NUMBER: 170-300
INTENSITY: 0.016A
COVERAGE: 2.0

ITEM NUMBERS REFER TO IPL FIG. 1

ALL DIMENSIONS ARE IN INCHES

310T4022-2,-4
Evener Bar Repair
Figure 601 (Sheet 1)

A33268

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OVERSIZE BEARING INFORMATION			
HOLE DIAMETER IN BAR	OVERSIZE BEARING OUTER DIAMETER	VALLEY TODECO PART NUMBER	PSI BEARING PART NUMBER
1.7560 1.7550	1.7550 1.7545	VTB10200P05	P26700P05
1.7610 1.7600	1.7600 1.7595	VTB10200P10	P26700P10
1.7710 1.7700	1.7700 1.7695	VTB10200P20	P26700P20
1.7810 1.7800	1.7800 1.7795	VTB10200P30	P26700P30
1.8110 1.8100	1.8100 1.8095	VTB10200P60	P26700P60

310T4022-2,-4
Evener Bar Repair
Figure 601 (Sheet 2)

E19726

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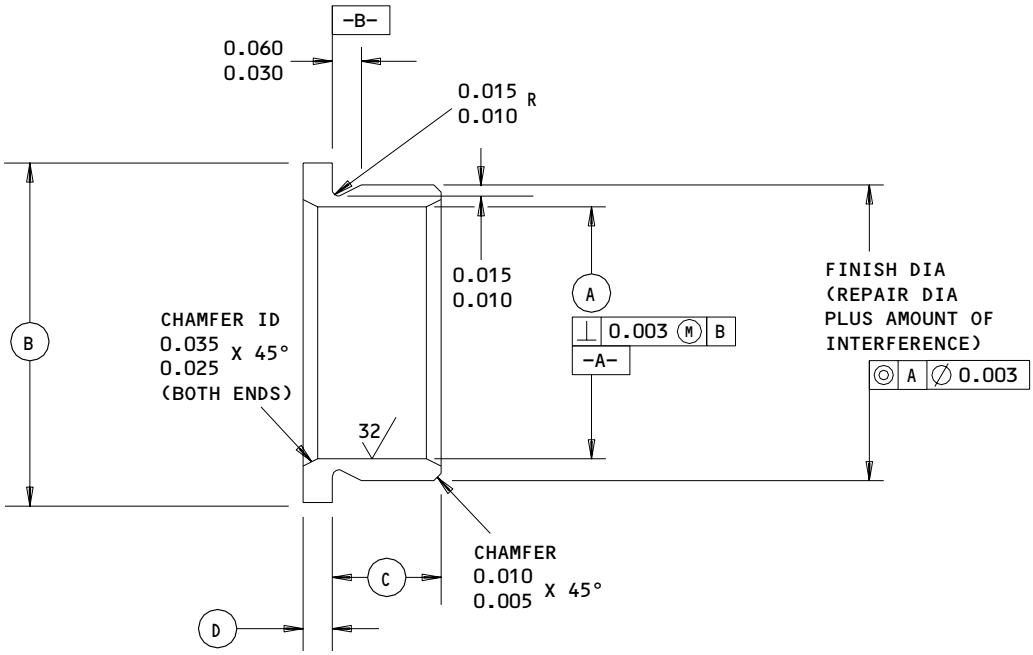

HOLE LOCATION (FIG. 601)	A	B	C	D	INTERFERENCE
1 1	1.371 1.366	1.850 1.830	0.460 0.450	0.111 0.106	0.0027 0.0010

FINISH

PASSIVATE (F-17.09) ALL OVER.

1 REPLACES BUSHING (145A, FIG. 1)
302T0200-137

63 MACHINED SURFACES EXCEPT AS NOTED

BREAK SHARP EDGES

MATERIAL: 15-5PH CRES PER AMS 5659

HEAT TREAT 180-200 KSI

MAGNETIC PARTICLE CHECK

ALL DIMENSIONS ARE IN INCHES

310T4022-2,-4
Oversize Bushing Detail
Figure 602

A33289

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THRUST LINK ASSEMBLY - REPAIR 3-1

310T4023-1, -3, -5, -7

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

1. Bushing Replacement (Fig. 601)

   A. Remove old bushings and install new bushings with wet sealant using shrink-fit method.

   B. Machine ID of bushings to dimension and finish shown.

2. Bearing Replacement (Fig. 601)

   A. Install bearing using wet BMS 5-63 sealant and roller swage per 20-50-03.

   B. Push out load test per 20-50-03. Push out load 2335 pounds.

   C. Install ball and hold in place with aluminum wire until unit is installed.

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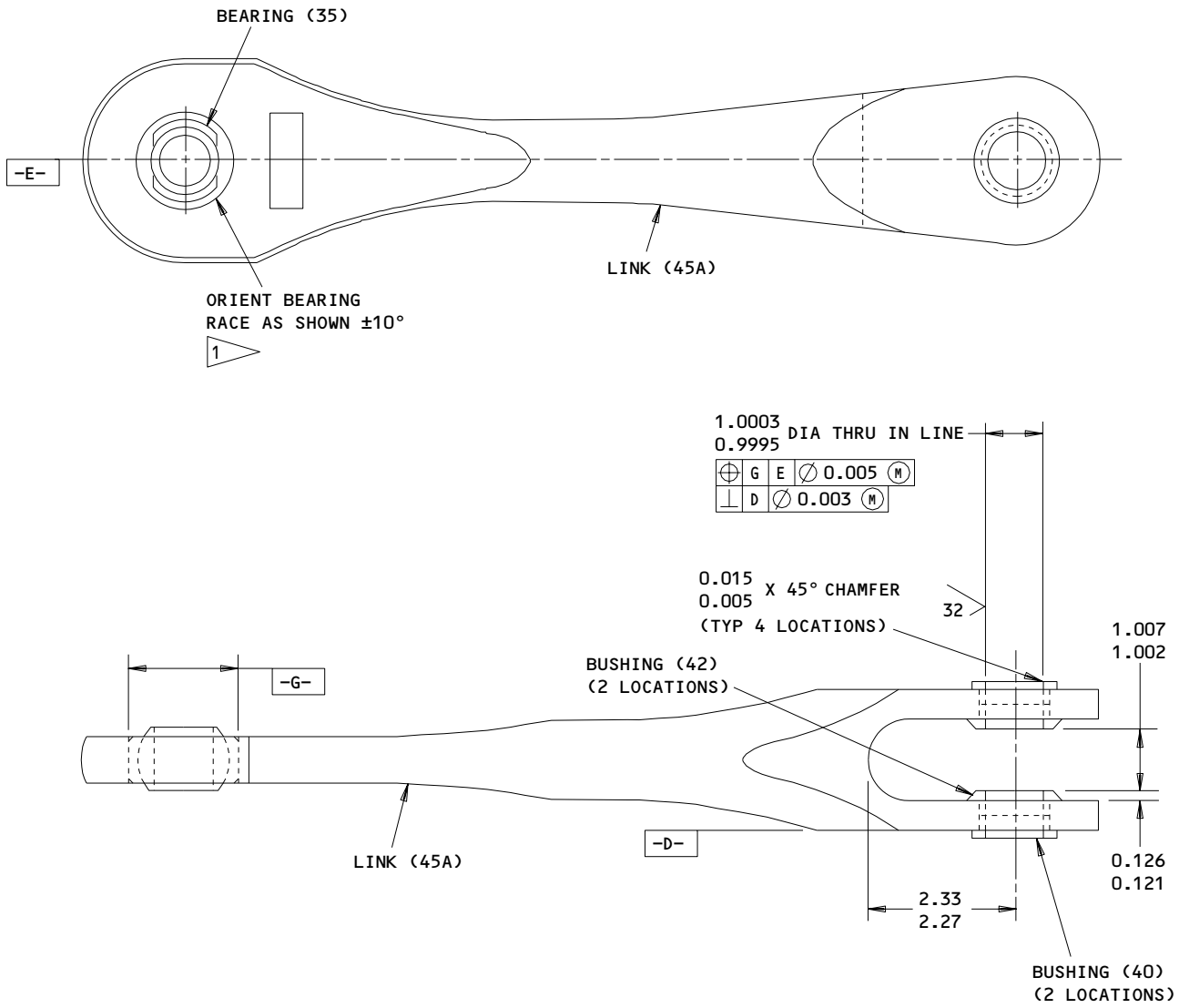

1 BEARING SLOT ORIENTATION SHOWN IS FOR INSTALLATION OF REPLACEMENT BEARINGS. IF THE BEARING IS OTHERWISE SERVICEABLE, DO NOT REPLACE SOLELY BECAUSE THE SLOT IS MISORIENTED.

125 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

BREAK SHARP EDGES 0.03–0.04 R

BREAK HOLE EDGES 0.02–0.03 R AT 32

ALL DIMENSIONS ARE IN INCHES

ITEM NUMBERS REFER TO IPL FIG. 1

310T4023-1,-3,-5,-7

Bushing and Bearing Replacement
Figure 601

265475

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THRUST LINK - REPAIR 3-2

310T4023-2, -4, -6, -8

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

1. Bushing Repair (Fig. 601)

   A. Machine holes as required to remove defects per Fig. 601.

   B. Shot Peen

   C. After shot peen, 0.002 inch maximum material may be removed to achieve the required finish and dimensions.

   D. Manufacture oversized bushing as required per Fig. 602 to compensate for removal of material in step 1.A.

   E. Install bushing per REPAIR 3-1.

2. Bearing Hole Repair (Fig. 601)

   A. Machine holes as required to remove defects to the nearest hole diameter for oversize bearing outer diameter per Fig. 601.

   B. Machine 45° chamfers on both sides of the hole to the 0.055 to 0.045 inch size required for swaging the outer race of the bearing.

   C. Shot peen the machined hole.

   D. Install the oversize bearing per REPAIR 3-1.

3. Scratch and Gouge Repair

   NOTE: See Fig. 501 for maximum repairable gouge depth all over and in restricted areas.

   A. Blend out scratches and gouges to 1.00-inch minimum radius.

   B. Shot peen blended area per 20-10-03.

   C. Refinish per Fig. 601.

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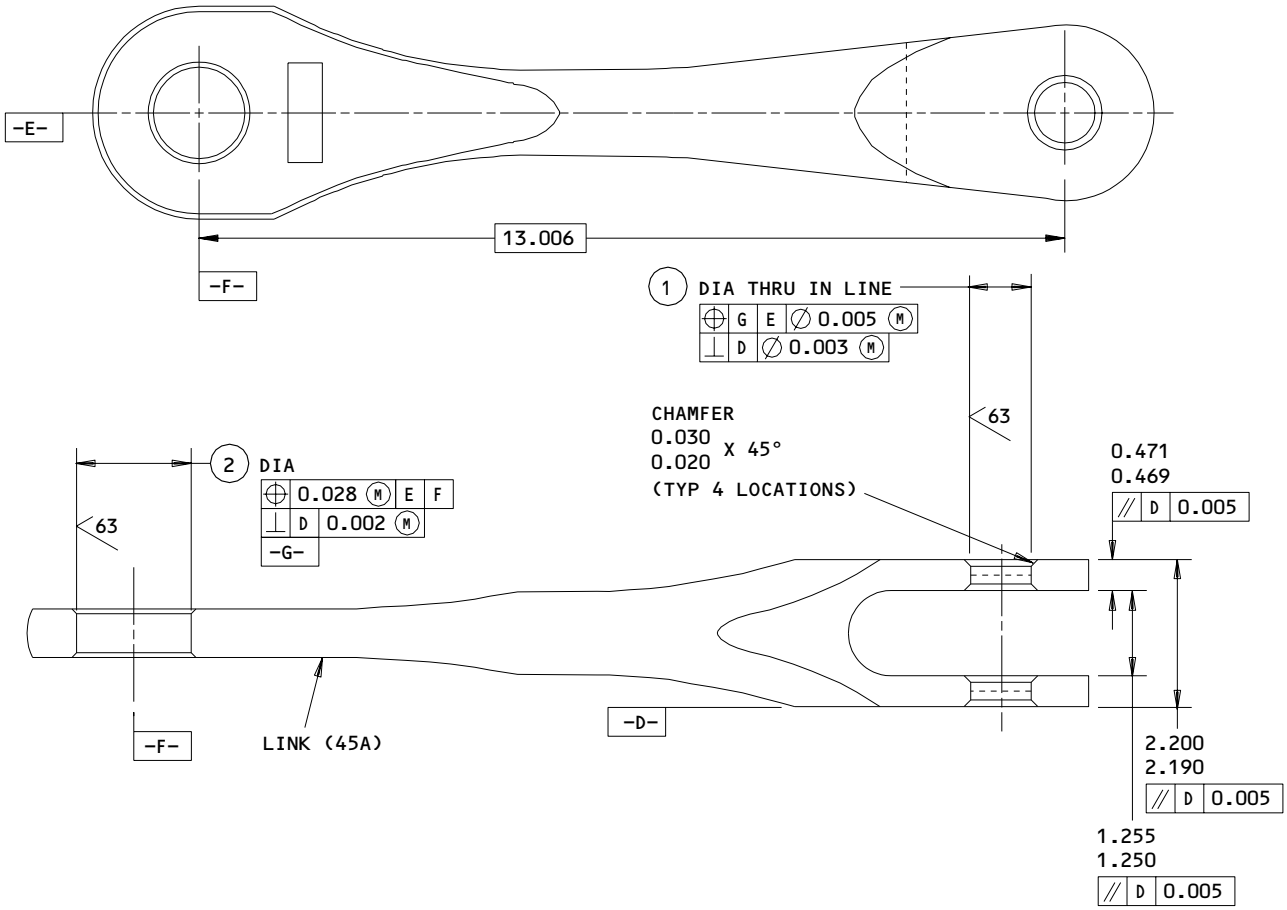

	1	2
DESIGN DIM	1.1882 1.1875	1.7510 1.7500
REPAIR LIMIT	1.2482 1	2

310T4023-2,-4,-6,-8
Thrust Link Repair
Figure 601 (Sheet 1)

A33524

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OVERSIZE BEARING INFORMATION			
HOLE DIAMETER IN LINK	OVERSIZE BEARING OUTER DIAMETER	VALLEY TODECO PART NUMBER	PSI BEARING PART NUMBER
1.7560 1.7550	1.7550 1.7545	VTB0426OP05	P2054OP05
1.7610 1.7600	1.7600 1.7595	VTB0426OP10	P2054OP10
1.7710 1.7700	1.7700 1.7695	VTB0426OP20	P2054OP20
1.7810 1.7800	1.7800 1.7795	VTB0426OP30	P2054OP30
1.8110 1.8100	1.8100 1.8095	VTB0426OP60	P2054OP60

REFINISH

PASSIVATE (F-17.09) BUT NO FINISH ON THE BEARING

1 REPAIR LIMIT FOR REPAIR BY OVERSIZE BUSHING

2 SEE OVERSIZE BEARING INFORMATION IN FIGURE 601, SHEET 2

REPAIR

125 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

BREAK SHARP EDGES 0.03-0.04 R

BREAK HOLE EDGES 0.02-0.03 R AT 32

MATERIAL: 15-5PH CRES BAR OR FORGED BLOCK, AMS 5659 SOLUTION TREATED. HT TR 180-200 KSI

MAGNETIC PARTICLE CHECK, AS SHOWN IN SOPM 20-20-01, CLASS A CRITICAL

SHOT PEEN ALL OVER INCLUDING HOLES AS SHOWN IN SOPM 20-10-03:
SHOT NUMBER: 170-300
INTENSITY: 0.016A
COVERAGE: 2.0

ITEM NUMBERS REFER TO IPL FIG. 1

ALL DIMENSIONS ARE IN INCHES

310T4023-2,-4,-6,-8
Thrust Link Repair
Figure 601 (Sheet 2)

E19733

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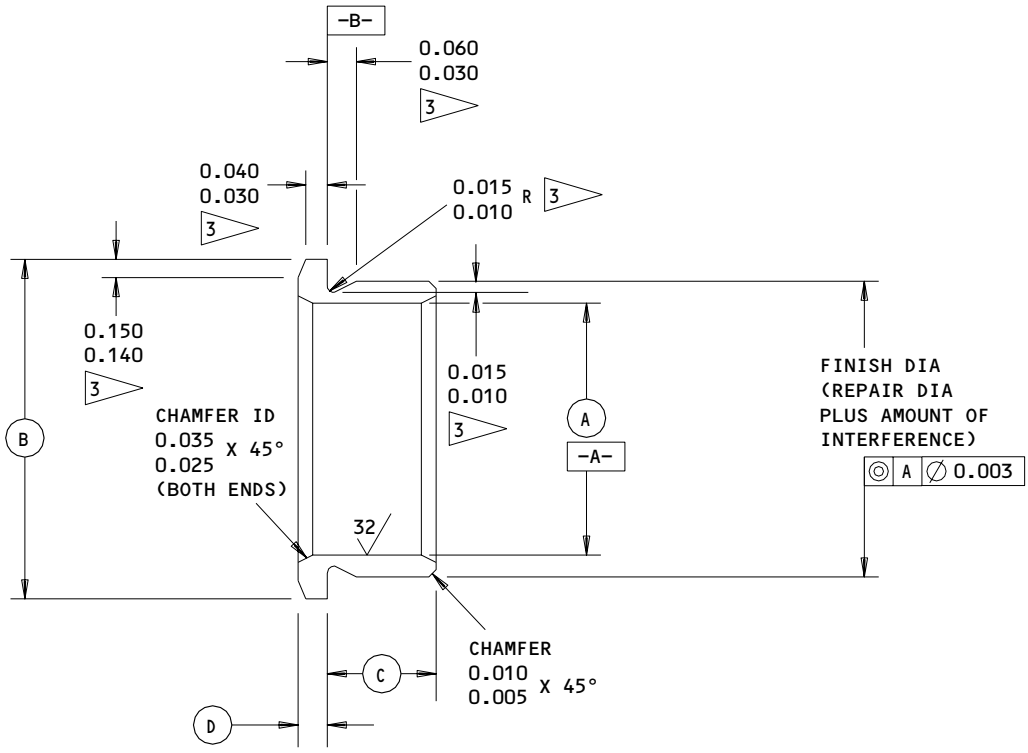

HOLE LOCATION (FIG. 601)	A	B	C	D	INTERFERENCE
1 / 1	1.0003 0.9995	1.410 1.390	0.198 0.193	0.115 0.110	0.0023 0.0008
1 / 2	1.0003 0.9995	1.570 1.550	0.252 0.247	0.126 0.121	0.0023 0.0008

FINISH

PASSIVATE (F-17.09) ALL OVER.

1 REPLACES BUSHING (IPL FIG. 1; 40)
302T0200-1

2 REPLACES BUSHING (IPL FIG. 1; 42)
302T0200-136

3 BUSHING (IPL FIG. 1; 42)
302T0200-136 ONLY

63 MACHINED SURFACES EXCEPT AS NOTED

BREAK SHARP EDGES

MATERIAL: 15-5PH CRES PER AMS 5659

HEAT TREAT 180-200 KSI

MAGNETIC PARTICLE CHECK

ALL DIMENSIONS ARE IN INCHES

310T4023-2,-4,-6,-8
Oversize Bushing Detail
Figure 602

A33635

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BEARING HOUSING - REPAIR 4-1

310T4025-2

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

1. Bearing Replacement (Fig. 601)

   A. Install bearing (70) per 20-50-03 using shrink-fit method except no installation protective finish required. After installation fillet, seal outer diameter of race and housing (75A) using BMS 10-11, Type I primer. Orient bearing race as shown. Optional method - Install bearing (70) per 20-50-03 using shrink-fit method with wet BMS 10-11, Type I primer on inside diameter of housing (75A). Orient bearing race as shown.

   B. Install ball and hold in place with aluminum wire until unit is installed.

2. Scratch and Gouge Repair

   NOTE: See Fig. 501 for maximum repairable gouge depth all over and in restricted areas.

   A. Blend out scratches and gouges to 1.00-inch minimum radius.

   B. Shot peen blended area per 20-10-03.

   C. Refinish per Fig. 601.

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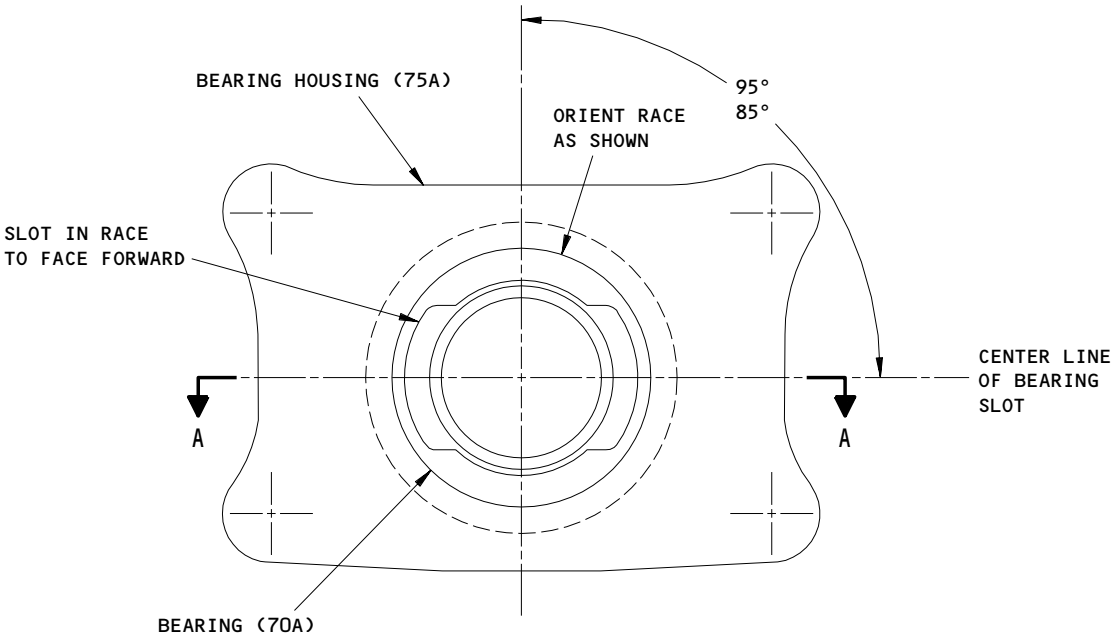

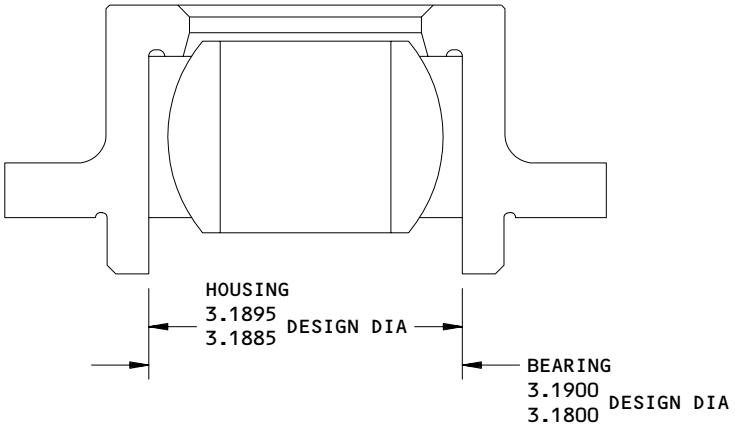

A-A

REFINISH

PASSIVATE (F-17.09) ALL OVER BEARING HOUSING BUT NO FINISH ON THE BEARING (70A).

REPAIR

MATERIAL: 15-5PH CRES, AMS 5659, SOLUTION TREATED HT TR 180-200 KSI

ITEM NUMBERS REFER TO IPL FIG. 1

310T4025-2
Bearing Replacement
Figure 601

265628

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HANGER ASSEMBLY - REPAIR 5-1

310T4031-1, -5, -10

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

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

   A. Remove old bushings.

   B. Clean hole with double application of methyl ethyl ketone. Apply wet BMS 14-4, type 1 or 2, protective coating to hole and immediately install bushings. Use shrink-fit method per 20-50-03. Wipe off any excess protective coating immediately after installation.

      NOTE: Do not bake after installation. Do not apply catalyst.

   C. Machine flange face and ID of bushings to dimensions and finish shown. Chamfers affected by machining of flange face or reaming of bore must be re-machined to original dimensions.

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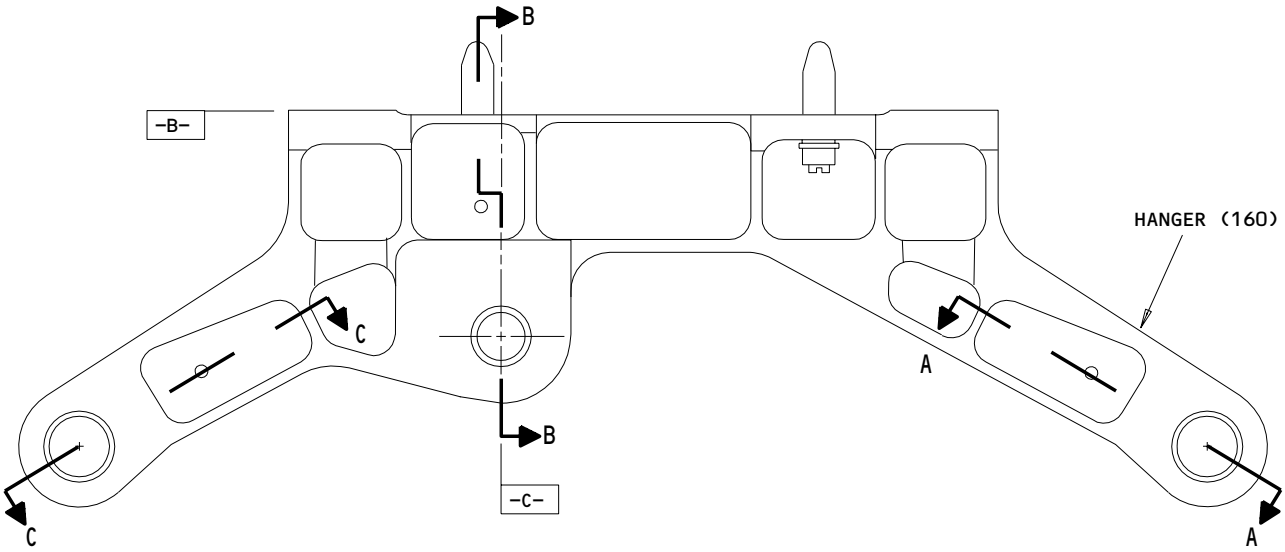

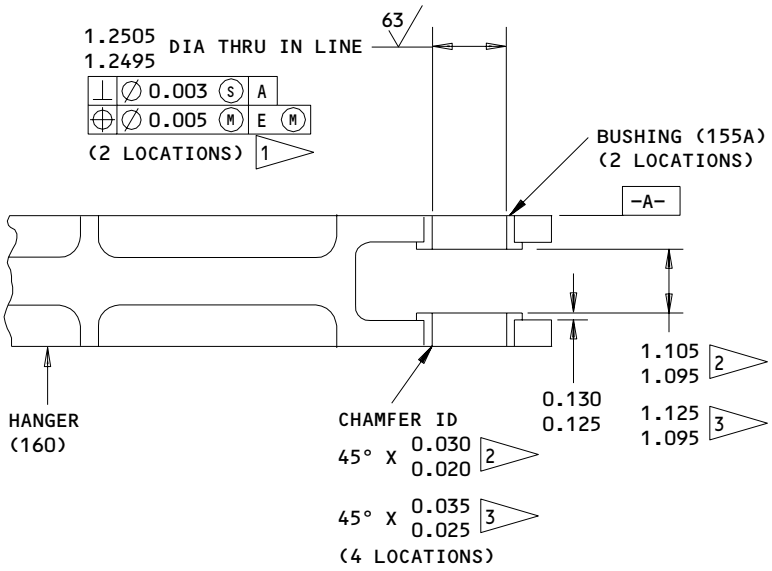

A-A

310T4031-1,-5,-10
Bushing Replacement
Figure 601 (Sheet 1)

266483

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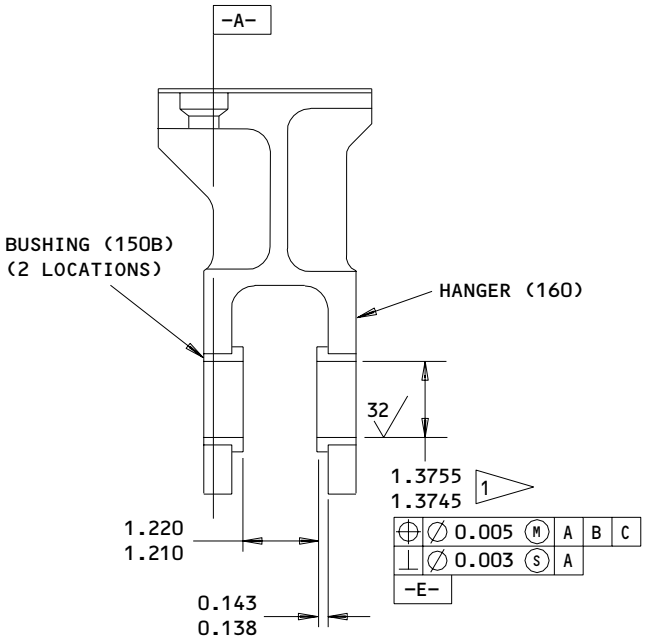
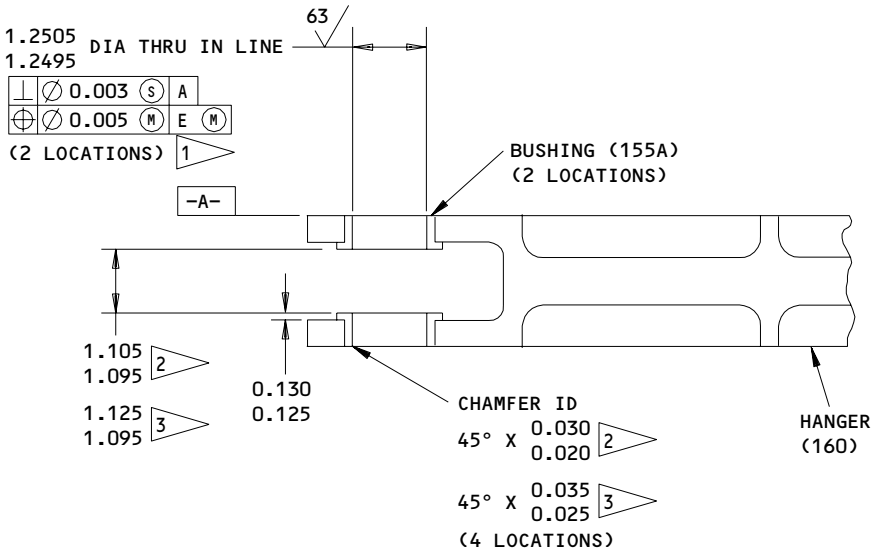


B-B



C-C

1. TWO HOLES CONCENTRIC TO COMMON AXIS WITHIN 0.001 FIM
2. 310T4031-1
3. 310T4031-5,-10

REPAIR

125 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

BREAK SHARP EDGES 0.03-0.04 R

BREAK HOLE EDGES 0.01-0.02 R AT 32

ITEM NUMBERS REFERS TO IPL FIG. 2

ALL DIMENSIONS ARE IN INCHES

310T4031-1,-5,-10
Bushing Replacement
Figure 601 (Sheet 2)

A31730

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HANGER - REPAIR 5-2

310T4031-2, -6, -7, -11, -12

NOTE: Refer to REPAIR - GENERAL for a list of applicable standard practices, and to IPL Fig. 2 for item numbers. For repair of surfaces which is only replacement of the original finish, refer to Refinish instructions, Fig. 601.

1. Bushing Hole Repair (Fig. 601)

   A. Machine as required, within repair limits, to remove defects.

   B. Make an oversize bushing (Fig. 602), as necessary, to adjust for the material removed in Step A.

   C. Install replacement bushings per REPAIR 5-1.

2. Scratch and Gouge Repair

   NOTE: See Fig. 501 for maximum repairable gouge depth all over and in restricted areas.

   A. Blend out scratches and gouges to 1.00-inch thick minimum radius.

   B. For 310T4031-2 hanger, mask bushing inner diameters, faces and faying surfaces before stripping. Locally strip the IVD coating (SOPM 20-30-02). Use 2 percent (by weight) sodium hydroxide in water solution. Bake before strip is not necessary.

   C. For 310T4031-2 hanger, apply BMS 14-4, Type 1 coating, then bake at 300-350°F for 4 hours.

   D. For 310T4031-6 and -7 hanger fittings, abrasive clean or solvent clean (SOPM 20-30-03) for appearance or for minor scratch and gauge repairs within Fig. 501 limits.

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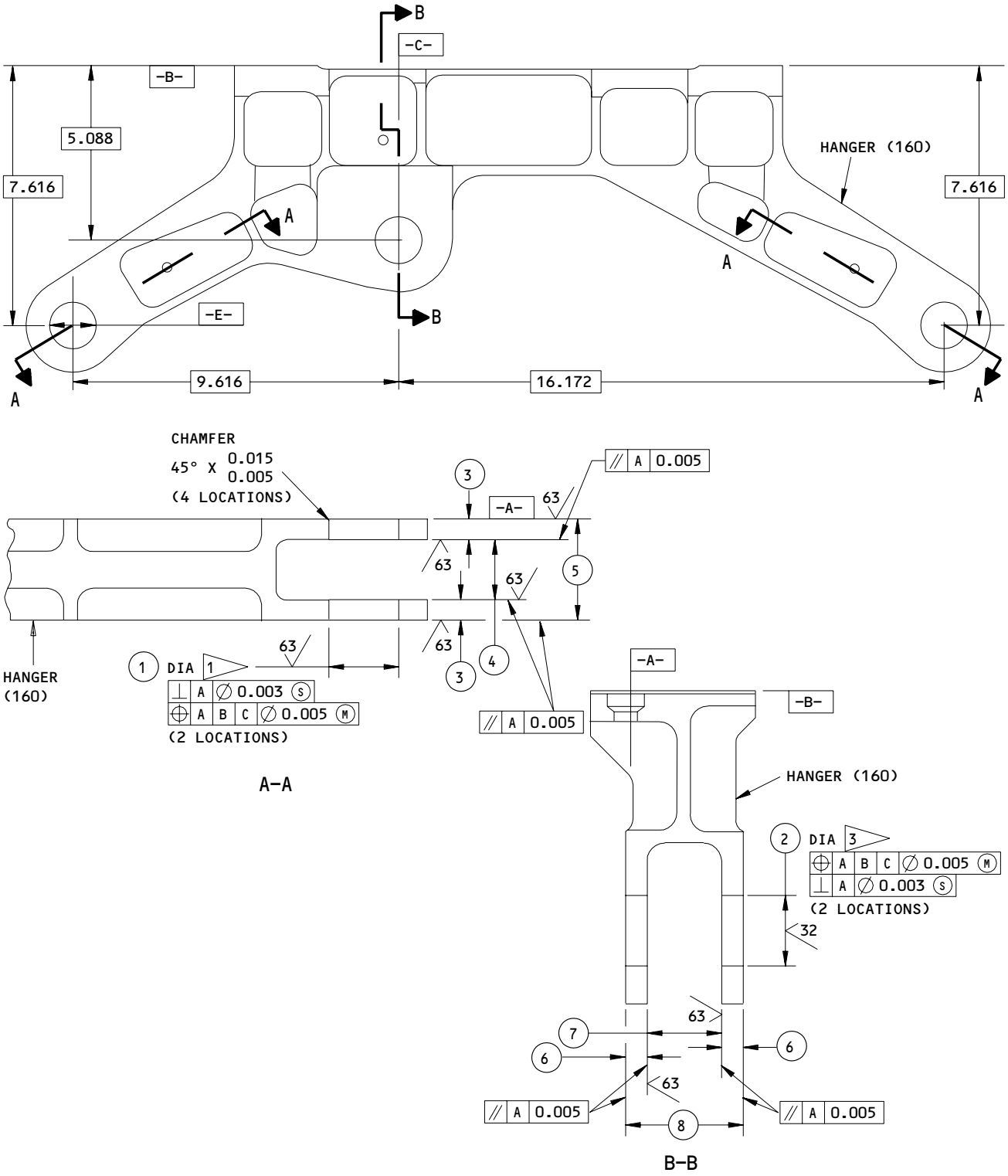

310T4031-2,-6,-7,-11,-12
Hanger Repair
Figure 601 (Sheet 1)

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	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
DESIGN DIM	1.4383 1.4375	1.5633 1.5625	0.430 0.410	1.362 1.352	2.210 2.190	0.510 0.490	1.496 1.486	2.505 2.485
REPAIR LIMIT	1.4983 ▷2	1.6233 ▷2	0.400 ▷4	----	----	0.450 ▷4	----	----

310T4031-2

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
DESIGN DIM	1.4385 1.4375	1.5635 1.5625	0.427 0.417	1.350 (REF)	2.200 (REF)	0.514 0.504	1.486 (REF)	2.500 2.490
REPAIR LIMIT	1.4983 ▷2 ▷5	1.6233 ▷2 ▷5	0.400 ▷4 ▷5	----	----	0.450 ▷4 ▷5	----	----

310T4031-6,-7,-11,-12

REFINISH

310T4031-2 DRY ABRASIVE BLAST CLEAN AND APPLY ION VAPOR DEPOSITED ALUMINUM COATING WITH COLORED CHEMICAL SURFACE TREATMENT PER MIL-C-83488, TYPE 2, CLASS 1 (F-24.06). OMIT FROM BUSHING HOLES

310T4031-6,-7,-11,-12 NO REFINISH REQUIRED

▷1 2 HOLES CONCENTRIC TO COMMON AXIS WITHIN 0.001 FIM

▷2 MAXIMUM DIMENSION FOR INSTALLATION OF OVERSIZED BUSHING

▷3 2 HOLES CONCENTRIC TO COMMON AXIS WITHIN 0.003 FIM

▷4 MINIMUM REPAIR THICKNESS

▷5 FOR 310T4031-11 CONTACT BOEING FOR REPAIR LIMIT

REPAIR

REF ▷1 ▷2 ▷3 ▷4

125 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

MATERIAL: 310T4031-2 9NI-4CO - .3C STEEL 220 KSI MINIMUM

310T4031-6,-7 NICKEL ALLOY 718 PER AMS 5662

MAGNETIC PARTICLE CHECK - PER SOPM 20-20-01 - 310T4031-2

PENETRANT CHECK - PER SOPM 20-20-02 - 310T4031-6,-7,-11,-12

BREAK SHARP EDGES 0.03-0.04 R
BREAK HOLE EDGES 0.01-0.02 R AT 32

ITEM NUMBERS REFERS TO IPL FIG. 2

ALL DIMENSIONS ARE IN INCHES

310T4031-2,-6,-7,-11,-12
Hanger Repair
Figure 601 (Sheet 2)

323491

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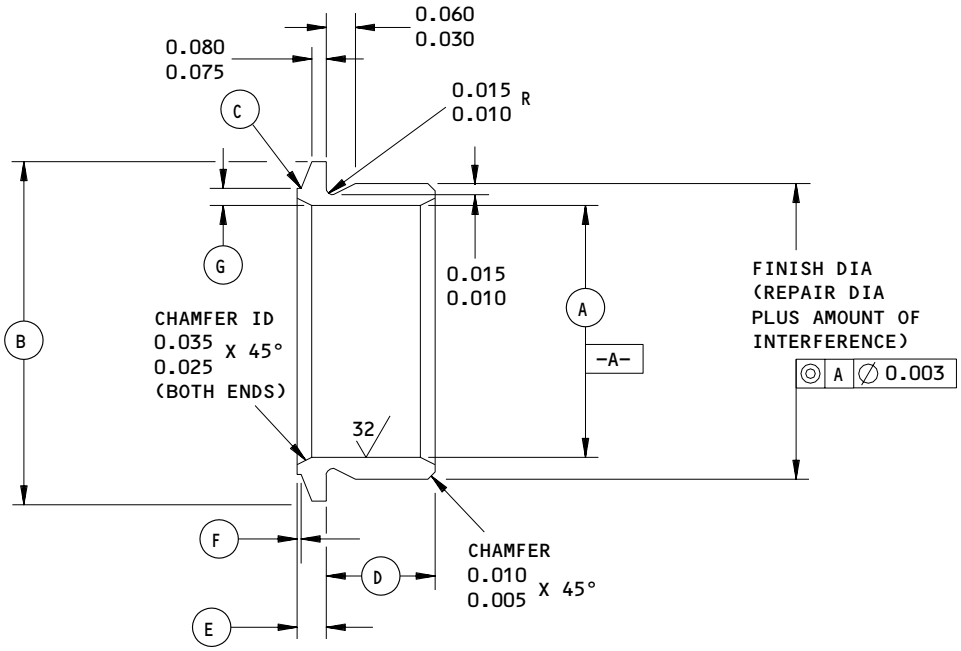

HOLE LOCATION (FIG. 601)	A	B	C	D	E	F	G	INTERFERENCE
1 2	1.2505 1.2495	1.697 1.677	0.015 R	0.407 0.397	0.130 0.125 1	0.010 0.005	0.070 0.065	0.0026 0.0009
2 3	1.3755 1.3745	1.850 1.830	0.020 R	0.478 0.468	0.143 0.138 1	0.040 0.035	0.080 0.075	0.0027 0.0010

1 THIS DIMENSION IS NET - ALLOW 0.01-0.015 INCH EXCESS FOR MACHINING OF FLANGE FACE AFTER INSTALLATION OF BUSHING

2 REPLACES BUSHING (IPL FIG. 2; 155A) 302T0200-126 OR 310T4031-8

3 REPLACES BUSHING (IPL FIG. 2; 150B) 302T0200-127 OR 310T4031-9

63 MACHINED SURFACES EXCEPT AS NOTED

BREAK SHARP EDGES

MATERIAL: INCONEL 718 PER AMS 5662

HEAT TREAT CONDITION II

PENETRANT CHECK

ALL DIMENSIONS ARE IN INCHES

310T4031-2,-6,-7,-11,-12
Oversize Bushing Detail
Figure 602

323412

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TANGENTIAL LINK ASSEMBLY - REPAIR 6-1

310T3032-1, -3, -5, -7, -9

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

1. Bearing (60A, IPL Fig. 2; 70A, IPL Fig. 3) Replacement (Fig. 601)

   A. Remove old bearing per 20-50-03.

   B. Install outer race of bearing (60A, IPL Fig. 2; 70A, IPL Fig. 3) by the shrink-fit method per 20-50-03. Align slot as shown in Fig. 601.

