TO: ALL HOLDERS OF MLG SHOCK STRUT ASSY COMPONENT MAINTENANCE MANUAL 32-11-40

REVISION NO. 54 DATED NOV 01/05

HIGHLIGHTS

All data that was in 767 CMM 32-11-41 is now included in this CMM 32-11-40. 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
303 REPAIR 7-1 601 704 1018,1034,1073-1075, 1080B	Added clarifications and updated callouts.
REPAIR-GEN 601 REPAIR 7-1 601-602	Added replacement procedure for nameplate (460).
REPAIR 2-2 611-612	Changed bushing details at the pivot of the inner cylinder.

MAIN LANDING GEAR SHOCK STRUT ASSEMBLY

PART NUMBERS 161T1100-17 THRU -20,-37,-38,-41, -42,-47,-48,-55,-56,-63, -64,-67,-68,-71,-72,-77, -78,-87 THRU -90,-95,-96, -107,-108,-115,-119,-120, -127,-128,-145,-146,-151, -152,-156,-161,-162,-167 THRU 170,-225,-226,-257 THRU 260,-277 THRU -282, -321 THRU -324,-339,-340, -343 THRU -346,-357,-358, (CONT)

COMPONENT MAINTENANCE MANUAL
WITH
ILLUSTRATED PARTS LIST

14348

PART NUMBERS 161T1100-361,-362,-377,-378,-395, (CONTINUED) -396,-403,-404,-445 THRU -448,-450,-461,-462,-465 THRU -468,-479 THRU -482
015T1504-5 THRU -33,-35 THRU -42, -44 THRU -70
015T0819-7 THRU -10

COMPONENT MAINTENANCE MANUAL
WITH
ILLUSTRATED PARTS LIST

G48858

REVISION RECORD

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

REVISION NUMBER	REVISION DATE	DATE FILED	BY

REVISION NUMBER	REVISION DATE	DATE FILED	BY

TEMPORARY REVISION AND SERVICE BULLETIN RECORD

BOEING SERVICE BULLETIN	BOEING TEMPORARY REVISION	OTHER DIRECTIVE	DATE OF INCORPORATION INTO MANUAL
51-7		MC B1031-025K	APR 10/85
		MC B1321-003	OCT 10/84
		PRR B10851	APR 10/83
		PRR B10482	JUL 10/83
		PRR B10608	JUL 10/83
32-21		PRR B11080	JUL 10/84
32-21, Rev 1			OCT 10/84
		PRR B11080-1	OCT 10/84
32-46		PRR B11365	APR 10/86
		PRR C12017	JAN 10/84
32-45			APR 10/86
		PRR B11823	JAN 01/90
		PRR B11667	JAN 01/90
		PRR B11988	JAN 01/90
		PRR B12042	OCT 01/90
	32-6		APR 01/91
	32-8		JUL 01/92
		MC 0310MP6101	OCT 01/92
		PRR B12510	JAN 01/94
	32-40		JAN 01/94
	32-41		JAN 01/94
	32-42		JAN 01/94
		PRR B12580-1	JAN 01/94
32-0129			SEP 01/94
		RR B41049-26	DEC 01/94
32-0135		MC 0310MK6101	MAR 01/95
32-0135		MC 0310MK6146	MAR 01/95
	32-50		MAR 01/95
		RR B41002-59	JUN 01/95
		RR B41008-83	JUN 01/95
	32-58		SEP 01/95
		PRR B12681	SEP 01/95
32A0148	32-59		DEC 01/95
		RR B41063-92	DEC 01/95
32A0148 Rev 1			MAR 01/96
32A0127		PRR B12584R	JUN 01/96
32-0145		MC 0310MK6101	JUN 01/96
		PRR B12900-69	JUN 01/96
		PRR B13100-2	JUN 01/97
		PRR B12900-163	DEC 01/97
		SL 32-062-C	JUL 01/98
32-0162		PRR B12900-141	MAR 01/01

TEMPORARY REVISION AND SERVICE BULLETIN RECORD (CONT)

BOEING SERVICE BULLETIN	BOEING TEMPORARY REVISION	OTHER DIRECTIVE	DATE OF INCORPORATION INTO MANUAL
		PRR B12737	MAR 01/99
32-0175			MAR 01/99
32A0182			MAR 01/00
		PRR B12737-1	MAR 01/01
32A0192			NOV 01/01
32A0176R2			JUL 01/03
		767 MT 32-035	NOV 01/04

PAGE	DATE	CODE
32-11-40		
TITLE PAGE		
1	NOV 01/01	01.1
2	NOV 01/01	01.1
REVISION RECORD		
1	DEC 01/97	01.1
2	BLANK	
TR & SB RECORD		
1	MAR 01/01	01.1
2	NOV 01/04	01.1
LIST OF EFFECTIVE PAGES		
*1	NOV 01/05	01
THRU LAST PAGE		
CONTENTS		
1	JUL 01/04	01.1
2	BLANK	
INTRODUCTION		
1	DEC 01/97	01.1
2	BLANK	
DESCRIPTION & OPERATION		
1	MAR 01/03	01.1
2	BLANK	
TESTING & TROUBLE SHOOTING		
101	NOV 01/04	01.1
102	NOV 01/04	01.1
103	NOV 01/04	01.1
104	NOV 01/04	01.1
105	NOV 01/04	01.101
106	NOV 01/04	01.101
DISASSEMBLY		
301	DEC 01/97	01.1
302	MAR 01/99	01.1
*303	NOV 01/05	01.1

PAGE	DATE	CODE
DISASSEMBLY		CONT.
304	MAR 01/99	01.1
CHECK		
501	MAR 01/05	01.1
502	BLANK	
REPAIR-GENERAL		
*601	NOV 01/05	01.1
602	MAR 01/99	01.1
603	MAR 01/02	01.1
604	BLANK	
REPAIR 1-1		
601	MAR 01/02	01.1
602	MAR 01/02	01.101
603	NOV 01/99	01.1
604	NOV 01/99	01.1
605	NOV 01/99	01.1
606	NOV 01/99	01.1
607	NOV 01/99	01.1
608	MAR 01/99	01.1
609	MAR 01/99	01.1
610	MAR 01/99	01.1
611	MAR 01/99	01.1
612	MAR 01/99	01.1
613	MAR 01/99	01.1
614	MAR 01/03	01.1
615	MAR 01/99	01.1
616	MAR 01/01	01.1
617	MAR 01/01	01.1
618	MAR 01/01	01.1
619	MAR 01/01	01.1
620	MAR 01/01	01.1
621	MAR 01/01	01.1
622	MAR 01/01	01.1
623	MAR 01/01	01.1
624	MAR 01/01	01.1
625	MAR 01/01	01.1
626	MAR 01/03	01.1

* = REVISED, ADDED OR DELETED

PAGE	DATE	CODE
REPAIR 1-2		
601	MAR 01/03	01.1
602	MAR 01/02	01.1
603	MAR 01/02	01.1
604	MAR 01/03	01.1
605	MAR 01/03	01.1
606	MAR 01/03	01.1
607	MAR 01/03	01.1
608	MAR 01/03	01.1
609	MAR 01/03	01.1
610	NOV 01/03	01.1
611	MAR 01/03	01.1
612	MAR 01/03	01.1
613	MAR 01/03	01.1
614	MAR 01/03	01.1
615	MAR 01/03	01.1
616	MAR 01/03	01.1
617	MAR 01/03	01.1
618	MAR 01/01	01.1
619	MAR 01/01	01.1
620	MAR 01/01	01.1
621	MAR 01/01	01.1
622	MAR 01/01	01.1
623	NOV 01/01	01.1
624	NOV 01/03	01.1
625	MAR 01/01	01.1
626	MAR 01/01	01.1
627	MAR 01/01	01.1
628	MAR 01/01	01.1
629	MAR 01/01	01.1
630	JUL 01/02	01.1
631	JUL 01/02	01.1
632	MAR 01/01	01.1
633	MAR 01/01	01.1
634	MAR 01/01	01.1
635	MAR 01/01	01.1
636	MAR 01/01	01.1
637	MAR 01/01	01.1
638	MAR 01/01	01.1
639	MAR 01/01	01.1
640	MAR 01/01	01.1
641	MAR 01/01	01.1
642	MAR 01/01	01.1

PAGE	DATE	CODE
REPAIR 1-2		CONT.
643	MAR 01/01	01.101
644	JUL 01/04	01.1
645	MAR 01/02	01.101
646	MAR 01/02	01.101
647	JUL 01/04	01.1
648	MAR 01/02	01.101
649	MAR 01/02	01.101
650	BLANK	
REPAIR 1-3		
601	MAR 01/03	01.1
602	MAR 01/01	01.1
603	MAR 01/03	01.1
604	MAR 01/03	01.1
605	MAR 01/03	01.1
606	MAR 01/03	01.1
607	MAR 01/03	01.1
608	MAR 01/03	01.1
609	MAR 01/03	01.1
610	MAR 01/03	01.1
611	MAR 01/03	01.1
612	MAR 01/03	01.1
613	MAR 01/03	01.1
614	MAR 01/03	01.1
615	MAR 01/03	01.1
616	MAR 01/03	01.1
617	MAR 01/03	01.101
618	MAR 01/03	01.101
619	MAR 01/03	01.101
620	MAR 01/03	01.101
621	MAR 01/03	01.101
622	MAR 01/03	01.101
623	MAR 01/03	01.101
624	MAR 01/03	01.101
625	MAR 01/03	01.101
626	MAR 01/03	01.101
627	MAR 01/03	01.101
628	MAR 01/03	01.101
629	MAR 01/03	01.101
630	MAR 01/03	01.101
631	MAR 01/03	01.101
632	BLANK	

* = REVISED, ADDED OR DELETED

PAGE	DATE	CODE
REPAIR 1-4		
601	JUL 01/03	01.1
602	MAR 01/99	01.1
603	JUL 01/98	01.1
604	JUL 01/98	01.1
REPAIR 2-1		
601	JUL 01/04	01.1
602	DEC 01/97	01.1
603	MAR 01/04	01.1
604	DEC 01/97	01.1
REPAIR 2-2		
601	JUL 01/04	01.1
602	MAR 01/02	01.1
603	MAR 01/05	01.1
604	JUL 01/02	01.1
605	MAR 01/02	01.1
606	JUL 01/02	01.1
607	DEC 01/97	01.1
608	MAR 01/99	01.101
609	MAR 01/99	01.101
610	MAR 01/99	01.101
*611	NOV 01/05	01.1
*612	NOV 01/05	01.1
613	MAR 01/99	01.1
614	BLANK	
REPAIR 2-3		
601	MAR 01/02	01.1
602	MAR 01/02	01.1
603	JUL 01/02	01.1
604	MAR 01/02	01.1
605	JUL 01/02	01.1
606	JUL 01/02	01.1
REPAIR 3-1		
601	MAR 01/99	01.1
602	JUL 01/00	01.1
603	JUL 01/00	01.1
604	BLANK	

PAGE	DATE	CODE
REPAIR 4-1		
601	DEC 01/97	01.1
602	DEC 01/97	01.1
603	JUL 01/05	01.1
604	DEC 01/97	01.1
REPAIR 5-1		
601	JUL 01/01	01.1
602	NOV 01/00	01.1
603	NOV 01/01	01.1
604	NOV 01/00	01.1
605	NOV 01/00	01.1
606	BLANK	
REPAIR 6-1		
601	NOV 01/01	01.1
602	NOV 01/99	01.1
REPAIR 7-1		
*601	NOV 01/05	01.1
*602	NOV 01/05	01.1
REPAIR 8-1		
601	JUL 01/98	01.1
602	BLANK	
REPAIR 9-1		
601	DEC 01/97	01.1
602	MAR 01/99	01.1
REPAIR 10-1		
601	DEC 01/97	01.1
602	BLANK	
REPAIR 11-1		
601	NOV 01/00	01.1
602	MAR 01/99	01.1
REPAIR 12-1		
601	NOV 01/04	01.1
602	JUL 01/05	01.1
603	NOV 01/04	01.1
604	BLANK	

* = REVISED, ADDED OR DELETED

PAGE	DATE	CODE
ASSEMBLY		
701	MAR 01/02	01.1
702	MAR 01/02	01.101
703	MAR 01/02	01.1
*704	NOV 01/05	01.1
705	NOV 01/04	01.1
706	NOV 01/04	01.1
707	NOV 01/04	01.1
708	NOV 01/04	01.1
709	NOV 01/04	01.1
710	NOV 01/04	01.1
711	NOV 01/04	01.1
712	NOV 01/04	01.1
713	NOV 01/04	01.1
714	BLANK	
FITS AND CLEARANCES		
801	MAR 01/99	01.1
802	NOV 01/01	01.1
803	MAR 01/99	01.1
804	NOV 01/01	01.1
805	JUL 01/00	01.1
806	MAR 01/02	01.1
807	MAR 01/99	01.1
808	BLANK	
SPECIAL TOOLS		
901	DEC 01/97	01.1
902	BLANK	
ILLUSTRATED PARTS LIST		
1001	DEC 01/97	01.1
1002	NOV 01/03	01.1
1003	NOV 01/03	01.1
1004	NOV 01/04	01.1
1005	NOV 01/04	01.1
1006	NOV 01/04	01.1
1007	NOV 01/04	01.1
1008	NOV 01/04	01.1
1009	NOV 01/04	01.1
1010	NOV 01/04	01.1
1011	NOV 01/04	01.1
1012	NOV 01/04	01.1

PAGE	DATE	CODE
ILLUSTRATED PARTS LIST		CONT.
1013	NOV 01/04	01.1
1014	NOV 01/04	01.1
1015	NOV 01/04	01.1
1016	NOV 01/04	01.1
1017	NOV 01/04	01.1
*1018	NOV 01/05	01.1
1019	NOV 01/03	01.1
1020	NOV 01/03	01.1
1021	NOV 01/03	01.1
1022	NOV 01/03	01.1
1023	NOV 01/03	01.1
1024	NOV 01/03	01.1
1025	NOV 01/03	01.1
1026	NOV 01/03	01.1
1027	NOV 01/03	01.1
1028	NOV 01/03	01.1
1029	NOV 01/03	01.1
1030	NOV 01/03	01.1
1031	NOV 01/03	01.1
1032	NOV 01/03	01.1
1033	NOV 01/03	01.1
*1034	NOV 01/05	01.1
1035	NOV 01/03	01.1
1036	NOV 01/03	01.1
1037	NOV 01/03	01.1
1038	NOV 01/03	01.1
1039	NOV 01/03	01.1
1040	NOV 01/03	01.1
1041	NOV 01/03	01.1
1042	NOV 01/03	01.1
1043	NOV 01/03	01.1
1044	NOV 01/03	01.1
1045	NOV 01/03	01.1
1046	NOV 01/03	01.1
1047	NOV 01/03	01.1
1048	NOV 01/03	01.1
1049	NOV 01/03	01.1
1050	NOV 01/03	01.1
1051	NOV 01/03	01.1
1052	NOV 01/03	01.1
1053	NOV 01/03	01.1
1054	NOV 01/03	01.1

* = REVISED, ADDED OR DELETED

PAGE	DATE	CODE
ILLUSTRATED PARTS LIST		CONT.
1055	NOV 01/04	01.1
1056	NOV 01/04	01.1
1057	NOV 01/04	01.1
1058	NOV 01/04	01.1
1059	NOV 01/03	01.1
1060	NOV 01/03	01.1
1061	NOV 01/03	01.1
1062	NOV 01/03	01.1
1063	NOV 01/03	01.1
1064	NOV 01/03	01.1
1065	NOV 01/03	01.1
1066	NOV 01/03	01.1
1067	NOV 01/03	01.1
1068	NOV 01/03	01.1
1069	NOV 01/03	01.1
1070	NOV 01/03	01.1
1071	NOV 01/03	01.1
1072	NOV 01/03	01.1
*1073	NOV 01/05	01.1
*1074	NOV 01/05	01.1
*1075	NOV 01/05	01.1
1076	NOV 01/03	01.1
1077	NOV 01/03	01.1
1078	NOV 01/03	01.1
1079	NOV 01/03	01.1
1080	NOV 01/03	01.1
1080A	NOV 01/03	01.1
*1080B	NOV 01/05	01.1

PAGE	DATE	CODE

* = REVISED, ADDED OR DELETED

TABLE OF CONTENTS

*[1] Special instructions are not necessary. Use standard industry practices and the instructions in SOPM 20-30-03.

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:

Testing/TS	Nov 17/82
Disassembly	Nov 17/82
Assembly	Nov 17/82

MAIN LANDING GEAR SHOCK STRUT ASSEMBLY

DESCRIPTION AND OPERATION

1. The main landing gear shock strut assembly has high strength steel inner and outer cylinders. The outer cylinder contains an upper bulkhead and an orifice plate and support tube. Upper and lower bearings give sliding surfaces and keep the inner cylinder concentric with the outer cylinder. The lower bearing contains working and spare packings. The inner cylinder contains a metering pin which moves up and down thru the orifice plate.

2. The shock strut is the primary supporting member of the main landing gear and damps both the landing impact and taxiing shocks. Flow of hydraulic fluid thru the annular opening between the orifice plate and the metering pin gives the required damping.

3. Leading Particulars (approximate)

   A. Length (between trunnion and pivot pins centerlines) -- 95 inches (compressed) -- 113 inches (extended)

   B. Weight -- 1450 pounds (wet) -- 1380 pounds (dry)

   C. Operating Medium -- Hydraulic fluid, BMS 3-32, type 1 or 2, MIL-H-5606 or MIL-H-6083, with Lubrizol 1395 additive, and pressurized air or nitrogen

TESTING/TROUBLE SHOOTING

1. Test Equipment

NOTE: Equivalent substitutes can be used.

A. Dry air or nitrogen -- pressure of up to 310 psi

B. Main Gear Sling -- A32033-17

C. Pressure gage -- 0-350 psi minimum

D. Hydraulic fluid - BMS 3-32, type 1 or 2, MIL-H-5606 or MIL-H-6083 (SOPM 20-60-03)

2. Prepare for Test

A. Put the shock strut vertically in a suitable fixture or hang it in sling A32033-17.

WARNING: DO NOT REMOVE AIR VALVE (46) UNTIL THE PRESSURE IS RELEASED, OR INJURY TO PERSONNEL CAN OCCUR.

B. If the air valve (54A) is installed, remove the cap and carefully release the air pressure. To do this, turn the swivel nut one or two turns counterclockwise. Then remove the air valve.

C. With the strut in the compressed position, fill it with 2175-2225 cubic inches of hydraulic fluid thru the air valve opening. Add 57-59 cubic inches of Lubrizol 1395 hydraulic fluid additive if strut is being completely refilled, then make sure the Circle L symbol is stenciled near the valve. If necessary, add it (Assembly Fig. 701). Remove the oil filler line and fully extend the inner cylinder.

3. Test

WARNING: DO NOT PRESSURIZE THE SHOCK STRUT FOR THE TEST UNLESS THE INNER CYLINDER IS FULLY EXTENDED, OR INJURY TO PERSONNEL OR DAMAGE TO PARTS CAN OCCUR.

A. Connect air valve on test gage attachment to nitrogen or dry air pressure system. Pressurize shock strut to 290-310 psi and allow to stabilize for 1/2 hour. No air or oil leakage is permitted in the next 1 hour period. If leakage is noted, refer to Trouble Shooting Chart, Fig. 101 for probable cause and correction.

B. Make a check of Dimension A (Fig. 102) with the shock strut fully compressed. If the value is more than shown, the upper bearing (250) could be installed incorrectly.

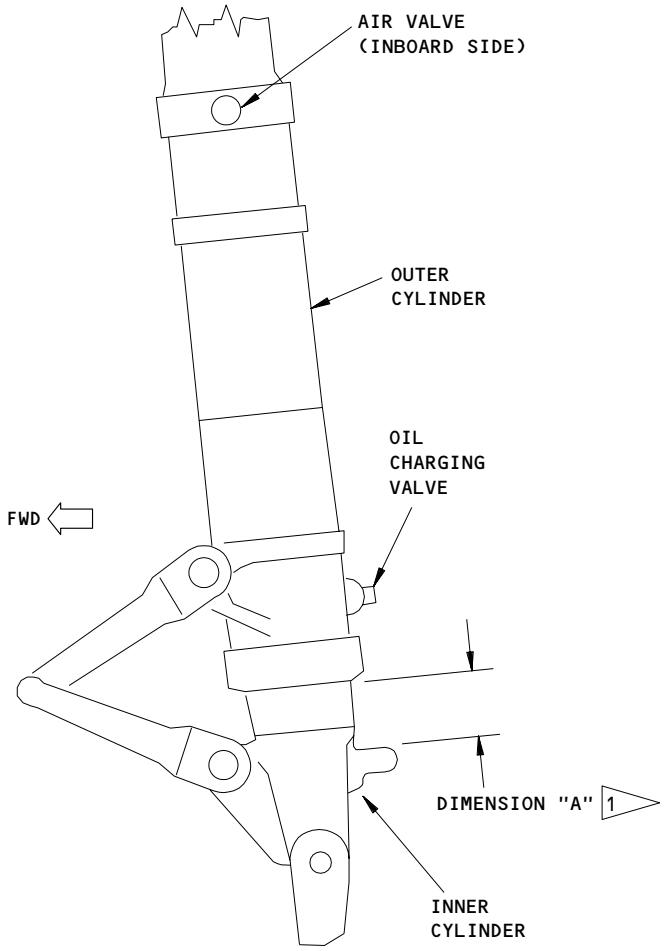
C. After the test, bleed the assembly of all air pressure thru the air valve. Collapse the shock strut to the fully retracted position. Remove test gage and install air valve (54A) and oil tag (53A). Tighten air valve body to 11-13 lb-ft and swivel nut to 5-7 lb-ft.

TROUBLE	PROBABLE CAUSE	CORRECTION
Leakage at bulkhead (225)	Defective packing (220), or back-up rings (215).	Disassemble and replace packing or back-up rings per par. 4.A., 4.B.
	Defective seal area on outer cylinder (345 or 350)	Disassemble and replace bulkhead or replace or repair outer cylinder per par. 4.A., 4.C.
Leakage at air valve (54A)	Defective air valve or seal area on outer cylinder (345 or 350)	Disassemble and replace air valve, or replace or repair outer cylinder per par. 4.A., 4.D.
Leakage at check valve (60)	Defective check valve, or packing (65), or seal area on outer cylinder (345 or 350)	Disassemble and replace check valve, packing, or replace or repair outer cylinder per par. 4.A., 4.E.
Leakage at metering pin (335)	Defective packing (310) or back-up rings (305)	Disassemble and replace packing and back-up rings per par. 4.A. and 4.F.
	Defective seal surface on inner cylinder (155)	Disassemble and replace metering pin or inner cylinder per par. 4.A., 4.F.

Trouble Shooting Chart
Figure 101 (Sheet 1)

TROUBLE	PROBABLE CAUSE	CORRECTION
Leakage at gland nut (90)	Defective packings (120,130) or back-up rings (115,125)	Disassemble and replace packings and back-up rings per par. 4.A. and 4.B.
	Defective seal surface on inner cylinder (155)	Disassemble and replace inner cylinder per par. 4.A. and 4.B.
	Defective seal surface on outer cylinder (345 or 350)	Disassemble and replace outer cylinder per par. 4.A. and 4.B.

Trouble Shooting Chart
Figure 101 (Sheet 2)



1 FULLY COMPRESSED STRUT:
DIMENSION A = 4.10 INCHES;
FULLY EXTENDED STRUT:
DIMENSION A = 26.60 INCHES AT
300 PSIG PRESSURE

Shock Strut Compressed Length Check
Figure 102

4. Corrective Procedures

A. Drain all hydraulic fluid from unit.

B. Packing (220) and back-up rings (215) replacement.

(1) Disassemble parts per DISASSEMBLY par. 3.C., 3.D., 3.I., 3.J.

(2) Check packing (220) and back-up rings (215) and replace if defective.

(3) Carefully insert upper bulkhead (225) and attached parts back into the outer cylinder (345 or 350) until the threaded end of the support tube (195) protrudes from the hole in the outer cylinder. Ensure that the bulkhead is seating correctly in the outer cylinder.

(4) Assemble the remaining parts per ASSEMBLY par. 4.F., 4.M.

(5) Retest unit for leakage.

C. Bulkhead (225) or outer cylinder (345 or 350) replacement.

(1) Disassemble parts per DISASSEMBLY par. 3.C., 3.D., 3.I. thru 3.L. Replace bulkhead (225) if defective.

(2) If outer cylinder (345 or 350) is defective, replace the cylinder or refer to REPAIR 1-2 for repair of defective part.

(3) Reassemble parts per ASSEMBLY par. 4.B. thru 4.F. and 4.M.

(4) Retest unit for leakage.

D. Air valve (54A) or outer cylinder (345 or 350) replacement

(1) Remove air valve (54A) and replace if defective.

(2) If outer cylinder (345 or 350) needs repair or replacement, disassemble per DISASSEMBLY par. 3.C., 3.D., 3.I., and 3.J. Refer to REPAIR 1-2 for repair of outer cylinder.

(3) Reassemble parts per ASSEMBLY par. 4.E., 4.F., 4.M.

(4) Retest unit for leakage.

E. Check valve (60), packing (65) or outer cylinder (345 or 350) replacement.

(1) Remove check valve (60) and packing (65) and replace defective part.

(2) If outer cylinder needs repair or replacment, disassemble parts per DISASSEMBLY par. 3.C., 3.E., 3.I. and 3.J. Refer to REPAIR 1-2 for repair of outer cylinder.

(3) Reassemble parts per ASSEMBLY par. 4.E., 4.F. and 4.M.

(4) Retest unit for leakage.

F. Packing (310), back-up rings (305), metering pin (335) or inner cylinder (155) replacement.

(1) Disassemble parts per DISASSEMBLY par. 3.C., 3.D., 3.G.

(2) Remove metering pin (335) and check metering pin, packing (310) and back-up rings (305). Replace if defective.

(3) If inner cylinder (155) needs repair or replacement, further disassemble parts per DISASSEMBLY par. 3.E. Refer to REPAIR 2-2 for repair of inner cylinder.

(4) Reassemble parts per ASSEMBLY par. 4.G. thru 4.M. and retest for leakage.

G. Packings (120, 130), back-up rings (115, 125), inner cylinder (155) or outer cylinder (345 or 350) replacement.

(1) Disassemble parts per DISASSEMBLY par. 3.C. thru 3.F.

(2) Check packings (120, 130) and back-up rings (115, 125). Replace if defective.

(3) If inner cylinder (155) needs repair or replacement, continue to disassemble parts per DISASSEMBLY par. 3.G., 3.H. Refer to REPAIR 2-2 for repair of inner cylinder.

(4) If outer cylinder (345 or 350) needs repair or replacement, disassemble parts per DISASSEMBLY par. 3.I. and 3.J. Refer to REPAIR 1-2 for repair of outer cylinder.

(5) Reassemble parts per ASSEMBLY par. 4.E. thru 4.M. and retest for leakage.

DISASSEMBLY

NOTE: Refer to TESTING/TROUBLE SHOOTING to establish condition or probable cause of any malfunction and to determine extent of disassembly and repair.

1. Equipment

NOTE: Equivalent substitutes may be used.

A. A32004-1 -- Gland Nut Wrench Adapter

B. A32005-54 -- Lower Bearing Seal Replacement Equipment

(1) A32005-29 -- Clamp Assembly

(2) A32005-39 -- Guide Halves Assembly

(3) A32005-12 -- Ram Clamp Assembly

(4) A32005-13 -- Slide Hammer Assembly

(5) A32005-48 -- Clamp Assembly

(6) A32005-38 -- Protective Cover

(7) A32005-45 -- Strap Assembly

(8) A32005-47 -- Hand Knob Assembly

C. A32033-17 -- Main Gear Sling

D. A32051-1 -- Shock Strut Component Maintenance Equipment

(1) A32051-2 -- Orifice Tube Extractor

(2) A32051-3 -- Outer Cylinder Guard Halves

(3) A32051-4 -- Retainer Nut Installer

(4) A32051-5 -- Drive Insert

(5) A32051-6 -- Orifice Plate/Retainer Ring Remover

(6) A32051-7 -- Thread Protector

(7) A32051-8 -- Push-Plate Handle

(8) A32051-9 -- Handle Sleeve

2. Parts Replacement (IPL Fig. 1)

NOTE: The following parts are recommended for replacement. Replacement of other parts can be by in-service experience.

A. Lockwire

B. Packings (65, 120, 130, 220, 245, 310)

C. Back-up rings (115, 125, 215, 305)

D. Scraper (105)

3. Disassembly

WARNING: DO NOT START DISASSEMBLY OF SHOCK STRUT UNTIL ALL AIR IS REMOVED FROM THE UNIT TO PREVENT INJURY TO PERSONNEL OR DAMAGE TO PARTS.

A. To release air pressure from the shock strut, turn the swivel nut on air valve (54A) counterclockwise (Fig. 301).

B. Put the shock strut in a fixture or hang it in sling A32033-17. Remove check valve (60) and drain out all hydraulic fluid possible. Remove packing (65). Remove air valve (54A).

NOTE: Some hydraulic fluid could stay inside the cylinders until they are separated, depending on position of shock strut.

C. Remove nuts (85), washers (80), bolts (75) and lock tab (70).

D. Unscrew gland nut (90) using wrench adapter A32004-1. Carefully pull inner cylinder (155) from outer cylinder (345, 350) only until tube upper bearing halves are exposed. Temporarily secure bearing halves together with tape or equivalent to prevent falling off inner cylinder. Insert outer cylinder guard halves A32051-3 and continue to remove inner cylinder.

CAUTION: UPPER BEARING (250) CONSISTS OF MATCHING BEARING HALVES. BEARING HALVES MUST BE KEPT TOGETHER TO ENSURE PROPER OPERATION AFTER ASSEMBLY.

E. Remove upper bearing (250) and packing (245) from inner cylinder (155). Remove spacer tube (340), lower bearing (140), scraper (105) and gland nut (90) from inner cylinder.

NOTE: As a result of maintenance on the flight line, there could be a split scraper, but this is only a special temporary part to be replaced at overhaul with a standard scraper.

F. Remove pins (135) and separate seal carrier (110) from lower bearing (140). Remove packings (120, 130, 145, 150) and back-up rings (115, 125).

CAUTION: BE SURE THAT PRONGS OF TOOL A32051-4 ARE ENGAGED WITH THE NOTCHES OF NUT (320) BEFORE YOU TRY TO REMOVE THE NUT.

G. Remove nut (320) using tool A32051-4. Remove retaining ring (315) using tool A32051-6. Do not remove plug (325) from nut (320) unless necessary for repair.

H. Using tools A32051-4, -5, remove metering pin (335) from inner cylinder (155). Remove packing (310) and back-up rings (305) from metering pin.

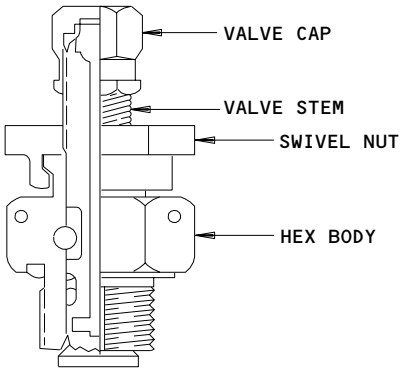
I. Remove parts (18 thru 40) from outer cylinder (345 or 350). Install thread protector A32051-7 on exposed threaded end of support tube (195).

J. Install outer cylinder guard halves A32051-3 in outer cylinder. Insert orifice tube extractor A32051-2, handle A32051-8 and sleeve A32051-9 into outer cylinder. Tap end of support tube lightly to loosen, then remove orifice retainer (275) and attached parts from outer cylinder (345 or 350).

K. Remove parts (200 thru 210). Separate support tube (195) from upper bulkhead (225).

L. Remove parts (280 thru 290) and unscrew orifice retainer (275) from support tube (300). Remove orifice plate (290). Remove piston ring (270) from orifice retainer.

M. Remove parts (230 thru 240) and unscrew upper bulkhead (225) from orifice support tube (300). Remove packing (220) and back-up rings (215) from upper bulkhead.



AIR VALVE (54A)

Air Valve Details
Figure 301

14352

CHECK

1. Examine all parts for defects by standard industry practices. Refer to Fits and Clearances for design dimensions and wear limits. Refer to SB 32A0127 for details about the trunnion on the outer cylinder.

2. Examine the outer cylinder for cracks that start from the lubrication hole at the ID of torsion link attach lug. If there are no cracks, make sure the edges at the lubrication hole at the ID of the lug hole have a 0.06-0.12 inch radius. If this radius is less than 0.06 inch, increase the radius as necessary. Refer to SB 32-0045 for more details.

3. Examine all pin and bolt shanks for wear. Carefully examine the area around lubrication and pin retention holes for hair line cracks.

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

   A. Nuts (30, 100, 330)

   B. Locktab (70)

   C. Inner cylinder (190)

   D. Orifice plate (295)

   E. Outer cylinder (435, 440)

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

   A. Hose supports (42, 43)

   B. Seal carrier (110)

   C. Support tube (195)

   D. Upper bulkhead (225)

   E. Bearing halves (255, 260)

   F. Orifice retainer (275)

   G. Orifice support tube (300)

   H. Metering pin (335)

   I. Spacer tube (340)

REPAIR - GENERAL

1. Content

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

P/N	NAME	REPAIR
015T1433	CYLINDER, INNER	2-1, 2-2, 2-3
015T1504	CYLINDER, OUTER	1-1, 1-2, 1-3
161T1110	CYLINDER, OUTER	1-1 THRU 1-4
161T1120	CYLINDER, INNER	2-1, 2-2, 2-3
161T1156	PIN, METERING	3-1
161T1161	BULKHEAD, UPPER	4-1
161T1162	TUBE, SUPPORT	5-1
- - -	MISCELLANEOUS PARTS REFINISH	6-1
BAC27ELG21	EXTERNAL PARTS REPLACEMENT	7-1
- - -	BUSHING SEALING	8-1
161T1150	NUT, GLAND	9-1
161T1159	PLATE, ORIFICE	10-1
161T1075	NUT, GLAND	11-1
161T1151	CARRIER, SEAL	12-1

2. Standard Practices

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

3. Materials

NOTE: Equivalent substitutes can be used, unless shown differently.

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

B. Enamel -- BMS 10-60 (SOPM 20-60-02)

C. Grease -- Royco 11MS (SOPM 20-60-03)

D. Grease -- BMS 3-33 or MIL-G-23827 (SOPM 20-60-03)

E. Corrosion Preventive Compound -- BMS 3-27 (SOPM 20-60-02) (Do not use substitutes.)

F. Corrosion Preventive Compound -- BMS 3-38 (SOPM 20-60-02) (Do not use substitutes.)

G. Corrosion Preventive Compound -- MIL-C-11796 Class 1 (SOPM 20-60-03)

H. Protective Finish, Hydraulic Fluid Resistant -- Type 41 (SOPM 20-60-02)

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

4. Dimensioning Symbols

A. Standard True Position Dimensioning Symbols used in applicable repair procedures are shown in SOPM 20-00-00.

CYLINDER ASSEMBLY, OUTER - REPAIR 1-1

161T1110-1, -2, -9 thru -12, -17, -18, -21, -22, -25, -26, -29, -30, -33, -34, -38, -55, -56, -59 thru -70, -73, -74, -77, -78, -81, -82, -85, -86, -89, -90
015T1504-71 thru -90
161T1280-1, -2

CAUTION: BE SURE TO USE ONLY THE BMS 3-27 OR BMS 3-38 CORROSION PREVENTIVE COMPOUND WHERE THESE COMPOUNDS ARE SPECIFIED. IF YOU USE SOME OTHER COMPOUND HERE, CORROSION COULD OCCUR FASTER.

NOTE: Refer to REPAIR-GENERAL for a list of applicable standard practices. Refer to IPL Fig. 1 for item numbers.

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

   A. Remove the old bushings.

   B. If you find defects on mating surfaces of the outer cylinder, refer to REPAIR 1-2 for repair instructions.

   C. Install replacement bushings by the shrink-fit method. Use BMS 3-27 or BMS 3-38 corrosion preventive compound on bushings (395B) (161T1126-3), (405A) (161T1210-65) (Post SB 32A0148). Use only BMS 3-27 or BMS 3-38 compound on bushings (360A, 365A, 370A, 375A), and forward trunnion end bushings 161T1328-series, 161T1330-series. Apply a sufficient amount of BMS 3-27 or BMS 3-38 compound to fill the gap between the bushing flange radius and the chamfer of the mating hole. With solvent, remove unwanted BMS 3-27 or BMS 3-38 compound from around the ends of the bushings.

   D. Make a check of the dimensions and machine them as necessary to design dimensions and finish.

   E. Be sure to seal bushing (395B) (161T1126-3) as shown. Apply sealant to other bushings per REPAIR 8-1, but not to bushings (360A, 365A, 370A, 375A) or forward trunnion end bushings 161T1328-series, 161T1330-series. Apply a witness line per REPAIR 1-4 to bushings (360A, 365A, 370A, 375A).

   F. Apply grease to the lube fittings, unless indicated, until you see grease on the ID of the bushings, to be sure the lube passages are clear.

2. Lube Fitting Replacement

NOTE: Most configurations of outer cylinders have a lube fitting on the aft trunnion to supply grease to bushing (395). On some configurations, this lube passage is blocked with sealant and rivet (356) because the cavity under the bushing is filled with BMS 3-27 or BMS 3-38 corrosion preventive compound, not grease. We now recommend you keep the lube fitting at this location, and not block the hole with the rivet, to let you apply more BMS 3-27 or BMS 3-38 compound later as necessary.

A. Replace lube fittings (355) per CMM 32-00-03.

3. Plug (356) Replacement

NOTE: A lube fitting at this location is now preferred to the plug. Refer to SB 32A0148 for more details.

A. Remove the plug (or the unwanted lube fitting) from the aft trunnion location. Remove the sealant.

B. Clean and degrease per SOPM 20-30-03 the hole for the lube fitting to a minimum depth of 0.38 inch, and the area around the hole within 0.50 inch diameter.

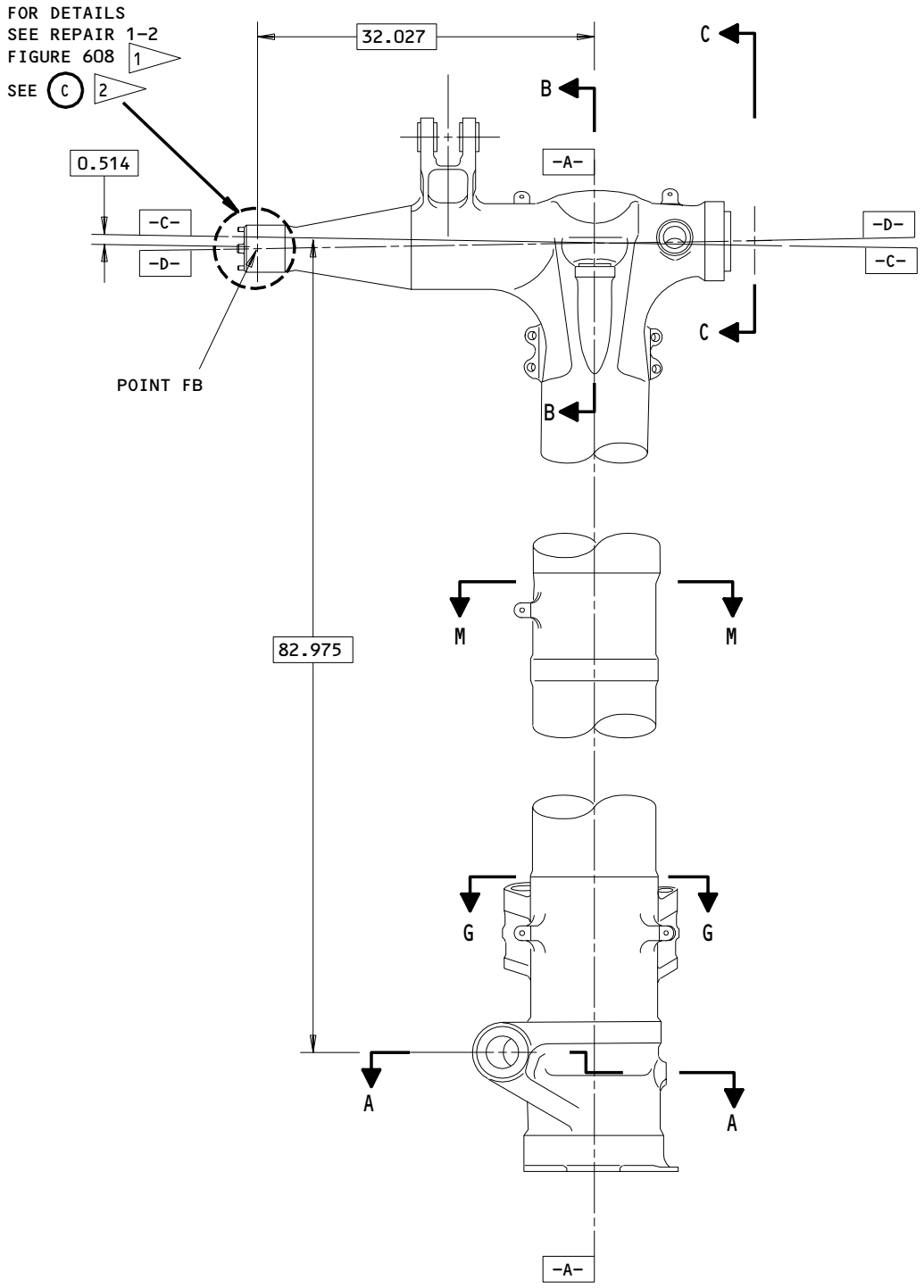
C. Apply a layer of BMS 10-11, Type 1 primer (F-20.02) to the cleaned hole. Let the primer dry tack-free.

D. Completely fill the cleaned hole with BMS 5-95 sealant.

E. Install rivet (356). Some light force could be necessary to get it in.

F. Clean the unwanted sealant from around the rivet head.

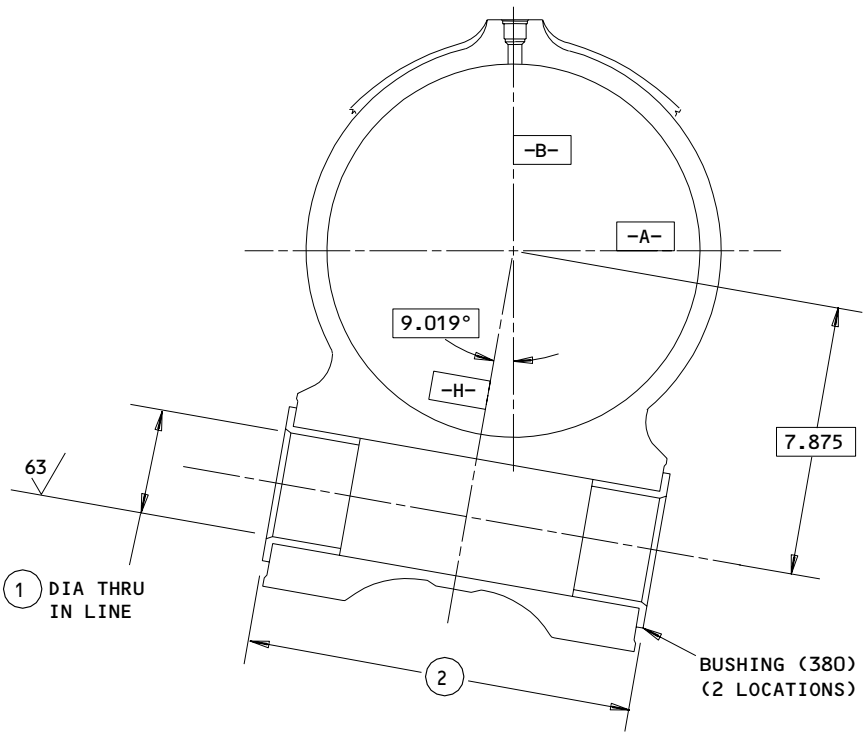
G. Apply primer BMS 10-11, Type 1 (F-20.02) to the rivet head and the adjacent area. Then apply BMS 10-60 enamel (F-14.9813, which replaces SRF-14.9813) on the primer.



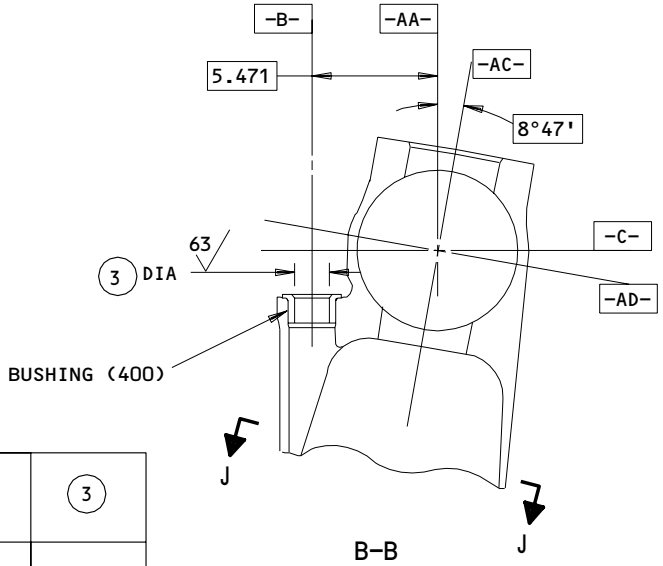
161T1110-1,-2,-9 THRU -12,-17,-18,-21,-22,-25,-26,-29,-30,-33,-34,-38,
-55,-56,-59 THRU -70,-73,-74,-77,-78,-81,-82,-85,-86,-89,-90
015T1504-71 THRU -90

Bushing Replacement
Figure 601 (Sheet 1)

14431



(ROTATED 90° CCW)
A-A



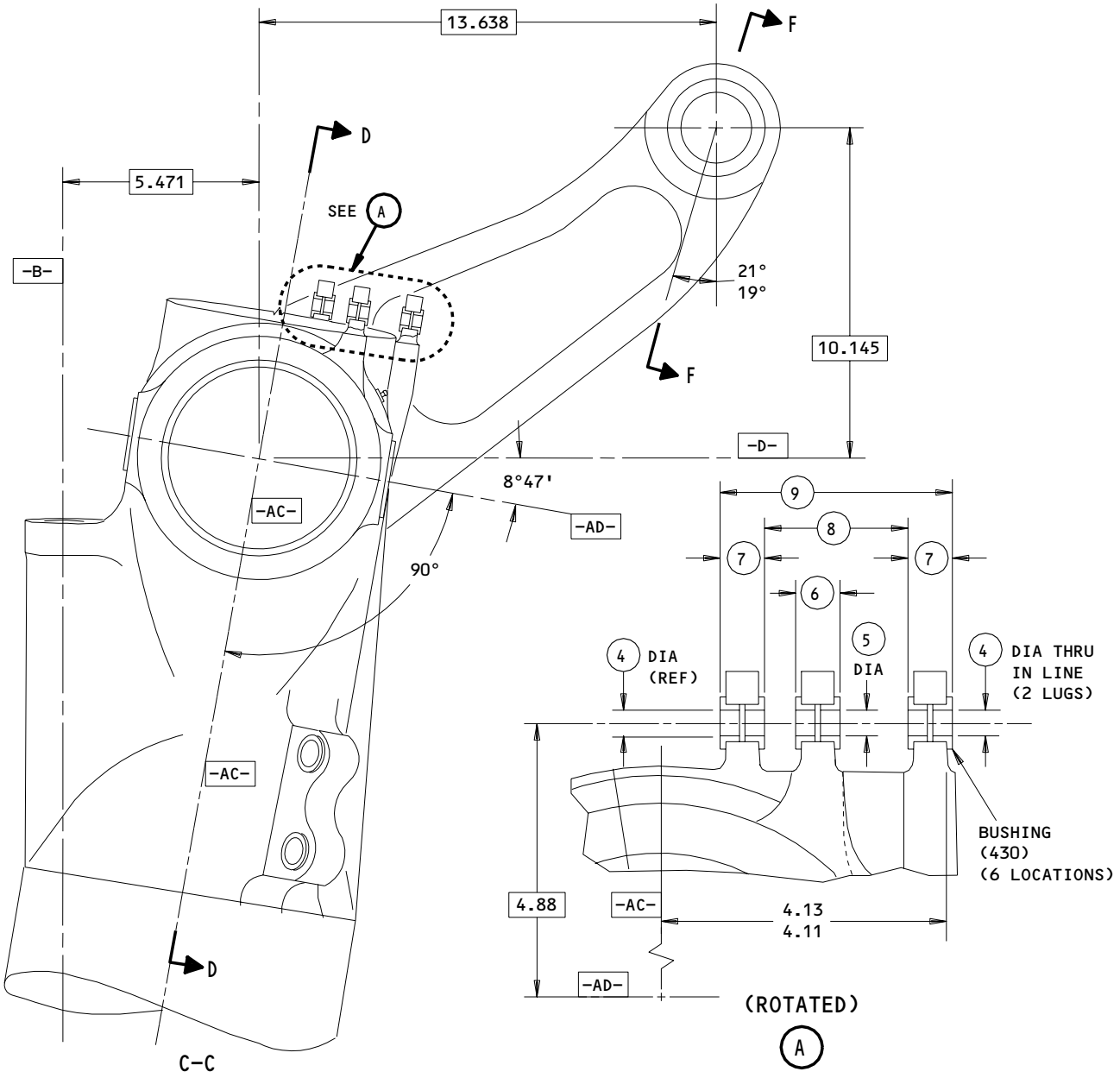
B-B

REFERENCE NUMBER	1	2	3
DESIGN DIMENSION	3.0015 3.0000	11.247 11.239	1.630 1.625

161T1110-1,-2,-9 THRU -12,-17,-18,-21,-22,-25,-26,-29,-30,-33,-34,-38,
-55,-56,-59 THRU -70,-73,-74,-77,-78,-81,-82,-85,-86,-89,-90
015T1504-71 THRU -90

Bushing Replacement
Figure 601 (Sheet 2)

14354

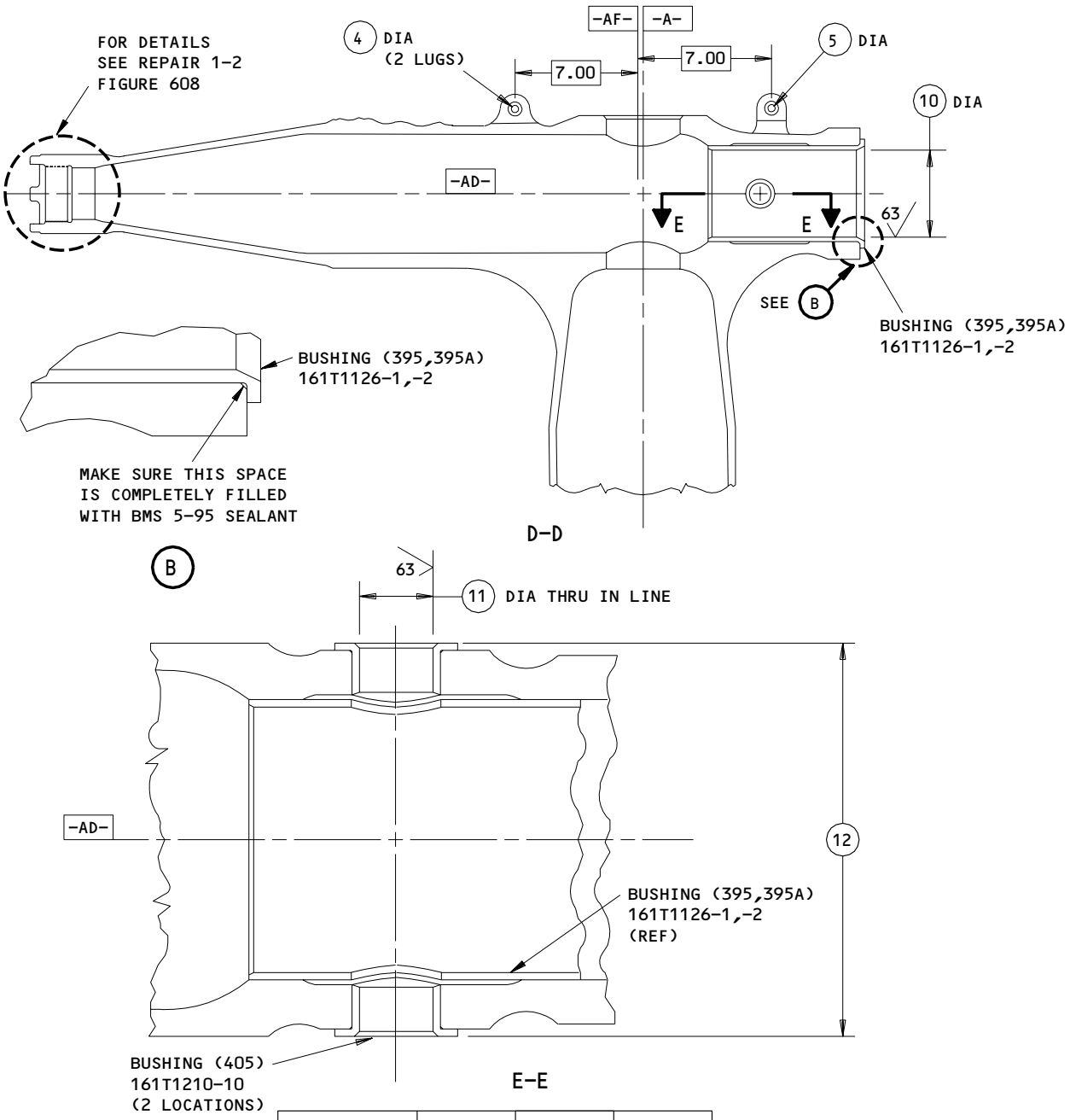


REFERENCE NUMBER	4	5	6	7	8	9
DESIGN DIMENSION	0.387 0.385	0.387 0.385	0.627 0.615	0.627 0.615	2.138 2.111	3.375 3.367

161T1110-1,-2,-9 THRU -12,-17,-18,-21,-22,-25,-26,-29,-30,-33,-34,
-38,-55,-56,-59 THRU -70,-73,-74,-77,-78,-81,-82,-85,-86
015T1504-71 THRU -90

Bushing Replacement
Figure 601 (Sheet 3)

14355

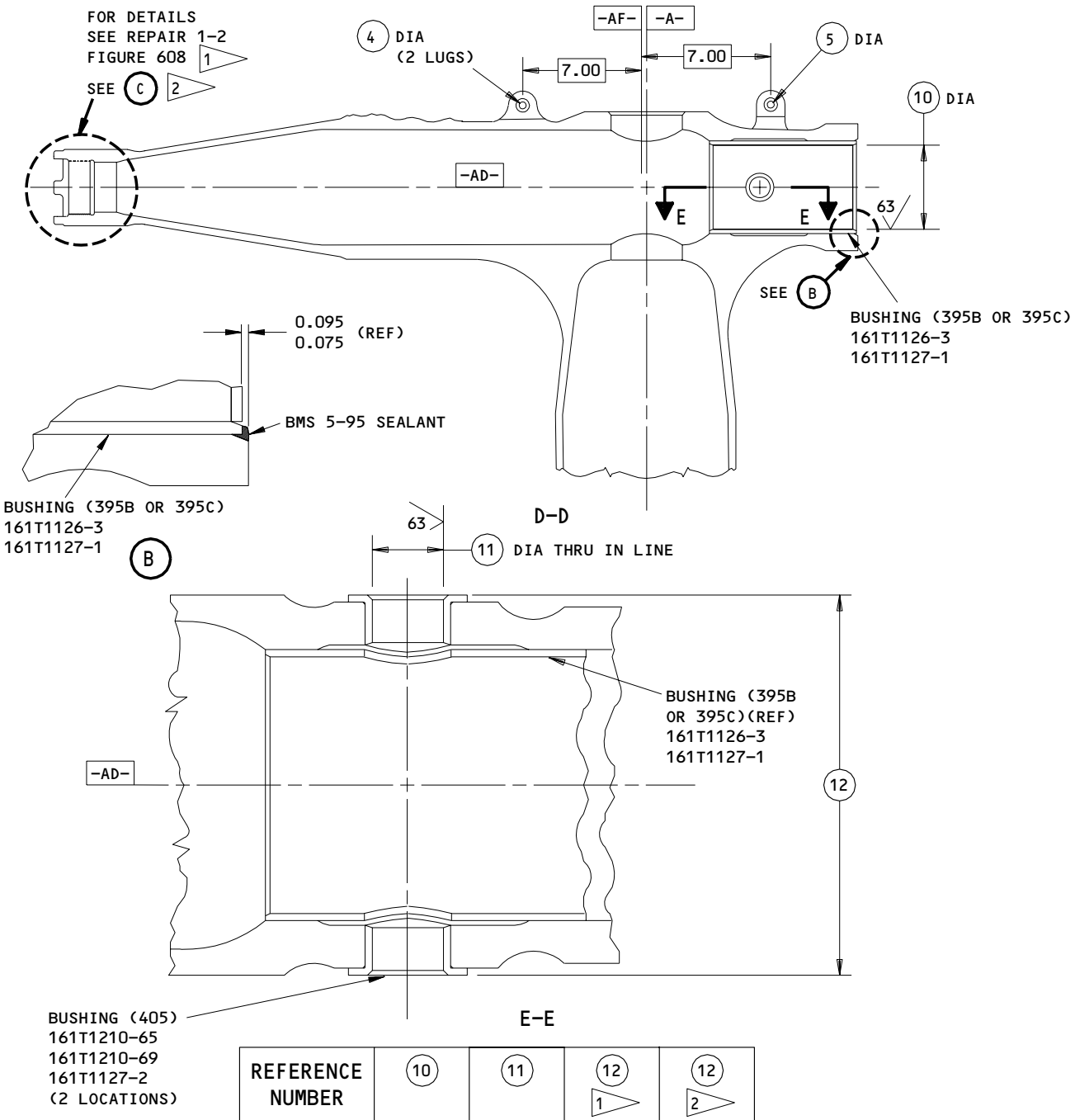


REFERENCE NUMBER	10	11	12
DESIGN DIMENSION	5.5015 5.5000	1.5015 1.5000	7.882 7.860

161T1110-1,-2,-9 THRU -12,-17,-18,-21,-22,-25,-26,-29,
-30,-33,-34,-38,-55,-56,-59 THRU -68
(PRE SB 32A0148)

Bushing Replacement
Figure 601 (Sheet 4)

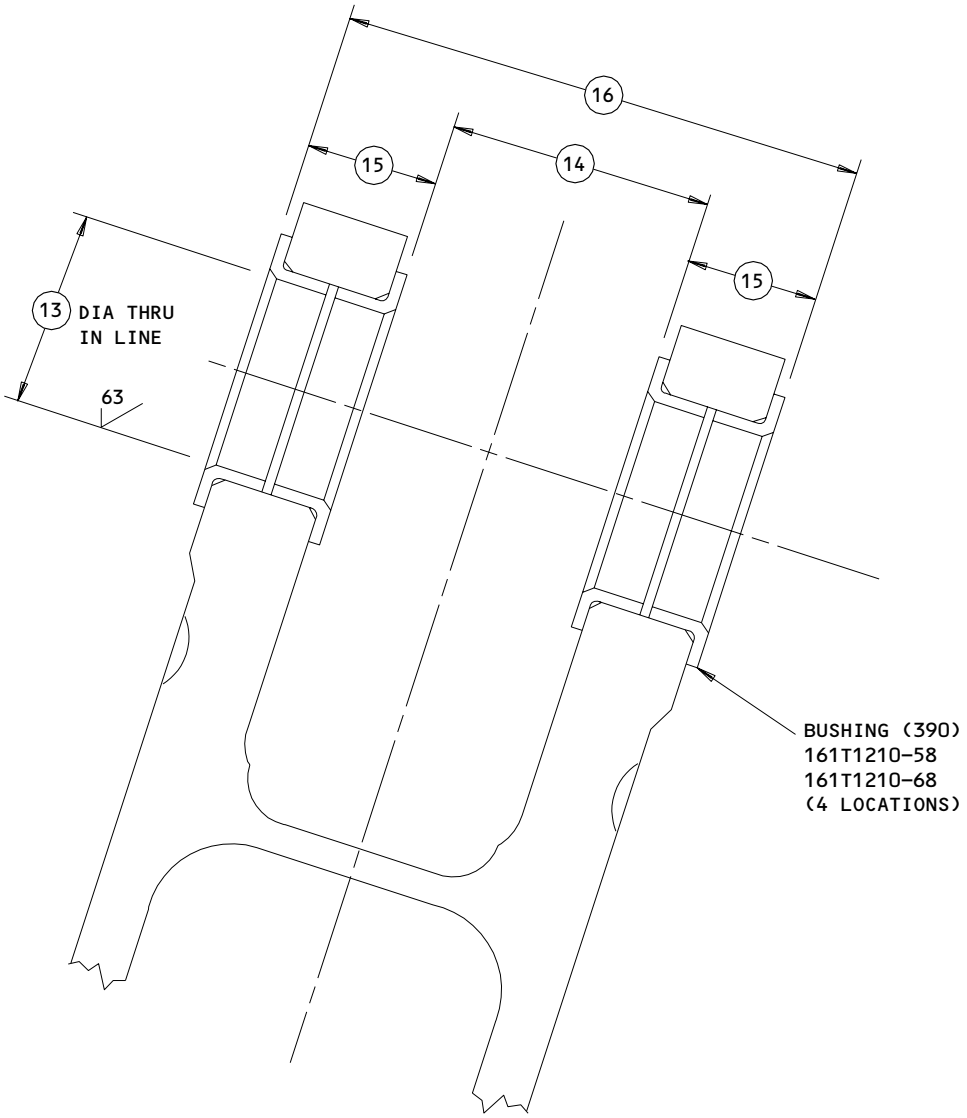
14357



REFERENCE NUMBER	10	11	12 1	12 2
DESIGN DIMENSION	5.5015 5.5000	1.4915 1.4900	7.882 7.860	8.587 8.485

015T1504-71 THRU -90
(POST SB 32A0148)
161T1110-69,-70,-73,-74,-77,-78,-81,-82,-85,-86,-89,-90

Bushing Replacement
Figure 601 (Sheet 5)



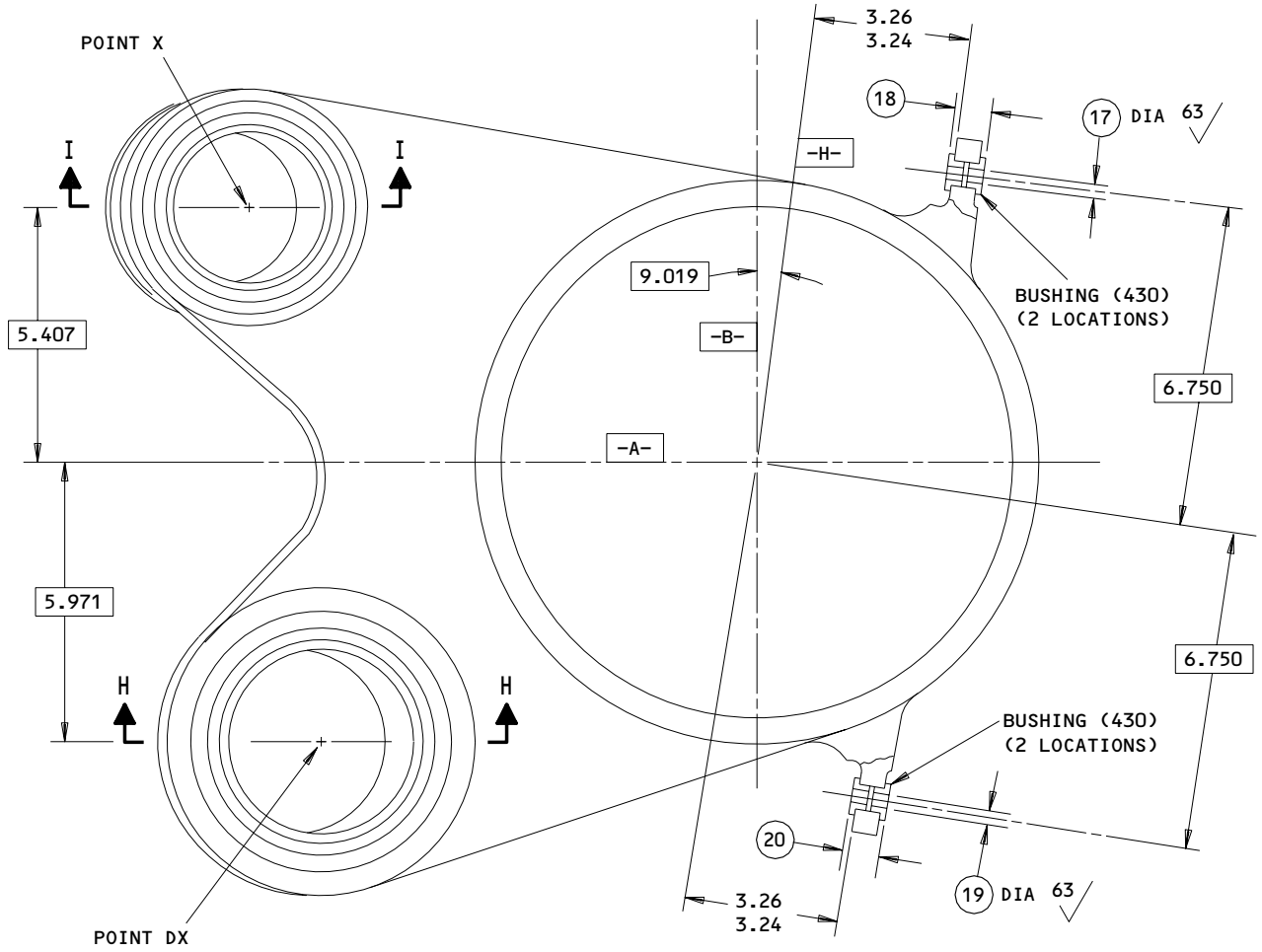
F-F

REFERENCE NUMBER	13	14	15	16
DESIGN DIMENSION	2.1265 2.1250	2.883 2.875	1.192 1.180	5.2686 5.2416

161T1110-1,-2,-9 THRU -12,-17,-18,-21,-22,-25,-26,-29,-30,-33,-34,-38
-55,-56,-59 THRU -70,-73,-74,-77,-78,-81,-82,-85,-86,-89,-90
015T1504-71 THRU -90

Bushing Replacement
Figure 601 (Sheet 6)

14358



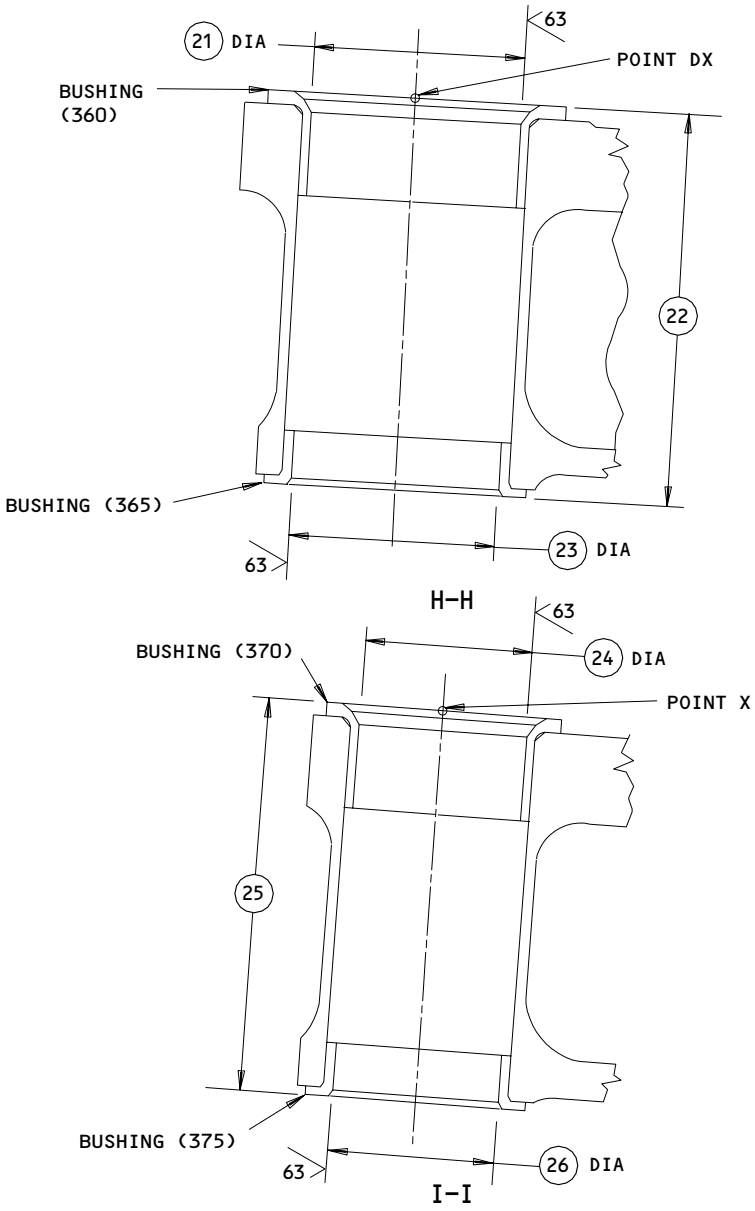
(ROTATED 90° CCW)
G-G

REFERENCE NUMBER	17	18	19	20
DESIGN DIMENSION	0.387 0.385	0.627 0.615	0.387 0.385	0.627 0.615

161T1110-1,-2,-9 THRU -12,-17,-18,-21,-22,-25,-26,-29,-30,-33,-34,-38,
-55,-56,-59 THRU -70,-73,-74,-77,-78,-81,-82,-85,-86,-89,-90
015T1504-71 THRU -90

Bushing Replacement
Figure 601 (Sheet 7)

14359

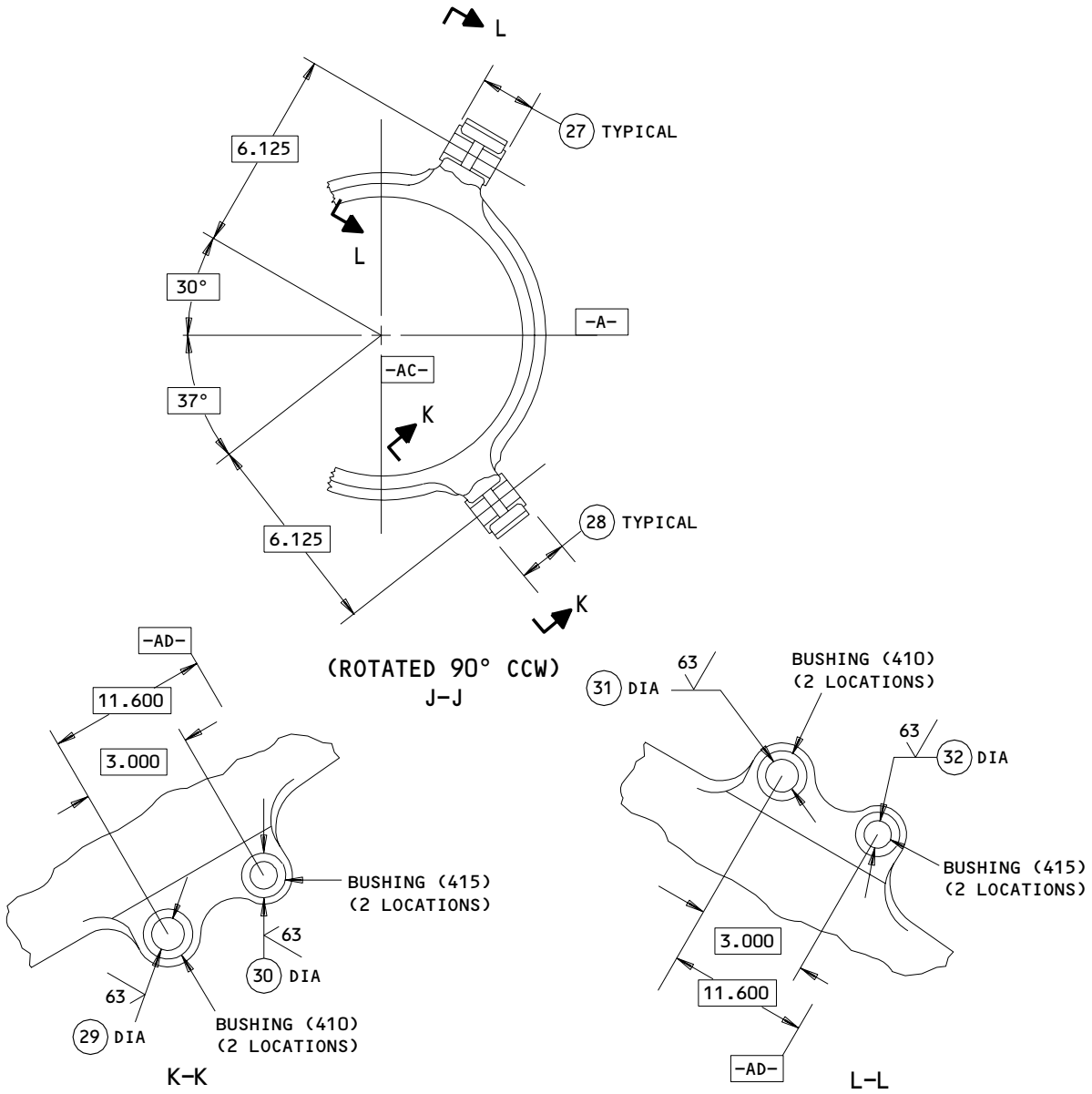


REFERENCE NUMBER	21	22	23	24	25	26
DESIGN DIMENSION	4.0015 4.0000	8.483 8.475	3.8765 3.8750	3.2515 3.2500	7.508 7.500	3.1895 3.1880

161T1110-1,-2,-9 THRU -12,-17,-18,-21,-22,-25,-26,-29,-30,-33,-34,-38,
-55,-56,-59 THRU -70,-73,-74,-77,-78,-81,-82,-85,-86,-89,-90
015T1504-71 THRU -90

Bushing Replacement
Figure 601 (Sheet 8)

14361

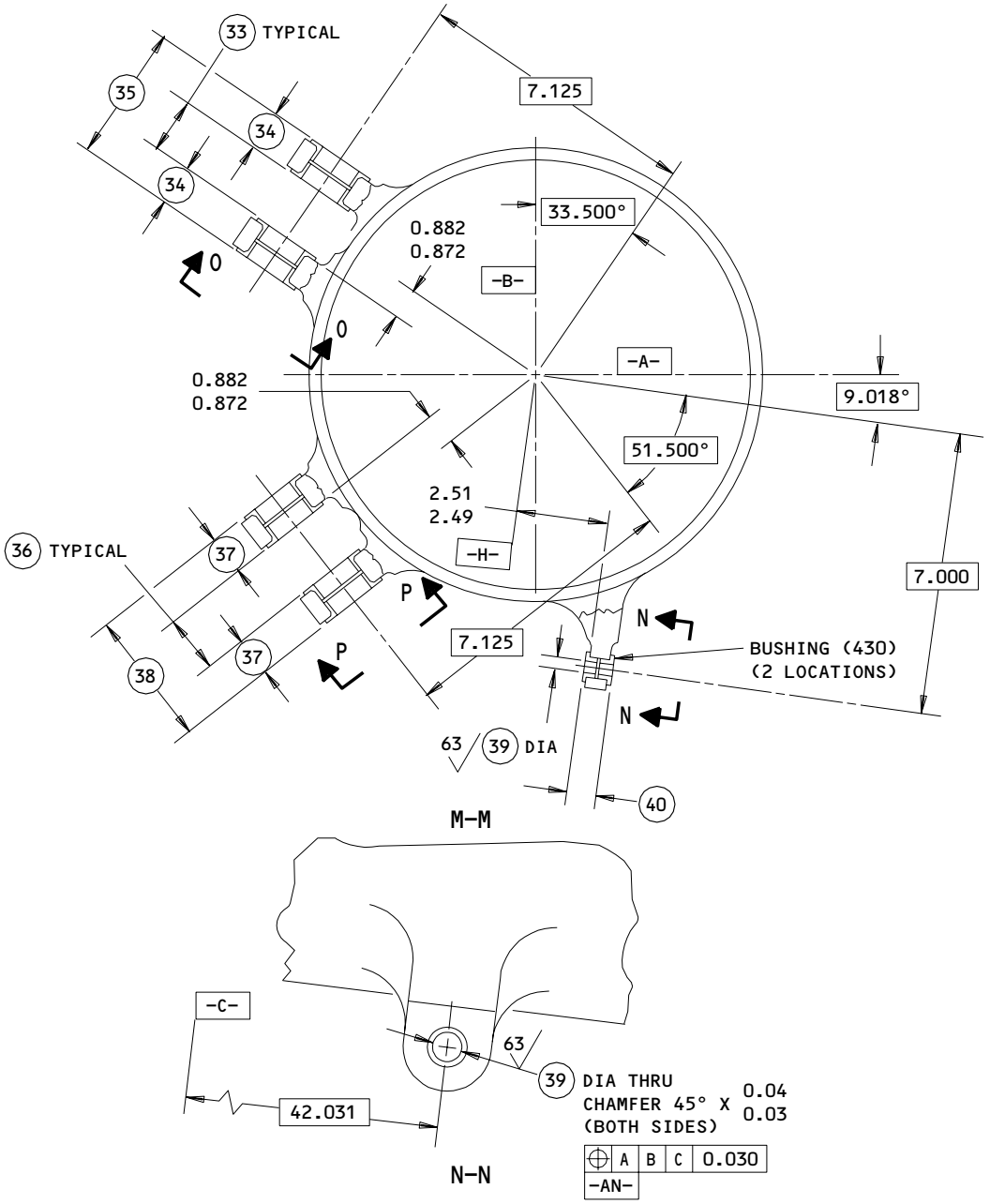


REFERENCE NUMBER	(27)	(28)	(29)	(30)	(31)	(32)
DESIGN DIMENSION	1.505 1.497	1.505 1.497	0.8845 0.8830	0.7595 0.7580	0.8845 0.8830	0.7595 0.7580

161T1110-1,-2,-9 THRU -12,-17,-18,-21,-22,-25,-26,-29,-30,-33,-34,-38,
-55,-56,-59 THRU -70,-73,-74,-77,-78,-81,-82,-85,-86,-89,-90
015T1504-71 THRU -90

Bushing Replacement
Figure 601 (Sheet 9)

14363

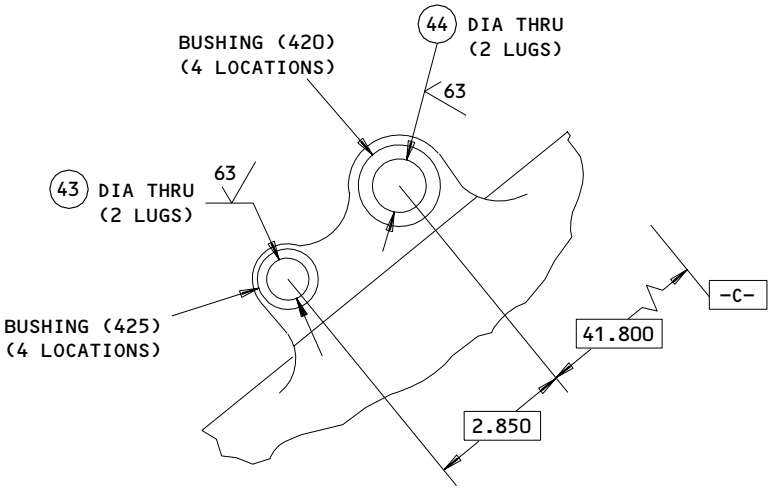


REFERENCE NUMBER	33	34	35	36	37	38	39	40
DESIGN DIMENSION	1.633 1.625	0.882 0.870	3.3986 3.3716	1.633 1.625	0.882 0.870	3.3986 3.3716	0.387 0.385	0.627 0.615