      (1) An optional method to install the outer race of the bearing is as follows:

         (a) Clean hole with a double application of methyl ethyl ketone.

         (b) Apply wet BMS 14-4, type 1 or 2, protective coating to the hole and immediately install the outer race of the bearing. Use shrink-fit method if necessary.

         (c) Align slot as shown in Fig. 601.

         (d) Wipe off excess protective coating immediately after installation.

            NOTE: Do not apply catalyst. Do not bake after installation.

   C. Roller swage outer race of bearing per 20-50-03.

   D. Push out load test per 20-50-03. Push out load 4670 pounds.

   E. Install ball and retainer with aluminum wire for storage and shipping.

2. Bearing (55C, IPL Fig. 2; 65B, IPL Fig. 3; 75, IPL Fig. 4) Replacement (Fig. 601)

   A. Press out old bearing and install new bearing. After installing bearing but before swaging, maximum breakaway torque shall not exceed 500 inch-pounds.

   B. Roller swage outer race of bearing per 20-50-03.

   C. Pushout load test per 20-50-03. Pushout load is 5838 pounds for test.

3. Bushing (80, IPL Fig. 4) Replacement (Fig. 601)

   A. Remove old bushing.

   B. Install new bushing using shrink-fit method per 20-50-03.

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4. Scratch and Gouge Repair

A. Refer to Fig. 501 in the Check section for the maximum repairable gouge depths.

NOTE: Refer to Repair 6-2 for tangential link scratch and gouge repair.

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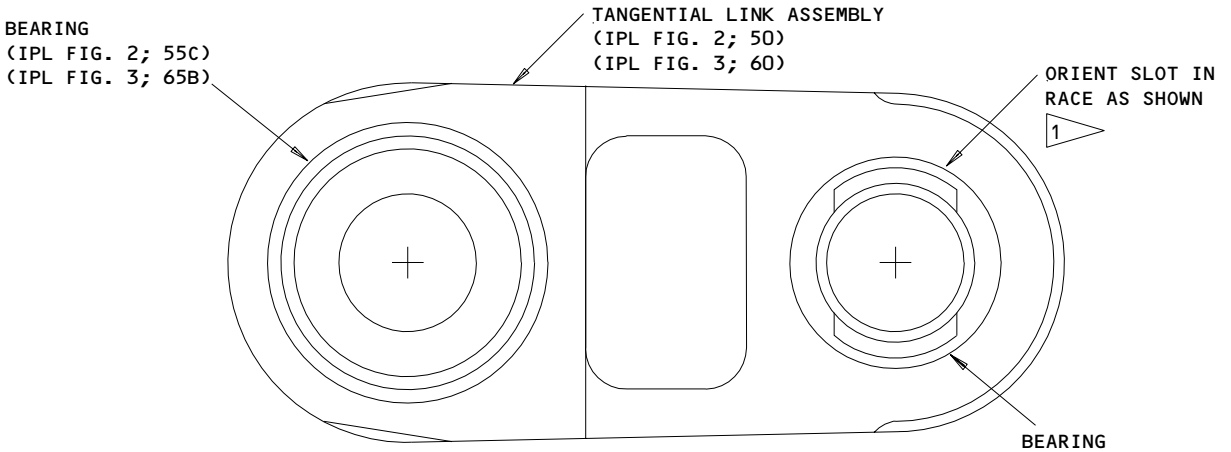
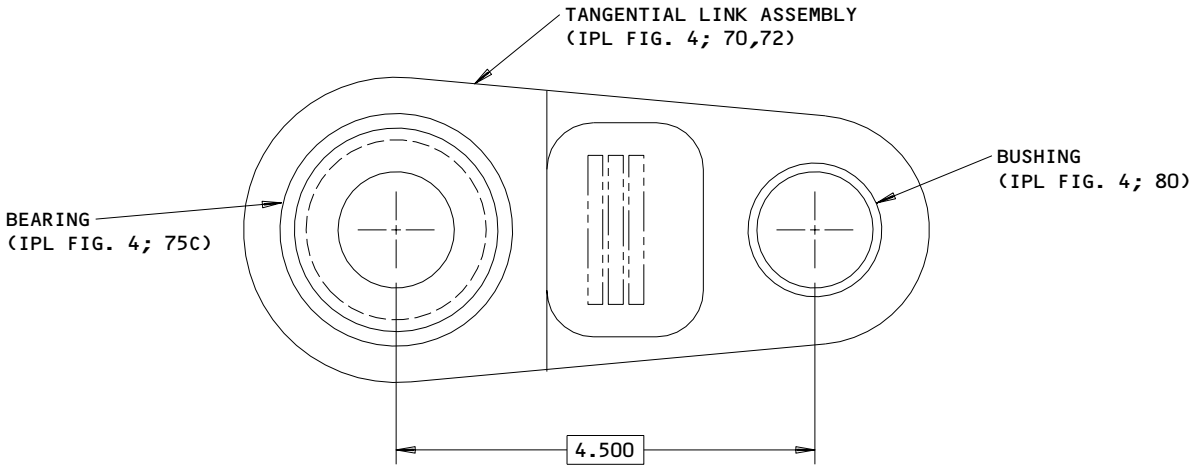


310T3032-1,-3



310T3032-5,-7,-9

1 BEARING SLOT ORIENTATION SHOWN IS FOR INSTALLATION OF REPLACEMENT BEARINGS. IF THE BEARING IS OTHERWISE SERVICEABLE, DO NOT REPLACE SOLELY BECAUSE THE SLOT IS MISORIENTED

MATERIAL: INCONEL 718

ALL DIMENSIONS ARE IN INCHES

310T3032-1,-3,-5,-7,-9
Tangential Link
Figure 601

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TANGENTIAL LINK - REPAIR 6-2

310T3032-2, -4, -6, -8, -10

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

1. Bushing Repair (Fig. 601)

   A. Machine holes as required to remove defects per Fig. 601.

   B. Deleted

   C. Manufacture oversized bushing as required per Fig. 602 to compensate for removal of material in step 1.A.

   D. Install bushing per REPAIR 6-1.

2. Bearing Hole Repair (Fig. 601)

   A. Machine holes as required to remove defects to the nearest hole diameter for oversize bearing outer diameter per Fig. 601.

   B. Machine 45° chamfers on both sides of the hole to the 0.055 to 0.045 inch size required for swaging the outer race of the bearing.

   C. Deleted

   D. Install the oversize bearing per REPAIR 6-1.

3. Scratch and Gouge Repair

   A. Remove bushing and bearing as shown in Repair 6-1.

   B. Blend out scratches and gouges to 1.00-inch minimum radius.

      NOTE: See Fig. 501 in the Check section for the maximum repairable gouge depths.

   C. Deleted

   D. Refinish per Fig. 601.

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E. Install bushing and bearing as shown in Repair 6-1.

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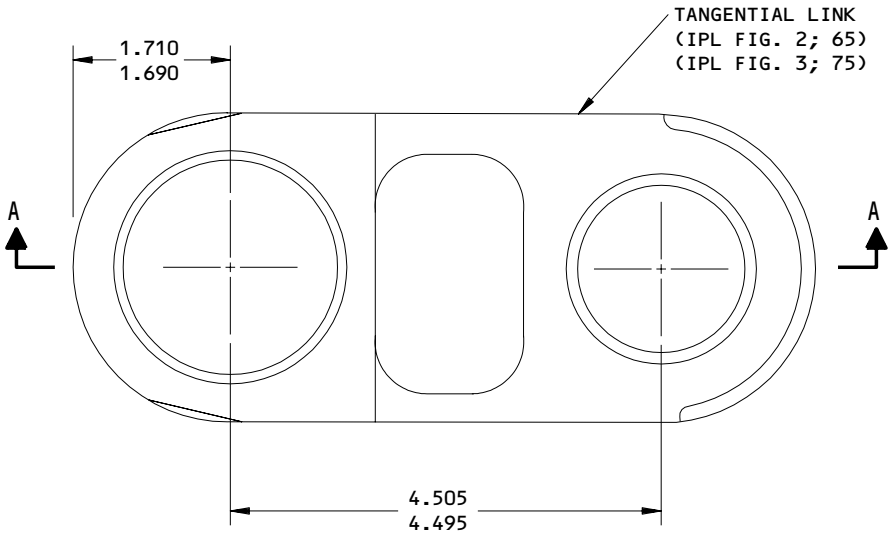
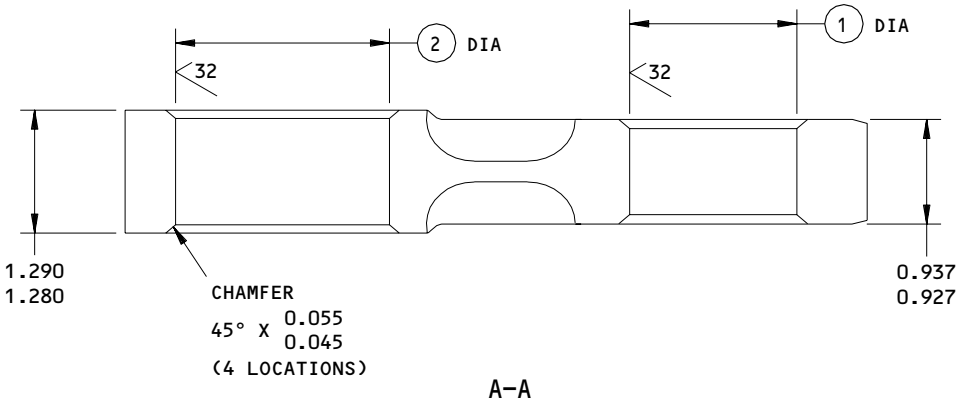


310T3032-2,-4



A-A

FINISH

NO FINISH

1 REPAIR LIMIT FOR REPAIR BY INSTALLATION OF OVERSIZE BUSHING.

2 SEE OVERSIZE BEARING INFORMATION IN FIGURE 601, SHEET 3 FOR REPAIR DIAMETER LIMITS

REPAIR

MATERIAL: INCONEL 718, AMS 5662, HT TR AS SHOWN IN BAC5616, CONDITION II

PENETRANT INSPECT AS SHOWN IN SOPM 20-20-02

ALL DIMENSIONS ARE IN INCHES

310T3032-2,-4,-6,-8,-10
Tangential Link Repair
Figure 601 (Sheet 1)

E42308

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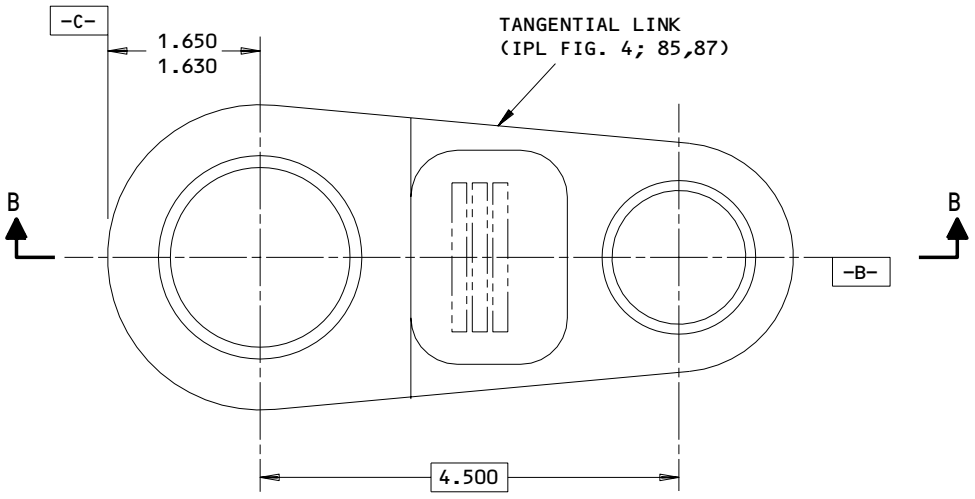
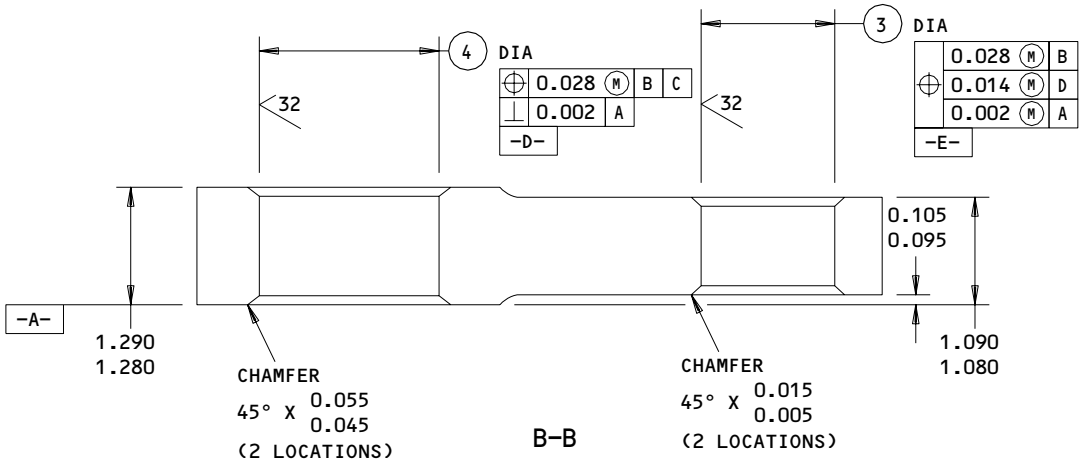


310T3032-6,-8,-10



REFERENCE NUMBER	1	2	3	4
DESIGN DIMENSION	2.0000 1.9995	2.5000 2.4995	1.4384 1.4375	2.5000 2.4995
REPAIR LIMIT	2	2	1.4984 1	2

310T3032-2,-4,-6,-8,-10
Tangential Link Repair
Figure 601 (Sheet 2)

A32018

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OVERSIZE BEARING INFORMATION			
BEARING SIZE	HOLE DIAMETER IN LINK	OVERSIZE BEARING OUTER DIAMETER	AURORA PART NUMBER
0.015625 OVERSIZE	2.5158 2.5148	2.5158 2.5148	WC-20G-6 (SPEC 60B00180-326)
0.03125 OVERSIZE	2.5312 2.5148	2.5312 2.5148	WC-20G-7 (SPEC 60B00180-327)
0.046875 OVERSIZE	2.5468 2.5458	2.5468 2.5458	WC-20G-8 (SPEC 60B00180-328)
0.0625 OVERSIZE	2.5624 2.5614	2.5624 2.5614	WC-20G-9 (SPEC 60B00180-329)

310T3032-2,-4,-6,-8,-10

OVERSIZE BEARING INFORMATION				
BEARING SIZE	HOLE DIAMETER IN LINK	OVERSIZE BEARING OUTER DIAMETER	VALLEY TODECO PART NUMBER	PSI BEARING PART NUMBER
0.0010 OVERSIZE	2.0020 2.0010	2.0010 2.0005	VTB01130P01	P22960P1
0.0020 OVERSIZE	2.0030 2.0020	2.0020 2.0015	VTB01130P02	P22960P2
0.0050 OVERSIZE	2.0060 2.0050	2.0050 2.0045	VTB01130P05	P22960P5
0.0100 OVERSIZE	2.0110 2.0100	2.0100 2.0095	VTB01130P10	P22960P10
0.0150 OVERSIZE	2.0160 2.0150	2.0150 2.0145	VTB01130P15	P22960P15
0.0200 OVERSIZE	2.0210 2.0200	2.0200 2.0195	VTB01130P20	P22960P20
0.0300 OVERSIZE	2.0310 2.0300	2.0300 2.0295	VTB01130P30	P22960P30

310T3032-2,-4

310T3032-2,-4,-6,-8,-10
Tangential Link Repair
Figure 601 (Sheet 3)

E19744

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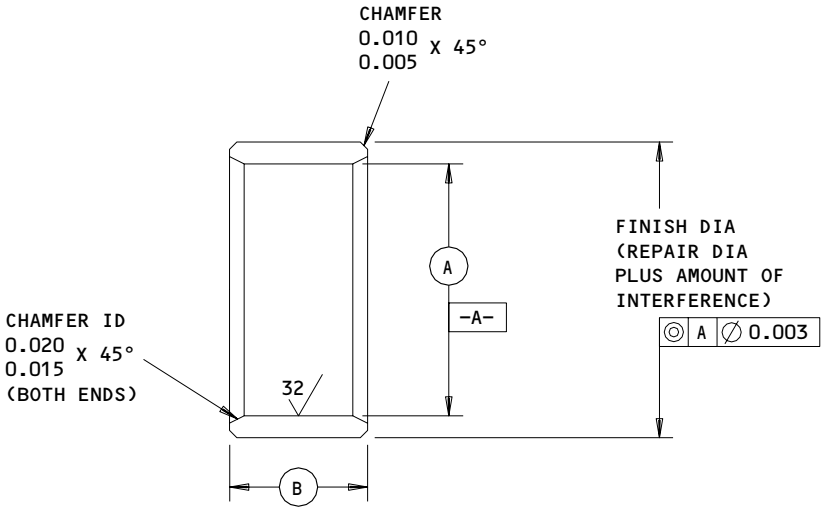

HOLE LOCATION (FIG. 601)	(A)	(B)	INTERFERENCE
(1) 1	1.2505 1.2495	1.090 1.080	0.0028 0.0011

FINISH

NO FINISH (F-25.01).

1 REPLACES BUSHING (80, FIG. 4)
302T0200-141

63 ALL MACHINED SURFACES EXCEPT AS NOTED

BREAK SHARP EDGES

MATERIAL: INCONEL 718 PER AMS 5662

HEAT TREAT CONDITION II

PENETRANT CHECK

ALL DIMENSIONS ARE IN INCHES

310T3032-6,-8,-10
Oversize Bushing Detail
Figure 602

A32154

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CENTER LINK ASSEMBLY - REPAIR 7-1

310T3033-1, -3, -5, -7

1. Bearing Replacement (Fig. 601)

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

A. Remove old bearing (120, IPL Fig. 2; 85, IPL Fig. 3; 95A, IPL Fig. 4) per 20-50-03.

B. Install outer race of bearing per 20-50-03. Use shrink-fit method if necessary. Align slot in race as shown in Fig. 601.

(1) An optional method to install the outer race of the bearing is as follows:

(a) Clean hole with a double application of methyl ethyl ketone.

(b) Apply wet BMS 14-4, type 1 or 2, protective coating to the hole and immediately install the outer race of the bearing. Use shrink-fit method if necessary.

(c) Align slot as shown in Fig. 601.

(d) Wipe off excess protective coating immediately after installation.

NOTE: Do not apply catalyst. Do not bake after installation.

C. Roller swage outer race of bearing.

D. Push out load test per 20-50-03. Push out load 5254 pounds.

E. Install ball and retain with aluminum wire for storage and shipping.

2. Scratch and Gouge Repair

NOTE: See Fig. 501 for maximum repairable gouge depth all over and in restricted areas.

A. Blend out scratches and gouges to 1.00-inch minimum radius.

B. Shot peen blended area per 20-10-03.

C. Refinish per Fig. 601.

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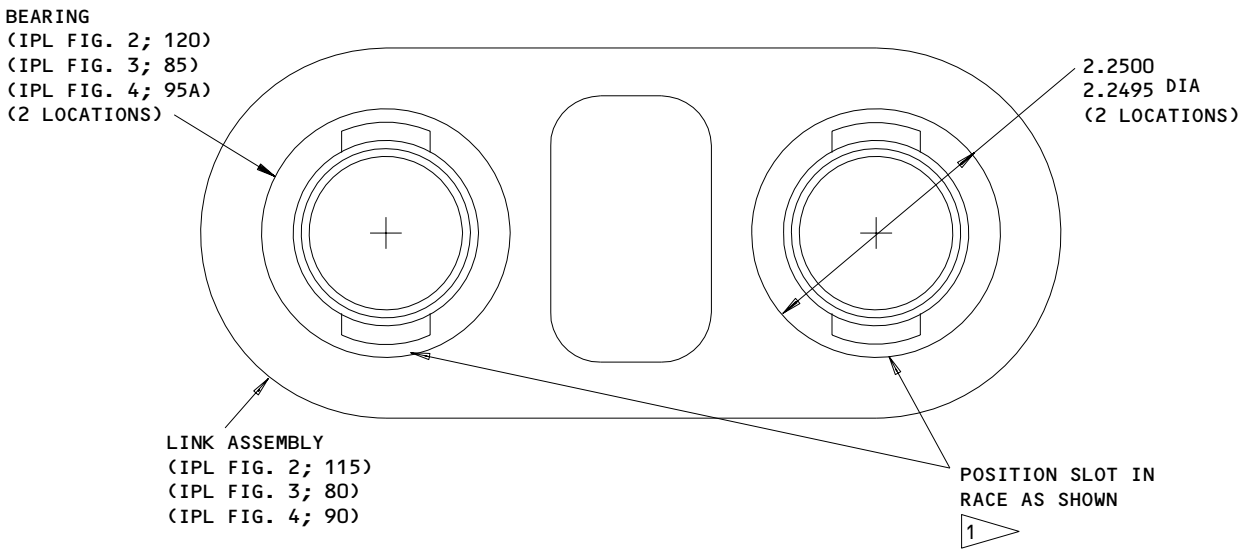

OVERSIZE BEARING INFORMATION			
HOLE DIAMETER IN LINK	OVERSIZE BEARING OUTER DIAMETER	VALLEY TODECO PART NUMBER	PSI BEARING PART NUMBER
2.2520 2.2510	2.2510 2.2505	VTB0114OP01	P2297OP1
2.2530 2.2520	2.2520 2.2515	VTB0114OP02	P2297OP2
2.2560 2.2550	2.2550 2.2545	VTB0114OP05	P2297OP5
2.2610 2.2600	2.2600 2.2595	VTB0114OP10	P2297OP10
2.2660 2.2650	2.2650 2.2645	VTB0114OP15	P2297OP15
2.2710 2.2700	2.2700 2.2695	VTB0114OP20	P2297OP20
2.2810 2.2800	2.2800 2.2795	VTB0114OP30	P2297OP30

FINISH

NO FINISH

MATERIAL: INCONEL 718

ALL DIMENSIONS ARE IN INCHES

1 BEARING SLOT ORIENTATION SHOWN IS FOR INSTALLATION OF REPLACEMENT BEARINGS. IF THE BEARING IS OTHERWISE SERVICEABLE, DO NOT REPLACE SOLELY BECAUSE THE SLOT IS MISORIENTED.

310T3033-1,-3,-5,-7
Center Link
Figure 601

266485

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CENTER LINK - REPAIR 7-2

310T3033-2, -4, -6, -8

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

1. Repair for Oversize Bearing

   A. Machine holes as required up to repair limits listed in REPAIR 7-1 to remove defects.

   B. Penetrant inspect per 20-20-02.

   C. Install the oversize bearing per REPAIR 7-1.

2. Scratch and Gouge Repair

   NOTE: See Fig. 501 for maximum repairable gouge drpth all over and in restricted areas.

   A. Blend out scratches and gouges to 1.00-inch minimum raduis.

   B. Shot peen blended area per 20-10-03.

   C. Refinish per Fig. 601.

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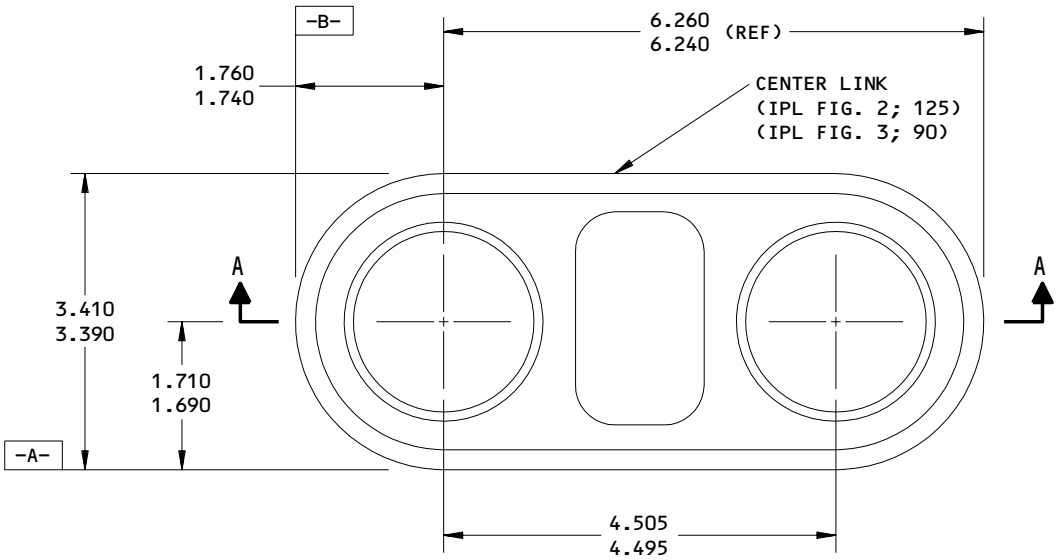
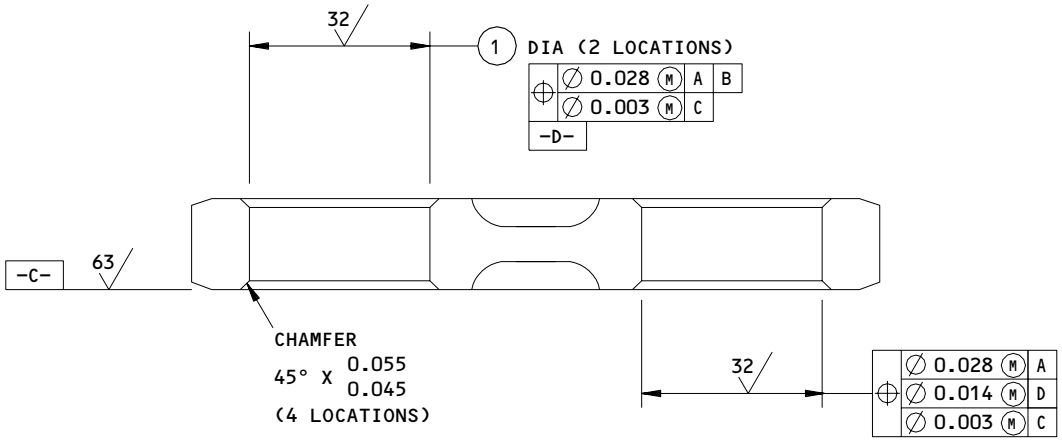


310T3033-2,-4



A-A

REFINISH

NO REFINISH

1 SEE REPAIR 7-1, FIG. 601 FOR OVERSIZE BEARING BORE DIMENSIONS.

REFERENCE NUMBER	1
DESIGN DIMENSION	2.2500 2.2495
REPAIR LIMIT	1

REPAIR

MATERIAL: INCONEL 718

PENETRANT INSPECT PER SOPM 20-20-02

ALL DIMENSIONS ARE IN INCHES

310T3033-2,-4,-6,-8
Center Link Repair
Figure 601 (Sheet 1)

F78932

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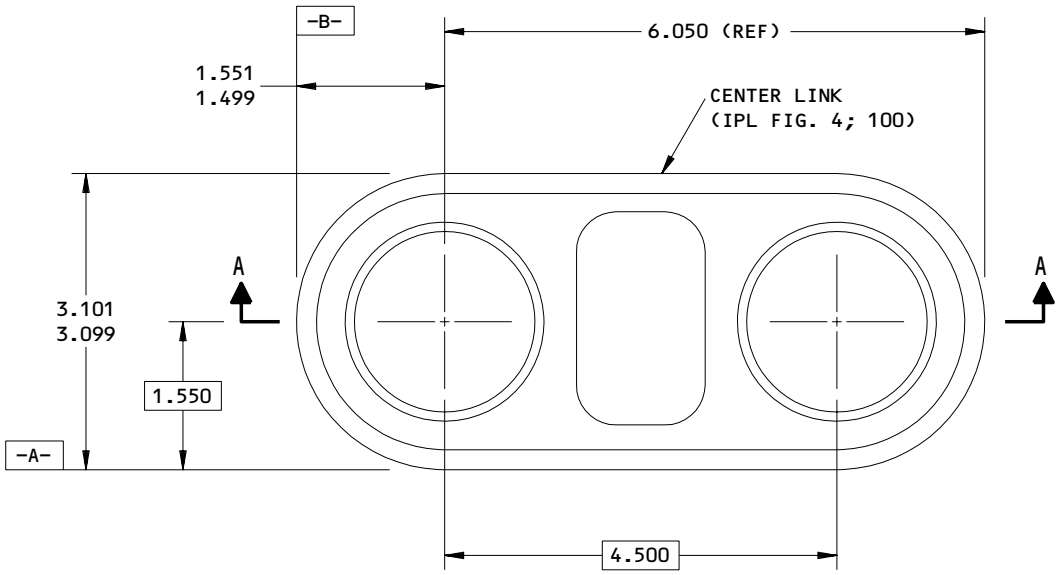
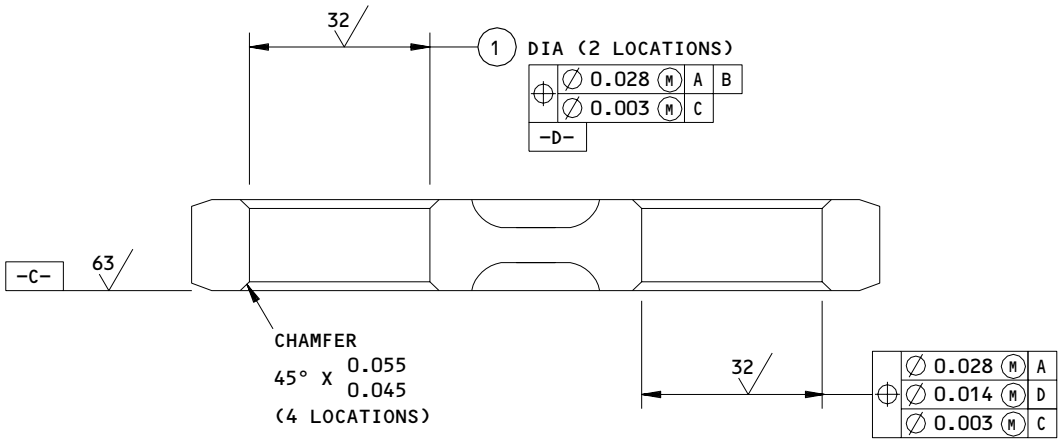


310T3033-6,-8



A-A

REFINISH

NO REFINISH

1 SEE REPAIR 7-1, FIG. 601 FOR OVERSIZE BEARING BORE DIMENSIONS.

REFERENCE NUMBER	1
DESIGN DIMENSION	2.2500 2.2495
REPAIR LIMIT	1

REPAIR

MATERIAL: INCONEL 718

PENETRANT INSPECT PER SOPM 20-20-02

ALL DIMENSIONS ARE IN INCHES

310T3033-2,-4,-6,-8
Center Link Repair
Figure 601 (Sheet 2)

E42497

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HANGER ASSEMBLY - REPAIR 8-1

310U4031-1, -3, -5, -7, -9, -11, -13, -15, -17, -19

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

1. Bushing Replacement (Fig. 601)

   A. Remove old bushings.

   B. Clean hole with double application of methyl ethyl ketone. Apply wet BMS 14-4, type 1 or 2, protective coating to hole and immediately install bushings. Use shrink-fit method per 20-50-03. Wipe off any excess protective coating immediately after installation.

      NOTE: Do not bake after installation. Do not apply catalyst.

   C. Machine flange face and ID of bushings to dimensions and finish shown. Chamfers affected by machining of flange face or reaming of bore must be re-machined to original dimensions.

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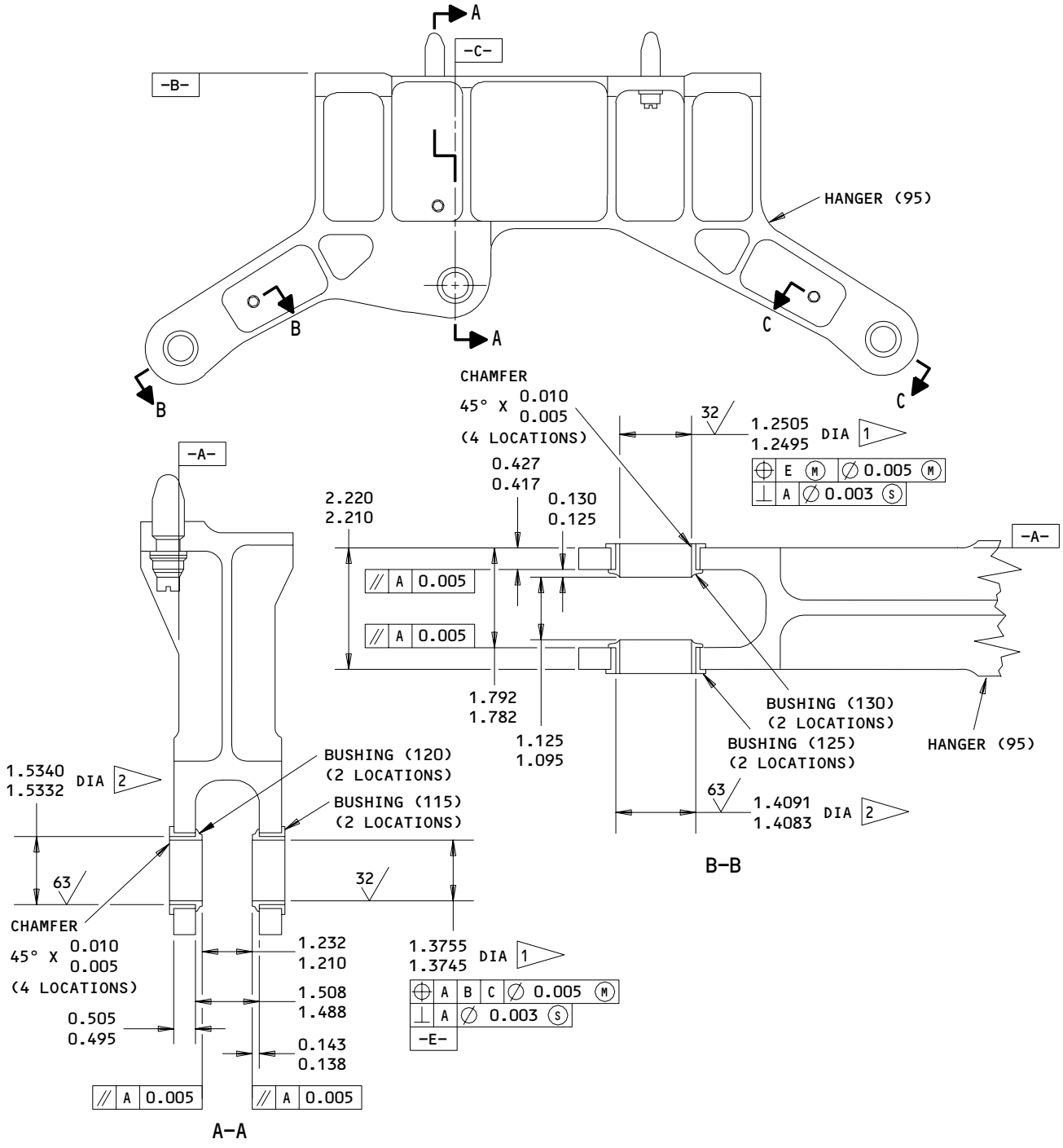

1 TWO HOLES CONCENTRIC TO COMMON AXIS WITHIN 0.001 FIM.

2 TWO HOLES CONCENTRIC IN LINE WITHIN 0.003 FIM.

ITEM NUMBERS REFER TO IPL FIG. 3

ALL DIMENSIONS ARE IN INCHES

310U4031-1,-3,-5,-7,-9,-11,-13,-15,-17,-19
Bushing Replacement
Figure 601 (Sheet 1)

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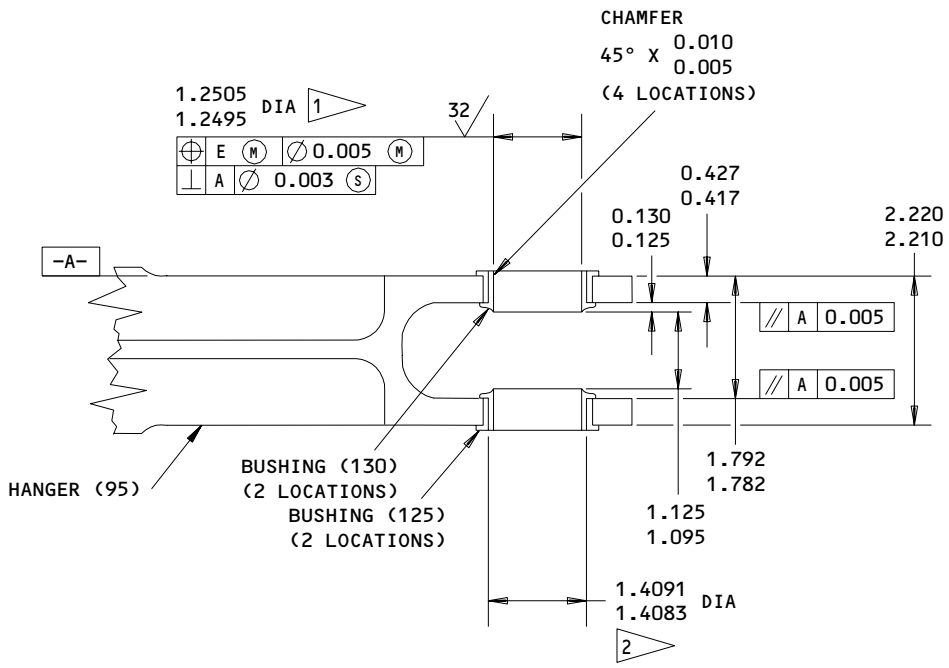

C-C

REFINISH

310U4031-1,-3,-5,-7:

DRY ABRASIVE BLAST PER 20-30-03 AND APPLY ION VAPOR DEPOSITED (IVD) ALUMINUM COATING PER MIL-C-83488, TYPE 2, CLASS 1 (F-24.06), ALL OVER EXCEPT IN BUSHING HOLES. INSTALL BUSHINGS PER SEC. 1.

OPTIONAL FINISH:

COAT ALL SURFACES OF FITTING IN CONTACT WITH BUSHING FLANGES WITH BMS 14-4, TYPE 1 PROTECTIVE COATING. BAKE AND BURNISH AS REQUIRED. INSTALL BUSHINGS PER SEC. 1., EXCEPT BAKE ASSEMBLY AFTER INSTALLATION OF NESTED BUSHINGS, THEN MACHINE NESTED BUSHINGS AS REQUIRED. REMOVE EXCESS BMS 14-4, TYPE 1 PROTECTIVE COATING FROM EDGE OF BUSHING FLANGE AND SURROUNDING AREA TO ENSURE (F-24.06) FILLET SEALING WITH BUSHING FLANGE. MASK ALL BUSHING FLANGE FACES AND BUSHING INSIDE DIAMETERS. APPLY ION VAPOR DEPOSITED (IVD), ALUMINUM COATING PER MIL-C-83488, TYPE 2, CLASS 1 (F-24.06) ALL OVER.

310U4031-9,-11,-13,-15,-17,-19:

DRY ABRASIVE BLAST PER 20-30-03 AND APPLY ION VAPOR DEPOSITED (IVD) ALUMINUM COATING PER MIL-C-83488 TYPE 2, CLASS 1, (F-24.08), ALL OVER EXCEPT IN BUSHING HOLES. INSTALL BUSHINGS PER SEC. 1. MASK ALL BUSHING FLANGE FACES AND INSIDE DIAMETERS. APPLY SERMETEL 985 TOPCOAT PER APPROVED VENDOR PLAN ALL OVER. CURED SERMETEL COATING SHALL NOT MARK OR CHIP WHEN SCRATCHED WITH FINGERNAIL.

OPTIONAL FINISH:

COAT ALL SURFACES OF FITTING IN CONTACT WITH BUSHING FLANGES WITH BMS 14-4, TYPE 1 PROTECTIVE COATING. BAKE AND BURNISH AS REQUIRED. INSTALL BUSHINGS PER SEC. 1., EXCEPT BAKE ASSEMBLY AFTER INSTALLATION OF NESTED BUSHINGS, THEN MACHINE NESTED BUSHINGS AS REQUIRED. REMOVE EXCESS BMS 14-4, TYPE 1 PROTECTIVE COATING FROM EDGE OF BUSHING FLANGE AND SURROUNDING AREA TO ENSURE (F-24.08) FILLET SEALING WITH BUSHING FLANGE. MASK ALL BUSHING FLANGE FACES AND BUSHING INSIDE DIAMETERS. APPLY ION VAPOR DEPOSITED (IVD) ALUMINUM COATING PER MIL-C-83488, TYPE 2, CLASS 1 (F-24.08) ALL OVER, THEN APPLY SERMETEL 985 TOPCOAT PER APPROVED VENDOR PLAN ALL OVER. CURED SERMETAL COATING SHALL NOT MARK OR CHIP WHEN SCRATCHED WITH FINGERNAIL.

310U4031-1,-3,-5,-7,-9,-11,-13,-15,-17,-19
Bushing Replacement
Figure 601 (Sheet 2)

A33656

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HANGER - REPAIR 8-2

310U4031-2, -4, -6, -8, -10, -12, -14, -16, -18, -20

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

1. Bushing Repair (Fig. 601)

   A. Machine holes as required to remove defects per Fig. 601.

   B. Shot peen

   C. Manufacture oversized bushing as required per Fig. 602 to compensate for removal of material in step 1.A.

   D. Install bushing per REPAIR 8-1.

2. Scratch and Gouge Repair

   NOTE: See Fig. 501 for maximum repairable gouge depth all over and in restricted areas.

   A. Blend out scratches and gouges to 1.00-inch thick minimum radius.

   B. Mask bushing inner diameters, faces and faying surfaces prior to stripping. Locally strip the IVD coating per 20-30-02. Use 2 percent (by weight) soduim hydroxide with balance of water. Bake prior to strip not required.

   C. Apply BMS 14-4, Type I, then bake to 325°F ±25°F for 4 hours.

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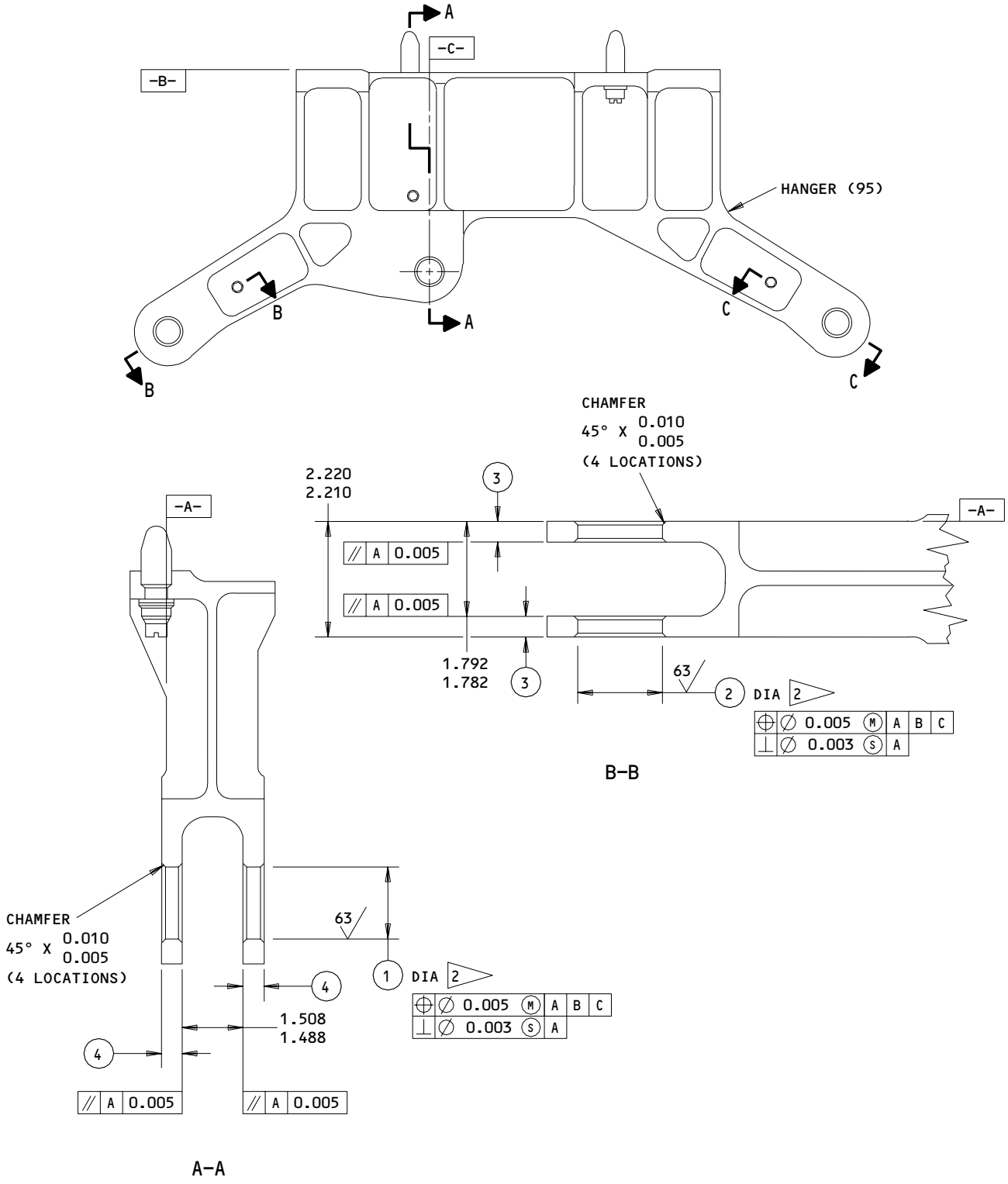

310U4031-2,-4,-6,-8,-10,-12,-14,-16,-18,-20
Hanger Repair
Figure 601 (Sheet 1)

A33776

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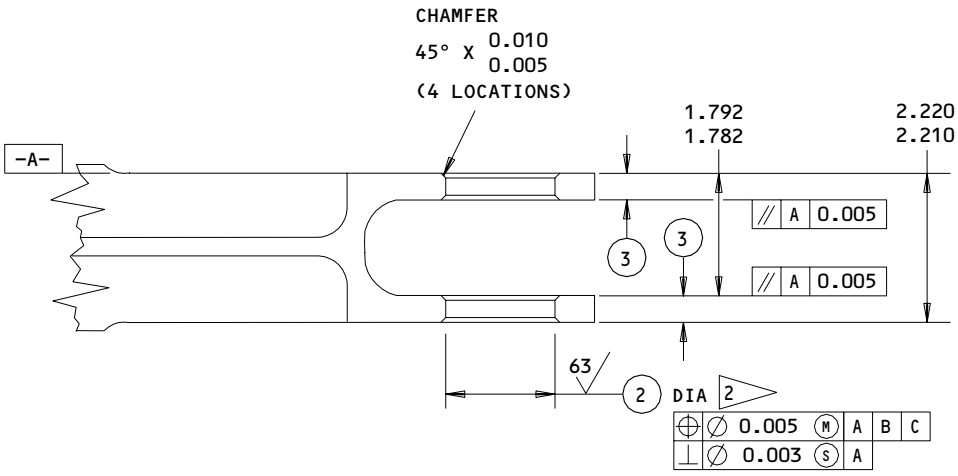

C-C

	1	2	3	4
DESIGN DIM	1.6925 1.6917	1.5676 1.5669	0.427 0.417	0.505 0.495
REPAIR LIMIT	1.7525 3	1.6276 3	0.407 4	0.450 4

1. TWO HOLES CONCENTRIC TO COMMON AXIS WITHIN 0.001 FIM.
2. TWO HOLES CONCENTRIC IN LINE WITHIN 0.003 FIM.
3. REPAIR LIMIT FOR REPAIR BY INSTALLATION OF OVERSIZED BUSHING.
4. MINIMUM REPAIR THICKNESS

REPAIR

MATERIAL: 9NI-4CO-.3C STEEL, FORGED BLOCK, BMS 7-182, TYPE II, NORMALIZED AND TEMPERED TO BHN 341 MAX. HT TR TO 220 KSI MINIMUM

MAGNETIC PARTICLE CHECK AS SHOWN IN SOPM 20-20-01, CLASS A CRITICAL

BREAK SHARP EDGES 0.030-0.040

BREAK HOLE EDGES 0.010-0.020 AT 63

ITEM NUMBERS REFER TO IPL FIG. 3

ALL DIMENSIONS ARE IN INCHES

310U4031-2,-4,-6,-8,-10,-12,-14,-16,-18,-20
Hanger Repair
Figure 601 (Sheet 2)

A33781

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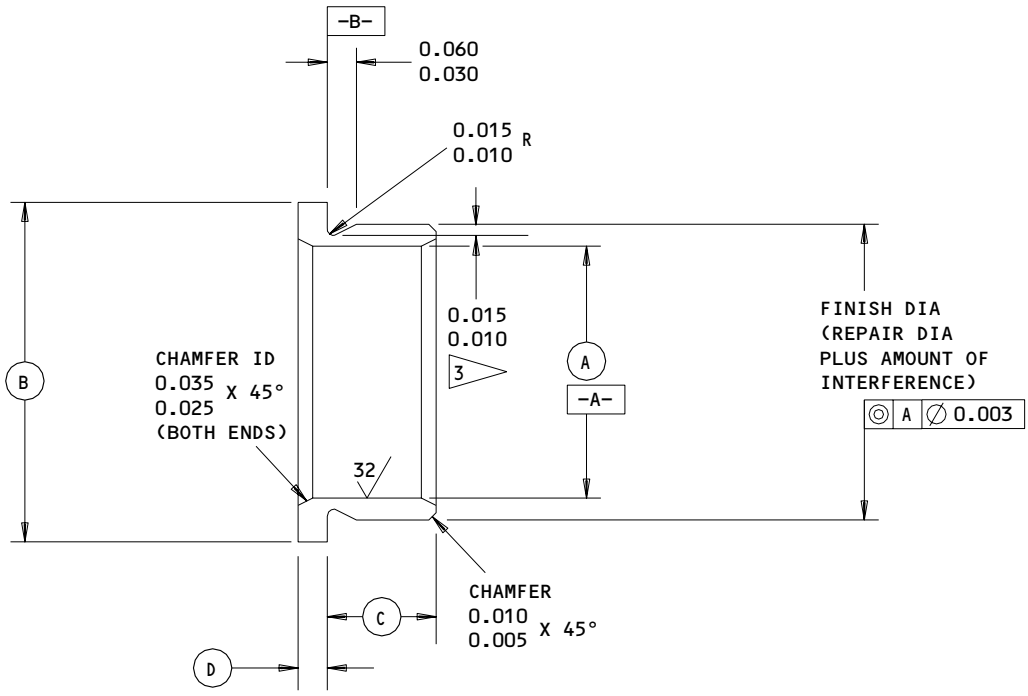

HOLE LOCATION (FIG. 601)	A	B	C	D	INTERFERENCE
1 / 1	1.5340 1.5332	2.010 1.990	0.493 0.483	0.085 0.080	0.0025 0.0007
2 / 2	1.4091 1.4083	1.910 1.890	0.415 0.405	0.085 0.080	0.0024 0.0007

FINISH

NO FINISH (F-25.01).

1 REPLACES BUSHING (115, FIG. 3) 302T0200-129

2 REPLACES BUSHING (125, FIG. 3) 302T0200-131

63 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

BREAK SHARP EDGES

MATERIAL: INCONEL 718 PER AMS 5662

HEAT TREAT CONDITION II

PENETRANT CHECK

ALL DIMENSIONS ARE IN INCHES

310U4031-2,-4,-6,-8,-10,-12,-14,-16,-18,-20
Oversize Bushing Detail
Figure 602

A33918

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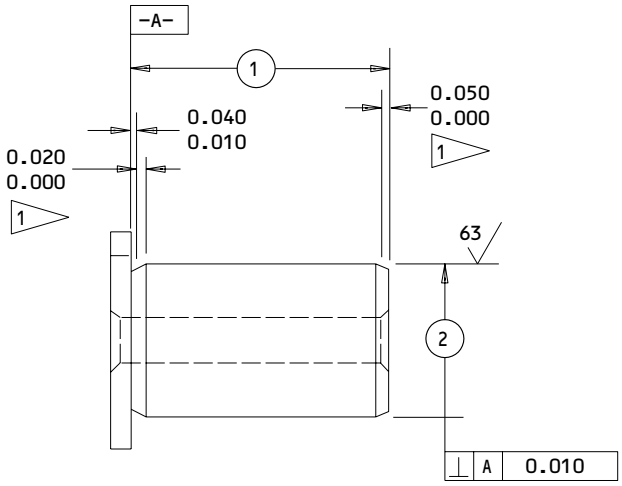
PIN, LINK PIVOT - REPAIR 9-1

310T3150-1 THRU -5

1. Plating Repair

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



		1	2
PIN 310T3150-1	DESIGN DIM	2.550 2.530	1.3740 1.3730
	REPAIR LIMIT	----	1.3530 2
PIN 310T3150-2	DESIGN DIM	2.780 2.760	1.3740 1.3730
	REPAIR LIMIT	----	1.3650 2
PIN 310T3150-3	DESIGN DIM	2.255 2.235	1.2490 1.2480
	REPAIR LIMIT	----	1.2280 2
PIN 310T3150-4	DESIGN DIM	2.683 2.678	1.3740 1.3730
	REPAIR LIMIT	----	1.3650 2
PIN 310T3150-5	DESIGN DIM	2.395 2.390	1.2490 1.2480
	REPAIR LIMIT	----	1.2280

REFINISH

NO FINISH EXCEPT CHROME PLATE (F-15) DIA (2) 0.0004-0.0007 INCH THICK (REF 20-42-03.) DIMENSIONS APPLY AFTER PLATING

1 CHROME PLATE RUNOUT

2 LIMIT FOR CHROME PLATE (F-15.03) BUILDUP AND GRINDING TO DESIGN DIMENSIONS AND FINISH SINGLE PLATE THICKNESS 0.0030 MIN AFTER GRINDING

REPAIR

1 2

MATERIAL: INCONEL 718

125 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

BREAK SHARP EDGES 0.03-0.04 R

PENETRANT CHECK PER SOPM 20-20-02

310T3150-1 THRU -5
Pin Repair
Figure 601

265479

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BOLT - REPAIR 10-1

310T3152-6, -7, -8, -16, -17, -18
BACB30PN20-93

1. Bolt Replacement

NOTE: BACB30PN20C93 is optional to BACB30PN20-93 for replacement purposes. For repair of BACB30PN20C93, see Repair 2. below.

2. Repair (Fig. 601)

A. Unless otherwise specified in these repair instructions, remove minor pits, nicks and scratches with a fine stone. Blend repairs smoothly into parent material.

B. Bolt repair.

NOTE: When repair by machining is necessary, tool centers 0.250 inch deep may be used in the heads and shank ends of the bolts.

(1) Repair rolled threads of bolts as follows:

CAUTION: NO REPAIR PERMITTED BELOW MINIMUM PITCH DIAMETER OF THREADS. NO REPAIR PERMITTED IN THREAD RELIEF OR RUNOUT AREA.

(a) Repair damage in the region between minimum pitch diameter and major diameter by using thread chasers conforming to the following:

1) Capable of cutting UNJF-3A or UNF-3A threads.

2) Modified to preclude cutting threads below the following minimum pitch diameters:

Thread Size	Minimum Pitch Diameter (inches)
0.500-20 UNJF-3A	0.4643
1.000-12 UNJF-3A	0.9415
1.125-12 UNJF-3A	1.0664
1.250-12 UNJF-3A	1.1913

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3) Rework of threads shall be uniform along entire thread length except for runout. After rewwork, major diameters of threads shall not be less than the following:

Thread Size	Major Diameter (inches)
0.500-20 UNJF-3A	0.4856
1.000-12 UNJF-3A	0.9868
1.125-12 UNJF-3A	1.1118
1.250-12 UNJF-3A	1.2368

(b) Maintain surface finish of 32 microinches on flats of major diameter and on thread flanks.

(2) Minor repair of bolt shanks.

(a) Minor repair is defined as the blending out of damage or wear by grinding, honing or machining within specified limits. Buildup to original design dimensions is not required. Stripping, repairing, or replating of chrome or silver plating is not required.

(b) Limits for minor repair.

1) Wear or damage not exceeding a depth of 0.004 inch. The sum of all reworked area lengths, measured axially along length of bolt, shall not exceed 10% of bolt grip length.

2) No rework outside of repair area specified in Fig. 601.

3) Repaired areas shall have a surface roughness of 16 microinches maximum.

(c) After repair, visual check repaired area for cracks, nicks, or damage.

(3) Major repair of bolt (Fig. 601).

(a) Strip plating per 20-30-02 (not required for BACB30PN20-93 bolts).

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CAUTION: NO REPAIR OF THE SHOULDER FILLET/UNDERCUT, SHOULDER BEARING SURFACE, OR HEAD-TO-SHANK FILLET/UNDERCUT IS PERMITTED. MINOR FRETTING MAY BE POLISHED OUT TO A DEPTH 0.002 INCH ON BOLTHEAD BEARING SURFACE.

(b) Machine per 20-10-02 as required to eliminate defects, but do not exceed dimensions shown in Fig. 601. Machining of bolts with no relief is limited to Repair Area specified in Fig. 601.

(c) Do a penetrant inspection as shown in 20-20-02.

(d) All bolts.

1) Mask threads and shop peen machined area, including thread runout, per 20-10-03, using 0.0165-0.0331 shot and 0.012A2 intensity.

2) Build up shank with hard chrome plate as follows:

CAUTION: NO CHROME PLATE PERMITTED ON THREADS, IN THREAD RUNOUT, HEAD-TO-SHANK ROLLED FILLET/UNDERCUT, OR IN RELIEF RADIUS OF BOLTS. AFTER FINISH GRINDING, PLATING THICKNESS MUST NOT EXCEED 0.010 INCH.

a) Vapor degrease or solvent clean.

b) Mask threads, thread runout, fillets/undercuts, and relief, as required.

c) Vacu-blast abrasive clean.

d) Alkaline clean and rinse to remove abrasive residue.

e) Nickel strike anodically for 15 to 45 seconds at 30 ASF. Instantly follow with cathodic current for 4 minutes at 30 to 60 ASF. Strike bath is 32 oz/gal. NiC12, 16 oz/gal. HC1 at room temperature.

f) Rinse and immediately proceed to the chromium plating bath.

g) Chromium plate at 1-1/2 to 2 ASI to deposit required plate thickness.

h) Rinse and dry.

(e) Grind chrome plate per 20-10-04 to finish dimensions. Maintain surface finish of 32 microinches.

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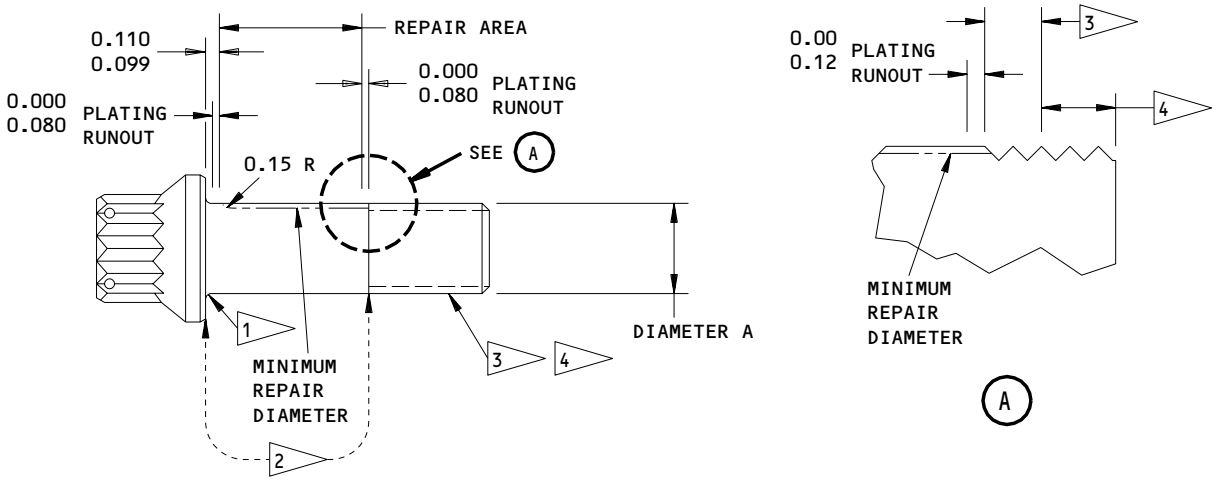
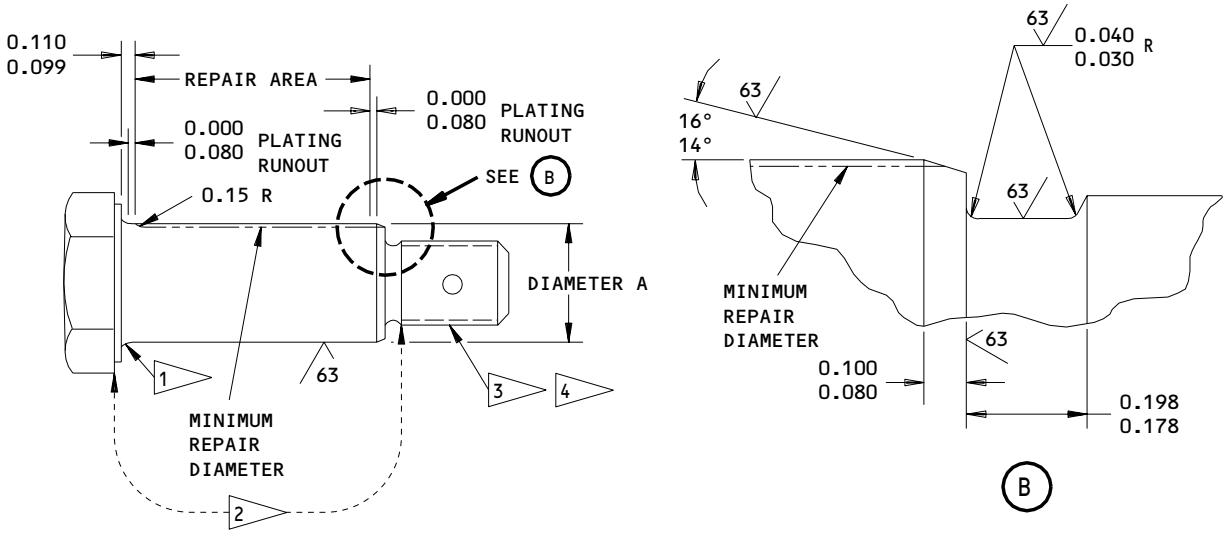


BACB30PN20-93



310T3152-6,-7,-8

310T3152-6,-7,-8,-16,-17,-18
BACB30PN20-93,BACB30PN20C93
Bolt Repairs
Figure 601 (Sheet 1)

C76574

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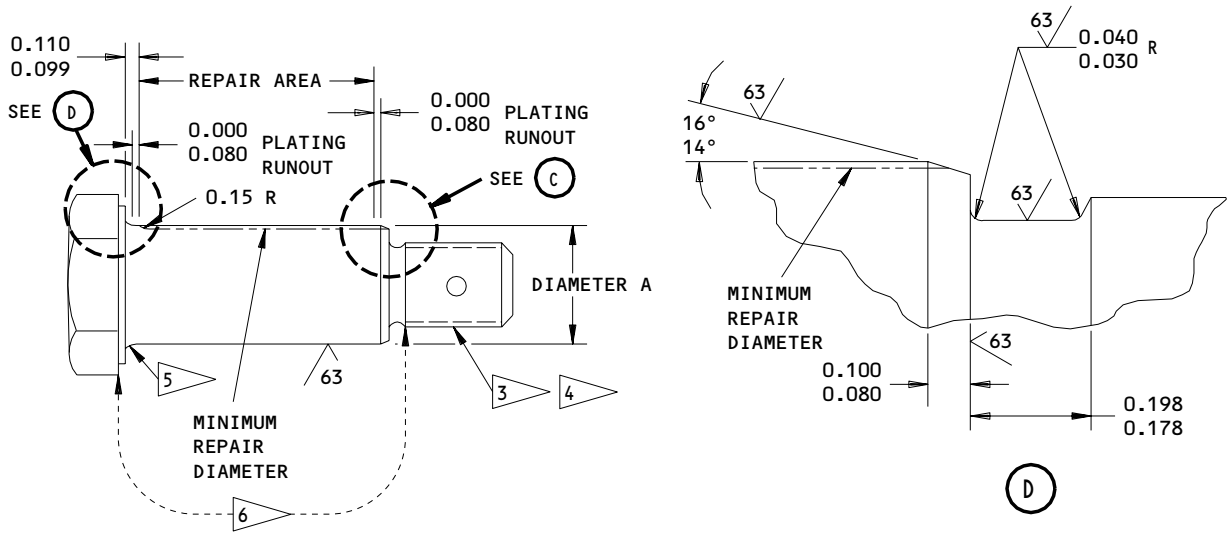
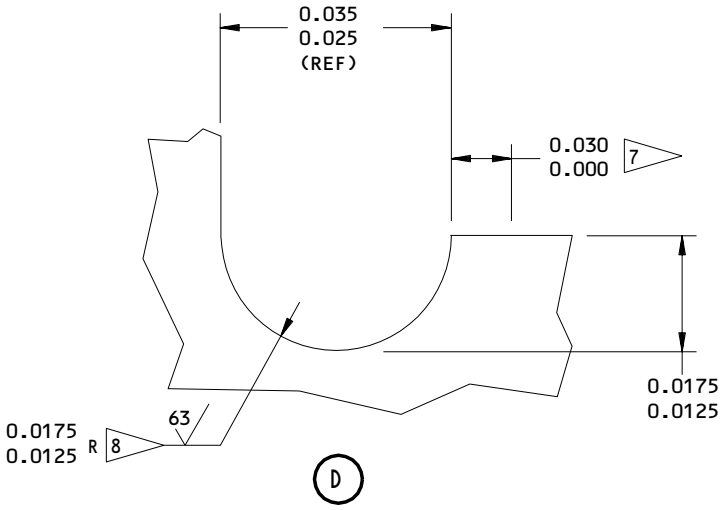


310T3152-16,-17,-18



310T3152-6,-7,-8,-16,-17,-18
BACB30PN20-93,BACB30PN20C93
Bolt Repairs
Figure 601 (Sheet 2)

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BOLT	IPL FIG. NUMBER	ITEM NUMBER	DIAMETER A	
			MINIMUM REPAIR DIAMETER	AFTER PLATING AND GRINDING DIMENSION (DESIGN DIAMETER)
310T3152-6	1	310	0.9780	0.9990 0.9980
310T3152-7	1	90A	1.3525	1.3740 1.3725
310T3152-8	1	15B	0.9780	0.9990 0.9980
310T3152-16	1	310	0.9780	0.9990 0.9980
310T3152-17	1	90A	1.3525	1.3740 1.3725
310T3152-18	1	15B	0.9780	0.9990 0.9980
BACB30PN20-93	2,3 4	310 305	1.2290	1.2490 1.2480
BACB30PN20C93	9	9	1.2290	1.2490 1.2475

1 DO NOT REWORK AND DO NOT PUT CHROME PLATE IN THESE FILLETS

2 SHOT PEEN AREA. FULLY SHOT PEEN THE FILLETS OR THE RELIEF

3 DO NOT REWORK AND DO NOT PUT CHROME PLATE ON THE THREAD RUNOUT (THE SHOT PEENING IS OPTIONAL)

4 DO NOT SHOT PEEN AND DO NOT PUT CHROME PLATE ON THE COMPLETE THREADS

5 DO NOT REWORK AND DO NOT PUT CHROME PLATE IN THESE UNDERCUTS

6 SHOT PEEN THE AREA. FULLY SHOT PEEN THE UNDERCUTS OR THE RELIEF

7 CHROME PLATE RUNOUT AREA

8 DURING AND AFTER THE PLATING PROCESS, PROTECT THE RADIUS FROM ANY CHROME DEPOSIT

9 BACB30PN20C93 IS THE OPTIONAL REPLACEMENT BOLT FOR BACB30PN20-93

MATERIAL: INCONEL 718 PER AMS 5662

310T3152-6,-7,-8,-16,-17,-18
BACB30PN20-93,BACB30PN20C93
Bolt Repairs
Figure 601 (Sheet 3)

H78739

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MISCELLANEOUS PARTS REFINISH - REPAIR 11-1

1. Repair of these parts is only replacement of the original finish. Refer to REPAIR - GENERAL for a list of applicable standard practices.

IPL FIG. & ITEM	MATERIAL	FINISH
Fig. 1		
Washers (25,100)	A286 CRES	Passivate (F-17.25, which replaces F-17.09)
Radius Filler (56)	15-5PH CRES 150-170 ksi	Passivate (F-17.25)
Cap (60)	15-5PH CRES 180-200 ksi	Passivate (F-17.25, which replaces F-17.09)
Cap (61)	15-5PH CRES 180-200 ksi	Passivate (F-17.25)
Spacer (65)	15-5PH CRES	Passivate (F-17.25, which replaces F-17.09)
Fig. 2		
Washers (40A,105A)	15-5PH CRES 180-200 ksi	Passivate (F-17.25, which replaces F-17.09)
Retainer (25)	Nickel alloy 625	Passivate ((F-17.25, which replaces F-17.09)
Fig. 3		
Washers (40), retainers (365,374)	15-5PH CRES 180-200 ksi	Passivate (F-17.25, which replaces F-17.09)

Refinish Details
Figure 601 (Sheet 1)

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IPL FIG. & ITEM	MATERIAL	FINISH
Fig. 4		
Washers (50,545)	15-5PH CRES 180-200 ksi	Passivate (F-17.25, which replaces F-17.09)
Retainer (110)	15-5PH CRES 180-200 ksi	Passivate (F-17.25, which replaces F-17.09)
Pin (135)	15-5PH CRES 180-200 ksi	Passivate (F-17.25, which replaces F-17.09)

Refinish Details
Figure 601 (Sheet 2)

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SHEAR PIN - REPAIR 12-1

310T3037-4

1. Plating Repair (Fig. 601)

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

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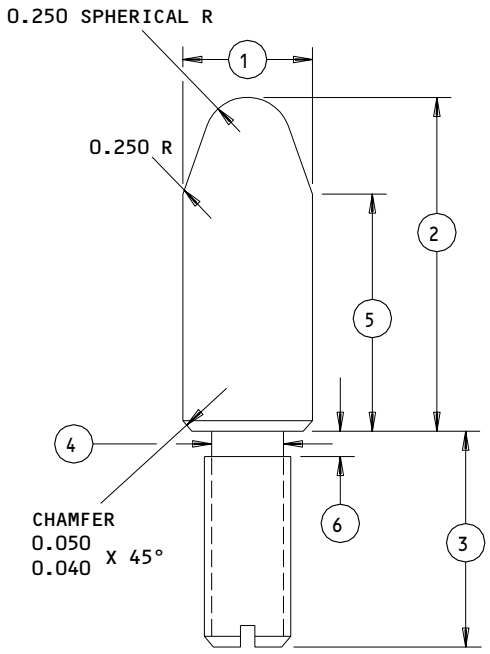

		1	2	3	4	5	6
SHEAR PIN 310T3037-4	DESIGN DIM	0.7460 0.7455	1.880 1.850	1.230 1.210	0.428 0.421	0.930 0.910	0.160 0.140
	REPAIR LIMIT	0.7255 ▷1					

FINISH

PASSIVATE (F-17.09)

▷1 LIMIT FOR CHROME PLATE BUILDUP AND GRINDING TO DESIGN DIMENSION

PLATING REPAIR

REF ▷1

CHROME PLATE (F-15.03) DIA (1), SINGLE PLATE THICKNESS 0.0030 MIN AFTER GRINDING

MATERIAL: 15-5PH, 180-200 KSI

125 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

BREAK ALL SHARP EDGES 0.030-0.060

ALL DIMENSIONS ARE IN INCHES

310T3037-4
Shear Pin Repair
Figure 601

265481

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SHEAR PIN - REPAIR 13-1

310T4038-1

1. Plating Repair (Fig. 601)

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

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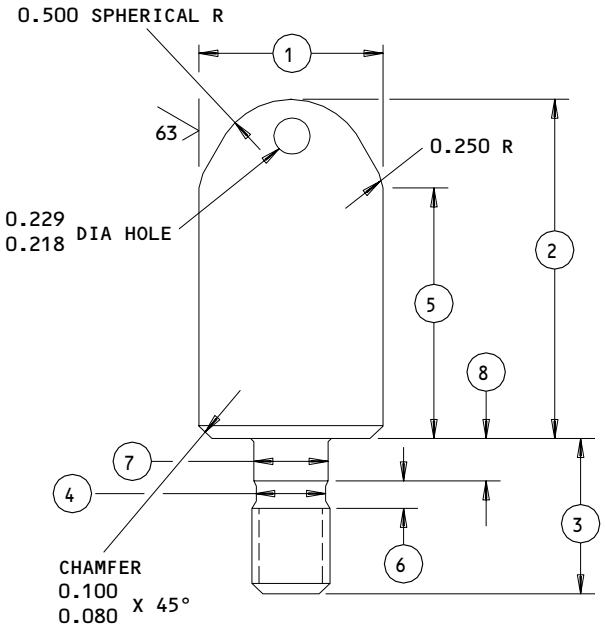

		1	2	3	4	5	6	7	8
SHEAR PIN 310T4038-1	DESIGN DIM	1.2485 1.2480	2.68 2.66	1.09 1.03	0.428 0.421	1.96 1.92	0.160 0.140	0.505 0.495	0.33 0.27
	REPAIR LIMIT	1.2280 1							

FINISH

PASSIVATE (F-17.09)

1 LIMIT FOR CHROME PLATE BUILDUP AND GRINDING TO DESIGN DIMENSION

PLATING REPAIR

REF 1

MATERIAL: 15-5PH CRES PER AMS5659, 180-200 KSI

CHROME PLATE (F-15.03) DIA (1), SINGLE PLATE

THICKNESS 0.0030 MIN AFTER GRINDING

125 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

BREAK ALL SHARP EDGES 0.005-0.015

ALL DIMENSIONS ARE IN INCHES

310T4038-1
Shear Pin Repair
Figure 601

265483

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HANGER ASSEMBLY - REPAIR 14-1

310T4032-1, -3, -5, -7, -9, -13

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

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

A. Remove old bushings.

B. 310T4032-1, -3, -9, only -- Clean hole with double application of methyl ethyl ketone. Apply wet BMS 14-4, type 1 or 2, protective coating to hole and immediately install bushings. Use shrink-fit method per 20-50-03. Wipe off any excess protective coating immediately after installation.