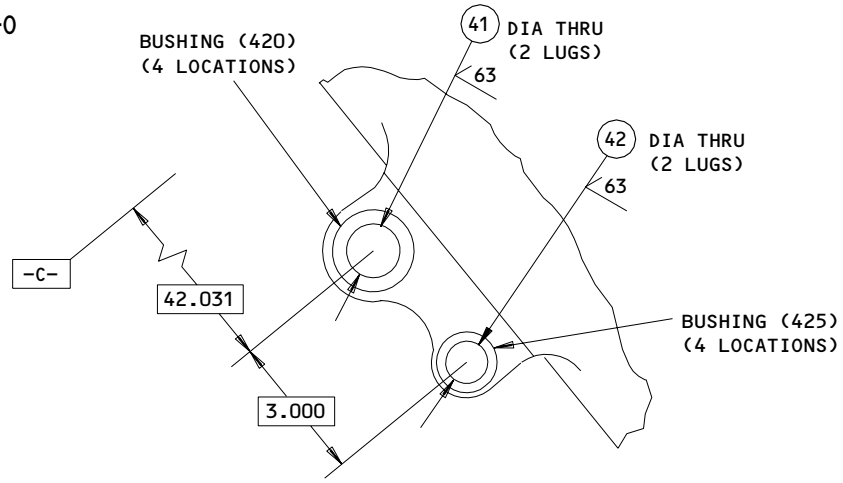
161T1110-1,-2,-9 THRU -12,-17,-18,-21,-22,-25,-26,-29,-30,-33,-34,-38,
-55,-56,-59 THRU -70,-73,-74,-77,-78,-81,-82,-85,-86,-89,-90
015T1504-71 THRU -90

Bushing Replacement
Figure 601 (Sheet 10)

14364



O-O



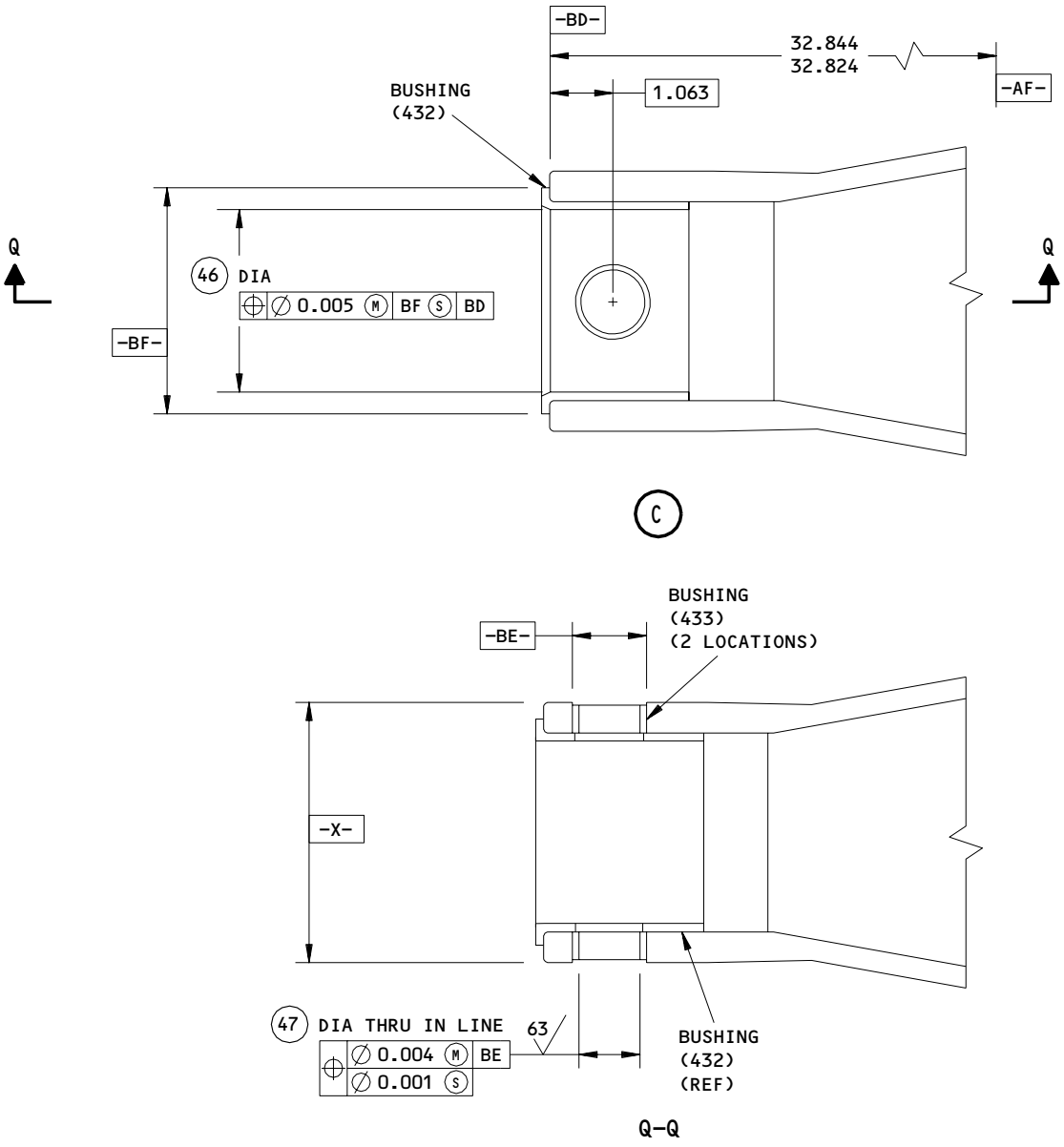
P-P

REFERENCE NUMBER	(41)	(42)	(43)	(44)
DESIGN DIMENSION	1.1235 1.1220	0.8785 0.8770	0.8785 0.8770	1.1235 1.1220

161T1110-1,-2,-9 THRU -12,-17,-18,-21,-25,-26,-29,-30,-33,-34,-38,-55,
-56,-59 THRU -70,-73,-74,-77,-78,-81,-82,-85,-86,-89,-90
015T1504-71 THRU -90

Bushing Replacement
Figure 601 (Sheet 11)

E74630



REFERENCE NUMBER	46	47
DESIGN DIMENSION	3.0015 3.0000	1.0640 1.0625

161T1110-85,-86,-89,-90

Bushing Replacement
Figure 601 (Sheet 12)

1 161T1110-1,-2,-9 THRU -12,-17,-18,-21,-22,
-25,-26,-29,-30,-33,-34,-38,-55,-56,
-59 THRU -70,-73,-74,-77,-78,-81,-82;
015T1504-71 THRU -90

2 161T1110-85,-86,-89,-90

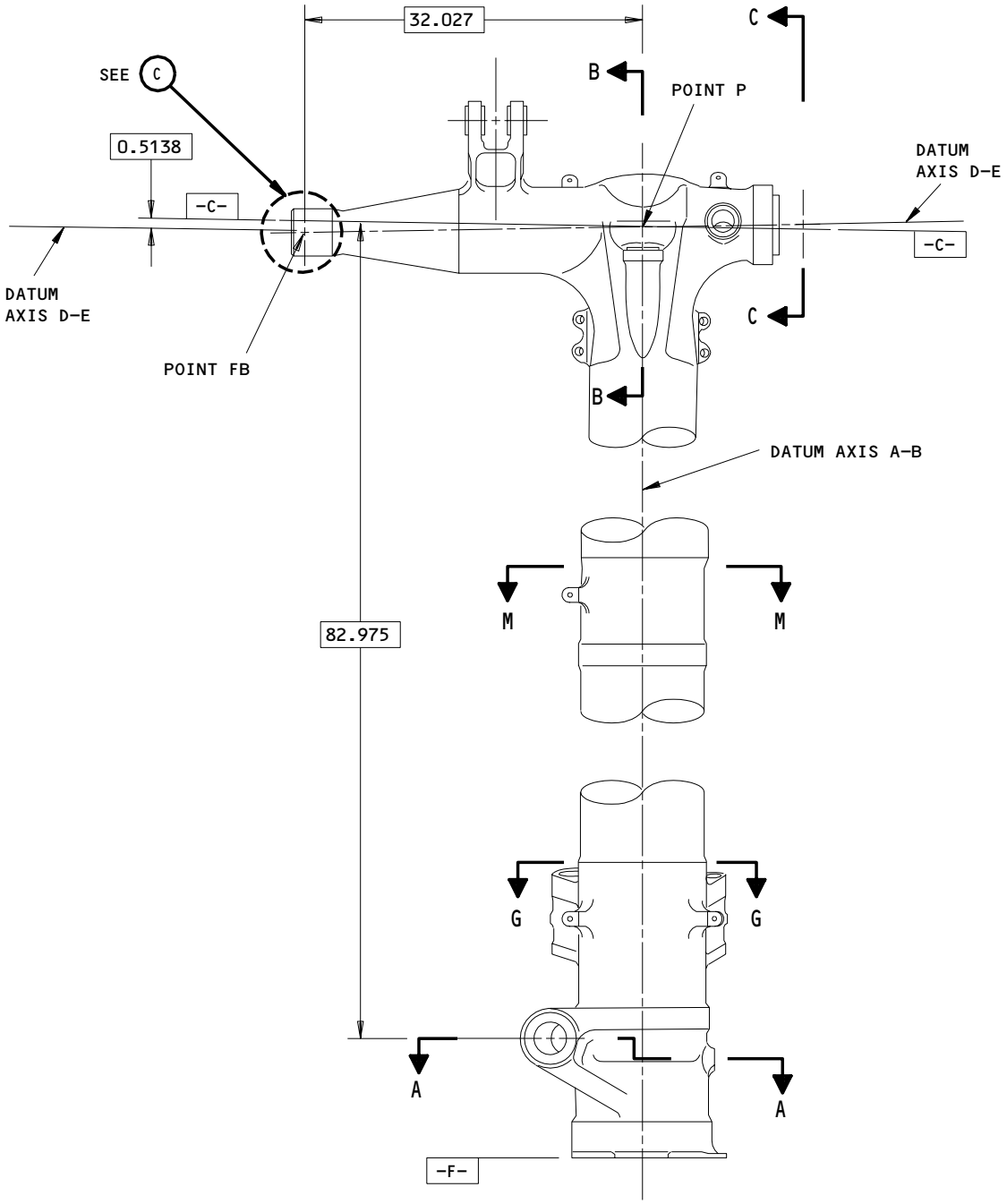
ITEM NUMBERS REFER TO IPL FIG. 1

ALL DIMENSIONS ARE IN INCHES

161T1110-1,-2,-9 THRU -12,-17,-18,-21,-22,-25,-26,-29,-30,-33,-34,-38,
-55,-56,-59 THRU -70,-73,-74,-77,-78,-81,-82,-85,-86,-90
015T1504-71 THRU -90

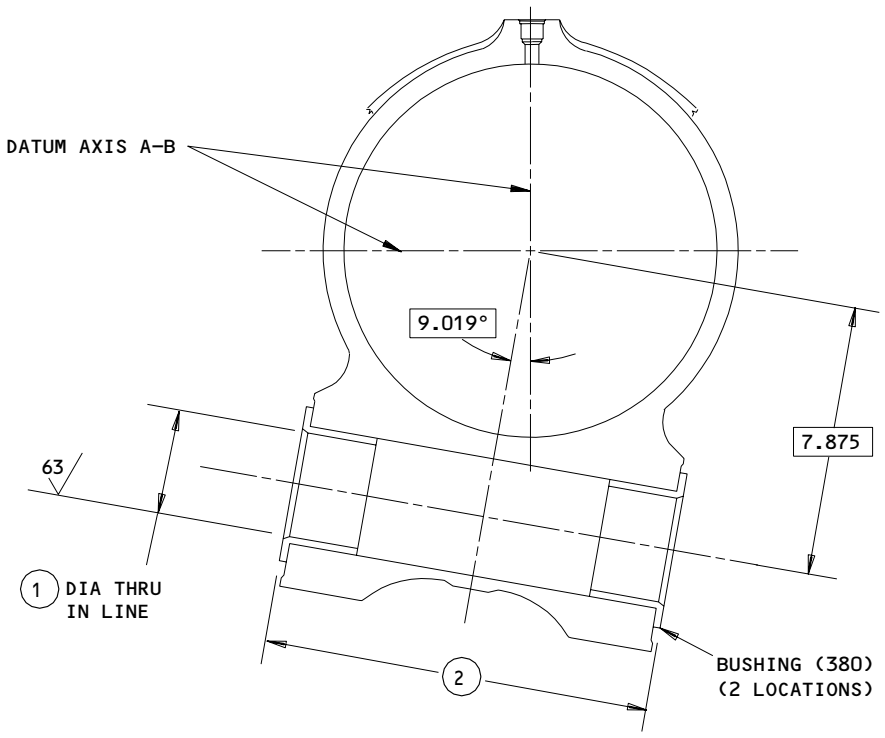
Bushing Replacement
Figure 601 (Sheet 13)

K01668

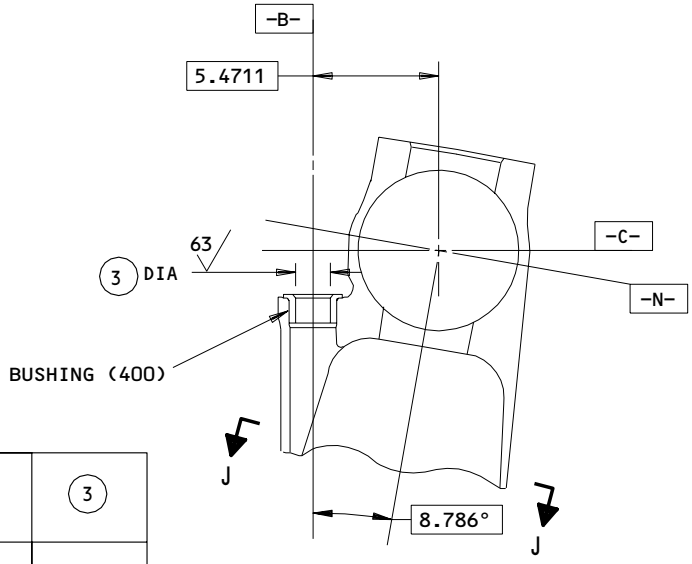


161T1280-1,-2
Bushing Replacement
Figure 601A (Sheet 1)

L76496



(ROTATED 90° CCW)
A-A

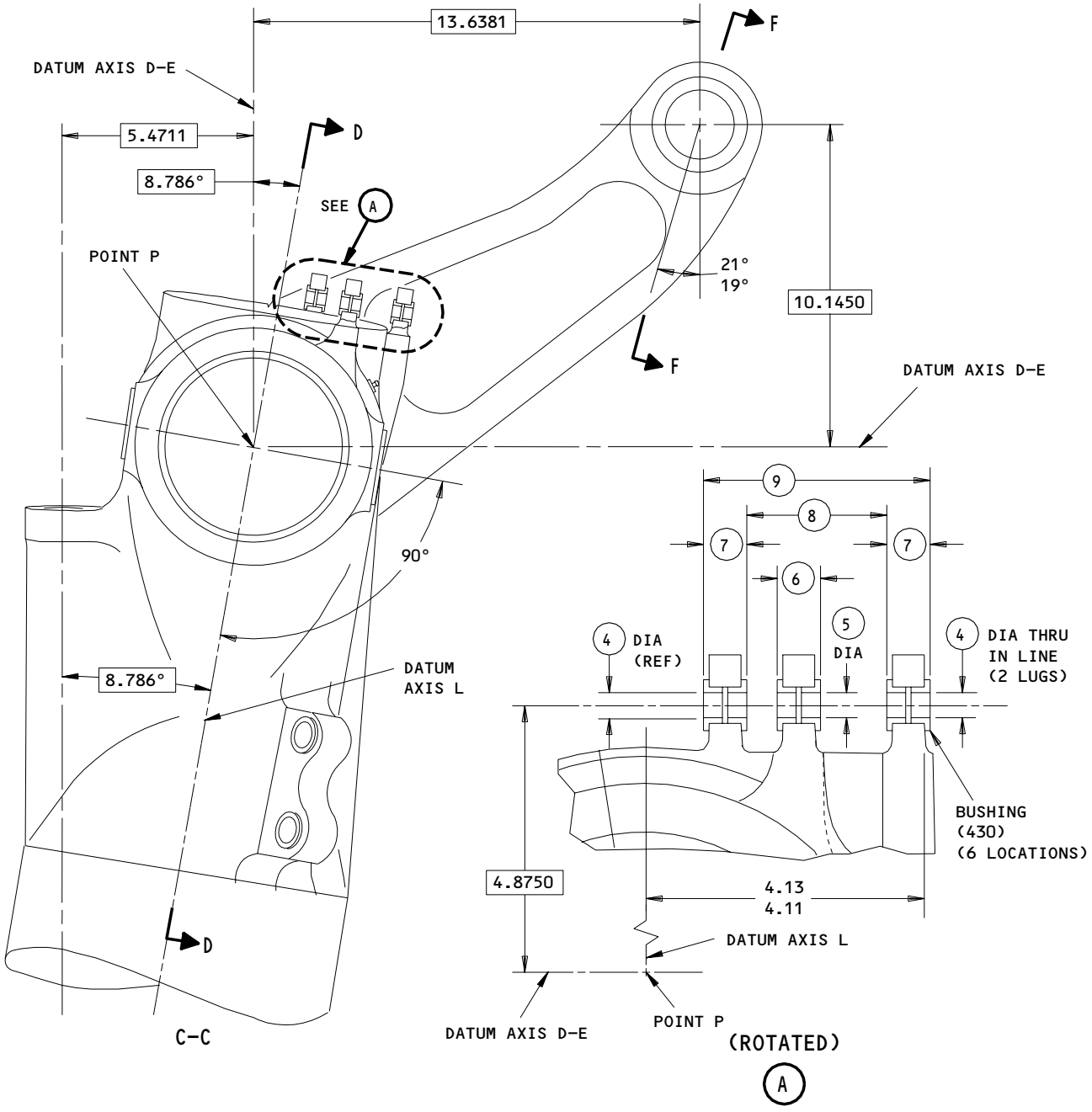


REFERENCE NUMBER	1	2	3
DESIGN DIMENSION	3.0015 3.0000	11.247 11.239	1.630 1.625

B-B

161T1280-1,-2
Bushing Replacement
Figure 601A (Sheet 2)

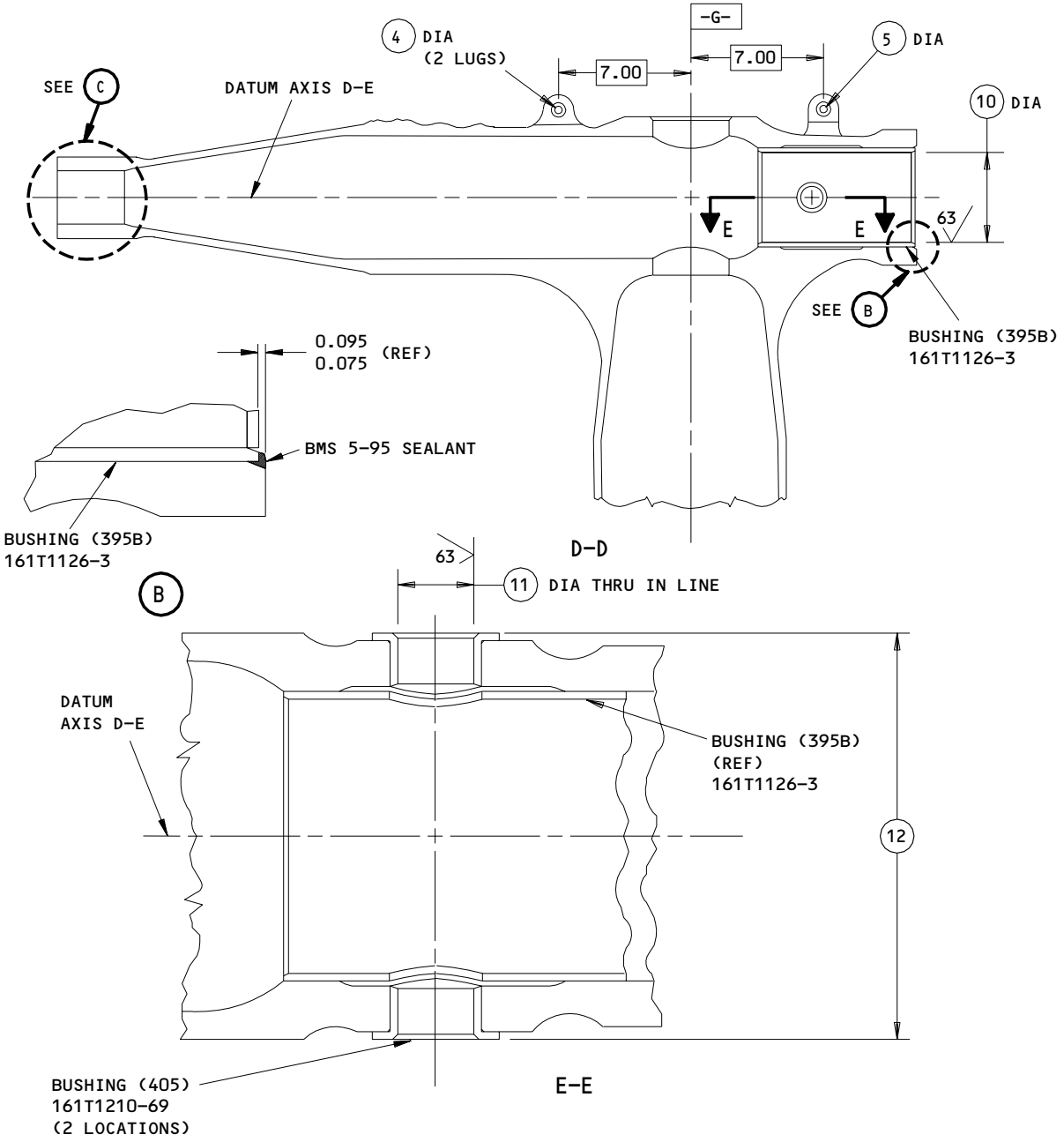
L76499



REFERENCE NUMBER	4	5	6	7	8	9
DESIGN DIMENSION	0.387 0.385	0.387 0.385	0.627 0.615	0.627 0.615	2.138 2.111	3.375 3.367

161T1280-1,-2
Bushing Replacement
Figure 601A (Sheet 3)

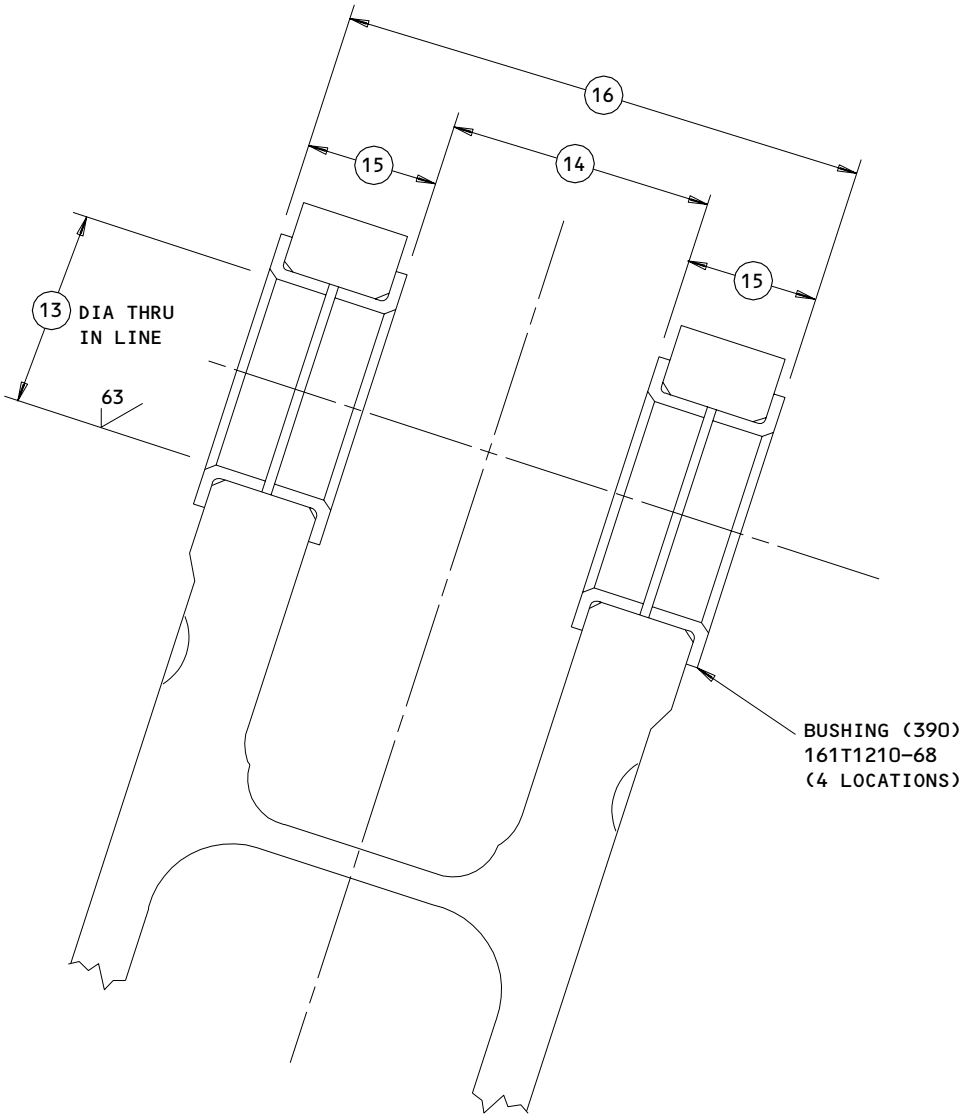
L76506



REFERENCE NUMBER	10	11	12
DESIGN DIMENSION	5.5015 5.5000	1.4915 1.4900	8.5166 MAX

161T1280-1,-2
Bushing Replacement
Figure 601A (Sheet 4)

L76512

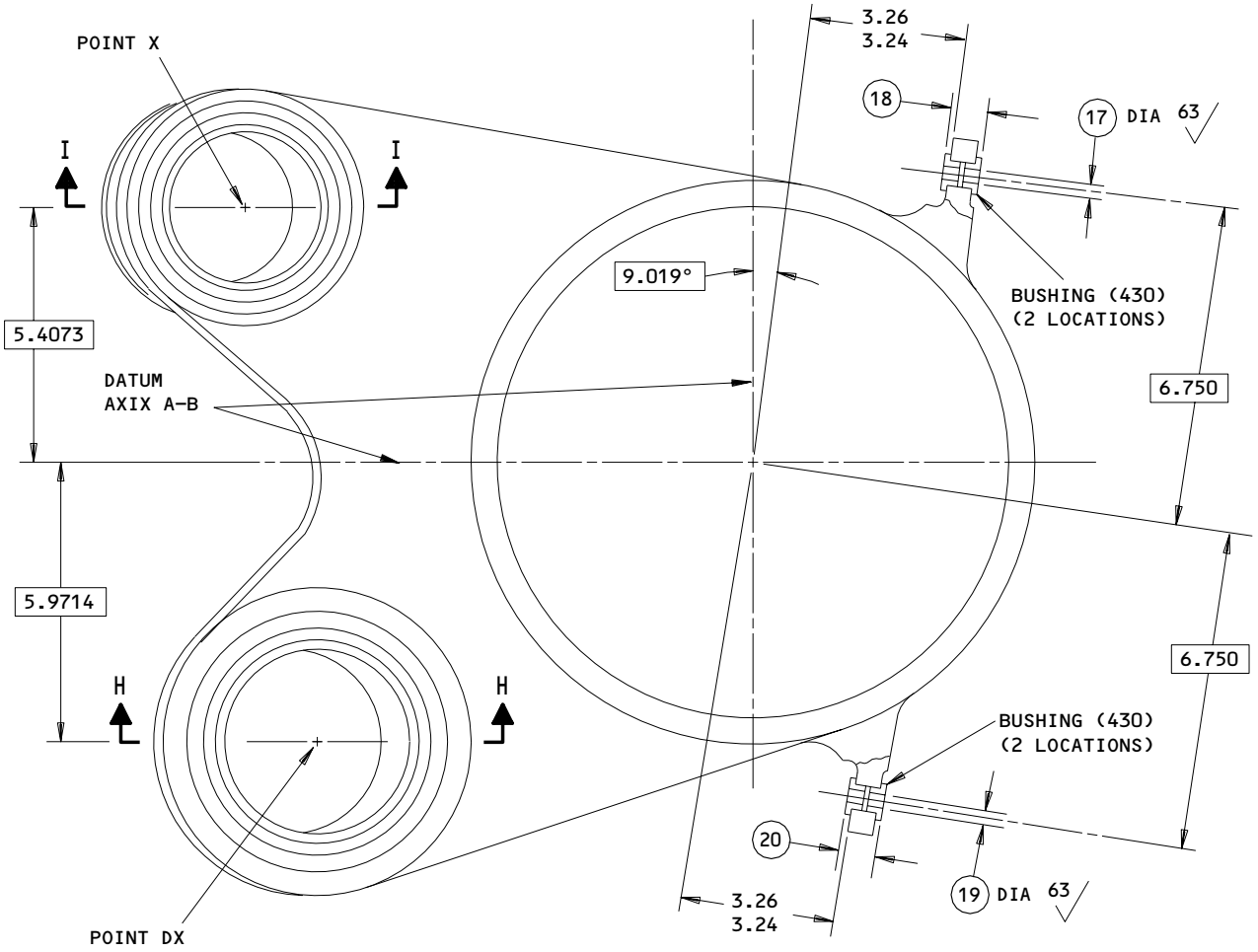


F-F

REFERENCE NUMBER	13	14	15	16
DESIGN DIMENSION	2.1265 2.1250	2.883 2.875	1.192 1.180	5.2686 5.2416

161T1280-1,-2
Bushing Replacement
Figure 601A (Sheet 5)

L76513

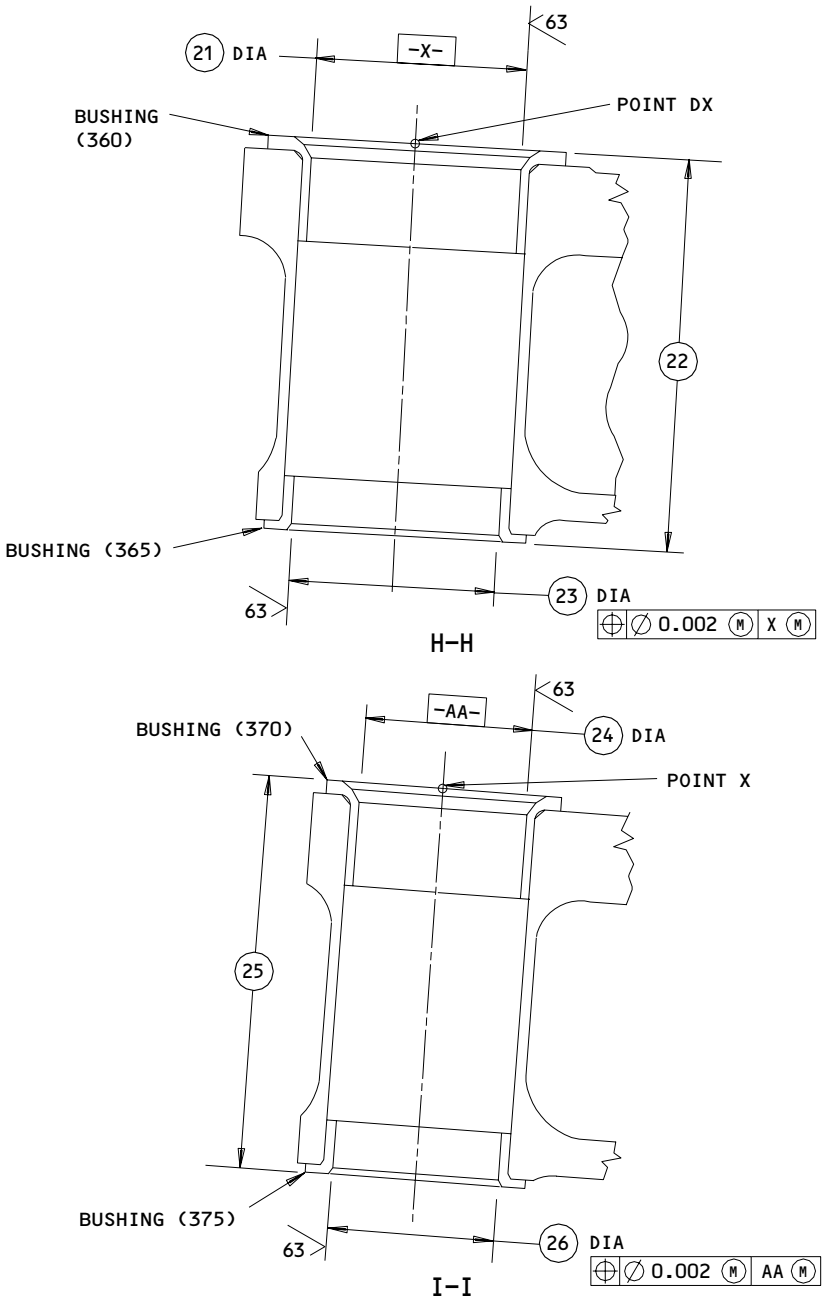


(ROTATED 90° CCW)
G-G

REFERENCE NUMBER	17	18	19	20
DESIGN DIMENSION	0.387 0.385	0.627 0.615	0.387 0.385	0.627 0.615

161T1280-1,-2
Bushing Replacement
Figure 601A (Sheet 6)

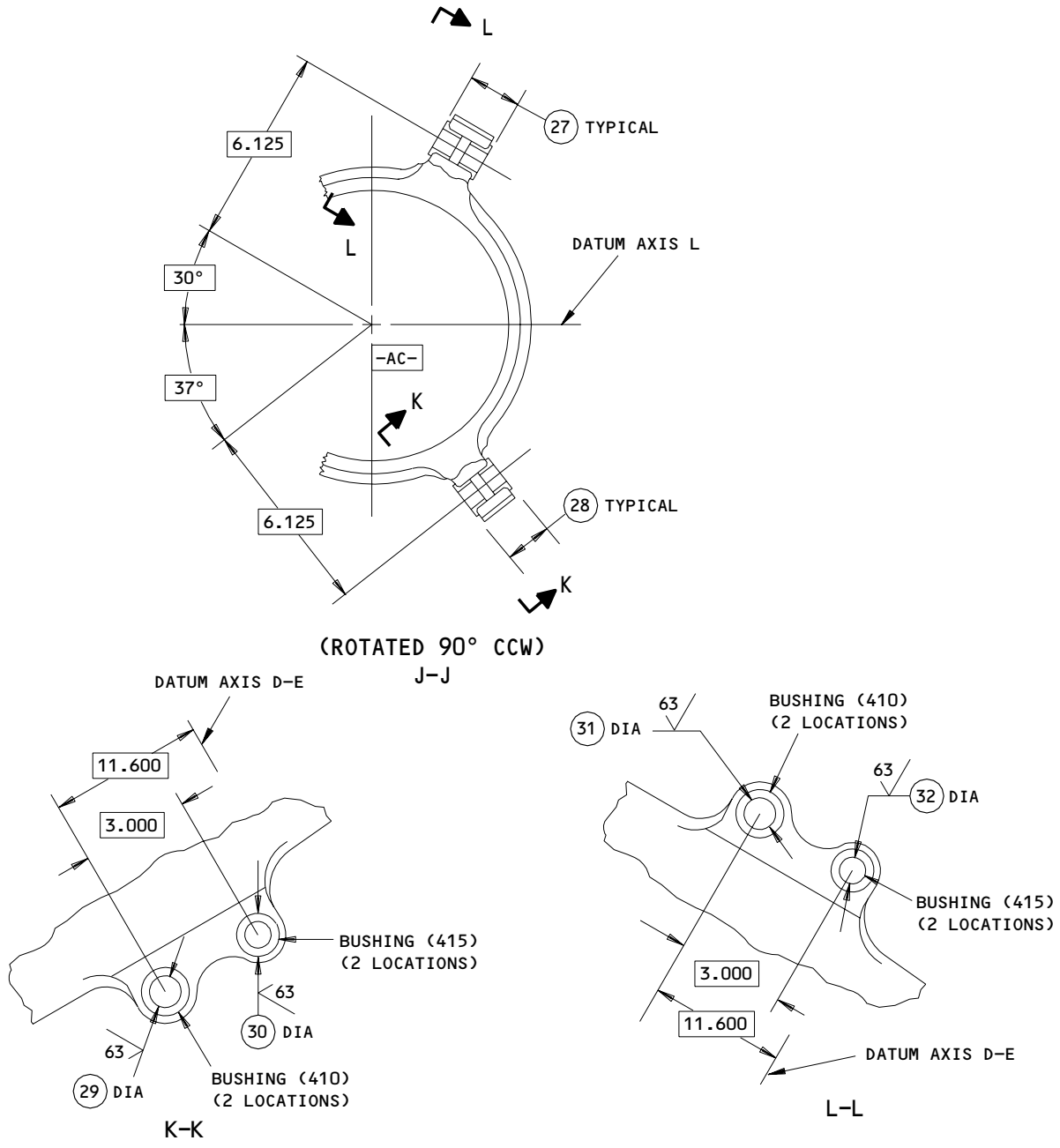
L76515



REFERENCE NUMBER	21	22	23	24	25	26
DESIGN DIMENSION	4.0015 4.0000	8.483 8.475	3.8765 3.8750	3.2515 3.2500	7.508 7.500	3.1895 3.1880

161T1280-1,-2
Bushing Replacement
Figure 601A (Sheet 7)

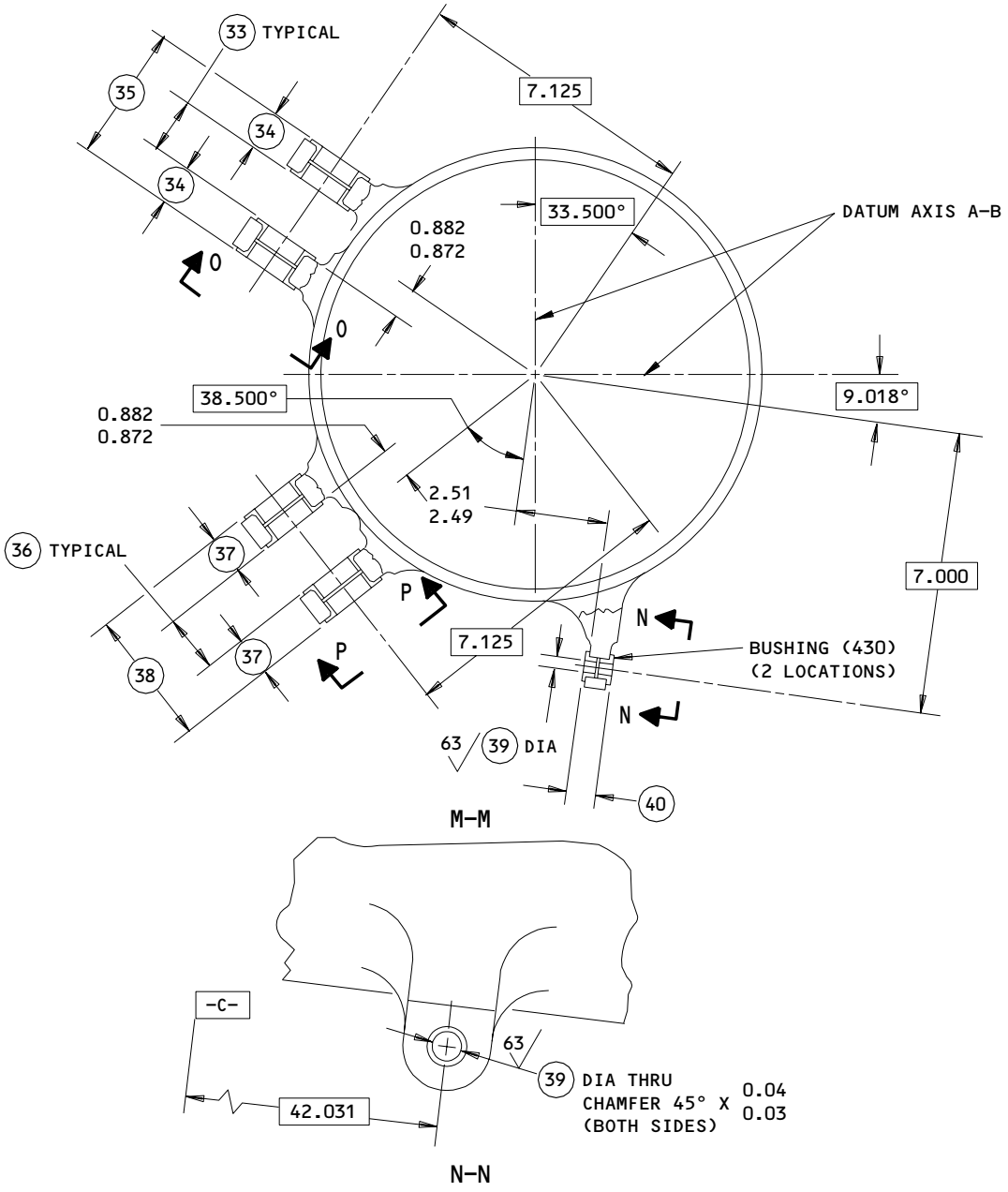
L76525



REFERENCE NUMBER	27	28	29	30	31	32
DESIGN DIMENSION	1.505 1.497	1.505 1.497	0.8845 0.8830	0.7595 0.7580	0.8845 0.8830	0.7595 0.7580

161T1280-1,-2
Bushing Replacement
Figure 601A (Sheet 8)

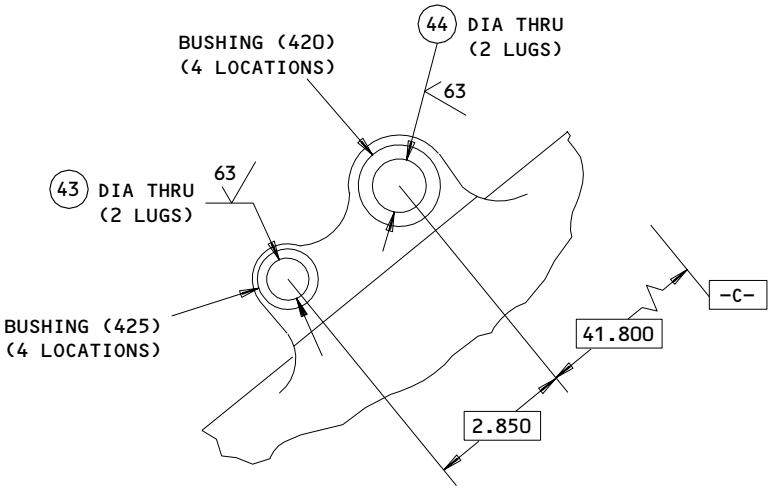
L76536



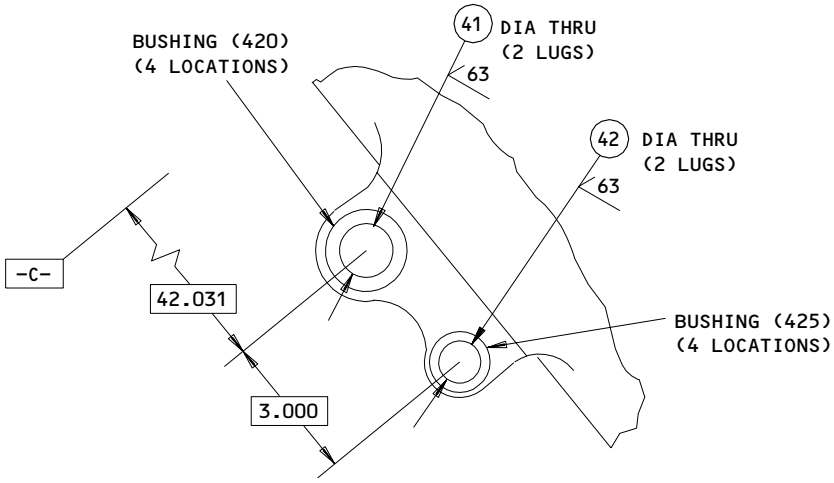
REFERENCE NUMBER	33	34	35	36	37	38	39	40
DESIGN DIMENSION	1.633 1.625	0.882 0.870	3.3986 3.3716	1.633 1.625	0.882 0.870	3.3986 3.3716	0.387 0.385	0.627 0.615

161T1280-1,-2
Bushing Replacement
Figure 601A (Sheet 9)

L76537



O–O

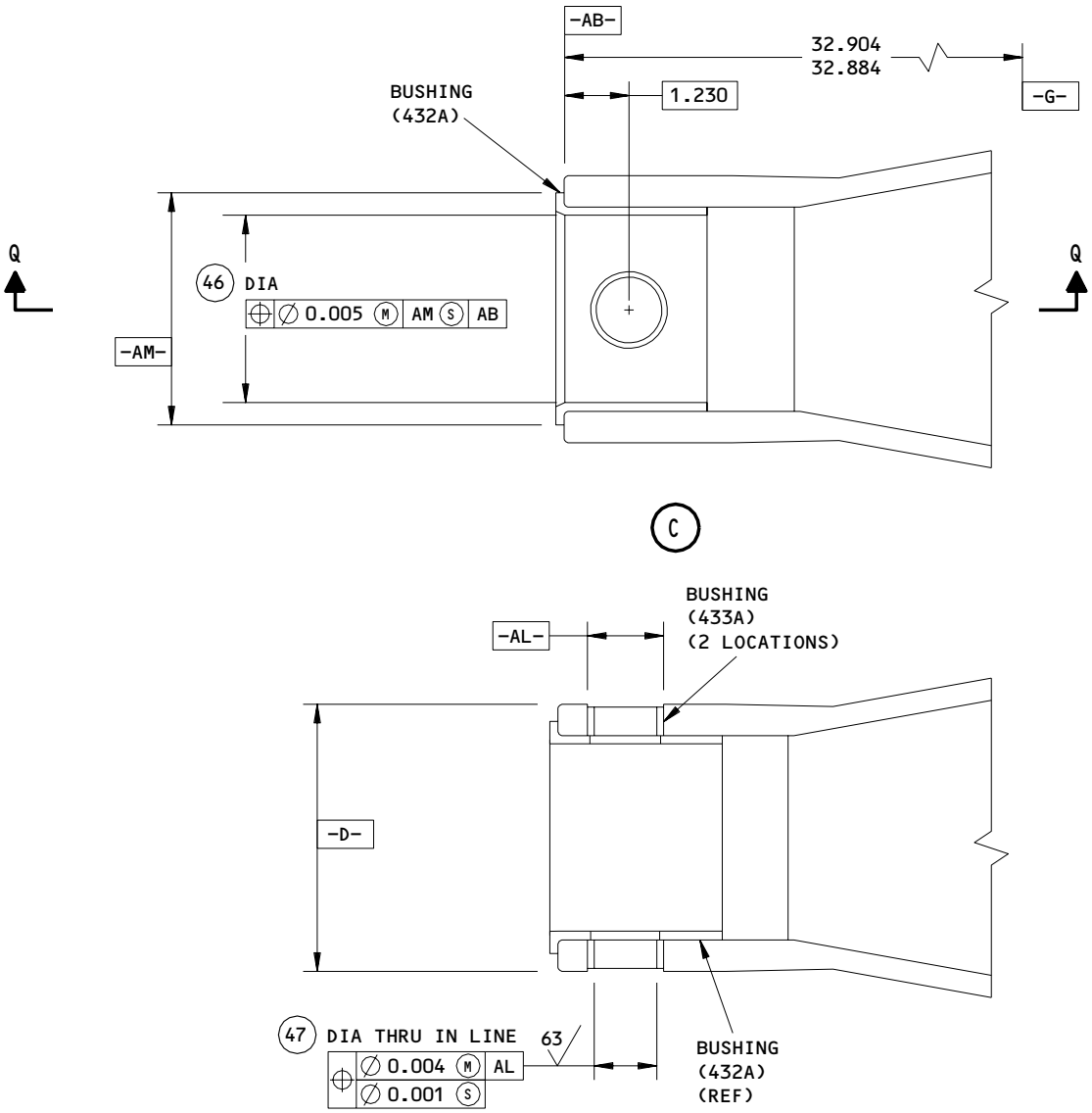


P–P

REFERENCE NUMBER	(41)	(42)	(43)	(44)
DESIGN DIMENSION	1.1235 1.1220	0.8785 0.8770	0.8785 0.8770	1.1235 1.1220

161T1280–1,–2
Bushing Replacement
Figure 601A (Sheet 10)

L76538



Q-Q

REFERENCE NUMBER	46	47
DESIGN DIMENSION	2.9415 2.9400	1.0640 1.0625

ITEM NUMBERS REFER TO IPL FIG. 1

ALL DIMENSIONS ARE IN INCHES

161T1280-1,-2
Bushing Replacement
Figure 601A (Sheet 11)

L76540

OUTER CYLINDER - REPAIR 1-2

161T1110-3, -4, -7, -8, -19, -20, -23, -24, -27, -28, -31, -32, -35, -36, -40, -57, -58, -71, -72, -75, -76, -83, -84, -87, -88, -91 thru -96
161T1280-3, -4

NOTE: Refer to REPAIR-GENERAL for a list of applicable standard practices. Refer to IPL Fig. 1 for item numbers. For repair of surfaces which is only replacement of the original finish, refer to REPAIR 1-3.

1. Lug Faces and Holes (Fig. 601, 601A)

A. Method 1 -- Removal of Corrosion in Center of Lug ID

NOTE: This procedure lets corrosion be removed without machining the entire bore oversize, if corrosion is only at the center area between two bushings.

(1) Determine repair diameter and width of groove required to remove corrosion (Fig. 602).

(2) Machine center area as required.

(3) Cadmium-titanium plate and apply primer, BMS 10-11, type 1.

(4) Install bushings per REPAIR 1-1.

(5) Completely fill cavity under and between bushings with grease.

B. Method 2 -- Installation of Oversize Bushings

(1) Machine as required, within repair limits, to remove defects.

(2) Shot peen, cadmium-titanium plate and apply primer, BMS 10-11, type 1.

(3) Make oversize bushings (Fig. 603 and on), as required, to adjust for the material removed in step (1).

(4) Install the bushings per REPAIR 1-1.

C. Method 3 -- Installation of Bushing (400) with smaller bore for repaired tube 161T1162-1.

(1) If you machined the OD of this tube undersize (Ref Repair 5-1), make an equivalent of bushing (400) for the mating lug for a 0.005-0.013 inch clearance fit with the repaired tube.

(2) Be sure to identify the tube and the cylinder as matched parts.

2. Forward Trunnion Repair (Fig. 608)

NOTE: Some of these repairs have equivalents in SB 32A0127.

A. Machine damaged thrust faces, within repair limits, to remove defects. Then machine the other faces equally.

B. Machine the radii smooth between the trunnion faces and tabs.

C. Machine tab widths to remove defects within repair limits.

CAUTION: IF THE THREADS ARE CUT TO THE 3.187 SIZE, THEY COULD BE LARGER THAN THE ADJACENT DIAMETER KL (3.17-3.19 INCH DESIGN DIAMETER).

D. Cut the internal threads to a larger size, if necessary. Note that the design sizes of these threads are 3.00-16 on cylinders 161T1110-3, -4 and 3.00-12 on all other cylinders, but all repair threads are 12 per inch. If you cut the threads to the 3.187 size, be sure to make the adjacent diameter KL larger, as indicated, to prevent an interference problem with the mating oversize bolt threads.

E. As applicable, make an oversized sleeve, housing, retainer bolt, and adjust the dimensions of the retaining ring. Retainer bolts 161T1315-series with oversize threads are available. Refer to CMM 32-11-19 or 32-11-20. Be sure to mark these parts and the cylinder as a matched set.

3. Aft Trunnion Repair (Fig. 601)

CAUTION: BE SURE TO USE ONLY THE BMS 3-27 OR BMS 3-38 CORROSION PREVENTIVE COMPOUND WHERE THESE COMPOUNDS ARE SPECIFIED. IF YOU USE SOME OTHER COMPOUND HERE, CORROSION COULD OCCUR FASTER.

A. Machine diameters 10 thru 12, within repair limits, to remove defects. If necessary, machine face of the aft trunnion, within repair limits (Dimension 47) to remove defects.

B. Make oversize equivalents of bushings (395, 405) (Fig. 604, 605A) to make allowance for amount of material removed in step A.

C. Install bushings (405), per REPAIR 1-1, with BMS 3-27 corrosion preventive compound on mating surfaces. Make sure the space between the bushing flange radius and the hole chamfer is filled with the BMS 3-27 compound. Then seal the bushing flanges with BMS 5-95 sealant.

D. Apply a thin layer of BMS 3-27 or BMS 3-38 corrosion preventive compound on all surfaces of the trunnion bore undercut (diameter 10B).

E. Install bushing (395) per REPAIR 1-1, with BMS 3-27 or BMS 3-38 corrosion preventive compound. Be sure to install this bushing to the depth shown. Then apply a fillet of BMS 5-95 sealant to the ends of the bushing as shown.

F. Machine the bores of the bushings to design dimensions and finish. Then remove as many of the metal chips as possible from the space between the bushing (395) OD and the trunnion ID undercut.

G. Temporarily install the crossbolt (Ref CMM 32-11-30, IPL Fig. 1, Item 27), and its nut and washer. Tighten the nut only finger-tight.

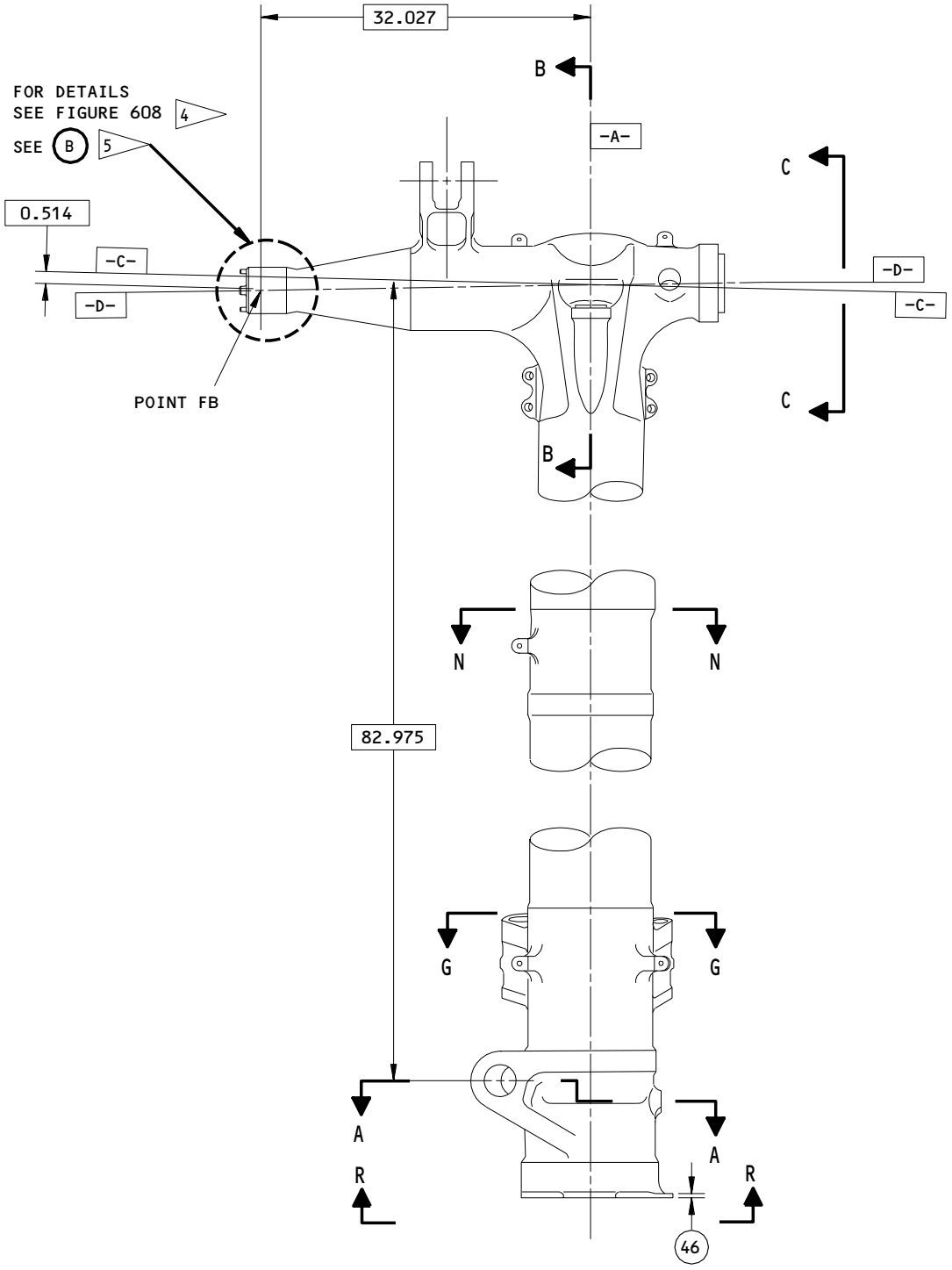
H. Make sure the lube passage of the aft trunnion bushing location is clear, then temporarily install a lube fitting (355) here.

NOTE: The lube fitting (pre SB 32A0148, and latest post SB 32A0148 configurations) or the plug and sealant (some post SB 32A0148 configurations) were removed during the overhaul procedures done on the outer cylinder per CMM 32-00-05. We now recommend you install the lube fitting in this position, to let you apply more BMS 3-27 or BMS 3-38 compound as necessary.

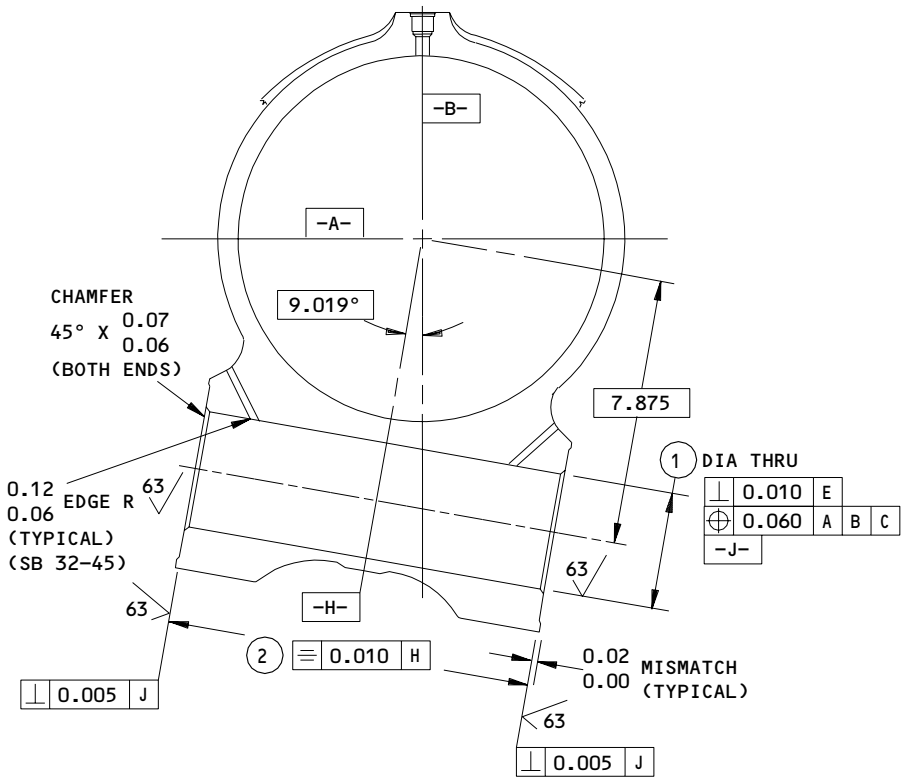
I. Apply BMS 3-27 or BMS 3-38 corrosion preventive compound through this lube fitting until you see the compound come out of the ID of bushing (395B) at all hole locations. If necessary, temporarily block one or more of the bushing holes to send the compound through the other hole locations.

J. Remove the crossbolt. Wipe unwanted BMS 3-27 or BMS 3-38 compound from the bushing ID.

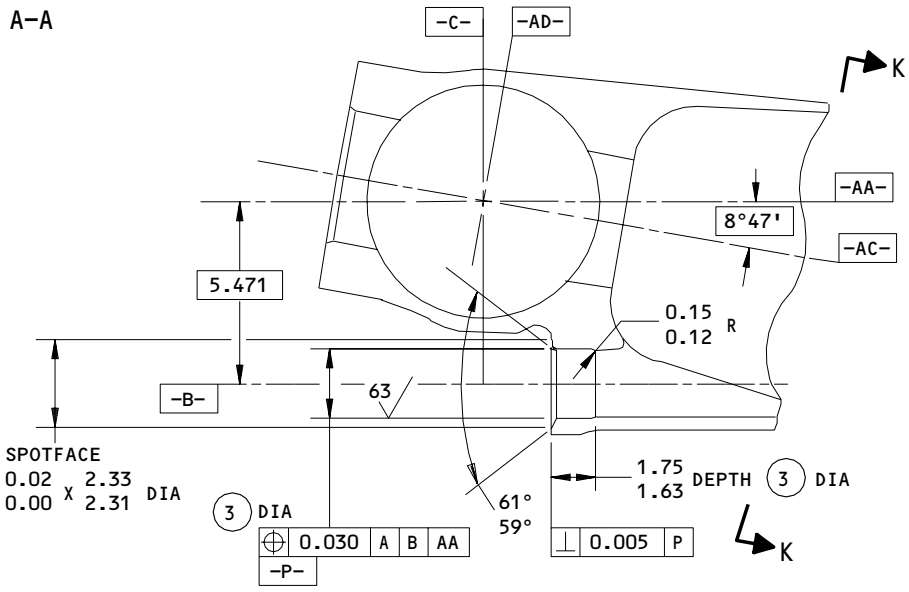
K. Do not replace the lube fitting with a rivet. Let this lube fitting stay in this position to let you apply more BMS 3-27 or BMS 3-38 compound to the joint as necessary. Refer to SB 32A0148 for more details. (Be sure to apply the arrows and stencils, or the equivalent decals, to this area of the shock strut outer cylinder to tell you this. Refer to Refinish instructions, REPAIR 1-3, Fig. 601 for details.)



161T1110-3,-4,-7,-8,-19,-20,-23,-24,-27,-28,-31,-32,-35,-36,-40,-57,-58,
-71,-72,-75,-76,-83,-84,-87,-88,-91 THRU -96
Lug Face and Hole Repair
Figure 601 (Sheet 1)

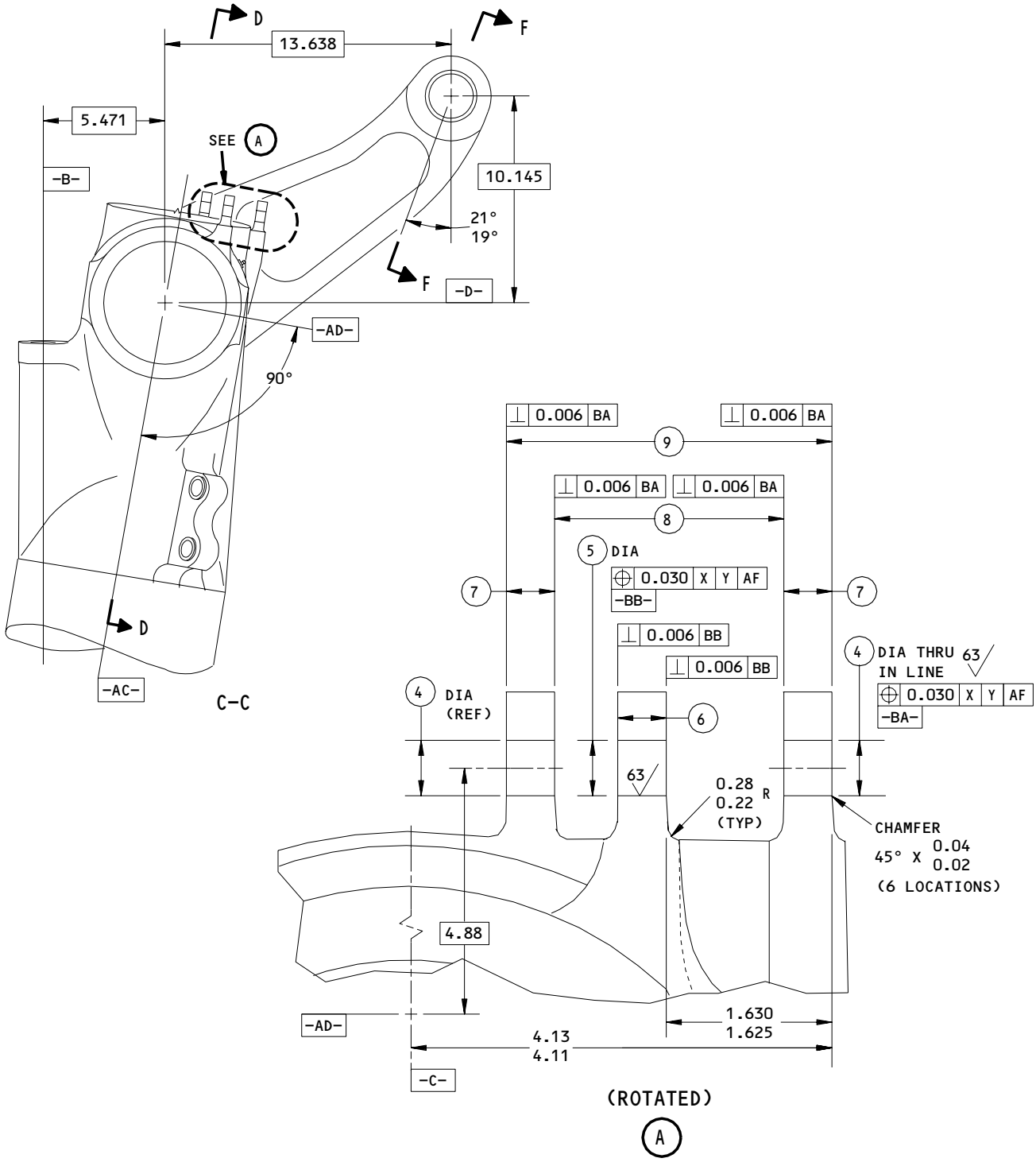


(ROTATED 90° CCW)
A-A



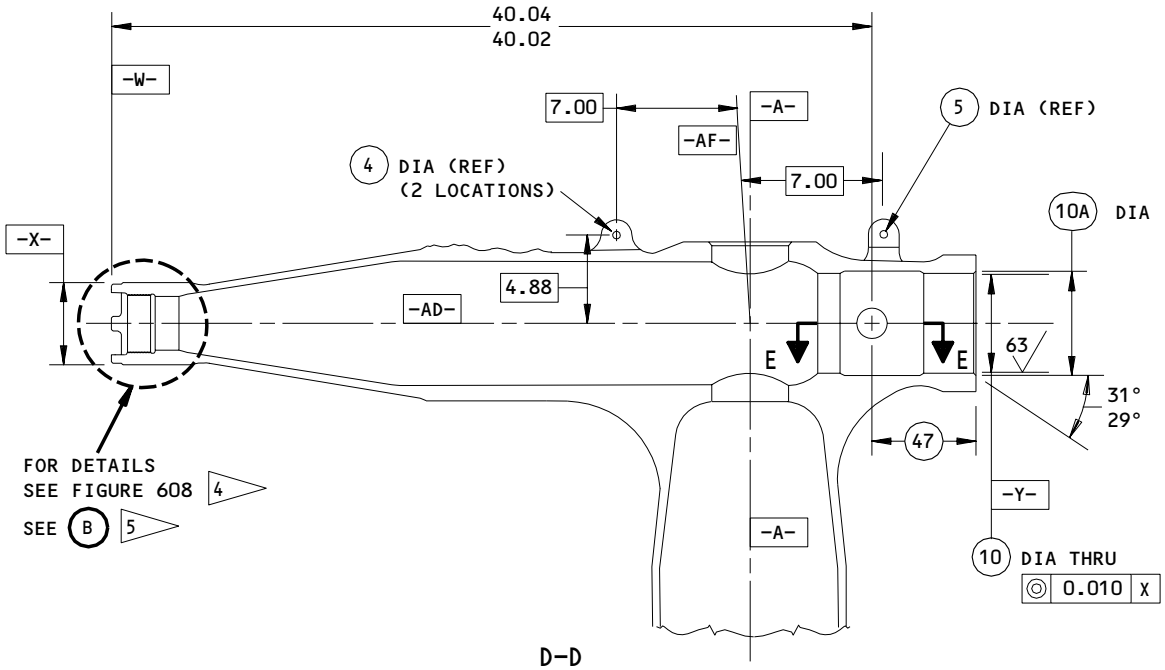
B-B

161T1110-3,-4,-7,-8,-19,-20,-23,-24,-27,-28,-31,-32,-35,-36,-40,-57,-58,
-71,-72,-75,-76,-83,-84,-87,-88,-91 THRU -96
Lug Face and Hole Repair
Figure 601 (Sheet 2)

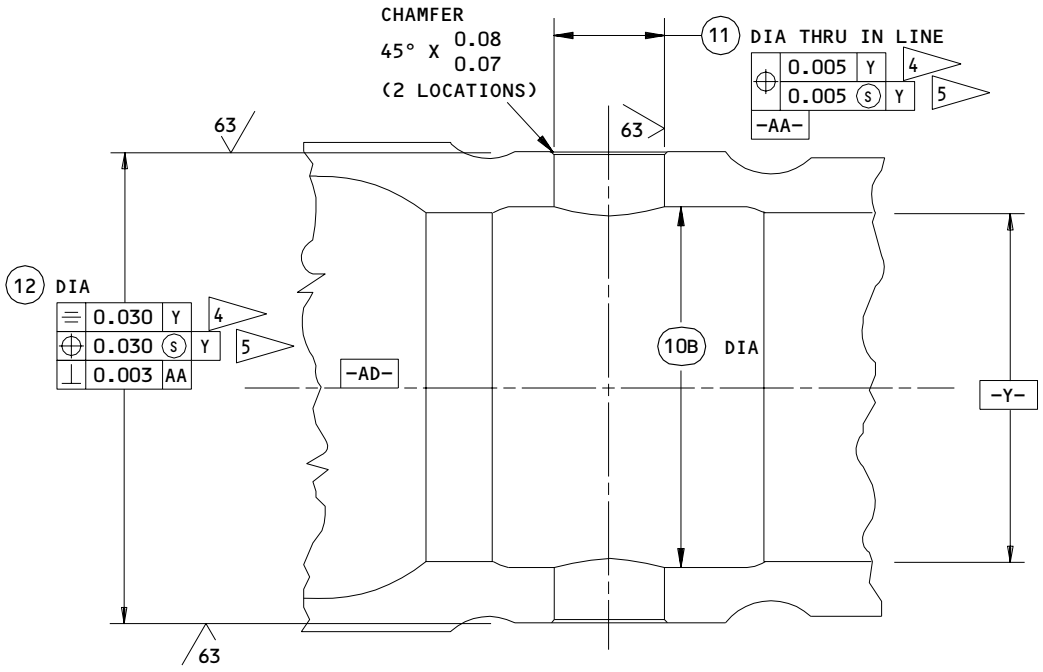


161T1110-3,-4,-7,-8,-19,-20,-23,-24,-27,-28,-31,-32,-35,-36,-40,-57,-58,
-71,-72,-75,-76,-83,-84,-87,-88,-91 THRU -96
Lug Face and Hole Repair
Figure 601 (Sheet 3)

14453



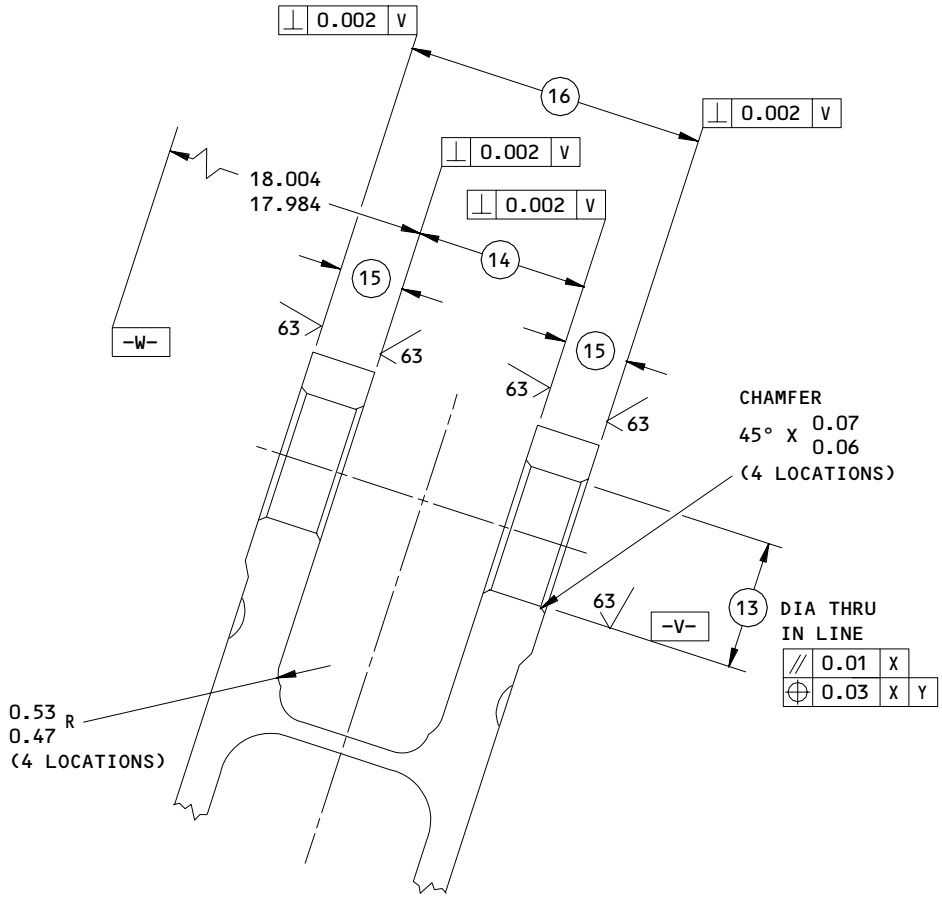
D-D



E-E

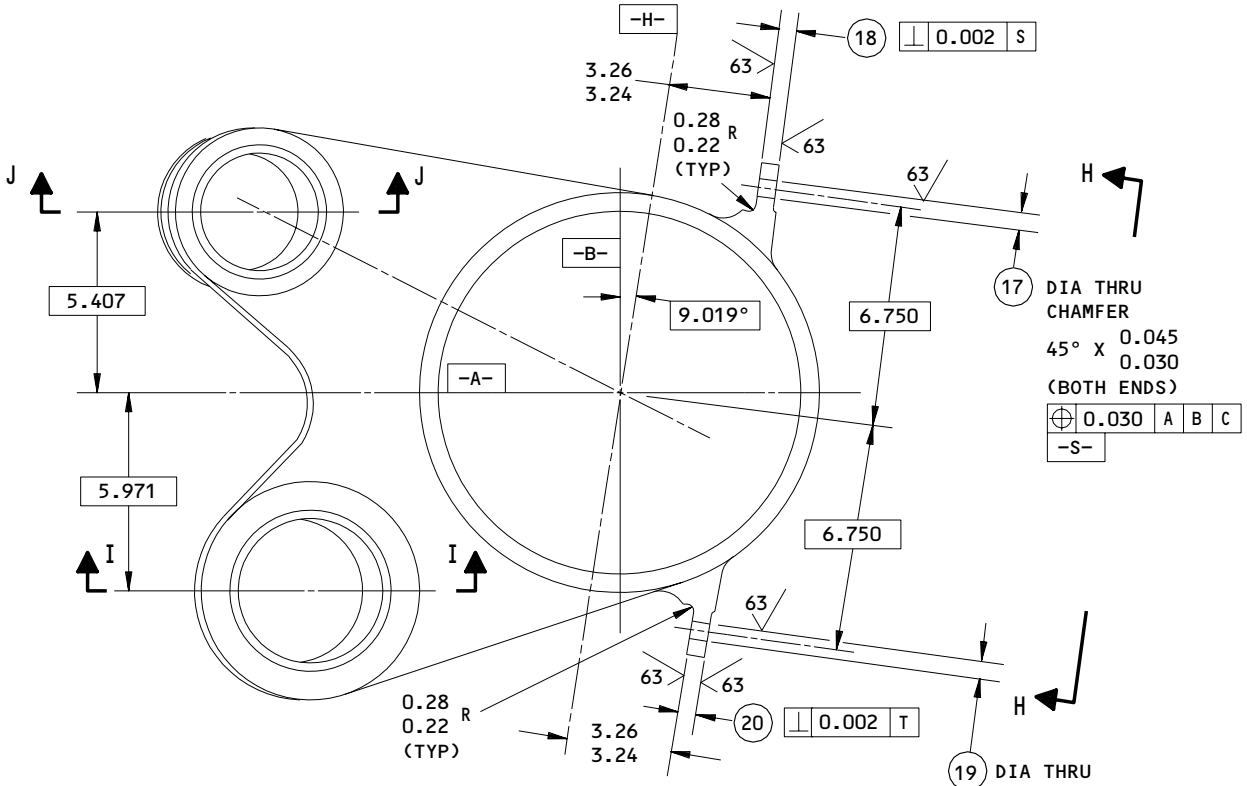
161T1110-3,-4,-7,-8,-19,-20,-23,-24,-27,-28,-31,-32,-35,-36,-40,-57,-58,
-71,-72,-75,-76,-83,-84,-87,-88,-91 THRU -96
Lug Face and Hole Repair
Figure 601 (Sheet 4)

14460

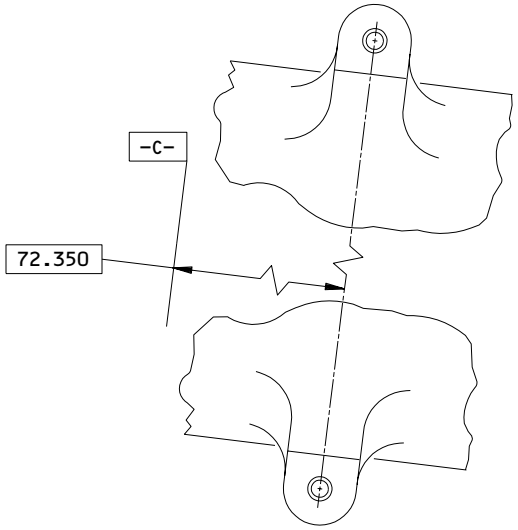


F-F

161T1110-3,-4,-7,-8,-19,-20,-23,-24,-27,-28,-31,-32,-35,-36,-40,-57,-58,
-71,-72,-75,-76,-83,-84,-87,-88,-91 THRU -96
Lug Face and Hole Repair
Figure 601 (Sheet 5)

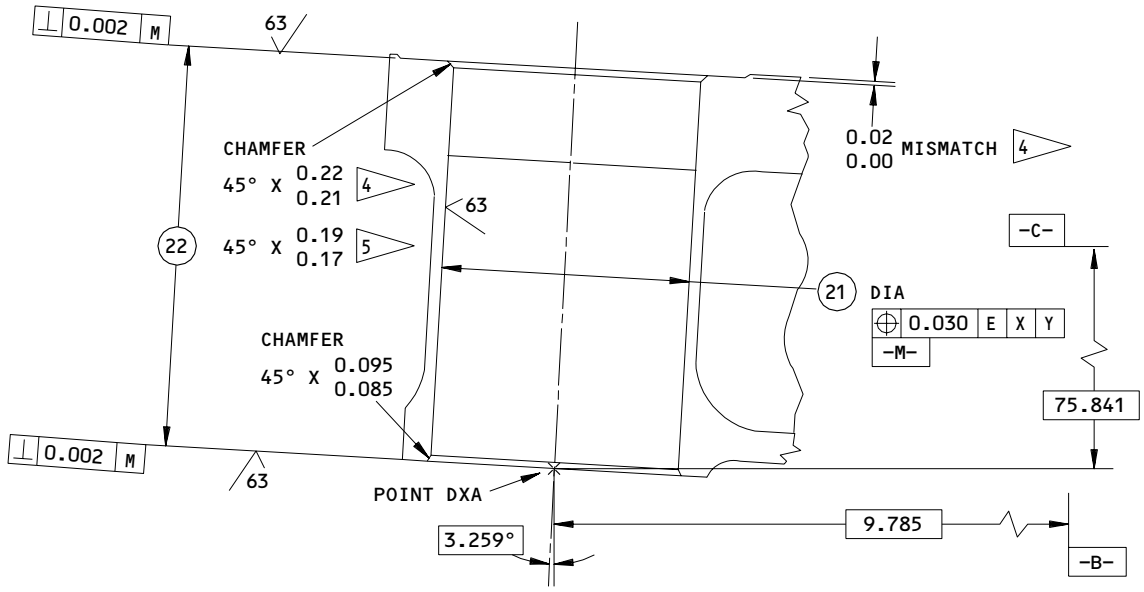


(ROTATED 90° CCW)
G-G

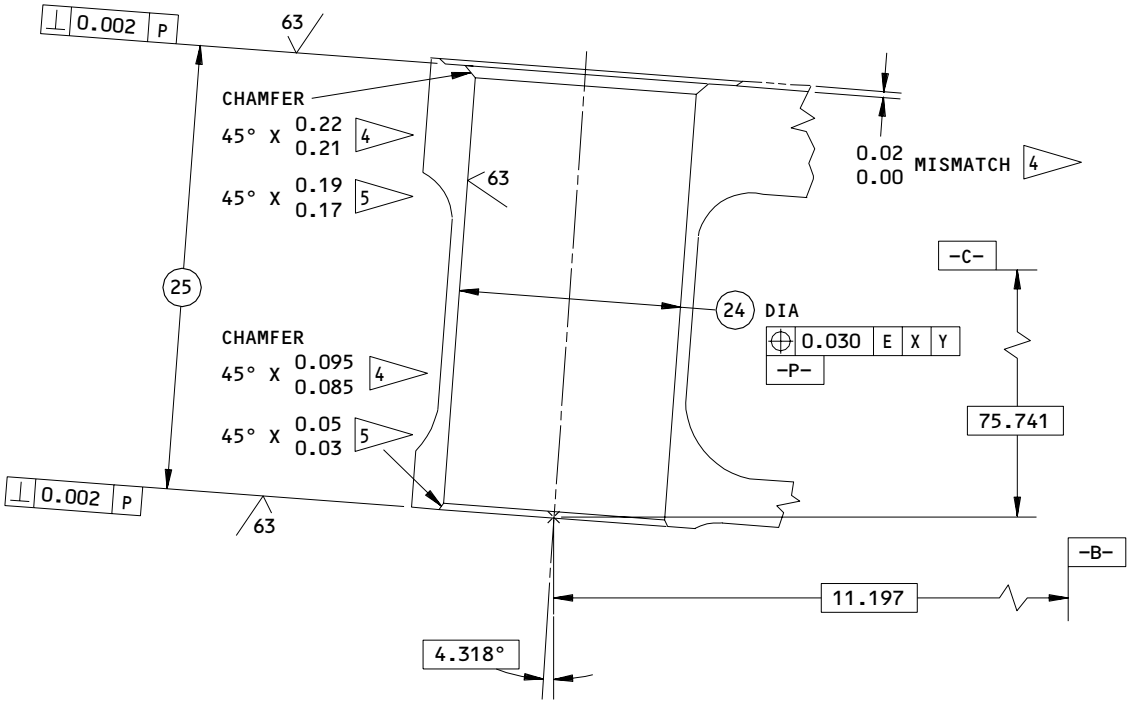


H-H

161T1110-3,-4,-7,-8,-19,-20,-23,-24,-27,-28,-31,-32,-35,-36,-40,-57,-58,
-71,-72,-75,-76,-83,-84,-87,-88,-91 THRU -96
Lug Face and Hole Repair
Figure 601 (Sheet 6)



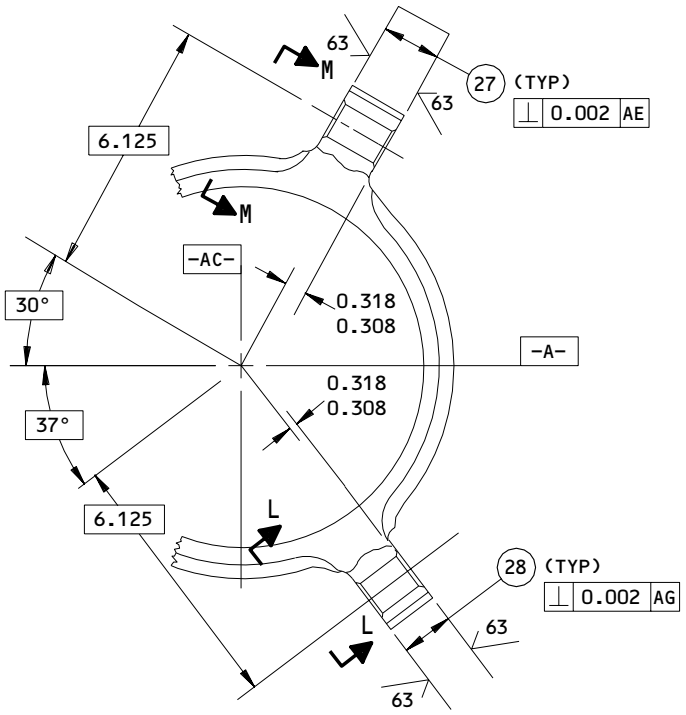
I-I



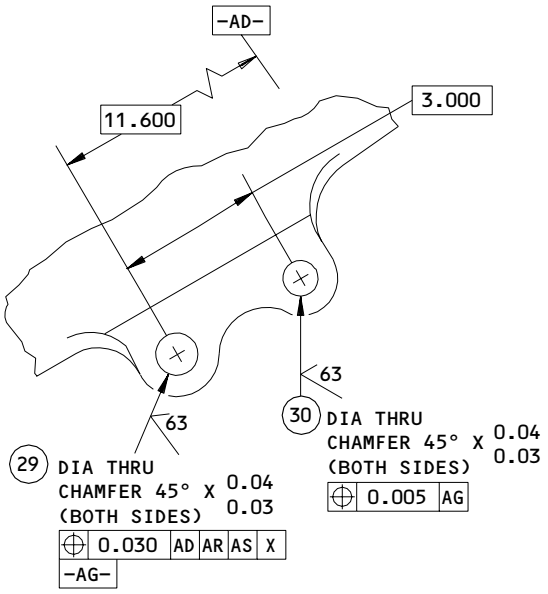
J-J

161T1110-3,-4,-7,-8,-19,-20,-23,-24,-27,-28,-31,-32,-35,-36,-40,-57,-58,
-71,-72,-75,-76,-83,-84,-87,-88,-91 THRU -96
Lug Face and Hole Repair
Figure 601 (Sheet 7)

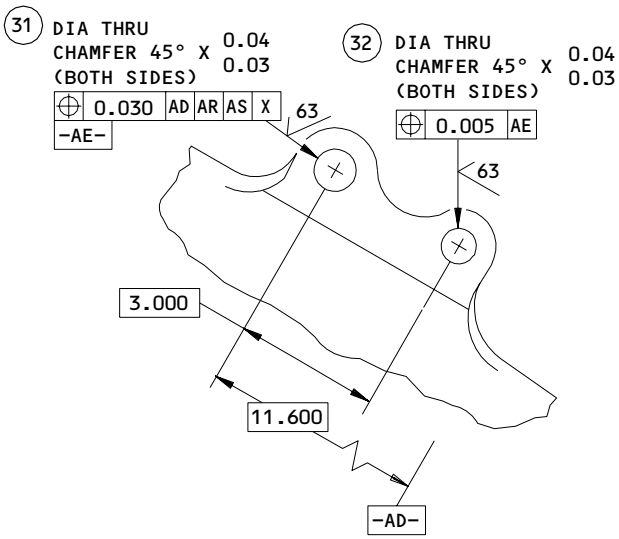
14528



(ROTATED 90° CW)
K-K

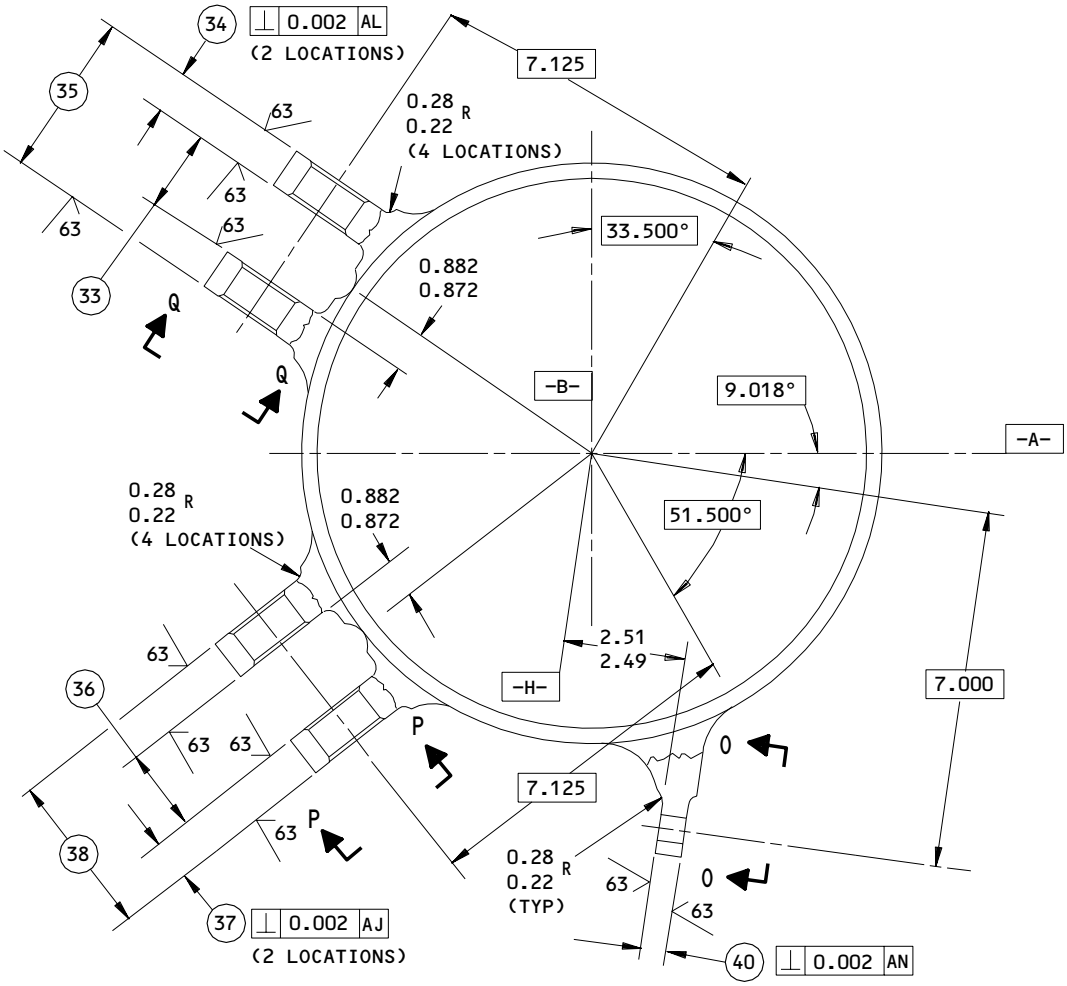


L-L

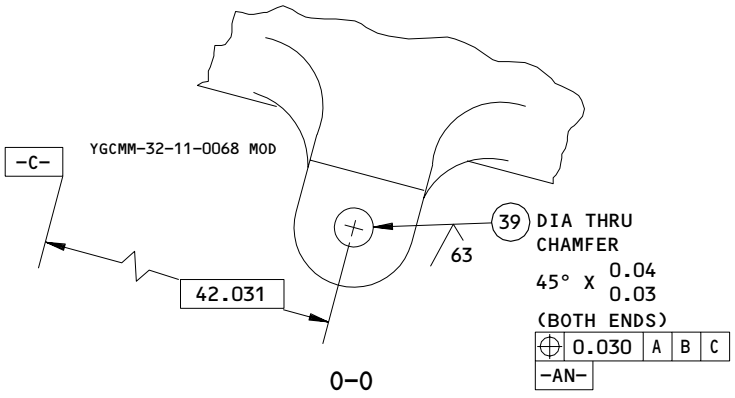


M-M

161T1110-3,-4,-7,-8,-19,-20,-23,-24,-27,-28,-31,-32,-35,-36,-40,-57,-58,
-71,-72,-75,-76,-83,-84,-87,-88,-91 THRU -96
Lug Face and Hole Repair
Figure 601 (Sheet 8)



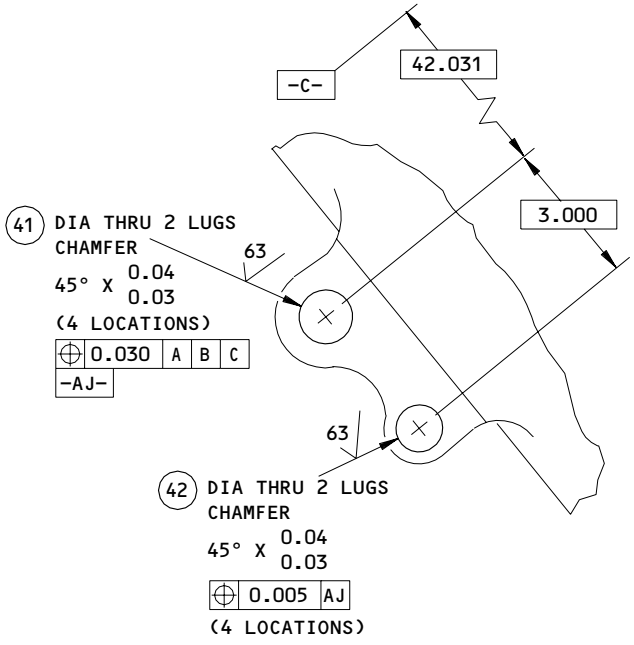
(ROTATED 90° CCW)
N-N



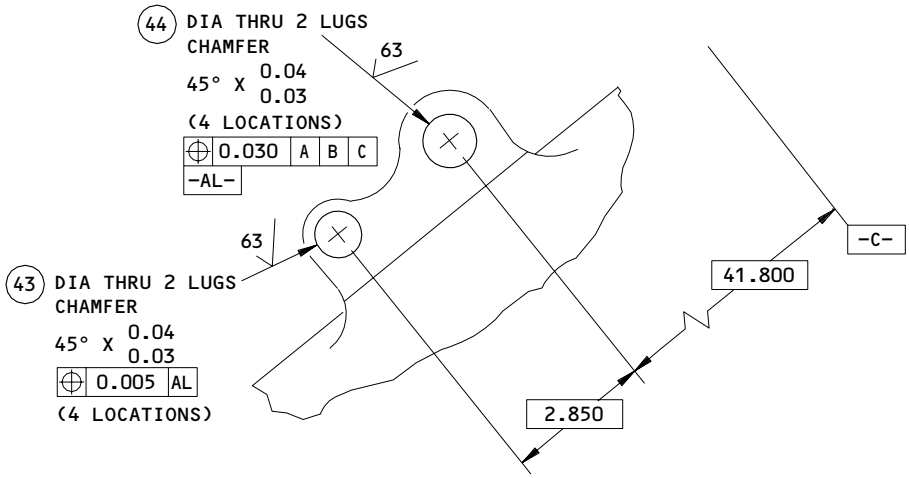
0-0

161T1110-3,-4,-7,-8,-19,-20,-23,-24,-27,-28,-31,-32,-35,-36,-40,-57,-58,
-71,-72,-75,-76,-83,-84,-87,-88,-91 THRU -96
Lug Face and Hole Repair
Figure 601 (Sheet 9)

14531

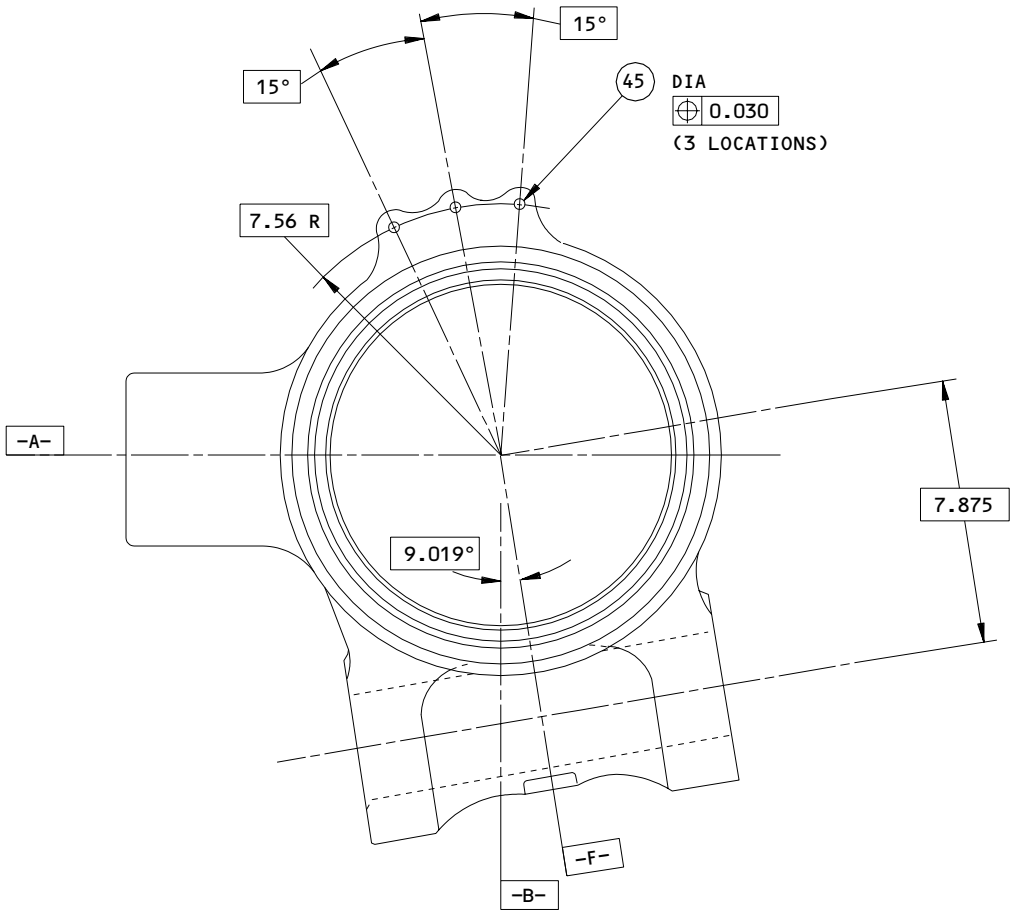


P-P



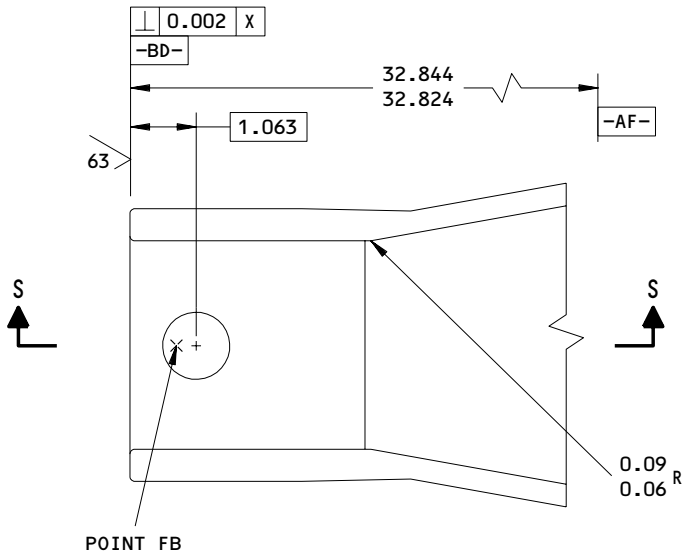
Q-Q

161T1110-3,-4,-7,-8,-19,-20,-23,-24,-27,-28,-31,-32,-35,-36,-40,-57,-58,
-71,-72,-75,-76,-83,-84,-87,-88,-91 THRU -96
Lug Face and Hole Repair
Figure 601 (Sheet 10)



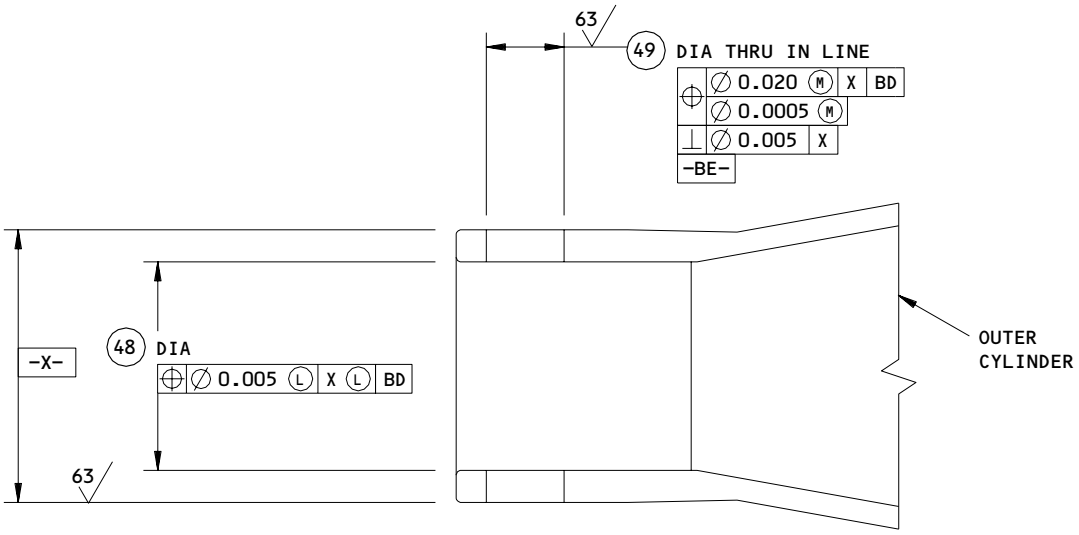
R-R

161T1110-3,-4,-7,-8,-19,-20,-23,-24,-27,-28,-31,-32,-35,-36,-40,-57,-58,
-71,-72,-75,-76,-83,-84,-87,-88,-91 THRU -96
Lug Face and Hole Repair
Figure 601 (Sheet 11)



161T1110-87,-88,-91 THRU -96

(B)



S-S

NOTE: FOR LUG REFINISH SEE REPAIR 1-3 FIGURE 601

161T1110-3,-4,-7,-8,-19,-20,-23,-24,-27,-28,-31,-32,-35,-36,-40,-57,-58,
-71,-72,-75,-76,-83,-84,-87,-88,-91 THRU -96
Lug Face and Hole Repair
Figure 601 (Sheet 12)

REFERENCE NUMBER	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
DESIGN DIMENSION	3.2415 3.2400	11.0804 11.0754	2.1895 2.1880	0.5015 0.5000	0.5015 0.5000	0.505 0.495	0.505 0.495	2.258 2.233	3.248 3.243
REPAIR LIMIT 1	3.3015	11.0454 2	2.2495	0.5615	0.5615	0.465 2	0.465 2	2.288 2	3.213 2

REFERENCE NUMBER	(10)	(10A)	(10B) 6	(11)	(12) 4	(12) 5	(13)	(14)	(15)
DESIGN DIMENSION	5.7415 5.7400	5.895 5.865	5.91 5.89	1.6615 1.6600	7.76 7.74	8.385 8.365	2.2865 2.2850	3.0066 3.0016	1.07 1.06
REPAIR LIMIT	5.8300 1	6.015 3	6.02 3	1.8000 1	7.66 1	8.285 1	2.400 1	3.0866 1 2	0.98 1 2

REFERENCE NUMBER	(16)	(17)	(18)	(19)	(20)	(21)	(22) 4	(22) 5	(24)
DESIGN DIMENSION	5.1466 5.1216	0.5015 0.5000	0.505 0.495	0.5015 0.5000	0.505 0.495	4.2015 4.2000	8.105 8.100	8.109 8.104	3.4515 3.4500
REPAIR LIMIT 1	5.0466 2	0.5750	0.462 2	0.5750	0.462 2	4.300	7.990 2	---	3.5115

REFERENCE NUMBER	(25) 4	(25) 5	(27)	(28)	(29)	(30)	(31)	(32)	(33)
DESIGN DIMENSION	7.130 7.125	7.134 7.129	1.3784 1.3734	1.3784 1.3734	1.0095 1.0080	0.8845 0.8830	1.0095 1.0080	0.8845 0.8830	1.7566 1.7516
REPAIR LIMIT 1	7.080 2	---	1.3434 2	1.3434 2	1.1500	0.9600	1.1500	0.9600	1.7816 2

161T1110-3,-4,-7,-8,-19,-20,-23,-24,-27,-28,-31,-32,-35,-36,-40,-57,-58,
-71,-72,-75,-76,-83,-84,-87,-88,-91 THRU -96
Lug Face and Hole Repair
Figure 601 (Sheet 13)

REFERENCE NUMBER	(34)	(35)	(36)	(37)	(38)	(39)	(40)	(41)	(42)
DESIGN DIMENSION	0.760 0.750	3.2766 3.2516	1.7566 1.7516	0.760 0.750	3.2766 3.2516	0.5015 0.5000	0.505 0.495	1.2515 1.2500	1.0015 1.0000
REPAIR LIMIT	0.720 1 2	3.2216 2	1.7816 2	0.720 2	3.2216 2	0.5750	0.462 2	1.3115	1.0615

REFERENCE NUMBER	(43)	(44)	(45)	(46)	(47)	(48)	(49)
DESIGN DIMENSION	1.0015 1.0000	1.2515 1.2500	0.290 0.270	0.53 0.47	5.390 5.350	3.2555 3.2545	1.1885 1.1875
REPAIR LIMIT	1.0615 1	1.3115 1	0.370 1	---	5.300 3	---	---

REFINISH

(REFER TO REFINISH INSTRUCTIONS, REPAIR 1-3)

1 LIMIT FOR INSTALLATION OF OVERSIZE BUSHINGS OR REPAIR SLEEVES

2 LUG FACE MACHINING REQUIREMENTS:
1. MATERIAL REMOVED FROM ANY FACE MUST NOT BE MORE THAN HALF THE DIFFERENCE BETWEEN THE DESIGN DIMENSION AND REPAIR LIMIT
2. FLAT SURFACE MUST BE MINIMUM OF 0.02 LARGER THAN FLANGE DIAMETER OF BUSHING TO BE INSTALLED
3. BLEND MISMATCH STEPS TO 0.18-0.26 RADIUS, OR IF WITHIN 0.10 OF LUG FILLET RADIUS USE SAME RADIUS AS LUG FILLET. BREAK SHARP EDGES 0.03-0.07 R

3 RESTORATION TO DESIGN DIMENSIONS NOT REQUIRED

4 161T1110-3 THRU -84

5 161T1110-87,-88,-91 THRU -96

6 161T1110-3 THRU -58

REPAIR

REF 1 2 3

125 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

BREAK SHARP EDGES 0.06 R UNLESS SHOWN DIFFERENTLY

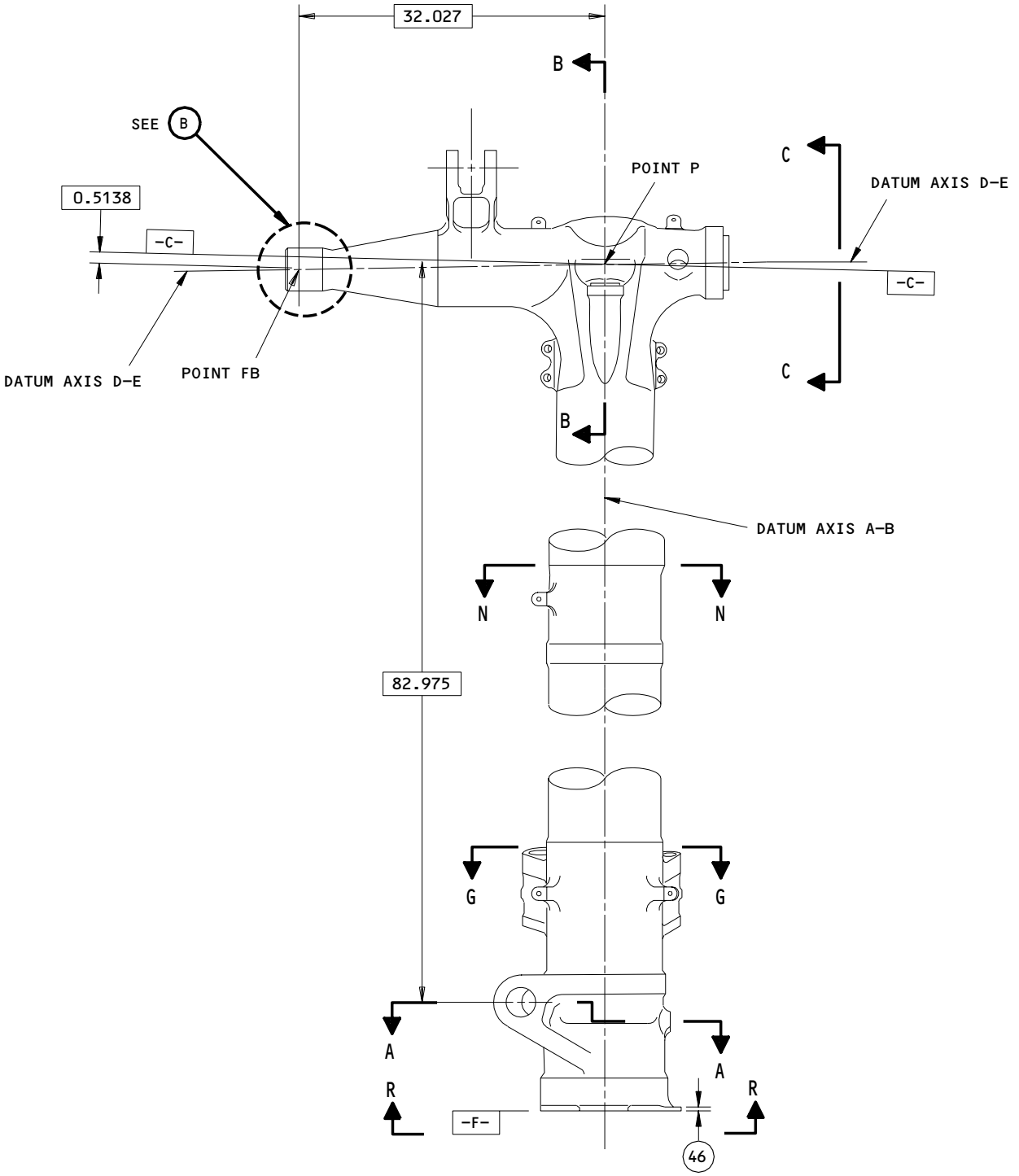
SHOT PEEN: 0.016-0.033 SHOT SIZE
0.014-0.018 A2 INTENSITY

MATERIAL: 4340M STEEL, 275-300 KSI

ALL DIMENSIONS ARE IN INCHES

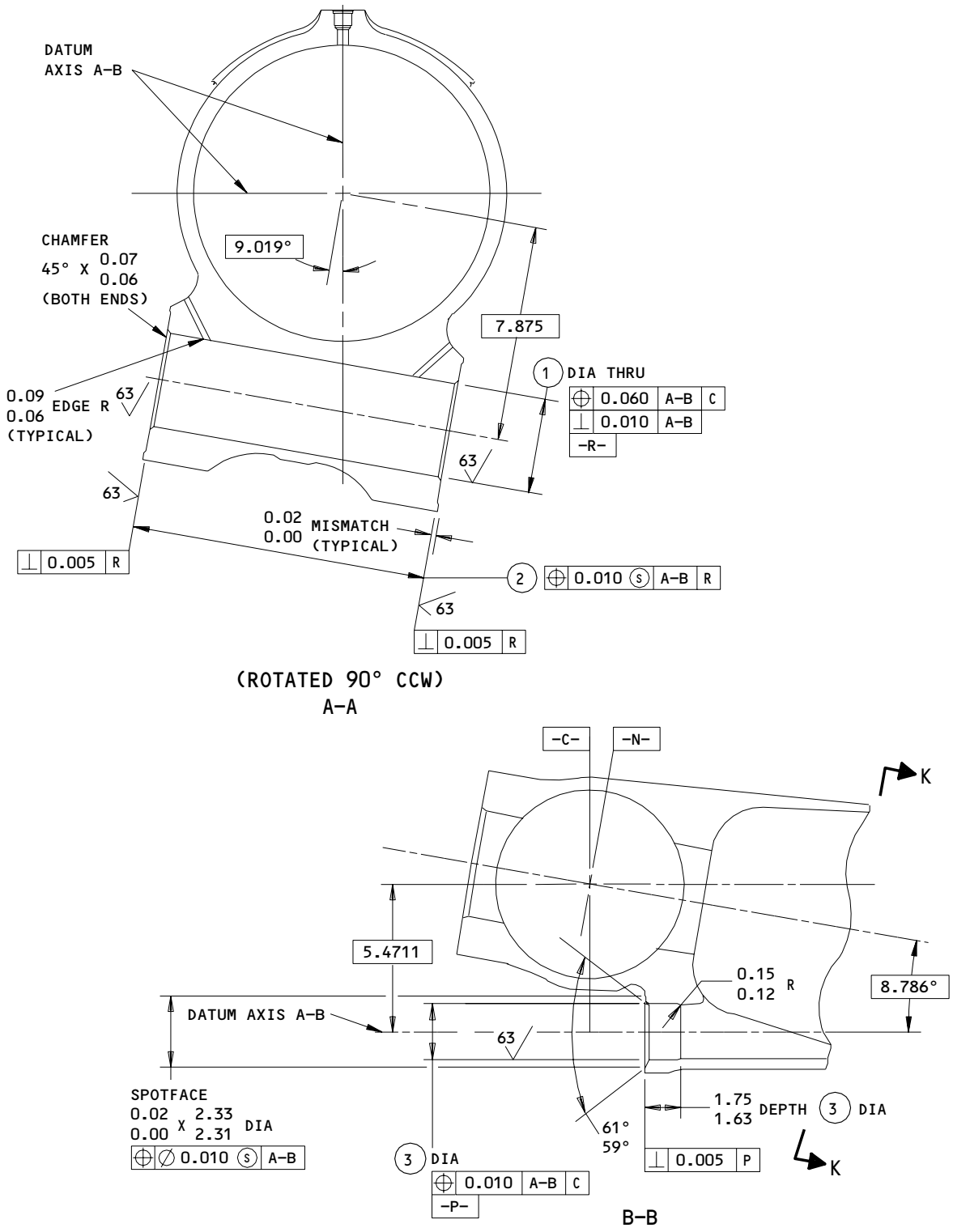
161T1110-3,-4,-7,-8,-19,-20,-23,-24,-27,-28,-31,-32,-35,-36,-40,-57,-58,
-71,-72,-75,-76,-83,-84,-87,-88,-91 THRU -96
Lug Face and Hole Repair
Figure 601 (Sheet 14)

K01780



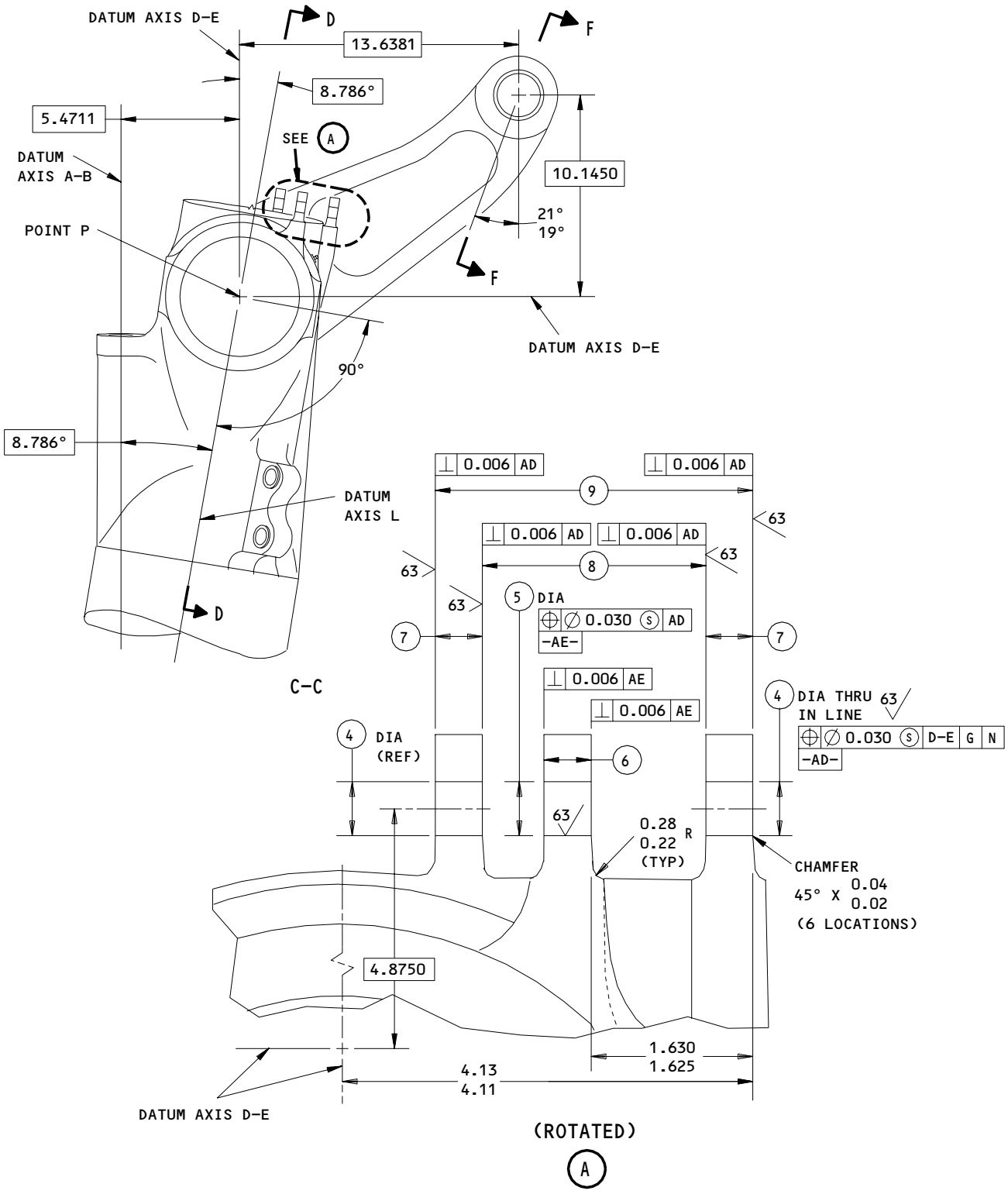
161T1280-3,-4
Lug Face and Hole Repair
Figure 601A (Sheet 1)

L76545



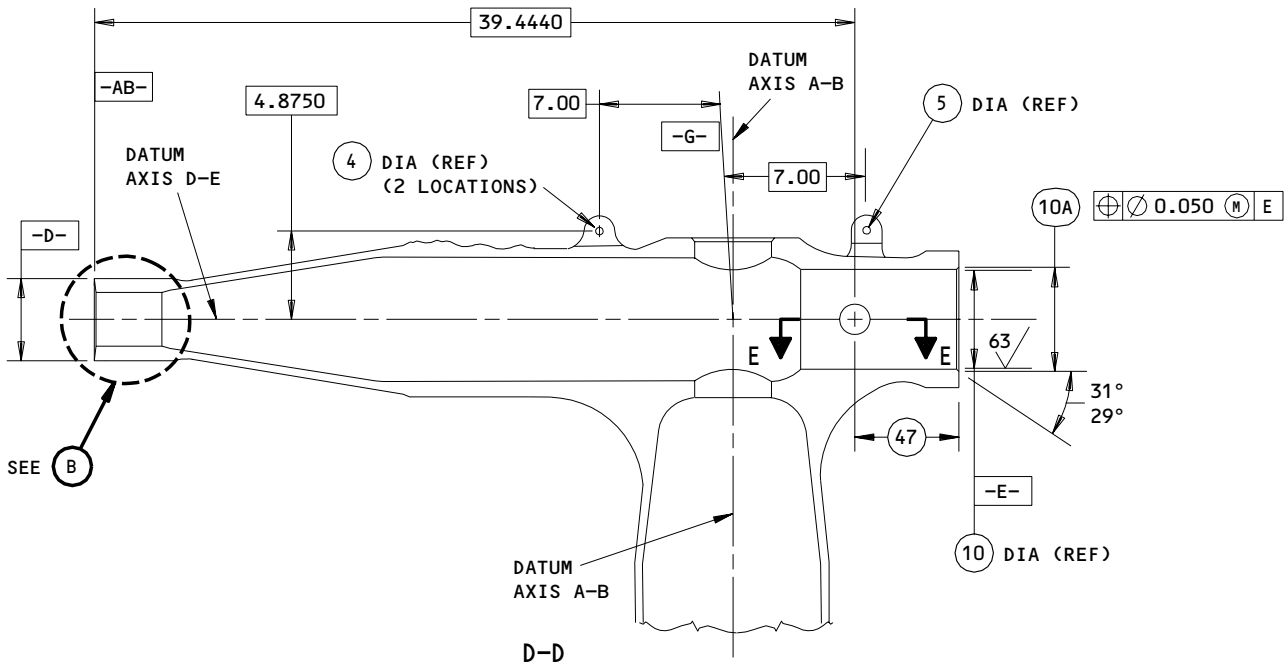
161T1280-3,-4
Lug Face and Hole Repair
Figure 601A (Sheet 2)

L76546

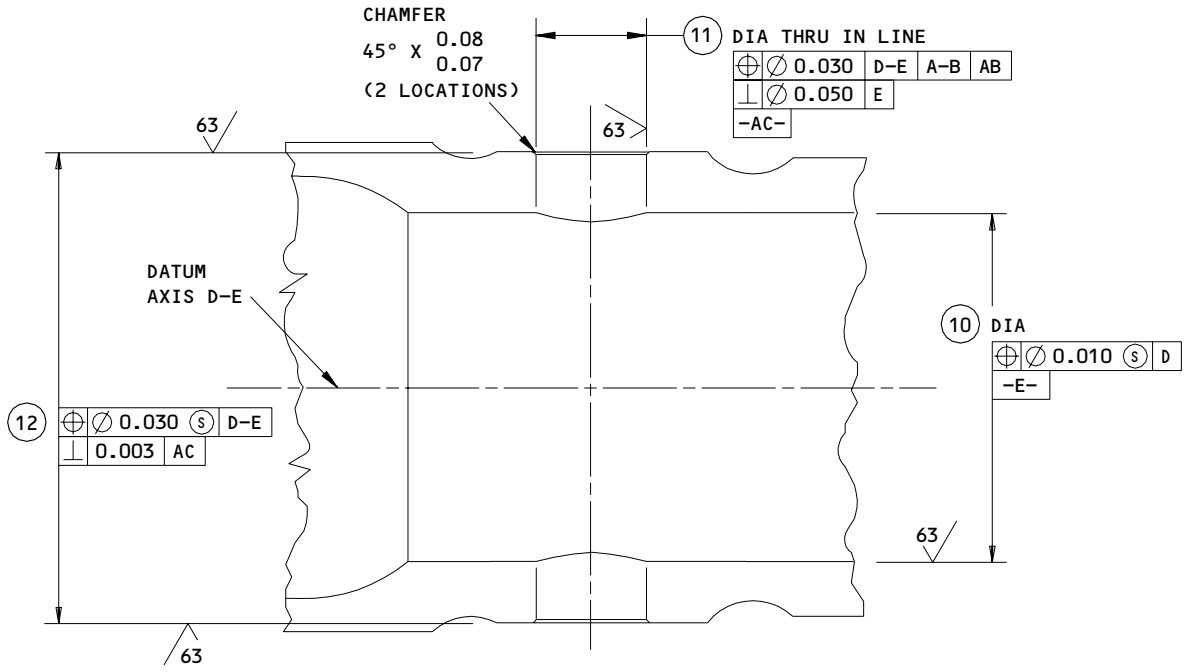


161T1280-3,-4
Lug Face and Hole Repair
Figure 601A (Sheet 3)

L76548



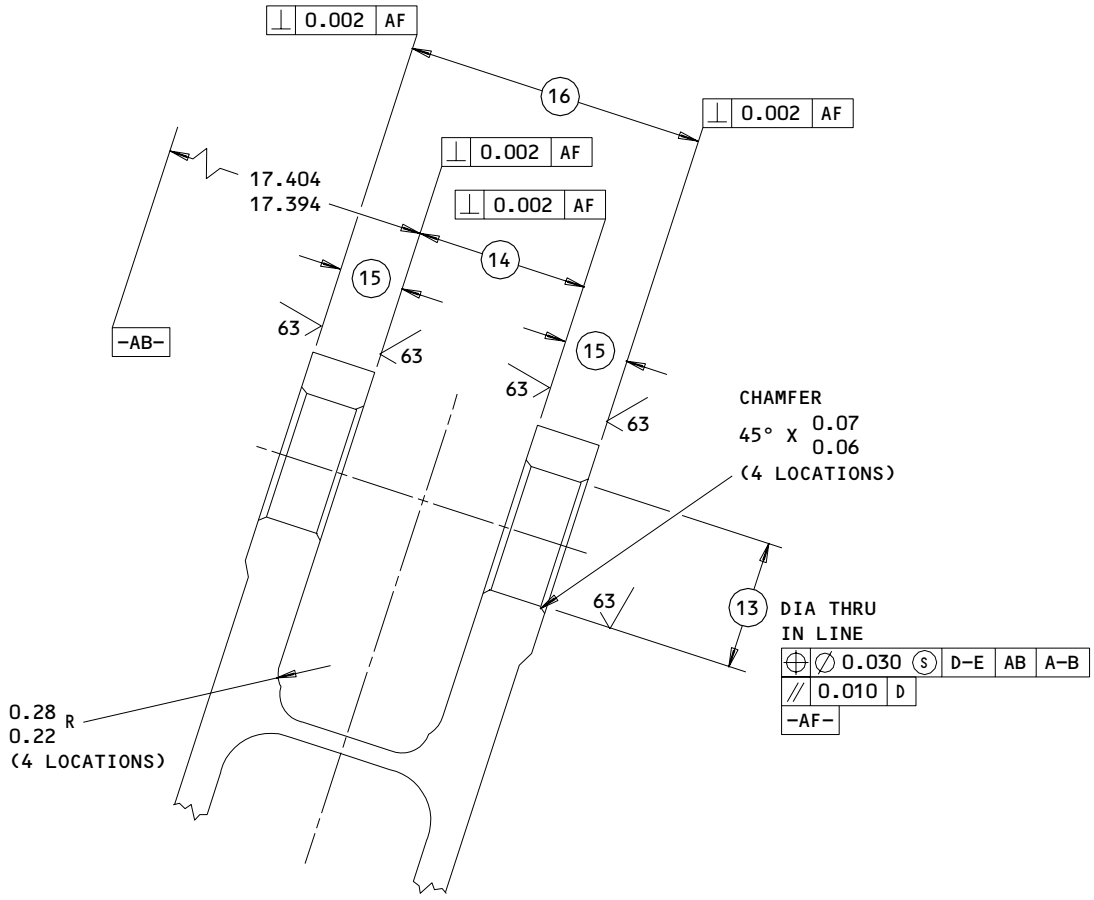
D-D



E-E

161T1280-3,-4
Lug Face and Hole Repair
Figure 601A (Sheet 4)

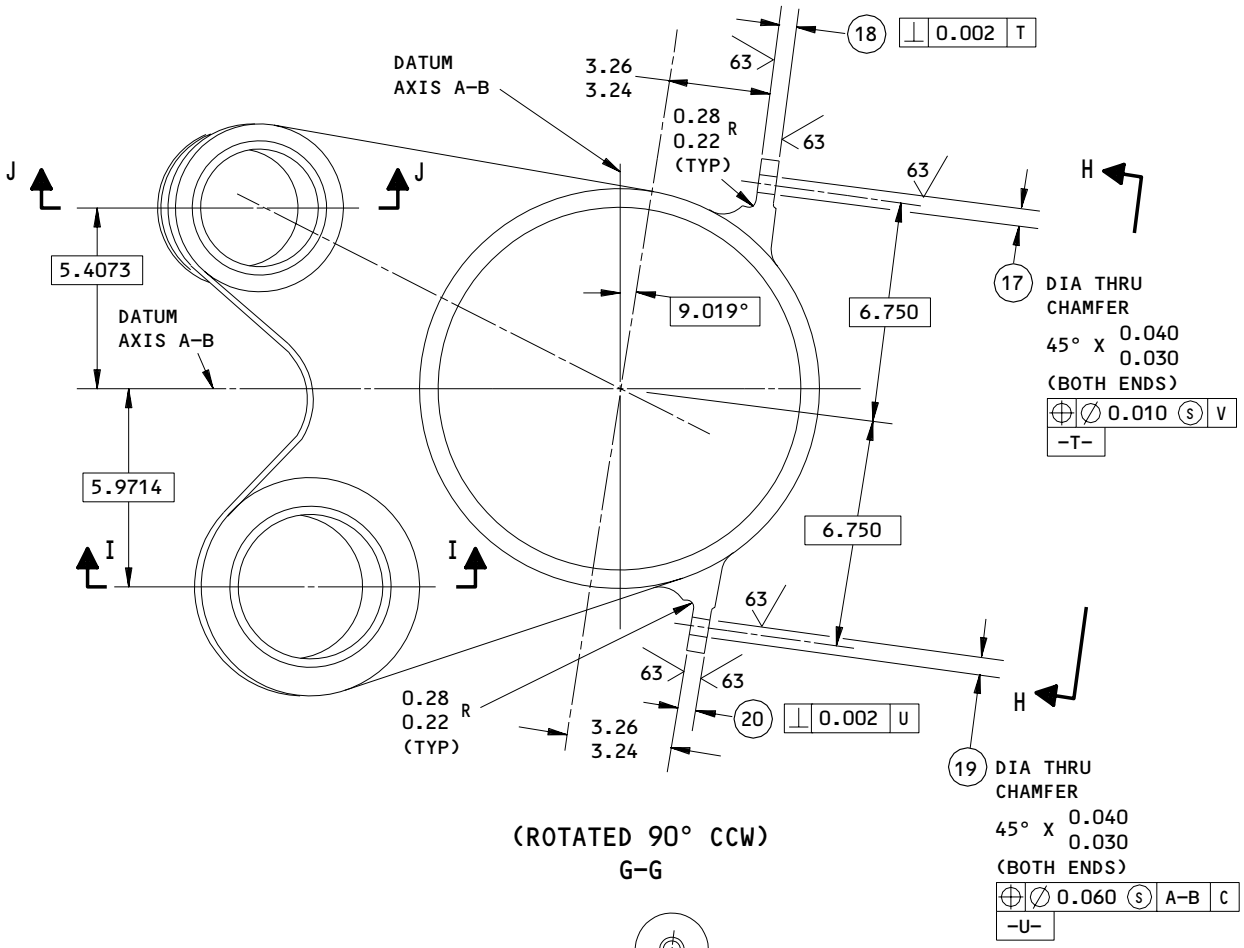
L76591



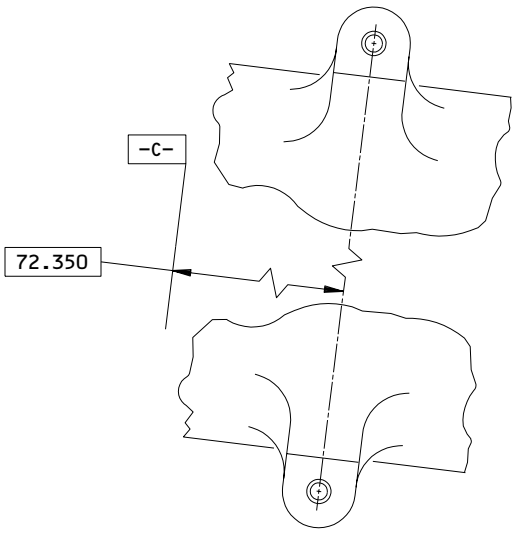
F-F

161T1280-3,-4
Lug Face and Hole Repair
Figure 601A (Sheet 5)

L76592



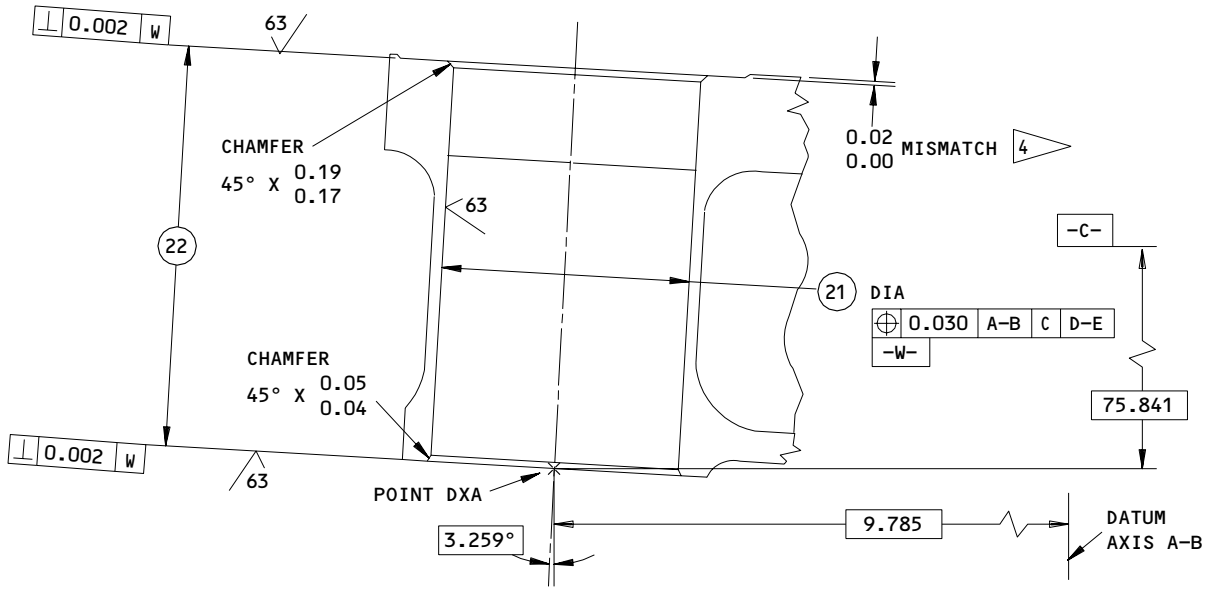
(ROTATED 90° CCW)
G-G



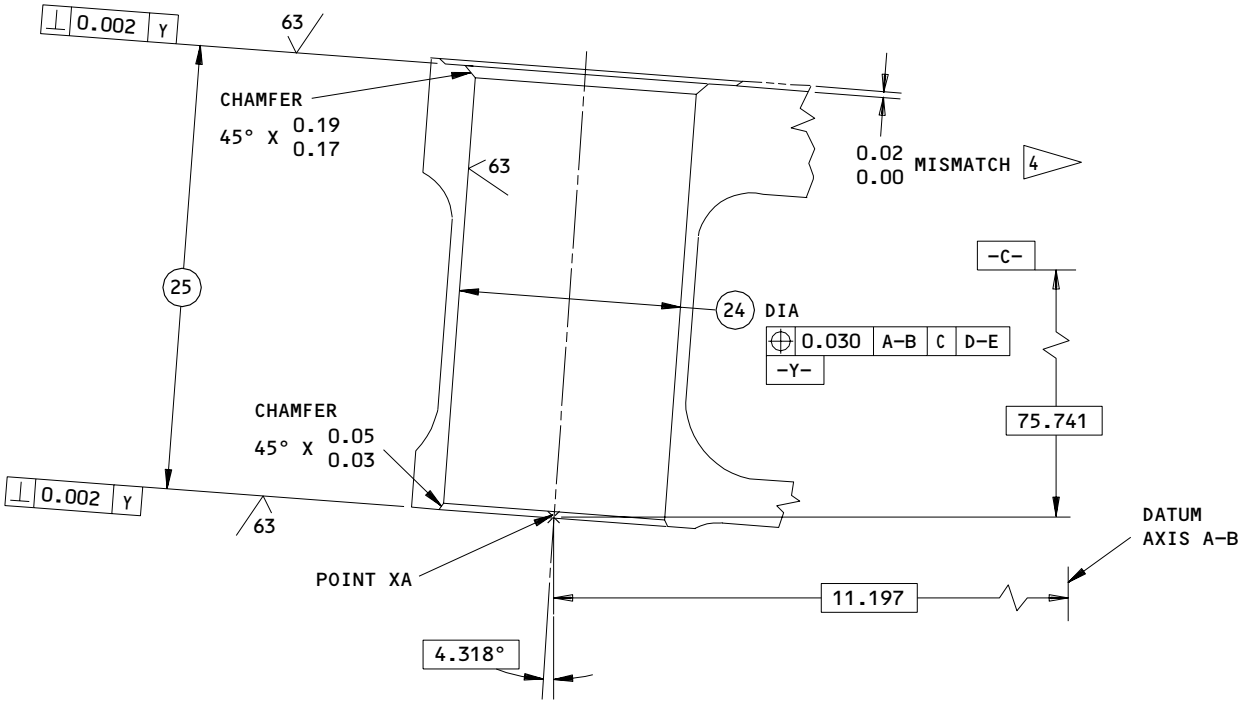
H-H

161T1280-3,-4
Lug Face and Hole Repair
Figure 601A (Sheet 6)

L76595



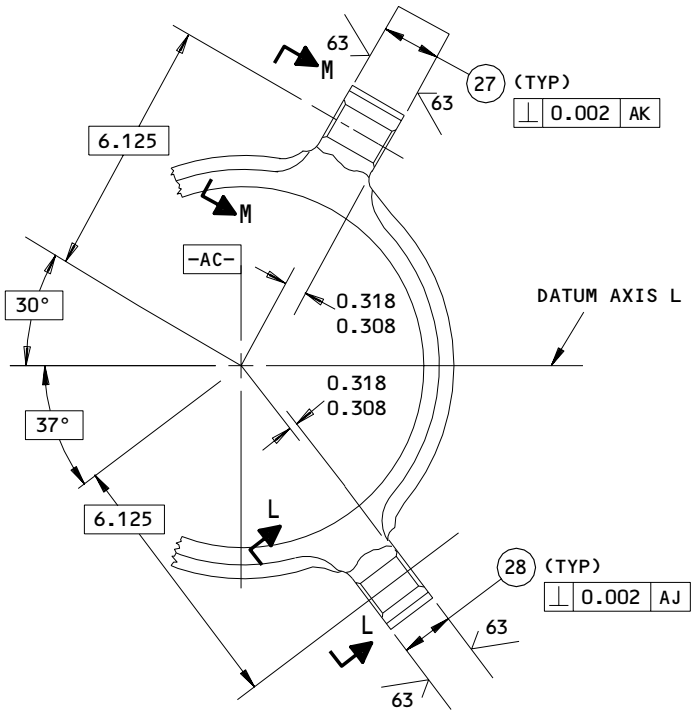
I-I



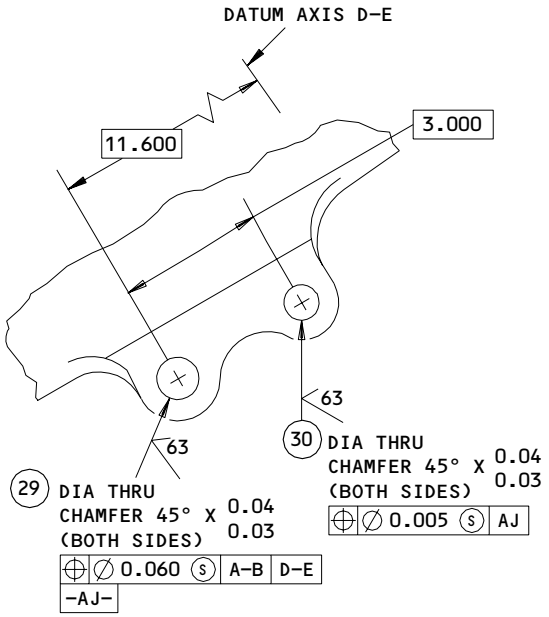
J-J

161T1280-3,-4
Lug Face and Hole Repair
Figure 601A (Sheet 7)

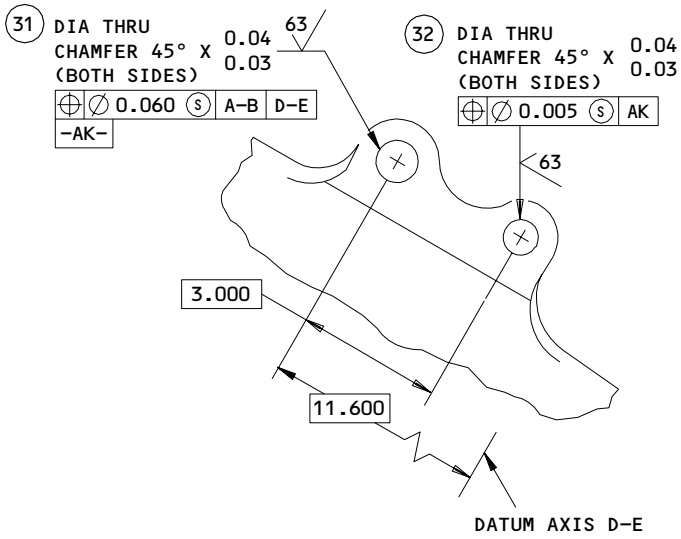
L76599



(ROTATED 90° CW)
K-K



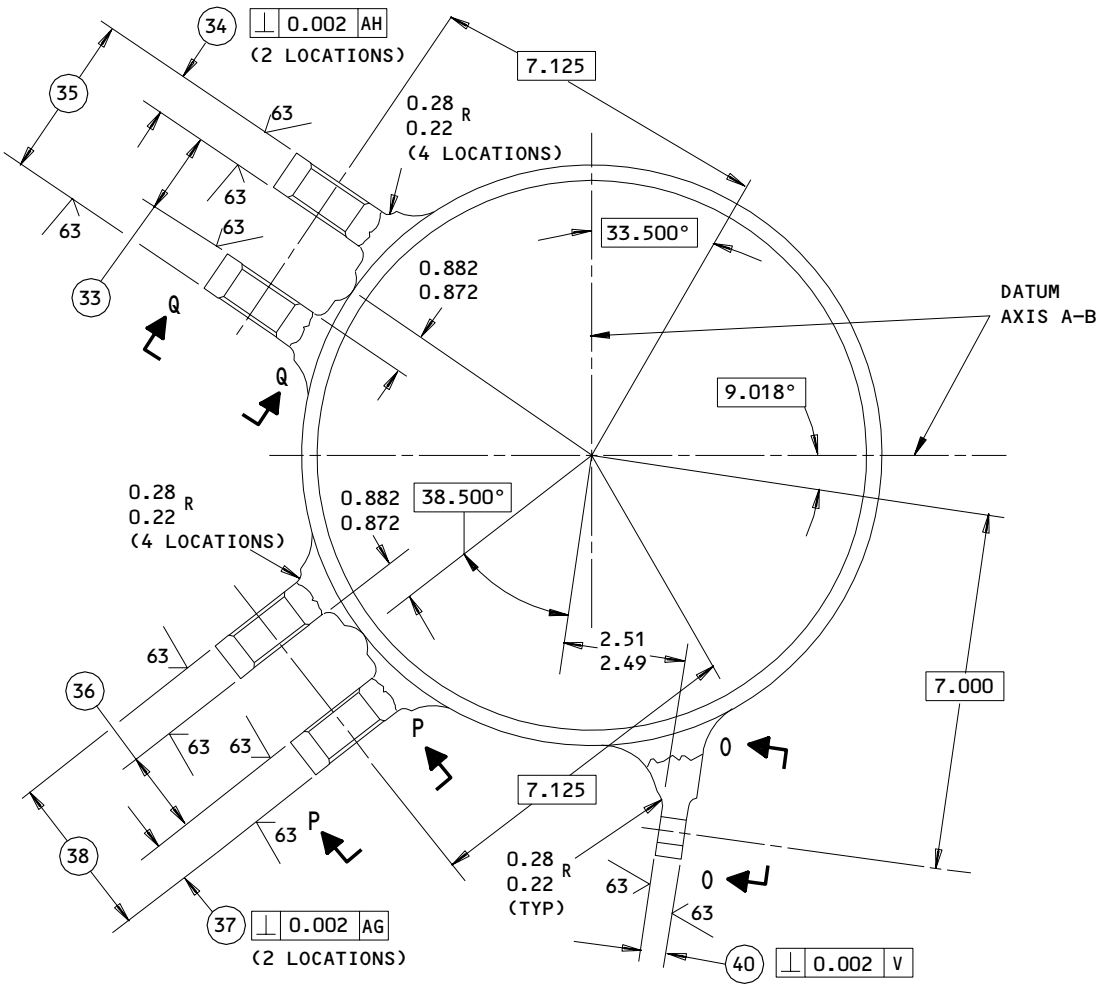
L-L



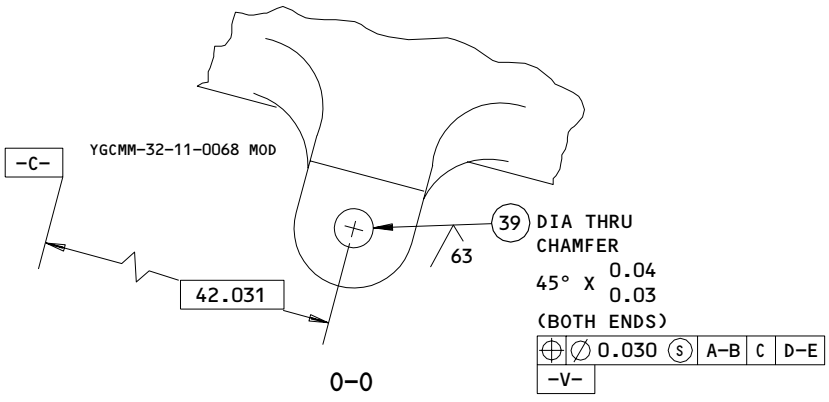
M-M

161T1280-3,-4
Lug Face and Hole Repair
Figure 601A (Sheet 8)

L76604



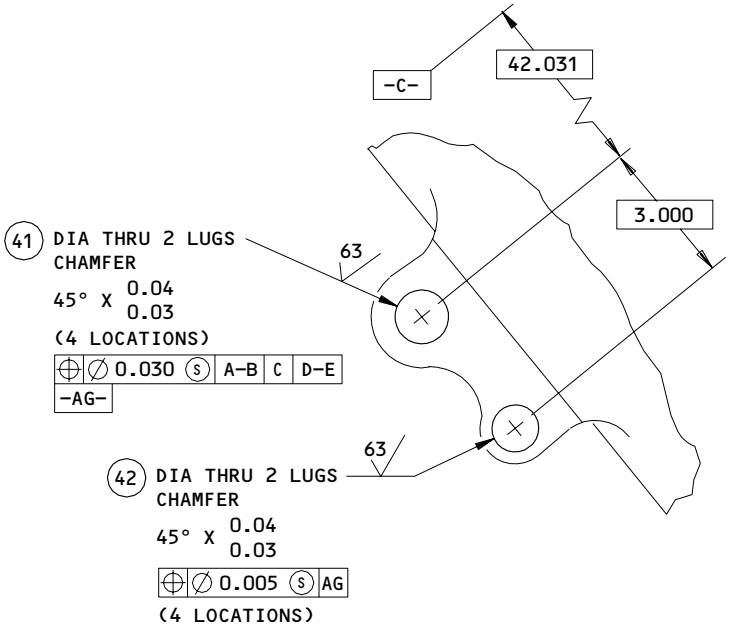
(ROTATED 90° CCW)
N-N



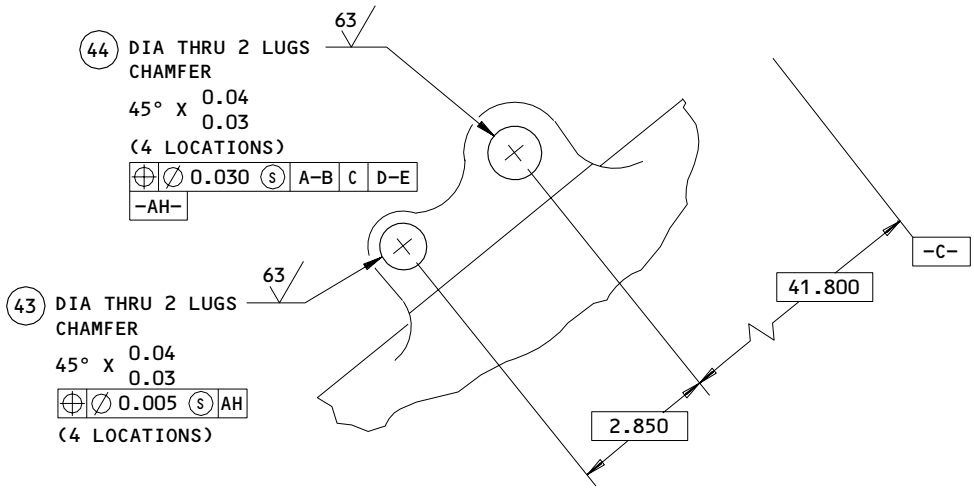
0-0

161T1280-3,-4
Lug Face and Hole Repair
Figure 601A (Sheet 9)

L76609



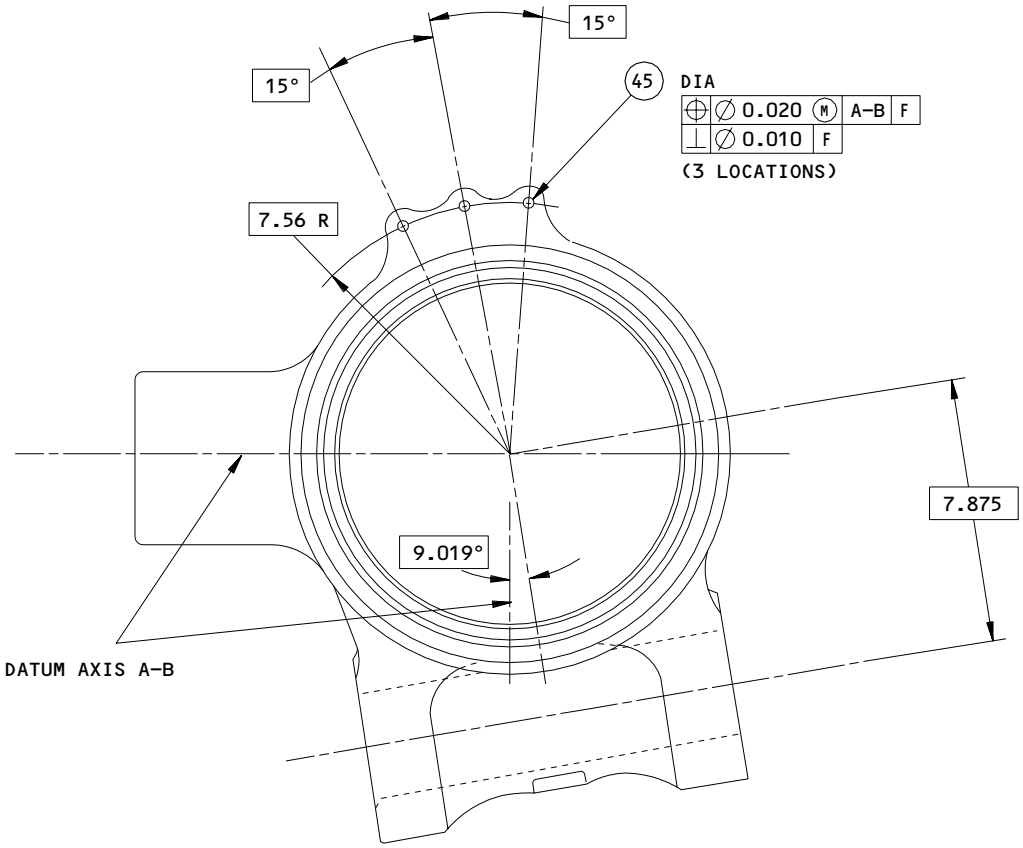
P-P



Q-Q

161T1280-3,-4
Lug Face and Hole Repair
Figure 601A (Sheet 10)

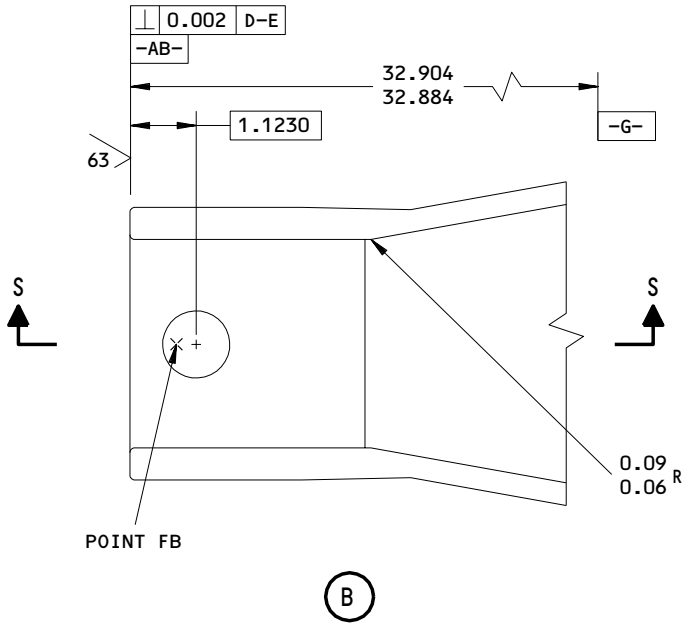
L76613

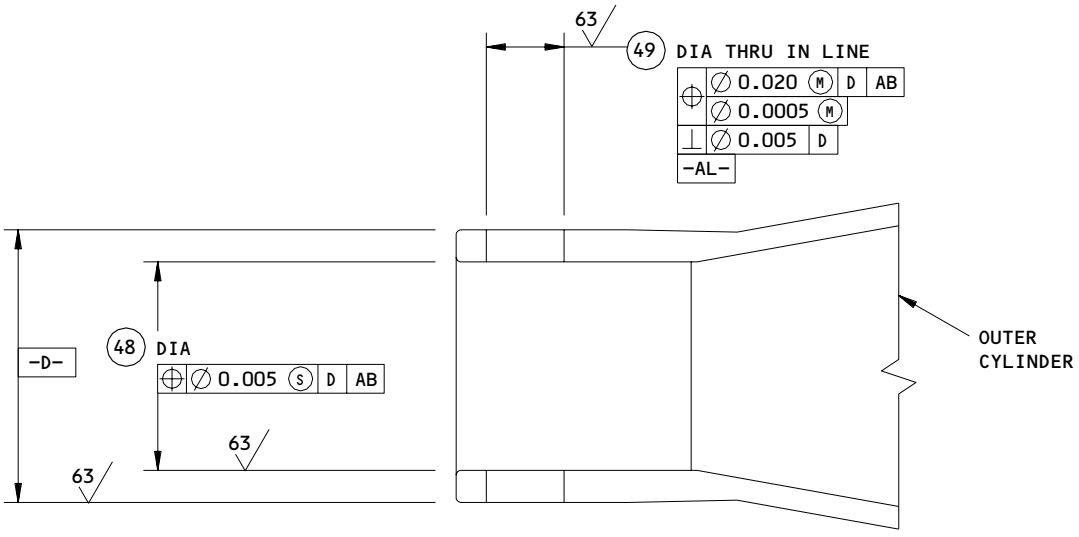


R-R

161T1280-3,-4
Lug Face and Hole Repair
Figure 601A (Sheet 11)

L76615





NOTE: FOR LUG REFINISH SEE REPAIR 1-3 FIGURE 601A

161T1280-3,-4
Lug Face and Hole Repair
Figure 601A (Sheet 12)

L76616

REFERENCE NUMBER	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
DESIGN DIMENSION	3.2415 3.2400	11.0804 11.0754	2.1895 2.1880	0.5015 0.5000	0.5015 0.5000	0.505 0.495	0.505 0.495	2.258 2.233	3.248 3.243
REPAIR LIMIT	3.3015 (1)	11.0454 (2)	2.2495	0.5615	0.5615	0.465 (2)	0.465 (2)	2.288 (2)	3.213 (2)

REFERENCE NUMBER	(10)	(10A)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
DESIGN DIMENSION	5.7415 5.7400	5.895 5.865	1.6615 1.6600	8.385 8.365	2.2865 2.2850	3.0066 3.0016	1.07 1.06	5.1466 5.1216	0.5015 0.5000
REPAIR LIMIT	5.8300 (1)	6.015 (3)	1.8000 (1)	8.285 (1)	2.400 (1)	3.0866 (1) (2)	0.98 (1) (2)	5.0466 (1) (2)	0.5750 (1)

REFERENCE NUMBER	(18)	(19)	(20)	(21)	(22)	(24)	(25)	(27)	(28)
DESIGN DIMENSION	0.505 0.495	0.5015 0.5000	0.505 0.495	4.2015 4.2000	8.109 8.104	3.4515 3.4500	7.134 7.129	1.3784 1.3734	1.3784 1.3734
REPAIR LIMIT	0.462 (2)	0.5750	0.462 (2)	4.300	---	3.5115	---	1.3434 (2)	1.3434 (2)

REFERENCE NUMBER	(29)	(30)	(31)	(32)	(33)	(34)	(35)	(36)	(37)
DESIGN DIMENSION	1.0095 1.0080	0.8845 0.8830	1.0095 1.0080	0.8845 0.8830	1.7566 1.7516	0.760 0.750	3.2766 3.2516	1.7566 1.7516	0.760 0.750
REPAIR LIMIT	1.1500 (1)	0.9600	1.1500	0.9600	1.7816 (2)	0.720 (2)	3.2216 (2)	1.7816 (2)	0.720 (2)

REFERENCE NUMBER	(38)	(39)	(40)	(41)	(42)	(43)	(44)	(45)	(46)
DESIGN DIMENSION	3.2766 3.2516	0.5015 0.5000	0.505 0.495	1.2515 1.2500	1.0015 1.0000	1.0015 1.0000	1.2515 1.2500	0.290 0.270	0.53 0.47
REPAIR LIMIT	3.2216 (1) (2)	0.5750	0.462 (2)	1.3115	1.0615	1.0615	1.3115	0.370	---

161T1280-3,-4
Lug Face and Hole Repair
Figure 601A (Sheet 13)

L76621

REFERENCE NUMBER	(47)	(48)	(49)
DESIGN DIMENSION	5.390 5.350	3.1915 3.2895	1.1885 1.1875
REPAIR LIMIT	5.300 <3>	---	---

REFINISH

(REFER TO REFINISH INSTRUCTIONS, REPAIR 1-3)

<1> LIMIT FOR INSTALLATION OF OVERSIZE BUSHINGS OR REPAIR SLEEVES

<2> LUG FACE MACHINING REQUIREMENTS:
1. MATERIAL REMOVED FROM ANY FACE MUST NOT BE MORE THAN HALF THE DIFFERENCE BETWEEN THE DESIGN DIMENSION AND REPAIR LIMIT
2. FLAT SURFACE MUST BE MINIMUM OF 0.02 LARGER THAN FLANGE DIAMETER OF BUSHING TO BE INSTALLED
3. BLEND MISMATCH STEPS TO 0.18-0.26 RADIUS, OR IF WITHIN 0.10 OF LUG FILLET RADIUS USE SAME RADIUS AS LUG FILLET. BREAK SHARP EDGES 0.03-0.07 R