C. 310T4032-5, -7 only -- Apply BMS 3-24 grease to hole and install bushings. Use shrink-fit method per 20-50-03. Wipe off any excess grease after installation. OPTIONAL: Clean hole with double application of methyl ethyl ketone. Apply wet BMS 14-4, type 1 protective coating to hole and immeditely install bushings. Use shrink-fit method per 20-50-03. Wipe off excess protective coating immediately after installation.

NOTE: Do not bake after installation. Do not apply catalyst.

D. Machine flange face and ID of bushings to dimensions and finish shown. Chamfers affected by machining of flange face or reaming of bore must be re-machined to original dimensions.

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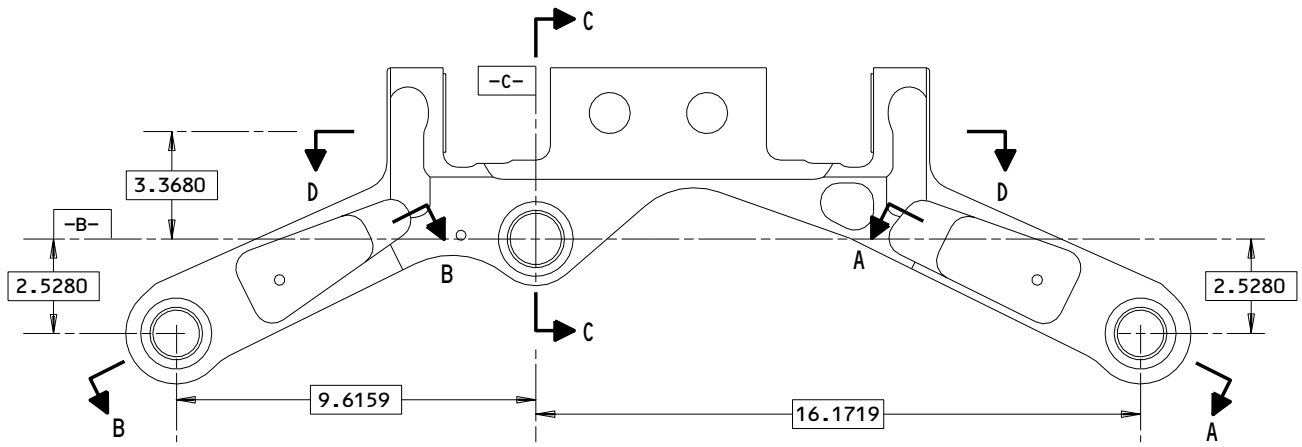
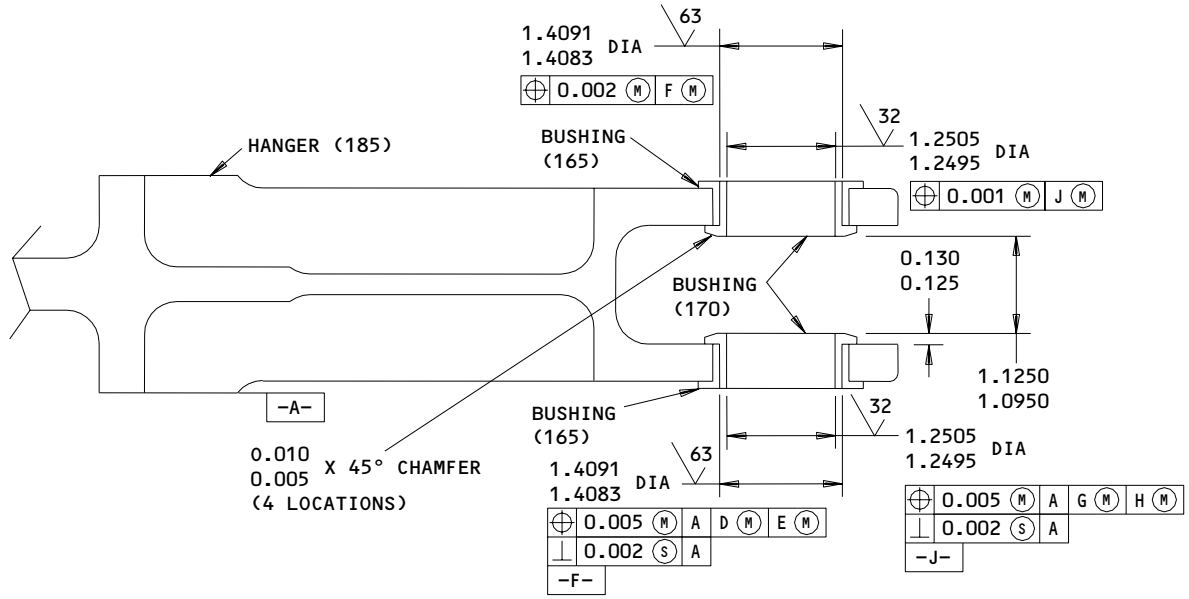
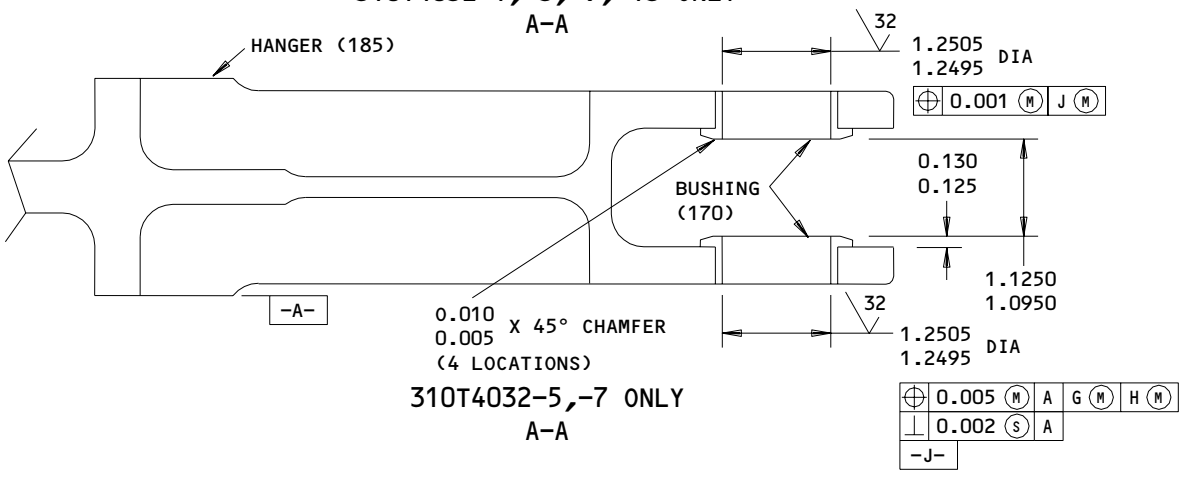




310T4032-1,-3,-9,-13 ONLY
A-A



310T4032-5,-7 ONLY
A-A

310T4032-1,-3,-5,-7,-9,-13
Bushing Replacement
Figure 601 (Sheet 1)

817605

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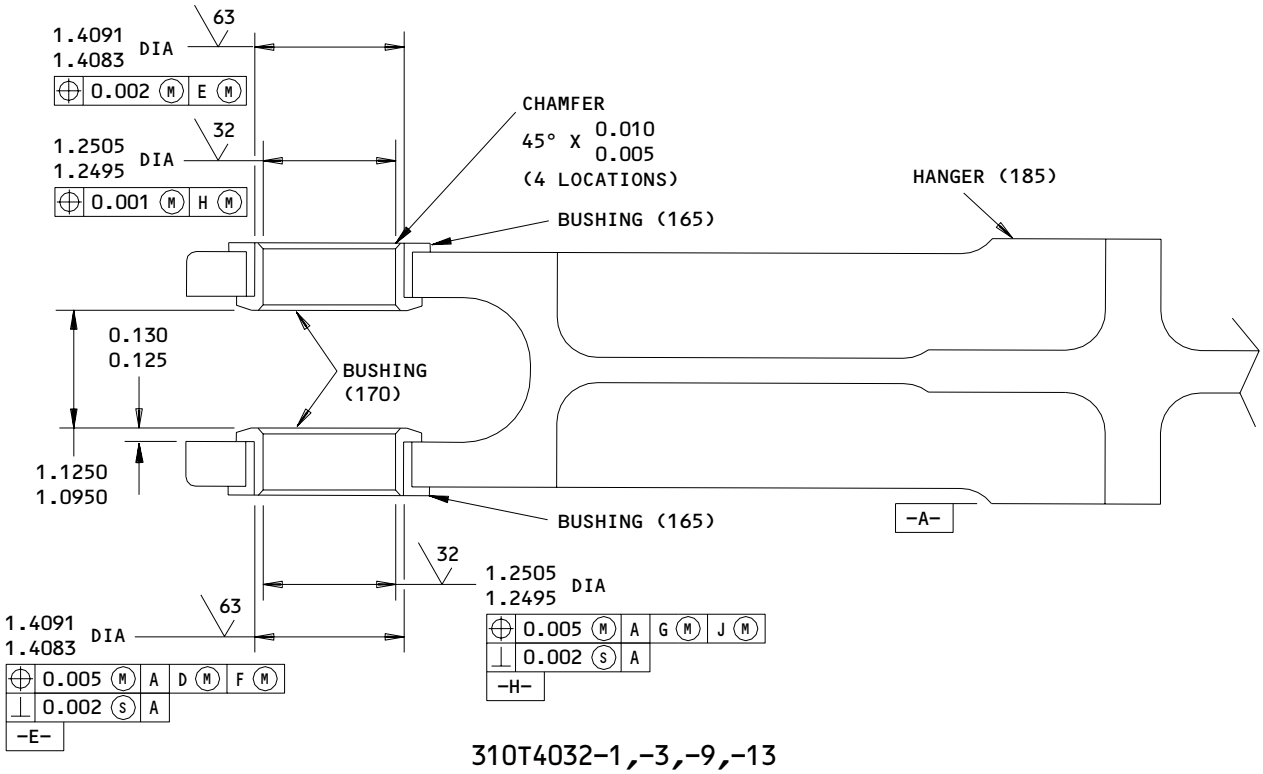
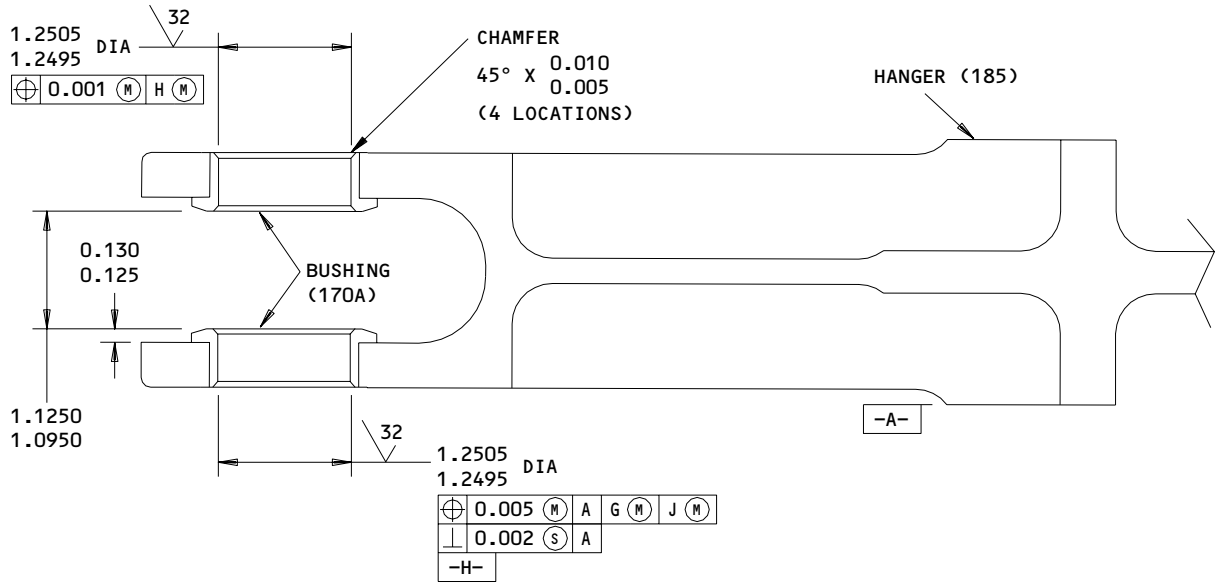


310T4032-1,-3,-9,-13
B-B



310T4032-5,-7
B-B

310T4032-1,-3,-5,-7,-9,-13
Bushing Replacement
Figure 601 (Sheet 2)

817640

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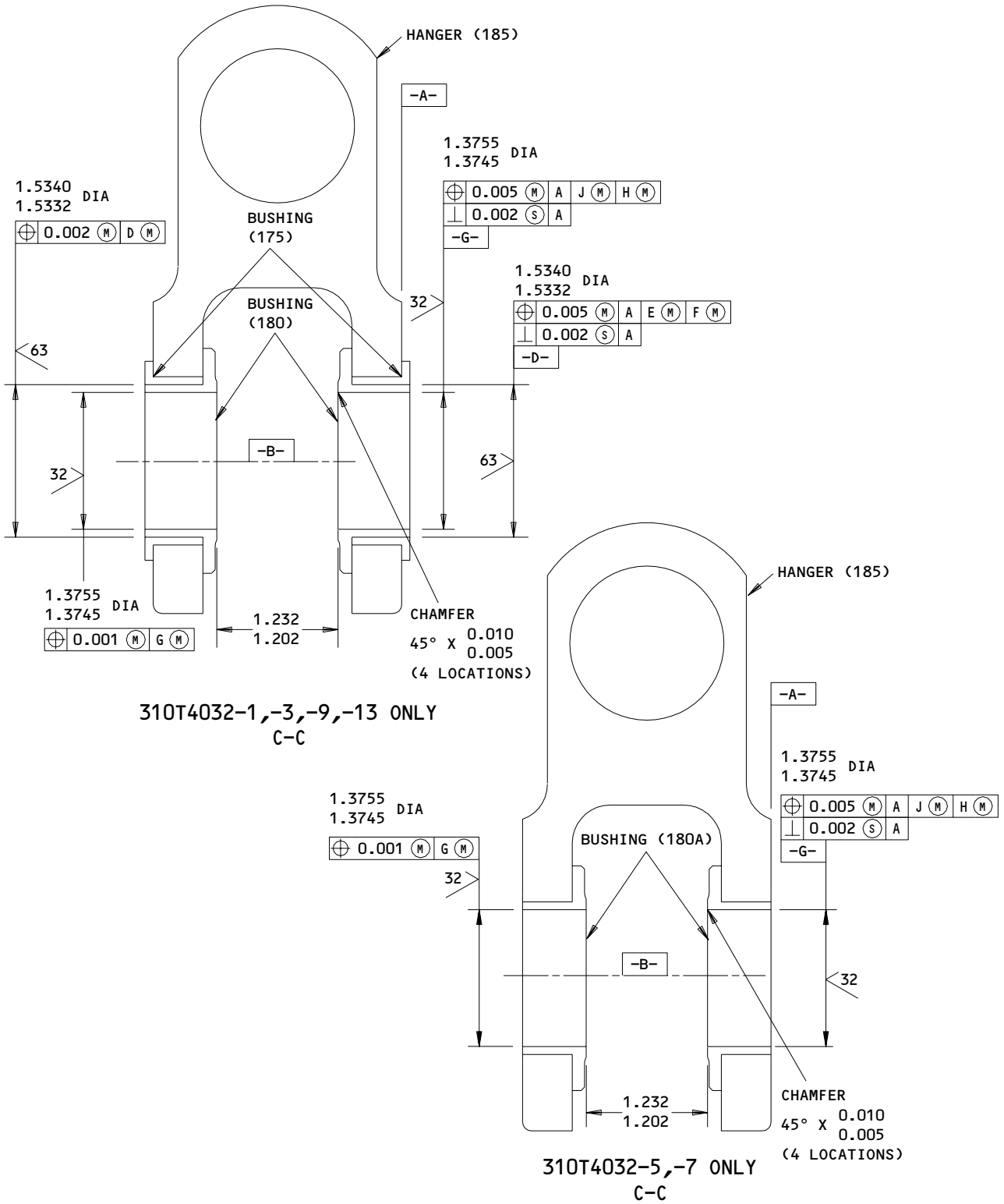

310T4032-1,-3,-5,-7,-9,-13
Bushing Replacement
Figure 601 (Sheet 3)

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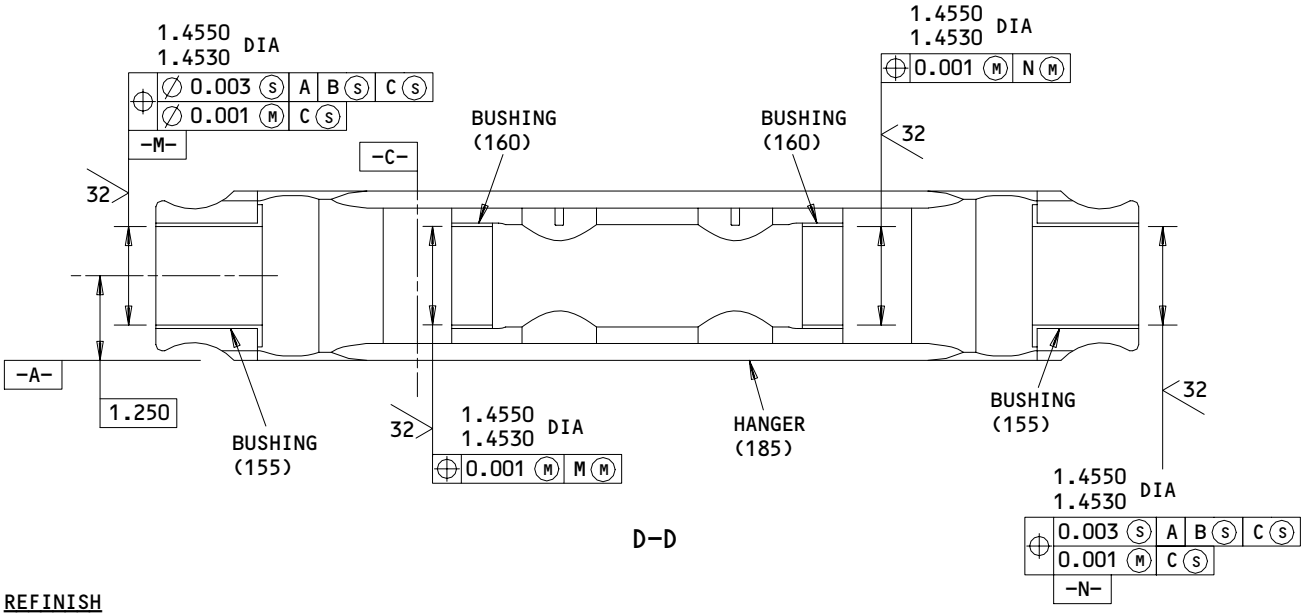

D-D

REFINISH

310T4032-1,-3--REMOVE EXCESS BMS 14-4, TYPE 1 FROM EDGE OF BUSHING FLANGE AND SURROUNDING AREA. MASK OFF ALL BUSHING FLANGE FACES, BUSHING INSIDE DIAMETERS AND PLUG ALL HOLES LEADING TO 1.51 INCH DIA CAVITY IN CENTER LUG. DRY ABRASIVE BLAST AND APPLY 10N VAPOR DEPOSITED ALUMINUM COATING, TYPE 2, CLASS 1, (F-24.06) ALL OVER EXCEPT IN BUSHING HOLES.

310T4032-5,-7--NO FINISH (F-25.01)

310T4032-9--REMOVE EXCESS BMS 14-4, TYPE 1 FROM EDGES OF BUSHING FLANGE AND SURROUNDING AREA. MASK OFF ALL BUSHING FLANGE FACES, BUSHING INSIDE DIAMETERS AND PLUG HOLES LEADING TO 1.51 INCH DIA CAVITY IN CENTER LUG. APPLY SERMETEL 985 TOP COAT TO ALL AREAS. CURED COATING SHALL NOT MARK OR CHIP WHEN SCRATCHED WITH FINGERNAIL.

OPTIONAL FINISH - REMOVE EXCESS BMS 14-4, TYPE 1 FROM EDGE OF BUSHING FLANGE AND SURROUNDING AREA. DRY ABRASIVE GRIT BLAST CLEAN AND APPLY IVD ALUMINUM COATING, TYPE 2, CLASS 1 (F-24.07) ALL OVER EXCEPT IN BUSHING HOLES. MASK OFF ALL BUSHING FLANGE FACES, TO 1.51 INCH DIA CAVITY IN CENTER LUG. APPLY SERMETEL 985 TOP COAT TO ALL AREAS. CURED COATING SHALL NOT MARK OR CHIP WHEN SCRATCH WITH FINGERNAIL.

310T4032-13--REMOVE EXCESS BMS 14-4, TYPE 1 FROM EDGE OF BUSHING FLANGE AND SURROUNDING AREA. DRY ABRASIVE GRIT BLAST CLEAN AND APPLY IVD ALUMINUM COATING, TYPE 2, CLASS 1 (F-24.07) ALL OVER EXCEPT IN BUSHING HOLES. MASK OFF ALL BUSHING FLANGE FACES, TO 1.51 INCH DIA CAVITY IN CENTER LUG. APPLY SERMETEL 985 TOP COAT TO ALL AREAS. CURED COATING SHALL NOT MARK OR CHIP WHEN SCRATCH WITH FINGERNAIL.

125 ALL MACHINED SURFACES EXCEPT AS NOTED

BREAK SHARP EDGES 0.03 - 0.04 R

BREAK HOLE EDGES 0.01 - 0.02 R AT 32

ITEM NUMBER REFERS TO FIG. 4

ALL DIMENSIONS ARE IN INCHES

310T4032-1,-3,-5,-7,-9,-13
Bushing Replacement
Figure 601 (Sheet 4)

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HANGER - REPAIR 14-2

310T4032-2, -4, -6, -8, -10, -14

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

1. Bushing Hole Repair (Fig. 601)

   A. Machine holes as required to remove defects per Fig. 601.

   B. Shot peen

   C. Manufacture oversized bushing as required per Fig. 602 to compensate for removal of material in step 1.A.

   D. Install bushing per REPAIR 14-1.

2. Scratch and Gouge Repair

   NOTE: See Fig. 501 for maximum repairable gouge depth all over and in restricted areas.

   A. Blend out scratches and gouges to 1.00-inch thick minimum radius.

   B. Mask bushing inner diameters, faces and faying surfaces prior to stripping. Locally strip the IVO coating per 20-30-02. Use 2 percent (by weight) soduim hydroxide with balance of water. Bake prior to strip not required.

   C. Apply BMS 14-4 Type I, then bake to 325°F ±25°F for 4 hours.

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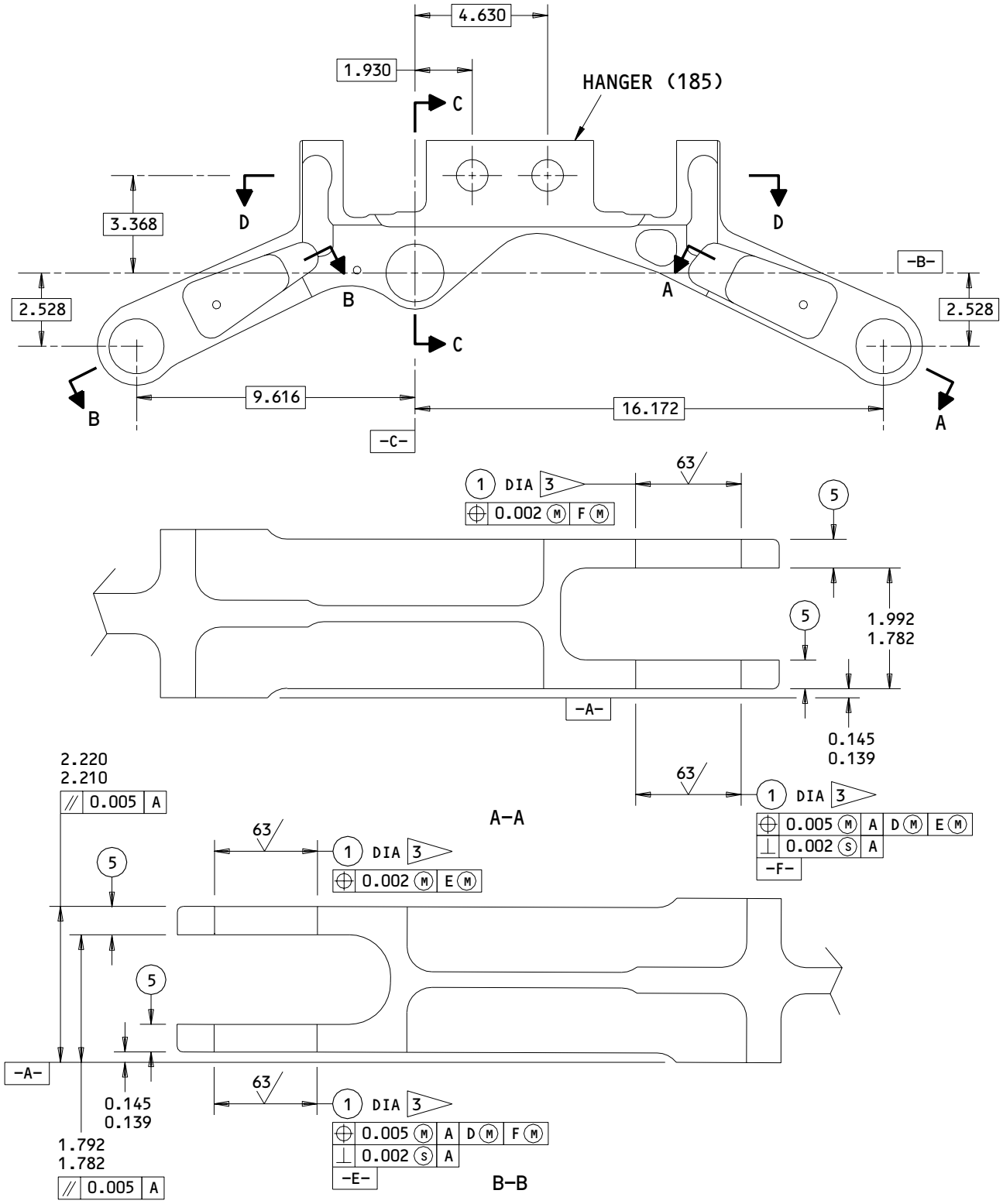

310T4032-2,-4,-6,-8,-10,-14
Hanger Repair
Figure 601 (Sheet 1)

A34961

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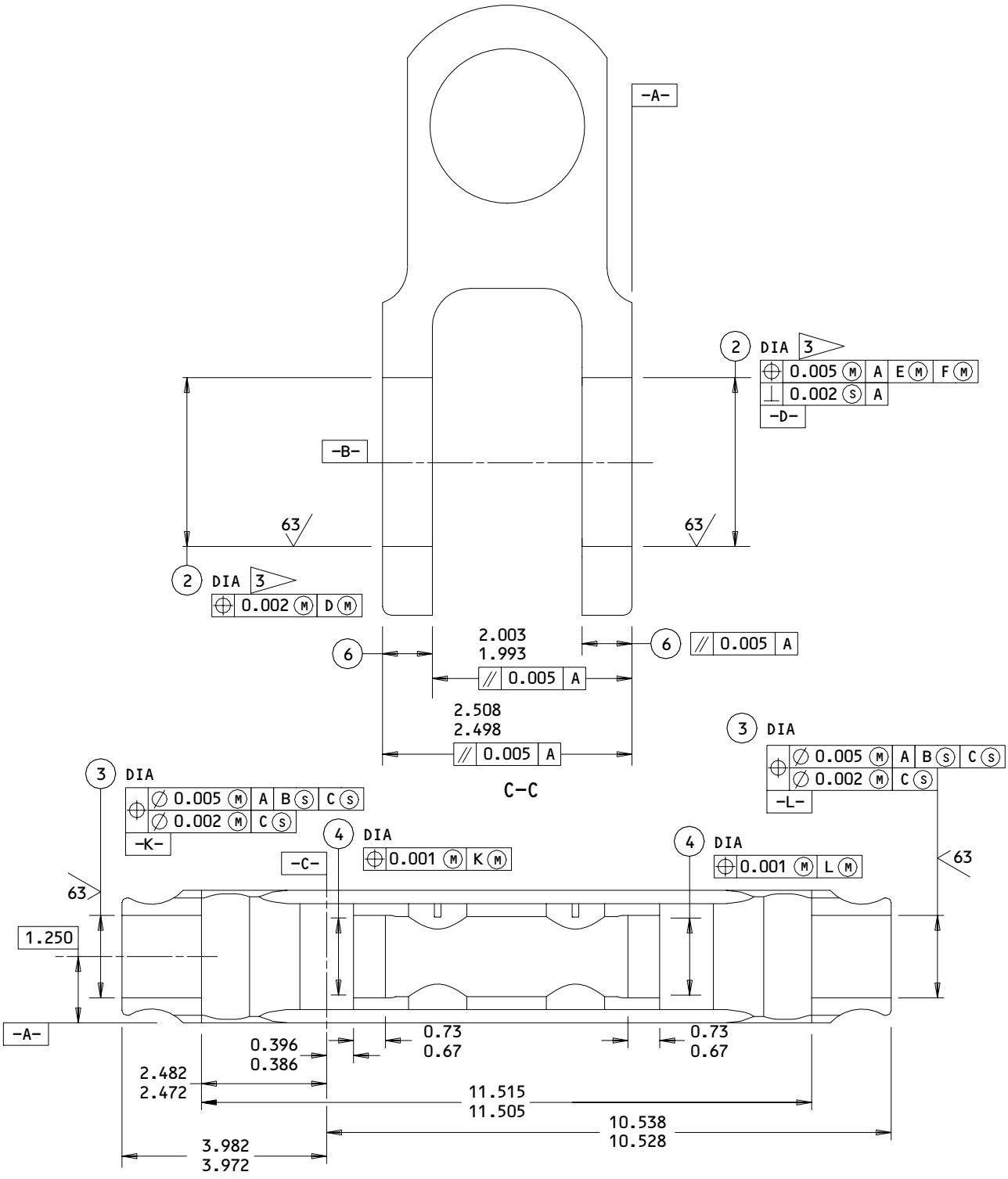

D-D
310T4032-2,-4,-6,-8,-10,-14
Hanger Repair
Figure 601 (Sheet 2)

A35070

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	(1) 1	(1) 2	(2) 1	(2) 2	(3)	(4) 1	(4) 2	(5)	(6)
DESIGN DIM	1.5676 1.5669	1.4383 1.4375	1.6925 1.6917	1.5340 1.5332	1.5574 1.5563	1.5574 1.5563	1.4550 1.4530	0.427 0.417	0.505 0.495
REPAIR LIMIT	1.6276 4		1.7525 4		1.6174 4	1.6174 4	1.5150 4	0.407 5	0.450 6

1 310T4032-2,-4,-10,-14

2 310T4032-6,-8

3 310T4032-2,-4: APPLY BMS 14-4, TYPE 1 PROTECTIVE COATING (INCLUDING BAKING AND BURNISHING) UNDER BUSHING FLANGES ONLY.

310T4032-10,-14: DRY ABRASIVE GRIT BLAST AND APPLY ION VAPOR DEPOSITED (IVD) ALUMINUM COATING (F-24.07) ALL OVER BUT NOT IN BUSHING HOLES.

OPTIONAL FINISH:
COAT ALL SURFACES THAT WILL CONTACT BUSHING FLANGES WITH BMS 14-4, TYPE 1 PROTECTIVE COATING, THEN BAKE AND BURNISH THE PART.