<3> RESTORATION TO DESIGN DIMENSIONS NOT REQUIRED

REPAIR

REF <1> <2> <3>

125 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

BREAK SHARP EDGES 0.06 R UNLESS SHOWN DIFFERENTLY

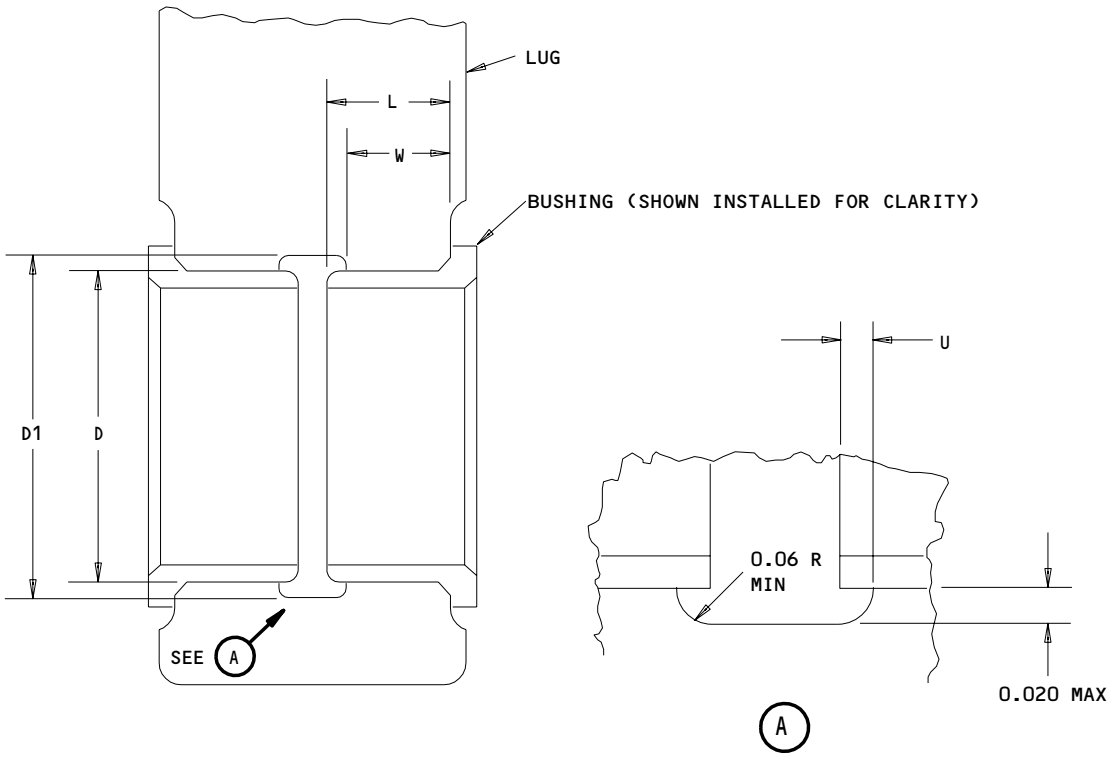
SHOT PEEN: 0.016-0.033 SHOT SIZE
0.014-0.018 A2 INTENSITY

MATERIAL: 4340M STEEL, 275-300 KSI

ALL DIMENSIONS ARE IN INCHES

161T1280-3,-4
Lug Face and Hole Repair
Figure 601A (Sheet 14)

L76625



D = MAX REPAIR DIA OF HOLE (SEE FIG. 601,601A)

D1 = MAX REPAIR DIA OF GROOVE = (D +0.040)

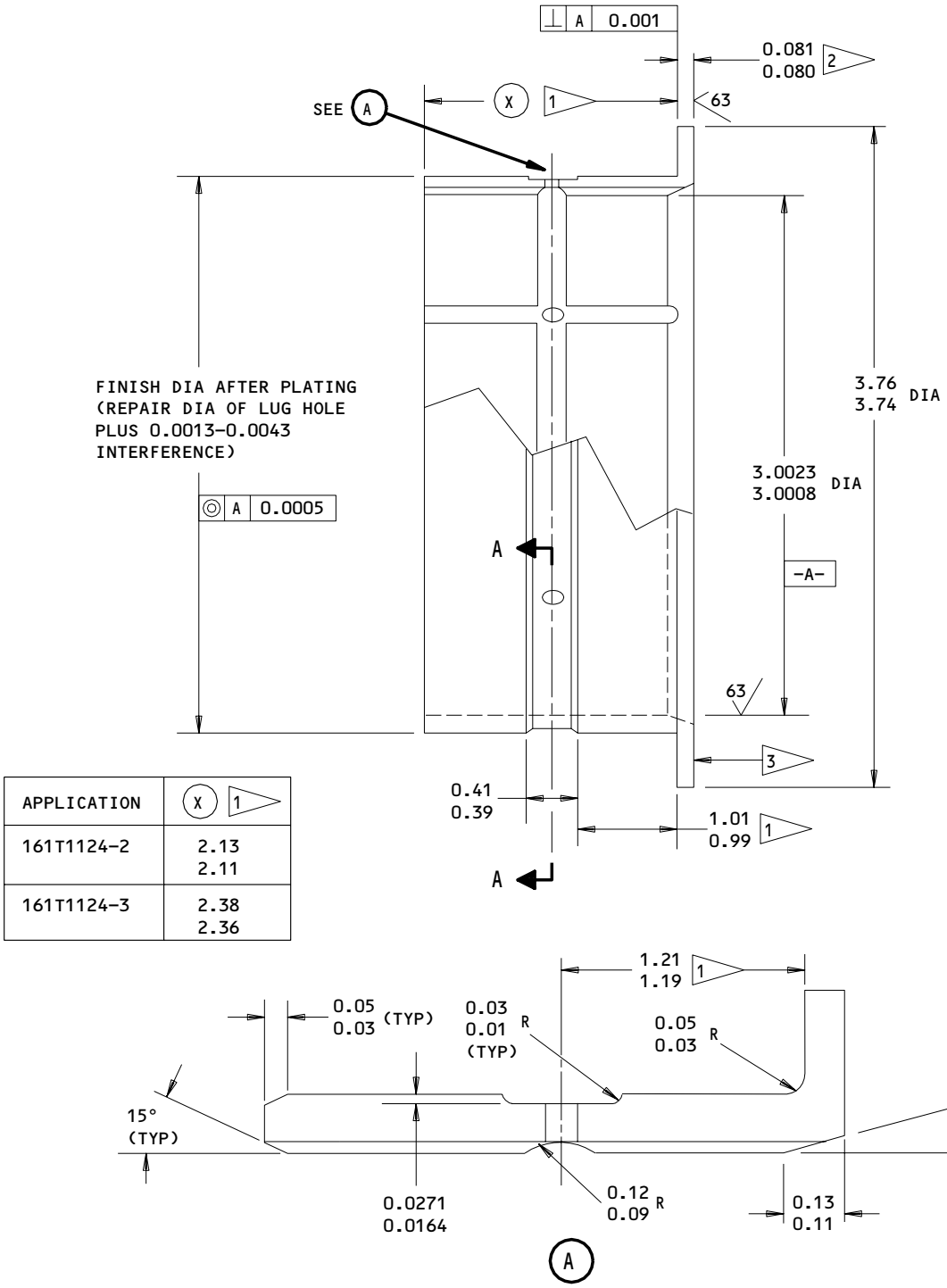
L = LENGTH OF BUSHING (SEE FIG. 603 AND ON)

U = UNDERCUT = (L X 0.1) (0.06 MAX)

W = LUG DIM TO EDGE OF GROOVE = (L–U)

ALL DIMENSIONS ARE IN INCHES

Lug Hole Diameter – Corrosion Removal from Area Between Bushings
Figure 602

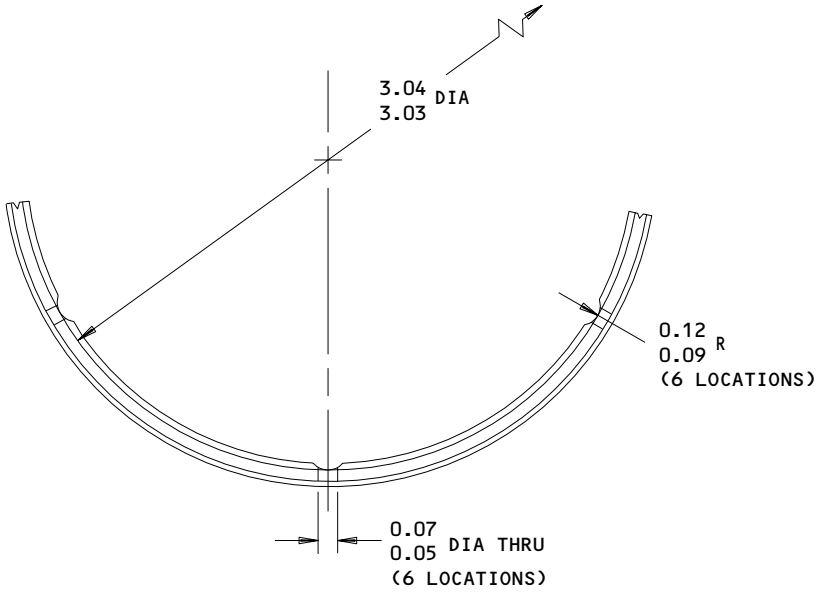


APPLICATION	X 1
161T1124–2	2.13 2.11
161T1124–3	2.38 2.36

HOLE LOCATION (1) FIG. 601,601A – REPLACES BUSHING (380A) 161T1124–2
OR BUSHING (380B) 161T1124–3

Oversize Bushing Details
Figure 603 (Sheet 1)

109715



A-A

125 ALL MACHINED SURFACES EXCEPT AS NOTED

BREAK SHARP EDGES 0.01-0.02 R

CADMIUM PLATE (0.0003-0.0005 THICK, F-15.06)
ALL OVER, EXCEPT ON FLANGE FACE

MATERIAL: AL-NI-BRZ PER AMS 4640 OR 4880

ALL DIMENSIONS APPLY BEFORE PLATING

ALL DIMENSIONS ARE IN INCHES

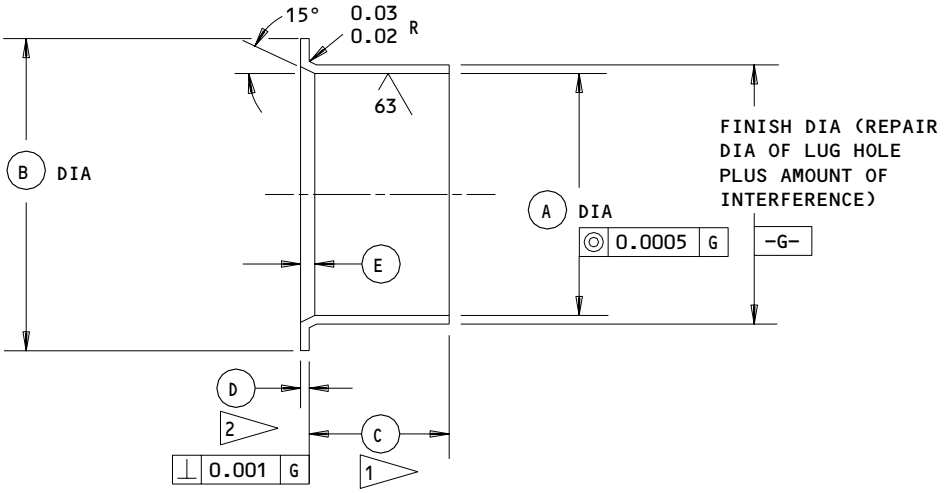
1 MINUS AMOUNT REMOVED FROM LUG FACE

2 PLUS AMOUNT REMOVED FROM LUG FACE

3 DO NOT PLATE

HOLE LOCATION (1) FIG. 601,601A - REPLACES BUSHING (380A) 161T1124-2
OR BUSHING (380B) 161T1124-3

Oversize Bushing Details
Figure 603 (Sheet 2)



HOLE LOCATION (FIG. 601,601A)	REPLACES BUSHING	A	B	C 1	D 2	E	INTERFERENCE
3	(400) 161T1210-57	1.6330 1.6310	2.60 2.57	1.15 1.12	0.101 0.100	0.13 0.12	0.0041 0.0021
4 5 17 19 39	(430) 161T1210-6	0.3874 0.3859	0.78 0.72	0.22 0.21	0.061 0.060	0.09 0.08	0.0034 0.0004
11 3	(405) 161T1210-10	1.5018 1.5003	2.00 1.94	0.92 0.86	0.061 0.060	0.09 0.08	0.0039 0.0009
11 4	(405A) 161T1210-65	1.4850 1.4800	2.00 1.94	0.92 0.86	0.061 0.060	0.09 0.08	0.0039 0.0009
11 4	(405B) 161T1127-2	1.4850 1.4800	1.98 1.96	0.90 0.88	0.080 0.075	0.11 0.10	0.0039 0.0009
11	(405C) 161T1210-69	1.4850 1.4800	2.00 1.94	1.23 1.17	0.061 0.060	0.09 0.08	0.0039 0.0009
13	(390) 161T1210-58	2.1270 2.1255	2.62 2.56	0.52 0.46	0.061 0.060	0.09 0.08	0.0042 0.0012
29 31	(410) 161T1210-23	0.8815 0.8800	1.28 1.22	0.52 0.46	0.061 0.060	0.09 0.08	0.0036 0.0006
30 32	(415) 161T1210-24	0.7625 0.7550	1.15 1.09	0.52 0.46	0.061 0.060	0.09 0.08	0.0036 0.0006
41 44	(420,420A) 161T1210-25,-63	1.1236 1.1226	1.53 1.47	0.35 0.34	0.061 0.060	0.09 0.08	0.0037 0.0007
42 43	(425,425A) 161T1210-26,-64	0.8785 0.8775	1.28 1.22	0.35 0.34	0.061 0.060	0.09 0.08	0.0036 0.0006

Oversize Bushing Details
Figure 604 (Sheet 1)

1 MINUS AMOUNT REMOVED FROM LUG FACE
2 PLUS AMOUNT REMOVED FROM LUG FACE
3 PRE SB 32A0148
4 POST SB 32A0148

125 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

BREAK SHARP EDGES 0.01-0.02 R

CADMIUM PLATE (0.0003-0.0005 THICK, F-15.06) ALL OVER EXCEPT ON ID AND FLANGE FACE

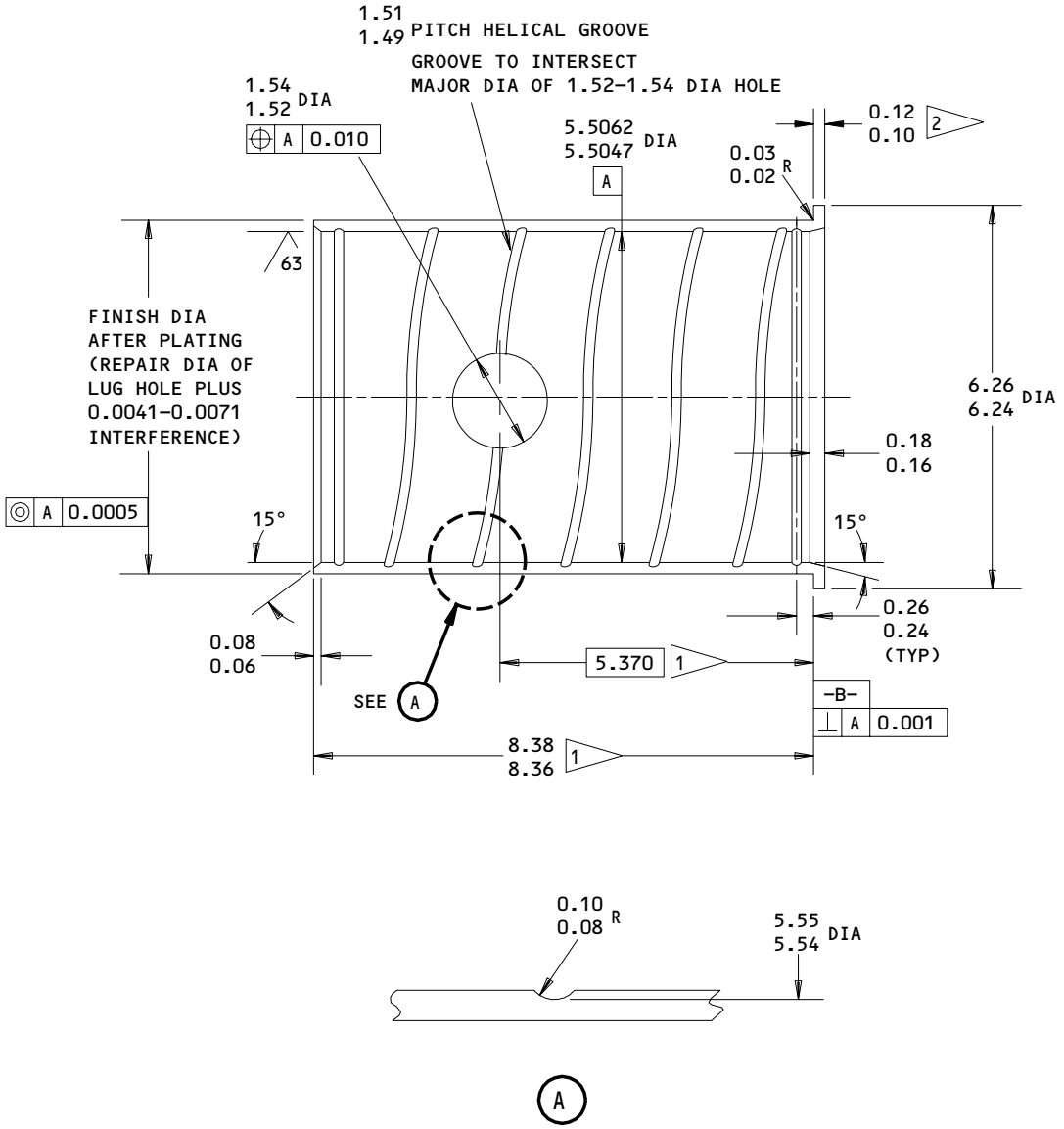
MATERIAL: AL-NI-BRZ PER AMS 4640 OR 4880

ALL DIMENSIONS APPLY BEFORE PLATING

ALL DIMENSIONS ARE IN INCHES

Oversize Bushing Details
Figure 604 (Sheet 2)

KD1791



1 MINUS AMOUNT REMOVED FROM AFT TRUNNION END FACE

2 PLUS AMOUNT REMOVED FROM AFT TRUNNION END FACE

125 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

BREAK SHARP EDGES 0.01–0.02 R

CADMIUM PLATE (0.0003–0.0005 THICK, F–15.06) ALL OVER, EXCEPT AS NOTED

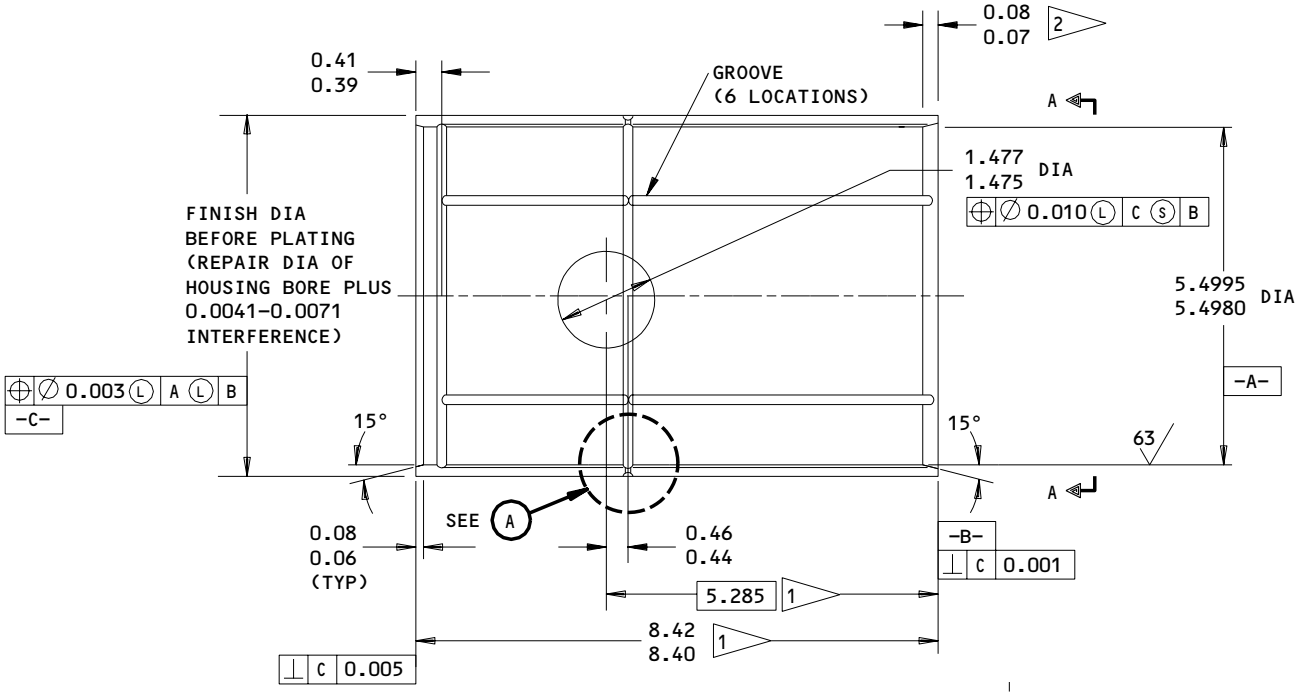
MATERIAL: AL–NI–BRZ PER AMS 4640 OR 4880

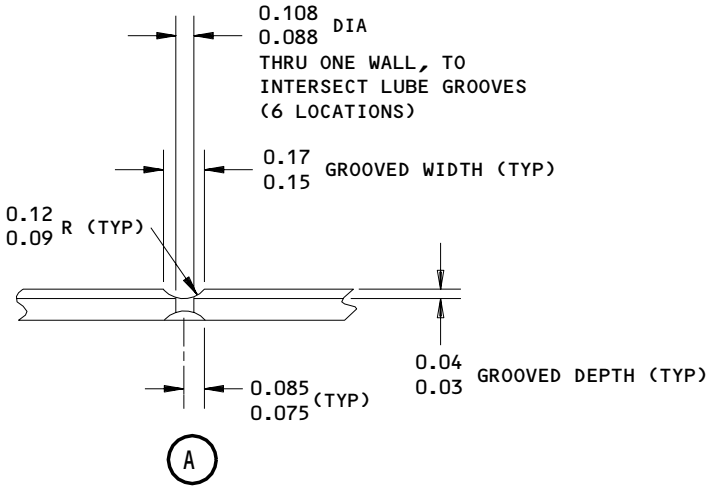
ALL DIMENSIONS APPLY BEFORE PLATING

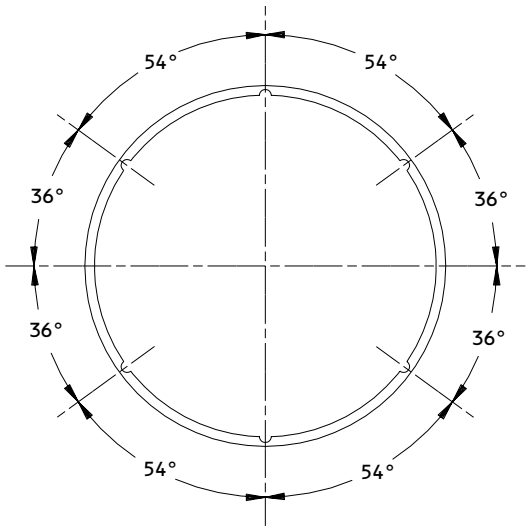
ALL DIMENSIONS ARE IN INCHES

HOLE LOCATION (10) FIG. 601 – REPLACES BUSHING (395,395A) 161T1126–1,–2 (PRE SB 32A0148)

Oversize Bushing Details
Figure 605







A–A

1 MINUS AMOUNT REMOVED FROM AFT TRUNNION END FACE

2 PLUS AMOUNT REMOVED FROM AFT TRUNNION END FACE

125 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

BREAK SHARP EDGES 0.01–0.02 R

MATERIAL: AL–NI–BRZ PER AMS 4640 OR 4880

CADMIUM PLATE (0.0003–0.0005 THICK, F–15.06) ALL OVER, EXCEPT AS NOTED

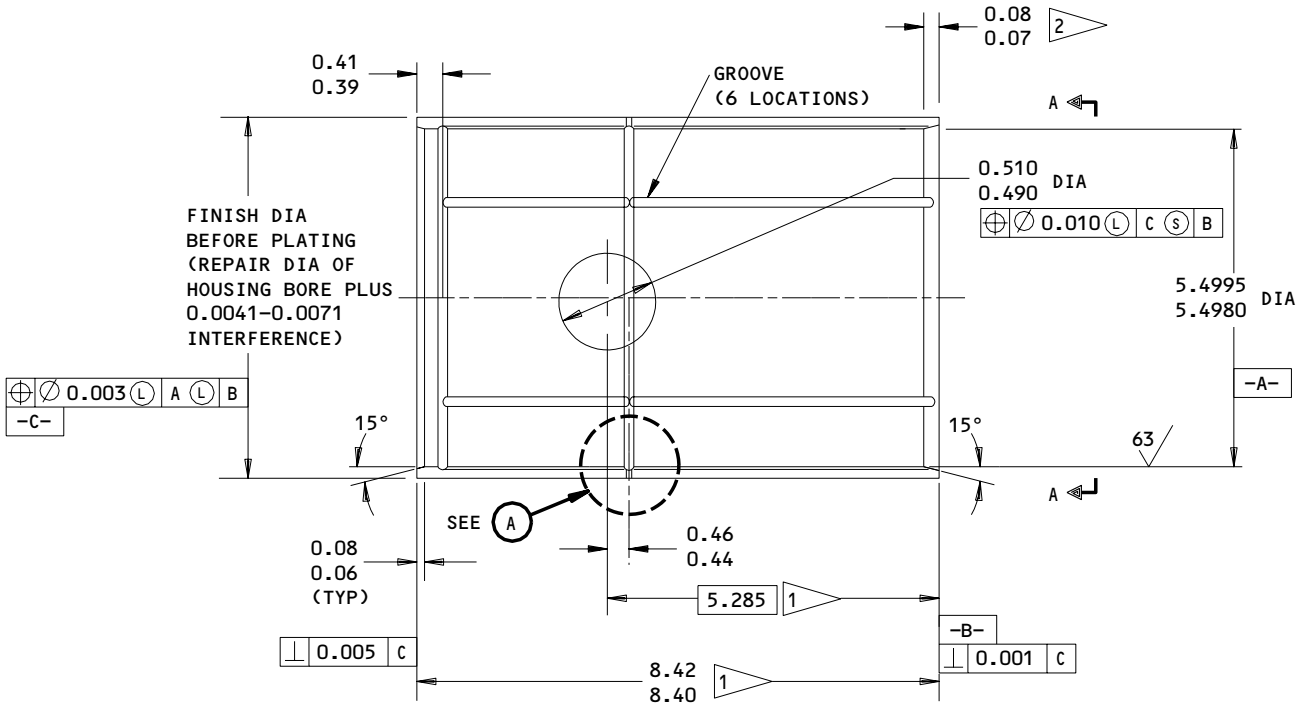
ALL DIMENSIONS APPLY BEFORE PLATING

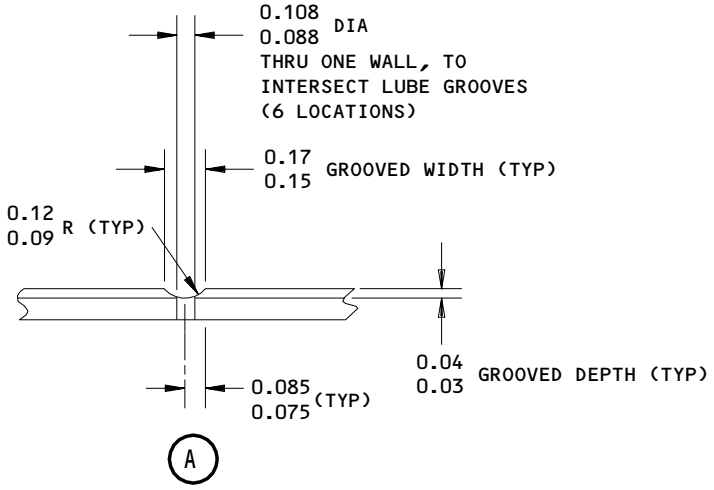
ALL DIMENSIONS ARE IN INCHES

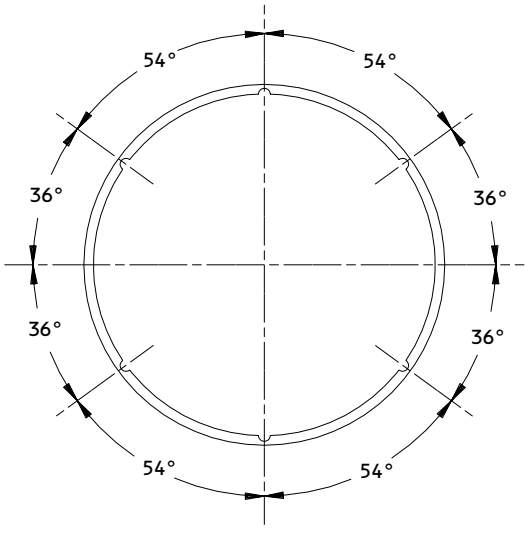
HOLE LOCATION (10) FIG. 601,601A – REPLACES BUSHING (395B) 161T1126–3 (POST SB 32A0148)

Oversize Bushing Details
Figure 605A

F30485







A–A

1 MINUS AMOUNT REMOVED FROM AFT TRUNNION END FACE

2 PLUS AMOUNT REMOVED FROM AFT TRUNNION END FACE

125 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

BREAK SHARP EDGES 0.01–0.02 R

CADMIUM PLATE (0.0003–0.0005 THICK, F–15.06) ALL OVER, EXCEPT AS NOTED

MATERIAL: AL–NI–BRZ PER AMS 4640 OR 4880

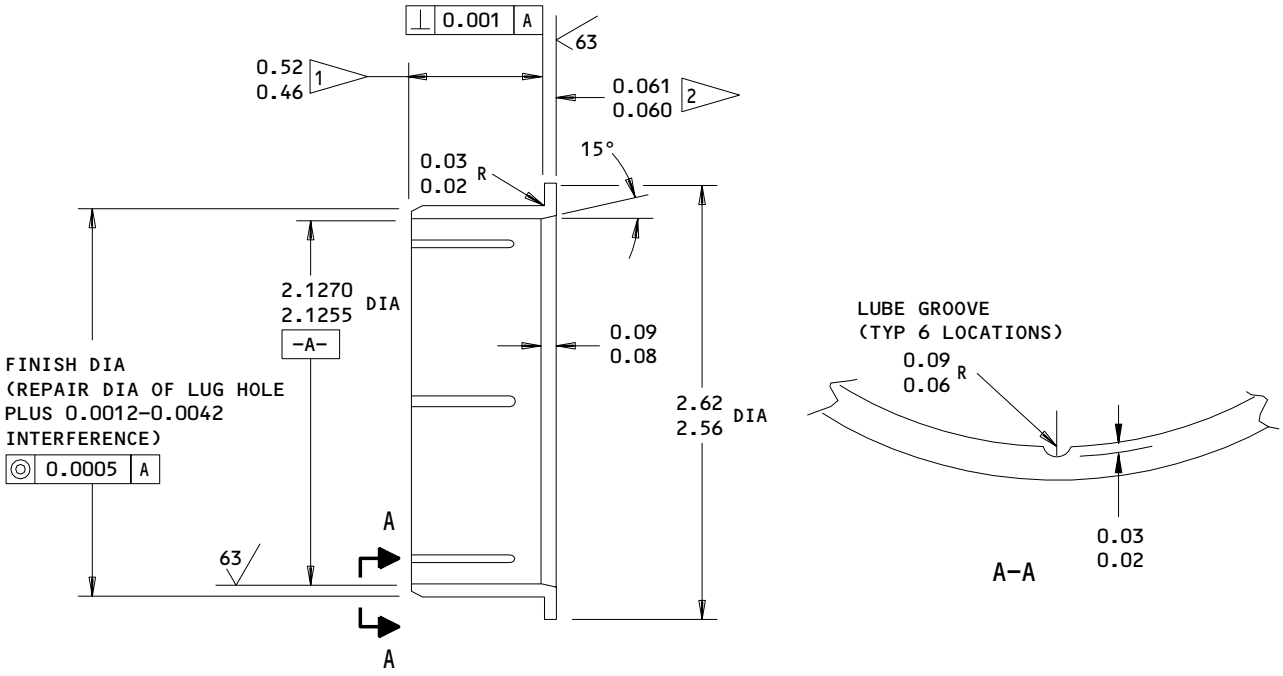
ALL DIMENSIONS APPLY BEFORE PLATING

ALL DIMENSIONS ARE IN INCHES

HOLE LOCATION (10) FIG. 601 – REPLACES BUSHING (395C) 161T1127–1 (POST SB 32A0148)

Oversize Bushing Details
Figure 605B

F79766



1 MINUS AMOUNT REMOVED FROM LUG FACE

2 PLUS AMOUNT REMOVED FROM LUG FACE

125 MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

BREAK SHARP EDGES 0.01-0.02 R

CADMIUM PLATE (0.0003-0.0005 THICK, F-15.06) ALL OVER, EXCEPT ON FLANGE FACE

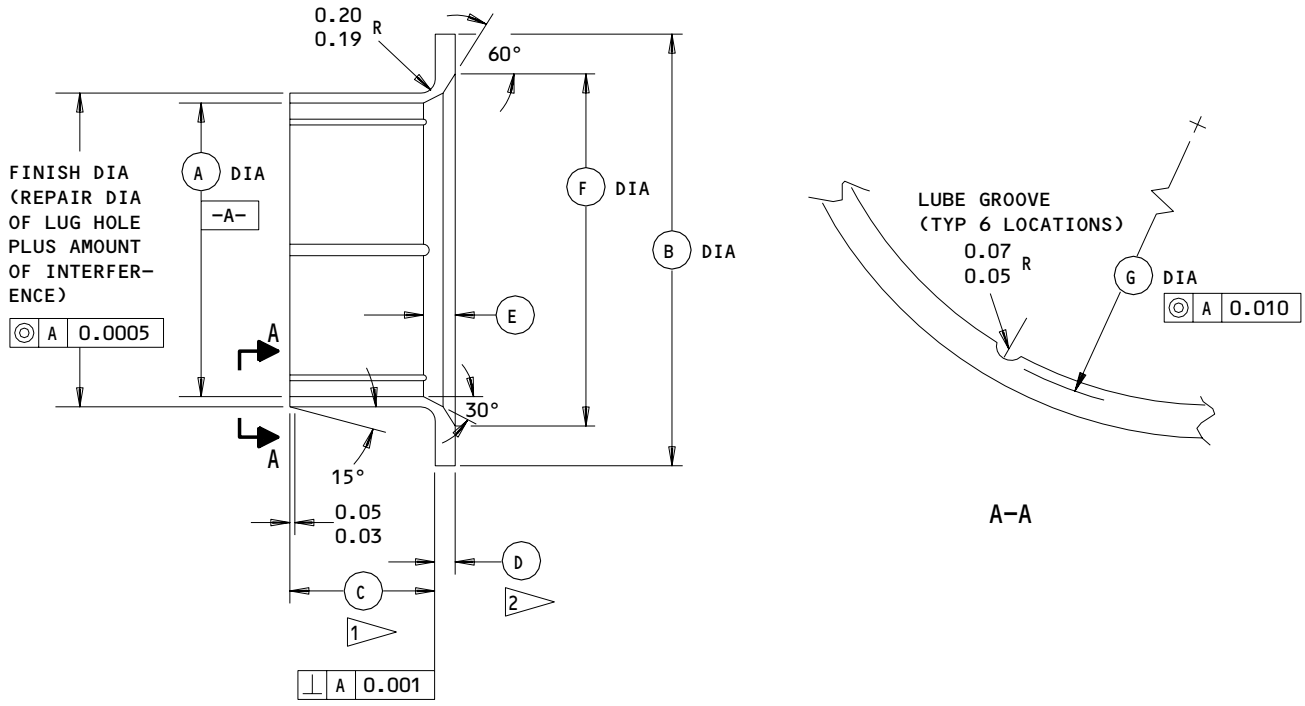
MATERIAL: AL-NI-BRZ PER AMS 4640 OR 4880

ALL DIMENSIONS APPLY BEFORE PLATING

ALL DIMENSIONS ARE IN INCHES

HOLE LOCATION (13) FIG. 601,601A - REPLACES BUSHING (390A) 161T1210-68

Oversize Bushing Details
Figure 605C



HOLE LOCATION (FIG. 601,601A)	REPLACES BUSHING	A	B	C	D	E	F	G	INTERFERENCE
21 (DEEP)	(360,360A) 161T1117-1,-2	4.0026 4.0011	5.89 5.87	2.76 2.74	0.249 0.248	0.41 0.39	4.80 4.78	4.05 4.03	0.0065 0.0050
24 (DEEP)	(370,370A) 161T1122-1,-2	3.2524 3.2509	4.86 4.84	2.01 1.99	0.249 0.248	0.41 0.39	4.06 4.04	3.30 3.28	0.0057 0.0042

1 MINUS AMOUNT REMOVED FROM LUG FACE

2 PLUS AMOUNT REMOVED FROM LUG FACE

125 MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

BREAK SHARP EDGES 0.01-0.02 R

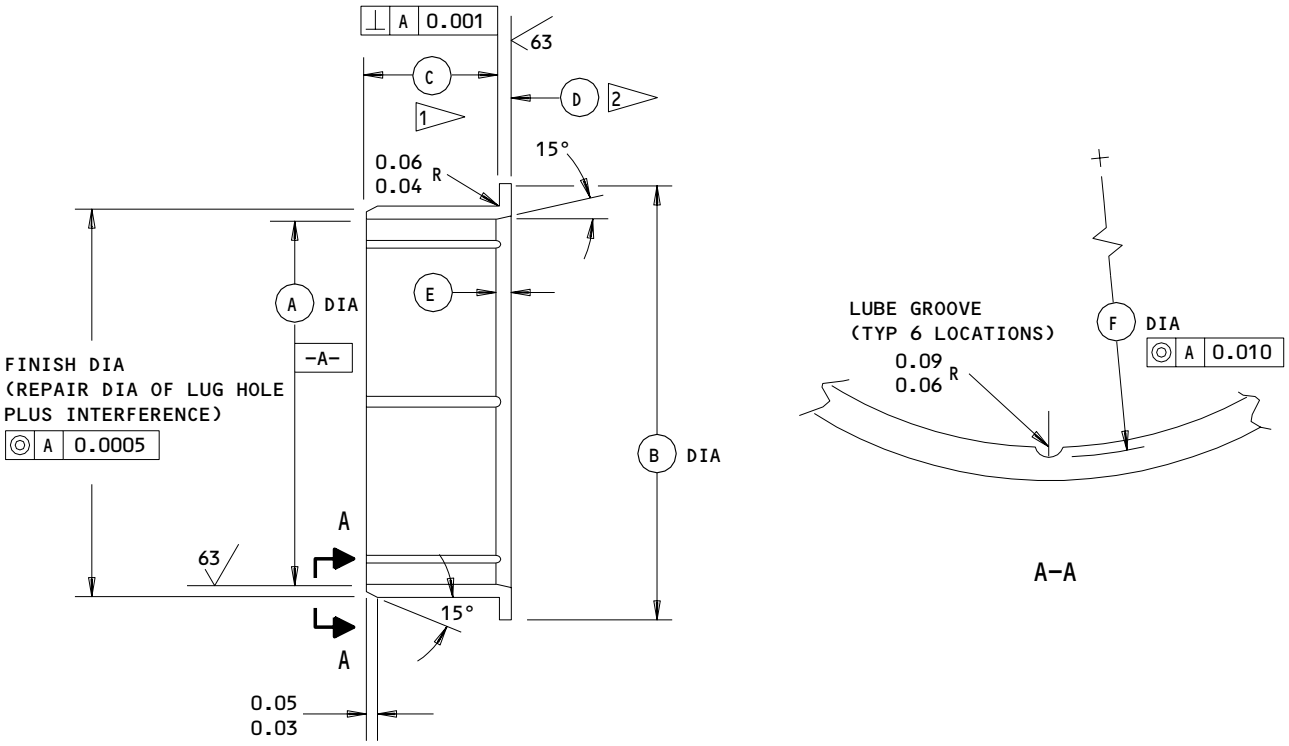
CADMIUM PLATE (0.0003-0.0005 THICK, F-15.06) ALL OVER, EXCEPT ON FLANGE FACE

MATERIAL: AL-NI-BRZ PER AMS 4640 OR 4880

ALL DIMENSIONS APPLY BEFORE PLATING

ALL DIMENSIONS ARE IN INCHES

Oversize Bushing Details
Figure 606



HOLE LOCATION (FIG. 601,601A)	REPLACES BUSHING	A	B	C	D	E	F	INTERFERENCE
21 (SHALLOW)	(365,365A) 161T1118-1,-2	3.8776 3.8761	5.13 5.11	1.26 1.24	0.123 0.122	0.19 0.17	3.93 3.91	0.0065 0.0050
24 (SHALLOW)	(375,375A) 161T1123-1,-2	3.1904 3.1889	3.89 3.87	1.14 1.12	0.123 0.122	0.15 0.13	3.24 3.22	0.0057 0.0042

1 MINUS AMOUNT REMOVED FROM LUG FACE
2 PLUS AMOUNT REMOVED FROM LUG FACE

125 MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

BREAK SHARP EDGES 0.01-0.02 R

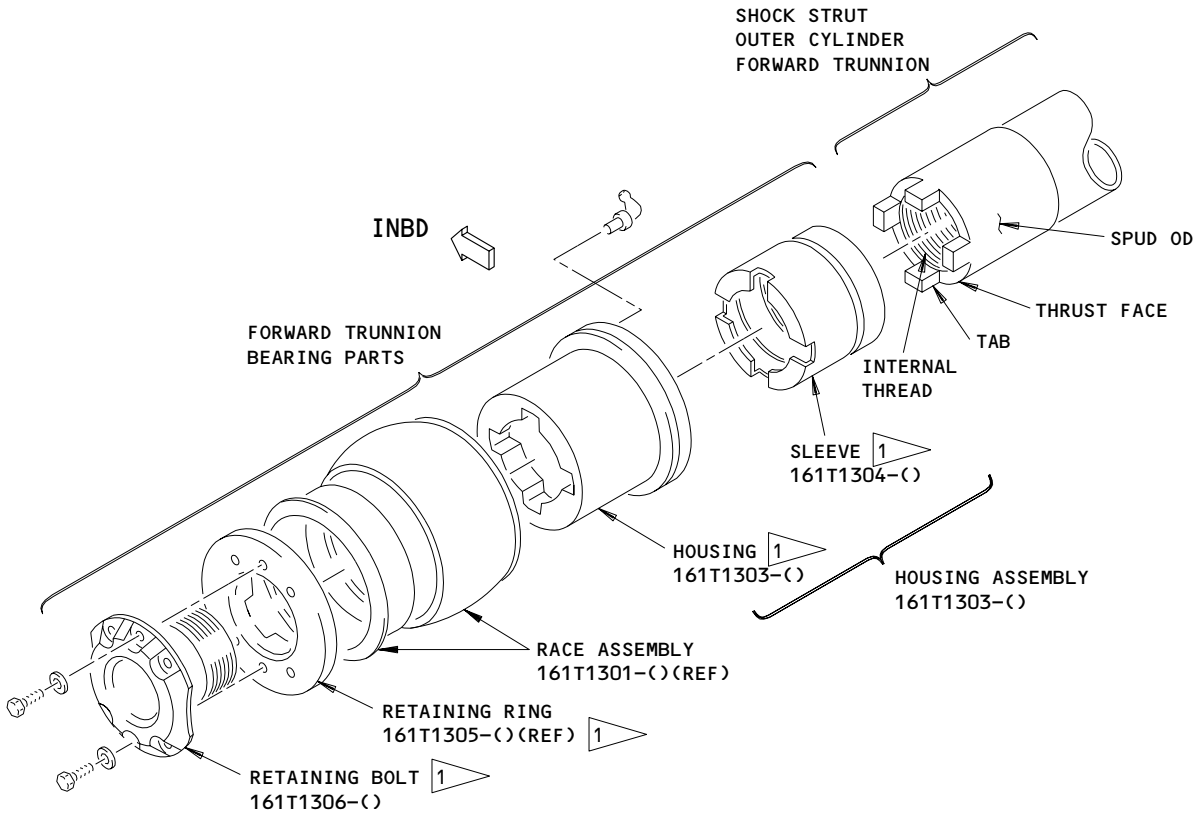
CADMIUM PLATE (0.0003-0.0005 THICK, F-15.06) ALL OVER, EXCEPT ON FLANGE FACE

MATERIAL: AL-NI-BRZ PER AMS 4640 OR 4880

ALL DIMENSIONS APPLY BEFORE PLATING

ALL DIMENSIONS ARE IN INCHES

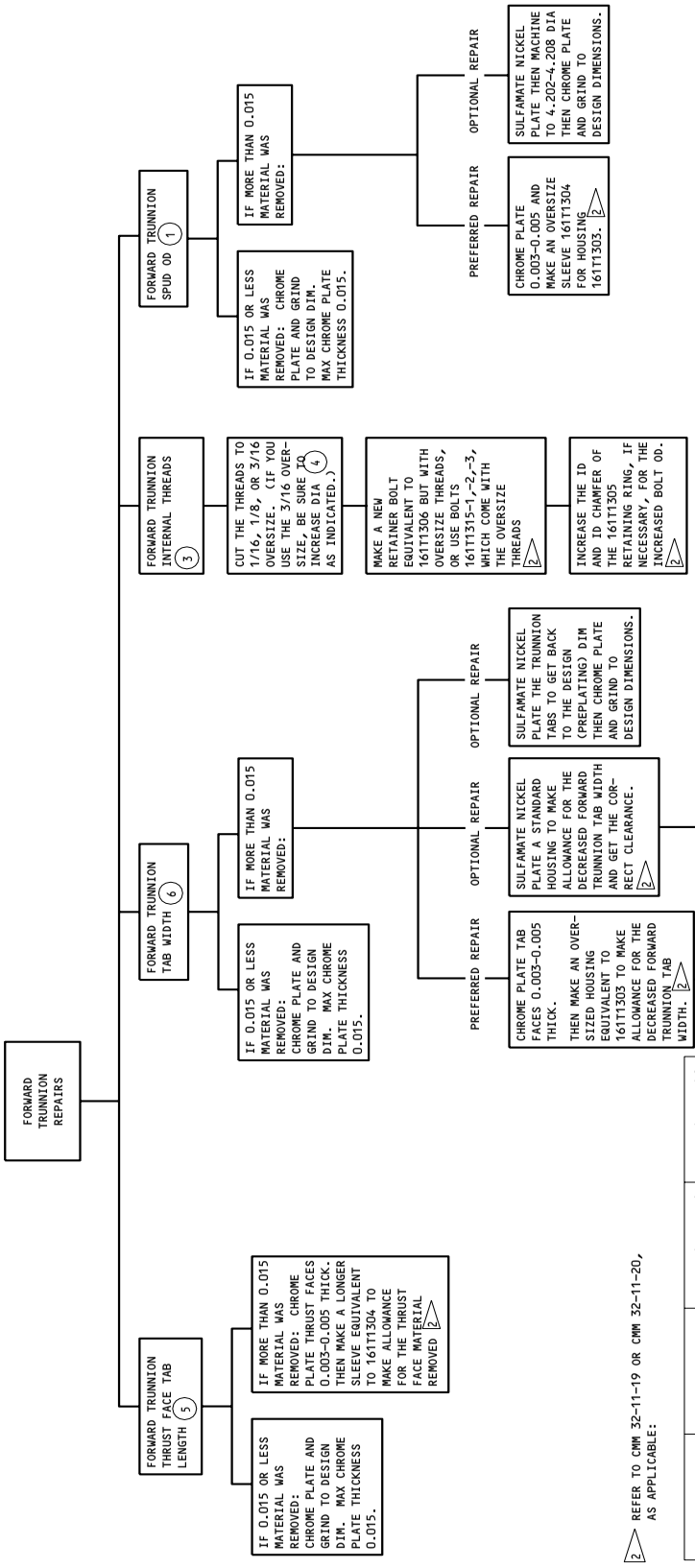
Oversize Bushing Details
Figure 607



1 IF YOU REPAIR THE FORWARD TRUNNION, YOU MUST ALSO REPAIR THESE COMPONENTS. SEE SHEET 2 FOR DETAILS.

161T1110-3,-4,-7,-8,-19,-20,-23,-24,-27,-28,-31,-32,-35,-36,-40,-57,-58,
-71,-72,-75,-76
Outer Cylinder Forward Trunnion Repair
Figure 608 (Sheet 1)

A50885



2 REFER TO CMM 32-11-19 OR CMM 32-11-20, AS APPLICABLE:

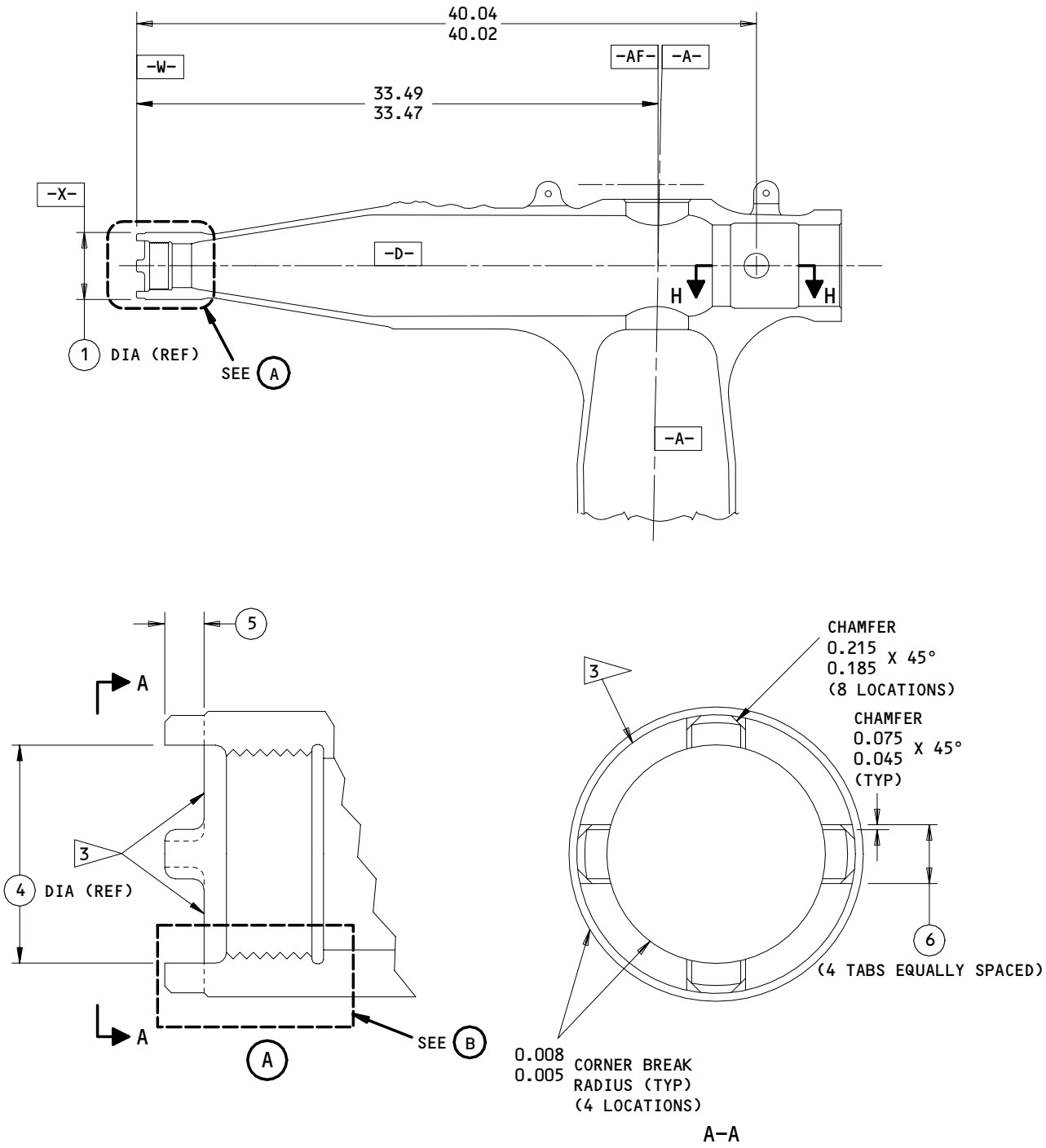
PART NO.	NAME	CMM 32-11-19	CMM 32-11-20
161T1303	HOUSING	REPAIR 8-2, FIG. 601	REPAIR 8-2, FIG. 601
161T1304	SLEEVE	REPAIR 8-1, FIG. 602 OR 603	REPAIR 8-1, FIG. 602 OR 603
161T1305	RETAINING RING	REPAIR 21-1, FIG. 601	REPAIR 22-1, FIG. 601
161T1306 OR 161T1315	RETAINER BOLT	REPAIR 9-1, FIG. 601	REPAIR 9-1, FIG. 601

TABLE 1

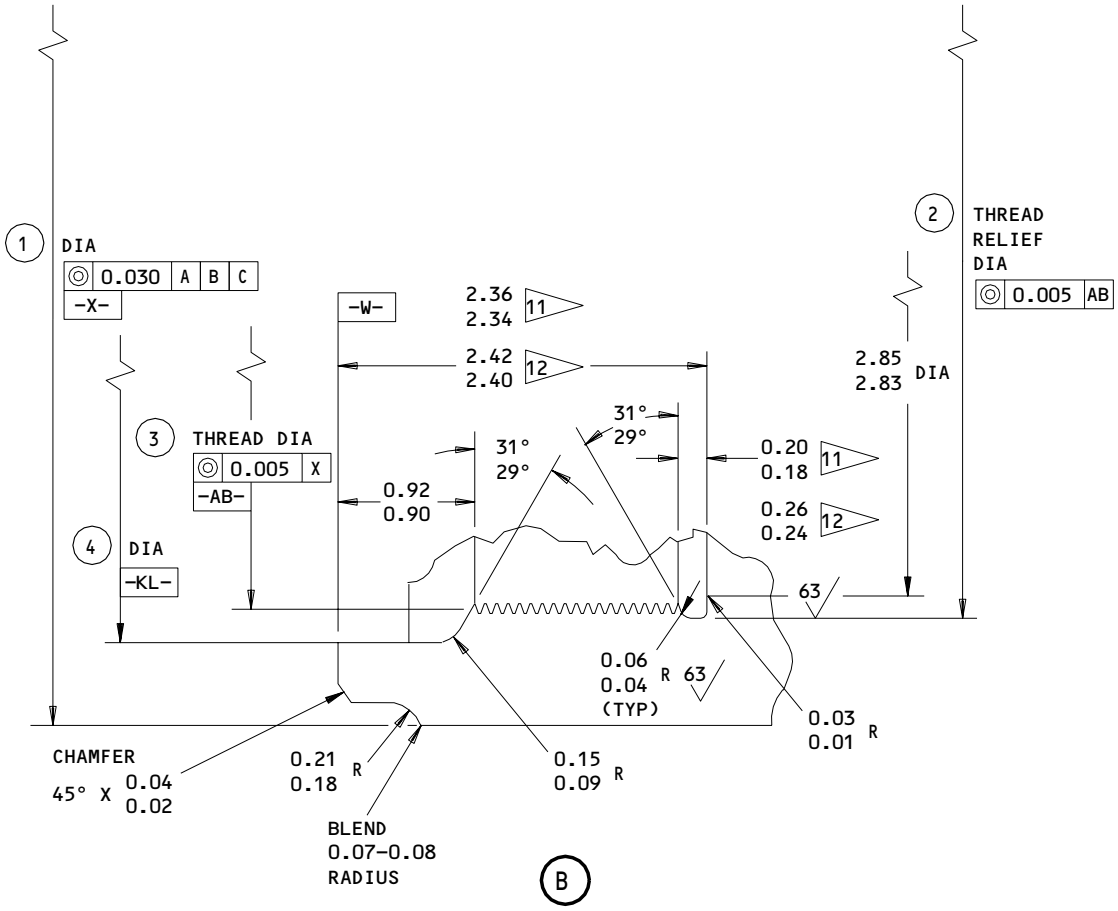
ALL DIMENSIONS ARE IN INCHES

161T1110-3,-4,-7,-8,-19,-20,-23,-24,-27,-28,-31,-32,-35,-36,-40,-57,-58,-71,-72,-75,-76
Outer Cylinder Forward Trunnion Repair
Figure 608 (Sheet 2)

A43519



161T1110-3,-4,-7,-8,-19,-20,-23,-24,-27,-28,-31,-32,-35,-36,-40,-57,-58,
-71,-72,-75,-76
Outer Cylinder Forward Trunnion Repair
Figure 608 (Sheet 3)



REFERENCE NUMBER	1	2	3	4	5	6
DESIGN DIMENSION	4.232 4.230 5	3.03 3.02	3.00-16UNJ-3B THREADS 11 3.00-12UNJ-3B THREADS 12	3.19 3.17	0.56 0.54	0.744 0.736
REPAIR LIMIT	4.187 4 10	SEE TABLE 3	SEE TABLE 3 7	SEE TABLE 3 13 14	0.65 9 10	0.625 8 10

TABLE 2

ALL DIMENSIONS ARE IN INCHES

161T1110-3,-4,-7,-8,-19,-20,-23,-24,-27,-28,-31,-32,-35,-36,-40,-57,-58,
-71,-72,-75,-76
Outer Cylinder Forward Trunnion Repair
Figure 608 (Sheet 4)

THREAD SIZE	3.0000-16 UNJ-3B (DESIGN) (REF) 11	3.0000-12 UNJ-3B (DESIGN) (REF) 12	3.0625-12 UNJS-3B (1/16 OVERSIZE)	3.1250-12 UNJ-3B (1/8 OVERSIZE)	3.1875-12 UNJS-3B (3/16 OVERSIZE)
MAJOR DIA	3.0017 2.9910	3.0000 MIN	3.0625 MIN	3.1250 MIN	3.1875 MIN
PITCH DIA	2.9660 2.9594	2.9521 2.9459	3.0146 3.0084	3.0771 3.0709	3.1409 3.1334
MINOR DIA	2.9476 2.9391	2.9289 2.9189	2.9914 2.9814	3.0539 3.0459	3.1164 3.1064
ROOT RADIUS	0.0113 0.0094	0.0150 0.0070	0.0150 0.0070	0.0150 0.0070	0.0150 0.0070
THREAD RELIEF DIA (2)	3.030 3.020	3.030 3.020	3.0955 3.0855	3.155 3.145	3.220 3.210
THREAD RELIEF DIA (2) REPAIR LIMIT	--	--	--	--	--
ENTRANCE DIA -KL- (4)	3.190 3.170	3.190 3.170	3.190 3.170	3.190 3.170	3.380 14 3.360

TABLE 3

ALL DIMENSIONS ARE IN INCHES

161T1110-3,-4,-7,-8,-19,-20,-23,-24,-27,-28,-31,-32,-35,-36,-40,-57,-58,
-71,-72,-75,-76
Outer Cylinder Forward Trunnion Repair
Figure 608 (Sheet 5)

E12035

REFINISH

CHROME PLATE (F-15.34) DIA -X- IF WITHIN DESIGN DIMENSIONS.

WIPE CHROME PLATE WITH PRIMER AS SHOWN IN CMM 32-00-02.

STYLUS CADMIUM PLATE REMAINING AREAS ON THE TRUNNION EXPOSED BY MACHINING (SOPM 20-42-10)

1 IF YOU REPAIR THE FORWARD TRUNNION, YOU MUST ALSO REPAIR THESE COMPONENTS. SEE SHEET 2 FOR DETAILS

2 REFER TO CMM 32-11-19 OR CMM 32-11-20, AS APPLICABLE (SEE TABLE 1)

3 THE SURFACE FINISH ON EACH FACE MUST BE 63 OR SMOOTHER AFTER PLATING

4 IF MORE THAN 0.015 MATERIAL WAS REMOVED:

- PREFERRED REPAIR - CHROME PLATE THE SURFACES 0.003-0.005 MAX. OVERSIZED. THEN MAKE AN OVERSIZE SLEEVE EQUIVALENT TO 161T1304 2
- OPTIONAL REPAIR - SULFAMATE NICKEL PLATE AND MACHINE TO 4.202-4.208 DIAMETER, THEN CHROME PLATE AND GRIND TO DESIGN DIMENSIONS

5 AFTER PLATING

6 DELETED

7 MAKE RETAINER BOLT EQUIVALENT TO 161T1306 WITH OVERSIZED THREADS TO AGREE. NOTE THAT ALL OVERSIZE THREADS ARE 12 THREADS PER INCH 2

8 IF MORE THAN 0.015 MATERIAL WAS REMOVED:

- PREFERRED REPAIR - CHROME PLATE TAB FACES 0.003-0.005 THICK WITH 0.06 MAX PLATE RUNOUT. DO NOT PLATE IN RADII. THEN MAKE A HOUSING EQUIVALENT TO 161T1303 BUT WITH DECREASED SLOTS TO MAKE ALLOWANCE FOR THE DECREASED TRUNNION TAB WIDTHS. RECOMMENDED CLEARANCE BETWEEN TAB AND SLOT IS 0.005-0.024 2
- OPTIONAL REPAIR - SULFAMATE NICKEL PLATE THE TRUNNION TABS TO PRE-PLATING DESIGN DIMENSION, THEN CHROME PLATE FACES 0.003-0.005 THICK WITH 0.06 MAX PLATE RUNOUT AND GRIND. DO NOT PLATE IN RADII
- OPTIONAL REPAIR - SULFAMATE NICKEL PLATE BUILD-UP THE HOUSING TO GO WITH THE UNDERSIZE TRUNNION TABS 2

REPAIR

REF 1 THRU 10 13 14

125 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

BREAK SHARP EDGES 0.005-0.010 R

SHOT PEEN: 0.016-0.033 SHOT SIZE
0.014-0.016 A2 INTENSITY

MATERIAL: 4340M STEEL, 275-300 KSI

ALL DIMENSIONS ARE IN INCHES

9 IF MORE THAN 0.015 MATERIAL WAS REMOVED, CHROME PLATE THRUST FACES 0.003-0.005 THICK WITH 0.06 MAX PLATE RUNOUT. DO NOT PLATE IN THE RADII. THEN MAKE A LONGER SLEEVE EQUIVALENT TO 161T1304 TO MAKE ALLOWANCE FOR THE MATERIAL REMOVED FROM THE THRUST FACES 2

10 IF 0.015 OR LESS MATERIAL WAS REMOVED, CHROME PLATE AND GRIND TO DESIGN DIMENSIONS. MAX CHROME PLATE THICKNESS 0.015

11 161T1110-3,-4

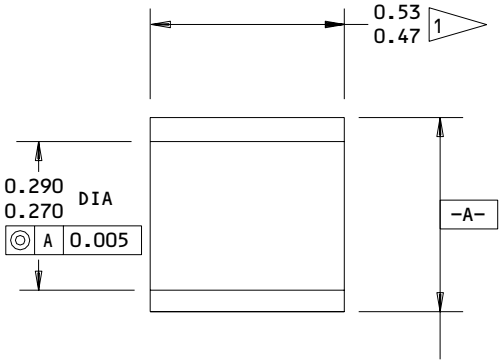
12 161T1110-7,-8,-19,-20,-23,-24,-27,-28,-31,-32,-35,-36,-40,-57,-58,-71,-72,-75,-76

13 RESTORATION TO DESIGN DIM NOT REQUIRED

14 IF YOU CUT THE THREADS TO THE 3.1875-12 SIZE, MACHINE THIS DIA TO THIS SIZE TO PREVENT INTERFERENCE WITH OVERSIZE THREADS AND SHANK OF MATING BOLT

161T1110-3,-4,-7,-8,-19,-20,-23,-24,-27,-28,-31,-32,-35,-36,-40,-57,-58,-71,-72,-75,-76
Outer Cylinder Forward Trunnion Repair
Figure 608 (Sheet 6)

A51224



FINISH DIA BEFORE PLATING
(REPAIR DIA OF LUG HOLE PLUS
0.0003-0.0006 INTERFERENCE)

REPAIR

125 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

BREAK SHARP EDGES 0.01-0.02 R

CADMIUM PLATE (0.0003-0.0005 THICK, F-15.06)(OPTIONAL ON INTERNAL SURFACES)

MATERIAL: AL-NI-BRZ, AMS 4640 OR 4880

DIMENSIONS APPLY BEFORE PLATING

ALL DIMENSIONS ARE IN INCHES

1 ADJUST LENGTH OF SLEEVE FOR A FIT FLUSH WITH OR 0.010 MAX BELOW SURFACE OF LUG

HOLE LOCATION (45) FIG. 601,601A

Repair Sleeve Details
Figure 609

CYLINDER, OUTER - REPAIR 1-3

161T1110-3, -4, -7, -8, -19, -20, -23, -24, -27, -28, -31, -32, -35, -36, -40, -57, -58, -71, -72, -75, -76, -83, -84, -87, -88, -91 thru -96
161T1280-3, -4

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

1. Diameters 3, 8 (Fig. 601, 601A)

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

   B. Shot peen, chrome or nickel plate, and grind chrome plate (machine nickel plate) to get back to design dimensions and finish.

2. Diameter 5 or E (Fig. 601, 601A)

   A. Machine to remove all of the defects.

      NOTE: Structural acceptability decision will be made in step E. below.

   B. Magnetic particle examine per SOPM 20-20-01, class A critical, to make sure all defects are removed.

   C. Measure the hardness per Fig. 602 and ASTM E18-89A as revised, or equivalent.

   D. Measure the actual repair diameters. Use the chart to find the minimum permitted hardness.

   E. Compare the measured hardness (step C.) with the minimum permitted hardness (step D.). The part is acceptable if the measured hardness is equal to or more than the minimum permitted hardness.

F. If the part is not acceptable, that is, if the actual hardness is less than the minimum permitted hardness, scrap the part.

G. If the part is acceptable, continue with step H.

H. Blend out the dents made by the hardness tests. Use a 1.00-inch minimum diameter cutter and the procedures of SOPM 20-10-01 and 20-10-02.

I. Shot peen as indicated.

J. Build up the diameter with chrome plate (SOPM 20-42-03), with chrome plate runouts as shown.

K. Grind chrome plate (SOPM 20-10-04) to design dimensions and finish. After the grind, chrome plate thickness must not be more than 0.015 inch.

3. Diameter 4 or K (Fig. 601, 601A)

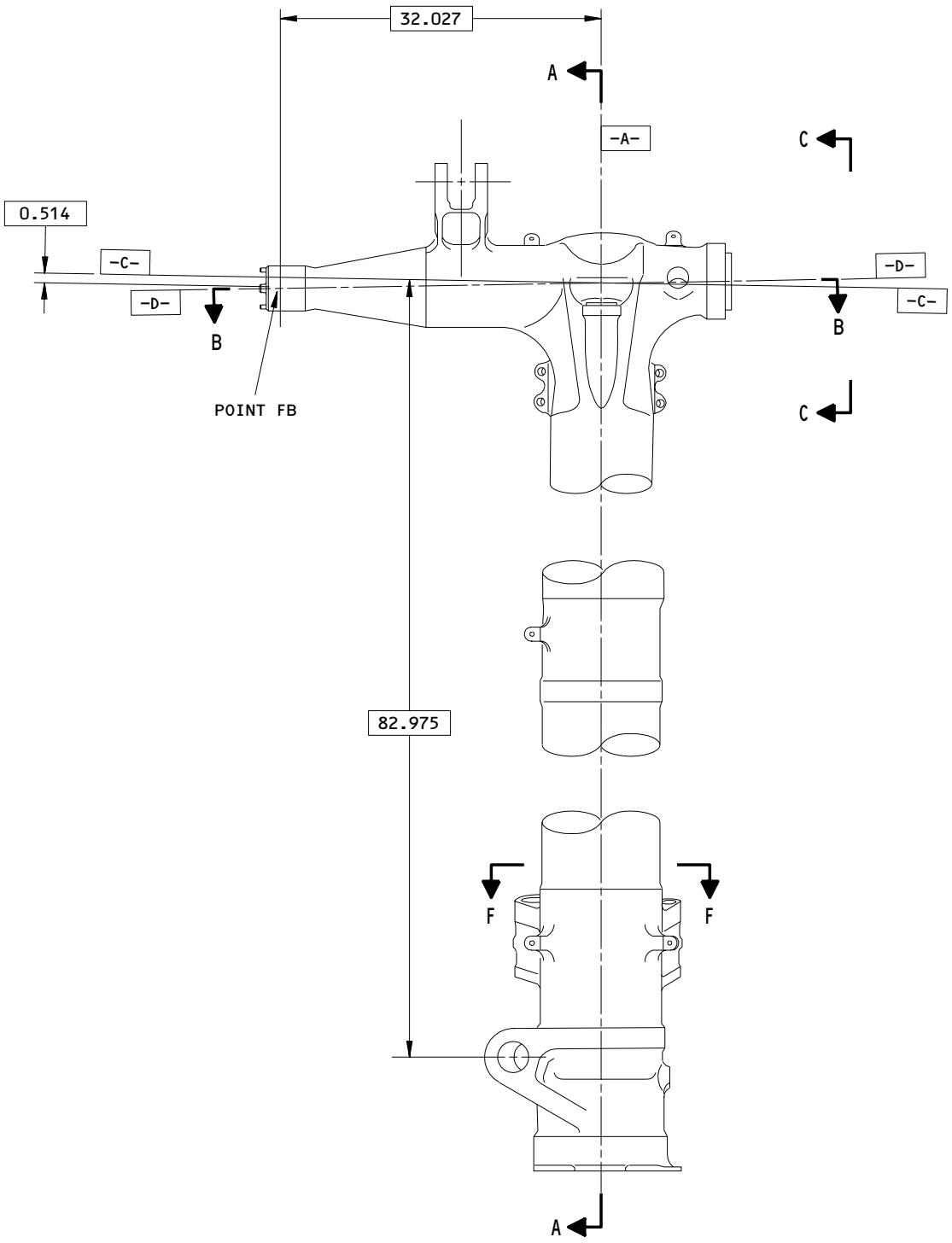
A. Machine as required, within repair limits, to remove defects.

B. Refinish as indicated.

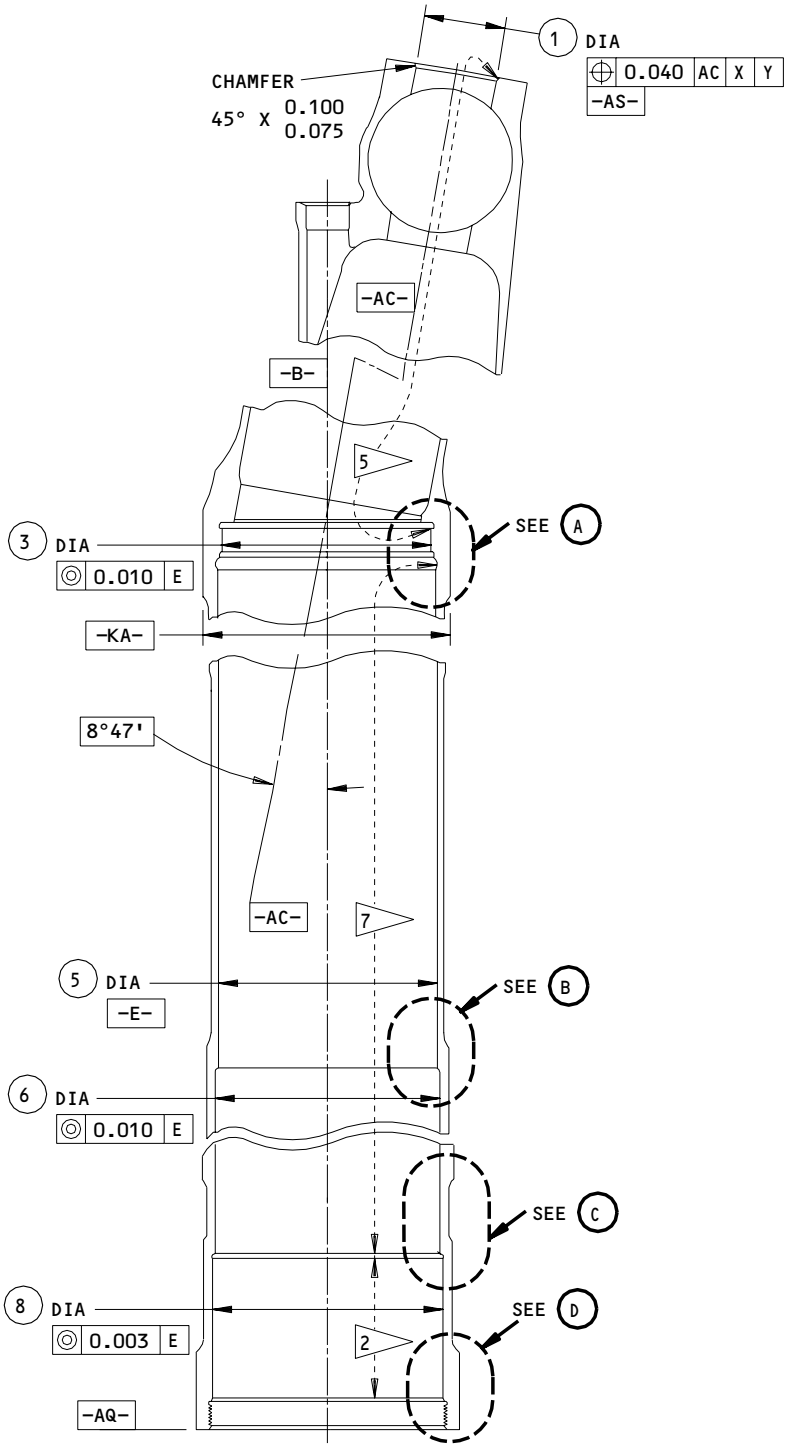
4. Threads for Gland Nut (Fig. 601)

A. Blend out gland nut thread defects at the lower end of the outer cylinder if the defects are on no more than 25 percent of the thread bearing surface area in any one-quarter segment per par. B.

B. If the defects or necessary repair are on more than 25 percent of the thread engagement area or if the defects in any one-quarter segment are on more than 25 percent of the thread area, cut the threads to a larger size (UNJS-3B) per Fig. 601. Get or make a special oversize gland nut as shown in Fig. 603. Identify the cylinder and the gland nut as matched parts to be kept together as a set.