4 REPAIR LIMIT FOR REPAIR BY INSTALLATION OF OVERSIZED BUSHING.

5 MINIMUM REPAIR THICKNESS

REPAIR

125 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

MATERIAL: 9NI-4CO-.3C STEEL, BMS 7-182, TYPE II, NORMALIZED AND TEMPERED TO BHN 341 MAX. HT TR TO 220 KSI MINIMUM AS SHOWN IN BAC5617

MAGNETIC PARTICLE CHECK PER SOPM 20-20-01

ITEM NUMBERS REFER TO IPL FIG. 4

ALL DIMENSIONS ARE IN INCHES

310T4032-2,-4,-6,-8,-10,-14
Hanger Repair
Figure 601 (Sheet 3)

A35421

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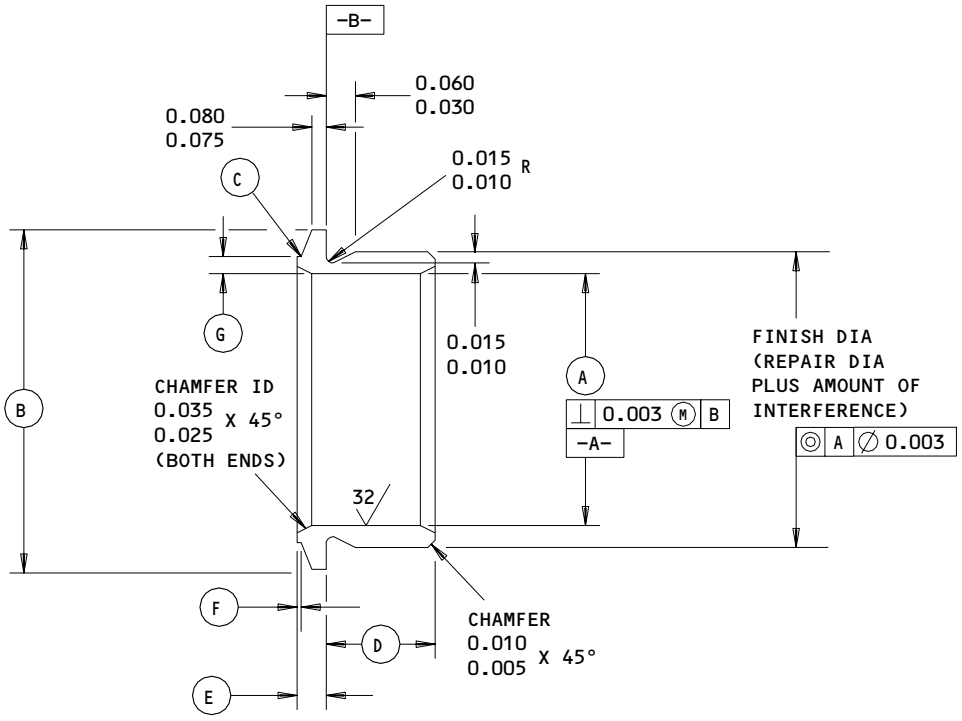

REPLACEMENT BUSHING
FOR BUSHINGS (170,170A, FIG. 4)

HOLE LOCATION (FIG. 601)	A	B	C	D	E	F	G	INTERFERENCE
1 2	1.2505 1.2495	1.760 1.740	0.015 R	0.497 0.487	0.130 0.125 1	0.010 0.005	0.070 0.065	0.0022 0.0006
1 3	1.2505 1.2495	1.697 1.677	0.015 R	0.407 0.397	0.130 0.125 1	0.010 0.005	0.070 0.065	0.0026 0.0009

310T4032-2,-4,-6,-8,-10,-14
Oversize Bushing Detail
Figure 602 (Sheet 1)

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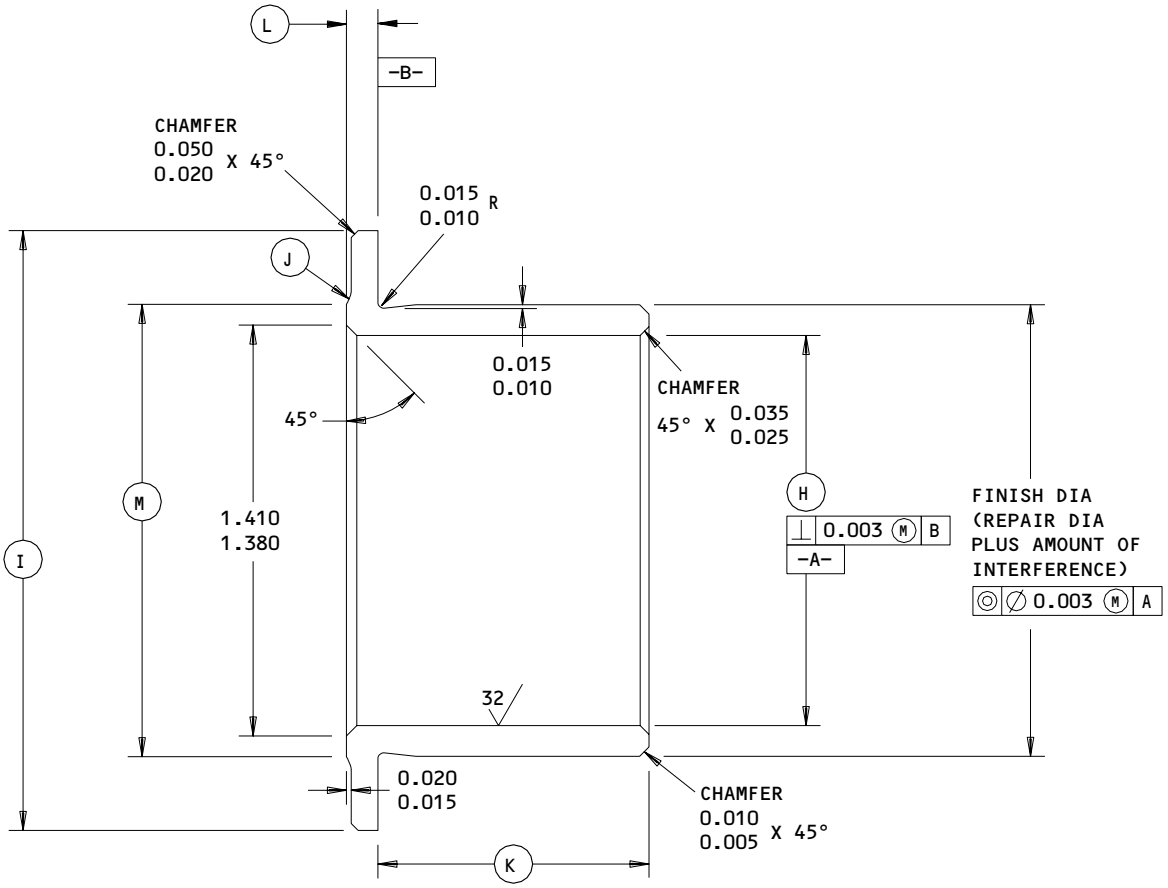

REPLACEMENT BUSHING
FOR BUSHINGS (180,180A, FIG. 4)

HOLE LOCATION (FIG. 601)	H	I	J	K	L	M	INTERFERENCE
2 4	1.3755 1.3745	2.270 2.250	0.13 R 0.09	0.575 0.565	0.143 0.138	1.600 1.590	0.0023 0.0007
2 5	1.3755 1.3745	2.270 2.250	0.13 R 0.09	0.495 0.485	0.143 0.138	1.600 1.590	0.0023 0.0007

310T4032-2,-4,-6,-8,-10,-14
Oversize Bushing Detail
Figure 602 (Sheet 2)

A35153

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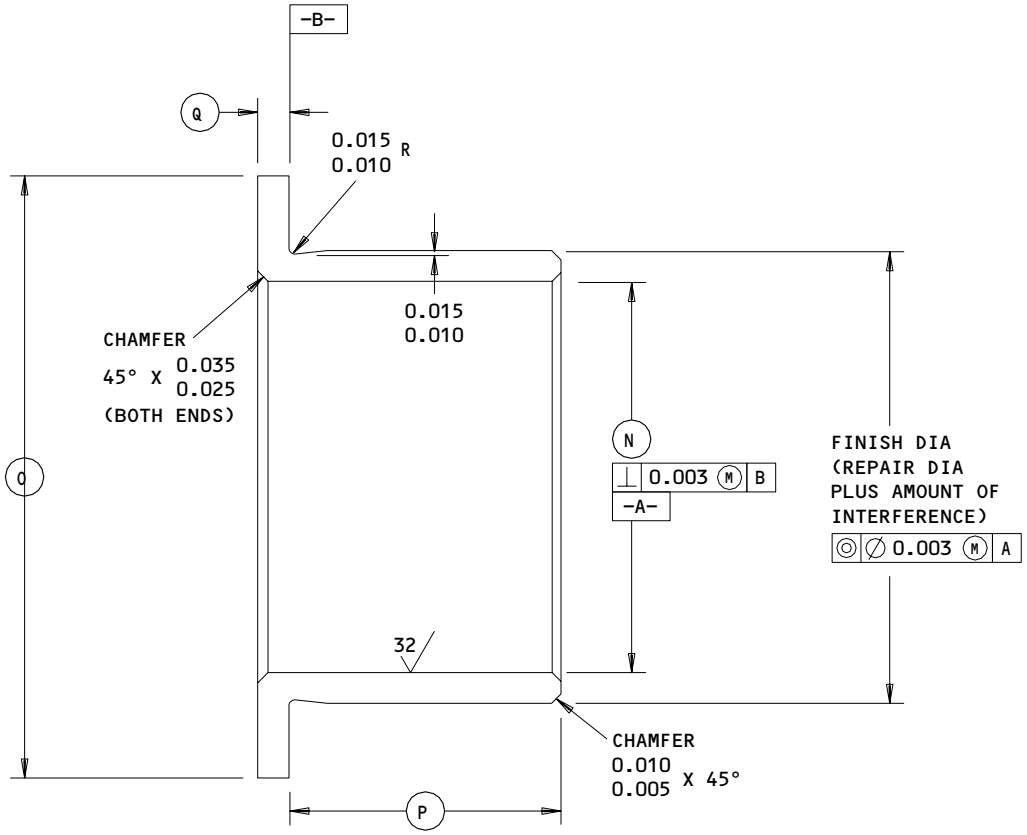

REPLACEMENT BUSHING
FOR BUSHINGS (165,175, FIG. 4)

HOLE LOCATION (FIG. 601)	N	O	P	Q	INTERFERENCE
1 6	1.4091 1.4083	1.910 1.890	0.415 0.405	0.085 0.080	0.0024 0.0008
2 7	1.5340 1.5332	2.010 1.990	0.493 0.483	0.085 0.080	0.0025 0.0007
3 8	1.4550 1.4530	2.110 2.090	1.483 1.473	0.072 0.068	0.0028 0.0011

310T4032-2,-4,-6,-8,-10,-14
Oversize Bushing Detail
Figure 602 (Sheet 3)

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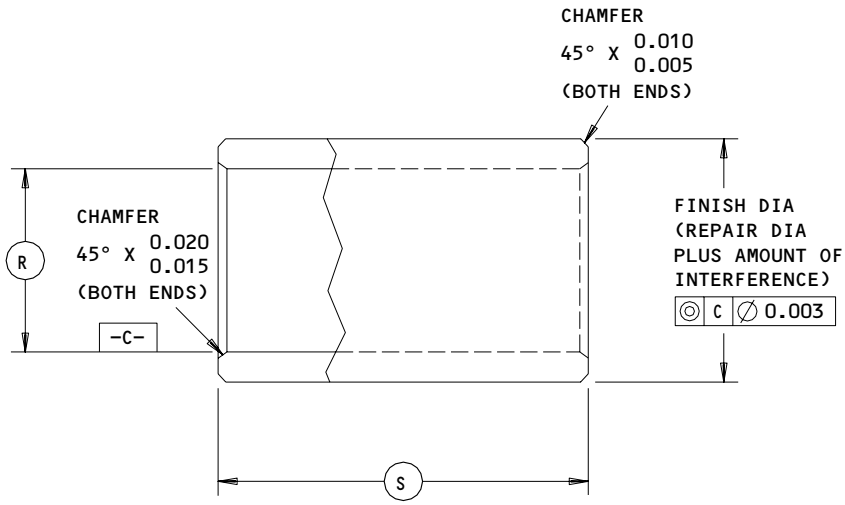

HOLE LOCATION (FIG. 601)	R 10	S	INTERFERENCE
4 9	1.4550 1.4530	0.605 0.595	0.0028 0.0011

FINISH

NO FINISH (F-25.01).

1. THIS DIMENSION IS NET - ALLOW 0.01-0.015 INCH EXCESS FOR MACHINING OF FLANGE FACE AFTER INSTALLATION OF BUSHING
2. REPLACES BUSHING (170, FIG. 4) 302T0200-132
3. REPLACES BUSHING (170A, FIG. 4) 302T0200-126
4. REPLACES BUSHING (180, FIG. 4) 302T0200-138
5. REPLACES BUSHING (180A, FIG. 4) 302T0200-142
6. REPLACES BUSHING (165, FIG. 4) 302T0200-131
7. REPLACES BUSHING (175, FIG. 4) 302T0200-129
8. REPLACES BUSHING (155, FIG. 4) 302T0200-139
9. REPLACES BUSHING (160, FIG. 4) 302T0200-140
10. THIS DIMENSION IS NET - FINAL DIMENSION TO BE ACHIEVED ON FINAL ASSEMBLY

63 MACHINED SURFACES EXCEPT AS NOTED

BREAK SHARP EDGES

MATERIAL: INCONEL 718 PER AMS 5662

HEAT TREAT CONDITION II

PENETRANT CHECK

ALL DIMENSIONS ARE IN INCHES

310T4032-2,-4,-6,-8,-10,-14
Oversize Bushing Detail
Figure 602 (Sheet 4)

A35187

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HINGE PIN - REPAIR 15-1

310T4012-1, -2

1. Pin Repair (Fig. 601)

NOTE: Refer to REPAIR - GENERAL for a list of applicable standard practices. Use this method if wear on pins is more than the service wear limits in Fig. 801 and is within the repair limits in Fig. 601.

A. Remove remaining chrome plating (SOPM 20-30-02).

(1) If hinge pin 310T4012-1 was not repaired before, completely machine the thin dense chrome plating from the pin to within the maximum 1.437 inch diameter and the minimum allowable pin diameter.

B. Shot peen machined surfaces as indicated.

C. Build up with chrome plate as shown.

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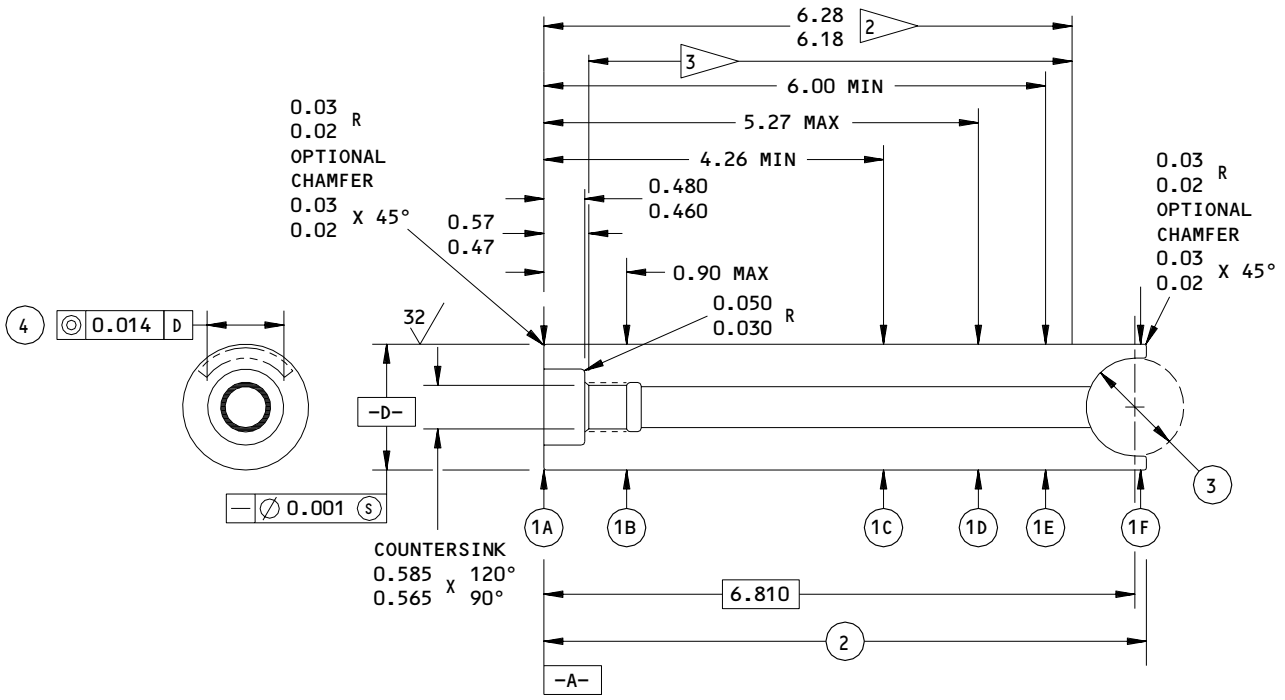

	1A → 1B	1B → 1C	1C → 1D	1D → 1E	1E → 1F	2	3	4
DESIGN DIM	1.4500 1.4490	1.4500 1.4490	1.4500 1.4490	1.4500 1.4490	1.4500 1.4490	6.96 6.92	1.1295 1.1280	0.880 0.870
REPAIR LIMIT	1.4000 (1)	1.4290 (1)	1.4290 (1)	1.4290 (1)	1.4000 (1)	---	---	---

1. ALLOWABLE MINIMUM PIN DIAMETER FOR MACHINING BEFORE CHROME PLATING. SEE FIG. 801 FOR SERVICE WEAR LIMITS.
2. SHOT PEEN THIS AREA (SOPM 20-10-03)
   0.008-0.012 A2 INTENSITY
   0.017-0.046 SHOT SIZE
3. BUILD UP THIS AREA WITH CHROME PLATE DIAMETER (1A) THRU (1F) (SOPM 20-42-03). MAKE THE PLATING 0.003-0.012 INCH THICK ON DIAMETERS (1B) TO (1E). AREA INCLUDES 0.070-0.090 PLATING RUNOUT

125 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

MATERIAL: NICKEL ALLOY 718 BAR

BREAK ALL SHARP EDGES

ALL DIMENSIONS ARE IN INCHES

310T4012-1,-2
Hinge Pin Repair
Figure 601

813295

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ASSEMBLY

1. Materials

   A. Lockwire -- MS20995NC32 (SOPM 20-60-04)

   B. Antiseize Compound -- Never-Seez Pure Nickel Special (SOPM 20-60-03)

   C. Sealant -- BMS 5-26, Type 2, Class B 1/2 (SOPM 20-60-04)

   D. Protective Coating -- BMS 14-4, Type 1 (SOPM 20-60-02)

2. Assemble Forward Engine Mount (IPL Fig. 1)

   A. Install shear pins (125) on fitting assembly (110A) with washers (120) and nuts (115). Tighten nuts (115) to 630-950 pound-inches.

   B. Install nut retainers (342) and barrel nuts (344) on fitting assembly (110A). Make sure you did a run-on torque check of bolts (335,345) into barrel nuts (344) per par. 2.E. of CHECK section before you install these items. Do this check on all new and previously used barrel nuts (344).

   C. Install bearing housing (70) with attached bearing (70) on fitting assembly (110A).

   CAUTION: INSTALL END CAP SO THAT THE BOLTHEADS ARE WITHIN THE END CAP COUNTERBORE.

   D. Apply anti-seize compound to threads and shank of bolts (50, 50A, 50B, 50C, 50D). Install the end cap (60 or 61) on fitting assembly (110A) with bolts (50-series), washers (55) or radius filler (56). Tighten bolts (50B) to 650-900 pound-inches or bolts (50A, 50C, 50D) to 1400-1500 pound-inches. Lockwire bolts by the double-twist method (SOPM 20-50-02).

   NOTE: Refer to SB 747-71A2283 or SB 767-71A0087.

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E. Install spacer (65) into bearing housing (75A) and against outer race of bearing (70A).

F. Install thrust link assembly (10) on evener bar (155) with bolt (15) (bolthead upward), washer (20) (under bolthead), washer (25) (under nut) and nut (30). Check run-on torque of nut (30) per CHECK par. 4. Tighten nut (30) to 650-750 pound-inches. Install cotter pin (7) and apply sealant to both ends of cotter pin to prevent cotter pin movement.

G. Install evener bar assembly (140) on fitting assembly (110A) with bolt (90) (bolthead upward), washer (95) (under bolthead), washer (100) (under nut) and nut (105). Check run-on torque of nut (105) per CHECK par. 4. Tighten nut (105) to 750-900 pound-inches. Install cotter pin (87) and apply sealant to both ends of cotter pin to prevent cotter pin movement.

3. Assemble Aft Engine Mount (IPL Fig. 2)

A. Install shear pins (145) on hanger (130) with washer (140), nuts (135). Tighten nuts (135) to 290-410 pound-inches.

CAUTION: HEAD OF BOLTS (30) MUST BE ON THE AFT SIDE OF HANGER (130) WHEN INSTALLED TO PREVENT BINDING.

B. Apply antiseize compound to the threads and shank of bolts (5, 30). Install tangential links (50) and pins (35) on hanger (130) with bolts (30), washers (40), and nuts (45). Put washer (40) under nut (45). Tighten nuts (45) to 220-410 pound-inches. Install retainers (25) with bolts (5), washers (10) (under bolthead), washers (15) (under nut), and nuts (20).

CAUTION: HEAD OF BOLTS (95) MUST BE ON THE AFT SIDE OF HANGER (130) WHEN INSTALLED TO PREVENT BINDING.

C. Apply antiseize compound to the threads and shank of bolts (70, 95). Install center link (115) and pin (100) on hanger (130) with bolt (95), washer (105), and nut (110). Tighten nut (110) to 220-410 pound-inches. Install retainer (90) with bolt (70), washer (75) (under bolthead), washer (80) (under nut), and nut (85).

4. Assemble Aft Engine Mount (IPL Fig. 3)

A. Install shear pins (110) on hanger assembly (95) with washer (100), nuts (105). Tighten nuts (105) to 290-410 pound-inches.

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CAUTION: HEAD OF BOLTS (35) MUST BE ON THE AFT SIDE OF HANGER ASSEMBLY (95) WHEN INSTALLED TO PREVENT BINDING.

B. Apply anti-seize compound to the threads and shank of bolt (7). Install tangential links (60) and pins (55) on hanger assembly (95) with bolts (37), washers (40), and nuts (45). Put washer (40) under nut (45). Tighten nuts (45) to 220-410 pound-inches. Install retainers (25) with bolts (7), washers (10) (under bolthead), washers (15) (under nut) and nuts (20).

CAUTION: HEAD OF BOLTS (35) MUST BE ON THE AFT SIDE OF HANGER ASSEMBLY (95) WHEN INSTALLED TO PREVENT BINDING.

C. Install center link (80) and pin (50) on hanger (135) with bolt (35, 37), and washer (40), and nut (45). Tighten nut (45) to 220-410 pound-inches. Install retainer (30) with bolt (5, 7), washer (10) (under bolthead), washer (15) (under nut) and nut (20).

5. Assemble Aft Engine Mount (IPL Fig. 4)

CAUTION: HEAD OF BOLTS (40) MUST BE ON THE AFT SIDE OF HANGER (150) WHEN INSTALLED TO PREVENT BINDING.

A. Install tangential links (70, 72) and pins (65) on hanger (150) with bolts (40), washers (50), and nuts (55). Put washer (50) under nut (55). Tighten nuts (55) to 220-410 pound-inches. Install retainers (30) with bolt (5), washers (15) (under bolthead), washer (20) (under nut), and nut (25).

CAUTION: TANGENTIAL LINK (72) MUST BE INSTALLED ON THE LEFT HAND SIDE OF HANGER.

B. Apply antiseize compound to threads and shank of bolt (505). Install bolt (505), washer (510) (under bolthead), washer (515) (under nut), and nut (520). Do not tighten, because these parts will be removed and installed again upon installation.

CAUTION: HEADS OF BOLTS (45) MUST BE ON THE AFT SIDE OF HANGER (150) WHEN INSTALLED TO PREVENT BINDING.

C. Install center link (90) and pin (60) on hanger (150) with bolt (45), washer (50), and nut (55). Put washer (50) under nut (55). Tighten nut (55) to 220-410 pound-inches. Install retainer (35) with bolt (10), washer (15) (under bolthead), washer (20) (under nut), and nut (25).

CAUTION: HEAD OF BOLT (535) MUST BE ON THE FORWARD SIDE OF CENTER LINK (90) WHEN INSTALLED TO PREVENT BINDING.

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D. Install pin (540), bolt (535), washer (545), and nut (550). Washer (545) is installed under nut (550). Do not tighten, because these parts will be removed and installed again upon installation.

E. Install barrel nuts (145A) as follows:

NOTE: Make sure you did a run-on torque check of bolts (115) into barrel nuts (145A) per par. 2.E. of CHECK section before you install these items. Do this check on all new and previously used barrel nuts (145A).

(1) Align barrel nut housing (135), retainer (140), and barrel nut (145A) and insert into hanger (150).

(2) Attach barrel nut (145A) with spring pin (130) as follows:

(a) Fill spring pin hole with wet BMS 14-4, Type 1 coating.

(b) Install spring pin (130) into hanger (150).

(c) Remove unwanted BMS 14-4, type 1 coating on outside of pin (130). Do not bake.

NOTE: Protrusion of pin (130) 0.09-0.15 inch outside of hanger (150) is intentional.

F. Install hinge pin (125) into vibration isolator (190B) with slot aligned with barrel nut housing (135) to prevent hinge pin (125) rotation.

G. Apply antiseize compound to threads and shank of bolt (115) and install it with washer (120). Install washer (120) with countersink facing bolthead. Tighten bolt (115) to 200-300 pound-inches. Install retainer (110) with bolt (105). Lockwire bolts by the double-twist method (SOPM 20-50-02).

6. Give protection to these components and put them away by standard industry practices and the instructions in SOPM 20-44-02 and 20-70-01.

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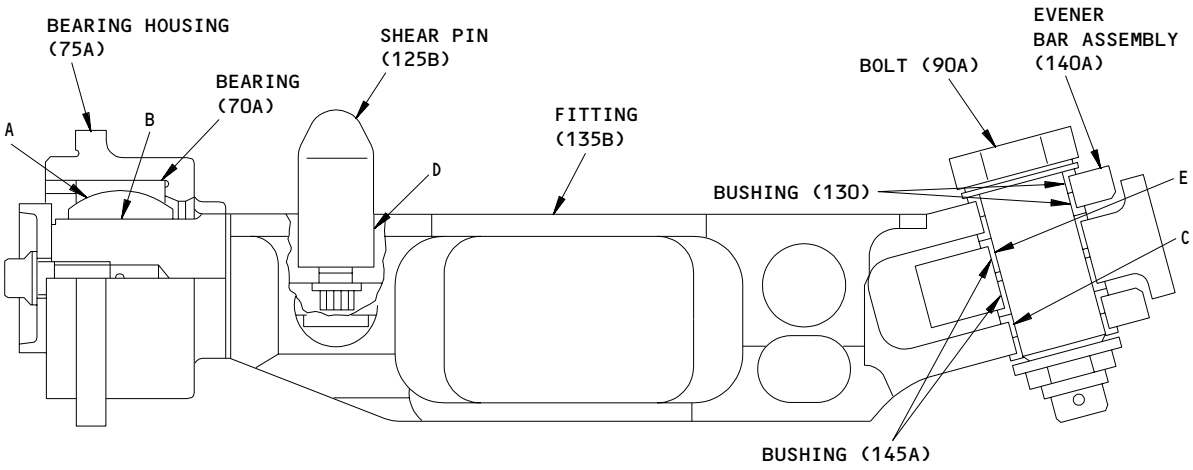
FITS AND CLEARANCES



ITEM NUMBERS REFER TO IPL FIG. 1

Fits and Clearances
Figure 801 (Sheet 1)

266488

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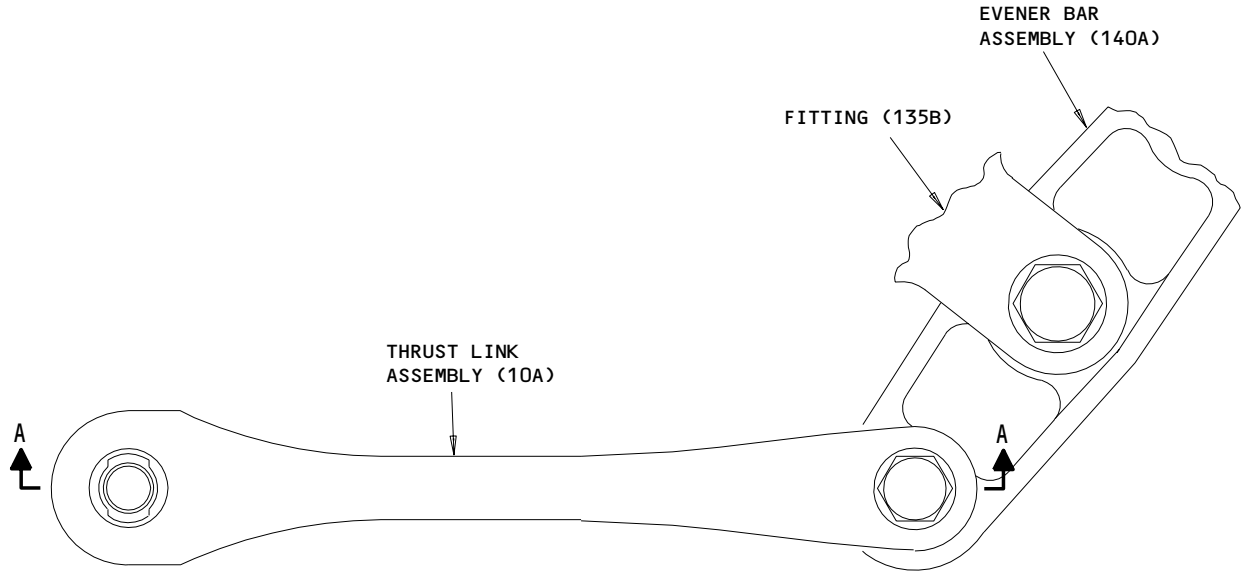

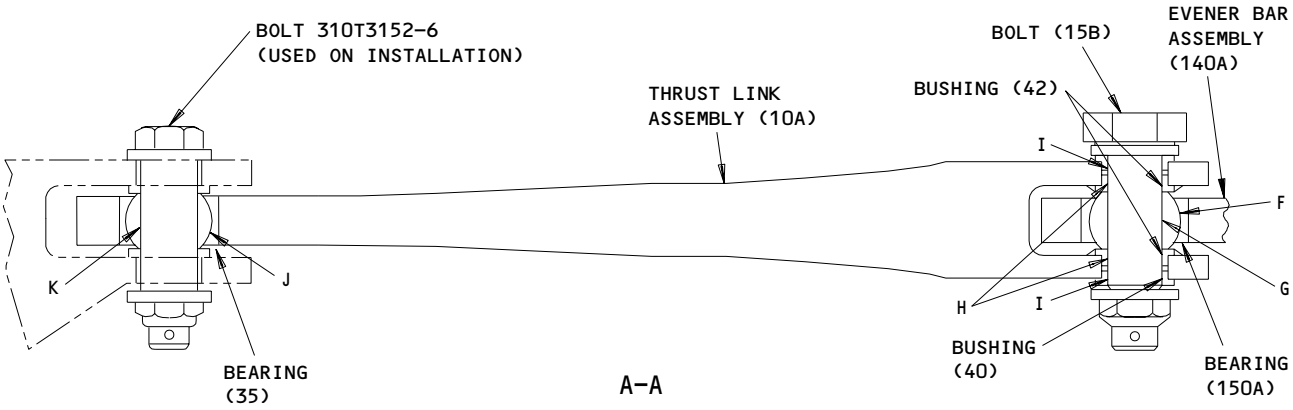

ITEM NUMBERS REFER TO IPL FIG. 1

Fits and Clearances
Figure 801 (Sheet 2)

266492

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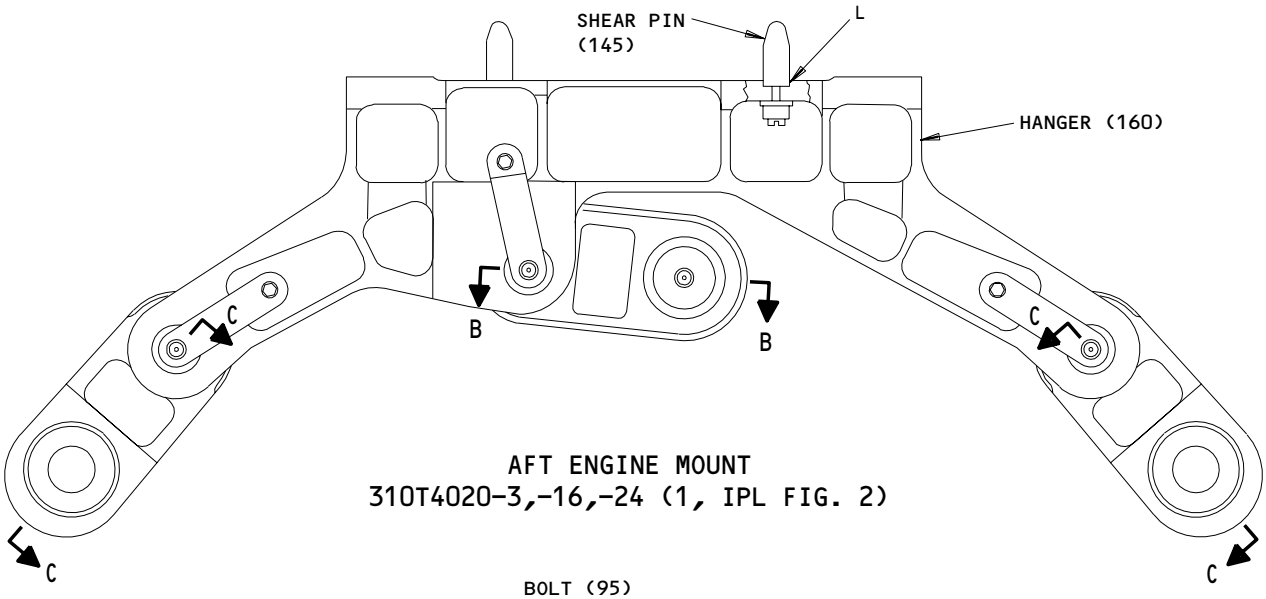
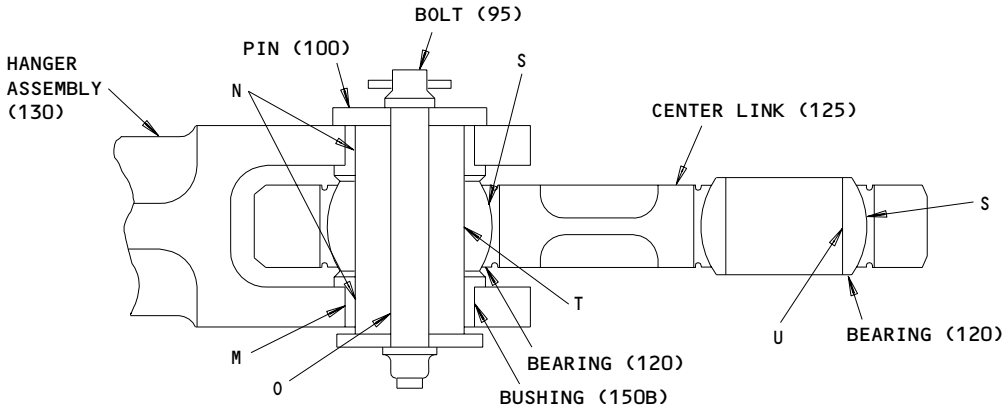
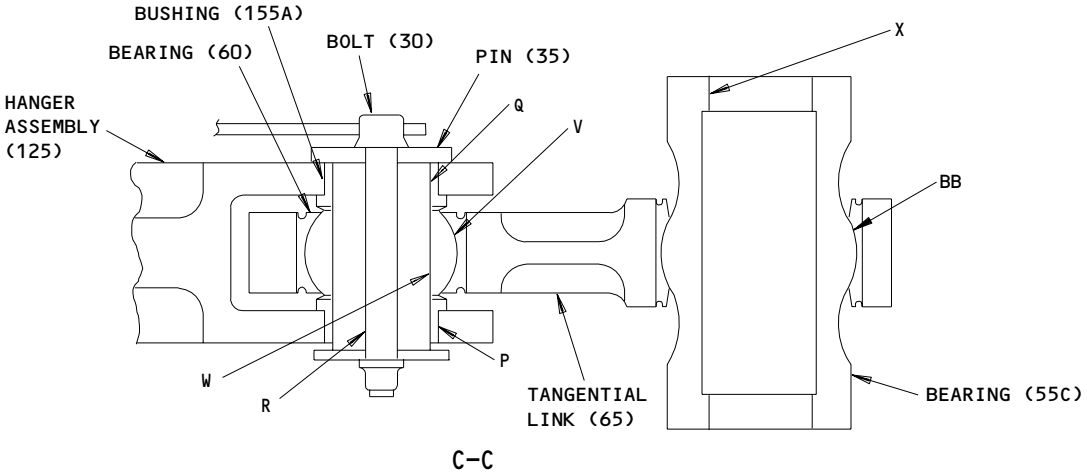


AFT ENGINE MOUNT
310T4020-3,-16,-24 (1, IPL FIG. 2)



B-B



C-C

ITEM NUMBERS REFER TO IPL FIG. 2

Fits and Clearances
Figure 801 (Sheet 3)

266494

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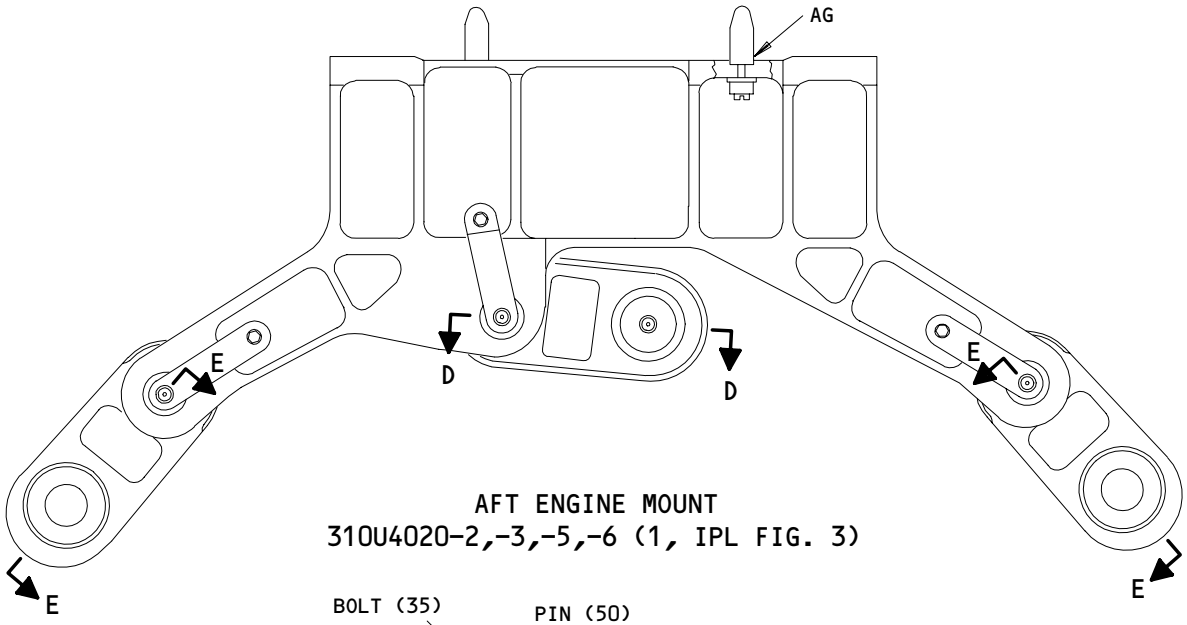
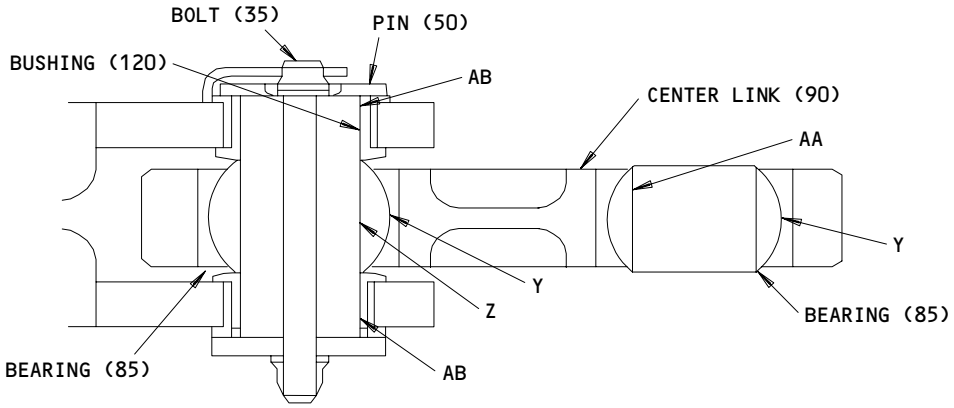
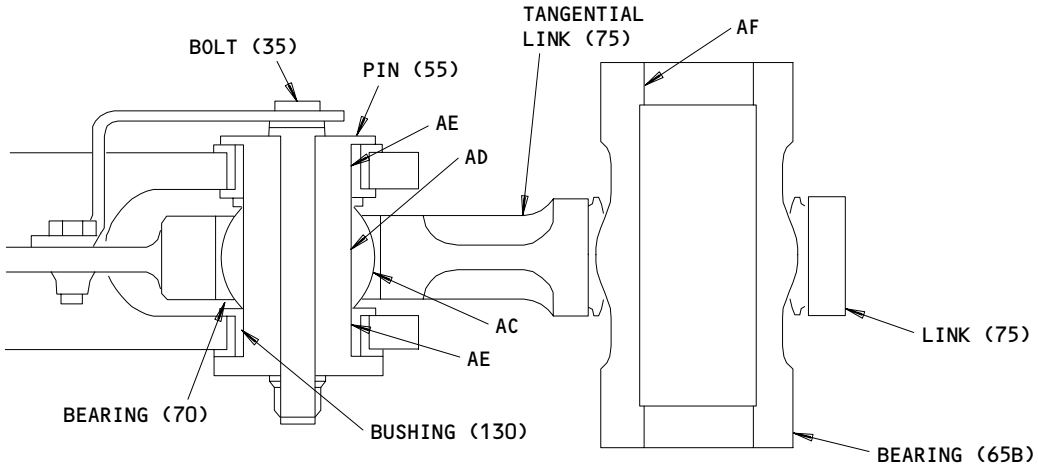


AFT ENGINE MOUNT
310U4020-2,-3,-5,-6 (1, IPL FIG. 3)



D-D



E-E

ITEM NUMBERS REFER TO IPL FIG. 3

Fits and Clearances
Figure 801 (Sheet 4)

266498

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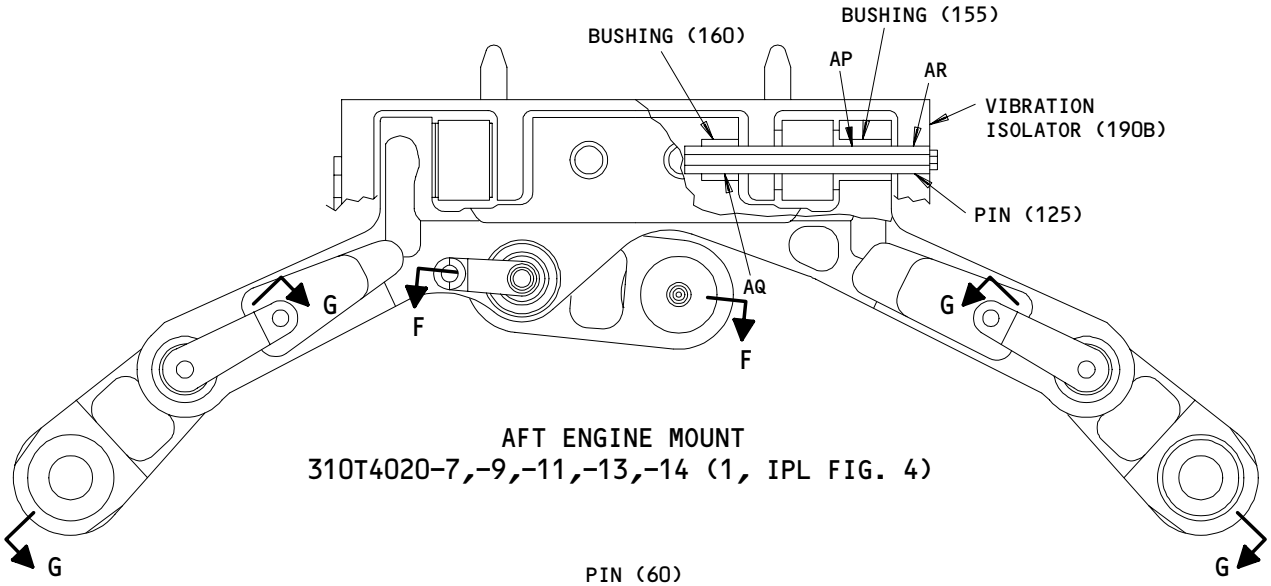
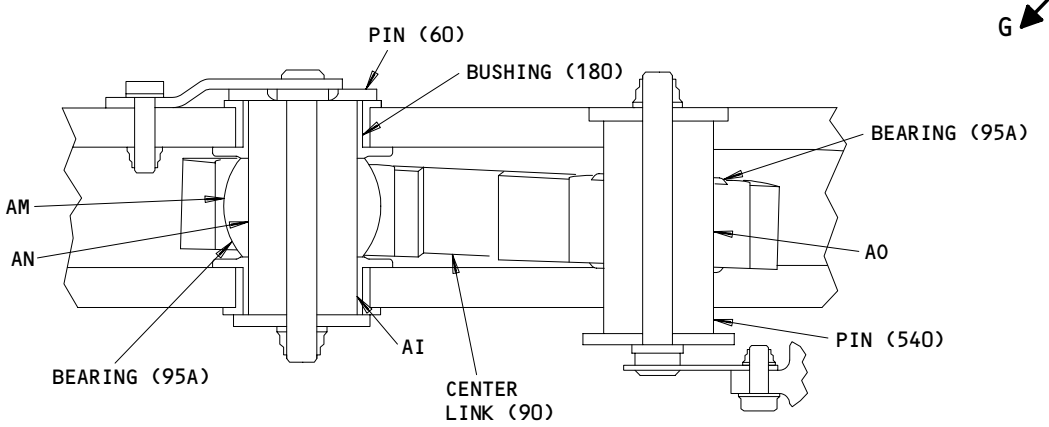
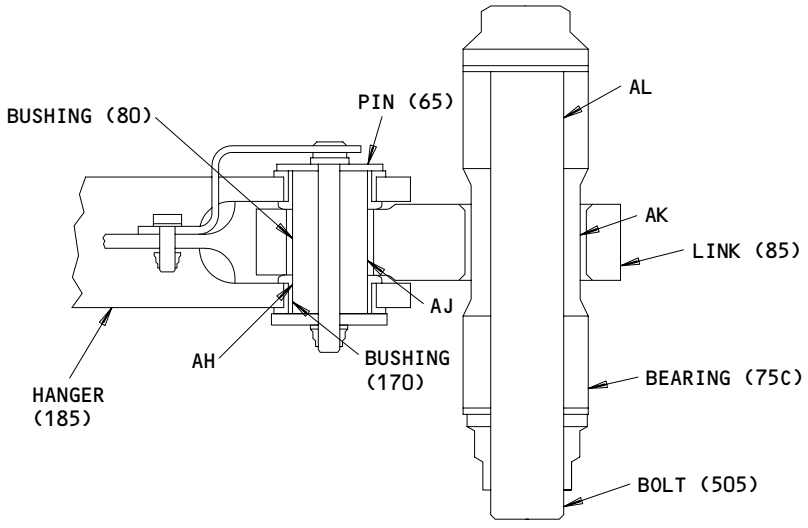


AFT ENGINE MOUNT
310T4020-7,-9,-11,-13,-14 (1, IPL FIG. 4)



F-F



G-G

ITEM NUMBERS REFER TO IPL FIG. 4

Fits and Clearances
Figure 801 (Sheet 5)

A35536

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Ref Letter Fig.801	Mating Item No.	IPL Fig. No.	Design Dimension				Service Wear Limit		
			Dimensions		Assembly Clearance		Dimension Limits		Maximum Allowable Clearance
			Min	Max	Min	Max	Min	Max	
A	ID 70A RACE	1	2.8765	2.8775	0.0020	0.0040	2.8715	2.8795	2
	OD 70A BALL	1	2.8735	2.8745					
B	ID 70A BALL	1	1.9992	2.0000	0.0019	0.0033	1.9950	2.0017	0.0050
	OD 135B	1	1.9967	1.9973					
C	ID 130	1	1.3745	1.3755	0.0005	0.0030	1.3702	1.3778	0.0053
	OD 90A	1	1.3725	1.3740					
D	ID 135B	1	1.2495	1.2505	0.0010	0.0025	1.2470	1.2515	0.0035
	OD 125B	1	1.2480	1.2485					
E	ID 145A	1	1.3745	1.3755	0.0005	0.0030	1.3702	1.3778	0.0053
	OD 90A	1	1.3725	1.3740					
F	ID 150A RACE	1	1.5010	1.5015	0.0010	0.0020	1.4970	1.5040	0.0045 2
	OD 150A BALL	1	1.4995	1.5000					
G	ID 150A BALL	1	0.9995	1.0000	0.0005	0.0020	0.9960	1.0020	2 3
	OD 15B	1	0.9980	0.9990					
H	ID 40	1	0.9995	1.0003	0.0005	0.0023	0.9960	1.0023	0.0043
	OD 15B	1	0.9980	0.9990					
I	ID 42	1	0.9995	1.0003	0.0005	0.0023	0.9960	1.0023	0.0043
	OD 15B	1	0.9980	0.9990					
J	ID 35 RACE	1	1.5010	1.5015	0.0010	0.0020	1.4970	1.5040	0.0045 2
	OD 35 BALL	1	1.4995	1.5000					

Fits and Clearances
Figure 801 (Sheet 6)

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Ref Letter Fig.801	Mating Item No.	IPL Fig. No.	Design Dimension				Service Wear Limit		
			Dimensions		Assembly Clearance 7		Dimension Limits		Maximum Allowable Clearance
			Min	Max	Min	Max	Min	Max	
K	ID 35 BALL	1	0.9995	1.0000	0.0005	0.0020		1.0020	2
	OD 1	1	0.9980	0.9990			0.9960		3
L	ID 160	2	0.7500	0.7510	0.0040	0.0055		0.7527	0.0072
	OD 145	2	0.7455	0.7460			0.7438		
M	ID 160	2	1.5625	1.5633	-0.0010	-0.0027		1.5643	0.0000
	OD 150B	2	1.5643	1.5652			1.5633		
N	ID 150B	2	1.3745	1.3755	0.0005	0.0025		1.3778	0.0048
	OD 100	2	1.3730	1.3740			1.3707		
O	ID 100	2	0.3800	0.4000	0.0055	0.0260		0.4000	
	OD 95	2	0.3740	0.3745			0.3740		
P	ID 160	2	1.4375	1.4383	-0.0009	-0.0026		1.4392	0.0000
	OD 155A	2	1.4392	1.4401			1.4383		
Q	ID 155A	2	1.2495	1.2505	0.0005	0.0025		1.2527	0.0047
	OD 35	2	1.2480	1.2490			1.2458		
R	ID 35	2	0.3800	0.4000	0.0055	0.0260		0.4000	
	OD 30	2	0.3740	0.3745			0.3740		
S	ID 120 RACE	2	2.0010	2.0015	0.0010	0.0020		2.0043	0.0048 2
	OD 120 BALL	2	1.9995	2.0000			1.9967		
T	ID 120 BALL	2	1.3745	1.3750	0.0005	0.0020		1.3773	2
	OD 100	2	1.3730	1.3740			1.3707		4
U	ID 120	2	1.3745	1.3750	0.0005	0.0020		1.3773	2
	OD 345	2	1.3730	1.3740			1.3707		4

Fits and Clearances
Figure 801 (Sheet 7)

265489

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Ref Letter Fig.801	Mating Item No.	IPL Fig. No.	Design Dimension				Service Wear Limit		
			Dimensions		Assembly Clearance		Dimension Limits		Maximum Allowable Clearance
			Min	Max	Min	Max	Min	Max	
V	ID 60 RACE	2	1.7820	1.7825	0.0010	0.0020		1.7852	0.0047 2
	OD 60 BALL	2	1.7805	1.7810			1.7778		
W	ID 60 BALL	2	1.2495	1.2500	0.0005	0.0020		1.2522	2 4
	OD 35	2	1.2480	1.2490			1.2458		
X	ID 55C BALL	2	1.2495	1.2500	0.0005	0.0020		1.2522	2 4
	OD 310	1	1.2480	1.2490			1.2458		
Y	ID 85 RACE	3	2.0010	2.0015	0.0010	0.0020		2.0043	0.0048 2
	OD 85 BALL	3	1.9995	2.0000			1.9967		
Z	ID 85 BALL	3	1.3745	1.3750	0.0005	0.0020		1.3773	2 4
	OD 50	3	1.3730	1.3740			1.3707		
AA	ID 85 BALL	3	1.3745	1.3750	0.0005	0.0020		1.3773	2 4
	OD 345	3	1.3730	1.3740			1.3707		

Fits and Clearances
Figure 801 (Sheet 8)

265493

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Ref Letter Fig.801	Mating Item No.	IPL Fig. No.	Design Dimension				Service Wear Limit		
			Dimensions		Assembly Clearance		Dimension Limits		Maximum Allowable Clearance
			Min	Max	Min	Max	Min	Max	
AB	ID 120 OD 50	3	1.3745 1.3730	1.3755 1.3740	0.0005	0.0025	1.3695	1.3790	0.0060
AC	ID 70 RACE OD 70 BALL	3	1.7820 1.7805	1.7825 1.7810	0.0010	0.0020		1.7852	0.0047 2
AD	ID 70 BALL OD 55	3	1.2495 1.2480	1.2500 1.2490	0.0005	0.0020	1.2458	1.2522	2 5
AE	ID 130 OD 55	3	1.2495 1.2480	1.2505 1.2490	0.0005	0.0025	1.2440	1.2540	0.0060
AF	ID 65B BALL OD 310	3 3	1.2495 1.2480	1.2500 1.2490	0.0005	0.0020	1.2458	1.2522	2 5
AG	ID 135 OD 110	3	0.7500 0.7455	0.7510 0.7460	0.0040	0.0055	0.7443	0.7522	0.0067
AH	ID 170 OD 65	4	1.2495 1.2480	1.2505 1.2490	0.0005	0.0025	1.2473	1.2513	0.0033
AI	ID 180 OD 60	4	1.3745 1.3730	1.3755 1.3740	0.0005	0.0025	1.3695	1.3790	0.0060
AJ	ID 80 OD 65	4	1.2495 1.2480	1.2505 1.2490	0.0005	0.0025	1.2473	1.2513	0.0033
AK	ID 75C RACE OD 75C BALL	4	-- 2.2500	2.2515 --		0.0015			6
AL	ID 75C OD 505	4	1.2495 1.2480	1.2500 1.2490	0.0005	0.0020	1.2458	1.2522	0.0042 2

Fits and Clearances
Figure 801 (Sheet 9)

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Ref Letter Fig.801	Mating Item No.	IPL Fig. No.	Design Dimension				Service Wear Limit		
			Dimensions		Assembly Clearance 7		Dimension Limits		Maximum Allowable Clearance
			Min	Max	Min	Max	Min	Max	
AM	ID 95A OD 95A	4	2.0010 1.9995	2.0015 2.0000	0.0010	0.0020	1.9967	2.0043	0.0048 2
AN	ID 95A OD 60	4	1.3745 1.3730	1.3750 1.3740	0.0005	0.0020	1.3707	1.3773	0.0043 2
AO	ID 95A OD 540	4	1.3745 1.3730	1.3750 1.3740	0.0005	0.0020	1.3707	1.3773	0.0043 2
AP	ID 155 OD 125	4	1.4530 1.4490	1.4550 1.4500	0.0030	0.0060	1.4440	1.4600	0.0110
AQ	ID 160 OD 125	4	1.4530 1.4490	1.4550 1.4500	0.0030	0.0060	1.4440	1.4600	0.0110
AR	ID 190B OD 125	4	1.5950 1.4490	1.6050 1.4500	0.1450	0.1560	1.4200	1.6490	0.2000
BB	ID 55C RACE OD 55C BALL	2 2							8

ALL DIMENSIONS ARE IN INCHES

1 BOLT 310T3152-6 (USED ON INSTALLATION)

2 PIN OR BOLT-TO-BALL AND BALL-TO-RACE COMBINED MAXIMUM CLEARANCE 0.006 RADIAL AND 0.008 AXIAL

3 PIN OR BOLT-TO-BALL MAXIMUM CLEARANCE 0.0040 RADIAL

4 PIN-TO-BALL MAXIMUM CLEARANCE 0.0043 RADIAL

5 PIN-TO-BALL MAXIMUM CLEARANCE 0.0042 RADIAL

6 BALL-TO-RACE MAXIMUM CLEARANCE 0.0050 RADIAL AND 0.025 AXIAL

7 NEGATIVE VALUES ARE IN INTERFERENCE FIT

8 BALL-TO-RACE MAXIMUM CLEARANCE 0.0050 RADIAL AND 0.0350 AXIAL

Fits and Clearances
Figure 801 (Sheet 10)

A35633

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FOR TORQUE VALUE OF STANDARD FASTENERS, REFER TO SOPM 20-50-01			
ITEM NO. IPL FIG.	NAME	TORQUE	
		POUND-INCHES	POUND-FEET
FIG. 1			
30	NUT	650-750	
50,50B,	BOLT	650-900	
50A,50C,50D	BOLT	1400-1500	
105	NUT	750-900	
115A	NUT	630-950	
FIG. 2			
45	NUT	220-410	
110	NUT	220-410	
135	NUT	290-410	
FIG. 3			
45	NUT	220-410	
105	NUT	290-410	
FIG. 4			
55	NUT	220-410	
115	BOLT	200-300	

Torque Table
Figure 802

265497

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ILLUSTRATED PARTS LIST

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

2. Indentures show parts relationships as follows:

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

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

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

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

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

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

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

6. Parts Interchangeability

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

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VENDORS

S0352 NIPPON MINIATURE BEARING CO LTD
TOKYO, JAPAN

06710 LAMSON AND SESSIONS CO THE VALLEY-TODECO
12975 BRADLEY AVENUE
SYLMAR, CALIFORNIA 91342-3830
FORMERLY VALLEY BOLT CORP VB0097 IN NORTH HOLLYWOOD, CA

09455 BFM TRANSPORT DYNAMICS CORP
3131 WEST SEGERSTROM AVENUE PO BOX 1953
SANTA ANA, CALIFORNIA 92702-1953
FORMERLY TRANSPORT DYNAMICS AEROSPACE DIV, FABROID DIV
TRANSPORT DYNAMICS V17571 AND LEAR SEIGLER INC TRANSPORT
DIV V98076

15653 FAIRCHILD FASTENERS KAYNAR PRODUCTS DIV
800 S STATE COLLEGE BLVD
FULLERTON, CALIFORNIA 92831-3001
FORMERLY VK6405 MICRODOT AEROSP LTD; FORMERLY KAYNAR TECH
KAYNAR DIV

15860 NEW HAMPSHIRE BALL BEARINGS, INCORPORATED ASTRO DIVISION
155 LEXINGTON AVENUE
LACONIA, NEW HAMPSHIRE 03246-2937
FORMERLY ASTRO BEARING CORP, LOS ANGELES, CALIF.

16746 SPECLINE INCORPORATED
2230 MOUTON DR
CARSON CITY, NV 89706
FORMERLY IN SUN VALLEY, CAIFORNIA

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

57606 REXNORD CORP
2175 UNION PL
SIMI VALLEY, CALIFORNIA 93065-1661
FORMERLY PSI BEARINGS

72962 HARVARD INDUSTRIES INC
3 WERNER WAY SUITE 210
LEBANON, NEW JERSEY 08833
FORMERLY AMERACE CORP ESNA DIV
FORMERLY ELASTIC STOP NUT IN UNION, NJ

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VENDORS

73134 IMO INDUSTRIES INC HEIM BEARINGS DIV
60 ROUND HILL ROAD PO BOX 430
FAIRFIELD, CONNECTICUT 06430
FORMERLY INCOM INTL INC HEIM DIV; FORMERLY HEIM UNIVERSAL
CORP INCOM INTL INC; FORMERLY HEIM DIV INCOM INTL

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

85495 BRILES MFG CO SEE OMARK INDUSTRIES
PRECISION FASTENING SUB OF OMARK IND INC SEE DEUTSCH
FASTENER CORP V08524
OMARK INDUSTRIES SEE PRECISION FASTENING

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

97613 SARGENT CONTROLS & AEROSPACE/KAHR BEARING DIV
5675 W BURLINGAME RD
TUCSON, ARIZONA 85743
FORMERLY AETNA STEEL PROD KAHR BEARING DIV V96579
FORMERLY SARGENT IND KAHR BEARING DIV, BURBANK, CALIFORNIA

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PART NUMBER	AIRLINE PART NO.	FIG.	ITEM	TTL REQ
ABY20-101		2	55D	1
		3	65B	1
		4	75D	1
ABY20V103		2	55A	
		2	55C	1
		3	65A	
		3	65C	1
		4	75B	
		4	75C	1
AMB20-1001		2	60B	1
		3	70B	1
AMB22-1001		2	120B	2
		3	85B	2
		4	95C	2
AMB32-100		1	70A	1
ASBY20V11		2	55D	1
		3	65B	1
		4	75D	1
ASBY20V16		2	55C	1
		3	65C	1
		4	75C	1
BACB30LE10HU17		1	350	4
BACB30LE4HU4		4	105	4
BACB30LE6U40		2	30	2
		4	40A	2
BACB30LE6U43		2	95	1
		3	37	2
		4	40	2
BACB30LE6U44		3	35	1
		4	45	1
BACB30LE6U49		2	340	1
		3	340	1
		4	535	1
BACB30LE7U96		4	115	2
BACB30LE9HU4		1	50	2
		1	50B	2
BACB30LJ4U11		4	10	1
BACB30LJ4U16		2	5	2
BACB30LJ4U6		3	5	1
BACB30LJ4U7		3	7	2
		4	5	2
BACB30LJ4U8		2	70	1
BACB30PN14-30		2	330	4
		4	525	
BACB30PN14-31		3	330	4

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PART NUMBER	AIRLINE PART NO.	FIG.	ITEM	TTL REQ
BACB30PN20-93		2	310	2
		3	310	2
		4	505	2
BACB30US14-24		1	335	2
BACB30US14-24M		1	335D	2
BACB30US14-25		1	335B	2
BACB30US14-25M		1	335F	2
BACB30US14-47		1	345B	2
BACB30US14-47M		1	345F	2
BACB30US14-59		1	345	2
BACB30US14-59M		1	345D	2
BACB30US14K24		1	335A	2
BACB30US14K24M		1	335E	2
BACB30US14K25		1	335C	2
BACB30US14K25M		1	335G	2
BACB30US14K47		1	345C	2
BACB30US14K47M		1	345G	2
BACB30US14K59		1	345A	2
BACB30US14K59M		1	345E	2
BACB30US9-4H		1	50A	2
		1	50C	2
		1	50D	2
BACN10GW8A		2	135	2
		3	105	2
BACN10GW8AS		1	115	
BACN10JB4CM		3	372	1
BACN10JC12CM		1	30	2
		1	315	2
BACN10JC14CM		1	105	1
BACN10YN14C		3	360	4
BACW10BP10ACU		1	355	4
BACW10BP14ACU		1	340	4
		2	335	4
		3	335	4
		4	530	
BACW10BP16ACU		1	20	2
		1	20B	
		1	320	2
BACW10BP16APU		1	20D	2
		1	20E	2
		1	320B	2
BACW10BP20ACU		2	320	2
		3	320	2
		4	510	2
BACW10BP20APU		2	325	2
		3	325	2
		4	515	2

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PART NUMBER	AIRLINE PART NO.	FIG.	ITEM	TTL REQ
BACW10BP22ACU		1	95	2
		1	95B	
BACW10BP22APU		1	95D	2
		1	95E	2
BACW10BP4ACU		2	10	2
		2	75	1
		3	10	3
		3	380	2
		4	15	3
BACW10BP4APU		2	15	2
		2	80	1
		3	15	3
		4	20	3
BACW10BP7ACU		4	120	2
BACW10BP8APU		1	120	1
		2	140	2
		3	100	2
BACW10BP9ACU		1	55	2
BDS20S302		2	55D	1
		3	65B	1
		4	75D	1
BDS20S305		2	55C	1
		3	65C	1
		4	75C	1
BMN4122C1D2-12		1	30	2
		1	315	2
BMN4122C1D2-14		1	105	1
		1	105	1
HO1-12BAC		1	30	2
		1	315	2
HO1-14BAC		1	105	1
KSSB20-33		2	55D	1
		4	75D	1
LHSSTM16BAC		1	35	1
		1	150	
		80	1	RF
LHSSTM32BAC		1	70	
		1	70A	1
		81	1	
LHSSTM32BACFB		81	5	
LHSSTM32BACOR		81	10	
LM43SA141M		4	190A	
LM434SA11		4	190C	
LM434SA14M		4	190D	1
LM434SA141M		4	190B	
MS16562-219		1	7A	2
		1	87A	1

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PART NUMBER	AIRLINE PART NO.	FIG.	ITEM	TTL REQ
MS24665-443		1	7	2
		1	87	1
		1	330	2
MS51923-286		4	130	2
NAS1805-20P		2	315	2
		3	315	2
		4	520	2
NAS1805-4P		2	20	2
		2	85	1
		3	20	3
		4	25	3
NAS1805-6P		2	45	2
		2	110	1
		2	355	1
		3	45	3
		3	355	1
		4	55	3
		4	550	1
NAS1805-8		1	115A	1
NAS6704U16		3	375	2
P20360		2	60D	1
		3	70D	1
P20540		1	35	1
		80	1	R6
P20541		1	35	1
		80	1	R6
P20640		1	70A	1
P22960		2	60A	1
		3	70A	1
P22970		2	120A	2
		3	85A	2
		4	95A	2
P26700		1	150A	2
		1	150B	2
SLR4063		1	80B	
		1	342A	4
SLR4124C7		4	140B	2
SLR414C14		1	342	4
		1	80A	
SLR414C7		4	140	2
		4	140A	2
SL4077B		1	344A	4
SL4081C14		1	344	4
		1	85A	
SL4081C7		4	145	
		4	145C	2

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PART NUMBER	AIRLINE PART NO.	FIG.	ITEM	TTL REQ
SL4107C14-5		1	85B	
		1	344B	4
SL4120-7		4	145A	2
		4	145B	2
S302T001-200		1	35	1
		80	1	R6
S302T001-204		1	70A	1
S302T001-232		1	150A	2
S302T003-1		4	190	
		4	190D	1
TO 135F)		1	135G	1
TO 135G)		1	135F	1
VB13027-14		1	85	
VTB01130		2	60C	1
		3	70C	1
VTB01130REVD		2	60	
		3	70	
		82	1	RF
VTB01131		82	5	1
VTB01132		82	10	1
VTB01140		2	120	2
		3	85	2
		4	95B	2
VTB01140BASIC		4	95	
VTB04420		1	70A	1
109LH9074-12		1	30	2
		1	315	2
109LH9074-14		1	105	1
302T0200-1		1	40	2
302T0200-126		2	155A	4
		4	170A	4
302T0200-127		2	150B	2
302T0200-129		3	115	2
		4	175	2
302T0200-13		1	145	
302T0200-130		3	120	2
302T0200-131		3	125	4
		4	165	4
302T0200-132		3	130	4
		4	170	4
302T0200-136		1	42	2
302T0200-137		1	145A	2
302T0200-138		4	180	2
302T0200-139		4	155	2
302T0200-140		4	160	2
302T0200-141		4	80	1
302T0200-142		4	180A	2

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PART NUMBER	AIRLINE PART NO.	FIG.	ITEM	TTL REQ
302T0200-2		1	130	4
302T0200-27		2	150A	
302T0200-4		2	155	
302T0200-5		2	150	
310T3021-1		1	110	
310T3021-2		1	135	
310T3021-3		1	135A	
310T3022-1		1	140	
310T3022-2		1	155	
310T3023-1		1	10	
310T3023-2		1	45	
310T3026-1		1	60	1
310T3026-2		1	61	1
		1	61A	1
310T3032-1		2	50	2
		2	50A	2
		3	60	2
310T3032-10		4	87	1
310T3032-2		2	65	1
		3	75	1
310T3032-3		2	50B	2
		3	60A	2
310T3032-4		2	65A	1
		3	75A	1
310T3032-5		4	70	1
310T3032-6		4	85	1
310T3032-7		4	70A	1
310T3032-8		4	85A	1
310T3032-9		4	72	1
310T3033-1		2	115	1
		3	80	1
310T3033-2		2	125	1
		3	90	1
310T3033-3		2	115A	1
		3	80A	1
310T3033-4		3	90A	1
310T3033-5		4	90	1
310T3033-6		4	100	1
310T3033-7		4	90A	1
310T3033-8		4	100A	1
310T3037-4		2	145	2
		3	110	2
310T3038-1		1	125	
310T3038-2		1	125A	
310T3039-1		2	25	2
310T3039-2		2	90	1

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PART NUMBER	AIRLINE PART NO.	FIG.	ITEM	TTL REQ
310T3150-1		2	100	1
		4	60A	1
310T3150-2		2	345	1
		3	345	1
		4	540	1
310T3150-3		2	35	2
		4	65A	2
310T3150-4		3	50	1
		4	60	1
310T3150-5		3	55	2
		4	65	2
310T3151-1		2	105	1
		2	350	1
310T3151-2		2	40	
310T3151-21		2	40A	2
		2	40B	2
		2	105A	1
		2	350A	1
		3	40	3
		3	350	1
		4	50	3
		4	545	1
310T3151-3		1	100	1
310T3151-4		1	25	2
		1	325	2
310T3152-1		1	90	
310T3152-16		1	310A	2
310T3152-17		1	90B	1
		1	90D	1
310T3152-18		1	15C	1
		1	15E	1
310T3152-2		1	15	
310T3152-6		1	15A	
		1	310	2
310T3152-7		1	90A	1
		1	90C	1
310T3152-8		1	15B	1
		1	15D	1
310T3210-1		1	56	1
		1	56A	1
310T4012-1		4	125	2
310T4012-2		4	125A	2
310T4013-1		4	135	2
310T4013-2		4	135A	2
310T4014-1		4	110	2
310T4020-10		1	1E	RF

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PART NUMBER	AIRLINE PART NO.	FIG.	ITEM	TTL REQ
310T4020-11		1	5C	RF
		4	1B	RF
310T4020-13		1	5D	RF
		4	1C	RF
310T4020-14		1	5E	RF
		4	1D	RF
310T4020-16		1	5F	RF
		2	1A	RF
310T4020-17		1	1H	RF
310T4020-19		1	1J	RF
310T4020-2		1	1	
310T4020-24		1	5G	RF
		2	1B	RF
310T4020-27		1	1K	RF
310T4020-3		1	5	RF
		2	1	RF
310T4020-5		1	1B	RF
310T4020-7		1	5A	RF
		4	1	RF
310T4020-8		1	1C	RF
310T4020-9		1	5B	RF
		4	1A	RF
310T4021-1		1	110A	1
310T4021-2		1	135B	1
310T4021-3		1	135C	1
310T4021-4		1	135D	1
310T4021-5		1	135E	1
310T4021-6		1	135F	1
310T4021-7		1	110B	1
310T4021-8		1	135G	1
310T4022-1		1	140A	1
310T4022-2		1	155A	1
310T4022-3		1	140B	1
310T4022-4		1	155B	1
310T4023-1		1	10A	2
310T4023-2		1	45A	1
310T4023-3		1	10B	2
310T4023-4		1	45B	1
310T4023-5		1	10C	2
310T4023-6		1	45C	1
310T4023-7		1	10D	2
310T4023-8		1	45D	1
310T4025-1		1	75	
310T4025-2		1	75A	1
310T4031-1		2	130	1
310T4031-10		2	130B	1
		2	130C	1

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PART NUMBER	AIRLINE PART NO.	FIG.	ITEM	TTL REQ
310T4031-11		2	160C	1
310T4031-12		2	160D	1
310T4031-2		2	160	1
310T4031-5		2	130A	1
310T4031-6		2	160A	1
310T4031-7		2	160B	1
310T4031-8		2	155B	4
310T4031-9		2	150C	2
310T4032-1		4	150	1
310T4032-10		4	185C	1
310T4032-11		4	150E	1
310T4032-12		4	185D	1
310T4032-13		4	150F	1
		4	150G	1
310T4032-14		4	185E	1
		4	185F	1
310T4032-2		4	185	1
310T4032-3		4	150A	1
310T4032-4		4	185A	1
310T4032-5		4	150B	1
310T4032-6		4	185B	1
310T4032-7		4	150C	1
310T4032-9		4	150D	1
310T4036-1		1	65	1
310T4038-1		1	125B	1
310U4012-3		3	365	2
310U4012-6		3	374	1
310U4012-7		3	370	2
310U4020-2		1	1A	RF
		3	1	RF
310U4020-3		1	1D	RF
		3	1A	RF
310U4020-5		1	1F	RF
		3	1B	RF
310U4020-6		1	1G	RF
		3	1C	RF
310U4031-1		3	95A	1
310U4031-10		3	135E	1
310U4031-11		3	95D	1
310U4031-12		3	135D	1
310U4031-13		3	95G	1
310U4031-14		3	135G	1
		3	165G	
310U4031-15		3	95F	1
310U4031-16		3	135F	1
310U4031-17		3	95H	1
310U4031-18		3	135H	1

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PART NUMBER	AIRLINE PART NO.	FIG.	ITEM	TTL REQ
310U4031-19		3	95J	1
310U4031-2		3	135A	1
310U4031-20		3	135J	1
310U4031-3		3	95	1
310U4031-4		3	135	1
310U4031-5		3	95B	1
310U4031-6		3	135B	1
310U4031-7		3	95C	1
310U4031-8		3	135C	1
310U4031-9		3	95E	1
310U4039-1		3	25	2
		4	30	2
310U4039-2		3	30	1
310U4039-3		4	35	1
311A1099-16		1	20A	2
		1	20C	2
		1	320A	2
311A1099-22		1	95A	2
		1	95C	2
55490		2	55	
		2	55D	1
		3	65B	1
		4	75D	1
56137		2	55C	1
		3	65C	1
		4	75C	1
60B00180-302		2	55B	
		2	55D	1
		3	65	
		3	65B	1
		4	75	
		4	75D	1
60B00180-305		2	55C	1
		3	65C	1
		4	75A	
		4	75C	1
69235-1216CM		1	30	2
		1	315	2
69235-1414CM		1	105	1
8106809		80	5	1
8116742		80	10	1
9155-14RET		1	80	

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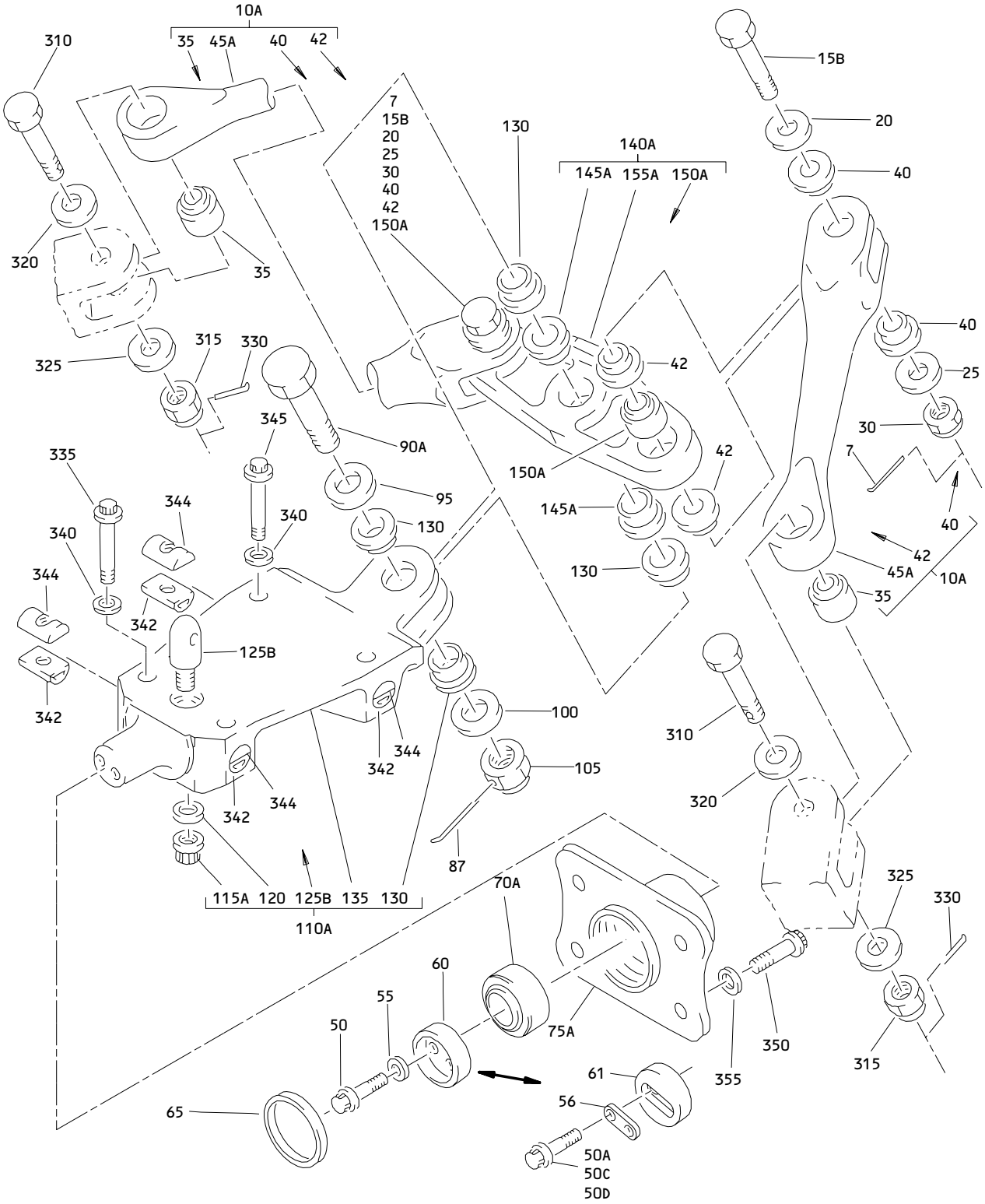