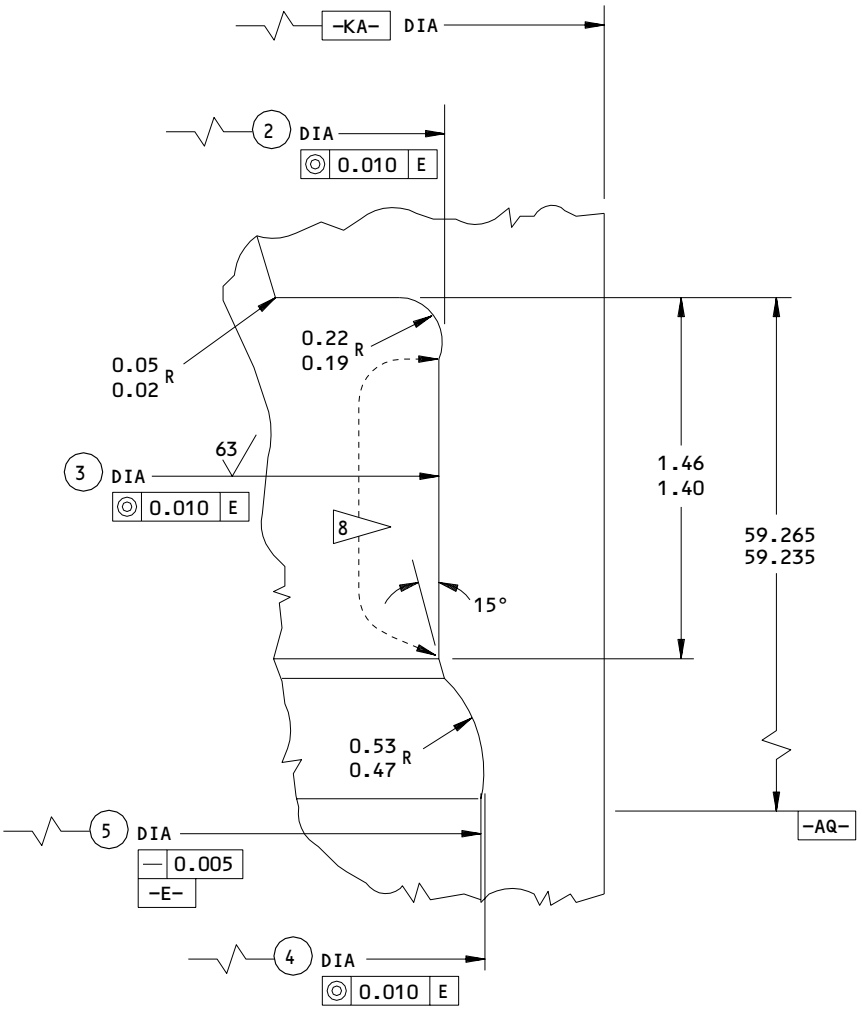


161T1110-3,-4,-7,-8,-19,-20,-23,-24,-27,-28,-31,-32,-35,-36,-40,-57,-58,
-71,-72,-75,-76,-83,-84,-87,-88,-91 THRU -96
Plating Repair
Figure 601 (Sheet 1)



A-A

161T1110-3,-4,-7,-8,-19,-20,-23,-24,-27,-28,-31,-32,-35,-36,-40,-57,-58,
-71,-72,-75,-76,-83,-84,-87,-88,-91 THRU -96
Plating Repair
Figure 601 (Sheet 2)

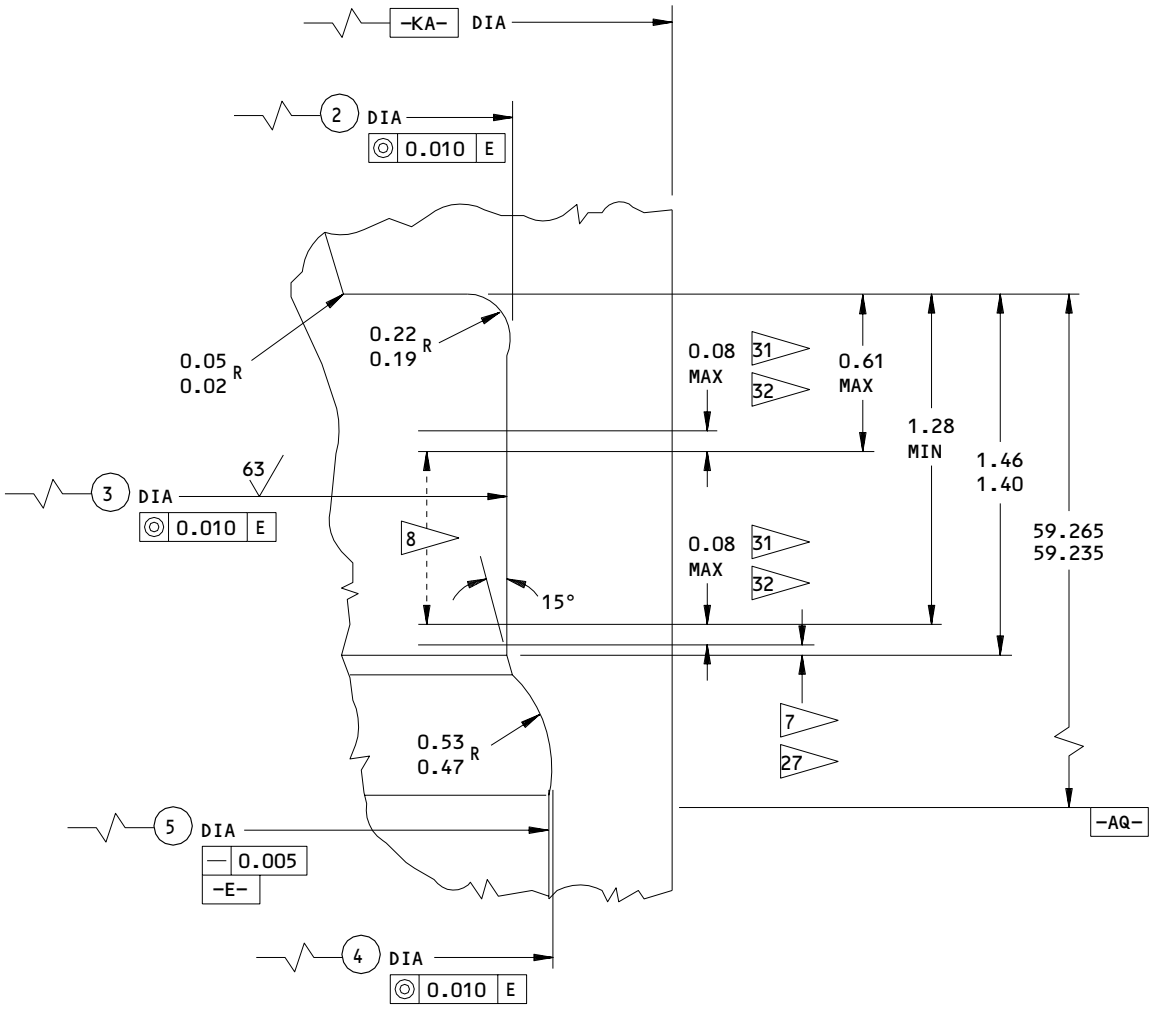


161T1110-3,-4,-7,-8,-19,-20,-23,-24,-27,-28,-31,-32,-35,-36,-40,-57,-58,
-71,-72,-75,-76,-83,-84,-87,-88,-91 THRU -94

(A)

161T1110-3,-4,-7,-8,-19,-20,-23,-24,-27,-28,-31,-32,-35,-36,-40,-57,-58,
-71,-72,-75,-76,-83,-84,-87,-88,-91 THRU -96
Plating Repair
Figure 601 (Sheet 3)

N87836

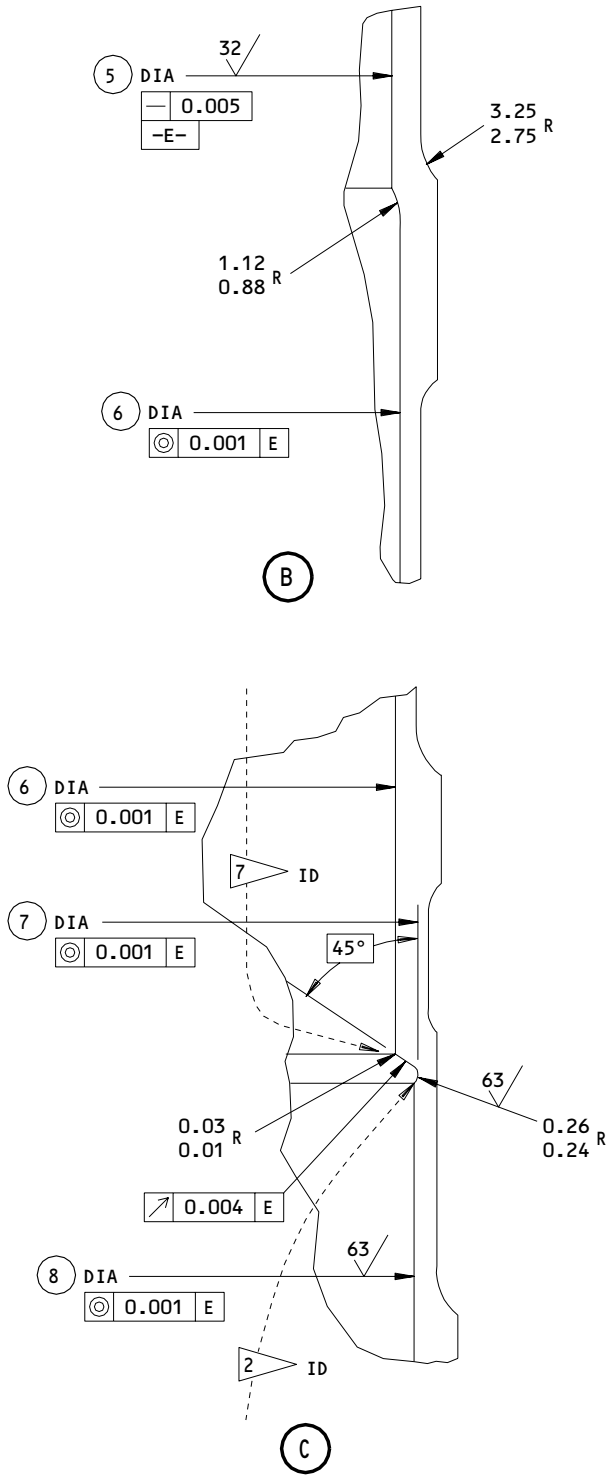


161T1110-95,-96

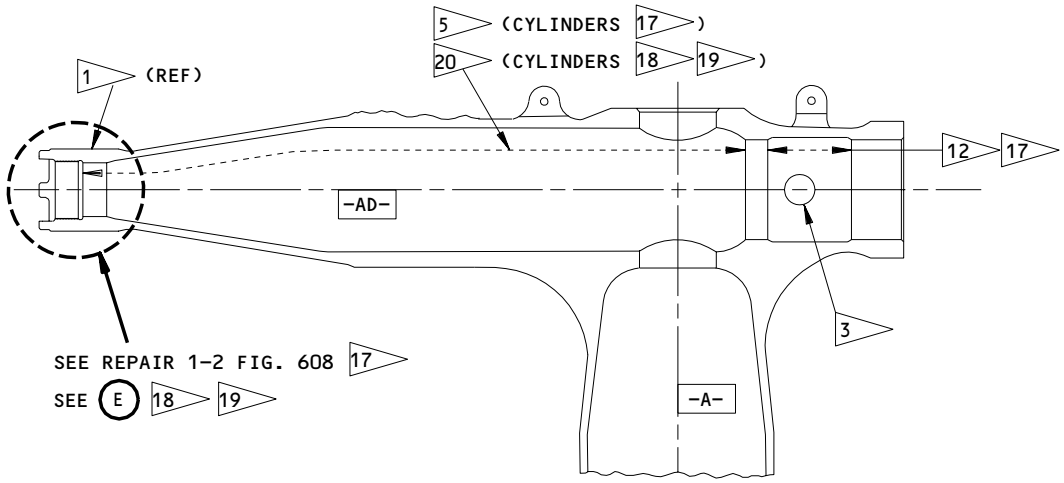
(A)

161T1110-3,-4,-7,-8,-19,-20,-23,-24,-27,-28,-31,-32,-35,-36,-40,-57,-58,
-71,-72,-75,-76,-83,-84,-87,-88,-91 THRU -96
Plating Repair
Figure 601 (Sheet 4)

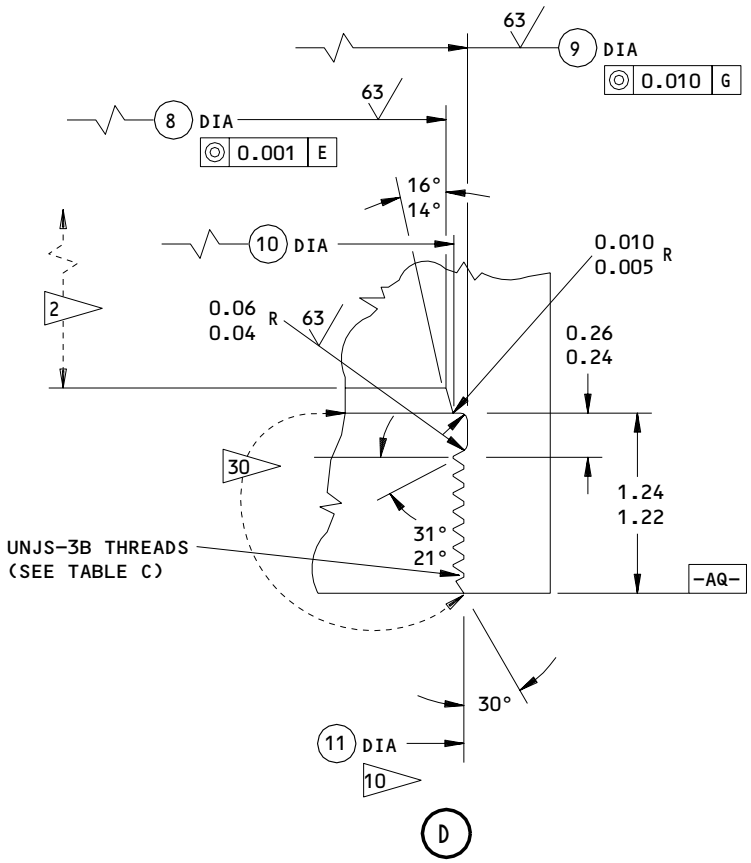
N87715



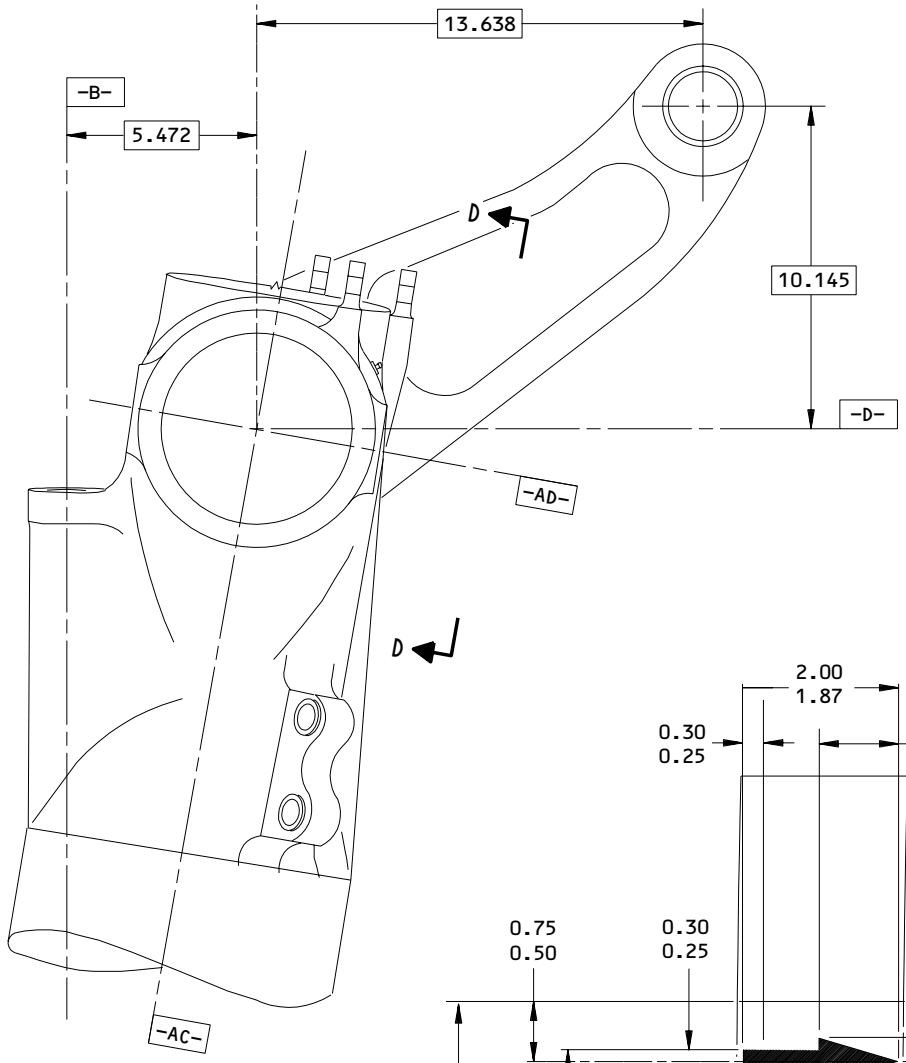
161T1110-3,-4,-7,-8,-19,-20,-23,-24,-27,-28,-31,-32,-35,-36,-40,-57,-58,
-71,-72,-75,-76,-83,-84,-87,-88,-91 THRU -96
Plating Repair
Figure 601 (Sheet 5)



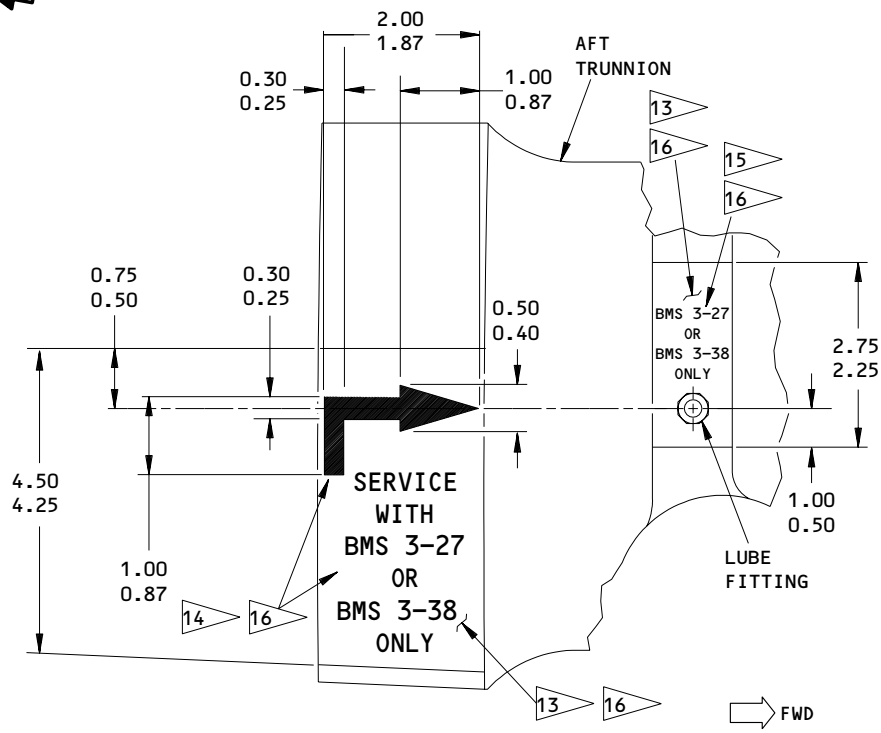
B-B



161T1110-3,-4,-7,-8,-19,-20,-23,-24,-27,-28,-31,-32,-35,-36,-40,-57,-58,
-71,-72,-75,-76,-83,-84,-87,-88,-91 THRU -96
Plating Repair
Figure 601 (Sheet 6)



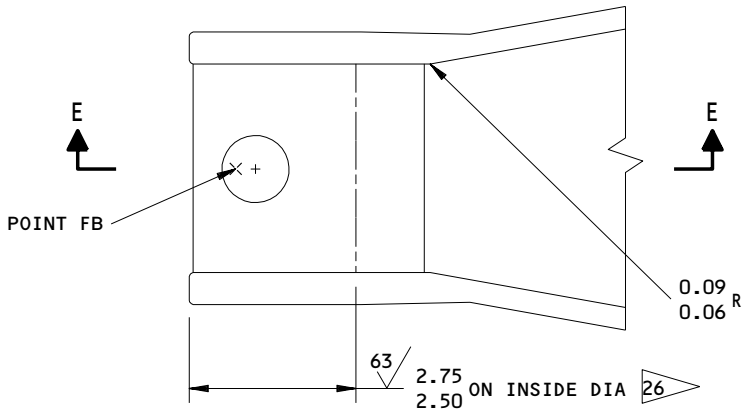
C-C



D-D

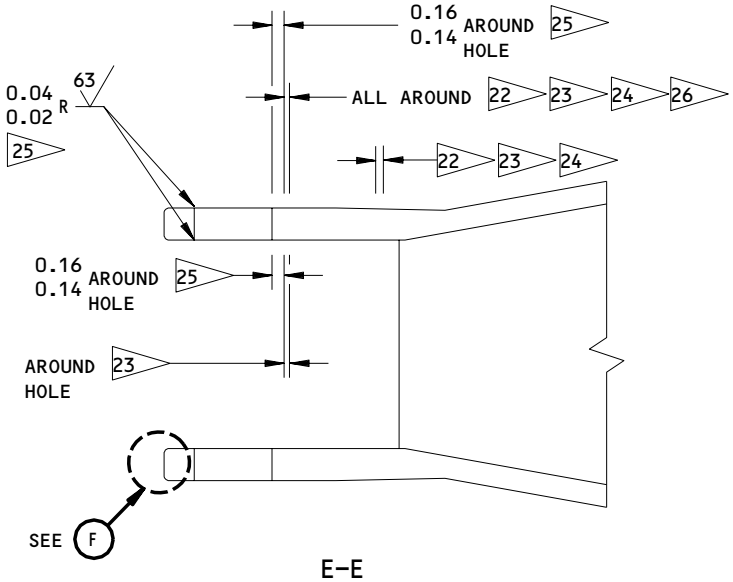
161T1110-3,-4,-7,-8,-19,-20,-23,-24,-27,-28,-31,-32,-35,-36,-40,-57,-58,
-71,-72,-75,-76,-83,-84,-87,-88,-91 THRU -96
Plating Repair
Figure 601 (Sheet 7)

F79255

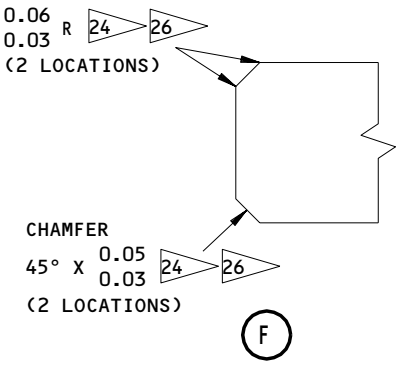


161T1110-83,-84,-87,-88,-91 THRU -96

E



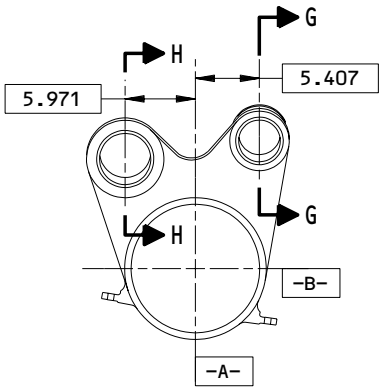
E-E



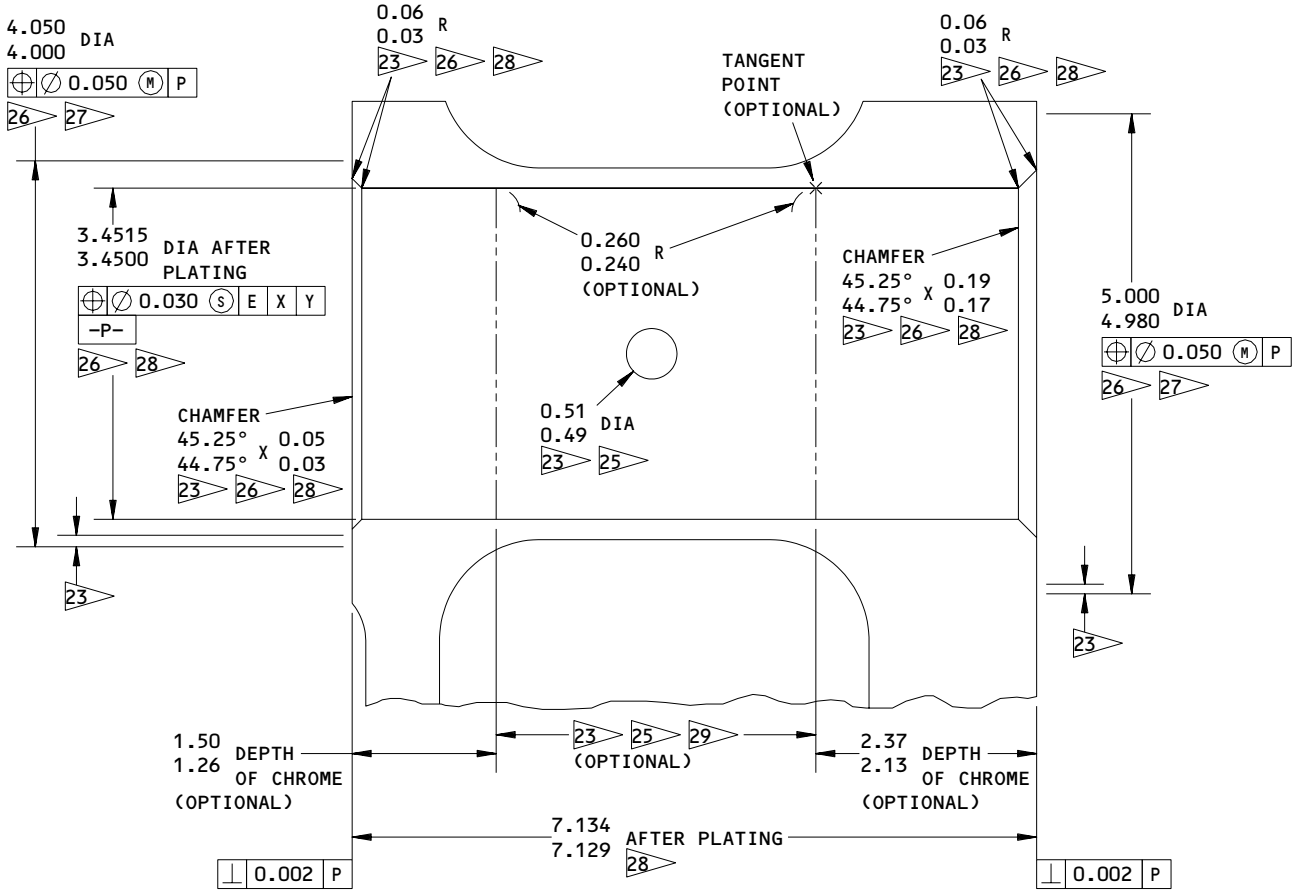
F

161T1110-3,-4,-7,-8,-19,-20,-23,-24,-27,-28,-31,-32,-35,-36,-40,-57,-58,
-71,-72,-75,-76,-83,-84,-87,-88,-91 THRU -96
Plating Repair
Figure 601 (Sheet 8)

KD1856



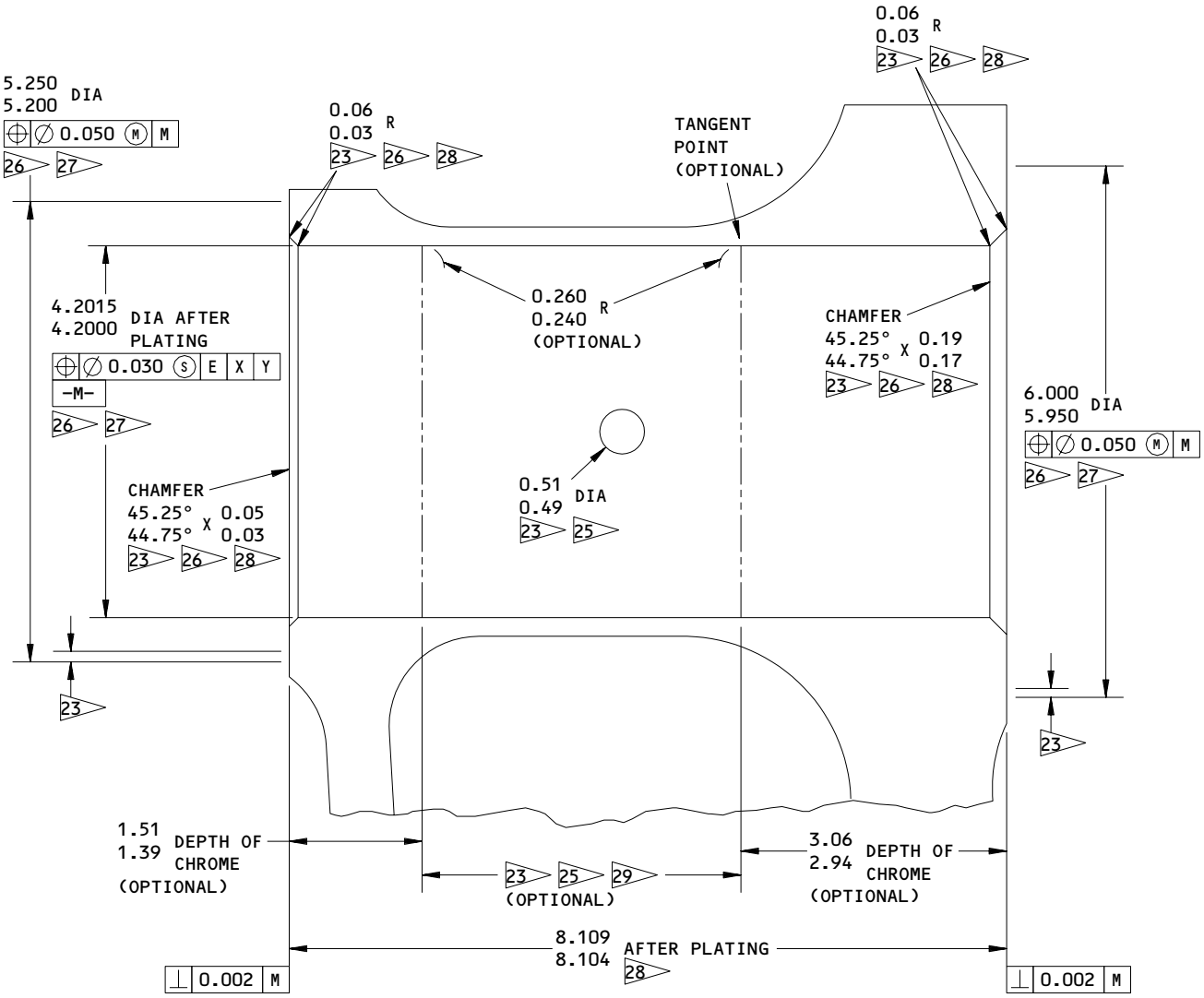
F-F



G-G

161T1110-3,-4,-7,-8,-19,-20,-23,-24,-27,-28,-31,-32,-35,-36,-40,-57,-58,
-71,-72,-75,-76,-83,-84,-87,-88,-91 THRU -96
Plating Repair
Figure 601 (Sheet 9)

L04983



H-H

161T1110-3,-4,-7,-8,-19,-20,-23,-24,-27,-28,-31,-32,-35,-36,-40,-57,-58,
-71,-72,-75,-76,-83,-84,-87,-88,-91 THRU -96
Plating Repair
Figure 601 (Sheet 10)

REFERENCE NUMBER	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8) 17 18	(8) 19
DESIGN DIMENSION	4.005 4.000	10.529 10.509	10.477 10.474	10.884 10.874	10.855 10.850	10.91 10.89	11.510 11.500	11.478 11.474	11.728 11.724
REPAIR LIMIT	---	10.580 11	10.507 4 9	10.920 11	SEE TABLE B	10.92 11	---	11.508 4 9	11.758 4 9

REFERENCE NUMBER	(9) 17 18	(9) 19	(10)	(11)
DESIGN DIMENSION	11.80 11.78	12.05 12.03	11.575 11.545	11.795 11.765
REPAIR LIMIT	SEE TABLE C	SEE TABLE C	---	---

TABLE A

CAUTION: THIS DATA IS FOR OVERHAUL AND IN-SERVICE REPAIRS ONLY. THIS DATA MUST NOT BE USED FOR MATERIAL REVIEW BOARD (MRB) ACTION ON PRODUCTION OR SPARE PARTS.

MINIMUM PERMITTED HARDNESS Rc	(5) DIA MAX REPAIR DIA 4			
	161T1110-3,-4,-7,-8,-31,-32,-75,-76	161T1110-19,-20,-40	161T1110-23,-24	161T1110-27,-28,-35,-36,-57,-58,-71,-72,-83,-84,-87,-88,-91 THRU -96
52.2	10.861	10.855	10.869	10.885
52.3	10.862	10.855	10.871	10.885
52.4	10.864	10.857	10.873	10.885
52.5	10.865	10.858	10.875	10.885
52.6	10.867	10.860	10.877	10.885
52.7	10.869	10.862	10.879	10.885
52.8	10.870	10.864	10.881	10.885
52.9	10.872	10.866	10.882	10.885
53.0	10.873	10.867	10.884	10.885
53.1	10.875	10.869	10.885	10.885
53.2	10.876	10.871	10.885	10.885
53.3	10.878	10.873	10.885	10.885
53.4	10.879	10.874	10.885	10.885
53.5	10.881	10.876	10.885	10.885
53.6	10.882	10.878	10.885	10.885
53.7	10.884	10.879	10.885	10.885
53.8	10.885	10.881	10.885	10.885
53.9	10.885	10.883	10.885	10.885
54.0	10.885	10.884	10.885	10.885
54.1-55.0	10.885	10.885	10.885	10.885

TABLE B

161T1110-3,-4,-7,-8,-19,-20,-23,-24,-27,-28,-31,-32,-35,-36,-40,-57,-58,-71,-72,-75,-76,-83,-84,-87,-88,-91 THRU -96
Plating Repair
Figure 601 (Sheet 11)

UNJS-3B THREAD SIZE	11.750-8 (DESIGN 17 18)	11.875-8 (1/8 OVERSIZE) 17 18	12.000-8 (DESIGN 19)
MAJOR DIAMETER	11.7650 11.7500	11.8750 MINIMUM	12.0000 MINIMUM
(9) PITCH DIAMETER -G-	11.6774 11.6688 ⌾ 0.010 E	11.8024 11.7938 ⌾ 0.0010 E	11.9274 11.9188 ⌖ ∅ 0.010 Ⓢ E Ⓢ
MINOR DIAMETER	11.6432 11.6282	11.7682 11.7532	11.8933 11.8783
RELIEF DIAMETER	11.80 11.78 ⌾ 0.010 G	11.92 11.91 ⌾ 0.0010 G	12.05 12.03 ⌖ ∅ 0.010 Ⓢ G Ⓢ

TABLE C

161T1110-3,-4,-7,-8,-19,-20,-23,-24,-27,-28,-31,-32,-35,-36,-40,-57,-58,
-71,-72,-75,-76,-83,-84,-87,-88,-91 THRU -96
Plating Repair
Figure 601 (Sheet 12)

REFINISH

CHROME PLATE AREAS SHOWN BY 1 2 22 WITH 0.08 MAXIMUM PLATING RUNOUT. WIPE CHROME PLATE WITH PRIMER (F-19.45).

CADMIUM-TITANIUM PLATE (F-15.01) OTHER AREAS, 0.0005 MINIMUM THICK, BUT NOT AREAS NOTED BY 3 AND 0.0005-0.0010 THICK IN BORES FOR BUSHINGS. DO NOT PLATE HOLES FOR VALVES.

CHROME OR NICKEL PLATE AREA SHOWN BY 8, WITH 0.06 MAXIMUM PLATING RUNOUT. WIPE CHROME PLATE WITH PRIMER (F-19.45).

APPLY PRIMER, BMS 10-11, TYPE 1 (SRF-14.06) IN BORES FOR BUSHINGS. APPLY PRIMER, SEALANT AND CORROSION PREVENTIVE COMPOUND TO INTERIOR PER 5 12 OR 20 21.

AFTER BUSHING AND LUBE FITTING INSTALLATION, APPLY PRIMER AND ENAMEL PER 6 BUT NOT ON BUSHINGS OR LUBE FITTINGS.

APPLY BLACK STENCILS (OR THE EQUIVALENT DECALS) ON YELLOW BACKGROUNDS TO THE AFT TRUNNION AS SHOWN BY 13 14 15 16.

REPAIR

REF 4 9 10 11

125 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

BREAK SHARP EDGES 0.06 R EXCEPT AS NOTED

SHOT PEEN (BUT NOT BORES FOR LUBE FITTING):

0.016-0.033 SHOT SIZE
0.014-0.018 A2 INTENSITY

MATERIAL: 4340M STEEL, 275-300 KSI

ALL DIMENSIONS ARE IN INCHES

1 CHROME PLATE (F-15.34), 0.003 MINIMUM THICK

2 CHROME PLATE (F-15.04), 0.003 MINIMUM THICK

3 CADMIUM-TITANIUM PLATE (F-15.01) 0.0005-0.0010 THICK IN BORE. APPLY BMS 10-11, TYPE 1 PRIMER (F-14.06)

4 LIMIT FOR CHROME PLATE BUILDUP, 0.003 MINIMUM THICK (SOPM 20-42-03). GRIND TO DESIGN DIMENSION AND FINSH (SOPM 20-10-04). PUT A 0.08 MAXIMUM CHROME PLATE RUNOUT AT EDGES, HOLES, AND RELIEFS UNLESS SHOWN DIFFERENTLY

5 APPLY PRIMER, BMS 10-11, TYPE 1 (F-20.03) AND CORROSION PREVENTIVE COMPOUND MIL-C-11796, CLASS 1 (F-19.03)

6 AFTER PLATING, APPLY PRIMER, BMS 10-11, TYPE 1 (F-20.03) AND ENAMEL, BMS 10-60, (F-14.9813, WHICH REPLACES SRF-14.9813)

7 DO NOT PLATE

8 NICKEL PLATE (F-15.33), 0.003 MINIMUM THICK

9 LIMIT FOR NICKEL PLATE BUILDUP (SOPM 20-42-09) AND MACHINE TO DESIGN DIMENSIONS SHOWN. PUT A 0.06 MAXIMUM PLATING RUNOUT AT EDGES, HOLES AND RELIEFS, UNLESS SHOWN DIFFERENTLY

10 CHAMFER DIAMETER

11 RESTORATION TO DESIGN DIMENSIONS NOT REQUIRED

12 APPLY PRIMER BMS 10-11, TYPE 1 (F-20.02) TO THIS UNDERCUT AREA

13 APPLY YELLOW BMS 10-60 ENAMEL (F-14.9815-302, WHICH REPLACES SRF-14.9815-302) AS A BACKGROUND FOR THE MARKINGS OF 14 15

14 STENCIL THE ARROW AND 0.25-INCH CHARACTERS WITH BLACK BMS 10-60 ENAMEL (F-14.9815-701, WHICH REPLACES SRF-14.9815-701), OR USE DECALS BAC27TLG13 (LEFT), BAC27TLG14 (RIGHT) AS MODIFIED PER SB 32A0192

15 STENCIL IN 0.12-INCH CHARACTERS WITH BLACK BMS 10-60 ENAMEL (F-14.9815-701, WHICH REPLACES SRF-14.9815-701), OR USE DECALS BAC27TLG12 AS MODIFIED PER SB 32A0192

16 APPLY TYPE 41 CLEAR PROTECTIVE COATING (F-21.34) TO THE STENCILS (OR DECALS) AND THE BACKGROUNDS

161T1110-3,-4,-7,-8,-19,-20,-23,-24,-27,-28,-31,-32,-35,-36,-40,-57,-58,
-71,-72,-75,-76,-83,-84,-87,-88,-91 THRU -96
Plating Repair
Figure 601 (Sheet 13)

E38046

17 161T1110-3 THRU -76

18 161T1110-83,-84

19 161T1110-87,-88,-91 THRU -96

20 1. APPLY PRIMER BMS 10-11, TYPE 1 (F-20.02)
2. APPLY BMS 5-95, TYPE 1, CLASS F SPRAYABLE SEALANT (F-19.55) 0.06-0.10 THICK TO AREA 21
3. WHEN THE SEALANT IS TACK-FREE, APPLY ONE MORE LAYER OF BMS 10-11, TYPE 1 PRIMER (F-20.02) AND CORROSION PREVENTIVE COMPOUND MIL-C-11796, CLASS 1 (F-19.03) TO THE FULL LENGTH SHOWN, INCLUDING THE SEALANT

21 APPLY THE SEALANT OF 20 STEP 2 TO THIS AREA

22 CHROME PLATE (F-15.34), 0.0015-0.0030 THICK

23 OVERLAP CADMIUM-TITANIUM PLATING ONTO CHROME PLATED SURFACE. DO NOT REMOVE THE OVERLAP

24 CHROME PLATE RUNOUT AREA

25 CADMIUM-TITANIUM PLATE (F-15.01), 0.0005-0.0010 THICK. APPLY BMS 10-11, TYPE 1 PRIMER (F-20.02). DO NOT APPLY ENAMEL

26 CHROME PLATE (F-15.34), 0.0015 MINUMUM THICK

27 NO PRIMER OR ENAMEL

28 POLISH, BUFF, OR HONE THE CHROME PLATE TO GET THE SPECIFIED FINISH. DO NOT GRIND. THE FINAL CHROME PLATE THICKNESS MUST BE 0.0015 MINIMUM

29 AS AN ALTERNATIVE TO CHROME PLATE ON ALL OF THE BORE, YOU CAN MACHINE AND FINISH THIS LENGTH BY 23 25

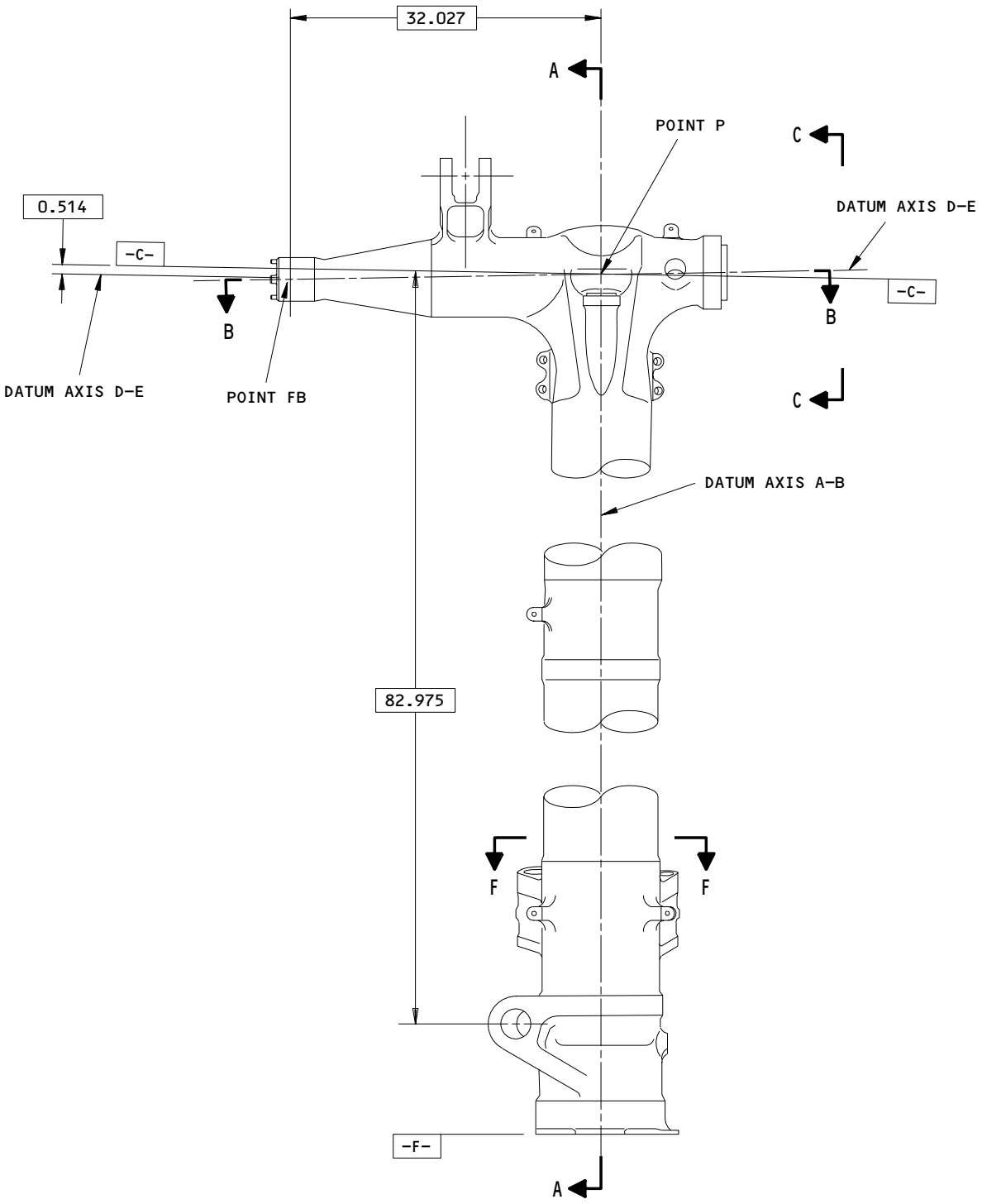
30 APPLY PRIMER TO THREADS AND THREAD RELIEF PER CMM 32-00-02

31 NICKEL PLATE RUNOUT AREA

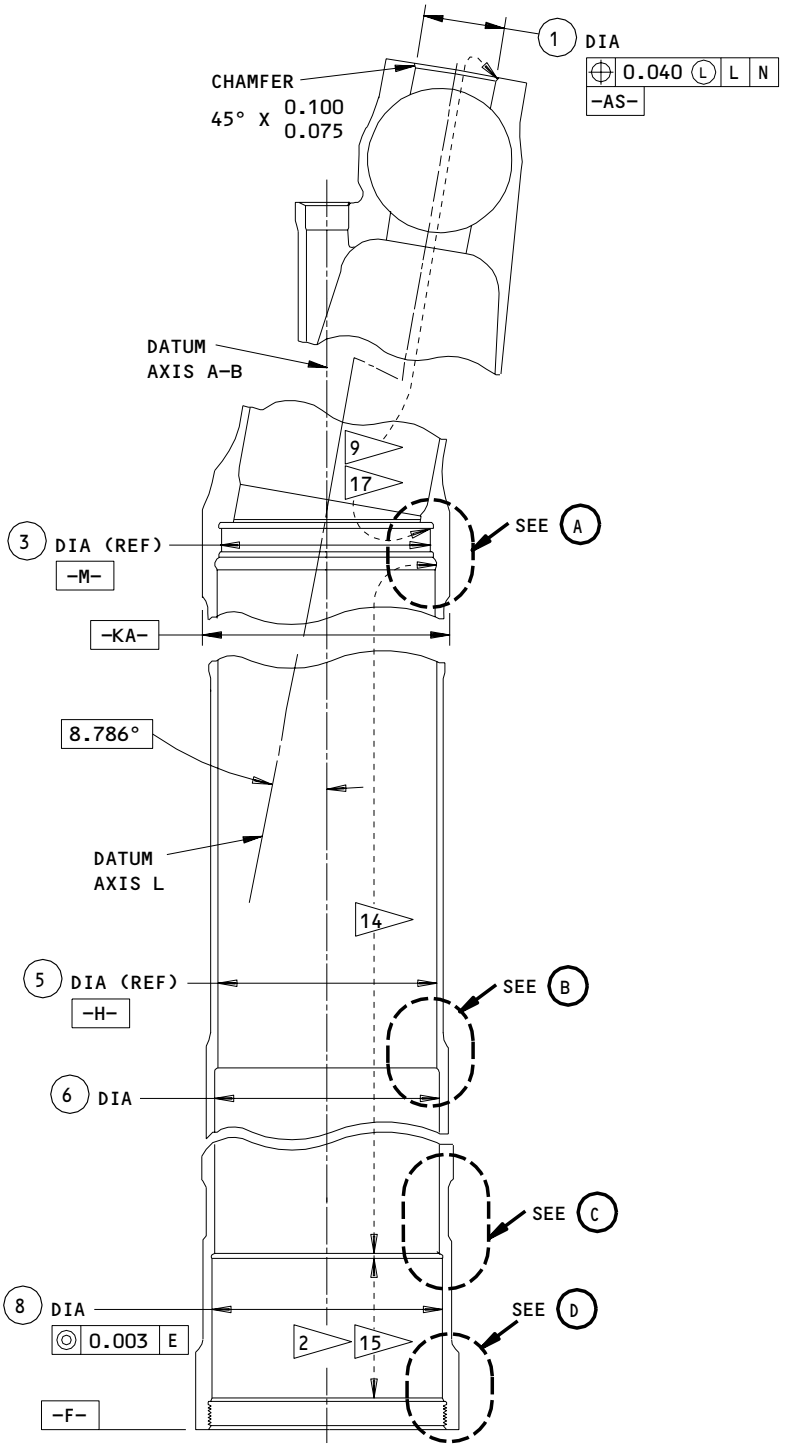
32 OVERLAP CADMIUM-TITANIUM ONTO NICKEL PLATED SURFACE. DO NOT REMOVE THE OVERLAP

161T1110-3,-4,-7,-8,-19,-20,-23,-24,-27,-28,-31,-32,-35,-36,-40,-57,-58,
-71,-72,-75,-76,-83,-84,-87,-88,-91 THRU -96
Plating Repair
Figure 601 (Sheet 14)

L04815

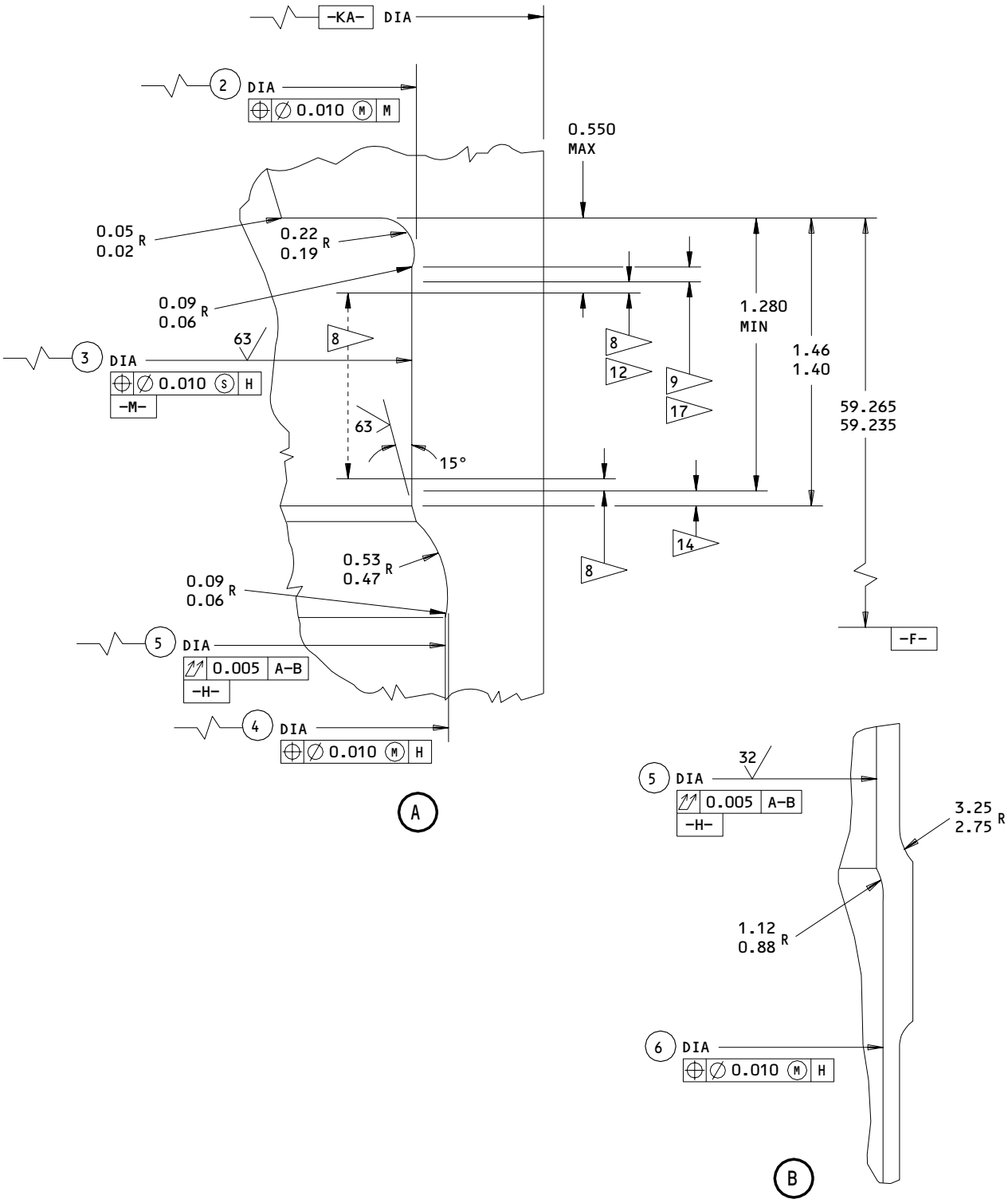


161T1280-3,-4
Plating Repair
Figure 601A (Sheet 1)

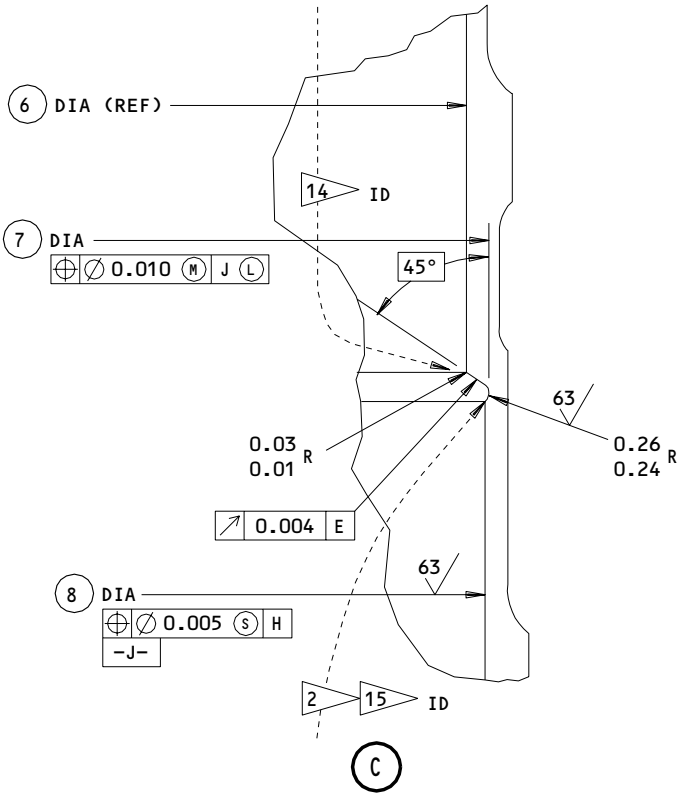


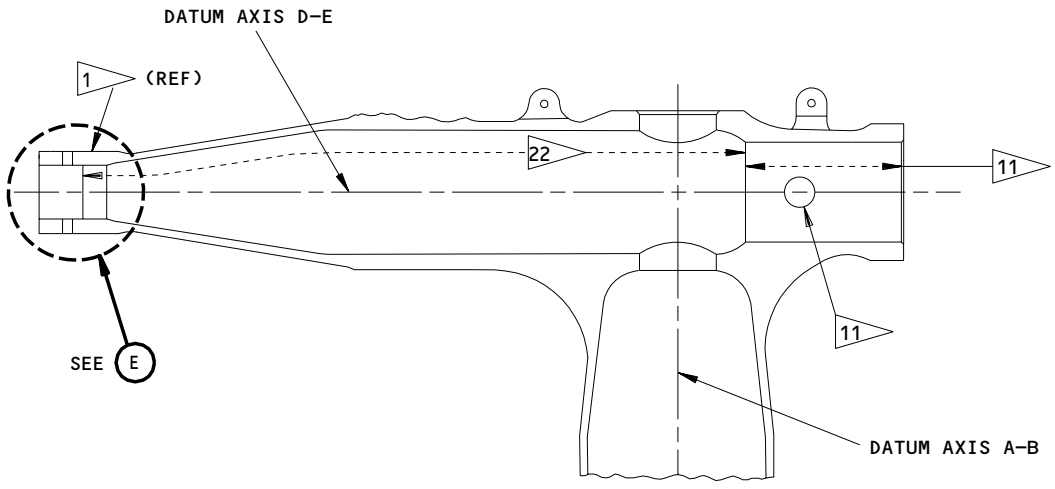
A-A

161T1280-3,-4
Plating Repair
Figure 601A (Sheet 2)



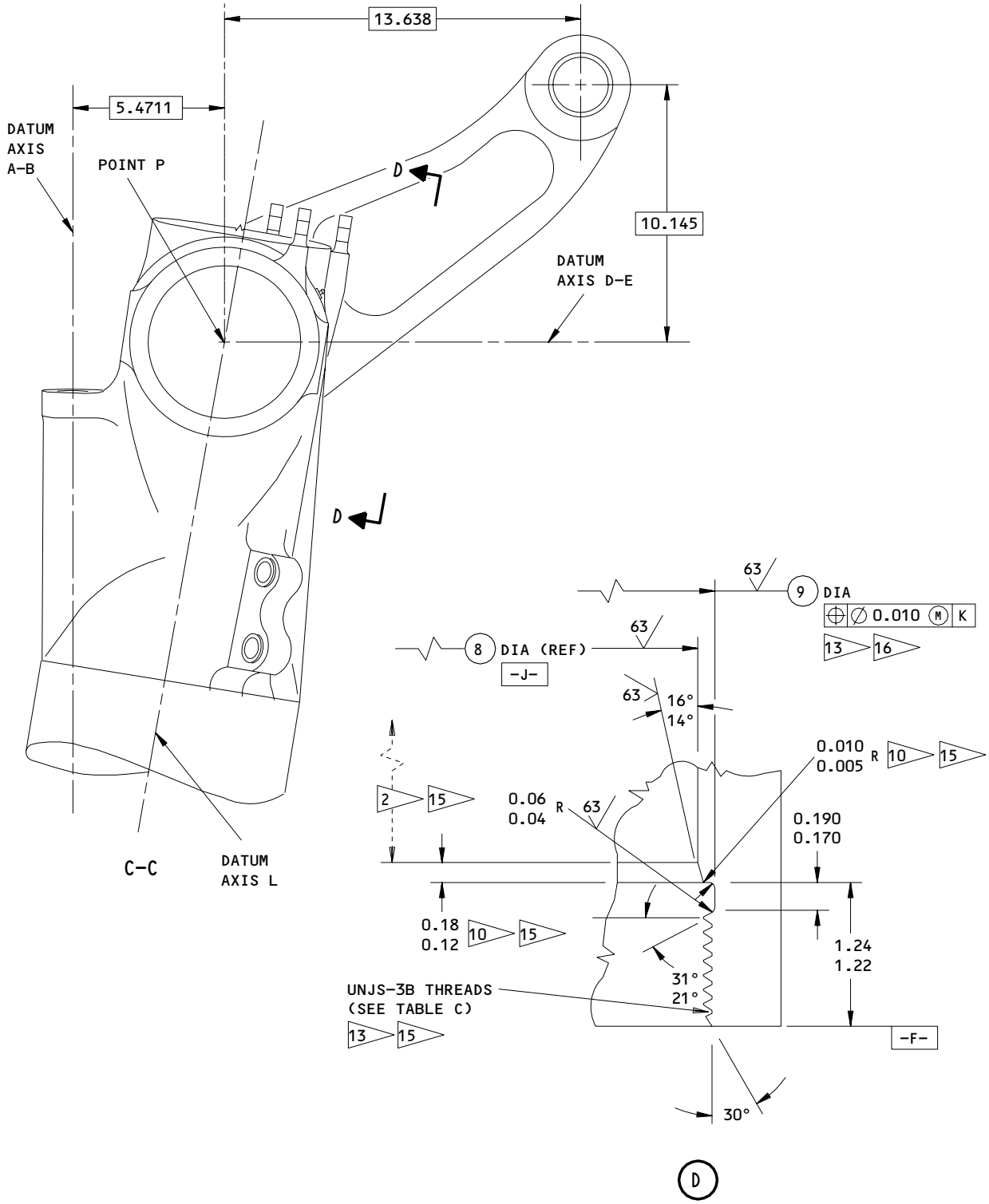
161T1280-3,-4
Plating Repair
Figure 601A (Sheet 3)



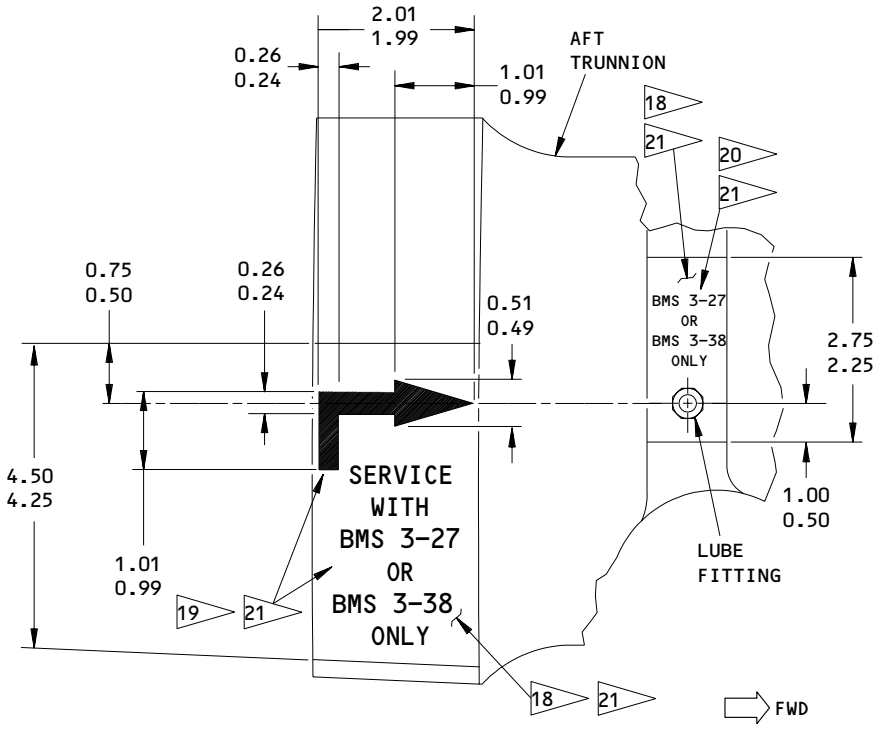


B-B

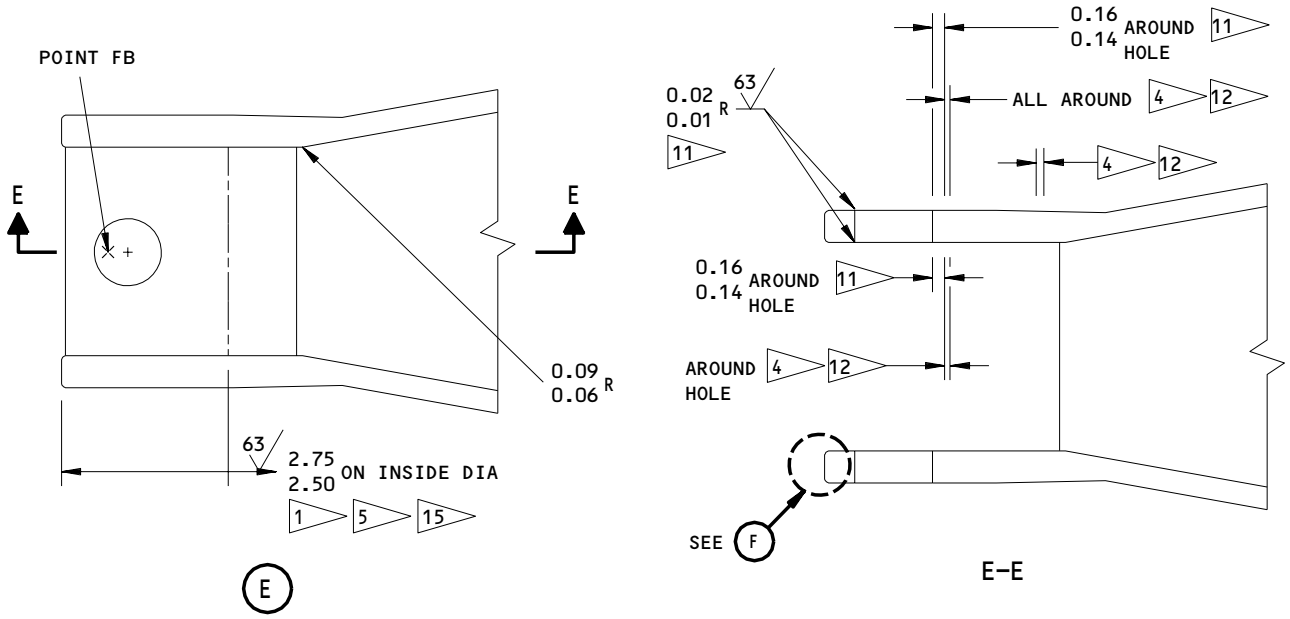
161T1280-3,-4
Plating Repair
Figure 601A (Sheet 4)



161T1280-3,-4
Plating Repair
Figure 601A (Sheet 5)



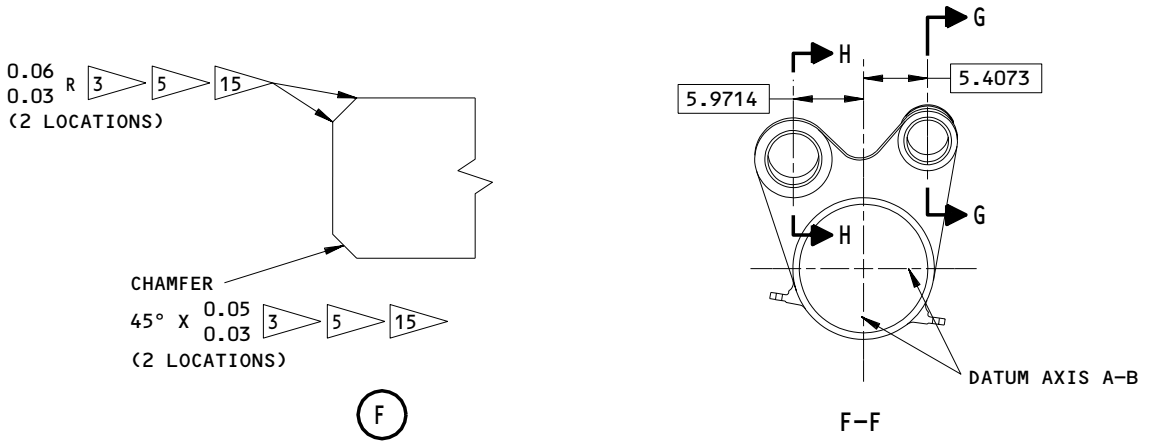
D-D

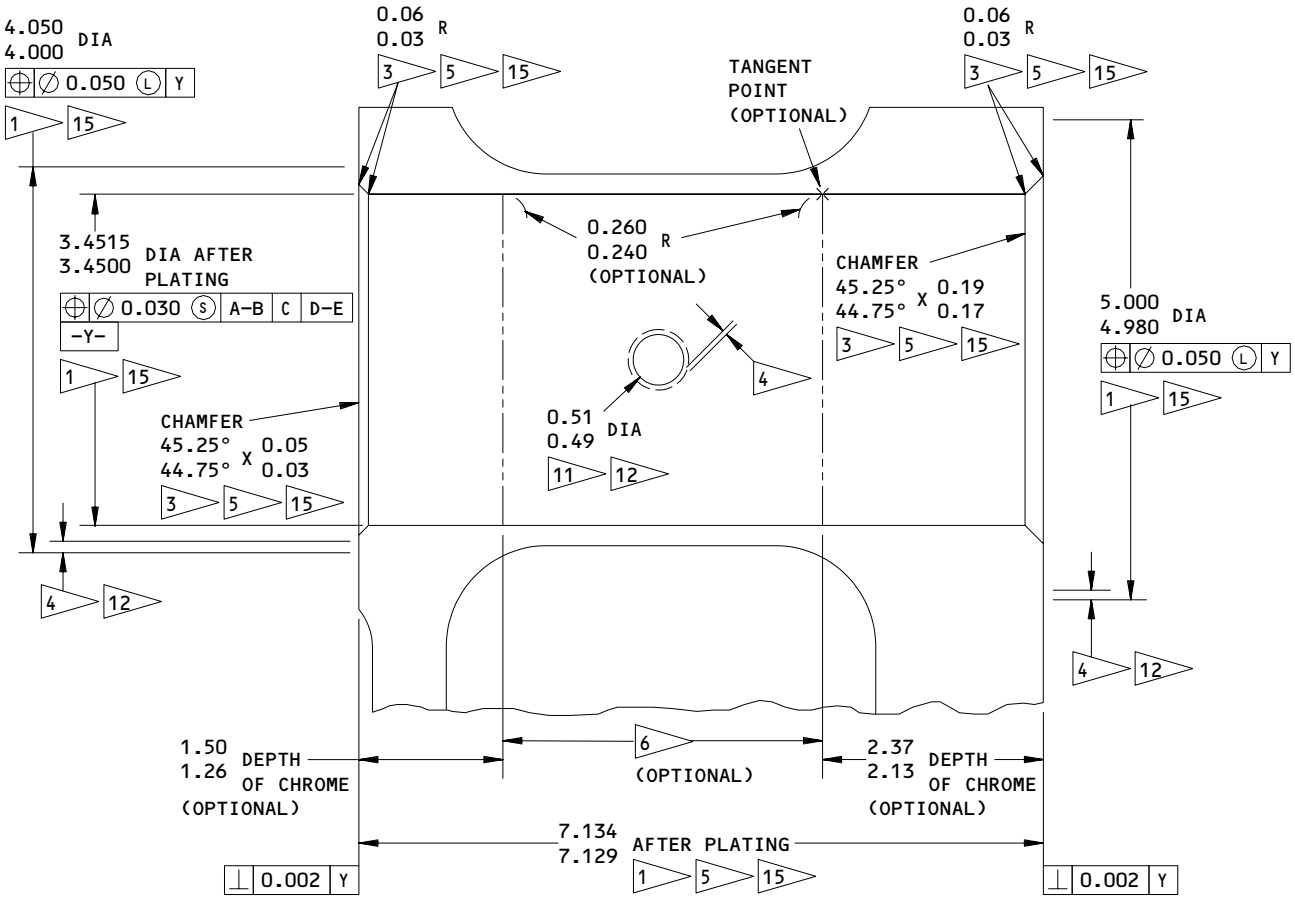


E-E

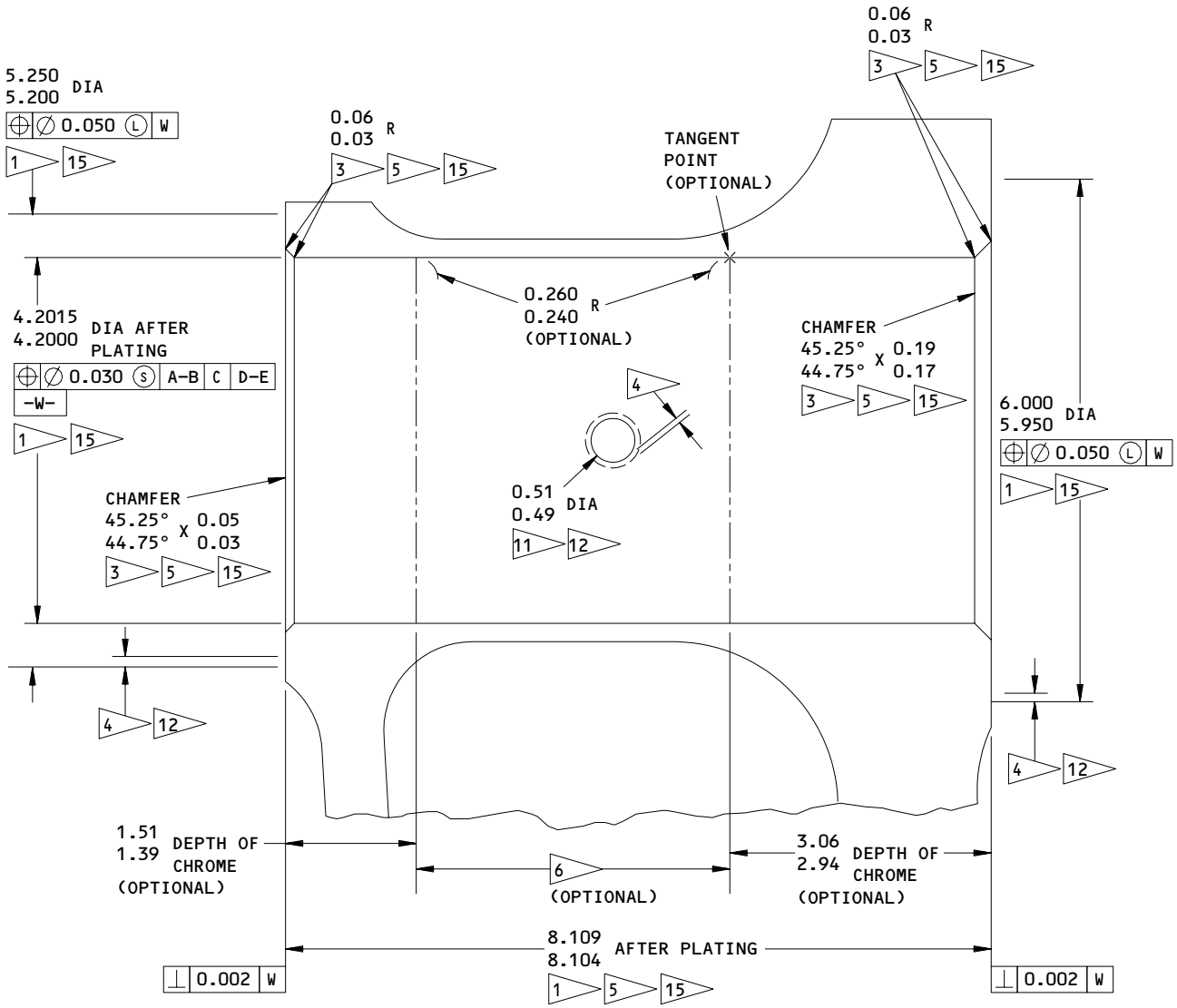
161T1280-3,-4
Plating Repair
Figure 601A (Sheet 6)

L76783





161T1280-3,-4
Plating Repair
Figure 601A (Sheet 7)



H-H

161T1280-3,-4
Plating Repair
Figure 601A (Sheet 8)

REFERENCE NUMBER	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
DESIGN DIMENSION	5.755 5.750	10.529 10.509	10.477 10.474	10.884 10.874	10.855 10.850	10.91 10.89	11.760 11.750	11.728 11.724	12.05 12.03
REPAIR LIMIT	---	10.580 ▷26◁	10.507 ▷24◁ ▷25◁	10.920 ▷26◁	SEE TABLE B	10.92 ▷26◁	---	11.758 ▷24◁ ▷25◁	SEE TABLE C

TABLE A

CAUTION: THIS DATA IS FOR OVERHAUL AND IN-SERVICE REPAIRS ONLY. THIS DATA MUST NOT BE USED FOR MATERIAL REVIEW BOARD (MRB) ACTION ON PRODUCTION OR SPARE PARTS.

MINIMUM PERMITTED HARDNESS Rc	(5) DIA MAX REPAIR DIA ▷24◁
52.2 52.3 52.4 52.5	10.885 10.885 10.885 10.885
52.6 52.7 52.8 52.9 53.0	10.885 10.885 10.885 10.885 10.885
53.1 53.2 53.3 53.4 53.5	10.885 10.885 10.885 10.885 10.885
53.6 53.7 53.8 53.9 54.0	10.885 10.885 10.885 10.885 10.885
54.1- 55.0	10.885

TABLE B

161T1280-3,-4
Plating Repair
Figure 601A (Sheet 9)

L76866

UNJS-3B THREAD SIZE	12.000-8 (DESIGN)
MAJOR DIAMETER	12.0000 MINIMUM
(9) PITCH DIAMETER -G-	11.9274 11.9188 ⌖ ∅ 0.010 Ⓢ E Ⓢ
MINOR DIAMETER	11.8933 11.8783
RELIEF DIAMETER	12.05 12.03 ⌖ ∅ 0.010 Ⓢ G Ⓢ

TABLE C

161T1280-3,-4
Plating Repair
Figure 601A (Sheet 10)

L76870

REFINISH

CHROME PLATE AREAS SHOWN BY 1 2 3 WITH 0.08 MAXIMUM PLATING RUNOUT. WIPE CHROME PLATE WITH PRIMER (F-19.451)

NICKEL PLATE AS SHOWN BY 7 , WITH 0.06 MAXIMUM PLATING RUNOUT

CADMIUM-TITANIUM PLATE AS SHOWN BY 9 THRU 13 . DO NOT PLATE HOLES FOR VALVES

APPLY PRIMER, BMS 10-79, TYPE 3 (F-19.47) IN BORES FOR BUSHINGS. APPLY PRIMER, SEALANT AND CORROSION PREVENTIVE COMPOUND AS SHOWN BY 15 16 17 22 23

AFTER BUSHING AND LUBE FITTING INSTALLATION, APPLY BMS 10-60 ENAMEL (F-19.39-707 OR F-20.56-707) BUT NOT ON BUSHINGS OR LUBE FITTINGS

APPLY BLACK STENCILS (OR THE EQUIVALENT DECALS) ON YELLOW BACKGROUNDS TO THE AFT TRUNNION AS SHOWN BY 18 THRU 21

1 CHROME PLATE (F-15.34), 0.0015 MINIMUM THICK

2 CHROME PLATE (F-15.34), 0.003 MINIMUM THICK

3 CHROME PLATE (F-15.34), 0.0015-0.0030 THICK

4 CHROME PLATE RUNOUT AREA

5 POLISH, BUFF, OR HONE THE CHROME PLATE TO GET THE SPECIFIED FINISH. DO NOT GRIND. THE FINAL CHROME PLATE THICKNESS MUST BE 0.0015 MINIMUM

6 AS AN ALTERNATIVE TO CHROME PLATE ON ALL OF THE BORE, YOU CAN MACHINE AND FINISH THIS LENGTH PER 11 AND 12

7 NICKEL PLATE (F-15.33), 0.0015 MINIMUM THICK

8 NICKEL PLATE RUNOUT 0.08 MAXIMUM

9 CADMIUM-TITANIUM PLATE (F-15.01)

10 CADMIUM-TITANIUM PLATE (F-15.01), 0.0005 MINIMUM THICK

11 CADMIUM-TITANIUM PLATE (F-15.01), 0.0005-0.0010 THICK. APPLY BMS 10-79, TYPE 3 PRIMER (F-19.47)

12 OVERLAP CADMIUM-TITANIUM PLATE ONTO THE CHROME OR NICKEL PLATED SURFACE. DO NOT REMOVE THE OVERLAP

13 CADMIUM-TITANIUM PLATE (F-15.32)

14 NO FINISH

15 WIPE WITH BMS 10-79 TYPE 3 PRIMER (F-19.451)

16 APPLY BMS 10-79 TYPE 3 PRIMER (F-19.66)

REPAIR

REF 24 25 26

125 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

BREAK SHARP EDGES 0.06 R UNLESS SHOWN DIFFERENTLY

SHOT PEEN (BUT NOT BORES FOR LUBE FITTING):
0.016-0.033 SHOT SIZE
0.014-0.018 A2 INTENSITY

MATERIAL: 4340M STEEL, 275-300 KSI

ALL DIMENSIONS ARE IN INCHES

17 APPLY BMS 10-79 TYPE 3 PRIMER (F-19.66) AND MIL-C-11796 CORROSION PREVENTIVE COMPOUND (F-19.03)

18 APPLY YELLOW BMS 10-60 ENAMEL (F-14.9815-302) AS A BACKGROUND FOR THE MARKINGS OF 19 AND 20

19 STENCIL THE ARROW AND 0.25-INCH CHARACTERS WITH BLACK BMS 10-60 ENAMEL (F-14.9815-701), OR USE DECALS BAC27TLG13 (LEFT), BAC27TLG14 (RIGHT) AS MODIFIED PER SB 32A0192

20 STENCIL IN 0.12-INCH CHARACTERS WITH BLACK BMS 10-60 ENAMEL (F-14.9815-701), OR USE DECALS BAC27TLG12 AS MODIFIED PER SB 32A0192

21 APPLY TYPE 41 CLEAR PROTECTIVE COATING (F-21.34) TO THE STENCILS (OR DECALS) AND THE BACKGROUNDS

22
1. APPLY BMS 10-79 TYPE 3 PRIMER (F-19.47)
2. APPLY BMS 5-59 SEALANT AS A PRIMER (F-19.55), 0.06-0.10 THICK TO AREA 21
3. WHEN THE SEALANT IS TACK-FREE, APPLY MORE BMS 10-79 TYPE 3 PRIMER (F-19.47) AND MIL-C-11976 CORROSION PREVENTIVE COMPOUND (F-19.03) TO THE FULL LENGTH SHOWN, INCLUDING THE SEALANT

23 APPLY THE SEALANT OF 22 STEP 2 TO THIS AREA

24 LIMIT FOR CHROME PLATE BUILDUP (SOPM 20-42-03), 0.003 MINIMUM THICK. GRIND TO DESIGN DIMENSIONS AND FINISH. PUT A 0.08 MAXIMUM RUNOUT AT EDGES, HOLES AND RELIEFS UNLESS SHOWN DIFFERENTLY

25 LIMIT FOR NICKEL PLATE BUILDUP (SOPM 20-42-09) AND MACHINE TO DESIGN DIMENSIONS AND FINISH. PUT A 0.06 MAXIMUM RUNOUT AT EDGES, HOLES AND RELIEFS UNLESS SHOWN DIFFERENTLY

26 RESTORATION TO DESIGN DIMENSIONS NOT REQUIRED

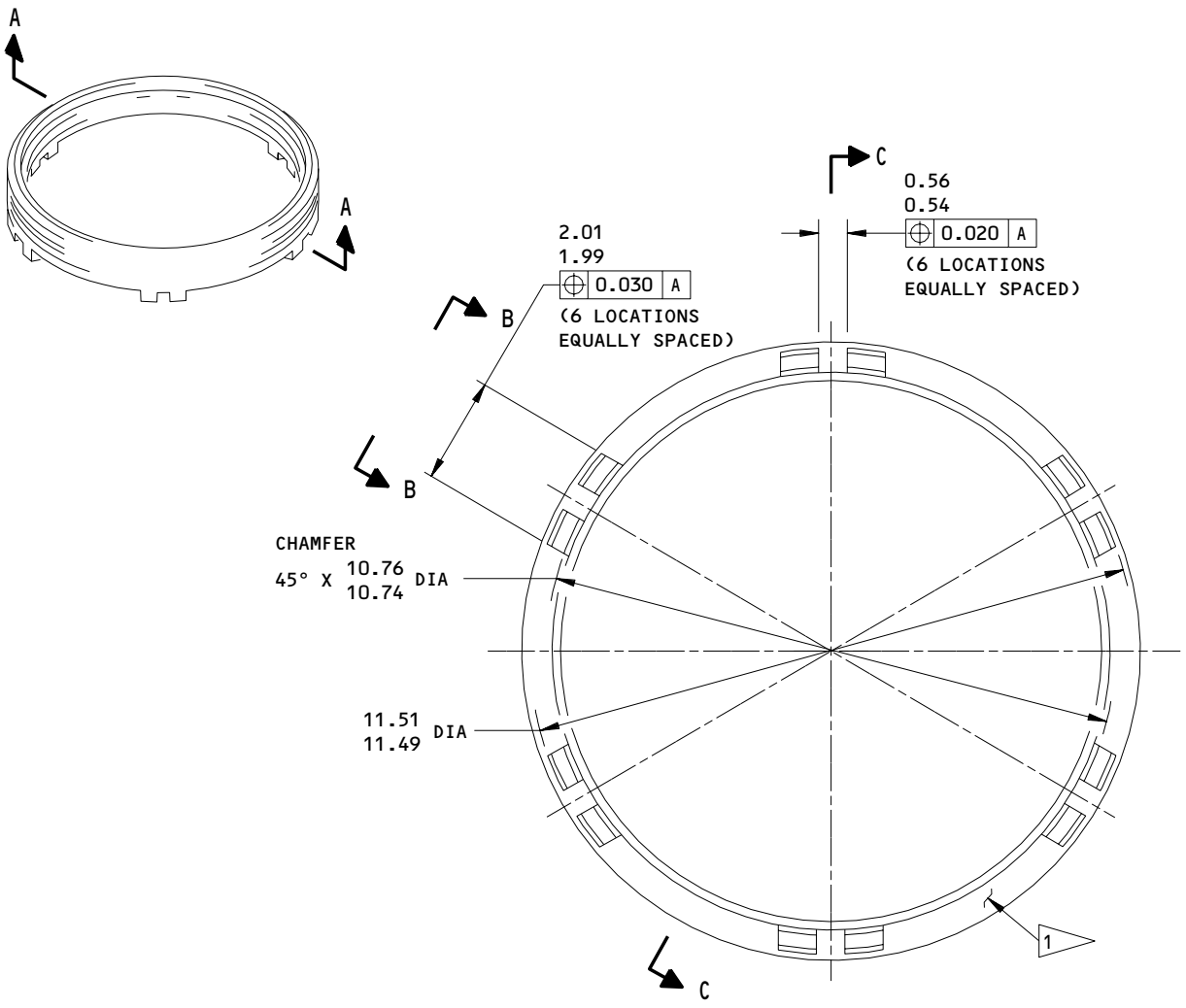
161T1280-3,-4
Plating Repair
Figure 601A (Sheet 11)

HARDNESS READINGS WORKSHEET

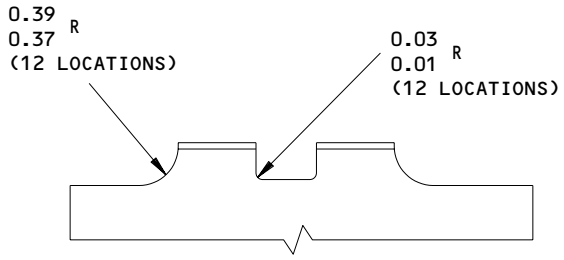
First Hardness Readings	1 Take 4 hardness readings on Diameter KA on the cylinder OD, 90 degrees apart. Enter the hardness readings.....	1a	
		1b	
		1c	
		1d	
	2 a Enter the largest of lines 1a thru 1d.....	2a	
	b Enter the smallest of lines 1a thru 1d.....	2b	(-)
	c Subtract line 2b from line 2a.....	2c	
	d If line 2c is greater than 1.5, go to step 3. If line 2c is less than or equal to 1.5, go to step 5.		
Supple-mental Hardness Readings	3 Take 4 hardness readings on Diameter KA on the cylinder OD, 90 degrees apart. Enter the hardness readings.....	3a	
		3b	
		3c	
		3d	
	4 a Enter the largest of lines 3a thru 3d.....	4a	
	b Enter the smallest of lines 3a thru 3d.....	4b	(-)
	c Subtract line 4b from line 4a.....	4c	
	d If line 4c is less than or equal to 1.5, go to step 5. If line 4c is greater than 1.5, recalibrate the hardness tester, and then start over again with step 1 above.		
Averaged Hardness Value	5 a Add lines 1a thru 1d (if line 2c is less than or equal to 1.5) or lines 3a thru 3d (if line 4c is less than or equal to 1.5).....	5a	
	b Divide line 5a by four (4).....	5b	
	c Round off line 5b amount to the nearest tenth. This is Averaged Hardness Value.	5c	
Repair Limits	6 Use Averaged Hardness Value (line 5c) and the inside or outside diameter, as applicable, with the repair graphs, to find the applicable repair limits (Fig. 601).		