Engine Forward Mount Assembly
Figure 1

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	FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
	01-					
	-1	310T4020-2		DELETED		
R	-1A	310U4020-2		MOUNT ASSY-AFT, PW4000 ENG (FOR DETAILS SEE FIG. 3)	C	RF
R	-1B	310T4020-5		MOUNT ASSY-FWD, PW4000 ENG	A	RF
R	-1C	310T4020-8		MOUNT ASSY-FWD, PW4000 ENG	D	RF
R	-1D	310U4020-3		MOUNT ASSY-AFT, PW4000 ENG (FOR DETAILS SEE FIG. 3)	E	RF
R	-1E	310T4020-10		MOUNT ASSY-FWD, PW4000 ENG	H	RF
R	-1F	310U4020-5		MOUNT ASSY-AFT, PW4000 ENG (FOR DETAILS SEE FIG. 3)	J	RF
R	-1G	310U4020-6		MOUNT ASSY-AFT, PW4000 ENG (FOR DETAILS SEE FIG. 3)	N	RF
R	-1H	310T4020-17		MOUNT ASSY-FWD, PW4000 ENG	Q	RF
R	-1J	310T4020-19		MOUNT ASSY-FWD, PW4000 ENG	R	RF
R	-1K	310T4020-27		MOUNT ASSY-FWD, PW4000 ENG	T	RF
R	-5	310T4020-3		MOUNT ASSY-AFT, PW4000 ENG (PRE SB 767-71-0048) (FOR DETAILS SEE FIG. 2)	B	RF
R	-5A	310T4020-7		MOUNT ASSY-AFT, PW4000 ENG (POST SB 767-71-0048) (PRE SB 767-71-0074) (PRE SB 767-71-0068) (FOR DETAILS SEE FIG. 4)	F	RF
R	-5B	310T4020-9		MOUNT ASSY-AFT, PW4000 ENG (POST SB 767-71-0048) (PRE SB 767-71-0074) (FOR DETAILS SEE FIG. 4)	G	RF
R	-5C	310T4020-11		MOUNT ASSY-AFT, PW4000 ENG (PRE SB 767-71-0074) (FOR DETAILS SEE FIG. 4)	K	RF
R	-5D	310T4020-13		MOUNT ASSY-AFT, PW4000 ENG (PRE SB 767-71-0074) (POST SB 767-71-0068) (FOR DETAILS SEE FIG. 4)	L	RF
R	-5E	310T4020-14		MOUNT ASSY-AFT, PW4000 ENG (PRE SB 767-71-0074) (FOR DETAILS SEE FIG. 4)	M	RF
R	-5F	310T4020-16		MOUNT ASSY-AFT, PW4000 ENG (POST SB 767-71-0074) (FOR DETAILS SEE FIG. 2)	P	RF
R	-5G	310T4020-24		MOUNT ASSY-AFT, PW4000 ENG (FOR DETAILS SEE FIG. 2)	S	RF

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	FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
	01-					
R	7	MS24665-443		.PIN-COTTER	A,H,Q,R,T	2
	-7A	MS16562-219		.PIN-COTTER	D	2
	10	310T3023-1		DELETED		
R	10A	310T4023-1		.LINK ASSY-THRUST (OPT ITEM 10B)	A	2
R	-10B	310T4023-3		.LINK ASSY-THRUST (OPT ITEM 10A)	A	2
R	-10C	310T4023-5		.LINK ASSY-THRUST (OPT ITEM 10D)	D,H,Q,R,T	2
R	-10D	310T4023-7		.LINK ASSY-THRUST (OPT ITEM 10C)	D,H,Q,R,T	2
				ATTACHING PARTS		
	15	310T3152-2		DELETED		
	15A	310T3152-6		DELETED		
R	15B	310T3152-8		.BOLT-SHOULDER (OPT ITEM 15C)	A,D	1
R	-15C	310T3152-18		.BOLT-SHOULDER (PREF) (FOR ITEM 15C ONLY, ITEM 20 OR ITEM 20A OPT TO ITEM 20D) (OPT ITEM 15B)	A,D	1
R	-15D	310T3152-8		.BOLT-SHOULDER (OPT ITEM 15E)	H,Q,R,T	1
R	-15E	310T3152-18		.BOLT-SHOULDER (PREF) (FOR ITEM 15E ONLY, ITEM 20C OPT TO ITEM 20E) (OPT TO ITEM 15D)	H,Q,R,T	1
R	20	BACW10BP16ACU		.WASHER- (REPLD BY ITEM 20A) (FOR ITEM 15C ONLY, ITEM 20 OR ITEM 20A OPT TO ITEM 20D)	A,D	2
R	-20A	311A1099-16		.WASHER-SPECIAL SHOULDER BOLT (REPLS ITEM 20) (FOR ITEM 15C ONLY, ITEM 20 OR ITEM 20A OPT TO ITEM 20D)	A,D	2
	-20B	BACW10BP16ACU		DELETED		
R	-20C	311A1099-16		.WASHER-SPECIAL SHOULDER BOLT (FOR ITEM 15E ONLY, ITEM 20C OPT TO ITEM 20E) (OPT ITEM 20E)	H,Q,R,T	2

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	FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
R	01- -20D	BACW10BP16APU		.WASHER-(PREF) (FOR ITEM 15C ONLY, ITEM 20 OR ITEM 20A OPT TO ITEM 20D)	A,D	2
R	-20E	BACW10BP16APU		.WASHER-(PREF) (FOR ITEM 15E ONLY, ITEM 20C OPT TO ITEM 20E) (OPT ITEM 20C)	H,Q,R,T	2
R	25	310T3151-4		.WASHER-SPECIAL	A,D,H,Q,R,T	2
R	30	H01-12BAC		.NUT- (V15653) (SPEC BACN10JC12CM) (OPT 109LH9074-12 (V72962)) (OPT 69235-1216CM (V56878)) (OPT BMN4122C1D2-12 (V97928)) -------*-------	A,D,H,Q,R,T	2
R	35	LHSSTM16BAC		..BEARING ASSY- (V73134) (SPEC S302T001-200) (OPT P20540 (V57606)) (OPT P20541 (V57606)) (FOR DETAILS SEE FIG. 80)	A,D,H,Q,R,T	1

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	FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
	01-					
R	40	302T0200-1		..BUSHING	A,D,H,Q,R,T	2
R	42	302T0200-136		..BUSHING	A,D,H,Q,R,T	2
	45	310T3023-2		DELETED		
R	45A	310T4023-2		..LINK- (USED ON ITEM 10A)	A	1
R	-45B	310T4023-4		..LINK- (USED ON ITEM 10B)	A	1
	-45C	310T4023-6		..LINK- (USED ON ITEM 10C)	D,H,Q,R,T	1
	-45D	310T4023-8		..LINK- (USED ON ITEM 10D)	D,H,Q,R,T	1
R	50	BACB30LE9HU4		.BOLT- (PRE SB 767-71A0087) (PRE SB 747-71A2283)	A,D,H	2
R	-50A	BACB30US9-4H		.BOLT	Q,T	2
R	-50B	BACB30LE9HU4		.BOLT- (OPT ITEM 50C)	R	2
	-50C	BACB30US9-4H		.BOLT- (OPT ITEM 50B)	R	2
R	-50D	BACB30US9-4H		.BOLT- (POST SB 767-71A0087) (POST SB 747-71A2283)	A,D,H	2
R	55	BACW10BP9ACU		.WASHER- (PRE SB 767-71A0087) (PRE SB 747-71A2283)	A,D,H	2
R	56	310T3210-1		.FILLER	Q,R,T	1
R	-56A	310T3210-1		.FILLER- (POST SB 767-71A0087) (POST SB 747-71A2283)	A,D,H	1

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	FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
	01-					
R	60	310T3026-1		.CAP-END (FOR 747 ONLY, -1 R/B -2 IW1 ONLY UPON INCORPORATION OF SB 747-71-2283) (PRE SB 767-71A0087) (PRE SB 747-71A2283)	A,D,H	1
R	61	310T3026-2		.CAP-END (FOR 747 ONLY, -1 R/B -2 IW1 ONLY UPON INCORPORATION OF SB 747-71-2283)	Q,R,T	1
R	-61A	310T3026-2		.CAP-END (FOR 747 ONLY, -1 R/B -2 IW1 ONLY UPON INCORPORATION OF SB 747-71-2283) (POST SB 767-71A0087) (POST SB 747-71A2283)	A,D,H	1
R	65	310T4036-1		.SPACER	A,D,H,Q,R,T	1
	70	LHSSTM32BAC		DELETED		
R	70A	VTB04420		.BEARING ASSY-PLAIN SPHER (V06710) (SPEC S302T001-204) (OPT AMB32-100 (VS0352)) (OPT P20640 (V57606)) (OPT LHSSTM32BAC (V73134))	A,D,H,Q,R,T	1
	75	310T4025-1		DELETED		
R	75A	310T4025-2		.HOUSING-BRG	A,D,H,Q,R,T	1
	80	9155-14RET		DELETED		
	80A	SLR414C14		DELETED		
	-80B	SLR4063		DELETED		
	85	VB13027-14		DELETED		
	85A	SL4081C14		DELETED		
	-85B	SL4107C14-5		DELETED		

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	FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
	01-					
R	87	MS24665-443		.PIN-COTTER	A,H,Q,R,T	1
	-87A	MS16562-219		.PIN-COTTER	D	1
	90	310T3152-1		DELETED		
				ATTACHING PARTS		
R	90A	310T3152-7		.BOLT-SHOULDER (OPT ITEM 90B)	A,D	1
R	-90B	310T3152-17		.BOLT-SHOULDER (PREF) (FOR ITEM 90B ONLY, ITEM 95 OR ITEM 95A OPT TO ITEM 95D) (OPT ITEM 90A)	A,D	1
R	-90C	310T3152-7		.BOLT-SHOULDER (OPT ITEM 90D)	H,Q,R,T	1
R	-90D	310T3152-17		.BOLT-SHOULDER (PREF) (FOR ITEM 90D ONLY, ITEM 95C OPT TO ITEM 95E) (OPT TO ITEM 90C)	H,Q,R,T	1
				-------*-------		
R	95	BACW10BP22ACU		.WASHER- (REPLD BY ITEM 95A) (FOR ITEM 90B ONLY, ITEM 95 OR ITEM 95A OPT TO ITEM 95D)	A,D	1

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	FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
	01-			ATTACHING PARTS		
R	-95A	311A1099-22		.WASHER-SPECIAL SHOULDER BOLT (REPLS ITEM 95) (FOR ITEM 90B ONLY, ITEM 95 OR ITEM 95A OPT TO ITEM 95D)	A,D	1
	-95B	BACW10BP22ACU		DELETED		
R	-95C	311A1099-22		.WASHER-SPECIAL SHOULDER BOLT (FOR ITEM 90D ONLY, ITEM 95C OPT TO ITEM 95E) (OPT ITEM 95E)	H,Q,R,T	1
R	-95D	BACW10BP22APU		.WASHER-(PREF) (FOR ITEM 90B ONLY, ITEM 95 OR ITEM 95A OPT TO ITEM 95D)	A,D	1
R	-95E	BACW10BP22APU		.WASHER-(PREF) (FOR ITEM 90D ONLY, ITEM 95C OPT TO ITEM 95E) (OPT ITEM 95C) -------*-------	H,Q,R,T	1
R	100	310T3151-3		.WASHER-SPECIAL	A,D,H,T	1
R	105	H01-14BAC		.NUT- (V15653) (SPEC BACN10JC14CM) (OPT BMN4122C1D2-14 (V85495)) (OPT 109LH9074-14 (V72962)) (OPT 69235-1414CM (V56878)) (OPT BMN4122C1D2-14 (V97928))	A,D,H,Q,R,T	1

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	FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
	01-					
	110	310T3021-1		DELETED		
R	110A	310T4021-1		.FITTING ASSY	A,D,H,Q,R	1
R	-110B	310T4021-7		.FITTING ASSY	T	1
	115	BACN10GW8AS		DELETED		
R	115A	NAS1805-8		..NUT	A,D,H,Q,R,T	1
R	120	BACW10BP8APU		..WASHER	A,D,H,Q,R,T	1
	125	310T3038-1		DELETED		
	-125A	310T3038-2		DELETED		
R	125B	310T4038-1		..PIN-SHEAR	A,D,H,Q,R,T	1
R	130	302T0200-2		..BUSHING	A,D,H,Q,R,T	4
	135	310T3021-2		DELETED		
	-135A	310T3021-3		DELETED		
R	135B	310T4021-2		..FITTING- (ITEM 135B OR ITEM 135C OR ITEM 135D OPT ITEM 135E)	A,D,H,Q,R	1
R	-135C	310T4021-3		..FITTING- (ITEM 135B OR ITEM 135C OR ITEM 135D OPT ITEM 135E)	A,D,H,Q,R	1
R	-135D	310T4021-4		..FITTING- (ITEM 135B OR ITEM 135C OR ITEM 135D OPT ITEM 135E)	A,D,H,Q,R	1
R	-135E	310T4021-5		..FITTING- (ITEM 135B OR ITEM 135C OR ITEM 135D OPT ITEM 135E)	A,D,H,Q,R	1
R	-135F	310T4021-6		..FITTING- (OPT TO 135G)	T	1
R	-135G	310T4021-8		..FITTING- (OPT TO 135F)	T	1

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	FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
	01-					
	140	310T3022-1		DELETED		
R	140A	310T4022-1		.BAR ASSY-EVENER (OPT ITEM 140B)	A,D,H,Q,R,T	1
R	-140B	310T4022-3		.BAR ASSY-EVENER (OPT ITEM 140A)	A,D,H,Q,R,T	1
	145	302T0200-13		DELETED		
	145A	302T0200-137		..BUSHING	A,D,H,Q,R,T	2
	150	LHSSTM16BAC		DELETED		
	150A	P26700		..BEARING ASSY- (V57606) (SPEC S302T001-232) (OPT ITEM 150B)	A,D,H,Q,R,T	2
R	-150B	P26700		..BEARING ASSY- (V57606) (OPT ITEM 150A)	A,D,H,Q,R,T	2
	155	310T3022-2		DELETED		
	155A	310T4022-2		..BAR- (USED ON ITEM 140A)	A,D,H,Q,R,T	1
	-155B	310T4022-4		..BAR- (USED ON ITEM 140B)	A,D,H,Q,R,T	1
				INSTALLATION PARTS		
	310	310T3152-6		BOLT- (OPT ITEM 310A)	A,D,H	2
	-310A	310T3152-16		BOLT-(PREF) (OPT ITEM 310)	A,D,H	2
	315	H01-12BAC		NUT- (V15653) (SPEC BACN10JC12CM) (OPT 109LH9074-12 (V72962)) (OPT 69235-1216CM (V56878)) (OPT BMN4122C1D2-12 (V97928))	A,D,H	2

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	FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
	01-					
	320	BACW10BP16ACU		WASHER- (REPLD BY ITEM 320A)	A,D,H	2
	-320A	311A1099-16		WASHER-SPECIAL SHOULDER BOLT (REPLS ITEM 320) (FOR ITEM 310A ONLY, ITEM 320 OR ITEM 320A OPT TO ITEM 320B)		2
	-320B	BACW10BP16APU		WASHER-(PREF) (FOR ITEM 310A ONLY, ITEM 320 OR ITEM 320A OPT TO ITEM 320B)		2
	325	310T3151-4		WASHER-SPECIAL	A,D,H	2
	330	MS24665-443		PIN-COTTER	A,D,H	2
|	335	BACB30US14-24		BOLT-(MODEL 767)(LIMITED) (OPT ITEM 335A)	A,D,H	2
|	-335A	BACB30US14K24		BOLT-(MODEL 767)(LIMITED) (OPT ITEM 335)	A,D,H	2
|	-335B	BACB30US14-25		BOLT-(MODEL 747)(LIMITED) (OPT ITEM 335C)	A,D,H	2
|	-335C	BACB30US14K25		BOLT-(MODEL 747)(LIMITED) (OPT ITEM 335B)	A,D,H	2
|	-335D	BACB30US14-24M		BOLT-(MODEL 767)(LIMITED) (OPT ITEM 335E)	A,D,H	2
|	-335E	BACB30US14K24M		BOLT-(MODEL 767)(LIMITED) (OPT ITEM 335D)	A,D,H	2
|	-335F	BACB30US14-25M		BOLT-(MODEL 747)(LIMITED) (OPT ITEM 335G)	A,D,H	2
|	-335G	BACB30US14K25M		BOLT-(MODEL 747)(LIMITED) (OPT ITEM 335F)	A,D,H	2
	340	BACW10BP14ACU		WASHER	A,D,H	4
R	342	SLR414C14		RETAINER-NUT (V97393) (OPT ITEM 342A)	A,D,H	4
R	-342A	SLR4063		RETAINER-NUT (V97393) (OPT ITEM 342)	A,D,H	4

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	FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
	01-					
R	344	SL4081C14		NUT-BARREL (V97393) (OPT ITEMS 344A, 344B)	A,D,H	4
R	-344A	SL4077B		NUT-BARREL (V97393) (OPT ITEMS 344, 344B)	A,D,H	4
R	-344B	SL4107C14-5		NUT-BARREL (V97393) (OPT ITEMS 344, 344A)	A,D,H	4
|	345	BACB30US14-59		BOLT-(MODEL 767)(LIMITED) (OPT ITEM 345A)	A,D,H	2
|	-345A	BACB30US14K59		BOLT-(MODEL 767)(LIMITED) (OPT ITEM 345)	A,D,H	2
|	-345B	BACB30US14-47		BOLT-(MODEL 747)(LIMITED) (OPT ITEM 345C)	A,D,H	2
|	-345C	BACB30US14K47		BOLT-(MODEL 747)(LIMITED (OPT ITEM 345B)	A,D,H	2
|	345D	BACB30US14-59M		BOLT-(MODEL 767)(LIMITED) (OPT ITEM 345E)	A,D,H	2
|	-345E	BACB30US14K59M		BOLT-(MODEL 767)(LIMITED) (OPT ITEM 345D)	A,D,H	2
|	-345F	BACB30US14-47M		BOLT-(MODEL 747)(LIMITED) (OPT ITEM 345G)	A,D,H	2
|	-345G	BACB30US14K47M		BOLT-(MODEL 747)(LIMITED (OPT ITEM 345F)	A,D,H	2
	350	BACB30LE10HU17		BOLT	A,D,H	4
	355	BACW10BP10ACU		WASHER	A,D,H	4
R				BOEING LETTER HISTORY		

- Item Not Illustrated

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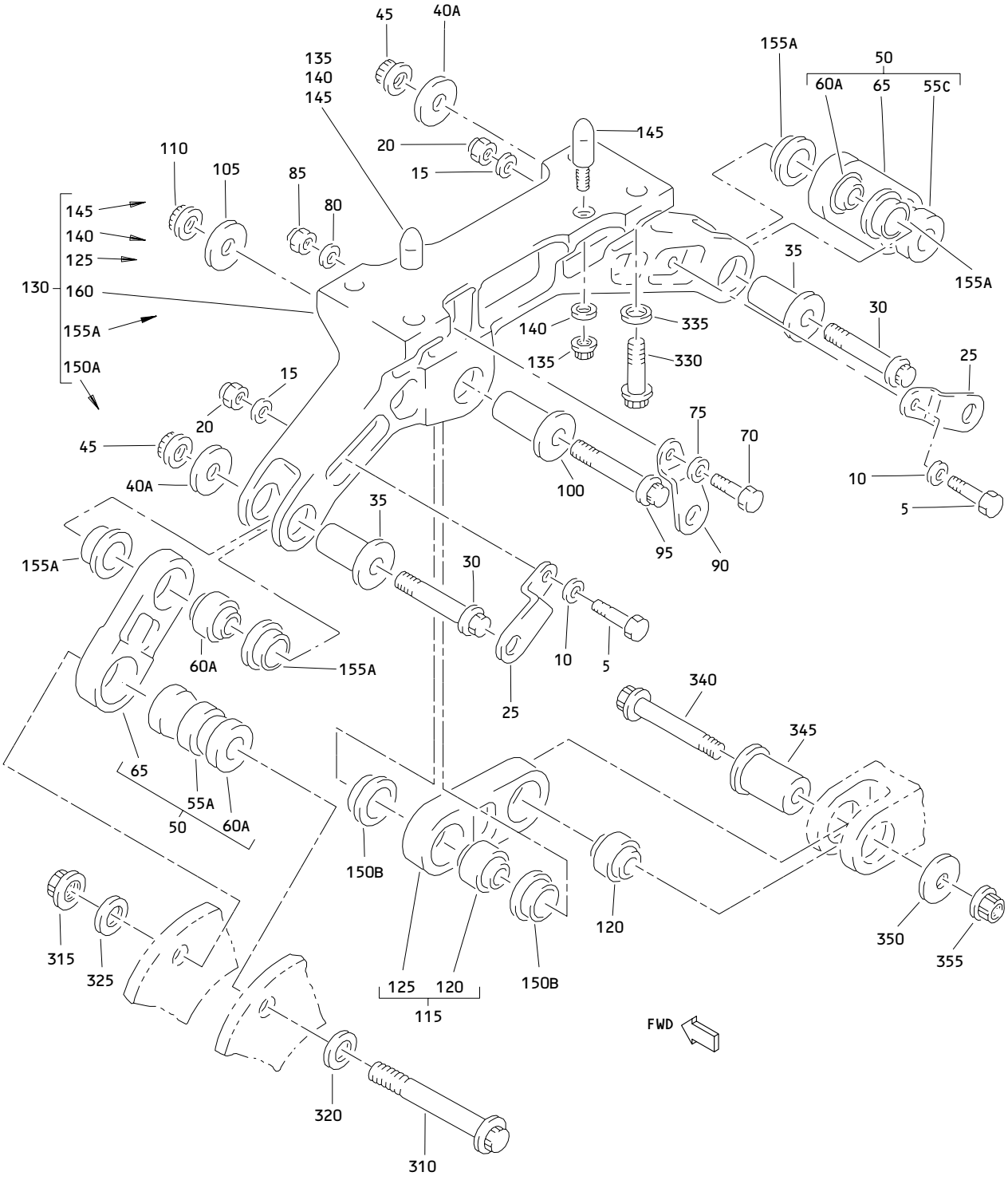

Engine Aft Mount Assembly
Figure 2

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	FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
	02-					
|	-1	310T4020-3		MOUNT ASSY-PW4000 ENG AFT (PRE SB 767-71-0048)	B	RF
|	-1A	310T4020-16		MOUNT ASSY-PW4000 ENG AFT (POST SB 767-71-0074)	P	RF
|	R -1B	310T4020-24		MOUNT ASSY-PW4000 ENG AFT	S	RF
	5	BACB30LJ4U16		.BOLT	B,P,S	2
	10	BACW10BP4ACU		.WASHER	B,P,S	2
	15	BACW10BP4APU		.WASHER	B,P,S	2
	20	NAS1805-4P		.NUT	B,P,S	2
	25	310T3039-1		.RETAINER-BOLT	B,P,S	2
	30	BACB30LE6U40		.BOLT	B,P,S	2
	35	310T3150-3		.PIN-LINK PIVOT	B,P,S	2
	40	310T3151-2		DELETED		
	40A	310T3151-21		.WASHER-SPECIAL (PRE SB 767-71-0074)	B,P	2
	R -40B	310T3151-21		.WASHER-SPECIAL	S	2
	45	NAS1805-6P		.NUT	B,P,S	2
	50	310T3032-1		.LINK ASSY-TANGENTIAL	B	2
	-50A	310T3032-1		.LINK ASSY-TANGENTIAL (OPT ITEM 50B)	P,S	2
	-50B	310T3032-3		.LINK ASSY-TANGENTIAL (OPT ITEM 50A)	P,S	2
	55	55490		DELETED		
	55A	ABY20V103		DELETED		
	-55B	60B00180-302		DELETED		
	55C	BDS20S305		..BEARING- (V16746) (SPEC 60B00180-305) (OPT 56137 (V09455)) (OPT ABY20V103 (V15860)) (OPT ASBY20V16 (V15860)) (OPT ITEM 55D)	B,P,S	1

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	FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
	02-					
	-55D	ASBY20V11		..BEARING- (V15860) (SPEC 60B00180-302) (OPT 55490 (V09455)) (OPT ABY20-101 (VS0352)) (OPT KSSB20-33 (V97613)) (OPT BDS20S302 (V16746)) (OPT ITEM 55C)	B,P,S	1
	60	VTB01130REVD		DELETED		
R	60A	P22960		..BEARING- (V57606) (OPT ITEMS 60B, 60C, 60D)	B,P,S	1
	-60B	AMB20-1001		..BEARING- (V15860) (OPT ITEMS 60A, 60C, 60D)	B,P,S	1
R	-60C	VTB01130		..BEARING ASSY- (V06710) (OPT ITEMS 60A, 60B, 60D)	B,P,S	1
R	-60D	P20360		..BEARING- (V57606) (OPT ITEMS 60A, 60B, 60C)	B,P,S	1
	65	310T3032-2		..LINK- (USED ON ITEMS 50, 50A)	B,P,S	1
	-65A	310T3032-4		..LINK- (USED ON ITEM 50B)	P,S	1
	70	BACB30LJ4U8		.BOLT	B,P,S	1
	75	BACW10BP4ACU		.WASHER	B,P,S	1
	80	BACW10BP4APU		.WASHER	B,P,S	1
	85	NAS1805-4P		.NUT	B,P,S	1
	90	310T3039-2		.RETAINER-BOLT	B,P,S	1
	95	BACB30LE6U43		.BOLT	B,P,S	1
	100	310T3150-1		.PIN-LINK PIVOT	B,P,S	1
	105	310T3151-1		.WASHER-SPECIAL (PRE SB 767-71-0048) (POST SB 767-71-0074)	B,P,S	1

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	FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
	02-					
	-105A	310T3151-21		.WASHER-SPECIAL (POST SB 767-71-0048) (PRE SB 767-71-0074)	B,P,S	1
	110	NAS1805-6P		.NUT	B,P,S	1
	115	310T3033-1		.LINK ASSY-CTR (OPT ITEM 115A)	B,P,S	1
	-115A	310T3033-3		.LINK ASSY-CTR (OPT ITEM 115)	B,P,S	1
	120	VTB01140		..BEARING- (V06710) (OPT ITEM 120A, 120B)	B,P,S	2
	-120A	P22970		..BEARING- (V57606) (OPT ITEM 120, 120B)	B,P,S	2
	-120B	AMB22-1001		..BEARING- (V15860) (OPT ITEM 120, 120A)	B,P,S	2
	125	310T3033-2		..LINK	B,P,S	1
	130	310T4031-1		.HANGER ASSY	B	1
	-130A	310T4031-5		.HANGER ASSY- (OPT ITEM 130B)	P	1
R	-130B	310T4031-10		.HANGER ASSY- (OPT ITEM 130A)	P	1
R	-130C	310T4031-10		.HANGER ASSY	S	1
	135	BACN10GW8A		..NUT	B,P,S	2
	140	BACW10BP8APU		..WASHER	B,P,S	2
	145	310T3037-4		..PIN-SHEAR	B,P,S	2
	150	302T0200-5		DELETED		
	150A	302T0200-27		DELETED		
	150B	302T0200-127		..BUSHING	B	2
	-150C	310T4031-9		..BUSHING	P,S	2
	155	302T0200-4		DELETED		
	155A	302T0200-126		..BUSHING	B	4

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	FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
	02-					
	-155B	310T4031-8		..BUSHING	P,S	4
	160	310T4031-2		..HANGER	B	1
	-160A	310T4031-6		..HANGER- (OPT ITEM 160B) (USED ON ITEM 130A)	P	1
	-160B	310T4031-7		..HANGER- (OPT ITEM 160A) (USED ON ITEM 130A)	P	1
R	-160C	310T4031-11		..HANGER- (OPT ITEM 160D) (USED ON ITEMS 130A, 130B)	P,S	1
R	-160D	310T4031-12		..HANGER- (OPT ITEM 160C) (USED ON ITEMS 130A, 130B)	P,S	1
R				INSTALLATION PARTS	B,P,S	
	310	BACB30PN20-93		BOLT	B,P,S	2
	315	NAS1805-20P		NUT	B,P,S	2
	320	BACW10BP20ACU		WASHER	B,P,S	2
	325	BACW10BP20APU		WASHER	B,P,S	2
	330	BACB30PN14-30		BOLT	B,P,S	4
	335	BACW10BP14ACU		WASHER	B,P,S	4
	340	BACB30LE6U49		BOLT	B,P,S	1
	345	310T3150-2		PIN-LINK PIVOT	B,P,S	1
	350	310T3151-1		WASHER-SPECIAL (PRE SB 767-71-0048) (POST SB 767-71-0074)	B,P,S	1
	-350A	310T3151-21		WASHER-SPECIAL (POST SB 767-71-0048) (PRE SB 767-71-0074)	B,P,S	1
	355	NAS1805-6P		NUT	B,P,S	1

- Item Not Illustrated

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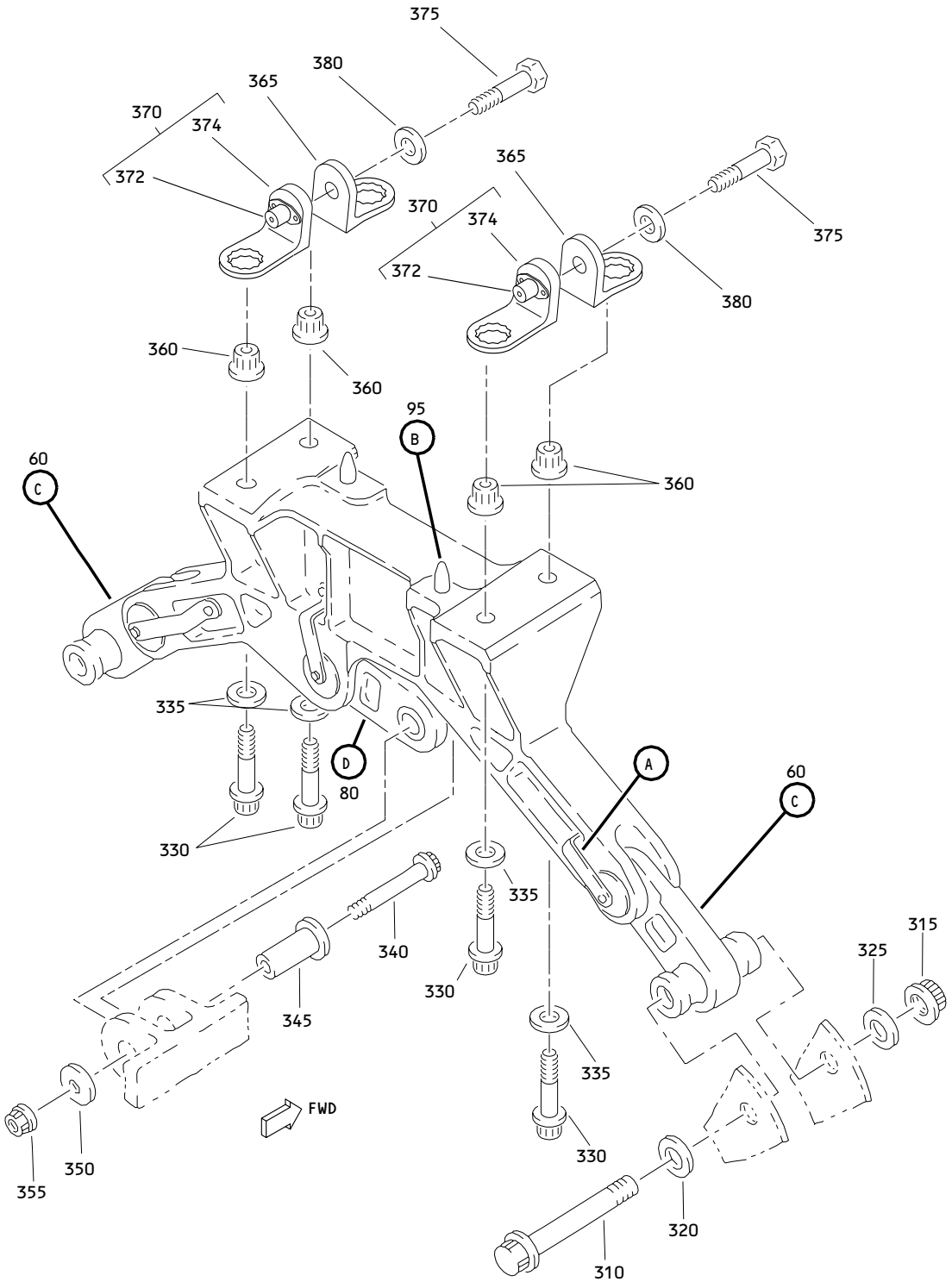

Mount Assembly – Engine Aft
Figure 3 (Sheet 1)

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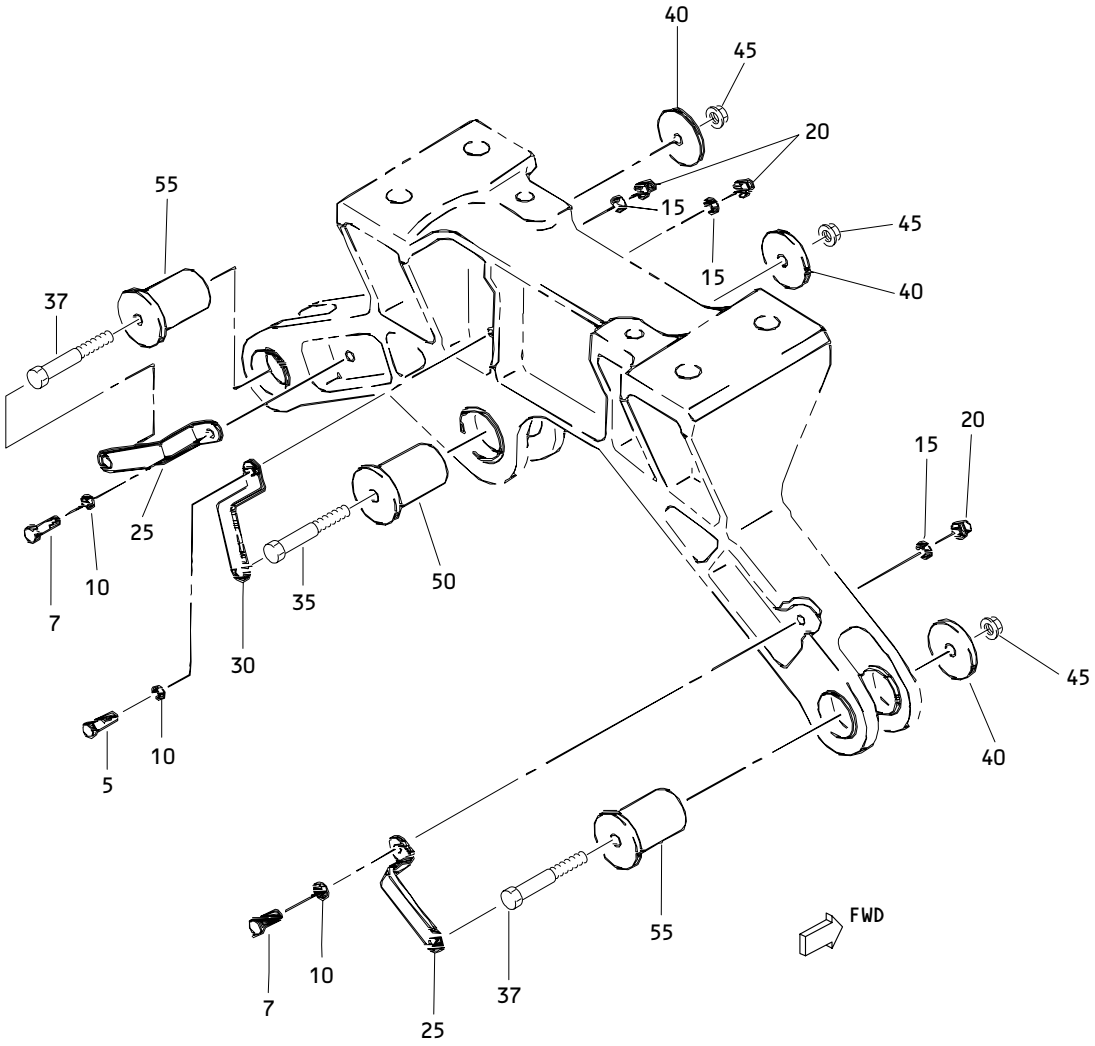

Mount Assembly – Engine Aft
Figure 3 (Sheet 2)

U20659

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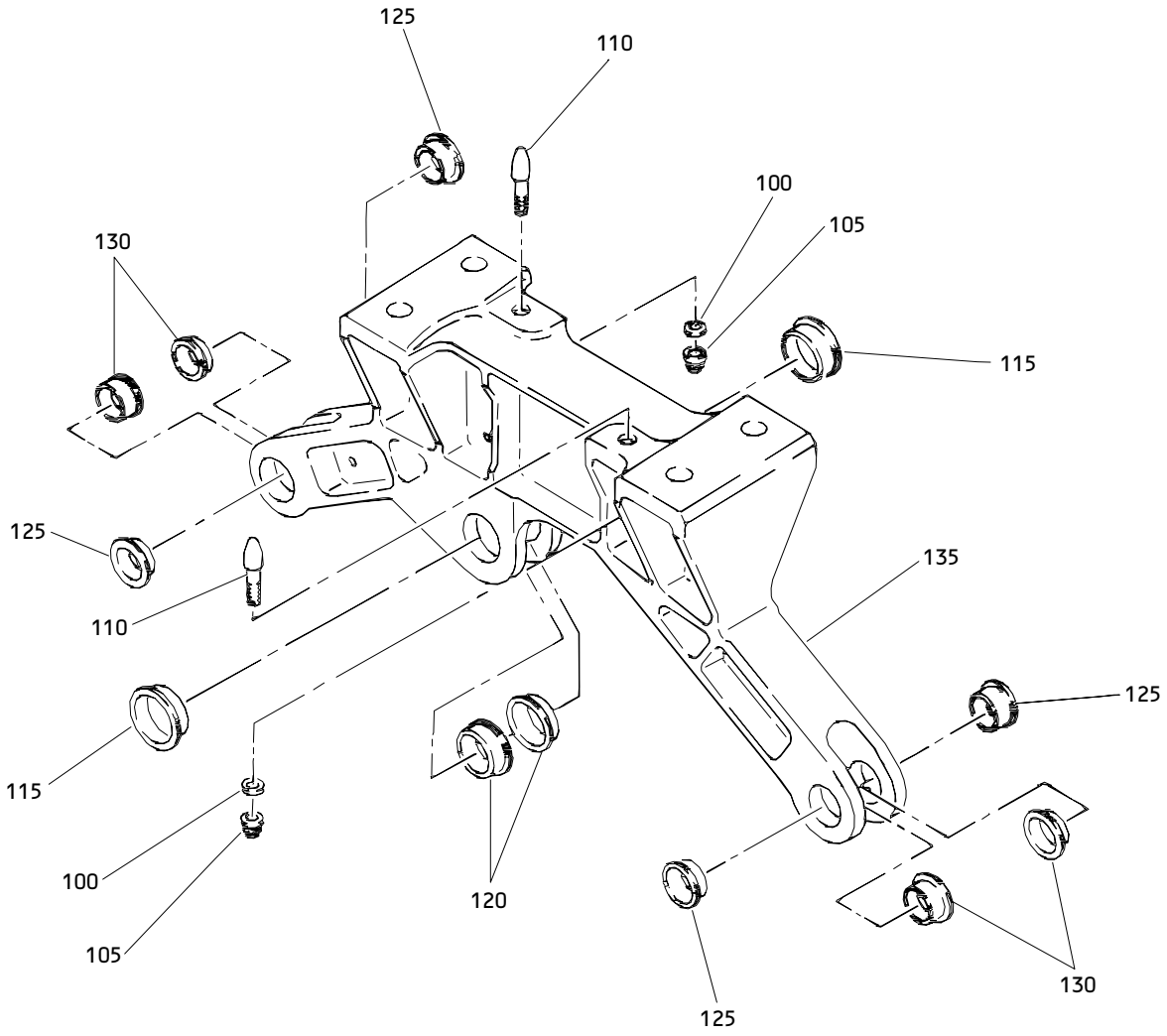