Hardness Readings Worksheet
Figure 602

E38047



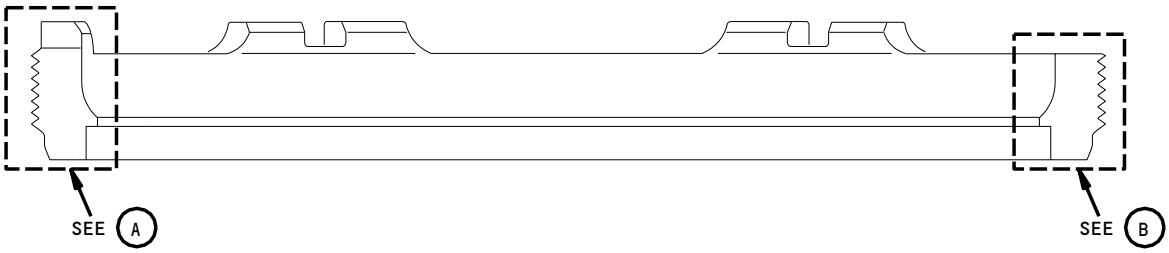
A–A



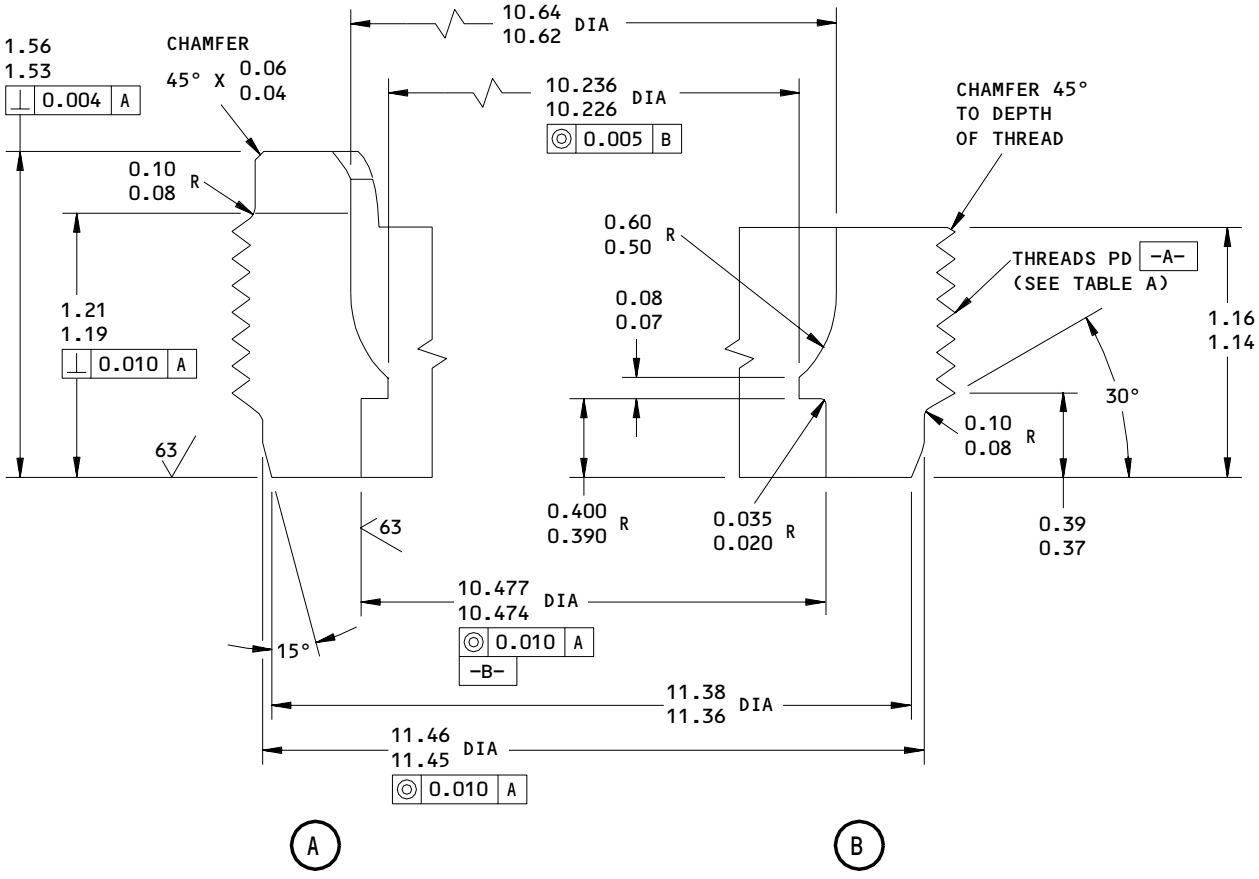
B–B

REPLACES 161T1150–SERIES

Oversize Gland Nut Details
Figure 603 (Sheet 1)



C-C



REPLACES 161T1150-SERIES

Oversize Gland Nut Details
Figure 603 (Sheet 2)

L48590

UNJS-3A THREAD SIZE	11.7500-8 (DESIGN)	11.8750-8 (1/8 OVERSIZE)
MAJOR DIA	11.7500 11.7350	11.8750 11.8600
PITCH DIA	11.6688 11.6622	11.7938 11.7872
MINOR DIA	11.6057 11.5915	11.7307 11.7165
ROOT RADIUS	0.0226 0.0188	0.0226 0.0188

TABLE A

REFINISH

CADMIUM PLATE (F-15.02), 0.0002-0.0004 THICK. APPLY PRIMER AND YELLOW ENAMEL AS SHOWN IN CMM 32-00-02.

1 STEEL STAMP (BEFORE HEAT TREAT) WITH PART NUMBER, OVERSIZE MAJOR THREAD DIAMETER, AND "SPECIAL OVERSIZE"

REPAIR

125 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

BREAK SHARP EDGES 0.02-0.03 R UNLESS SHOWN DIFFERENTLY

MATERIAL: 4330M STEEL, 180-200 KSI

DIMENSIONS APPLY BEFORE PLATING

ALL DIMENSIONS ARE IN INCHES

REPLACES 161T1150-SERIES

Oversize Gland Nut Details
Figure 603 (Sheet 3)

L48608

WITNESS LINE REPLACEMENT - REPAIR 1-4

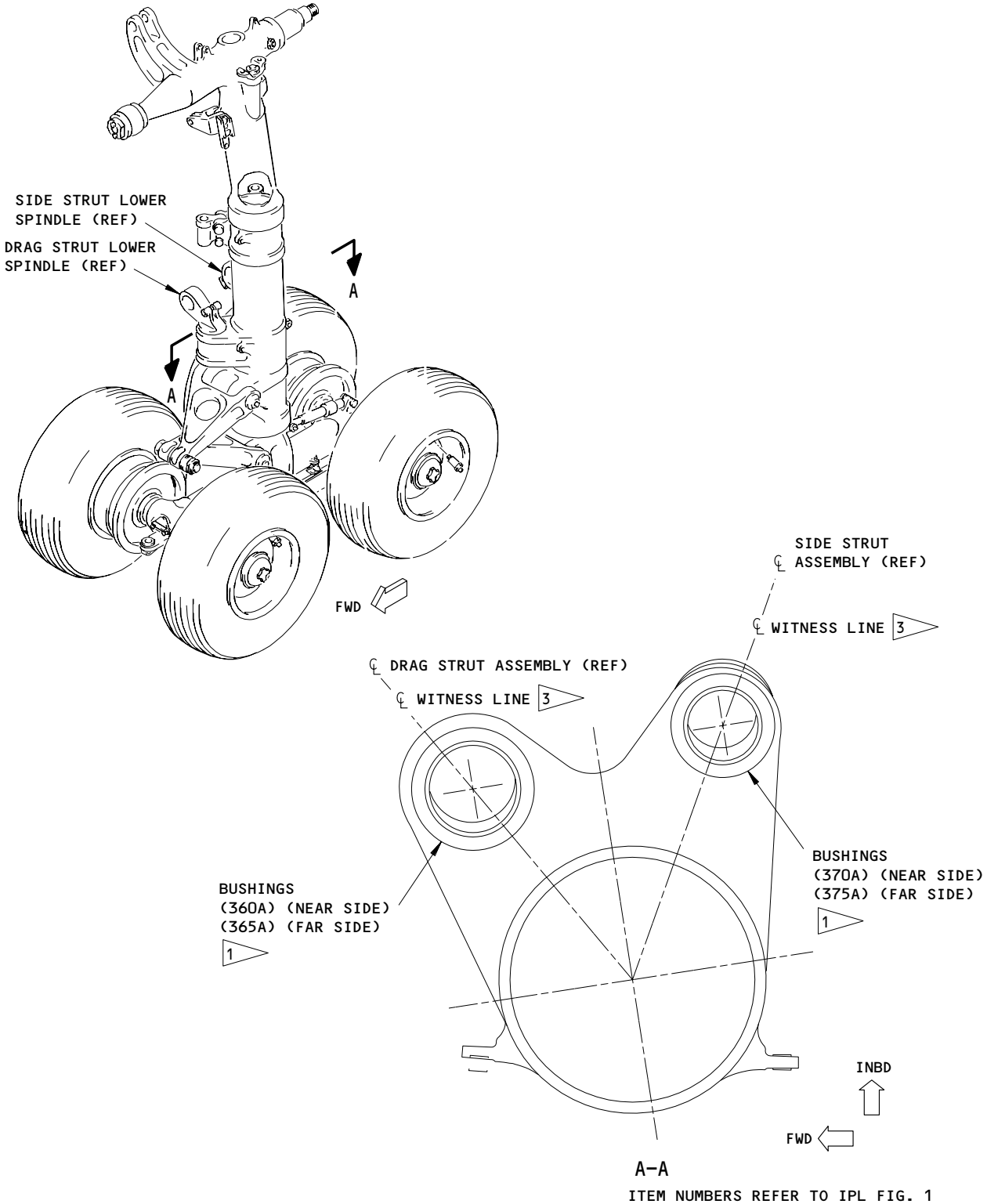
161T1048-4

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

1. Witness Lines on Bushings (360A, 365A, 370A, 375A) (Fig. 601)

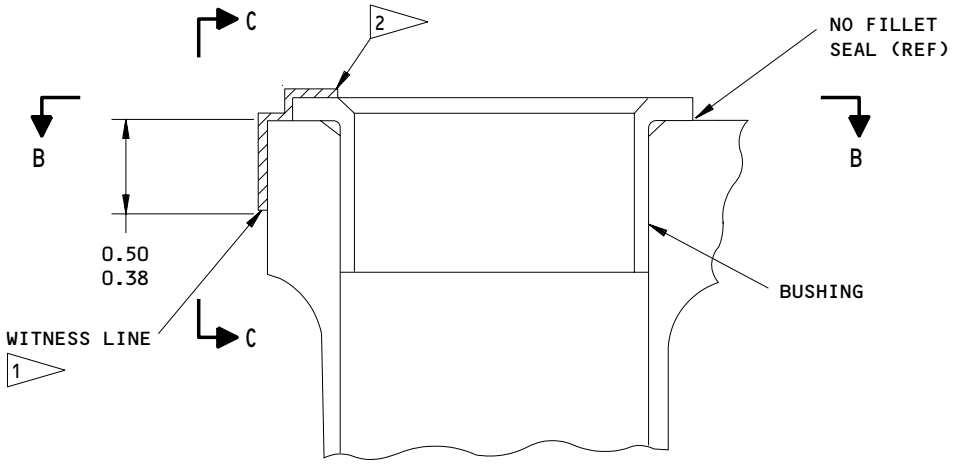
   A. Paint the stripe on the bushings of the shock strut as shown. Use BMS 10-60 enamel, orange color 201.

   B. Apply a layer of type 41 protective finish (F-21.34) over the orange stripes and a minimum of 0.10 inch on the adjacent surfaces.

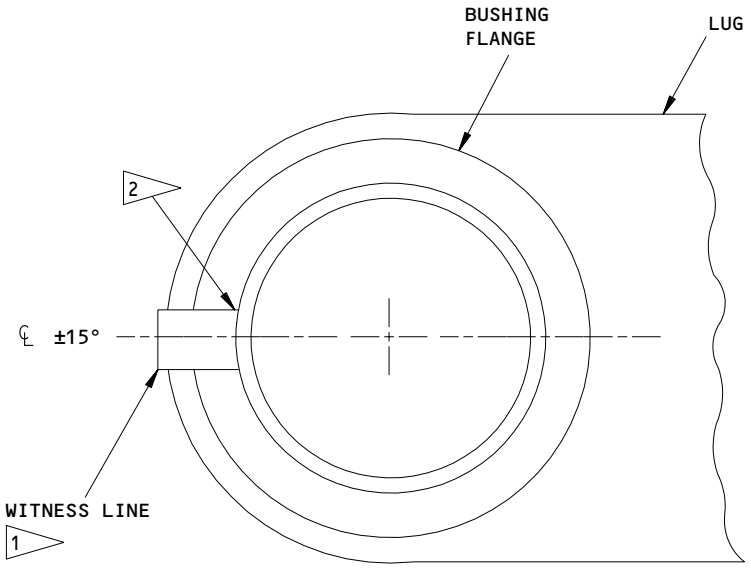


161T1048-4
Bushing Witness Line Installation Details
Figure 601 (Sheet 1)

G93660



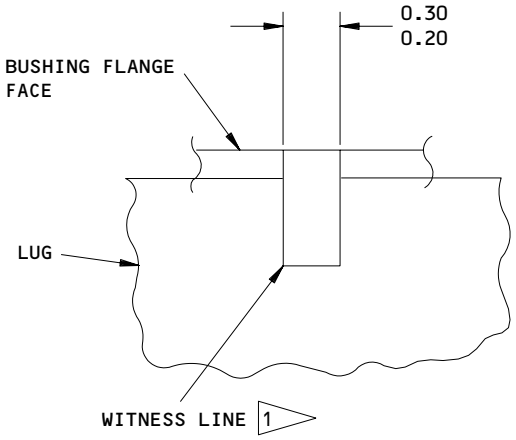
TYPICAL BUSHING AND LUG



B-B

LEFT HAND SHOWN
RIGHT HAND OPPOSITE

161T1048-4
Bushing Witness Line Installation Details
Figure 601 (Sheet 2)



C-C

LEFT HAND SHOWN
RIGHT HAND OPPOSITE

1 APPLY A CONTINUOUS STRIPE OF ORANGE BMS 10-60 ENAMEL (SRF-14.9815-201) AND THEN A LAYER OF TYPE 41 PROTECTIVE COATING ON THE STRIPE, AND OUT TO THE ADJACENT SURFACE 0.010 MINIMUM.

2 APPLICATION OF THE WITNESS LINE UP TO THE CHAMFER IS PREFERRED.

3 TO BE WITHIN ±15 DEGREES OF INDICATED STRUT CENTERLINE.

IPL NUMBERS REFER TO IPL FIG. 1

ALL DIMENSIONS ARE IN INCHES

161T1048-4
Bushing Witness Line Installation Details
Figure 601 (Sheet 3)

G93663

CYLINDER ASSY, INNER - REPAIR 2-1

015T1433-4 thru -9, -14, -15
161T1120-3, -6 thru -8, -9, -11, -12, -14, -16,
-20, -22, -24, -26, -27, -29 thru -32

1. Bushing Replacement (Fig. 601)

   NOTE: Refer to REPAIR-GEN for a list of applicable standard practices. Refer to IPL Fig. 1 for item numbers.

   A. Remove the old bushings. If this inner cylinder has the optional 161T1261-1 Karon-lined bushings (165E) (SB 32A0176), get new oversize 161T1261-1 bushings and adjust their flange and OD dimensions to adjust for material removed from the lug surfaces. Refer to REPAIR 2-2 for details.

   B. If you find defects on the cylinder, refer to REPAIR 2-2 and 2-3 for repair instructions.

   C. Install replacement bushings by the shrink-fit method.

   D. Make a check of the dimensions and machine them as necessary. But do not machine the bushing (165E) bore, because it is Karon-lined.

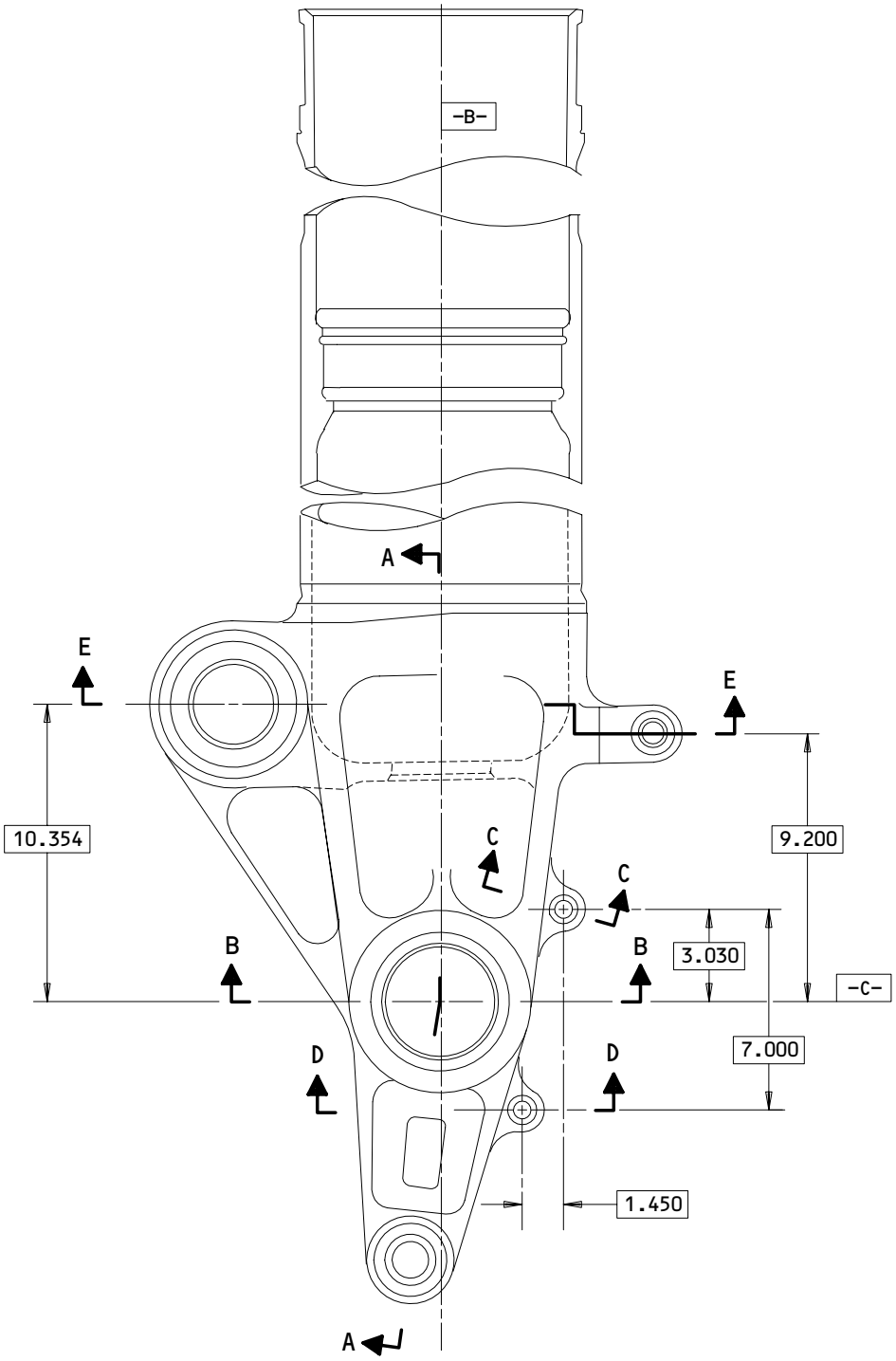
      NOTE: Machining of bushings after installation is not usually necessary because bushings and lug faces are premachined to give the dimensions shown.

   E. Seal the bushings per REPAIR 8-1.

   F. Apply grease at the lube fittings until you see grease on the ID of the bushings to be sure the lube passages are clear. Use Royco 11MS grease on lube fittings feeding bushings (165) (for bogie pivot pin). Use BMS 3-33 or MIL-G-23827 grease on other lube fittings.

2. Lube Fitting Replacement

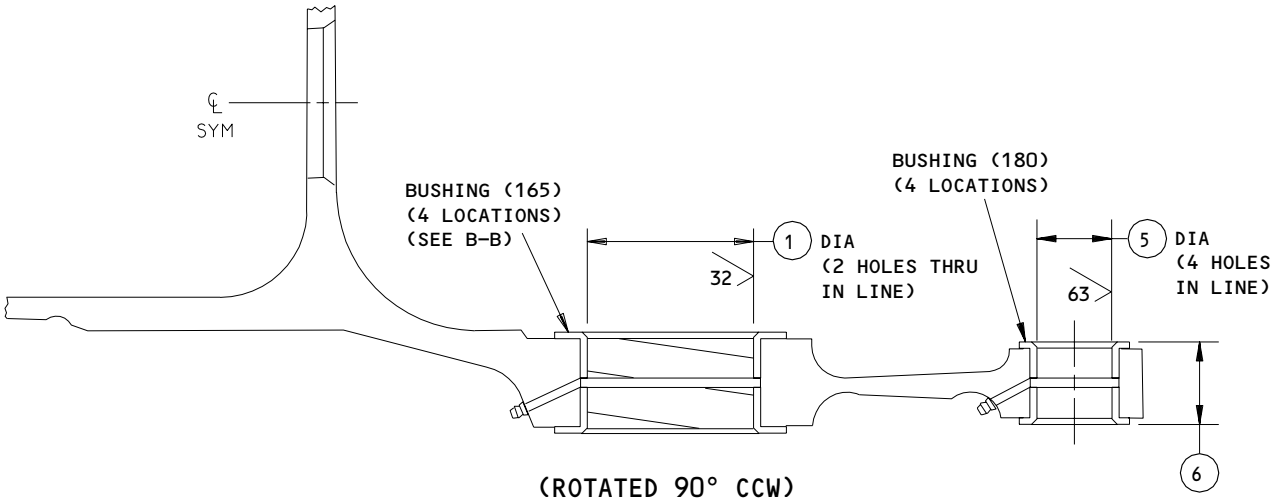
   A. Replace lube fittings (160) per CMM 32-00-03.



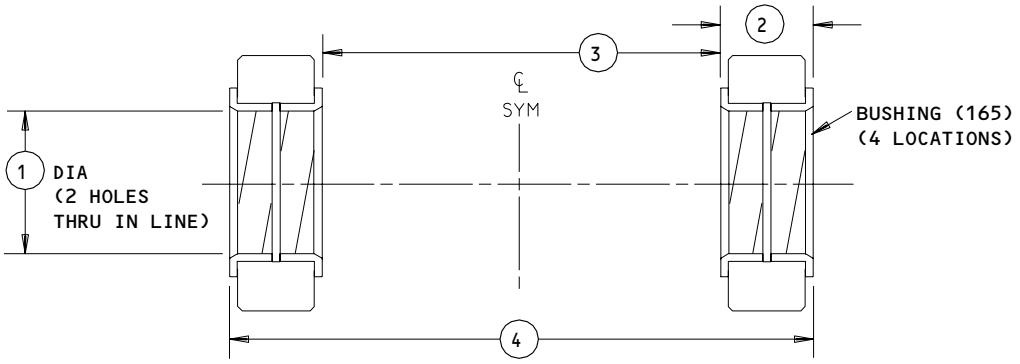
ALL DIMENSIONS ARE IN INCHES

015T1433-4 THRU -9,-14,-15
161T1120-3,-6,-7,-8,-9,-11,
-12,-14,-16,-20,-22,-24,
-26,-27,-29 THRU -32

Bushing Replacement
Figure 601 (Sheet 1)



(ROTATED 90° CCW)
A-A



(ROTATED 90° CCW)
B-B

	1 ▷1	1 ▷2	1 ▷3	2	3	4	5	6
DESIGN DIM	4.0015 4.0000	4.006 4.004	4.0066 4.0015 ▷4	2.2565 2.2485	10.757 10.747	15.260 15.252	1.7515 1.7500	1.821 1.813

▷1 161T1120-3,-7 (BEFORE SB 32-0021)

▷2 161T1120-6,-9,-11,-12,-14,-16,-20,-22,
-24,-26,-27,-29 THRU -32, AND
015T1433-SERIES, AND
CONFIGURATIONS AFTER SB 32-0021

▷3 CONFIGURATIONS WITH OPTIONAL KARON-COATED
BUSHINGS 161T1261-SERIES (SB 32A0176)

▷4 INSTALLED DIAMETER, DO NOT ADJUST

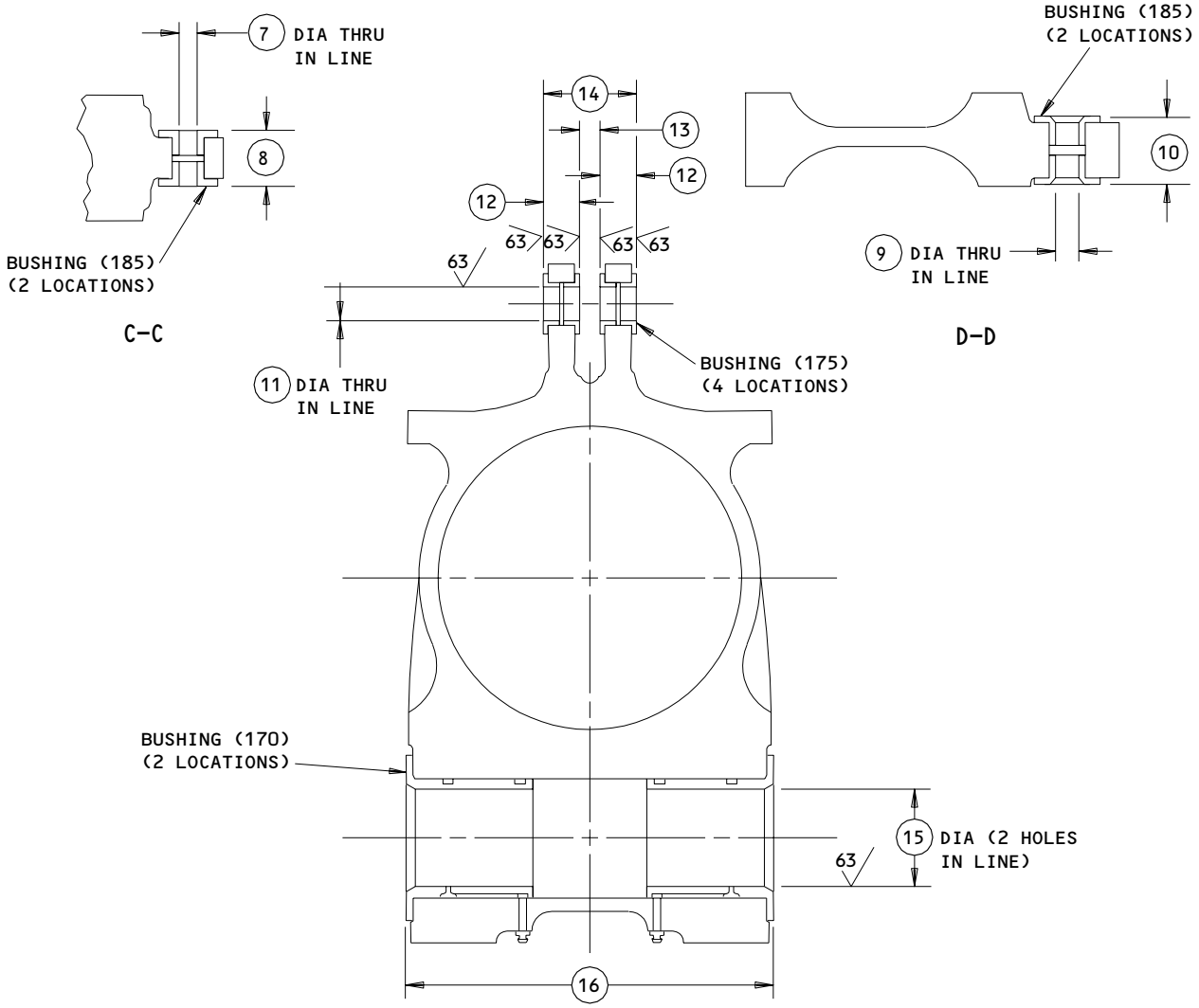
ITEM NUMBERS REFER TO IPL FIG. 1

ALL DIMENSIONS ARE IN INCHES

015T1433-4 THRU -9,-14,-15
161T1120-3,-6,-7,-8,-9,-11, -12,-14,-16,-20,-22,-24, -26,-27,-29 THRU -32

Bushing Replacement
Figure 601 (Sheet 2)

14606



	7	8	9	10	11	12	13	14	15	16
DESIGN DIM	0.3765 0.3750	0.889 0.881	0.3765 0.3750	0.889 0.881	1.0015 1.0000	0.927 0.920	0.947 0.935	2.804 2.796	3.0015 3.0000	11.247 11.239

ITEM NUMBERS REFER TO IPL FIG. 1

ALL DIMENSIONS ARE IN INCHES

015T1433-4 THRU -9,-14,-15
161T1120-3,-6,-7,-8,-9,-11,
-12,-14,-16,-20,-22,-24,
-26,-27,-29 THRU -32

Bushing Replacement
Figure 601 (Sheet 3)

INNER CYLINDER - REPAIR 2-2

161T1120-2, -4, -10, -13, -15, -17, -21, -23, -25, -28, -33

NOTE: Refer to REPAIR-GEN for a list of applicable standard practices. Refer to IPL Fig. 1 for item numbers. For repair of surfaces which is only replacement of the original finish, refer to REPAIR 2-3.

1. Lug Faces and Holes (Fig. 601)

A. Method 1 -- Removal of Defects in Center of Lug ID

NOTE: This procedure lets you remove defects without machining the entire bore oversize, if the defects are only at the center area which is exposed between two bushings.

(1) Calculate the repair diameter and width of groove necessary to remove defects (Fig. 602).

(2) Machine the center area as necessary.

(3) Cadmium-titanium plate and apply primer, BMS 10-11, type 1.

(4) Install replacement bushings per REPAIR 2-1.

(5) Completely fill the cavity under and between the bushings with grease. Use Royco 11MS grease for bushings (165); use BMS 3-33 or MIL-G-23827 for the other bushings.

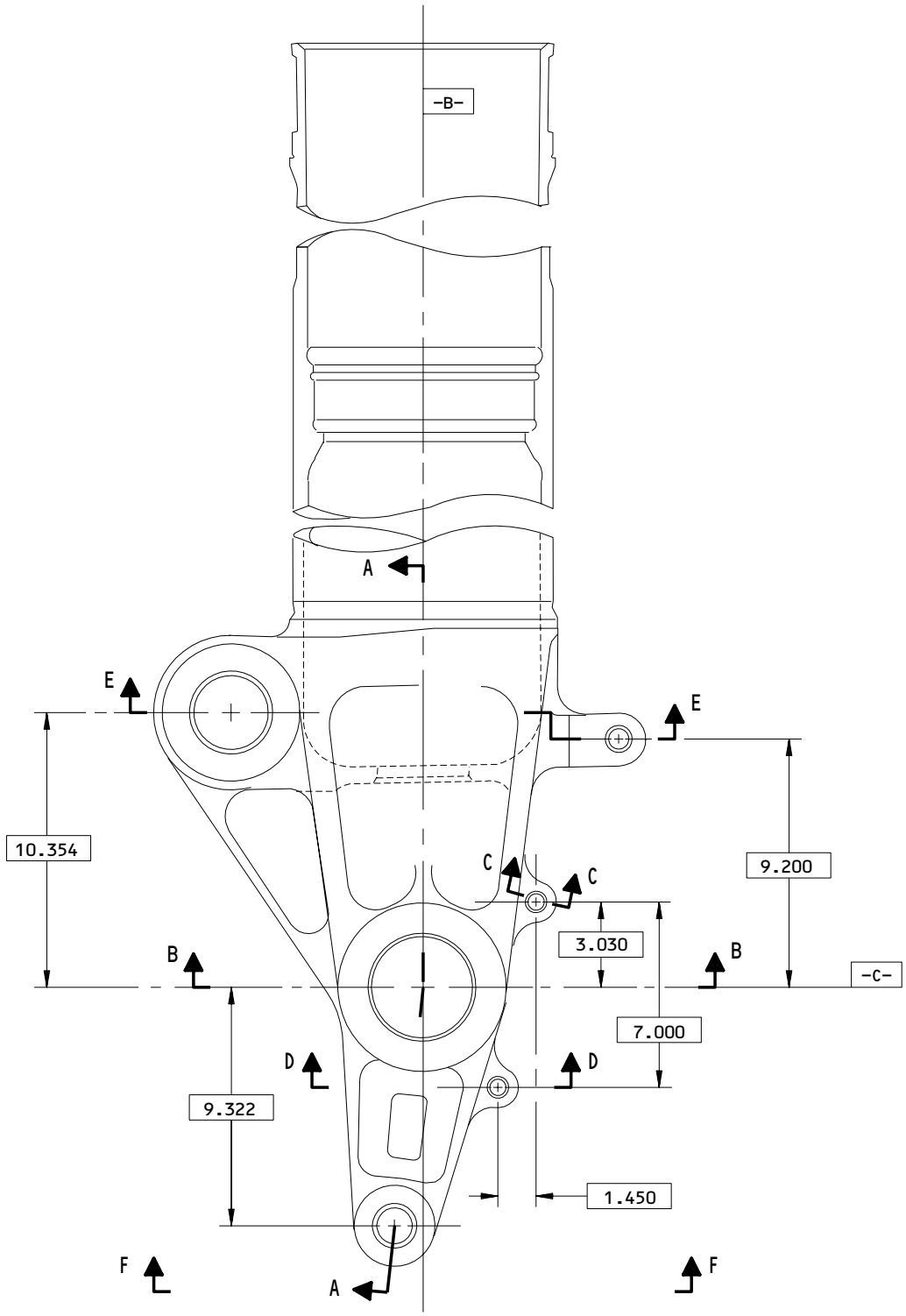
B. Method 2 -- Installation of Oversize Bushings

(1) Machine as required, within repair limits, to remove defects.

(2) Shot peen, cadmium-titanium plate and apply primer, BMS 10-11, type 1.

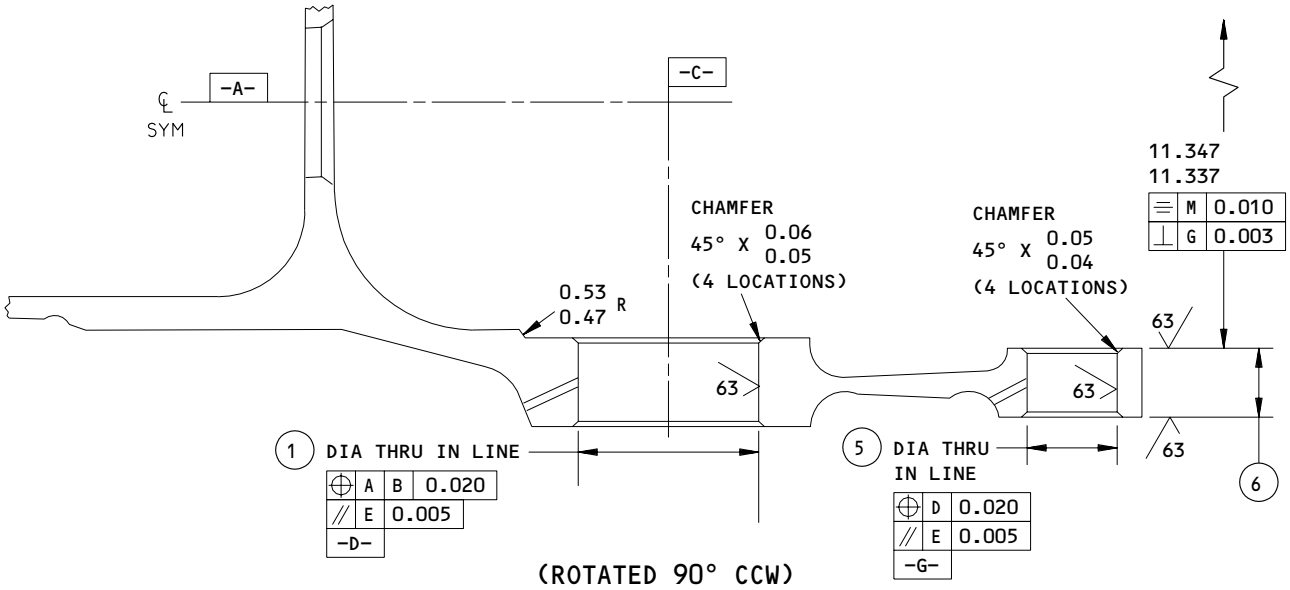
(3) Make oversize bushings (Fig. 605 and on), as required, to adjust for the material removed in step (1). If this inner cylinder had the optional 161T1261-1 Karon-lined repair bushings (165E) (SB 32A0176), get new oversize 161T1261-1 bushings, and adjust their OD and flange thickness to agree with the repaired lug surfaces. Use a metal-to-metal interference fit of 0.0045-0.0060 inch with the 161T1261-1 bushings.

(4) Install the bushings per REPAIR 2-1.

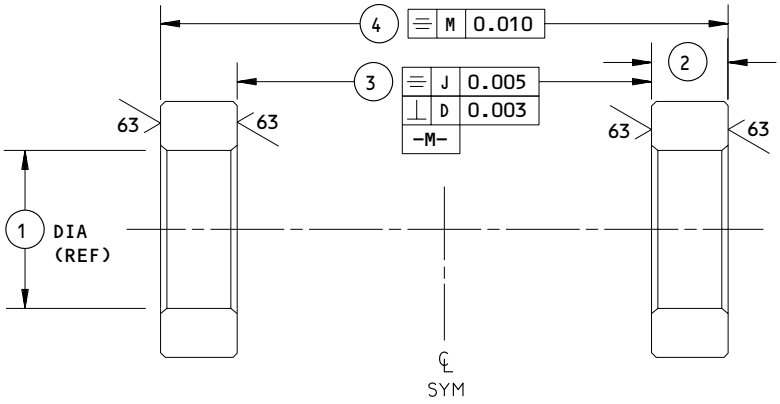


ALL DIMENSIONS ARE IN INCHES

161T1120-2,-4,-10,-13,-15,-17,-21,-23,-25,-28,-33
Lug Face and Hole Repair
Figure 601 (Sheet 1)



(ROTATED 90° CCW)
A-A



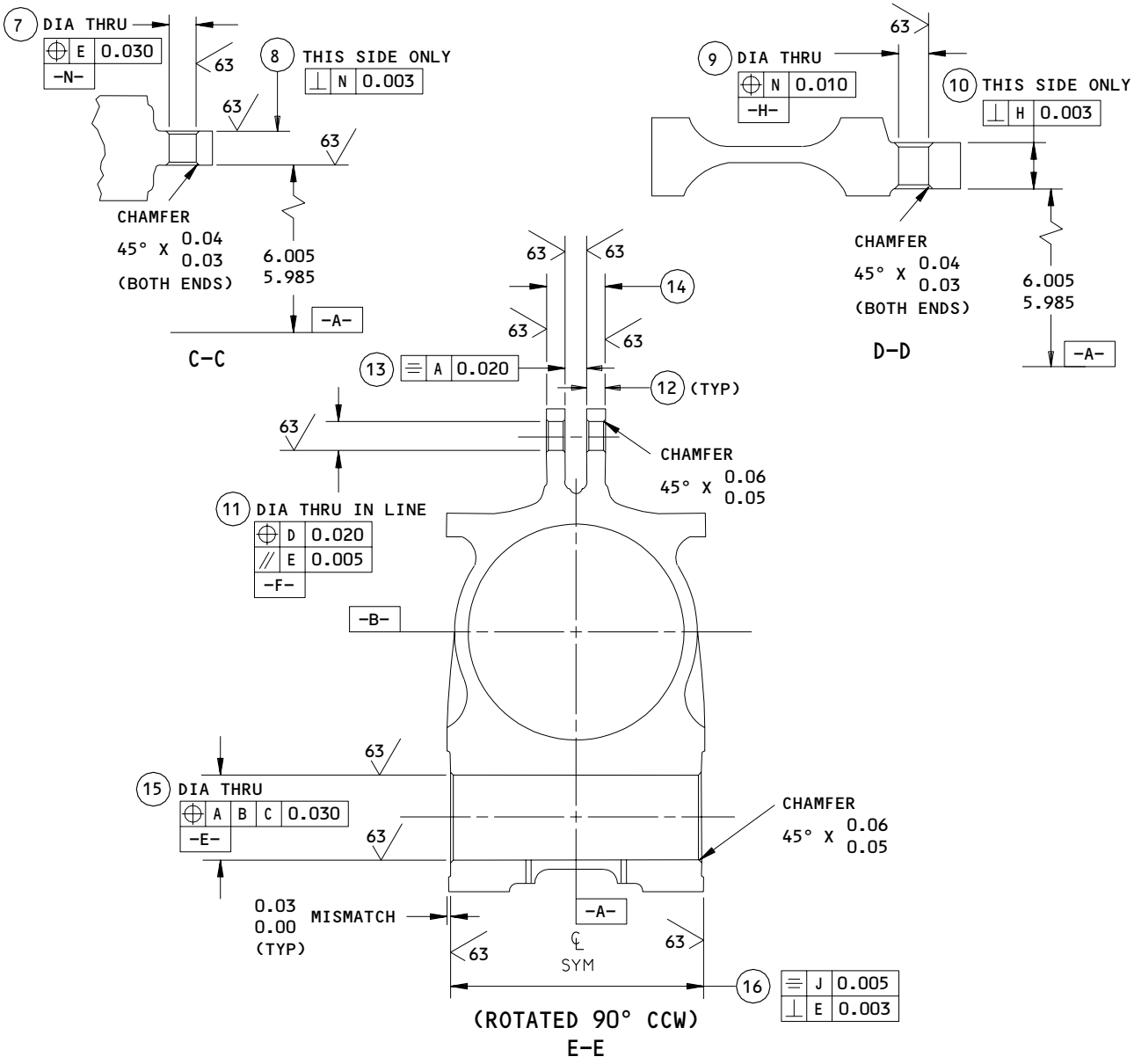
B-B

	1	2	3	4	5	6
DESIGN DIM	4.2015 4.2000	2.0899 2.0849	10.9186 10.9136	15.0934 15.0884	1.9115 1.9100	1.6944 1.6894
REPAIR LIMIT 1	4.2615 3 4.2315 4	2.0549 2 5 2.0749 2 6	10.9486 2 5 10.9286 2 6	15.0784 2 6 15.0584 2 5	1.9715	1.6594 2

ALL DIMENSIONS ARE IN INCHES

161T1120-2,-4,-10,-13,-15,-17,-21,-23,-25,-28,-33
Lug Face and Hole Repair
Figure 601 (Sheet 2)

110001

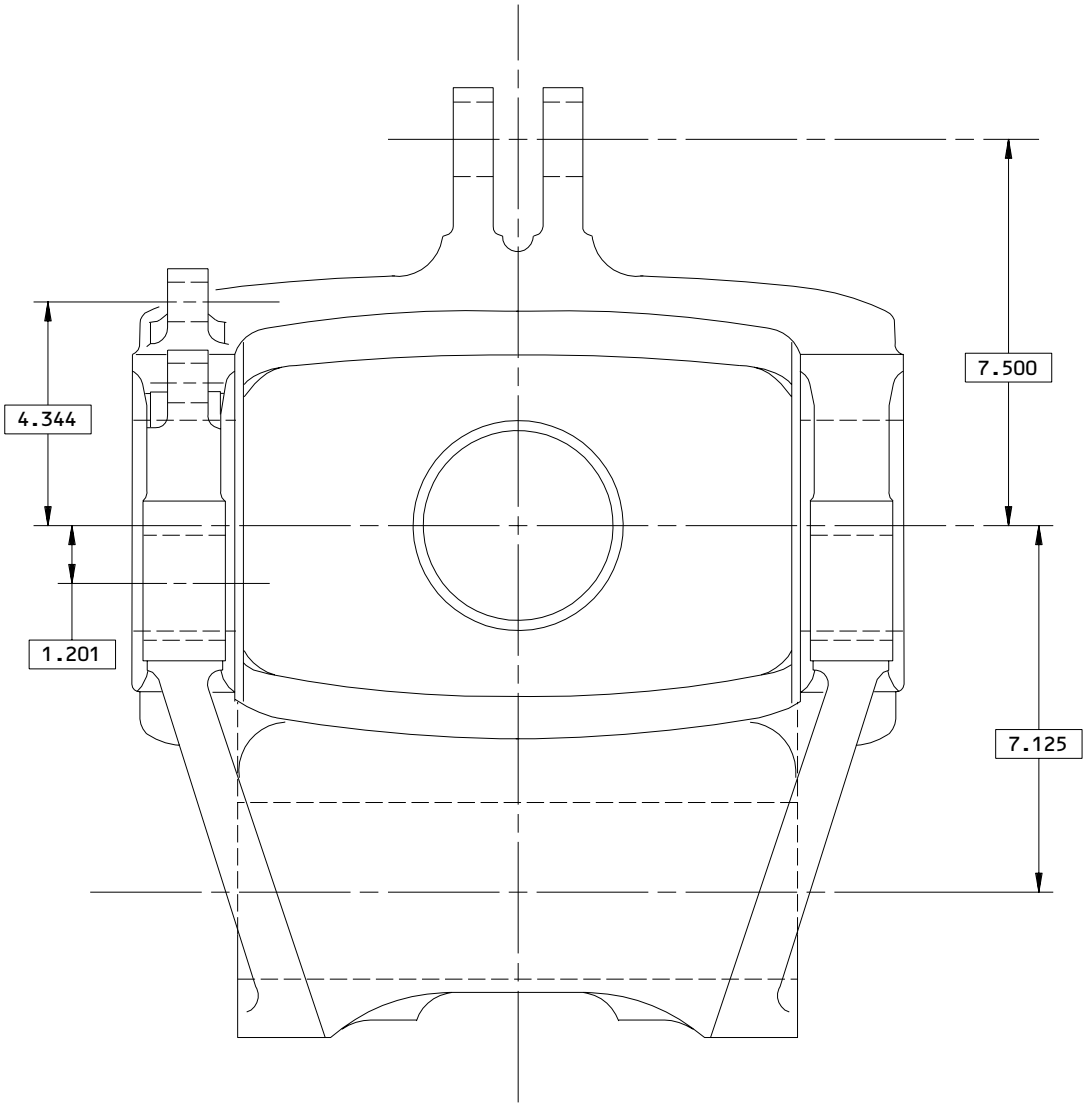


	7	8	9	10	11	12	13	14	15	16
DESIGN DIM	0.5015 0.5000	0.7624 0.7574	0.5015 0.5000	0.7624 0.7574	1.1265 1.1250	0.805 0.800	1.067 1.062	2.677 2.662	3.2415 3.2400	11.0734 11.0684
REPAIR LIMIT 1	0.5615	0.7274 2	0.5615	0.7274 2	1.1900	0.625 2	1.242 2	2.487 2	3.3015	11.0384 2

ALL DIMENSIONS ARE IN INCHES

161T1120-2,-4,-10,-13,-15,-17,-21,-23,-25,-28,-33
Lug Face and Hole Repair
Figure 601 (Sheet 3)

14694



(ROTATED 90° CCW)
F-F

ALL DIMENSIONS ARE IN INCHES

161T1120-2,-4,-10,-13,-15,-17,-21,-23,-25,-28,-33
Lug Face and Hole Repair
Figure 601 (Sheet 4)

REFINISH

(REFER TO REFINISH INSTRUCTIONS, REPAIR 2-3)

1 REPAIR LIMIT FOR INSTALLATION OF OVERSIZE BUSHINGS

2 LUG FACE MACHINING REQUIREMENTS:
1. MATERIAL REMOVED FROM ANY FACE MUST NOT BE MORE THAN HALF THE DIFFERENCE BETWEEN THE DESIGN DIM AND REPAIR LIMIT
2. FLAT SURFACE MUST BE MINIMUM OF 0.02 LARGER THAN FLANGE DIA OF BUSHING TO BE INSTALLED
3. BLEND MISMATCH STEPS TO 0.18-0.26 RADIUS OR IF WITHIN 0.10 OF LUG FILLET RADIUS USE SAME RADIUS AS FILLET. BREAK SHARP EDGES 0.03-0.07 R.

3 161T1120-2,-4,-10,-13,-15,-17,-21,-23,-25

4 161T1120-28,-33

5 161T1120-2,-4,-10,-13,-15,-21,-23,-25

6 161T1120-17,-28,-33

REPAIR

REF 1 2

125 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

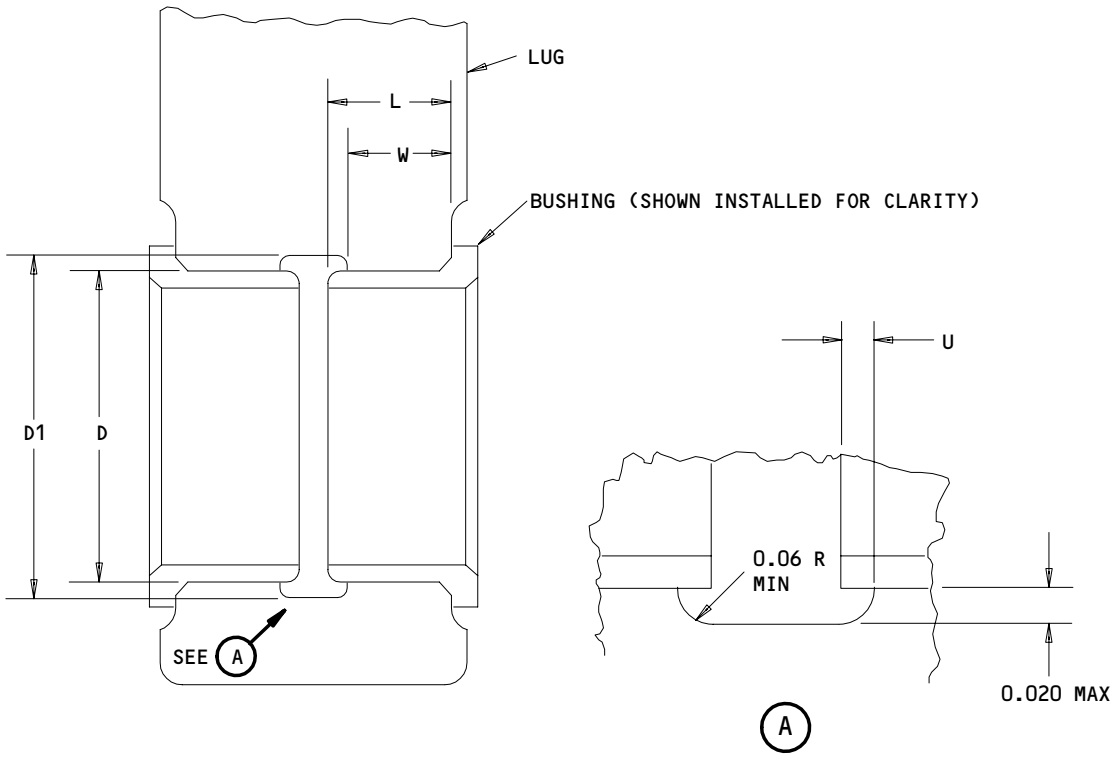
BREAK SHARP EDGES 0.06 R UNLESS SHOWN DIFFERENTLY

SHOT PEEN:
0.016-0.033 SHOT SIZE
0.014-0.018 A2 INTENSITY

MATERIAL: 4340M STEEL, 275-300 KSI

ALL DIMENSIONS ARE IN INCHES

161T1120-2,-4,-10,-13,-15,-17,-21,-23,-25,-28,-33
Lug Face and Hole Repair
Figure 601 (Sheet 5)



D = MAX REPAIR DIA OF HOLE (SEE FIG. 601)

D1 = MAX REPAIR DIA OF GROOVE = (D +0.040)

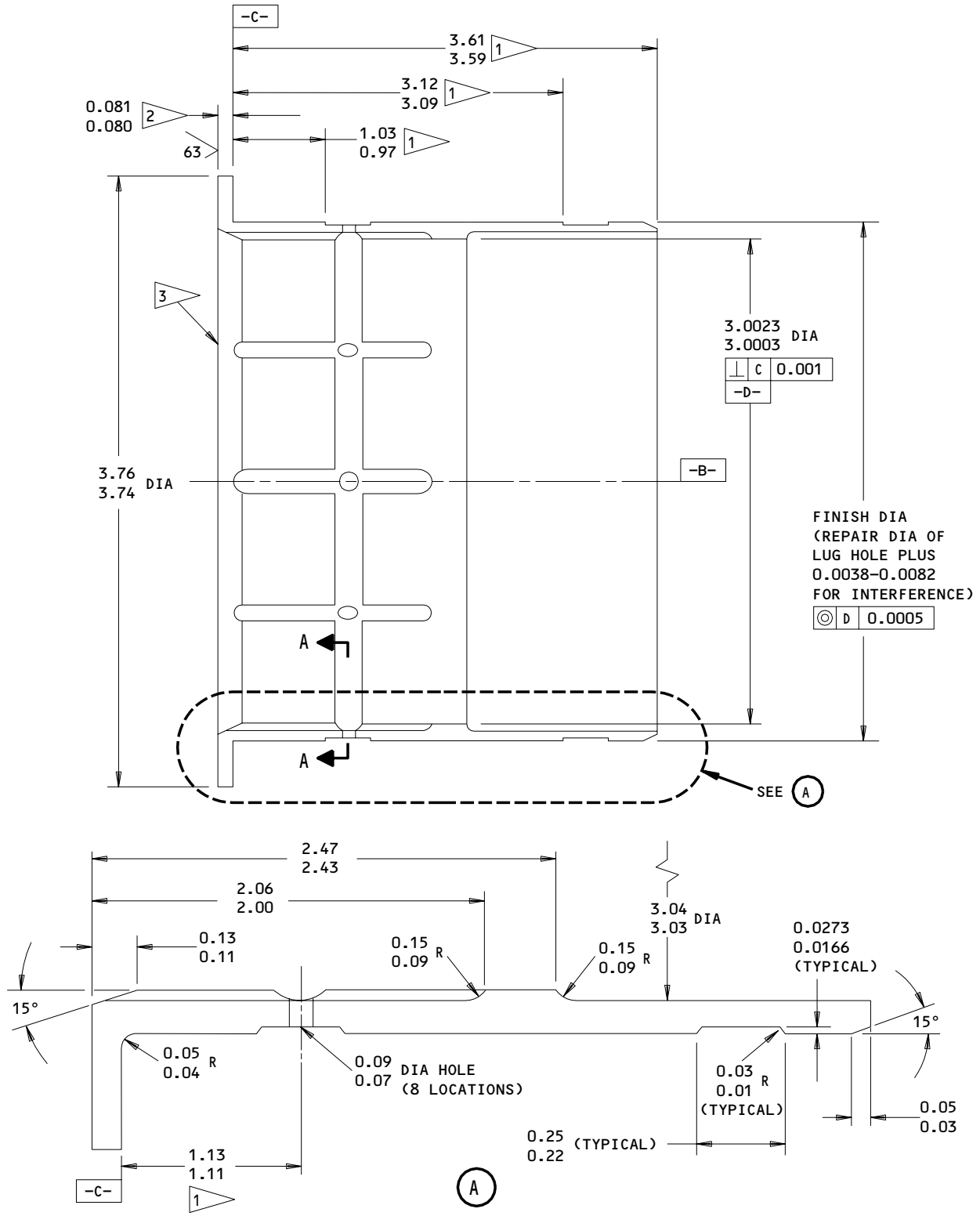
L = LENGTH OF BUSHING (SEE FIG. 603)

U = UNDERCUT = (L X 0.1) (0.06 MAX)

W = LUG DIM TO EDGE OF GROOVE = (L–U)

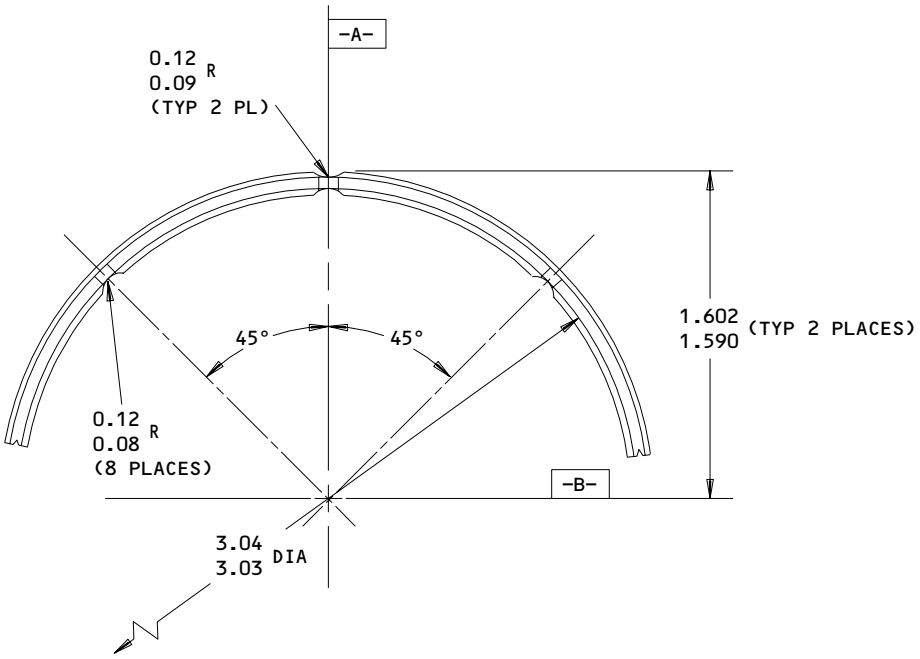
ALL DIMENSIONS ARE IN INCHES

Lug Hole Diameter – Corrosion Removal from Area Between Bushings
Figure 602



HOLE LOCATION (15) FIG. 601 - REPLACES BUSHING (170A) 161T1128-2

Oversize Bushing Details
Figure 605 (Sheet 1)



A-A

125 ALL MACHINED SURFACES EXCEPT AS NOTED

BREAK SHARP EDGES 0.01-0.02 R

CADMIUM PLATE (0.0003-0.0005 THICK, F-15.06)
ALL OVER, EXCEPT AS NOTED

MATERIAL: AL-NI-BRZ PER AMS 4640 OR 4880

ALL DIMENSIONS APPLY BEFORE PLATING

ALL DIMENSIONS ARE IN INCHES

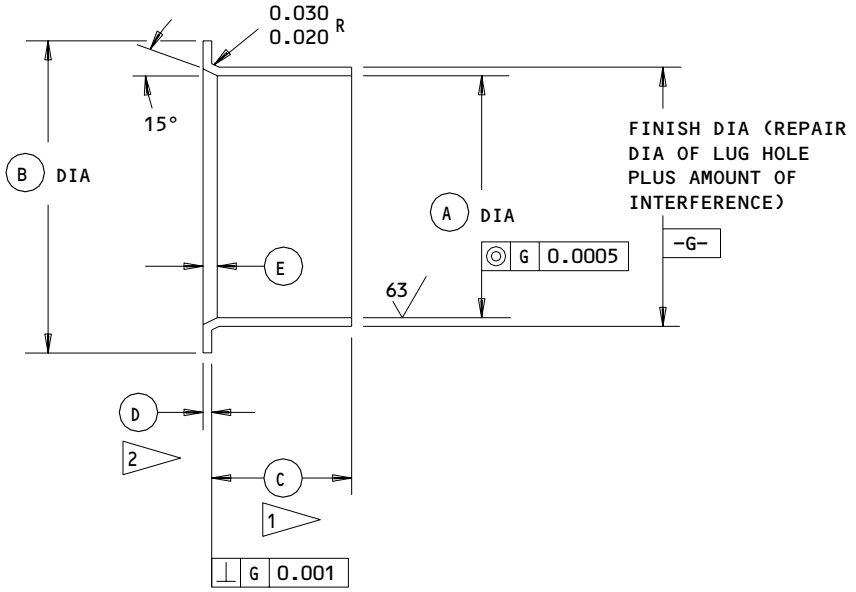
1 MINUS AMOUNT REMOVED FROM LUG FACE

2 PLUS AMOUNT REMOVED FROM LUG FACE

3 DO NOT PLATE

HOLE LOCATION (15) FIG. 601 - REPLACES BUSHING (17OA) 161T1128-2

Oversize Bushing Details
Figure 605 (Sheet 2)



HOLE LOCATION (FIG. 601)	REPLACES BUSHING	A	B	C 1	D 2	E	INTERFERENCE
11	(175) 161T1210-21	1.0016 1.0001	1.40 1.34	0.40 0.34	0.061 0.060	0.09 0.08	0.0037 0.0007
5	(180) 161T1210-22	1.7519 1.7504	2.25 2.19	0.80 0.74	0.061 0.060	0.09 0.08	0.0040 0.0010
7 9	(185) 161T1210-28	0.3794 0.3779	0.78 0.72	0.35 0.34	0.061 0.060	0.80 0.60	0.0034 0.0004

1 MINUS AMOUNT REMOVED FROM LUG FACE

2 PLUS AMOUNT REMOVED FROM LUG FACE

125 MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

BREAK SHARP EDGES 0.01-0.02 R

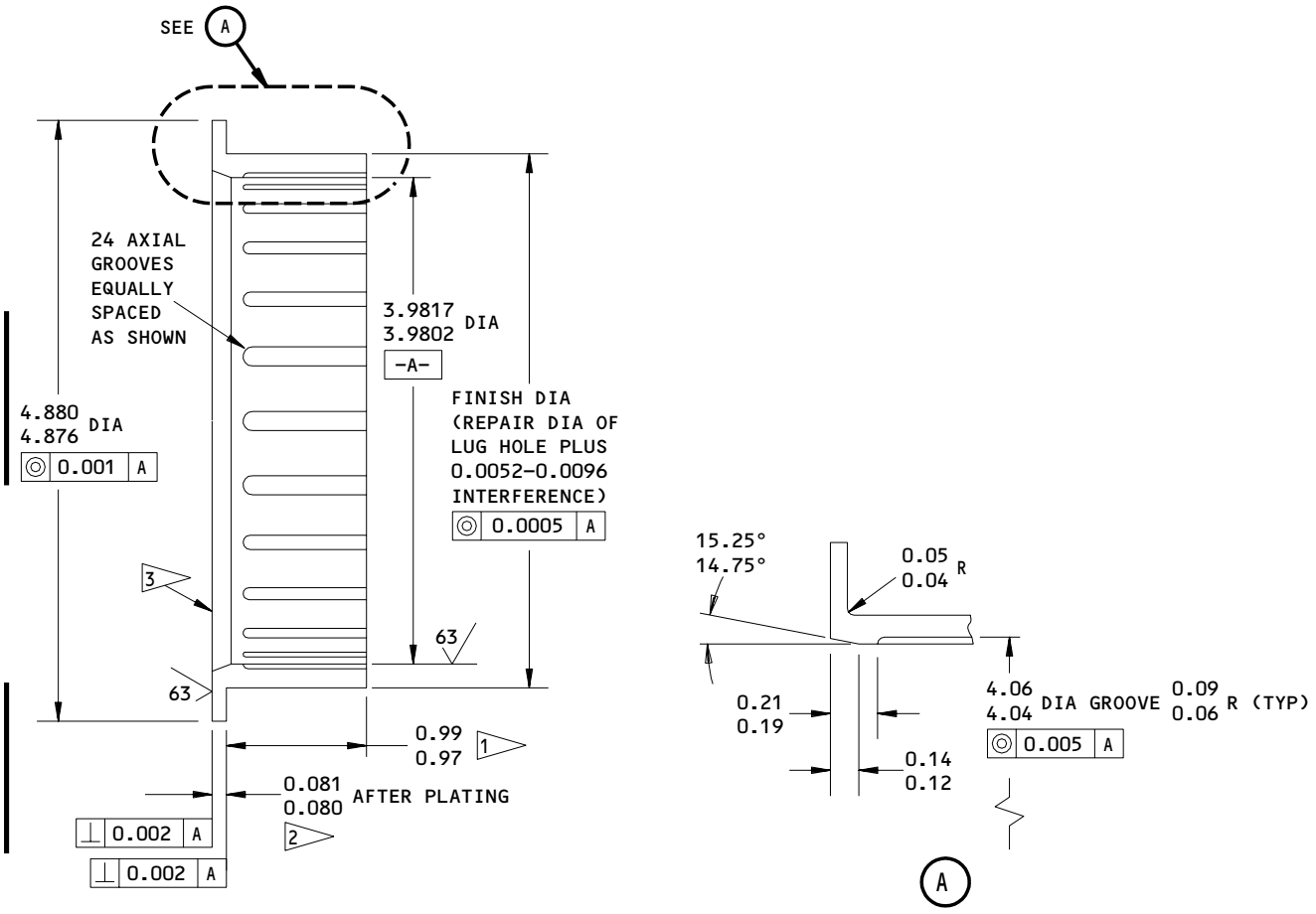
CADMIUM PLATE (0.0003-0.0005 THICK, F-15.06) ALL OVER EXCEPT ON ID AND FLANGE FACE

MATERIAL: AL-NI-BRZ PER AMS 4640 OR 4880

ALL DIMENSIONS APPLY BEFORE PLATING

ALL DIMENSIONS ARE IN INCHES

Oversize Bushing Details
Figure 606



1 MINUS AMOUNT REMOVED FROM LUG FACE

2 PLUS AMOUNT REMOVED FROM LUG FACE

3 DO NOT PLATE

125 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

MATERIAL: Al–Ni–BRONZE AS SHOWN IN AMS 4640 OR 4880

BREAK ALL SHARP EDGES 0.01–0.02 R

CADMIUM PLATE (0.0003–0.0005 THICK, F–15.06) ALL OVER, UNLESS SHOWN DIFFERENTLY

ALL DIMENSIONS ARE IN INCHES

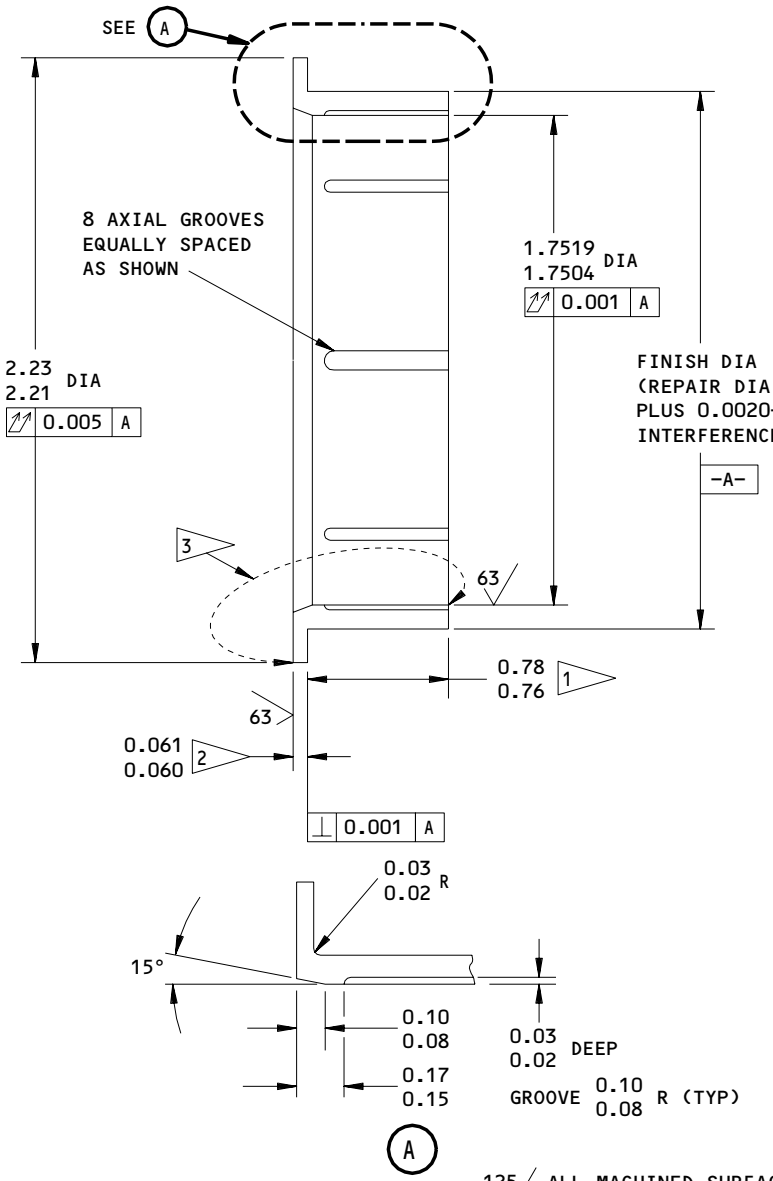
ALL DIMENSIONS APPLY BEFORE PLATING UNLESS SHOWN DIFFERENTLY

HOLE LOCATION (1) FIG. 601 – REPLACES BUSHINGS
(165) 161T1119–1, (165A) 161T1251–1, (165C) 161T1255–1, (165D) 015T0106–11

Oversize Bushing Details
Figure 607

131407

Figure Deleted (Use Figure 607)
Oversize Bushing Details
Figure 608



1 MINUS AMOUNT REMOVED FROM LUG FACE

2 PLUS AMOUNT REMOVED FROM LUG FACE

3 DO NOT PLATE

125 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

BREAK SHARP EDGES 0.01–0.02 R

CADMIUM PLATE (0.0003–0.0005 THICK, F-15.06), BUT NOT AREAS SHOWN BY 3.
OPTIONAL: NO FINISH

MATERIAL: BE-CU ALLOY C17200 (AMS 4533,4535,4650), CONDITION AT

ALL DIMENSIONS APPLY BEFORE PLATING

ALL DIMENSIONS ARE IN INCHES

HOLE LOCATION (5) FIG. 601 - REPLACES BUSHING (180B,180C) 161T1018-1,-2

Oversize Bushing Details
Figure 609

D12412

INNER CYLINDER - REPAIR 2-3

161T1120-2, -4, -10, -13, -15, -17, -21, -23, -25, -28, -33

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

1. Diameter 4 or K (Fig. 601)

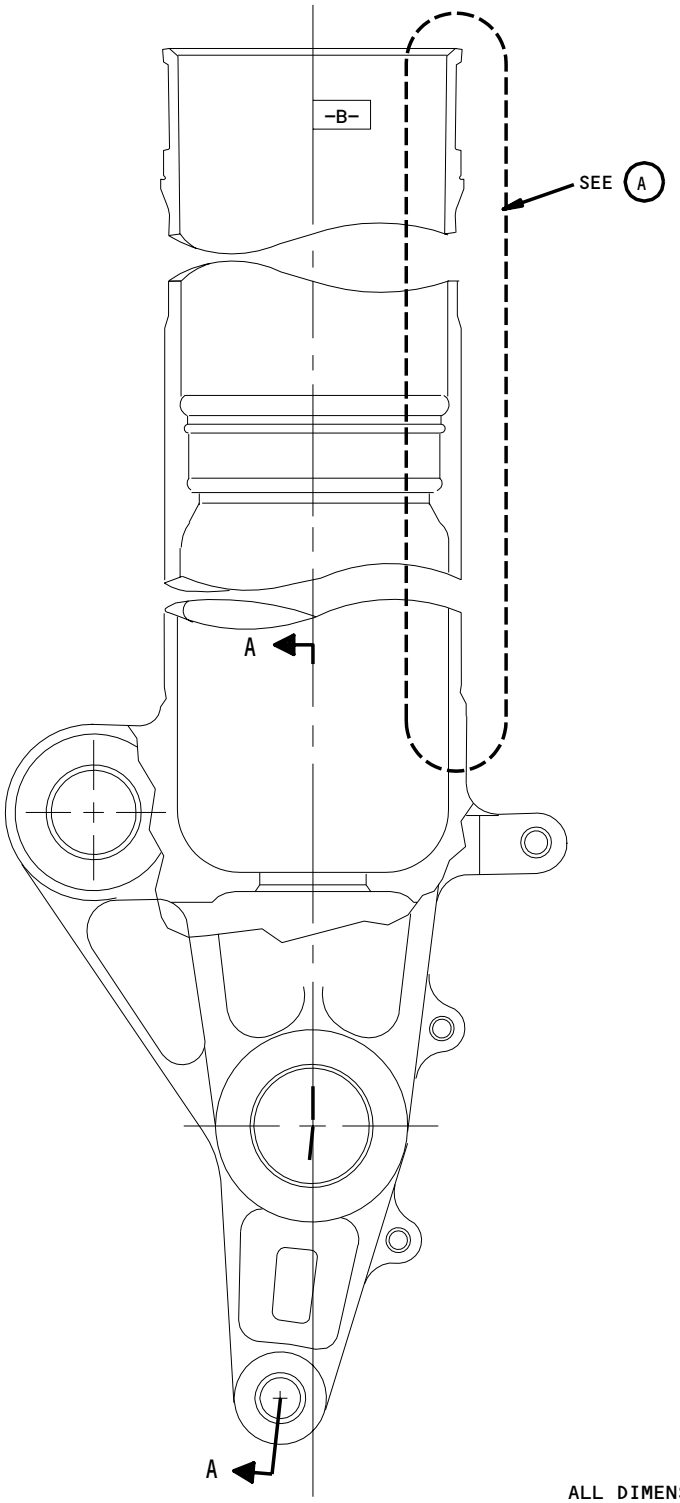
   A. Machine as required, within repair limits, to remove defects.

   B. These surfaces do not have a specified refinish.

2. Diameters 5 or J, 9 or L (Fig. 601)

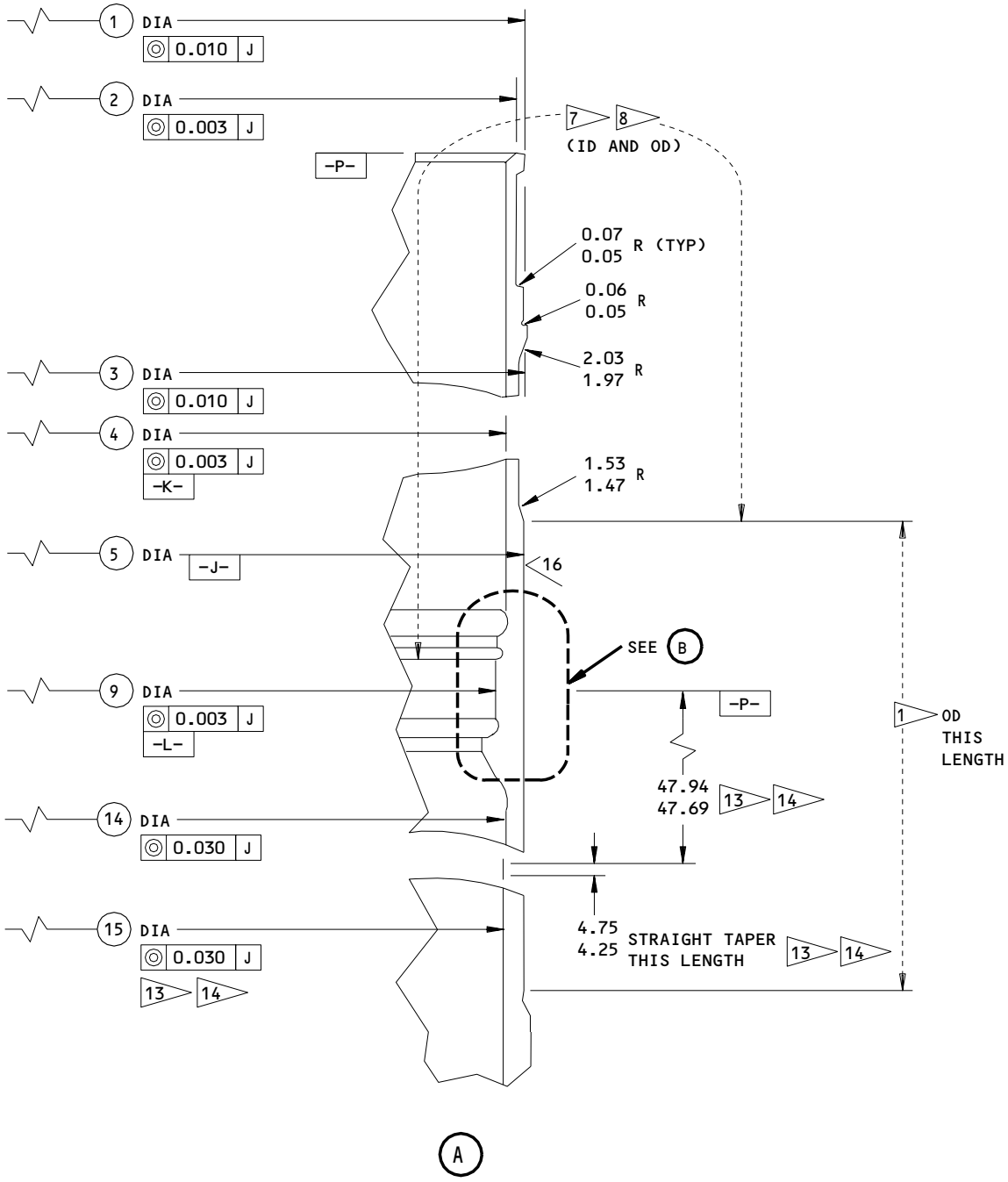
   A. Machine as required, within repair limits, to remove defects.

   B. Shot peen. Chrome plate. Grind the chrome plate to design dimensions and finish.



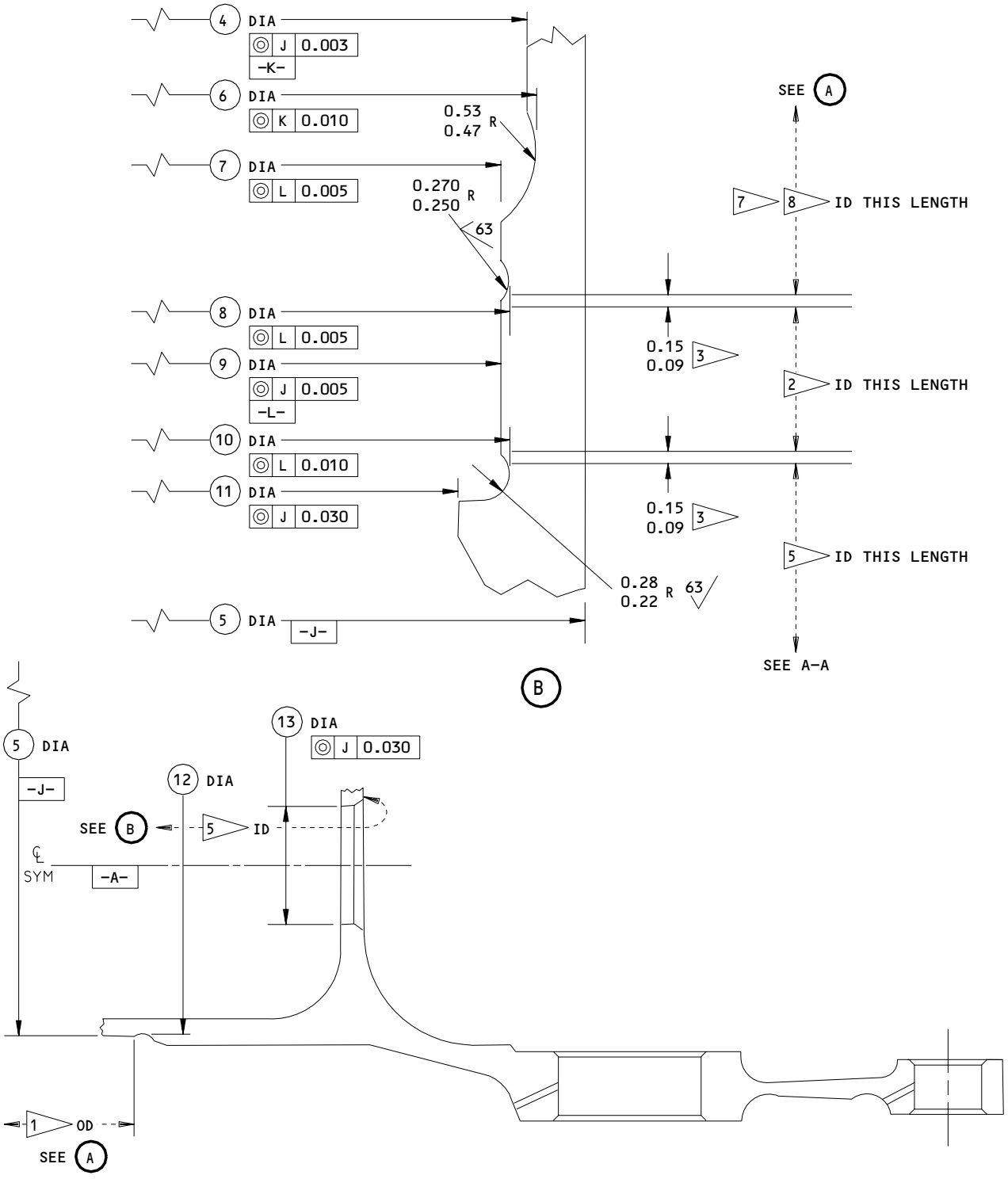
ALL DIMENSIONS ARE IN INCHES

161T1120-2,-4,-10,-13,-15,-17,-21,-23,-25,-28,-33
Plating Repair
Figure 601 (Sheet 1)



161T1120-2,-4,-10,-13,-15,-17,-21,-23,-25,-28,-33
Plating Repair
Figure 601 (Sheet 2)

109239



A-A

161T1120-2,-4,-10,-13,-15,-17,-21,-23,-25,-28,-33
Plating Repair
Figure 601 (Sheet 3)

109250

REFERENCE NUMBER	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	
DESIGN DIMENSION	9.749 9.744	9.351 9.347	9.980 9.970	9.000 8.995	9.997 9.994	9.040 9.030	8.743 8.733	8.880 8.875	8.727 8.724	
REPAIR LIMIT	---	---	---	9.011 10	9.964 9	---	---	---	8.757 9	

REFERENCE NUMBER	(10)	(11)	(12)	(13)	(14) 11	(14) 12	(14) 13	(14) 14	
DESIGN DIMENSION	8.775 8.765	7.930 7.910	9.960 9.950	3.53 3.47	9.020 9.000	8.890 8.870	8.816 8.786	8.760 8.730	
REPAIR LIMIT	---	---	---	---	---	---	---	---	

REFERENCE NUMBER	(15) 13	(15) 14
DESIGN DIMENSION	8.890 8.860	8.830 8.800
REPAIR LIMIT	---	---

161T1120-2,-4,-10,-13,-15,-17,-21,-23,-25,-28,-33
Plating Repair
Figure 601 (Sheet 4)

REFINISH

CADMIUM-TITANIUM PLATE (F-15.01) (UNLESS SHOWN DIFFERENTLY), MINIMUM THICKNESS 0.0005 WITH 0.0005-0.0010 IN THE BORES FOR BUSHINGS.

CHROME PLATE AREAS NOTED BY 1 2, WITH PLATING RUNOUT PER 3. WIPE CHROME PLATE WITH PRIMER (F-19.45).

APPLY, BMS 10-11, TYPE 1 PRIMER (SRF-14.06) IN BORES FOR BUSHINGS. APPLY PRIMER AND CORROSION PREVENTIVE COMPOUND TO INTERIOR PER 5.

AFTER BUSHING AND LUBE FITTING INSTL, APPLY PRIMER AND ENAMEL PER 6 TO ALL SURFACES BUT NOT ON BUSHINGS, LUBE FITTINGS, AND AS NOTED BY 7.

1 CHROME PLATE (F-15.34), 0.003 MIN THICK

2 CHROME PLATE (F-15.04), 0.003 MIN THICK

3 CHROME PLATE RUNOUT

5 APPLY PRIMER, BMS 10-11, TYPE 1 (F-20.03) AND CORROSION PREVENTIVE COMPOUND MIL-C-11796 CLASS 1 (F-19.03).

6 AFTER PLATING, APPLY PRIMER, BMS 10-11, TYPE 1 (F-20.03) AND ENAMEL, BMS 10-60, (F-14.9813, WHICH REPLACES SRF-14.9813).

7 NO PRIMER OR ENAMEL

8 DO NOT PLATE

9 LIMIT FOR CHROME PLATE (F-15.34) BUILDUP AND GRINDING TO DESIGN DIMENSIONS AND FINISH, WITH 0.06 MAX PLATING RUNOUT AT EDGES, HOLES, AND RELIEFS UNLESS SHOWN DIFFERENTLY.

10 RESTORATION TO DESIGN DIMENSIONS NOT REQUIRED.

REPAIR

REF 9 10

125 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

MATERIAL: 4340M STEEL, 275-300 KSI

BREAK SHARP EDGES 0.06 R UNLESS SHOWN DIFFERENTLY

SHOT PEEN (BUT NOT IN BORES FOR LUBE FITTING)
0.016-0.033 SHOT SIZE
0.014-0.018 A2 INTENSITY

ALL DIMENSIONS ARE IN INCHES

11 161T1120-2,-13,-21

12 161T1120-4,-10,-23

13 161T1120-15,-25

14 161T1120-17,-28,-33

161T1120-2,-4,-10,-13,-15,-17,-21,-23,-25,-28,-33
Plating Repair
Figure 601 (Sheet 5)

M62533

PIN, METERING - REPAIR 3-1

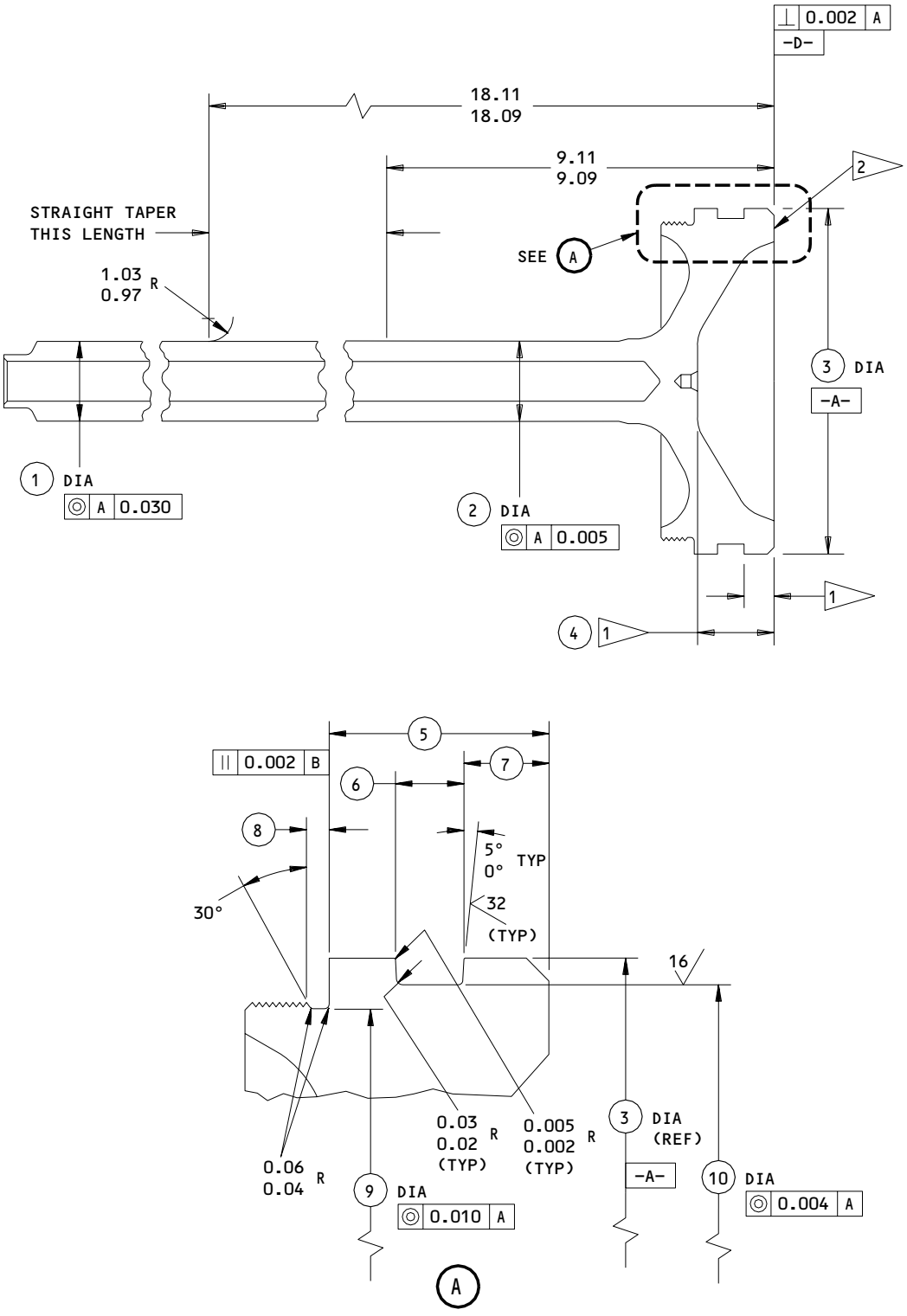
161T1156-1, -2, -3, -4

NOTE: Refer to REPAIR-GEN for a list of applicable standard practices. For repair of surfaces which is only replacement of the original finish, refer to Refinish instructions.

1. Bottom Face (Fig. 601)

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

   B. Refinish as indicated.



161T1156-1 Thru -4
Metering Pin Repair and Refinish
Figure 601 (Sheet 1)

14697

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
DESIGN DIM	1.655 1.645	1.905 1.895	8.718 8.716	1.810 1.790	1.960 1.950	0.589 0.579	0.810 0.790	0.260 0.240	7.880 7.870	8.247 8.244
REPAIR LIMIT	---	---	---	1.780 3	---	---	---	---	---	---

REFINISH

CHROMIC ACID ANODIZE (F-17.04) ALL OVER.
APPLY PRIMER TO AREAS 1

1 APPLY BMS 10-11, TYPE 1, PRIMER (F-20.03) ON THESE AREAS

2 LOCATION OF THE SERIAL NUMBER AND THE PART NUMBER

3 RESTORATION TO DESIGN DIMENSION IS NOT REQUIRED

REPAIR

REF 3

125 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

MATERIAL: AL ALLOY

ALL DIMENSIONS ARE IN INCHES

161T1156-1 Thru -4
Metering Pin Repair and Refinish
Figure 601 (Sheet 2)

L32410

BULKHEAD, UPPER - REPAIR 4-1

161T1161-1 thru -4, -6

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

1. Lock Pin Hole (Fig. 601)

   A. Remove all finishes per 20-30-02 except anodize.

   B. Machine as required to remove defects.

   C. Penetrant examine per 20-20-02.

   D. Chemical treat the machined surfaces.

   E. Apply primer to the holes.

   F. Make a repair bushing as shown (Fig. 602).

   G. Install the repair bushing per 20-50-03 by the shrink-fit method with BMS 5-95 sealant.

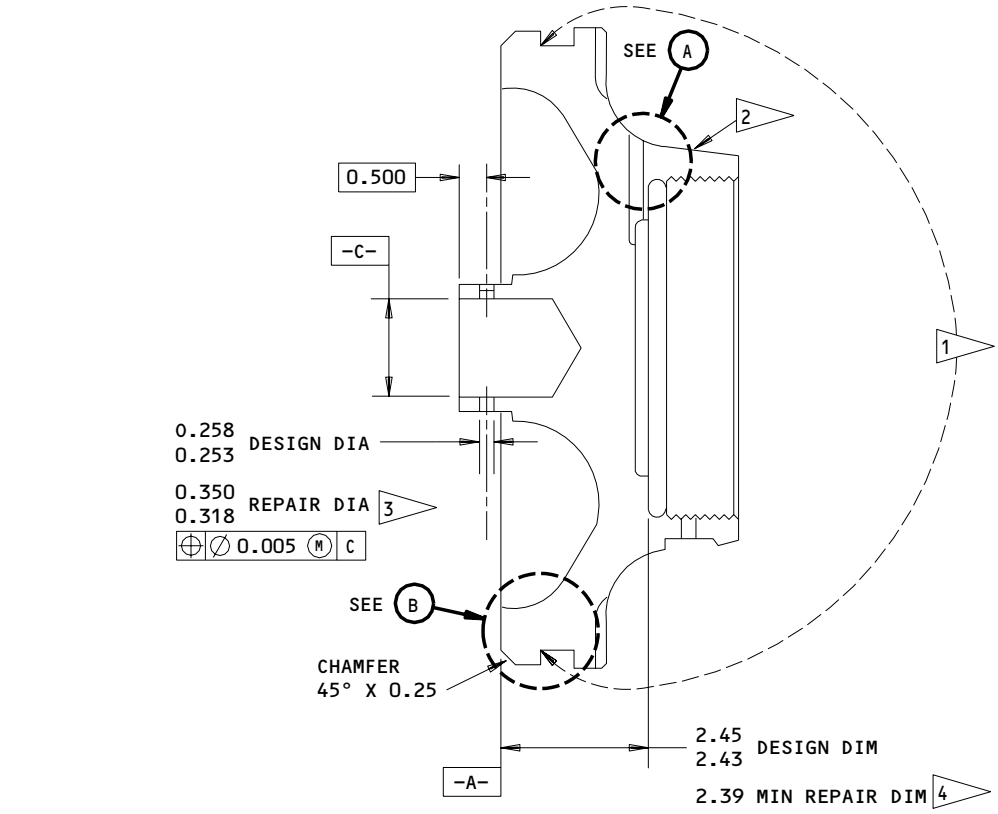
   H. Refinish as indicated.

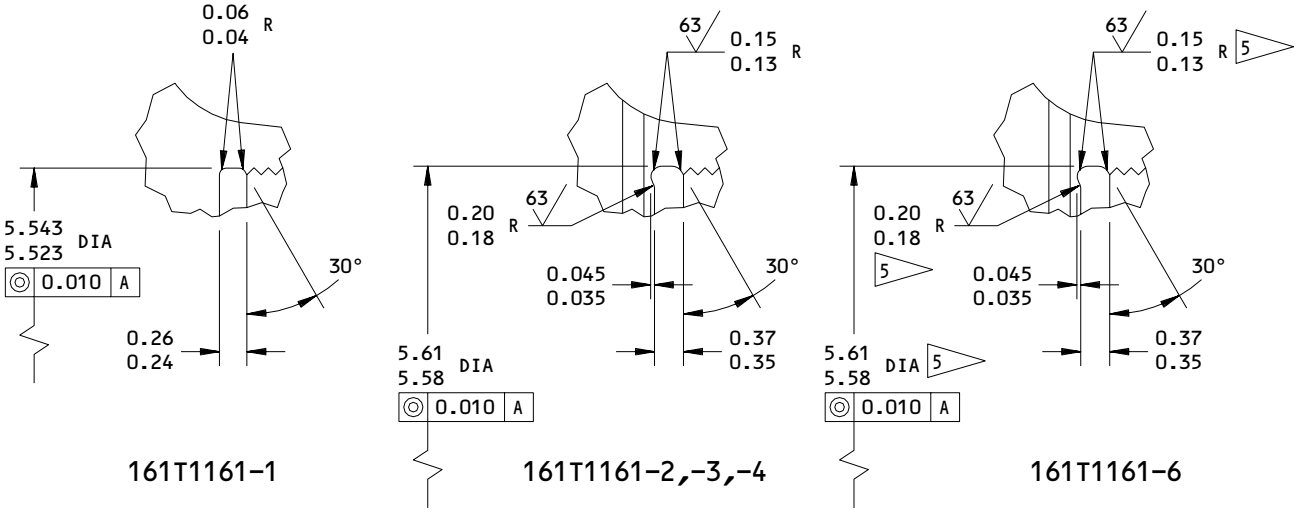
2. Face -A- (Fig. 601)

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

   B. Restore the chamfer as shown.

   C. Refinish as indicated.



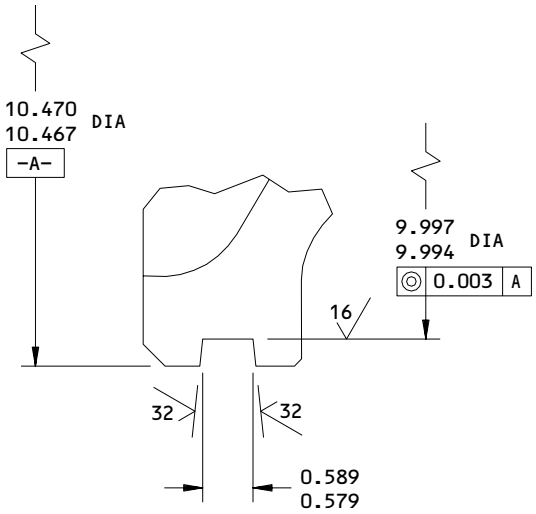


161T1161-1 161T1161-2,-3,-4 161T1161-6

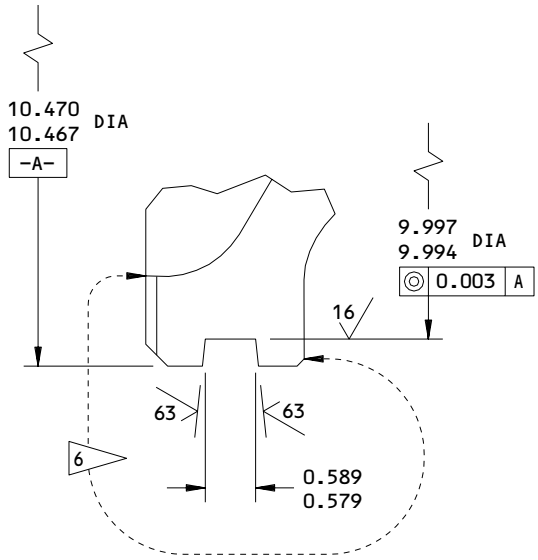
A

161T1161-1 THRU -4,-6
Bulkhead Repair and Refinish
Figure 601 (Sheet 1)

14698



161T1161-1 THRU -4



161T1161-6

B

REFINISH

CHROMIC ACID ANODIZE AND APPLY BMS 10-11, TYPE 1 PRIMER (F-18.13). APPLY BMS 10-11, TYPE 1 PRIMER (F-20.02) UNLESS SHOWN BY 1.

1. NO PRIMER
2. VIBRO ENGRAVE THE PART SERIAL NUMBER AND THE PART NUMBER ON THE NOTED AREA
3. RANGE FOR INSTALLATION OF REPAIR BUSHING (FIG. 602)
4. RESTORATION TO DESIGN DIMENSIONS NOT REQUIRED
5. (161T1161-6 ONLY) BE SURE TO SHOT PEEN THESE AREAS
6. (161T1161-6 ONLY) HARD ANODIZE (F-17.061), 0.0018-0.0022 THICK.

REPAIR

REF 3 4

125 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

BREAK SHARP EDGES 0.03 R UNLESS SHOWN DIFFERENTLY

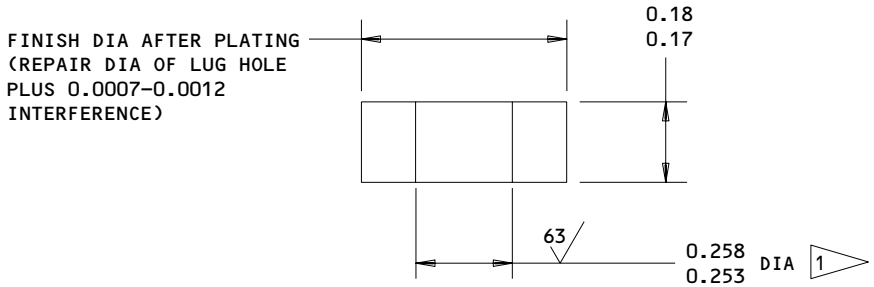
SHOT PEEN (161T1161-6 ONLY) BUT NOT THREADS; INCLUDE AREAS 5 :
0.023-0.046 SHOT SIZE
0.014 A2 INTENSITY

MATERIAL: AL ALLOY

ALL DIMENSIONS ARE IN INCHES

161T1161-1 THRU -4,-6
Bulkhead Repair and Refinish
Figure 601 (Sheet 2)

E74658



125 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

BREAK SHARP EDGES 0.01–0.02 R

CADMIUM PLATE (F–15.06, 0.0003 MIN)
ALL OVER UNLESS SHOWN DIFFERENTLY

MATERIAL AL–NI–BRZ PER AMS 4640 OR 4880

ALL DIMENSIONS ARE IN INCHES

1 NO PLATING IN ID

Repair Bushing Details
Figure 602

A53547

TUBE, SUPPORT - REPAIR 5-1

161T1162-1

NOTE: Refer to REPAIR-GEN for a list of applicable standard practices. For repair of surfaces which is only replacement of the original finish, refer to Refinish Instructions, Fig. 601.

1. Holes (Fig. 601)

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

   B. Chemical treat the machined surfaces.

   C. Make repair sleeves (Fig. 602) to adjust for the material removed in step A.

   D. Install the repair sleeves by the shrink fit method (SOPM 20-50-03).

   E. Machine the sleeves to design dimensions and finish.

2. OD - Diameter A (Fig. 601)

   A. Method 1 -- Repair for Oversize Equivalent of Bushing (400).

      (1) Machine as required, within repair limits, to remove defects.

      (2) Refinish as indicated.

      (3) On the mating lug of the outer cylinder, make a repair equivalent of bushing (400) to get a 0.003-0.013 inch clearance with this repaired tube. Be sure to identify this tube and the outer cylinder as matched parts (Ref REPAIR 1-2).

B. Method 2 -- Installation of Repair Sleeve

(1) Machine as required, within repair limits, to remove defects.

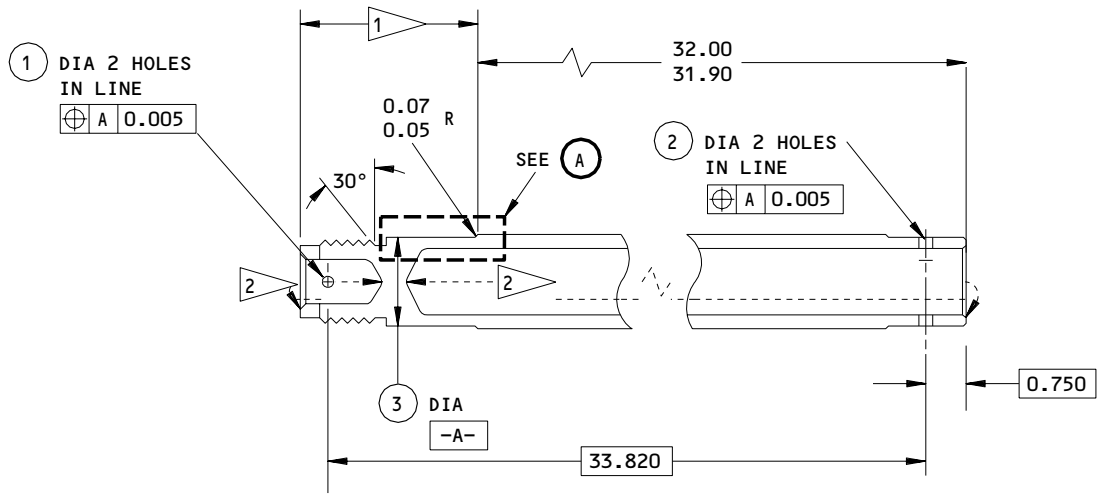
(2) Refinish as indicated.

(3) Make a repair sleeve (Fig. 603) to adjust for the material removed in step (1).

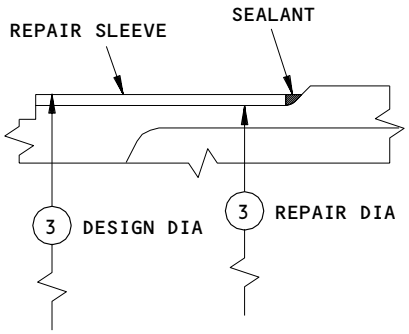
(4) Install the sleeve on the tube by the shrink-fit method (SOPM 20-50-03).

(5) Machine the sleeve to design dimensions and finish.

(6) Apply sealant as shown.



	1	2	3
DESIGN DIM	0.261 0.257	0.261 0.257	1.622 1.617
REPAIR LIMIT	0.389 3	0.389 3	1.557 4 1.557 5 1.500



SLEEVE REPAIR
A

REFINISH

CHROMIC ACID ANODIZE (F-17.04) ALL OVER. APPLY PRIMER BMS 10-11, TYPE 1 (F-20.03) UNLESS SHOWN DIFFERENTLY BY 1. IN INTERIOR, APPLY CORROSION PREVENTIVE COMPOUND AS SHOWN BY 2.

1. APPLY PRIMER, BMS 10-11, TYPE 1 (F-20.02) THIS AREA. NO PRIMER ON THREADS.
2. APPLY CORROSION PREVENTIVE COMPOUND MIL-C-11796, CLASS 1 (F-19.03).
3. LIMIT FOR INSTALLATION OF REPAIR SLEEVES (FIG. 602)
4. LIMIT FOR INSTALLATION OF BUSHING (400) 161T1210-57 WITH DECREASED BORE ON THE MATING LUG OF THE OUTER CYLINDER FOR A 0.003-0.013 CLEARANCE FIT
5. RANGE FOR INSTALLATION OF REPAIR SLEEVE (FIG. 603)

REPAIR

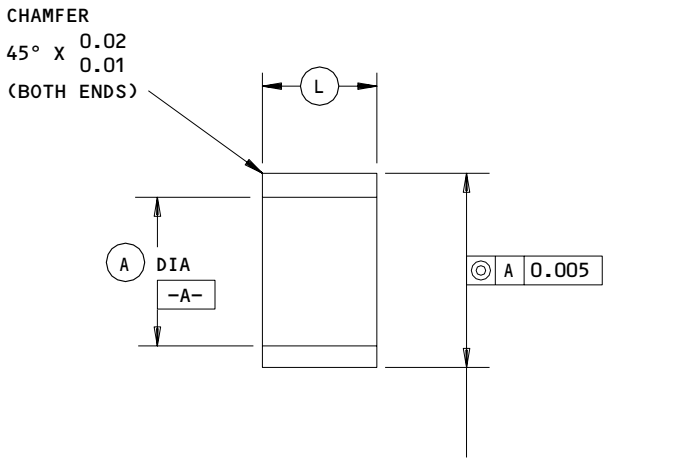
REF 3 4 5

125 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

MATERIAL: AL ALLOY

ALL DIMENSIONS ARE IN INCHES

161T1162-1
Tube Repair and Refinish
Figure 601



HOLE LOCATION	(A)	(L)	INTER-FERENCE
(1)	0.261 0.257	0.2450 0.2350	0.0019 0.0014
(2)	0.261 0.257	0.1835 0.1735	0.0019 0.0014

REPAIR

125 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

CADMIUM PLATE (0.0003-0.0005 THICK, F-15.06) (OPTIONAL ON INTERNAL SURFACES)

MATERIAL: AL-NI-BRZ, AMS 4640

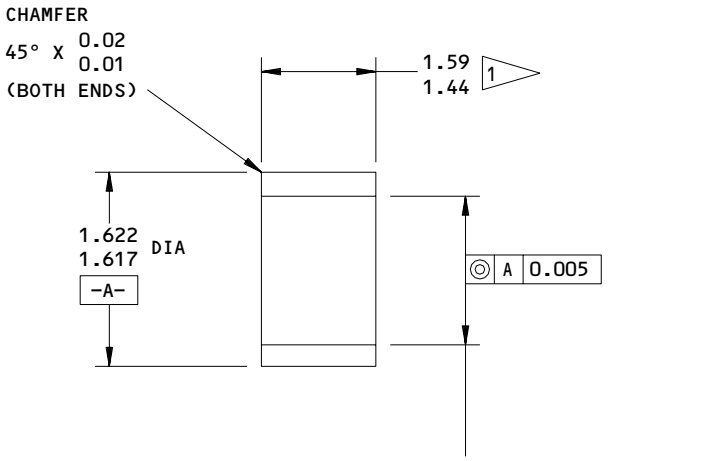
ALL DIMENSIONS ARE IN INCHES

1 ADJUST LENGTH OF SLEEVE FOR A FIT FLUSH WITH OR 0.005 MAXIMUM BELOW SURFACE OF LUG

HOLE LOCATION (1) (2) FIG. 601

Repair Sleeve Details
Figure 602

C38668



REPAIR

125 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

CADMIUM PLATE (0.0003-0.0005 THICK, F-15.06) (OPTIONAL ON OUTER SURFACES)

MATERIAL: AL-NI-BRZ, AMS 4640

ALL DIMENSIONS ARE IN INCHES

1 ADJUST LENGTH OF SLEEVE FOR A FIT FLUSH WITH OR 0.005 MAXIMUM BELOW THE SHOULDER AT THE THREAD RELIEF

OUTSIDE DIAMETER LOCATION (3) FIG. 601

Repair Sleeve Details
Figure 603

L48696

MISCELLANEOUS PARTS REFINISH - REPAIR 6-1

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		
Nut (30)	4340 steel, 180-200 ksi	Cadmium plate (F-15.02) 0.0002-0.0004 inch thick. Apply primer and enamel per CMM 32-00-02.
Support (35,40)	Al alloy	Chromic acid anodize and apply primer, BMS 10-11, type 1 (F-18.13). Apply enamel, BMS 10-60 (F-14.9813, which replaces SRF-14.9813) all over but no primer or enamel on teflon stop.
Brackets (49A,50B, 50J,51B,52A)	Al alloy	Chromic acid anodize (F-17.04). Apply primer BMS 10-11, Type 1 (F-20.02) and enamel BMS 10-60 (F-14.9813, which replaces SRF-14.9813).
Locktab (70)	4340 steel, 180-200 ksi	Cadmium plate (F-15.02) 0.0002-0.0004 inch thick. Apply primer, BMS 10-11, type 1 (F-20.02) and enamel BMS 10-60 (F-14.9813, which replaces SRF-14.9813).
Pin (135A)	15-5PH CRES, 180-200 ksi	Passivate (F-17.25, which replaces F-17.09).
Pin (135C)	4037,4130,8630, or 8740 steel	Cadmium plate (F-15.06).
Bearing halves (137,138)	Ti-Al-6V alloy	Tiodize per AMS 2488.
Liners (139,250C)	Bronze and plastic layers	No finish

Refinish Details
Figure 601 (Sheet 1)

IPL FIG. & ITEM	MATERIAL	FINISH
Fig. 1 (Cont)		
Bearing halves (255A,260A)	Ti-Al-6V alloy	No finish
Retainer (275, Tube (340)	Al alloy	Chromic acid anodize (F-17.04) all over.
Tube (300)	Al alloy	Chromic acid anodize (F-17.02) all over.

Refinish Details
Figure 601 (Sheet 2)

EXTERNAL PARTS REPLACEMENT - REPAIR 7-1

BAC27ELG21
162T1103-1, -2

1. Marker Replacement

NOTE: Refer to REPAIR - GENERAL for a list of applicable standard practices. Refer to IPL Fig. 1 for item numbers.

A. Remove the old marker (445). Apply a replacement marker (445) to outer cylinder (345 or 350) (SOPM 20-50-05).

B. Apply clear protective finish (F-21.34) on all of the marker and out on the adjacent surfaces 0.25 inch from the edge of the marker.

2. Nameplate Replacement (Fig. 601

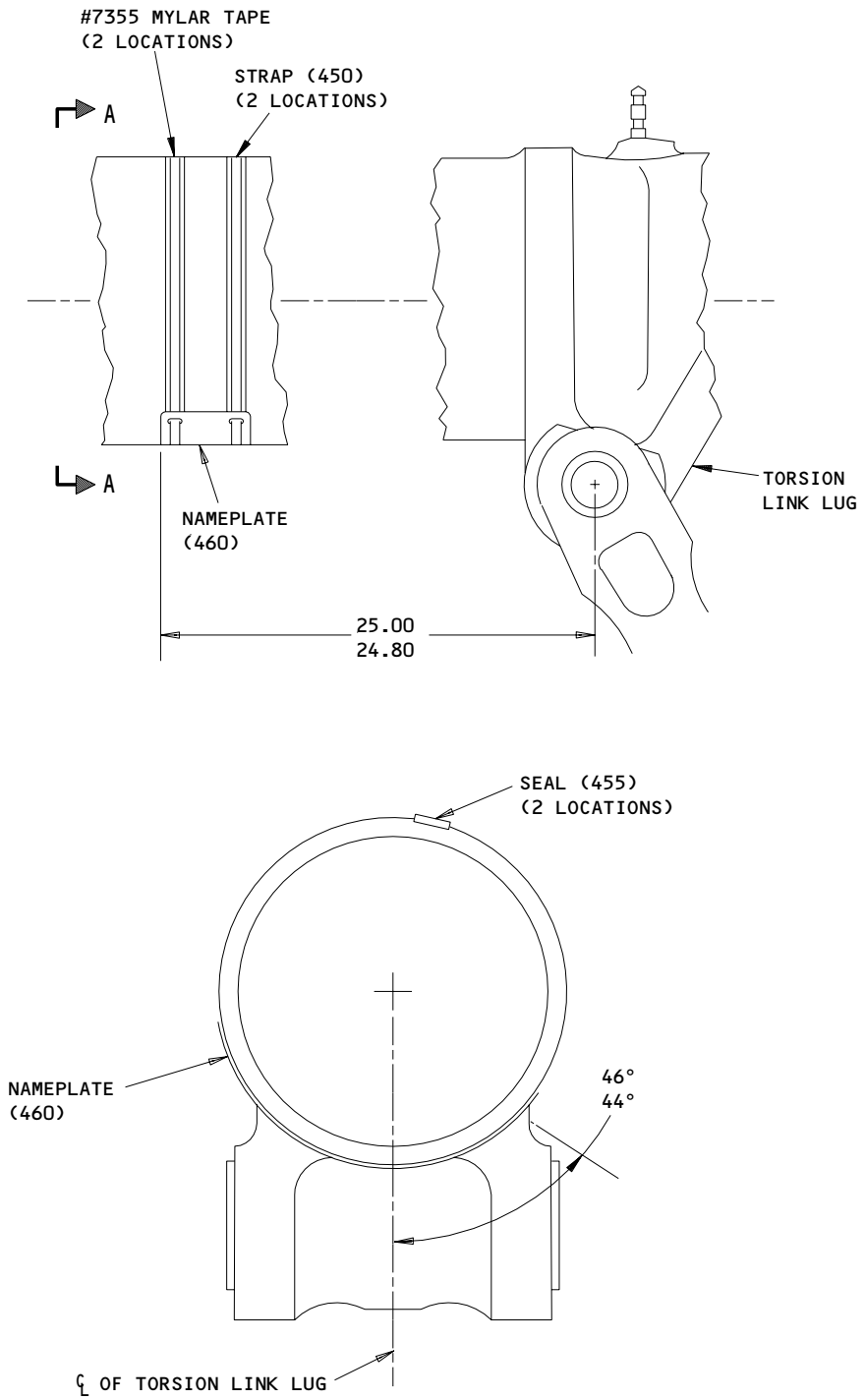
A. Steel stamp the assembly identification data on the replacement nameplate with 0.12 inch high characters.

B. Clean the painted surface of the shock strut assembly with solvent and install one wrap of mylar tape at each strap location. Overlap the ends of the tape approximately 1 inch.

C. With straps (450) and seals (455), bond nameplate (460) to shock strut assembly (SOPM 20-50-12, Type 44), but use BMS 5-95 sealant.

D. Seal around the edges of the nameplate with BMS 5-95 sealant.

E. Apply Type 41 clear coating (F-21.34) to all of the nameplate, the filleted areas, and the straps.



A-A

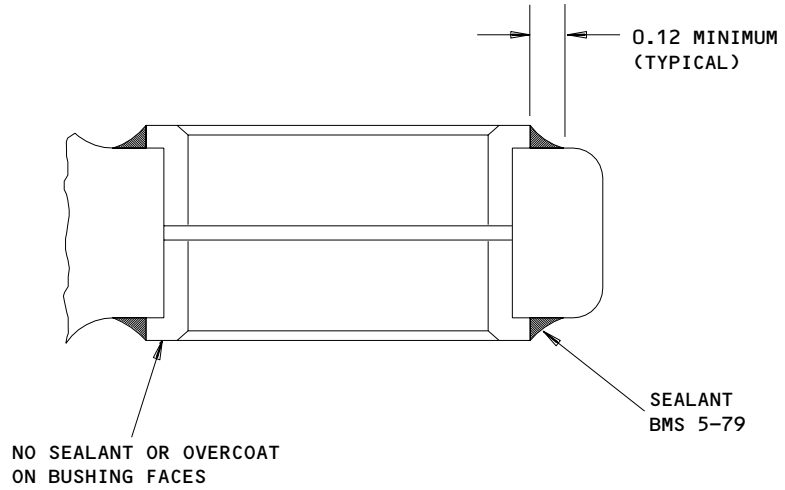
161T1103-1,-2
Nameplate Replacement
Figure 601

J74957

BUSHING SEALING - REPAIR 8-1

1. Bushing Sealant Application

A. As applicable, seal the flanged bushings after installation per Fig. 601.



1. CLEAN AREAS OF SEALANT APPLICATION WITH SOLVENT.
2. APPLY FILLET OF SEALANT TO EDGES OF BUSHINGS AS SHOWN.
3. APPLY COATING OF GRAY GLOSS ENAMEL. BMS 10-60 OVER SEALANT AND AREAS AROUND SEALANT.

Bushing Sealant Application
Figure 601

14702

NUT, GLAND - REPAIR 9-1

161T1150-2, -6, -8, -10, -11

NOTE: Refer to REPAIR - GENERAL for a list of applicable standard practices. Refer to IPL Fig. 1 for item numbers. For repair which is only replacement of the original finish, refer to Refinish instructions, Fig. 601.

1. Lube Fitting Replacement

   A. Replace lube fitting (95) per 32-00-03.

   B. Or, as an option, install a plug per par. 2.

2. Plug Replacement

   A. If applicable, remove the plug or unwanted lube fitting from the nut. Remove sealant from around the hole.

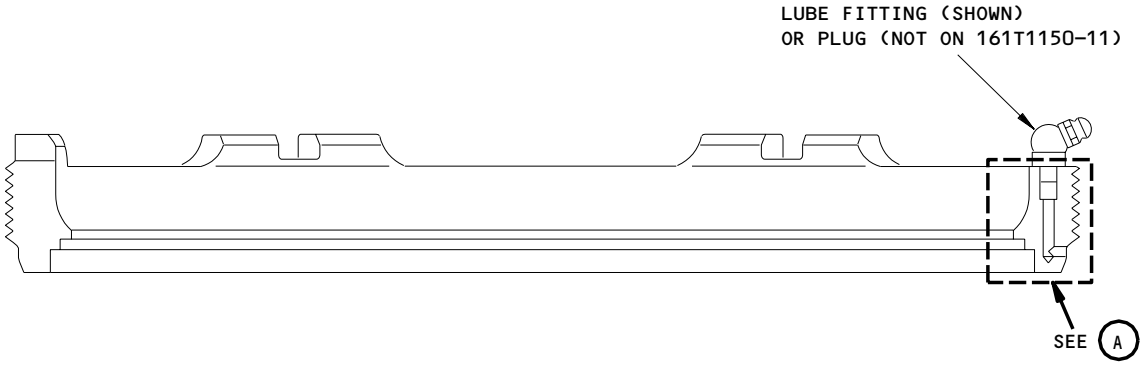
   B. Clean and degrease the gland nut. This includes the bore for the lube fitting and the lube passage.

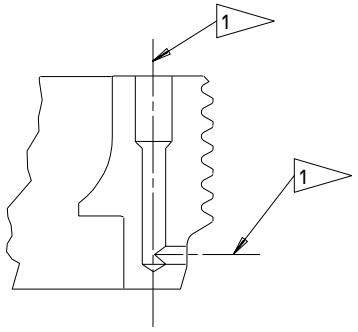
   C. Completely fill the lube fitting bore and the lube passage with BMS 5-95 sealant.

   D. Install a BACR15BB6DD5 rivet into the lube fitting hole. Some light force could be necessary.

   E. Apply a layer of BMS 10-11, Type 1 primer to the rivet head.

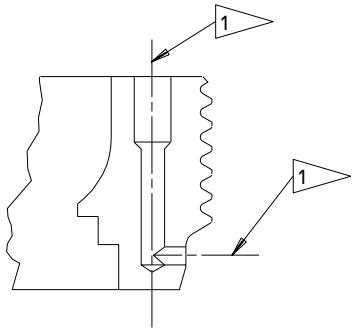
   F. If necessary, change the part number of the nut. Nut 161T1150-5 becomes a -9. Nut 161T1150-7 becomes a -10.





161T1150-6,-8,-10

A



161T1150-2

A

REFINISH

CADMIUM PLATE (F-15.02) 0.0003-0.0005 THICK ALL OVER. APPLY PRIMER AND ENAMEL AS SHOWN IN CMM 32-00-02 UNLESS SHOWN BY 1

1 NO PRIMER OR ENAMEL

REPAIR

(SAME AS REFINISH)

125 ALL MACHINED SURFACES

MATERIAL: 4330M STEEL,
180-200 KSI

ALL DIMENSIONS ARE IN INCHES

161T1150-2,-6,-8,-10,-11
Gland Nut Refinish
Figure 601

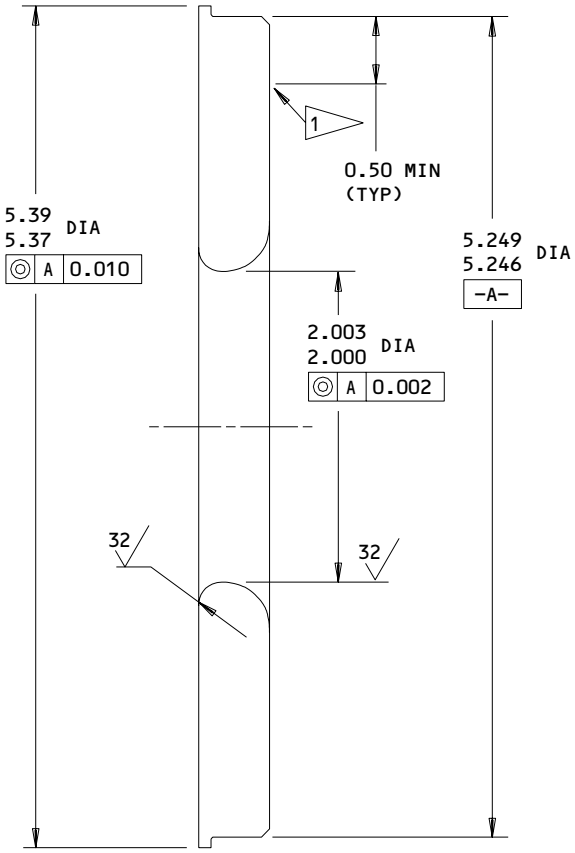
A82228

ORIFICE PLATE - REPAIR 10-1

161T1159-1, -2

1. Plating Repair

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



REFINISH

NO FINISH

1 VIBRO-ENGRAVE PART SERIAL NUMBER AND THE PART NUMBER IN THIS AREA

REPAIR

REF 1

125 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

MATERIAL: 4340M STEEL, 275-300 KSI

ALL DIMENSIONS ARE IN INCHES

Orifice Plate Details
Figure 601

B45898

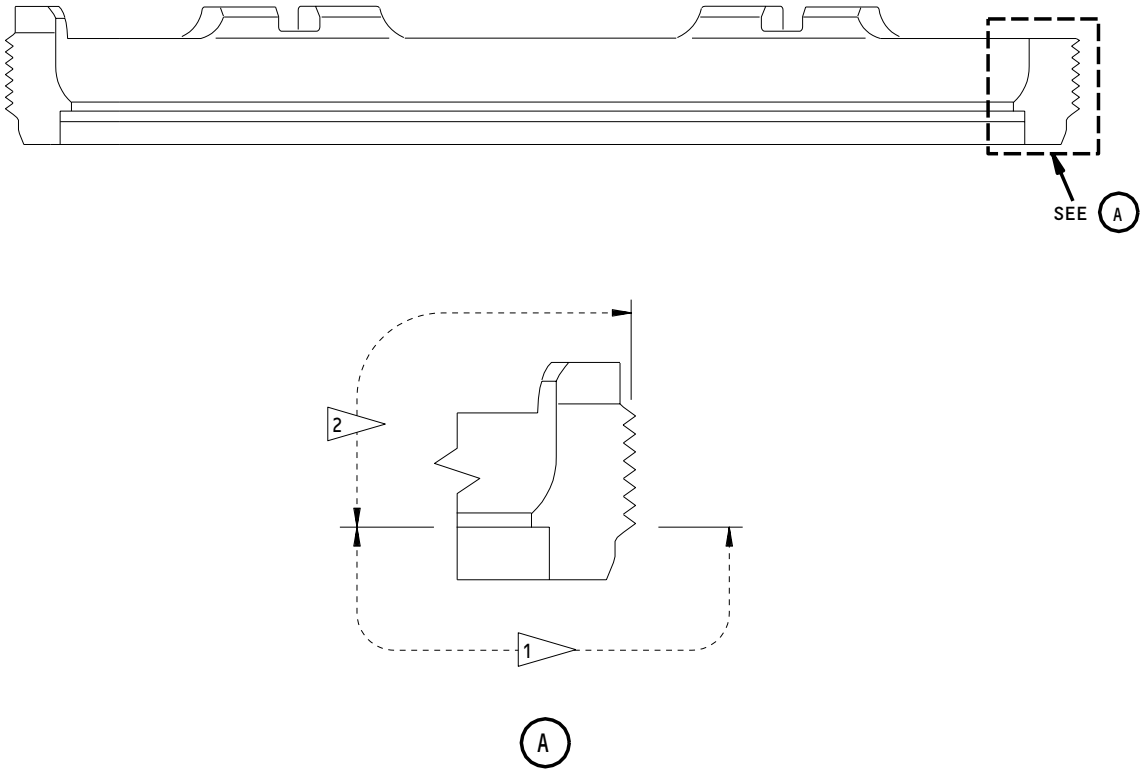
NUT, GLAND - REPAIR 11-1

161T1075-1

NOTE: Refer to REPAIR - GENERAL for a list of applicable standard practices. For the repair gland nut used with oversize threads on the outer cylinder, see REPAIR 1-3, Fig. 603.

1. Finish Repair (Fig. 601)

   A. Repair is only replacement of the original finish. Refer to Refinish instructions, Fig. 601, for details.



REFINISH

CADMIUM-TITANIUM PLATE (F-15.32) WIPE THREADS WITH PRIMER (F-19.45). APPLY PRIMER AND ENAMEL AS SHOWN BY 1 2

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

2 APPLY PRIMER BMS 10-11, TYPE 1 (F-20.02) (F-20.03 OPTIONAL), THEN ENAMEL BMS 10-60 (SRF-14.9813)

REPAIR

(SAME AS REFINISH)

125 ALL MACHINED SURFACES

MATERIAL: 4330M STEEL, 180-200 KSI

ALL DIMENSIONS ARE IN INCHES

161T1075-1
Gland Nut Refinish
Figure 601

CARRIER, SEAL - REPAIR 12-1

161T1151-1, -2

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

1. Internal Face Repair (Fig. 601)

   A. Machine the face as necessary, within repair limits, to remove defects.

   B. If necessary, restore the face depth to design dimensions. To do this, machine the upper face within repair limits. Then restore the chamfer at the upper end of the bore.

   C. Install plugs in the old holes (par. 2, below).

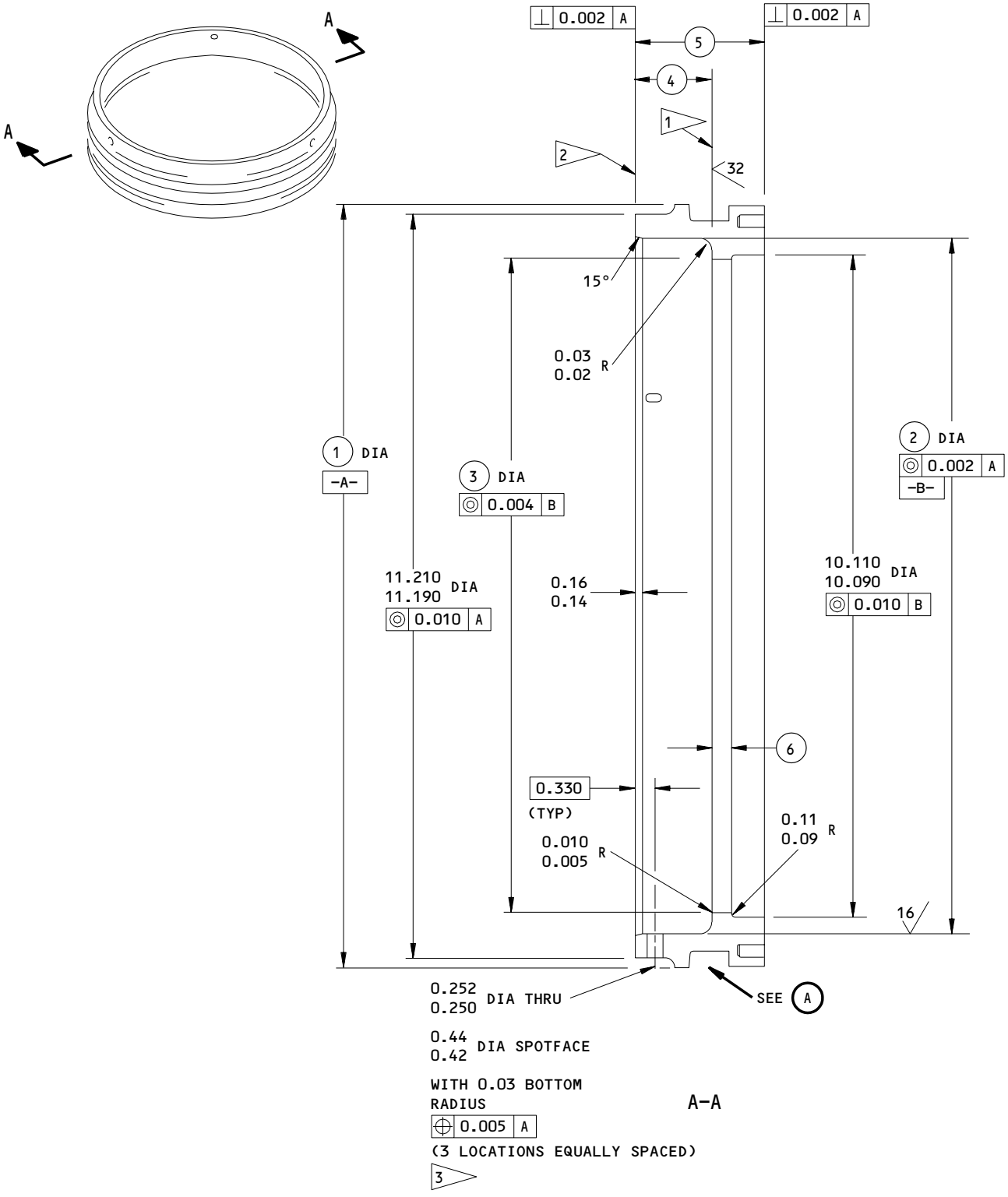
   D. Make new holes 30 degrees from the old holes, with the hole size and edge distance as shown.

   E. Penetrant examine (SOPM 20-20-02) the seal carrier. Be sure to look for defects in the 0.02-0.03-inch radius between the internal face and the bore.

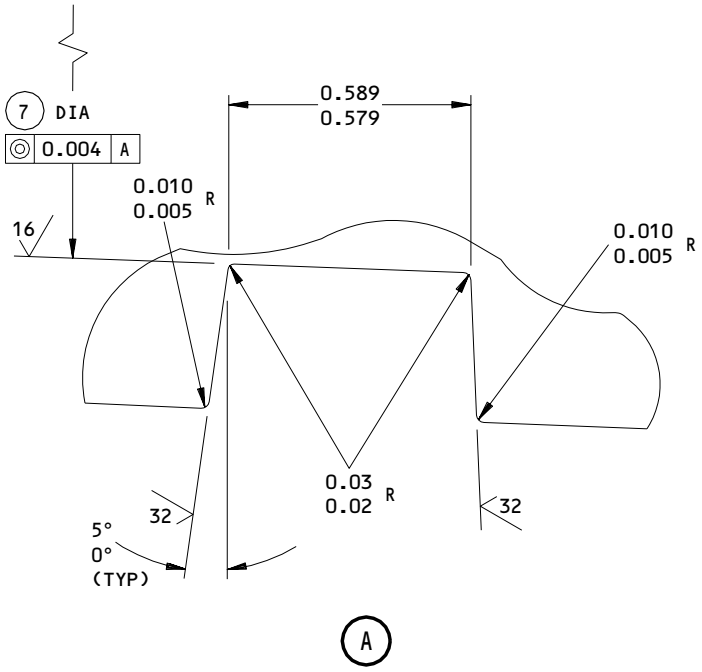
2. Hole Plug Replacement

   A. Use this procedure if plugs in the old holes from an earlier repair are loose or missing, or to install plugs in the holes during the face repair given above.

   B. Get some aluminum MS20470A8-8 rivets and compare their shank diameter with the size of the holes to be plugged. Use rivets with a minimum interference fit of 0.0015 inch with the holes, and install them in the holes to be plugged. Make sure the installed rivets do not extend out from the bearing ID or OD.



161T1151-1,-2
Seal Carrier Repair and Refinish
Figure 601 (Sheet 1)



	1	2	3 ▷5	3 ▷6	4	5	6	7
DESIGN DIM	11.470 11.468	10.478 10.474	10.004 10.001	10.054 10.051	1.169 1.164	1.990 1.970	0.33 0.29	10.997 10.994
REPAIR LIMIT	---	---	---	---	▷2	1.940 ▷4	0.26 ▷4	---

REFINISH

NO FINISH

▷1 MACHINE THIS FACE WITHIN DIMENSION (6) REPAIR LIMITS TO REMOVE DEFECTS AND RESTORE THE SURFACE FINISH

▷2 TO RESTORE THIS DIMENSION, MACHINE THE UPPER FACE WITHIN DIMENSION (5) REPAIR LIMITS. RESTORE THE 15-DEGREE CHAMFER

▷3 FILL EACH OF THE THREE OLD HOLES WITH THE SHANK OF AN MS20470A8-8 RIVET, WITH 0.0015-INCH MINIMUM INTERFERENCE FIT. THEN MAKE THREE NEW HOLES IN THE WALL OF THE CARRIER, 30 DEGREES FROM THE OLD HOLES AND 0.330 INCH FROM THE UPPER FACE

▷4 RESTORATION TO DESIGN DIMENSIONS NOT REQUIRED

▷5 161T1151-1

▷6 161T1151-2

REPAIR

REF ▷1 THRU ▷6

125 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

BREAK ALL SHARP EDGES 0.03 R UNLESS SHOWN DIFFERENTLY

MATERIAL: AL-NI-BRONZE

ALL DIMENSIONS ARE IN INCHES

161T1151-1,-2
Seal Carrier Repair and Refinish
Figure 601 (Sheet 2)

ASSEMBLY

1. Materials

NOTE: Equivalent substitutes can be used, unless shown differently.

A. Hydraulic fluid -- BMS 3-32 Type 1 or 2, MIL-H-6803 or MIL-H-5606 (SOPM 20-60-03)

B. Grease -- BMS 3-33 (SOPM 20-60-03)

C. Grease -- Royco 11MS (SOPM 20-60-03)

D. Grease -- MIL-G-23827 (SOPM 20-60-03)

E. Solvent -- TT-N-95, type 1 or P-D-680, type 1 (SOPM 20-60-01)

F. Acetone -- Technical grade, O-A-51 (SOPM 20-60-01)

G. Petrolatum -- VV-P-236 (SOPM 20-60-01)

H. Additive -- Lubrizol 1395 (SOPM 20-60-03)

I. Lockwire -- MS20995C32 (SOPM 20-60-04)

J. Corrosion preventive compound -- MIL-C-11796, class 1 (SOPM 20-60-02)

K. Corrosion preventive compound -- BMS 3-27 (SOPM 20-60-02) (Do not use substitutes.)

L. Corrosion preventive compound -- BMS 3-38 (SOPM 20-60-02) (Do not use substitutes.)

2. Equipment

NOTE: Equivalent substitutes can be used.

A. A32004-1 -- Gland Nut Wrench Adapter

B. A32005-54 -- Lower Bearing Seal Replacement Equipment

(1) A32005-29 -- Clamp Assembly

(2) A32005-39 -- Guide Halves Assembly

(3) A32005-12 -- Ram Clamp Assembly

(4) A323005-13 -- Slide Hammer Assembly

(5) A32005-48 -- Clamp Assembly

(6) A32005-38 -- Protective Cover

(7) A32005-45 -- Strap Assembly

(8) A32005-47 -- Hand Knob Assembly

C. A32033-17 -- Main Gear Sling

D. A32051-1 -- Shock Strut Component Maintenance Equipment

(1) A32051-2 -- Orifice Tube Extractor

(2) A32051-3 -- Outer Cylinder Guard Halves

(3) A32051-4 -- Retainer Nut Installer

(4) A32051-5 -- Drive Insert

(5) A32051-6 -- Orifice Plate/Retainer Ring Remover

(6) A32051-7 -- Thread Protector

(7) A32051-8 -- Push-Plate Handle

(8) A32051-9 -- Handle Sleeve

3. Lubrication

A. Put packings and back-up rings in hydraulic fluid before installation. Wipe surfaces on which packings slide with hydraulic fluid. Lubricate packings at assembly with a light film of petrolatum. Do not use too much hydraulic fluid or petrolatum.

B. After assembly is completed, apply BMS 3-27 or BMS 3-38 corrosion preventive compund at the lube fittings (355) on the aft trunnion on the outer cylinder. Apply Royco 11MS grease at the lube fittings that supply bushings (165) on inner cylinder. Apply BMS 3-33 or MIL-G-23827 grease at the other lube fittings. Apply BMS 3-33 grease at the lube fitting of the gland nut, if it has a lube fitting.

4. Assembly (IPL Fig. 1)

CAUTION: BE VERY CAREFUL TO KEEP DIRT AND UNWANTED MATTER OUT OF THE SHOCK STRUT. BE SURE THAT ALL SEALS ARE MADE FOR MIL-H-5606 OR MIL-H-6083 HYDRAULIC FLUID OR DETERIORATION AND LEAKAGE WILL OCCUR.

CAUTION: BE SURE TO USE ONLY THE BMS 3-27 OR BMS 3-38 CORROSION PREVENTIVE COMPOUND WHERE THESE COMPOUNDS ARE SPECIFIED. IF YOU USE SOME OTHER COMPOUND HERE, CORROSION COULD OCCUR FASTER.

A. Put inner cylinder (155) in a fixture, and outer cylinder (345 or 350) on a bench with vee blocks.

B. Install support tube (195) on upper bulkhead (225) with parts (200 thru 210). Install packing (220) and back-up rings (215) on upper bulkhead.

C. Turn orifice support tube (300) on upper bulkhead (225) until it comes to the bottom, back off as necessary to line up bolt hole, and install parts (230 thru 240) with bolt (230) head inside.

D. Install piston ring (270) on retainer (275). Put orifice plate (290) on the retainer and turn the retainer on support tube (300) until at the bottom, then back off as necessary to align the bolt hole. Install parts (280 thru 290) with bolt (280) head on the inside.

CAUTION: BE VERY CAREFUL NOT TO DAMAGE THE INSIDE WALL OF THE OUTER CYLINDER (345 OR 350) WHEN YOU INSTALL THE PREASSEMBLED PARTS.

E. Support tube (195), upper bulkhead (225), orifice support tube (300), orifice plate (290).

(1) Install thread protector A32051-7 on threaded end of support tube.

(2) Carefully put parts (preassembled in Steps B, C, D, above) into tool A32051-2. Attach handle A32051-8 and sleeve A32051-9. Install guard halves A32051-3 into the outer cylinder bottom end. Carefully put the preassembled parts and tools into the outer cylinder until the parts are 0.095-0.155 inch away from the end of the inside diameter.

(3) Apply MIL-C-11796 class 1 corrosion-preventive compound to the upper surface and adjacent chamfer of the upper bulkhead. Overspray is permitted.

(4) Now push the bulkhead all the way into the outer cylinder in tool A32051-2, until the threaded end of the support tube (195) comes out through the opening in the outer cylinder.

(5) Remove thread protector A32051-7.

F. Coat threads of nut (30) with BMS 3-33 or MIL-G-23827 grease and install fitting (35A or 40A) or bracket (35C or 40C) and nut on support tube (195). If you use the bracket, adjust it for a 0.14-0.20 inch gap between the end of it and the outer cylinder. Tighten the nut to 30-35 lb-ft and back off if necessary to the nearest castellation. Remove guard halves A32051-3 and tools A32051-2, -8, -9. Install parts (18 thru 25).

CAUTION: USE EXTREME CARE WHILE INSTALLING METERING PIN (335) TO AVOID NICKS AND DENTS ON CYLINDER (155) INSIDE WALL.

G. Install packing (310) and back up rings (305) on metering pins (335) and install metering pin in inner cylinder (155) using removal/installation tools A32051-4 and -5.

H. Install retaining ring (315) using tool A32051-6. Install nut (320) on metering pin (335) and tighten to 150-185 lb-ft using wrench adapter tool A32051-4. Remove tools and guard halves.

I. Lubricate packings (120, 130, 145, 150) and back-up rings (115, 125). Install packings (120, 145, 150) and back-up rings (115) on seal carrier (110) and lower bearing (140) (Fig. 701).

J. Slide gland nut (90), scraper (105), seal carrier (110), packing (130) and backup rings (125), lower bearing (140), spacer tube (340) over inner cylinder (155). See Fig. 701 for orientation of scraper ring (105). Do not install a split scraper, because split scrapers are only for temporary replacement between overhauls.

K. Align pin holes in seal carrier (110) and lower bearing (140) and install pins (135). Check that pin is flush with the surface of lower bearing (140).

CAUTION: UPPER BEARING ASSEMBLY (250) CONSISTS OF 2 MATCHING HALVES AND MUST BE USED AS A SET TO ENSURE PROPER OPERATION AFTER ASSEMBLY.

L. Install recoil valve (265) and upper bearing (250) on inner cylinder (155). Lubricate packing (245) and install on upper bearing (250).

M. Install guard halves A32051-3 in outer cylinder. Start inner cylinder (155) into outer cylinder. Before tube spacer (340) enters outer cylinder, remove guard halves, then continue to insert inner cylinder into outer cylinder.

N. If the gland nut has a lube fitting, lubricate the threads with BMS 3-33 grease. If the gland nut has a plug or nothing in it, apply BMS 3-27 corrosion-preventive compound on the threads. Then install the gland nut on the outer cylinder. With adapter A32004-1, tighten gland nut to 175-200 lb-ft. Back off gland nut as necessary to align bolt holes. Apply grease to shank and threads of bolts (75), faces of washers (80), and threads of nuts (85). Position locktab (70) on outer cylinder (345, 350) and secure with parts (75, 80, 85).

O. Clean check valve (60) with solvent and rinse with acetone. Check that all traces of solvent are removed. Lubricate packing (65) and install on check valve. Install check valve on outer cylinder (345 or 350) and tighten to 22-25 lb-ft.

P. Fill the shock strut with 2175-2225 cu. in. of hydraulic fluid and 57-59 cu. in. of Lubrizol 1395 additive thru air valve opening. Make sure that letter L is stenciled on strut adjacent to oil fill valve, to indicate that unit contains Lubrizol additive. If necessary, restore it (Fig. 701).

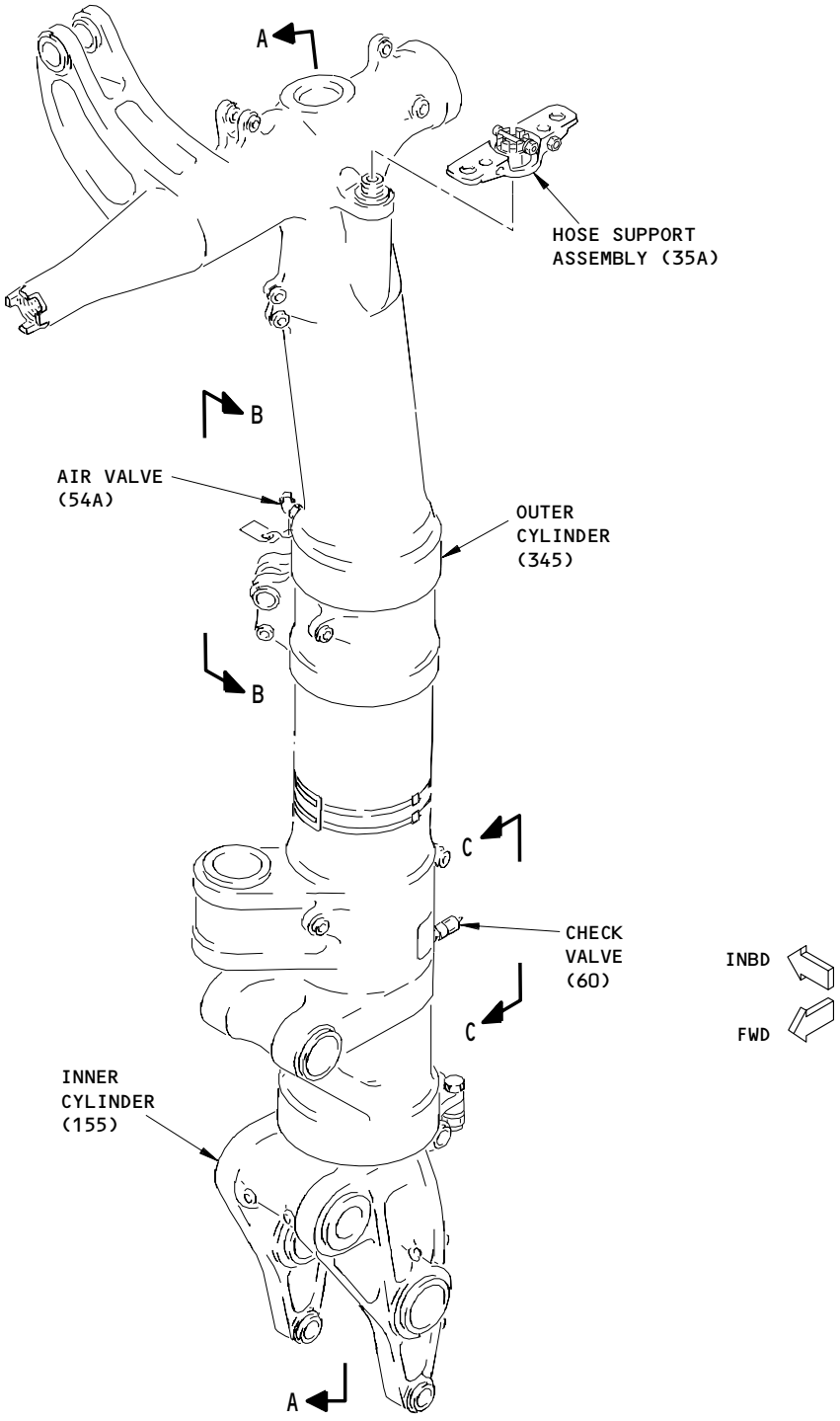
Q. Lubricate the threads of air valve (54A) with hydraulic fluid and install air valve on outer cylinder (345 or 350). Tighten body to 11-13 lb-ft and tighten swivel nut to 5-7 lb-ft. Install cap.

R. If necessary, stencil markings near the valves (Fig. 701).

S. Do the test of the shock strut per TESTING/TROUBLE SHOOTING.

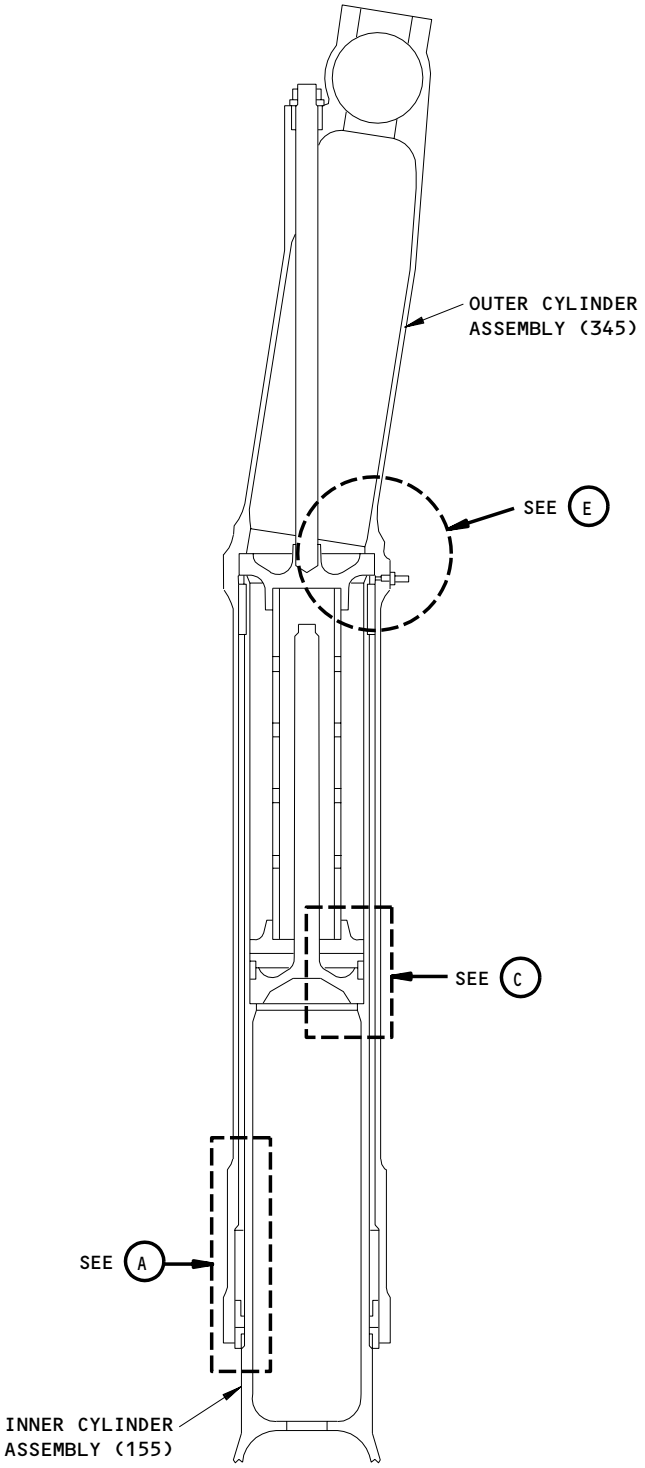
T. After the test, lockwire air valve (54A) and check valve (60) by the double-twist method of SOPM 20-50-02.