Mount Assembly – Engine Aft
Figure 3 (Sheet 3)

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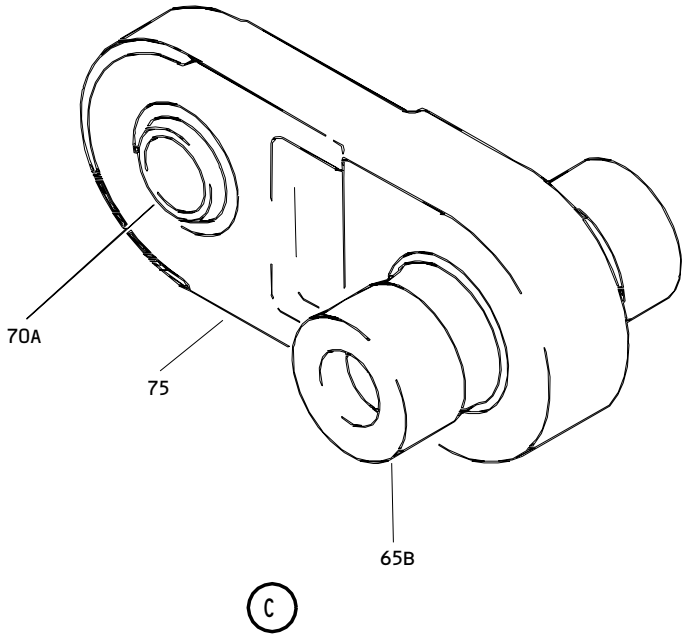

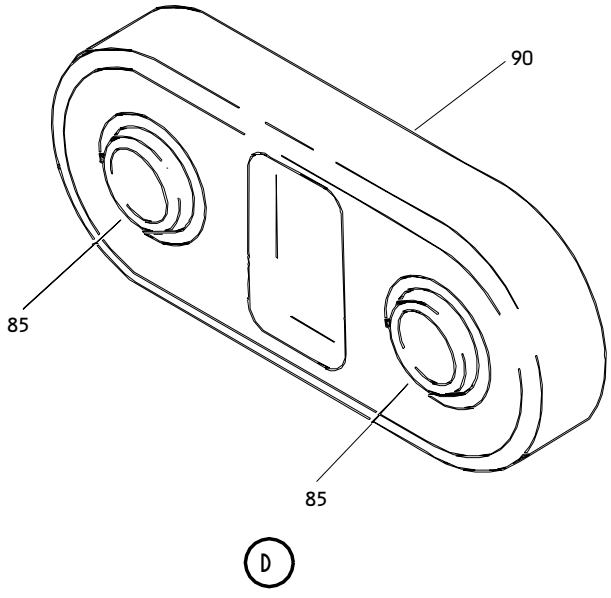

Mount Assembly – Engine Aft
Figure 3 (Sheet 4)

U20661

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	FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
	03-					
R	-1	310U4020-2		MOUNT ASSY-PW4000 ENG AFT ENG	C	RF
R	-1A	310U4020-3		MOUNT ASSY-PW4000 ENG AFT ENG	E	RF
R	-1B	310U4020-5		MOUNT ASSY-PW4000 ENG AFT ENG	J	RF
R	-1C	310U4020-6		MOUNT ASSY-PW4000 ENG AFT ENG	N	RF
R	5	BACB30LJ4U6		.BOLT	C,E,J,N	1
R	7	BACB30LJ4U7		.BOLT	C,E,J,N	2
R	10	BACW10BP4ACU		.WASHER	C,E,J,N	3
R	15	BACW10BP4APU		.WASHER	C,E,J,N	3
R	20	NAS1805-4P		.NUT	C,E,J,N	3
R	25	310U4039-1		.RETAINER-BOLT	C,E,J,N	2
R	30	310U4039-2		.RETAINER-BOLT	C,E,J,N	1
R	35	BACB30LE6U44		.BOLT	C,E,J,N	1
R	37	BACB30LE6U43		.BOLT	C,E,J,N	2
R	40	310T3151-21		.WASHER-SPECIAL (PRE SB 767-71-0074)	C,E,J,N	3
R	45	NAS1805-6P		.NUT	C,E,J,N	3
R	50	310T3150-4		.PIN-LINK PIVOT	C,E,J,N	1
R	55	310T3150-5		.PIN-LINK PIVOT	C,E,J,N	2
R	60	310T3032-1		.LINK ASSY-TANGENTIAL (OPT ITEM 60A)	C,E,J,N	2
R	-60A	310T3032-3		.LINK ASSY-TANGENTIAL (OPT ITEM 60)	C,E,J,N	2
	65	60B00180-302		DELETED		
	65A	ABY20V103		DELETED		

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	FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
	03-					
R	65B	ASBY20V11		..BEARING- (V15860) (SPEC 60B00180-302) (OPT 55490 (V09455)) (VKSSB20-33 (V97613)) (OPT ABY20-101 (VS0352)) (OPT BDS20S302 (V16746)) (OPT ITEM 65C)	C,E,J,N	1
R	-65C	BDS20S305		..BEARING- (V16746) (SPEC 60B00180-305) (OPT 56137 (V09455)) (OPT ABY20V103 (V15860)) (OPT ASBY20V16 (V15860)) (OPT ITEM 65B)	C,E,J,N	1
	70	VTB01130REVD		DELETED		
R	70A	P22960		..BEARING- (V57606) (OPT ITEM 70B, 70C, 70D)	C,E,J,N	1
	-70B	AMB20-1001		..BEARING- (V15860) (OPT ITEM 70A, 70C, 70D)	C,E,J,N	1
R	-70C	VTB01130		..BEARING ASSY- (V06710) (OPT ITEM 70A, 70B, 70D)	C,E,J,N	1
R	-70D	P20360		..BEARING- (V57606) (OPT ITEM 70A, 70B, 70C)	C,E,J,N	1
	75	310T3032-2		..LINK- (USED ON ITEM 60)	C,E,J,N	1
R	-75A	310T3032-4		..LINK- (USED ON ITEM 60A)	C,E,J,N	1
R	80	310T3033-1		.LINK ASSY-CTR (OPT ITEM 80A)	C,E,J,N	1
R	-80A	310T3033-3		.LINK ASSY- (OPT ITEM 80)	C,E,J,N	1

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	FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
	03-					
R	85	VTB01140		..BEARING- (V06710) (OPT ITEM 85A, 85B)	C,E,J,N	2
R	-85A	P22970		..BEARING- (V57606) (OPT ITEM 85, 85B)	C,E,J,N	2
	-85B	AMB22-1001		..BEARING- (V15860) (OPT ITEM 85, 85A)	C,E,J,N	2
R	90	310T3033-2		..LINK- (USED ON ITEM 80)	C,E,J,N	1
R	-90A	310T3033-4		..LINK- (USED ON ITEM 80A)	C,E,J,N	1
R	95	310U4031-3		.HANGER ASSY- (OPT ITEM 95A)	C	1
R	-95A	310U4031-1		.HANGER ASSY- (OPT ITEM 95)	C	1
R	-95B	310U4031-5		.HANGER ASSY- (OPT ITEM 95C)	E	1
R	-95C	310U4031-7		.HANGER ASSY- (OPT ITEM 95B)	E	1
R	-95D	310U4031-11		.HANGER ASSY- (OPT ITEMS 95E, 95F, 95G)	J	1
R	-95E	310U4031-9		.HANGER ASSY- (OPT ITEMS 95D, 95F, 95G)	J	1
R	-95F	310U4031-15		.HANGER ASSY- (OPT ITEMS 95D, 95E, 95G)	J	1
R	-95G	310U4031-13		.HANGER ASSY- (OPT ITEMS 95D, 95E, 95F)	J	1
R	-95H	310U4031-17		.HANGER ASSY- (OPT ITEM 95J)	N	1
R	-95J	310U4031-19		.HANGER ASSY- (OPT ITEM 95H)	N	1
R	100	BACW10BP8APU		..WASHER	C,E,J,N	2
R	105	BACN10GW8A		..NUT	C,E,J,N	2
R	110	310T3037-4		..PIN-SHEAR	C,E,J,N	2
R	115	302T0200-129		..BUSHING-OUTER	C,E,J,N	2

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	FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
	03-					
R	120	302T0200-130		..BUSHING-INNER	C,E,J,N	2
R	125	302T0200-131		..BUSHING-OUTER	C,E,J,N	4
R	130	302T0200-132		..BUSHING-INNER	C,E,J,N	4
R	135	310U4031-4		..HANGER- (USED ON ITEM 95)	C	1
R	-135A	310U4031-2		..HANGER- (USED ON ITEM 95A)	C	1
R	-135B	310U4031-6		..HANGER- (USED ON ITEM 95B)	E	1
R	-135C	310U4031-8		..HANGER- (USED ON ITEM 95C)	E	1
R	-135D	310U4031-12		..HANGER- (USED ON ITEM 95D)	J	1
R	-135E	310U4031-10		..HANGER- (USED ON ITEM 95E)	J	1
R	-135F	310U4031-16		..HANGER- (USED ON ITEM 95F)	J	1
R	-135G	310U4031-14		..HANGER- (USED ON ITEM 95G)	J	1
R	-135H	310U4031-18		..HANGER- (USED ON ITEM 95H)	N	1
R	-135J	310U4031-20		..HANGER- (USED ON ITEM 95J)	N	1
	-165G	310U4031-14		DELETED		
				INSTALLATION PARTS	C,E,J,N	
	310	BACB30PN20-93		BOLT	C,E,J,N	2

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FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
03-					
315	NAS1805-20P		NUT	C,E,J,N	2
320	BACW10BP20ACU		WASHER	C,E,J,N	2
325	BACW10BP20APU		WASHER	C,E,J,N	2
330	BACB30PN14-31		BOLT	C,E,J,N	4
335	BACW10BP14ACU		WASHER	C,E,J,N	4
340	BACB30LE6U49		BOLT	C,E,J,N	1
345	310T3150-2		PIN-LINK PIVOT	C,E,J	1
350	310T3151-21		WASHER-SPECIAL (PRE SB 767-71-0074)	C,E,J,N	1
355	NAS1805-6P		NUT	C,E,J,N	1
360	BACN10YN14C		NUT		4
365	310U4012-3		RETAINER		2
370	310U4012-7		RETAINER ASSY		2
-372	BACN10JB4CM		.NUT		1
-374	310U4012-6		.RETAINER		1
375	NAS6704U16		BOLT		2
380	BACW10BP4ACU		WASHER		2

- Item Not Illustrated

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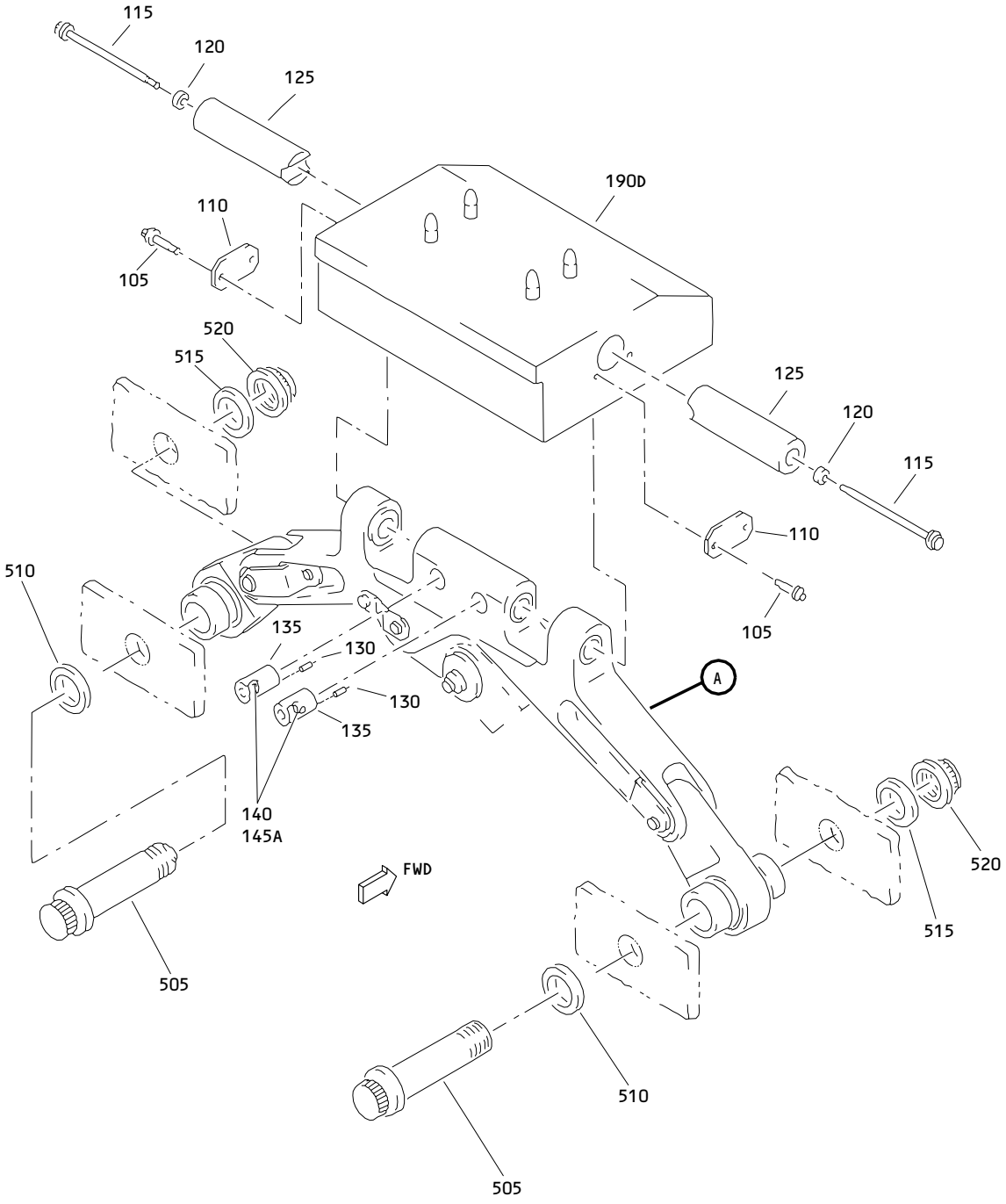

Mount Assembly
Figure 4 (Sheet 1)

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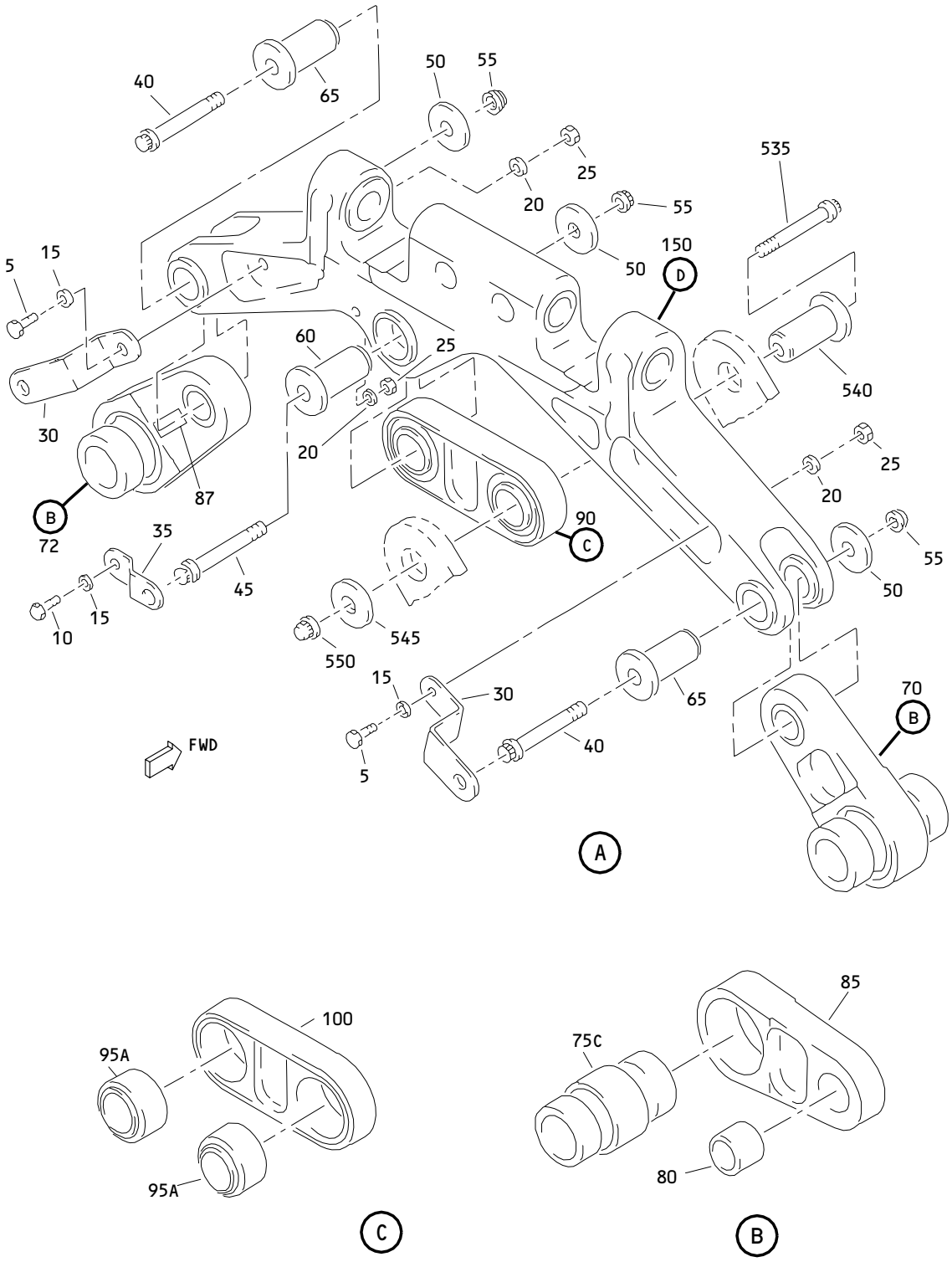

Mount Assembly
Figure 4 (Sheet 2)

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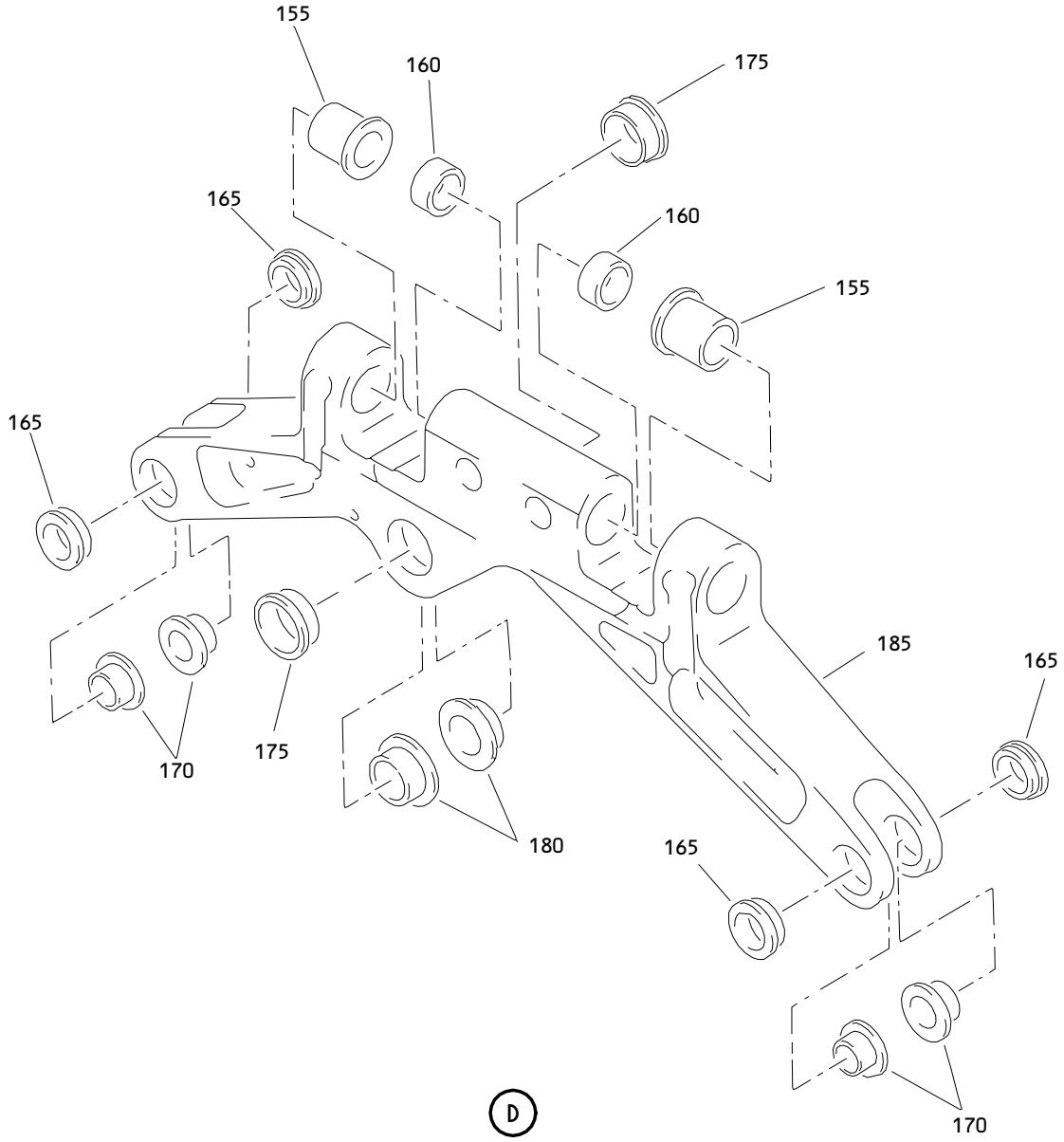

Mount Assembly
Figure 4 (Sheet 3)

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FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
04-					
-1	310T4020-7		MOUNT ASSY-PW4000 ENG AFT (POST SB 767-71-0048) (PRE SB 767-71-0068) (PRE SB 767-71-0074)	F	RF
-1A	310T4020-9		MOUNT ASSY-PW4000 ENG AFT (POST SB 767-71-0048) (PRE SB 767-71-0074)	G	RF
-1B	310T4020-11		MOUNT ASSY-PW4000 ENG AFT (PRE SB 767-71-0074)	K	RF
-1C	310T4020-13		MOUNT ASSY-PW4000 ENG AFT (PRE SB 767-71-0074) (POST SB 767-71-0068)	L	RF
-1D	310T4020-14		MOUNT ASSY-PW4000 ENG AFT (PRE SB 767-71-0074)	M	RF
5	BACB30LJ4U7		.BOLT	F,G,K,L,M	2
10	BACB30LJ4U11		.BOLT	F,G,K,L,M	1
15	BACW10BP4ACU		.WASHER	F,G,K,L,M	3
20	BACW10BP4APU		.WASHER	F,G,K,L,M	3
25	NAS1805-4P		.NUT	F,G,K,L,M	3
30	310U4039-1		.RETAINER-BOLT	F,G,K,L,M	2
35	310U4039-3		.RETAINER-BOLT	F,G,K,L,M	1
40	BACB30LE6U43		.BOLT	F,K,L,M	2
-40A	BACB30LE6U40		.BOLT	G	2
45	BACB30LE6U44		.BOLT	F,G,K,L,M	1
50	310T3151-21		.WASHER-SPECIAL (PRE SB 767-71-0074)	F,G,K,L,M	3
55	NAS1805-6P		.NUT	F,G,K,L,M	3
60	310T3150-4		.PIN-LINK PIVOT	F,K,L,M	1
-60A	310T3150-1		.PIN-LINK PIVOT	G	1
65	310T3150-5		.PIN-LINK PIVOT	F,K,L,M	2
-65A	310T3150-3		.PIN-LINK PIVOT	G	2
70	310T3032-5		.LINK ASSY-TANGENTIAL (OPT ITEM 70A)	F,G,K,L,M	1

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FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
04-					
-70A	310T3032-7		.LINK ASSY-TANGENTIAL (OPT ITEM 70)	F,G,K ,L,M	1
72	310T3032-9		.LINK ASSY-TANGENTIAL	F,G,K ,L,M	1
75	60B00180-302		DELETED		
-75A	60B00180-305		DELETED		
-75B	ABY20V103		DELETED		
75C	BDS20S305		..BEARING- (V16746) (SPEC 60B00180-305) (OPT 56137 (V09455)) (OPT ABY20V103 (V15860)) (OPT ASBY20V16 (V15860)) (OPT ITEM 75D)	F,G,K ,L,M	1
-75D	ASBY20V11		..BEARING- (V15860) (SPEC 60B00180-302) (OPT 55490 (V09455)) (OPT ABY20-101 (VS0352)) (OPT KSSB20-33 (V97613)) (OPT BDS20S302 (V16746)) (OPT ITEM 75C)	F,G,K ,L,M	1

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FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
04-					
80	302T0200-141		..BUSHING-PLAIN	F,G,K ,L,M	1
85	310T3032-6		..LINK- (USED ON ITEM 70)	F,G,K ,L,M	1
-85A	310T3032-8		..LINK- (USED ON ITEM 70A)	F,G,K ,L,M	1
87	310T3032-10		..LINK- (USED ON ITEM 72)	F,G,K ,L,M	1
90	310T3033-5		.LINK ASSY-CTR (OPT ITEM 90A)	F,G,K ,L,M	1
-90A	310T3033-7		.LINK ASSY-CTR (OPT ITEM 90)	F,G,K ,L,M	1
95	VTB01140BASIC		DELETED		
95A	P22970		..BEARING- (V57606) (OPT ITEM 95B, 95C)	F,G,K ,L,M	2
-95B	VTB01140		..BEARING- (V06710) (OPT ITEM 95A, 95C)	F,G,K ,L,M	2
-95C	AMB22-1001		..BEARING- (V15860) (OPT ITEM 95A, 95B)	F,G,K ,L,M	2
100	310T3033-6		..LINK- (USED ON ITEM 90)	F,G,K ,L,M	1
-100A	310T3033-8		..LINK- (USED ON ITEM 90A)	F,G,K ,L,M	1
105	BACB30LE4HU4		.BOLT	F,G,K ,L,M	4
110	310T4014-1		.RETAINER-HINGE PIN	F,G,K ,L,M	2
115	BACB30LE7U96		.BOLT	F,G,K ,L,M	2
120	BACW10BP7ACU		.WASHER	F,G,K ,L,M	2

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FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
04-					
125	310T4012-1		.PIN-HINGE (OPT ITEM 125A)	F,G,K,L,M	2
-125A	310T4012-2		.PIN-HINGE (OPT ITEM 125)	F,G,K,L,M	2
130	MS51923-286		.PIN-SPR	F,G,K,L,M	2
135	310T4013-1		.PIN-BARREL NUT HSG	F,G,K,L	2
-135A	310T4013-2		.PIN-BARREL NUT HSG	M	2
140	SLR414C7		.RETAINER-NUT (V97393)	F	2
-140A	SLR414C7		.RETAINER-NUT (V97393) (OPT ITEM 140B)	G,K,L,M	2
-140B	SLR4124C7		.RETAINER-NUT (V97393) (OPT ITEM 140A)	G,K,L,M	2
145	SL4081C7		DELETED		
145A	SL4120-7		.NUT-SELF-LOCKING BARREL (V97393)	F	2
-145B	SL4120-7		.NUT-SELF-LOCKING BARREL (V97393) (OPT ITEM 145C)	G,K,L,M	2
-145C	SL4081C7		.NUT-SELF-LOCKING BARREL (V97393) (OPT ITEM 145B)	G,K,L,M	2

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FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
04-150	310T4032-1		.HANGER ASSY- (310T4032-5 TOGETHER WITH 1 EACH 310T3150-1 PIN 2 EACH 310T3150-3 PIN AND 2 EACH BACB30LE6U40 BOLT I/W 310T4032-1 OR -3 TOGETHER WITH 1 EACH 310T3150-4 PIN 2 EACH 310T3150-5 PIN AND 2 EACH BACB30LE6U43 BOLT) (OPT ITEM 150A) (PRE SB 767-71-0068)	F	1
-150A	310T4032-3		.HANGER ASSY- (OPT ITEM 150) (PRE SB 767-71-0068)	F	1
-150B	310T4032-5		.HANGER ASSY- (310T4032-5 TOGETHER WITH 1 EACH 310T3150-1 PIN 2 EACH 310T3150-3 PIN AND 2 EACH BACB30LE6U40 BOLT I/W 310T4032-1 OR -3 TOGETHER WITH 1 EACH 310T3150-4 PIN 2 EACH 310T3150-5 PIN AND 2 EACH BACB30LE6U43 BOLT) (OPT ITEM 150C)	G	1
-150C	310T4032-7		.HANGER ASSY- (310T4032-5 TOGETHER WITH 1 EACH 310T3150-1 PIN 2 EACH 310T3150-2 PIN AND 2 EACH BACB30LE6U40 BOLT I/W 310T4032-1 OR -3 TOGETHER WITH 1 EACH 310T3150-4 PIN 2 EACH 310T3150-5 PIN AND 2 EACH BACB30LE6U43 BOLT) (OPT ITEM 150B)	G	1
-150D	310T4032-9		.HANGER ASSY- (OPT ITEM 150E)	K,M	1
-150E	310T4032-11		.HANGER ASSY- (OPT ITEM 150D)	K,M	1

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FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
04-					
-150F	310T4032-13		.HANGER ASSY- (POST SB 767-71-0068)	L	1
-150G	310T4032-13		.HANGER ASSY- (POST SB 767-71-0068)	F	1
155	302T0200-139		..BUSHING	F,G,K,L,M	2
160	302T0200-140		..BUSHING	F,K,L,M	2
165	302T0200-131		..BUSHING-OUTER	F,K,L,M	4
170	302T0200-132		..BUSHING-INNER	F,K,L,M	4
-170A	302T0200-126		..BUSHING-INNER	G	4
175	302T0200-129		..BUSHING-OUTER	F,K,L,M	2
180	302T0200-138		..BUSHING-INNER	F,K,L,M	2
-180A	302T0200-142		..BUSHING-INNER	G	2
185	310T4032-2		..HANGER- (USED ON ITEM 150) (PRE SB 767-71-0068)	F	1
-185A	310T4032-4		..HANGER- (USED ON ITEM 150A) (PRE SB 767-71-0068)	F	1
-185B	310T4032-6		..HANGER	G	1
-185C	310T4032-10		..HANGER- (USED ON ITEM 150D)	K,M	1
-185D	310T4032-12		..HANGER- (USED ON ITEM 150E)	K,M	1
-185E	310T4032-14		..HANGER- (POST SB 767-71-0068)	L	1
-185F	310T4032-14		..HANGER- (USED ON ITEM 150G) (POST SB 767-71-0068)	F	1

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FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
04-					
190	S302T003-1		DELETED		
190A	LM43SA141M		DELETED		
-190B	LM434SA141M		DELETED		
-190C	LM434SA11		DELETED		
190D	LM434SA14M		.ISOLATOR-VIBRATION (V76005) (SPEC S302T003-1)	F,G,K,L	1
			INSTALLATION PARTS	F,G,K,L,M	
505	BACB30PN20-93		BOLT	F,G,K,L,M	2
510	BACW10BP20ACU		WASHER	F,G,K,L,M	2
515	BACW10BP20APU		WASHER	F,G,K,L,M	2
520	NAS1805-20P		NUT	F,G,K,L,M	2
525	BACB30PN14-30		DELETED		
530	BACW10BP14ACU		DELETED		
535	BACB30LE6U49		BOLT	F,G,K,L,M	1
540	310T3150-2		PIN-LINK PIVOT	F,G,K,L,M	1
545	310T3151-21		WASHER-SPECIAL (PRE SB 767-71-0074)	F,G,K,L,M	1
550	NAS1805-6P		NUT	F,G,K,L,M	1

- Item Not Illustrated

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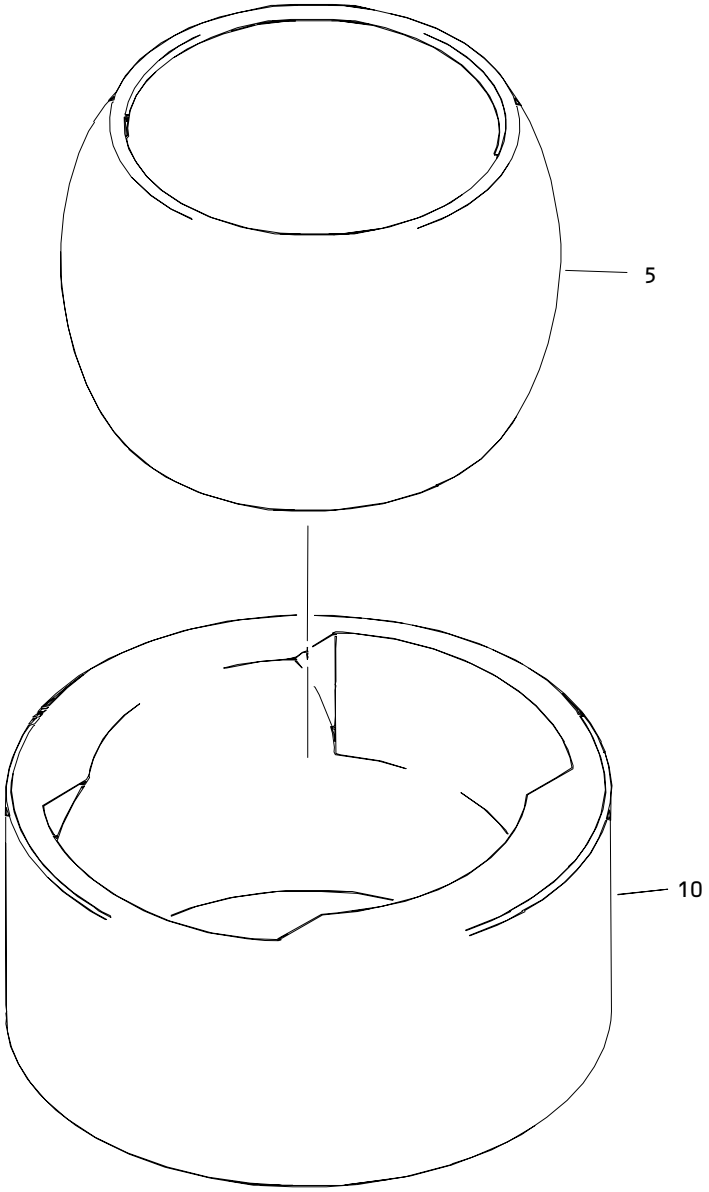

Bearing Assembly
Figure 80

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FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
80-					
-1	LHSSTM16BAC		BEARING ASSY- (V73134) (SPEC S302T001-200) (OPT P20540 (V57606)) (OPT P20541 (V57606))	A,D,H ,Q,R	RF
5	8106809		.BALL- (V73134)	A,D,H ,Q,R	1
10	8116742		.RACE- (V73134)	A,D,H ,Q,R	1

- Item Not Illustrated

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FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
81-					
-1	LHSSTM32BAC		DELETED		
5	LHSSTM32BACFB		DELETED		
10	LHSSTM32BACOR		DELETED		

- Item Not Illustrated

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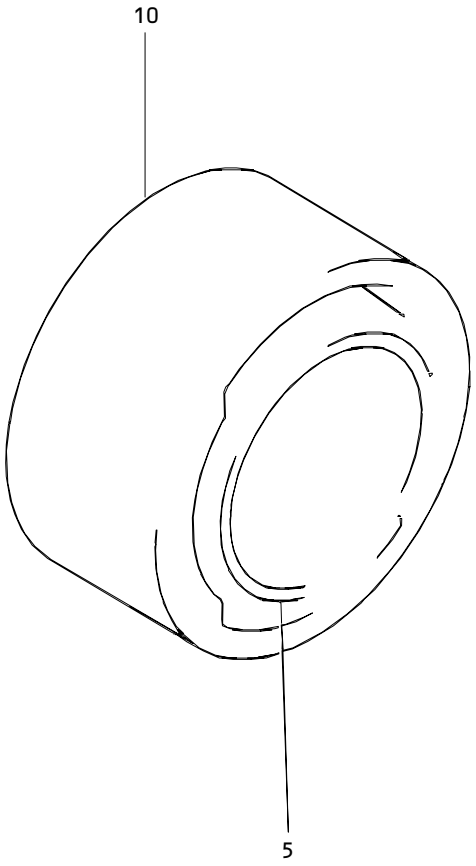

Bearing Assembly
Figure 82

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FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
82-					
-1	VTB01130REVD		BEARING ASSY- (V06710)	B,C,E,J,N,P	RF
5	VTB01131		.BALL- (V06710)	B,C,E,J,N,P	1
10	VTB01132		.RACE- (V06710)	B,C,E,J,N,P	1

- Item Not Illustrated

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