5. Give protection to the shock strut and put it away by standard industry practices.



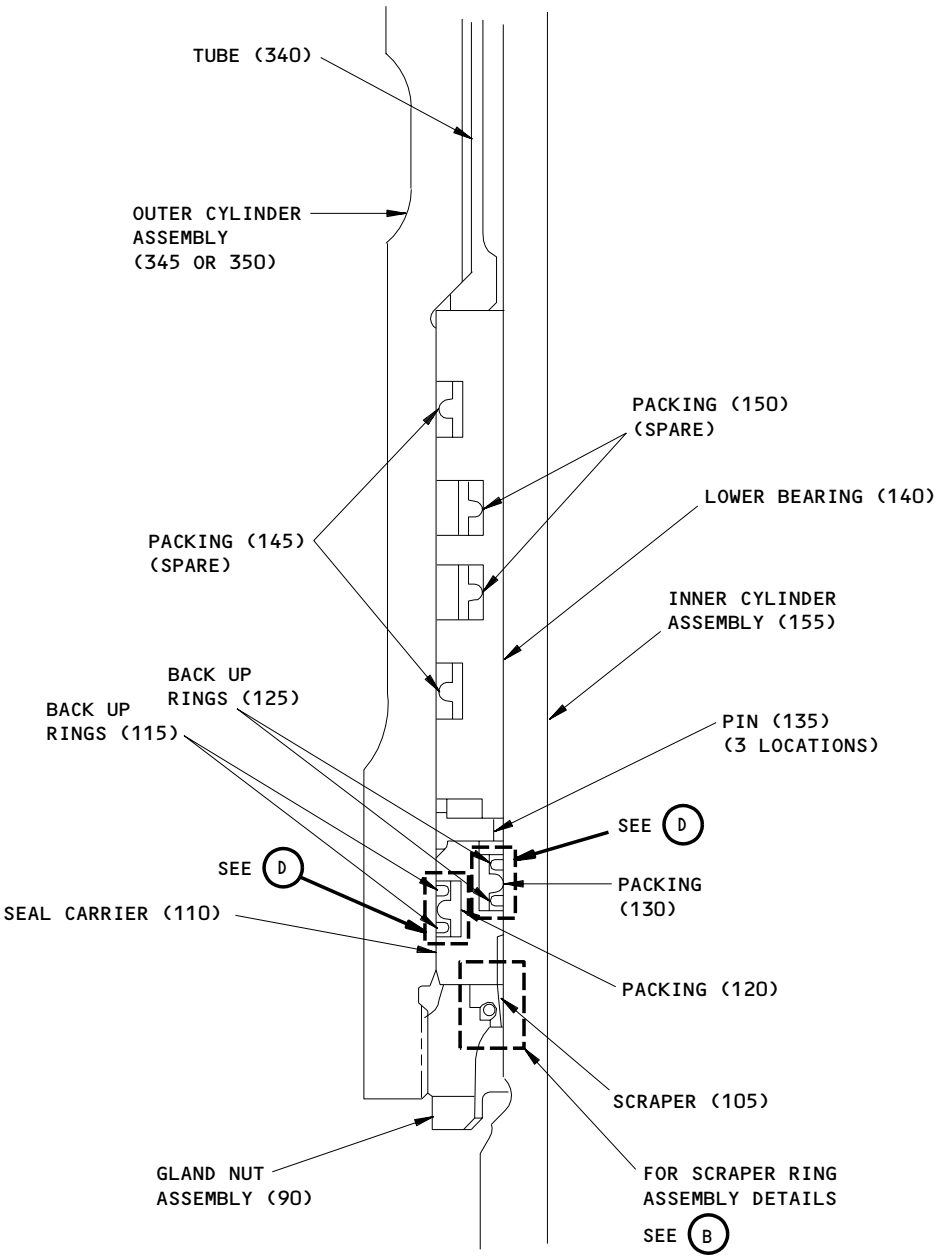
LEFT SIDE ASSEMBLY SHOWN

Main Landing Gear Shock Strut Assembly Details
Figure 701 (Sheet 1)



A-A

Main Landing Gear Shock Strut Assembly Details
Figure 701 (Sheet 2)

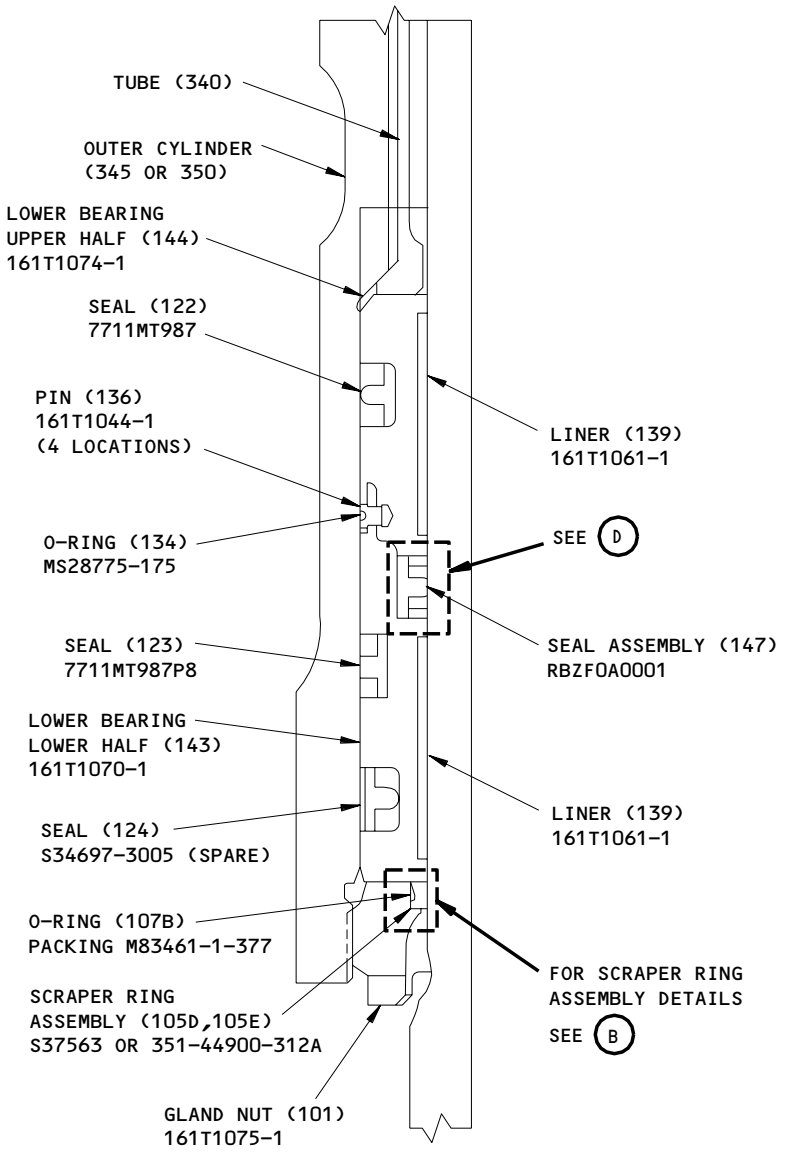


161T1100-17 THRU -404

A

Main Landing Gear Shock Strut Assembly Details
Figure 701 (Sheet 3)

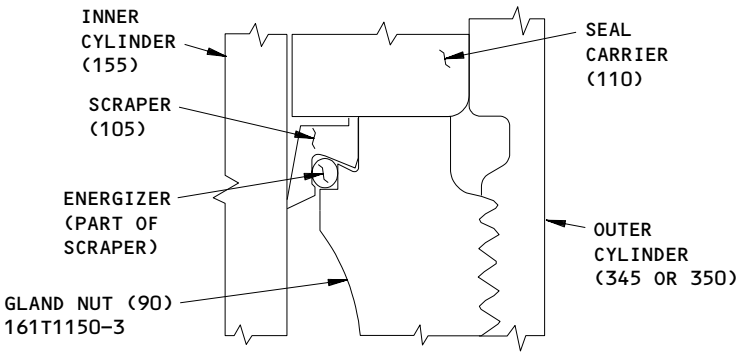
14703



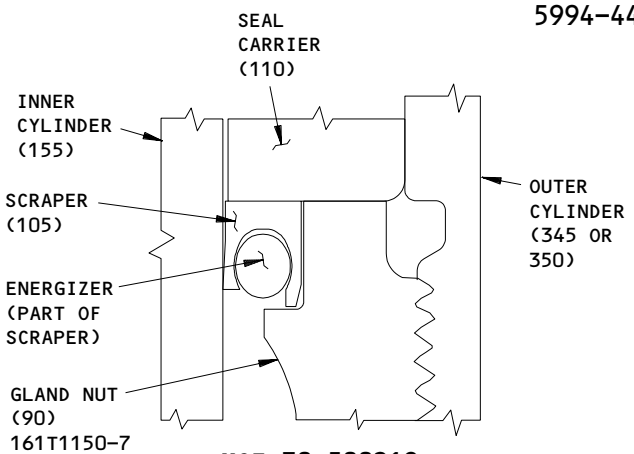
161T1100-445 THRU -448,-450,-461,-462,-465 THRU -468,-479 THRU -482

(A)

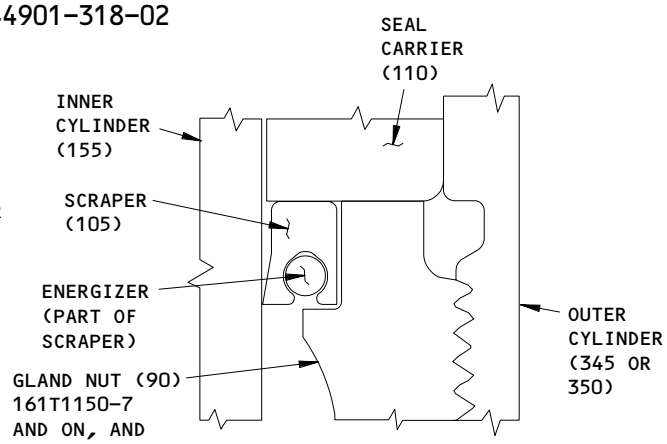
Main Landing Gear Shock Strut Assembly Details
Figure 701 (Sheet 4)



5994-44901-318-02

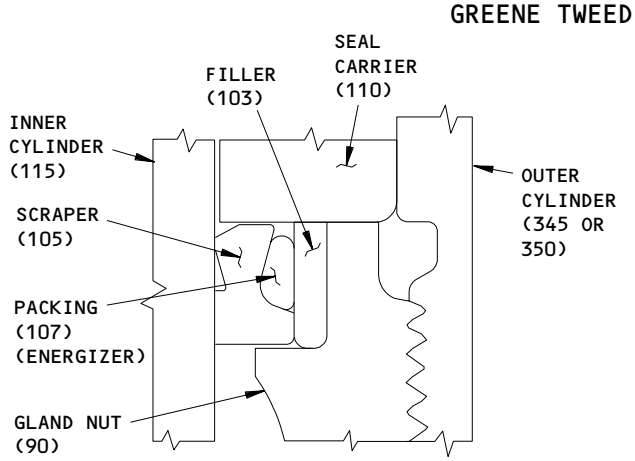


MSE 30-500219

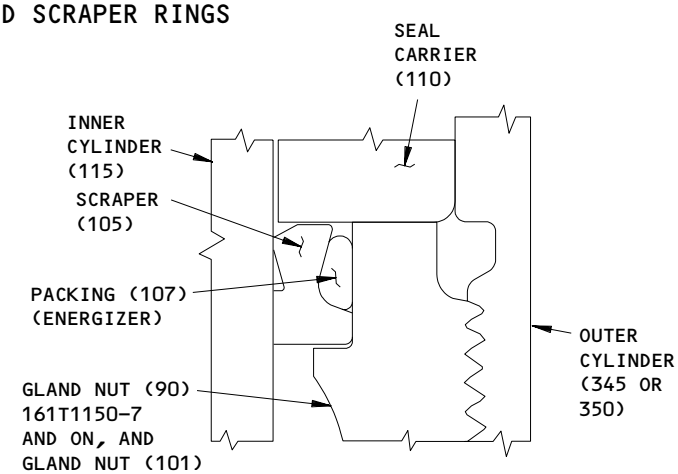


351-44900-312A

GREENE TWEED SCRAPER RINGS



S37563



S37563

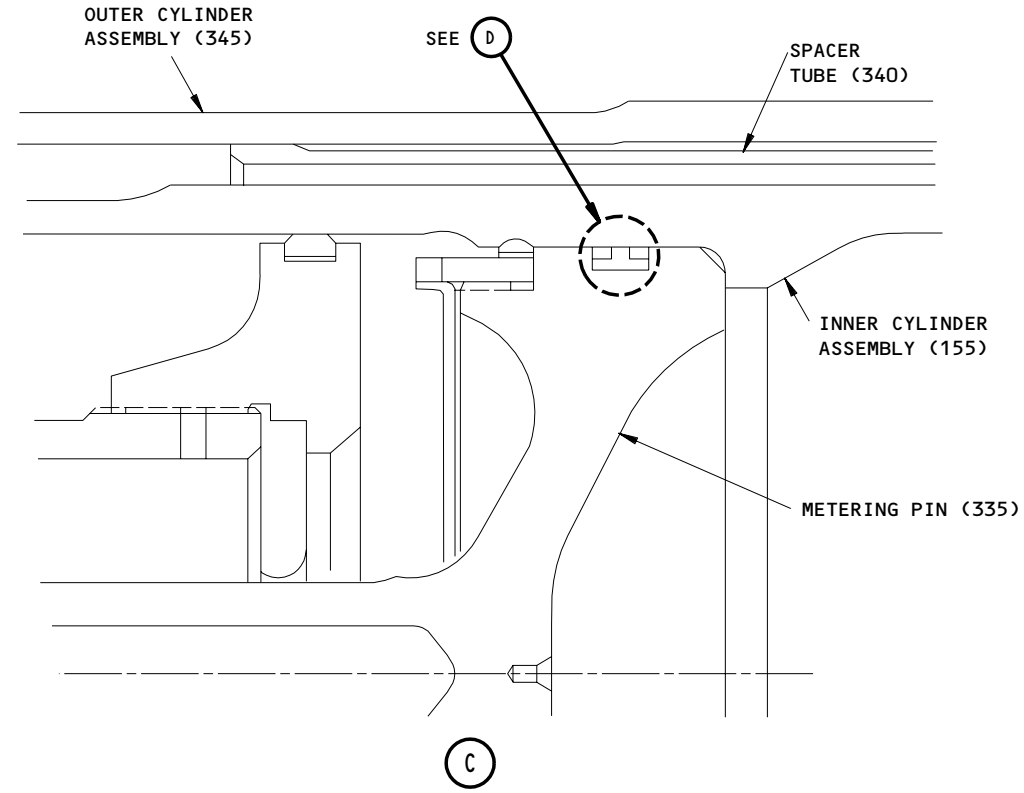
SHAMBAN SCRAPER RINGS

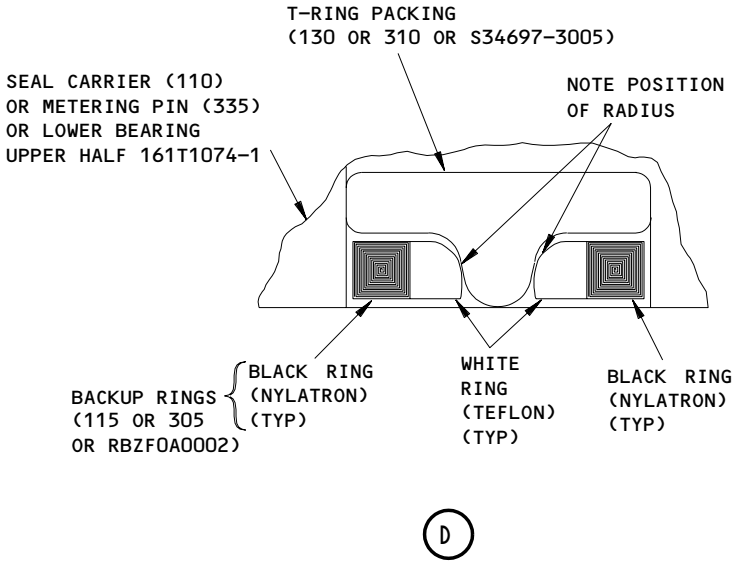
SCRAPER RING INSTALLATION

B

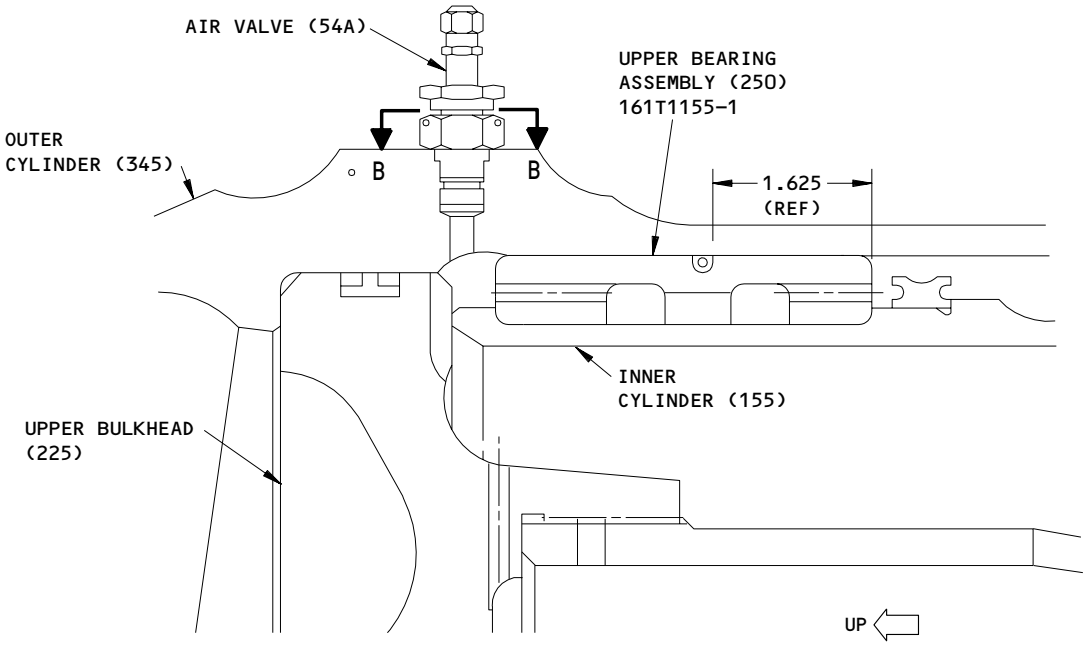
Main Landing Gear Shock Strut Assembly Details
Figure 701 (Sheet 5)

A82324



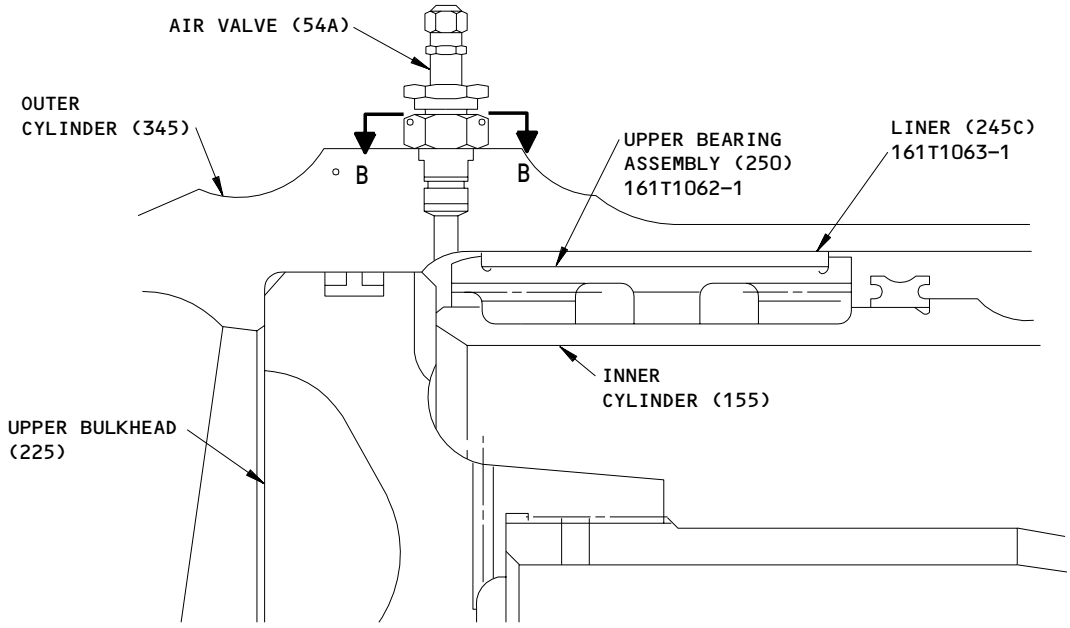


Main Landing Gear Shock Strut Assembly Details
Figure 701 (Sheet 6)



161T1100-17 THRU -404,-461,-462

E

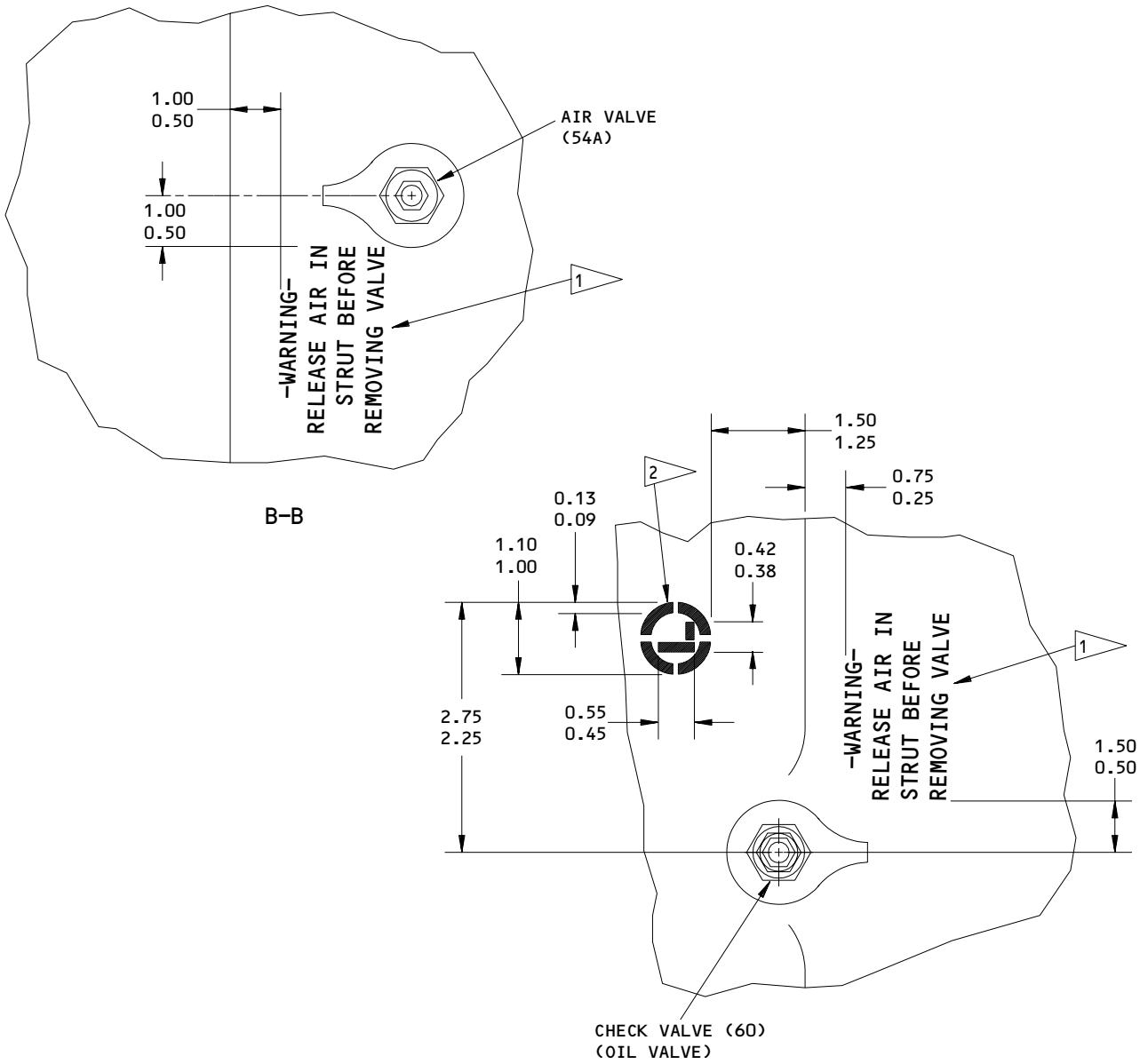


161T1100-445 THRU -448,-450,-465 THRU -468,-479 THRU -482

E

Main Landing Gear Shock Strut Assembly Details
Figure 701 (Sheet 7)

K59342



1 STENCIL (SOPM 20-50-10) IN 0.25 INCH HIGH LETTERS WITH BMS 10-60 TYPE 1 RED ENAMEL (F-14.9815-101, WHICH REPLACES SRF-14.9815-101)

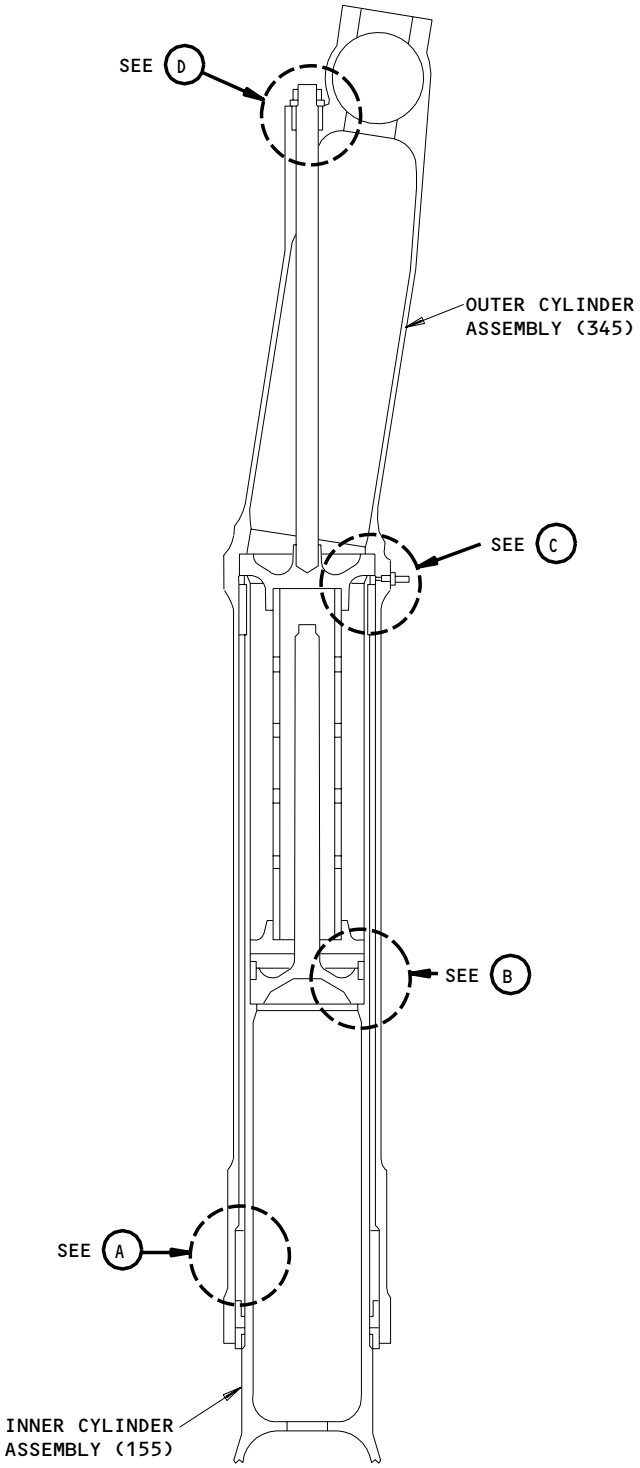
2 IF YOU ADD LUBRIZOL ADDITIVE, STENCIL (SOPM 20-50-10) THIS CIRCLE L SYMBOL WITH BMS 10-60 TYPE 1 BLACK ENAMEL (F-14.9815-701, WHICH REPLACES SRF-14.9815-701)

ITEM NUMBERS REFER TO IPL FIG. 1

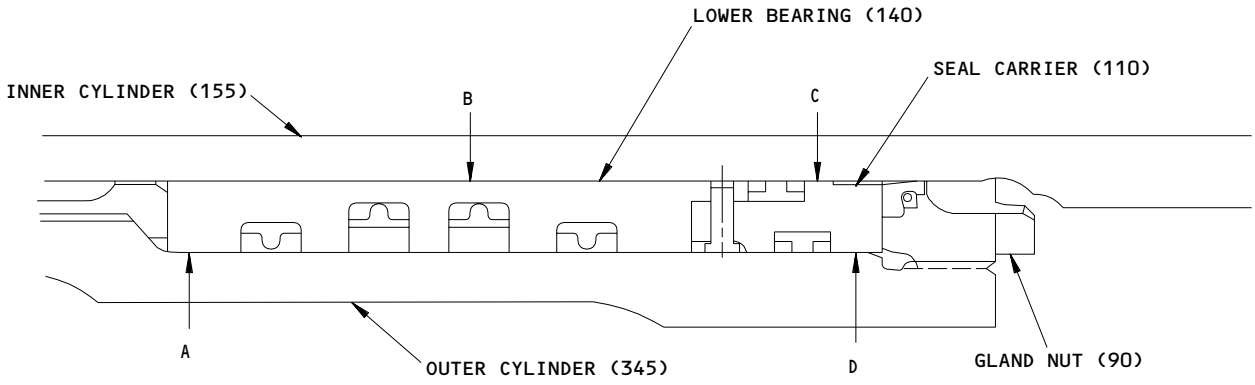
ALL DIMENSIONS ARE IN INCHES

Main Landing Gear Shock Strut Assembly Details
Figure 701 (Sheet 8)

FITS AND CLEARANCES

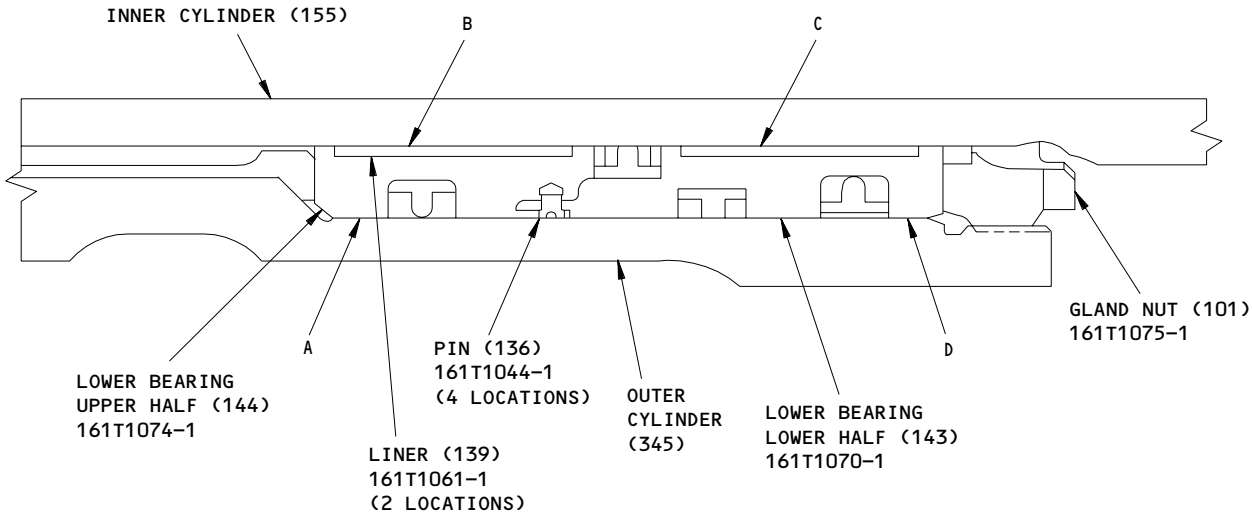


Fits and Clearances
Figure 801 (Sheet 1)



161T1100-17 THRU -404

(A)

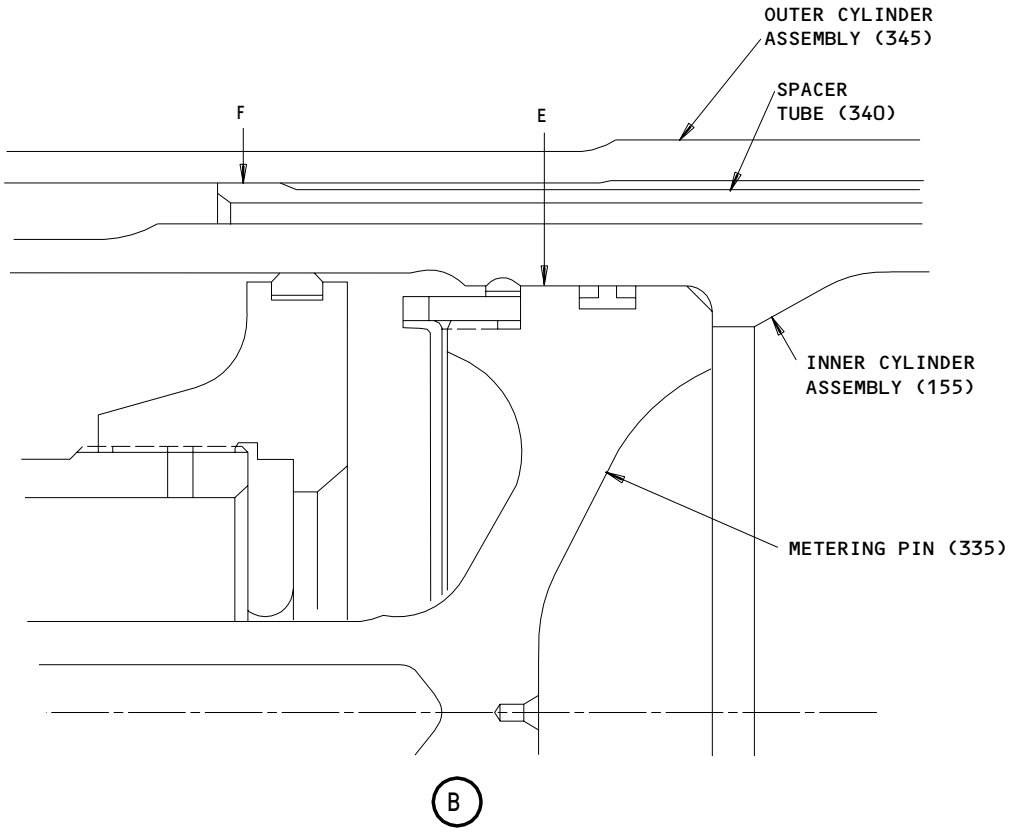


161T1100-445 THRU -448,-450,-461,-462,-465 THRU -468,-479 THRU -482

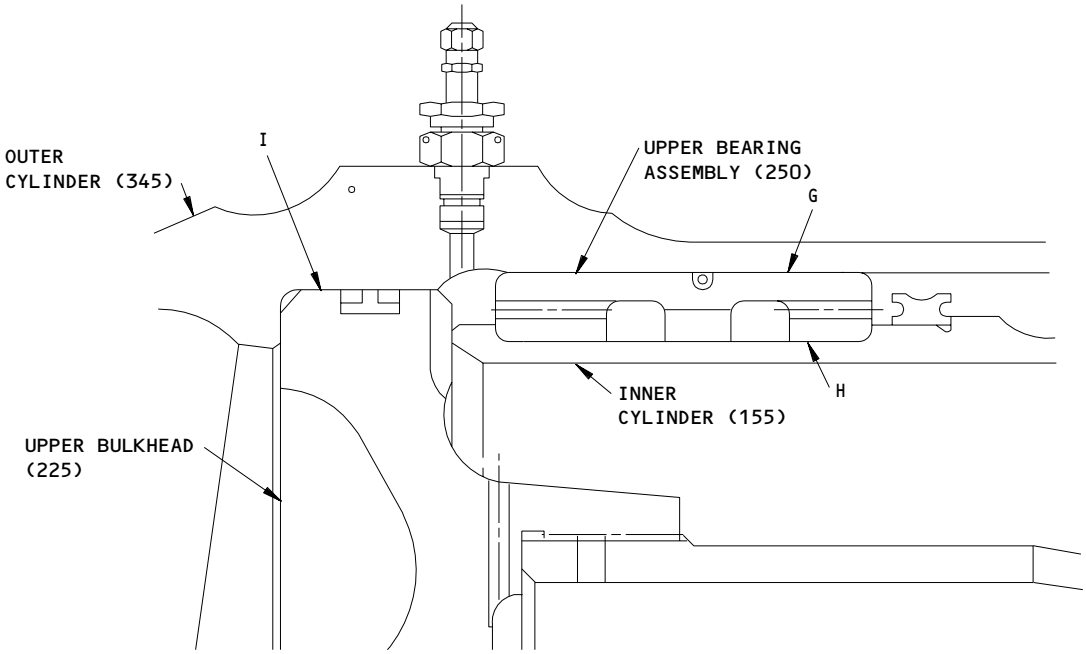
(A)

Fits and Clearances
Figure 801 (Sheet 2)

19677

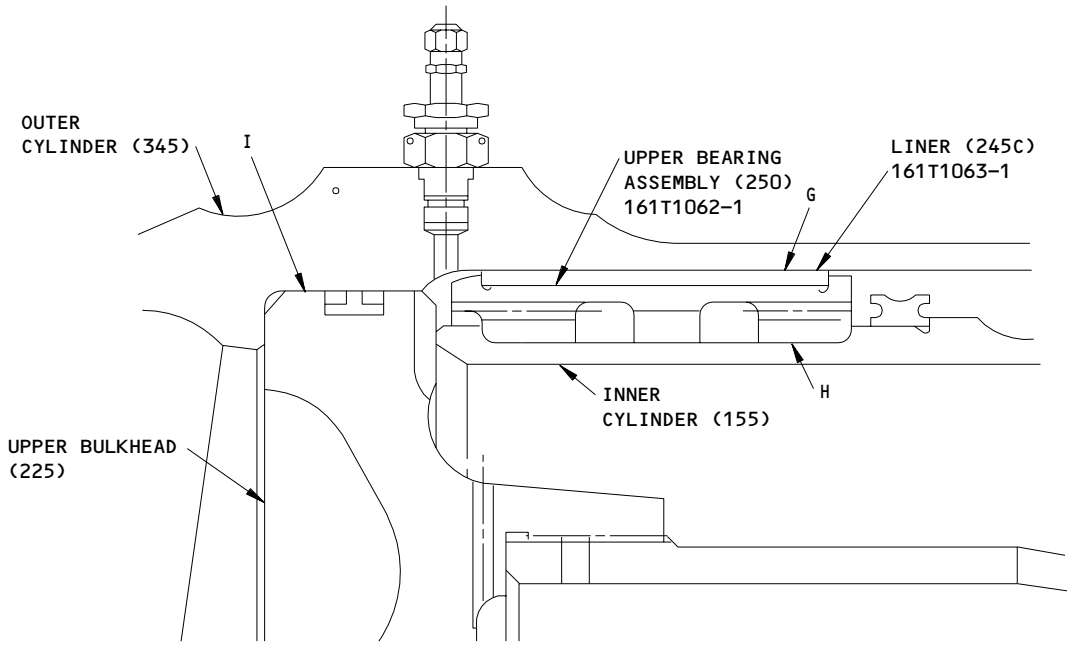


Fits and Clearances
Figure 801 (Sheet 3)



161T1100-17 THRU -404,-461,-462

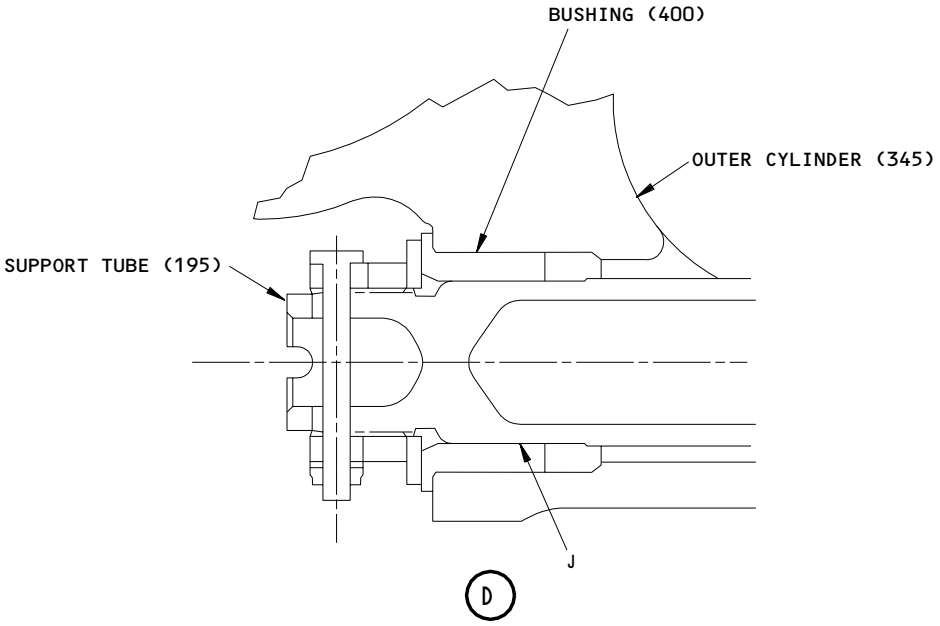
C



161T1100-445 THRU -448,-450,-465 THRU -468,-479 THRU -482

C

Fits and Clearances
Figure 801 (Sheet 4)



Fits and Clearances
Figure 801 (Sheet 5)

REF LETTER	REF IPL FIG. 1, MATING ITEM NO.		DESIGN DIMENSION*				SERVICE WEAR LIMIT*		
			DIMENSION		ASSEMBLY CLEARANCE		DIMENSION		MAXIMUM CLEARANCE
			MIN	MAX	MIN	MAX	MIN	MAX	
A	ID	345	11.474	11.478	0.006	0.012		11.4868	0.0188
	OD	140	11.466	11.468			11.4592		
A	ID	345	11.724	11.728	0.004	0.011		11.738	0.018
	OD	144	11.717	11.720			11.710		
B	ID	140	10.001	10.004	0.004	0.010		10.0133	0.0163
	OD	155	9.994	9.997			9.9877		
B	ID	139	10.001	10.007	0.004	0.013		10.016	0.019
	OD	155	9.994	9.997			9.988		
C	ID	110	10.001	10.004	0.004	0.010		10.0133	0.0163
	OD	155	9.994	9.997			9.9877		
C	ID	139	10.001	10.007	0.004	0.013		10.016	0.019
	OD	155	9.994	9.997			9.988		
C	ID	110A	10.051	10.054	0.054	0.060		10.0630	0.0660
	OD	155	9.994	9.997			9.9880		
D	ID	345	11.474	11.478	0.004	0.010		11.4868	0.0168
	OD	110	11.468	11.470			11.4612		
D	ID	345	11.724	11.728	0.004	0.011		11.738	0.018
	OD	143	11.717	11.720			11.710		
E	ID	155	8.724	8.727	0.006	0.011		8.7349	0.0169
	OD	335	8.716	8.718			8.7101		
F	ID	345	10.850	10.855	0.005	0.021		10.8726	0.0276
	OD	340	10.834	10.845			10.8274		
G	ID	345	10.850	10.855	0.003	0.010		10.8636	0.0166
	OD	250	10.845	10.847			10.8384		
H	ID	250	9.351	9.356	0.0	0.009		9.3661	0.0151
	OD	155	9.347	9.351			9.3409		
I	ID	345	10.474	10.477	0.004	0.010		10.4865	0.0165
	OD	225	10.467	10.470			10.4605		
J	ID	345	1.625	1.630	0.003	0.013		1.6375	0.0155
	OD	195	1.617	1.622			1.6145		

* ALL DIMENSIONS ARE IN INCHES

Fits and Clearances
Figure 801 (Sheet 6)

19673

REF IPL		NAME	TORQUE*	
FIG. NO.	ITEM NO.		POUND-INCHES	POUND-FEET
1	320	Nut		150-185
1	90	Nut		175-200
1	60	Check Valve		22-25
1	54A	Air Valve 1		11-13
1	54A	Air Valve 2		5-7

1 AIR VALVE BODY
2 AIR VALVE SWIVEL NUT

Torque Table
Figure 802

SPECIAL TOOLS, FIXTURES AND EQUIPMENT

NOTE: Equivalent substitutes may be used.

1. A32004-1 -- Gland Nut Wrench Adapter

2. A32005-54 -- Lower Bearing Seal Replacement Equipment

   A. A32005-29 -- Clamp Assembly

   B. A32005-39 -- Guide Halves Assembly

   C. A32005-12 -- Ram Clamp Assembly

   D. A32005-13 -- Slide Hammer Assembly

   E. A32005-48 -- Clamp Assembly

   F. A32005-38 -- Protective Cover

   G. A32005-45 -- Strap Assembly

   H. A32005-47 -- Hand Knob Assembly

3. A32033-17 -- Main Gear Sling

4. A32051-1 -- Shock Strut Component Maintenance Equipment

   A. A32051-2 -- Orifice Tube Extractor

   B. A32051-3 -- Outer Cylinder Guard Halves

   C. A32051-4 -- Retainer Nut Installer

   D. A32051-5 -- Drive Insert

   E. A32051-6 -- Orifice Plate/Retainer Ring Remover

   F. A32051-7 -- Thread Protector

   G. A32051-8 -- Push-Plate Handle

   H. A32051-9 -- Handle Sleeve

ILLUSTRATED PARTS LIST

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

2. Indentures show parts relationships as follows:

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

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

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

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

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

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

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

6. Parts Interchangeability

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

VENDORS

00266 ACME STEEL COMPANY
13500 SOUTH PERRY AVENUE
RIVERDALE, ILLINOIS 60627-1182
FORMERLY INTERLAKE INC

01673 AIRDROME PRECISION COMPONENTS
3251 E AIRPORT WAY PO BOX 1867
LONG BEACH, CALIFORNIA 90806-2407
FORMERLY AIRDROME PARTS CO

09257 BUSAK AND SHAMBAN INC SEALS DIV
2531 BREMER DR PO BOX 176
FORT WAYNE, INDIANA 46801
FORMERLY SHAMBAN, W S AND CO

11328 AEROQUIP SEE EATON AEROQUIP V00624

11815 CHERRY AEROSPACE FASTENERS DIV OF TEXTRON
1224 EAST WARNER AVENUE PO BOX 2157
SANTA ANA, CALIFORNIA 92707-0157
FORMERLY IN LOS ANGELES, CALIF , FORMERLY CHERRY FASTENERS
TOWNSEND DIV OF TEXTRON INC V71087

13002 BF GOODRICH CO LANDING GEAR DIV
8000 MARBLE AVE
CLEVELAND, OHIO 44105
FORMERLY CLEVELAND PNEUMATIC CO

14397 FABER ENTERPRISES, INCORPORATED
6606 VARIEL AVE
CANOGA PARK, CALIFORNIA 91303-2808

14798 DEUTSCH CO METAL COMPONENTS DIV
14800 SOUTH FIGUEROA STREET
GARDENA, CALIFORNIA 90248-1719
FORMERLY WEATHERHEAD V79470 FOR AEROSPACE PRODUCTS

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

30974 AEROFIT PRODUCTS INC
8531 WHITAKER STREET
BUENA PARK, CALIFORNIA 90621-3129

VENDORS

5F573 GREENE TWEED AND CO INC
2075 DETWILER RD P.O. BOX 305
KULPSVILLE, PENNSYLVANIA 19443-0305

50948 PARKER-HANNIFIN CORP HUNTSVILLE AIRCRAFT FACILITY
9400 SOUTH MEMORIAL PARKWAY
HUNTSVILLE, ALABAMA 35802
FORMERLY PARKER-HANNIFIN CORP TUBE FITTINGS DIV

52828 REPUBLIC FASTENER MFG CORP
1300 RANCHO CONEJO BLVD
NEWBURY PARK, CALIFORNIA 91320-1405
FORMERLY IN SYLMAR, CALIFORNIA

61498 SEE CODE V14798

72902 PALMETTO INC SEE GREEN TWEED & CO V5F573

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

80539 SPS TECHNOLOGIES INC AEROSPACE PRODUCTS DIV
2701 SOUTH HARBOR BOULEVARD PO BOX 1259
SANTA ANA, CALIFORNIA 92702-1259
FORMERLY NUTT-SHEL DIV OF SPC WESTERN CO V80539
AND STANDARD PRESSED STEEL WESTERN DIV V17279

92215 FAIRCHILD IND INC FAIRCHILD AEROSPACE FASTENER DIV
3010 W LOMITA BLVD
TORRANCE, CALIFORNIA 90505-5102
FORMERLY VOI-SHAN IN CULVER CITY, CALIF

95879 ALEMITE DIVISION OF STEWART WARNER CORP
1826 DIVERSEY PARKWAY
CHICAGO, ILLINOIS 60614-1540

99240 CRISSAIR, INCORPORATED
38905 10TH STREET EAST
PALMDALE, CALIFORNIA 93550-4000
FORMERLY IN EL SEGUNDO, CALIFORNIA

PART NUMBER	AIRLINE PART NO.	FIG.	ITEM	TTL REQ
AFP241-04		1	55A	1
AN960-416		1	20	1
		1	80	2
		1	205	1
		1	235	1
		1	285	1
AP1008-04		1	55A	1
BACC14AD04		1	55A	1
BACG20ZF000100B		1	45A	
BACG20ZS000100B		1	45B	2
BACG20ZT00100B		1	44	1
BACN10JC4		1	25	1
		1	85	2
		1	210	1
		1	240	1
		1	290	1
BACN10JC4CD		1	25A	1
		1	85A	2
		1	210A	1
		1	240A	1
		1	290A	1
BACN10JN3		1	47A	2
BACN10JP3B		1	47J	4
BACR15BA3AD		1	46A	
BACR15BA3AD3C		1	46B	12
BACR15BA5AD		1	48A	
BACR15BA5AD7C		1	48B	8
BACR15BB66DD5		1	96	1
BACS11AK1		1	455	2
BACS11AK2		1	455A	2
BACS38E8-37		1	450A	2
BAC27ELG21		1	445	1
BCREF4926		1	105	1
BRFM20A3		1	47A	2
BRH10A4		1	25	1
		1	85	2
		1	210	1
		1	240	1
		1	290	1
BRH10C4D		1	25A	1
		1	85A	2
		1	210A	1
		1	240A	1
		1	290A	1
BRM100A3		1	47J	4
DB0C14AD4		1	55A	1
		1	55A	1

PART NUMBER	AIRLINE PART NO.	FIG.	ITEM	TTL REQ
EQ1009D		1	45	
		1	53A	1
FER22661-04		1	55A	1
H10-4BAC		1	25	1
		1	85	2
		1	210	1
		1	240	1
		1	290	1
H51650-4BAC		1	25A	1
		1	85A	2
		1	210A	1
		1	240A	1
		1	290A	1
MF1000-3BAC		1	47A	2
MF53049-3		1	47A	2
MK2000-3BAC		1	47J	4
MSE30-500219		1	105B	1
MS20392-3C13		1	135	3
		1	135B	3
MS28775-175		1	134	1
MS28775-369		1	245A	1
MS28775-377		1	107	1
		1	107A	1
MS28778-6		1	65	1
MS28889-2		1	46	
		1	54A	1
M83461-1-175		1	134A	1
M83461-1-369		1	245B	1
M83461-1-377		1	107B	1
NAS1149F0463P		1	20A	1
		1	80A	2
		1	205A	1
		1	235A	1
		1	285A	1
NAS6604-13		1	280	1
NAS6604-14		1	75	2
		1	230	1
NAS6604-32		1	10	
		1	18	1
		1	200	1
NS103198-02		1	47J	4
NS103218-02		1	47A	2
NS202101-048		1	25	1
		1	85	2
		1	210	1
		1	240	1
		1	290	1

PART NUMBER	AIRLINE PART NO.	FIG.	ITEM	TTL REQ
NS202486-048		1	25A	1
		1	85A	2
		1	210A	1
		1	240A	1
		1	290A	1
RBZF0A0001		1	147	1
RMA9207-3		1	47J	4
RMF9201M3		1	47A	2
RMLH9075-4W		1	25	1
		1	85	2
		1	210	1
		1	240	1
		1	290	1
S346697-3005		1	124	
S34697-3005		1	124A	1
S34697-449GLF		1	129	2
		1	130B	1
		1	150A	2
S37563		1	105A	1
		1	105D	1
		1	105F	1
S37692-3001		1	146	2
		1	125A	1
T6C428JCD		1	25A	1
		1	85A	2
		1	210A	1
		1	240A	1
		1	290A	1
T6S428J		1	25	1
		1	85	2
		1	210	1
		1	240	1
		1	290	1
T8077S1032		1	47J	4
T8124S3S		1	47A	2
VN201A1-02		1	47J	4
VN252A02		1	47A	2
VN303A048		1	25	1
		1	85	2
		1	210	1
		1	240	1
		1	290	1
015T0106-11		1	165D	4
015T0819-10		1	7D	RF
015T0819-7		1	2X	RF
015T0819-8		1	7C	RF
015T0819-9		1	2Y	RF

PART NUMBER	AIRLINE PART NO.	FIG.	ITEM	TTL REQ
015T1433-14		1	156K	1
015T1433-15		1	156L	1
015T1433-16		1	157	1
015T1433-4		1	156D	1
015T1433-5		1	156E	1
015T1433-6		1	156F	1
015T1433-7		1	156G	1
015T1433-8		1	156H	1
015T1433-9		1	156J	1
015T1504-10		1	7N	RF
015T1504-11		1	3H	RF
015T1504-12		1	7P	RF
015T1504-13		1	3J	RF
015T1504-14		1	7Q	RF
015T1504-15		1	3K	RF
015T1504-16		1	7R	RF
015T1504-17		1	3L	RF
015T1504-18		1	7T	RF
015T1504-19		1	3M	RF
015T1504-20		1	7S	RF
015T1504-21		1	3Q	RF
015T1504-22		1	7W	RF
015T1504-23		1	3P	RF
015T1504-24		1	7U	RF
015T1504-25		1	3N	RF
015T1504-26		1	7V	RF
015T1504-27		1	3R	RF
015T1504-28		1	7X	RF
015T1504-29		1	3S	RF
015T1504-30		1	7Y	RF
015T1504-31		1	3T	RF
015T1504-32		1	7Z	RF
015T1504-33		1	3U	RF
015T1504-35		1	3V	RF
015T1504-36		1	8	RF
015T1504-37		1	3W	RF
015T1504-38		1	8A	RF
015T1504-39		1	3X	RF
015T1504-40		1	8B	RF
015T1504-41		1	3Y	RF
015T1504-42		1	8C	RF
015T1504-44		1	8D	RF
015T1504-45		1	3Z	RF
015T1504-46		1	8E	RF
015T1504-47		1	4	RF
015T1504-48		1	8F	RF
015T1504-49		1	4A	RF

PART NUMBER	AIRLINE PART NO.	FIG.	ITEM	TTL REQ
015T1504-5		1	3F	RF
015T1504-50		1	8G	RF
015T1504-51		1	4B	RF
015T1504-52		1	8H	RF
015T1504-53		1	4C	RF
015T1504-54		1	8J	RF
015T1504-55		1	4D	RF
015T1504-56		1	8K	RF
015T1504-57		1	4E	RF
015T1504-58		1	8L	RF
015T1504-59		1	4F	RF
015T1504-6		1	7L	RF
015T1504-60		1	8M	RF
015T1504-61		1	4G	RF
015T1504-62		1	8N	RF
015T1504-63		1	4H	RF
015T1504-64		1	8P	RF
015T1504-65		1	4J	RF
015T1504-66		1	8Q	RF
015T1504-67		1	4K	RF
015T1504-68		1	8R	RF
015T1504-69		1	4L	RF
015T1504-7		1	3E	RF
015T1504-70		1	8S	RF
015T1504-71		1	345U	1
015T1504-72		1	350V	1
015T1504-73		1	345T	1
015T1504-74		1	350U	1
015T1504-75		1	345V	1
015T1504-76		1	350W	1
015T1504-77		1	345W	1
015T1504-78		1	350X	1
015T1504-79		1	345X	1
015T1504-8		1	7M	RF
015T1504-80		1	350Y	1
015T1504-81		1	345Y	1
015T1504-82		1	350Z	1
015T1504-83		1	345Z	1
015T1504-84		1	351A	1
015T1504-85		1	346	1
015T1504-86		1	351B	1
015T1504-87		1	346A	1
015T1504-88		1	351C	1
015T1504-89		1	346B	1
015T1504-9		1	3G	RF
015T1504-90		1	351D	1
015T1504-92		1	351	1

PART NUMBER	AIRLINE PART NO.	FIG.	ITEM	TTL REQ
1C4048		1	60A	1
		1	60B	1
102LH9075-4W		1	25A	1
		1	85A	2
		1	210A	1
		1	240A	1
		1	290A	1
161T1018-1		1	180B	4
161T1018-2		1	180C	4
161T1044-1		1	136	4
161T1060-1		1	137	1
161T1061-1		1	139	2
161T1062-1		1	250A	1
161T1062-2		1	255A	1
161T1062-3		1	260A	1
161T1063-1		1	245C	1
161T1064-1		1	138	1
161T1070-1		1	143	1
161T1074-1		1	144	1
161T1075-1		1	101	1
161T1100-103		1	1U	
161T1100-104		1	5U	
161T1100-107		1	1V	RF
161T1100-108		1	5V	RF
161T1100-114		1	5W	
161T1100-115		1	1W	RF
161T1100-119		1	1X	RF
161T1100-120		1	5X	RF
161T1100-127		1	1Y	RF
161T1100-128		1	5Y	RF
161T1100-133		1	1Z	
161T1100-134		1	5Z	
161T1100-137		1	2	
161T1100-138		1	6	
161T1100-145		1	2A	RF
161T1100-146		1	6A	RF
161T1100-151		1	2B	RF
161T1100-152		1	6B	RF
161T1100-156		1	6C	RF
161T1100-161		1	2C	RF
161T1100-162		1	6D	RF
161T1100-165		1	2D	
161T1100-166		1	6E	
161T1100-167		1	2E	RF
161T1100-168		1	6F	RF
161T1100-169		1	2F	RF
161T1100-17		1	1D	RF

PART NUMBER	AIRLINE PART NO.	FIG.	ITEM	TTL REQ
161T1100-170		1	6G	RF
161T1100-172		1	6H	
161T1100-173		1	2G	
161T1100-174		1	6J	
161T1100-18		1	5D	RF
161T1100-19		1	1C	RF
161T1100-20		1	5C	RF
161T1100-225		1	2H	RF
161T1100-226		1	6K	RF
161T1100-257		1	2J	RF
161T1100-258		1	6L	RF
161T1100-259		1	2K	RF
161T1100-260		1	6M	RF
161T1100-261		1	2L	
161T1100-262		1	6N	
161T1100-263		1	2M	
161T1100-264		1	6P	
161T1100-276		1	6Q	
161T1100-277		1	2N	RF
161T1100-278		1	6U	RF
161T1100-279		1	2P	RF
161T1100-280		1	6V	RF
161T1100-281		1	2Q	RF
161T1100-282		1	6W	RF
161T1100-284		1	6R	
161T1100-286		1	6S	
161T1100-288		1	6T	
161T1100-321		1	2R	RF
161T1100-322		1	6X	RF
161T1100-323		1	2S	RF
161T1100-324		1	6Y	RF
161T1100-325		1	2T	
161T1100-326		1	6Z	
161T1100-327		1	2U	
161T1100-328		1	7	
161T1100-337		1	2V	
161T1100-338		1	7A	
161T1100-339		1	2W	RF
161T1100-340		1	7B	RF
161T1100-343		1	2Z	RF
161T1100-344		1	7E	RF
161T1100-345		1	3	RF
161T1100-346		1	7F	RF
161T1100-357		1	3C	RF
161T1100-358		1	7J	RF
161T1100-361		1	3A	RF
161T1100-362		1	7G	RF

PART NUMBER	AIRLINE PART NO.	FIG.	ITEM	TTL REQ
161T1100-37		1	1G	RF
161T1100-373		1	3D	
161T1100-374		1	7K	
161T1100-377		1	3B	RF
161T1100-378		1	7H	RF
161T1100-38		1	5G	RF
161T1100-395		1	4M	RF
161T1100-396		1	8T	RF
161T1100-397		1	4N	
161T1100-398		1	8U	
161T1100-403		1	4P	RF
161T1100-404		1	8V	RF
161T1100-405		1	4Q	
161T1100-406		1	8W	
161T1100-41		1	1H	RF
161T1100-417		1	4R	
161T1100-418		1	8X	
161T1100-419		1	4S	
161T1100-42		1	5H	RF
161T1100-420		1	8Y	
161T1100-445		1	4T	RF
161T1100-446		1	8Z	RF
161T1100-447		1	4U	RF
161T1100-448		1	9	RF
161T1100-449		1	4V	
161T1100-450		1	9A	RF
161T1100-461		1	4W	RF
161T1100-462		1	9B	RF
161T1100-465		1	4X	RF
161T1100-466		1	9C	RF
161T1100-467		1	4Y	
161T1100-468		1	9D	
161T1100-47		1	1J	RF
161T1100-479		1	10A	RF
161T1100-48		1	5J	RF
161T1100-480		1	12	RF
161T1100-481		1	10B	RF
161T1100-482		1	12A	RF
161T1100-55		1	1K	RF
161T1100-56		1	5K	RF
161T1100-63		1	1L	RF
161T1100-64		1	5L	RF
161T1100-67		1	1M	RF
161T1100-68		1	5M	RF
161T1100-71		1	1R	RF
161T1100-72		1	5R	RF
161T1100-77		1	1N	RF

PART NUMBER	AIRLINE PART NO.	FIG.	ITEM	TTL REQ
161T1100-78		1	5N	RF
161T1100-87		1	1Q	RF
161T1100-88		1	5Q	RF
161T1100-89		1	1S	RF
161T1100-90		1	5S	RF
161T1100-95		1	1T	RF
161T1100-96		1	5T	RF
161T1110-1		1	345	1
161T1110-10		1	350C	1
161T1110-11		1	345B	1
161T1110-12		1	350B	1
161T1110-17		1	345D	1
161T1110-18		1	350D	1
161T1110-19		1	435B	1
161T1110-2		1	350	1
161T1110-20		1	440B	1
161T1110-21		1	345E	1
161T1110-22		1	350E	1
161T1110-23		1	435C	1
161T1110-24		1	440C	1
161T1110-25		1	345F	1
161T1110-26		1	350F	1
161T1110-27		1	435D	1
161T1110-28		1	440D	1
161T1110-29		1	345G	
161T1110-3		1	435	1
161T1110-30		1	350G	
161T1110-31		1	435E	1
161T1110-32		1	440E	1
161T1110-33		1	345H	1
161T1110-34		1	350H	1
161T1110-35		1	435F	1
161T1110-36		1	440F	1
161T1110-38		1	350J	1
161T1110-4		1	440	1
161T1110-40		1	440G	1
161T1110-55		1	345J	1
161T1110-56		1	350K	1
161T1110-57		1	435G	1
161T1110-58		1	440H	1
161T1110-59		1	345K	1
161T1110-60		1	350L	1
161T1110-61		1	345L	1
161T1110-62		1	350M	1
161T1110-63		1	345M	1
161T1110-64		1	350N	1
161T1110-65		1	345N	

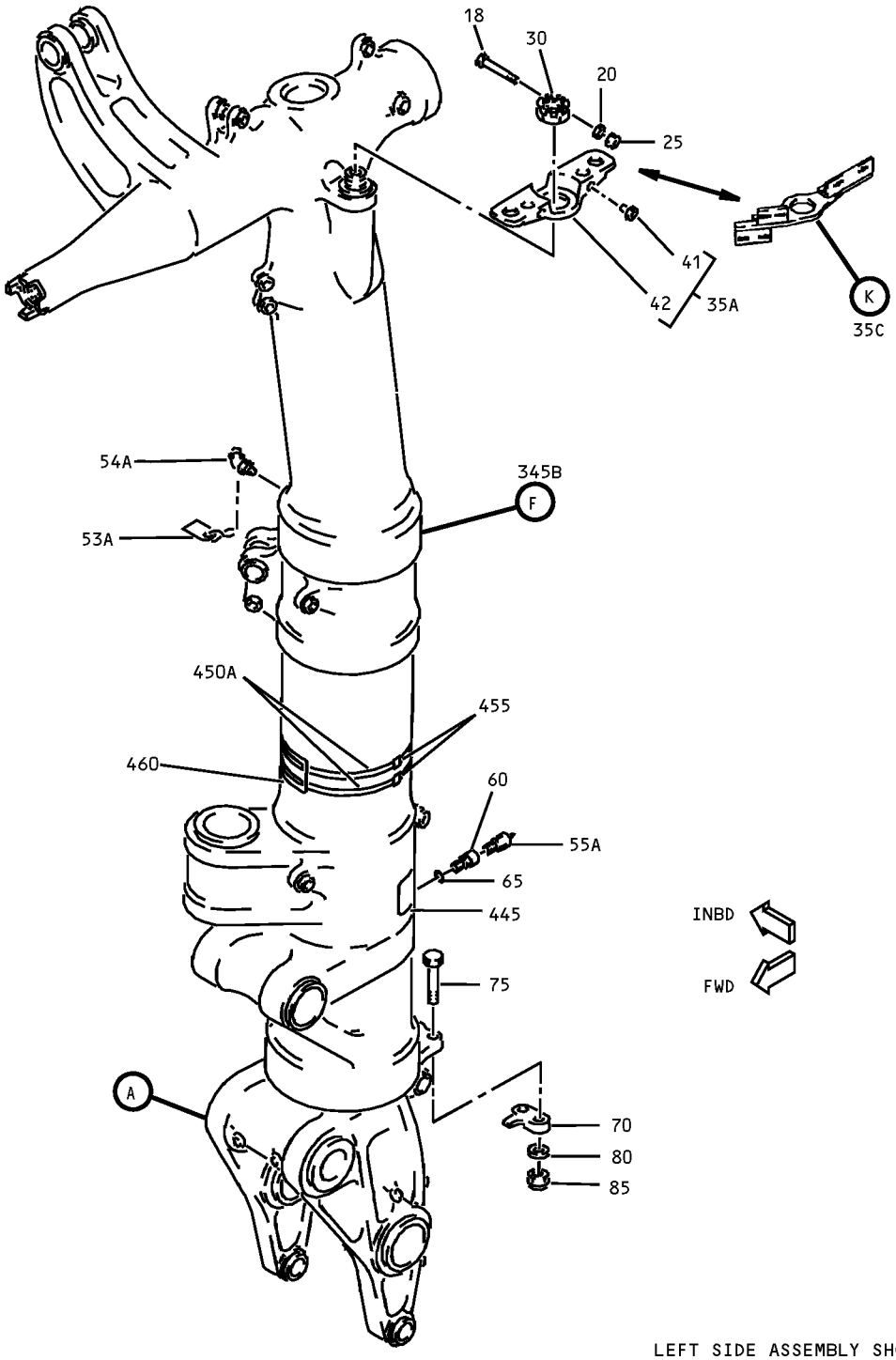
PART NUMBER	AIRLINE PART NO.	FIG.	ITEM	TTL REQ
161T1110-66		1	350P	
161T1110-67		1	345P	1
161T1110-68		1	350Q	1
161T1110-69		1	345Q	1
161T1110-7		1	435A	1
161T1110-70		1	350R	1
161T1110-71		1	435H	1
161T1110-72		1	440J	1
161T1110-73		1	345R	1
161T1110-74		1	350S	1
161T1110-77		1	345S	
161T1110-78		1	350T	
161T1110-8		1	440A	1
161T1110-81		1	346C	1
161T1110-82		1	351E	1
161T1110-83		1	435J	1
161T1110-84		1	440K	1
161T1110-85		1	346D	1
161T1110-86		1	351F	1
161T1110-87		1	435K	1
161T1110-88		1	440L	1
161T1110-89		1	346E	1
161T1110-9		1	345C	1
161T1110-90		1	351G	1
161T1110-91		1	435L	1
161T1110-92		1	440M	1
161T1110-93		1	435M	1
161T1110-94		1	440N	1
161T1110-95		1	435N	1
161T1110-96		1	440P	1
161T1117-1		1	360	1
161T1117-2		1	360A	1
161T1118-1		1	365	1
161T1118-2		1	365A	1
161T1119-1		1	165	4
161T1120-10		1	190B	1
161T1120-11		1	155G	1
161T1120-12		1	155H	1
		1	155J	1
		1	155K	1
		1	155Q	1
161T1120-13		1	190C	1
161T1120-14		1	155N	1
161T1120-15		1	190D	1
161T1120-16		1	155S	1
161T1120-17		1	190F	1
161T1120-2		1	190	1

PART NUMBER	AIRLINE PART NO.	FIG.	ITEM	TTL REQ
161T1120-20		1	155R	1
161T1120-21		1	190G	1
161T1120-22		1	155U	1
		1	155Z	1
161T1120-23		1	190H	1
161T1120-24		1	155W	1
161T1120-25		1	190E	1
161T1120-26		1	155V	1
161T1120-27		1	155X	1
161T1120-28		1	190J	1
		1	190K	1
161T1120-29		1	156	1
161T1120-3		1	155A	1
161T1120-30		1	156C	1
161T1120-31		1	156A	1
161T1120-32		1	156B	1
161T1120-33		1	190L	1
161T1120-4		1	190A	1
161T1120-6		1	155C	1
		1	155P	1
161T1120-7		1	155D	1
161T1120-8		1	155E	1
161T1120-9		1	155F	1
		1	155L	1
		1	155M	1
		1	155T	1
		1	155Y	1
161T1122-1		1	370	1
161T1122-2		1	370A	1
161T1123-1		1	375	1
161T1123-2		1	375A	1
161T1124-2		1	380A	2
161T1124-3		1	380B	2
161T1126-1		1	395	1
161T1126-2		1	395A	1
161T1126-3		1	395B	1
161T1127-1		1	395C	1
161T1127-2		1	405B	2
161T1128-2		1	170A	2
161T1150-10		1	90D	1
161T1150-11		1	90E	1
161T1150-2		1	100	1
161T1150-3		1	90A	1
		1	90F	1
161T1150-4		1	95A	1
161T1150-5		1	90B	1
161T1150-6		1	100A	1

PART NUMBER	AIRLINE PART NO.	FIG.	ITEM	TTL REQ
161T1150-7		1	90C	1
161T1150-8		1	100B	1
161T1151-1		1	110	1
161T1151-2		1	110A	1
161T1152-1		1	140	1
161T1153-1		1	340	1
161T1154-1		1	265	1
161T1155-1		1	250	1
161T1155-2		1	255	1
161T1155-3		1	260	1
161T1156-1		1	335	1
161T1156-2		1	335A	1
161T1156-3		1	335B	
161T1156-4		1	335C	1
161T1157-1		1	315	1
161T1158-1		1	320	1
161T1158-2		1	330	1
161T1159-1		1	295	1
161T1159-2		1	295A	1
161T1160-1		1	300	1
161T1161-1		1	225	1
		1	225B	
161T1161-2		1	225A	1
		1	225C	1
161T1161-3		1	225D	1
		1	225E	1
161T1161-4		1	225F	1
161T1161-6		1	225G	1
161T1162-1		1	195	1
161T1163-1		1	30	1
161T1165-1		1	270	1
		1	270A	1
161T1165-2		1	270B	1
161T1168-1		1	275	1
161T1168-2		1	275A	1
161T1169-1		1	70	1
161T1210-10		1	405	2
161T1210-21		1	175	4
161T1210-22		1	180	4
161T1210-23		1	410	4
161T1210-24		1	415	4
161T1210-25		1	420	4
161T1210-26		1	425	4
161T1210-28		1	185	4
161T1210-57		1	400	1
161T1210-58		1	390	4
161T1210-6		1	430	12

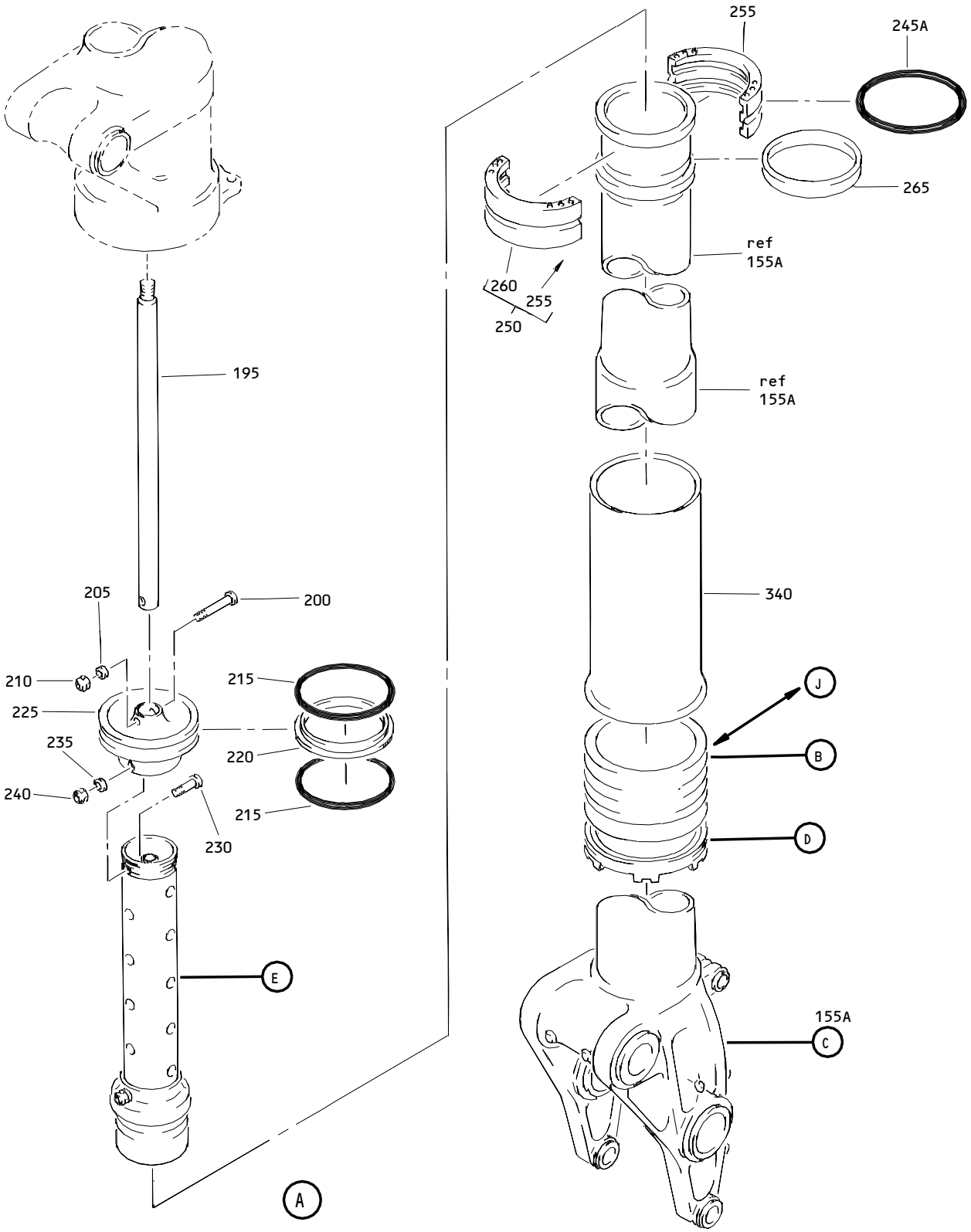
PART NUMBER	AIRLINE PART NO.	FIG.	ITEM	TTL REQ
161T1210-63		1	420A	4
161T1210-64		1	425A	4
161T1210-65		1	405A	2
161T1210-68		1	390A	4
161T1210-69		1	405C	2
161T1251-1		1	165A	4
161T1255-1		1	165C	4
161T1256-1		1	103	1
161T1261-1		1	165E	4
161T1280-1		1	346F	1
161T1280-2		1	351H	1
161T1328-1		1	432	1
161T1328-2		1	432A	1
161T1330-2		1	433	2
161T1330-4		1	433A	2
161U0002-1		1	135A	3
161U1500-5		1	135C	3
162T1103-1		1	460	1
		1	460A	1
162T1103-2		1	460B	1
162T1518-1		1	325	1
1728B		1	160	6
		1	355	7
2-02813-4		1	55A	1
2C9344		1	60	1
272T0275-1		1	35B	
272T0275-2		1	40B	
272T0275-5		1	35C	1
272T0275-6		1	40C	1
272T0276-1		1	51A	
272T0276-2		1	52A	1
272T0277-1		1	49A	1
272T0277-2		1	50A	
272T0277-5		1	50B	1
272T0277-6		1	50J	1
272T0277-7		1	51B	1
273T6001-10		1	43	1
273T6001-5		1	41	2
273T6001-7		1	35A	1
273T6001-8		1	40A	1
273T6001-9		1	42	1
351-44900-312A		1	105C	1
		1	105E	1
		1	105G	1
351-44900-330G		1	105H	1
42-134-4201		1	455	2

PART NUMBER	AIRLINE PART NO.	FIG.	ITEM	TTL REQ
44PB134-4441		1	455	2
		1	455A	2
4690009-04		1	55A	1
5994-44901-318-02		1	105	1
744C9FT965-4780		1	130A	1
744K5MT2N		1	305	2
744K5MT987		1	310	1
7449FT4780		1	125	1
7449FT972		1	130	1
		1	150	2
7449MTE987		1	220	1
7449MT2N		1	215	2
7451MT2N		1	115	2
		1	133	2
7451MT987		1	120	1
		1	128	1
		1	132	1
		1	145	2
7711MT987		1	122	1
7711MT987P8		1	123	1
96-048		1	25	1
		1	85	2
		1	210	1
		1	240	1
		1	290	1



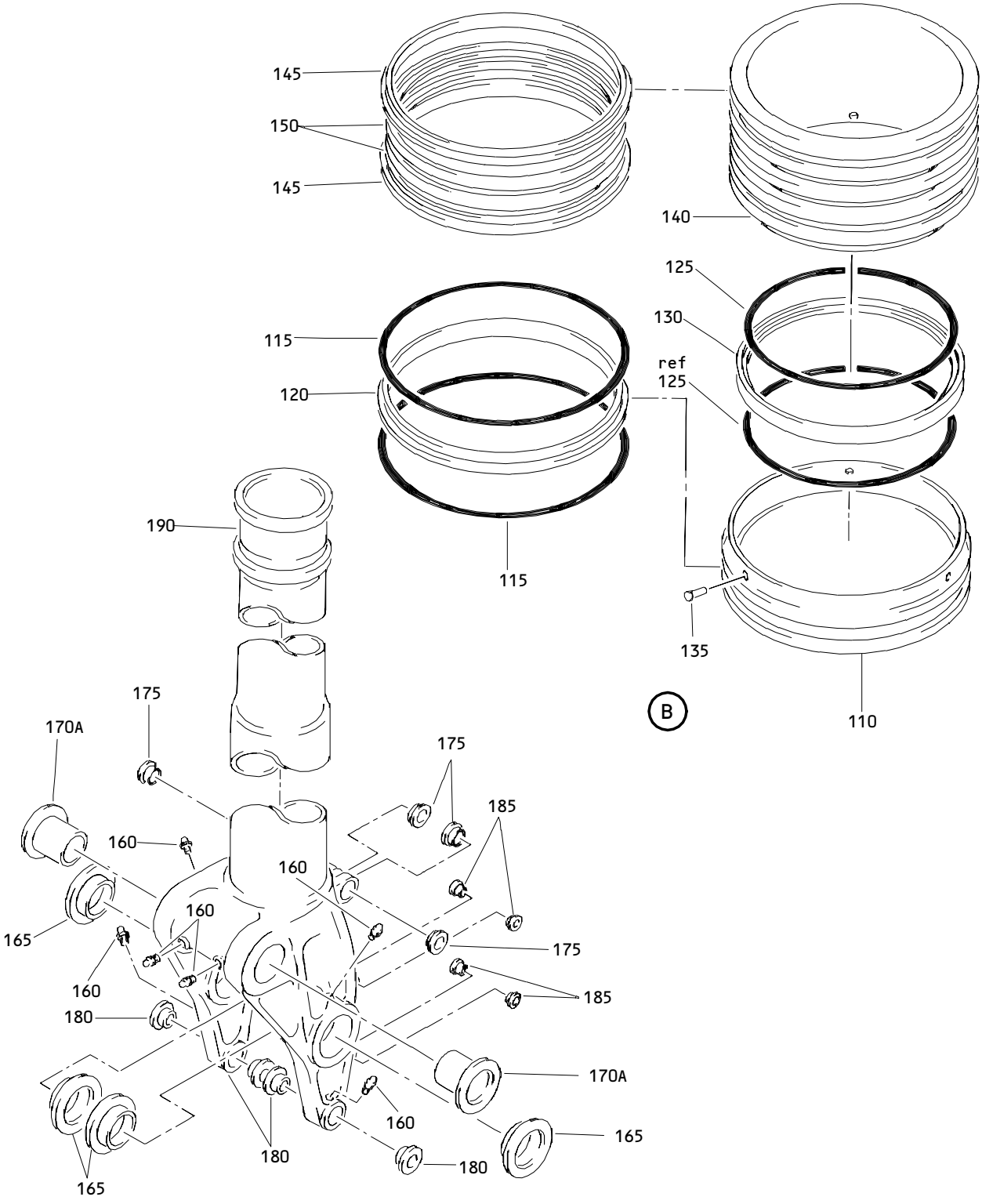
Main Landing Gear Shock Strut Assembly
Figure 1 (Sheet 1)

T72538



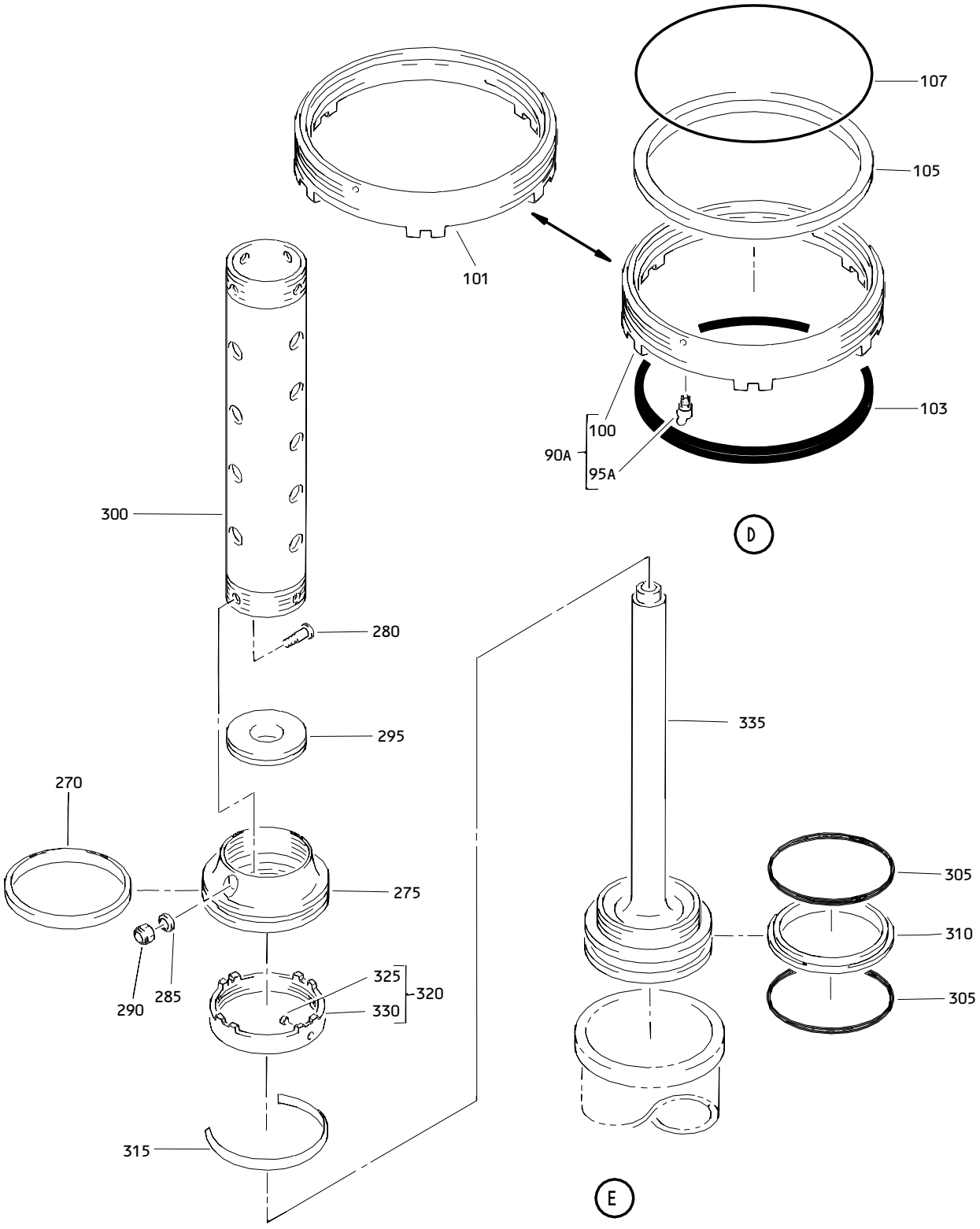
Main Landing Gear Shock Strut Assembly
Figure 1 (Sheet 2)

T55480



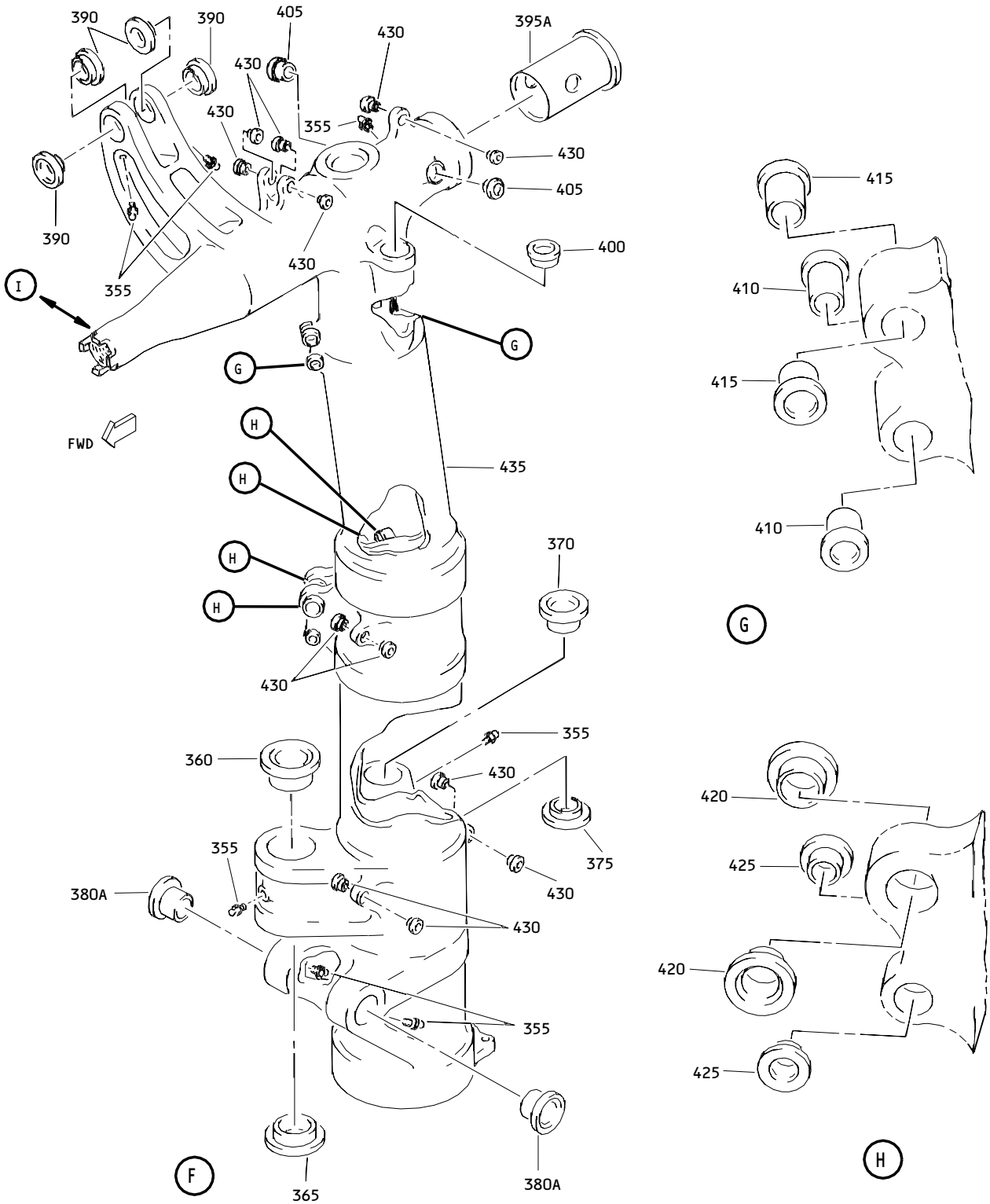
Main Landing Gear Shock Strut Assembly
Figure 1 (Sheet 3)

T72539



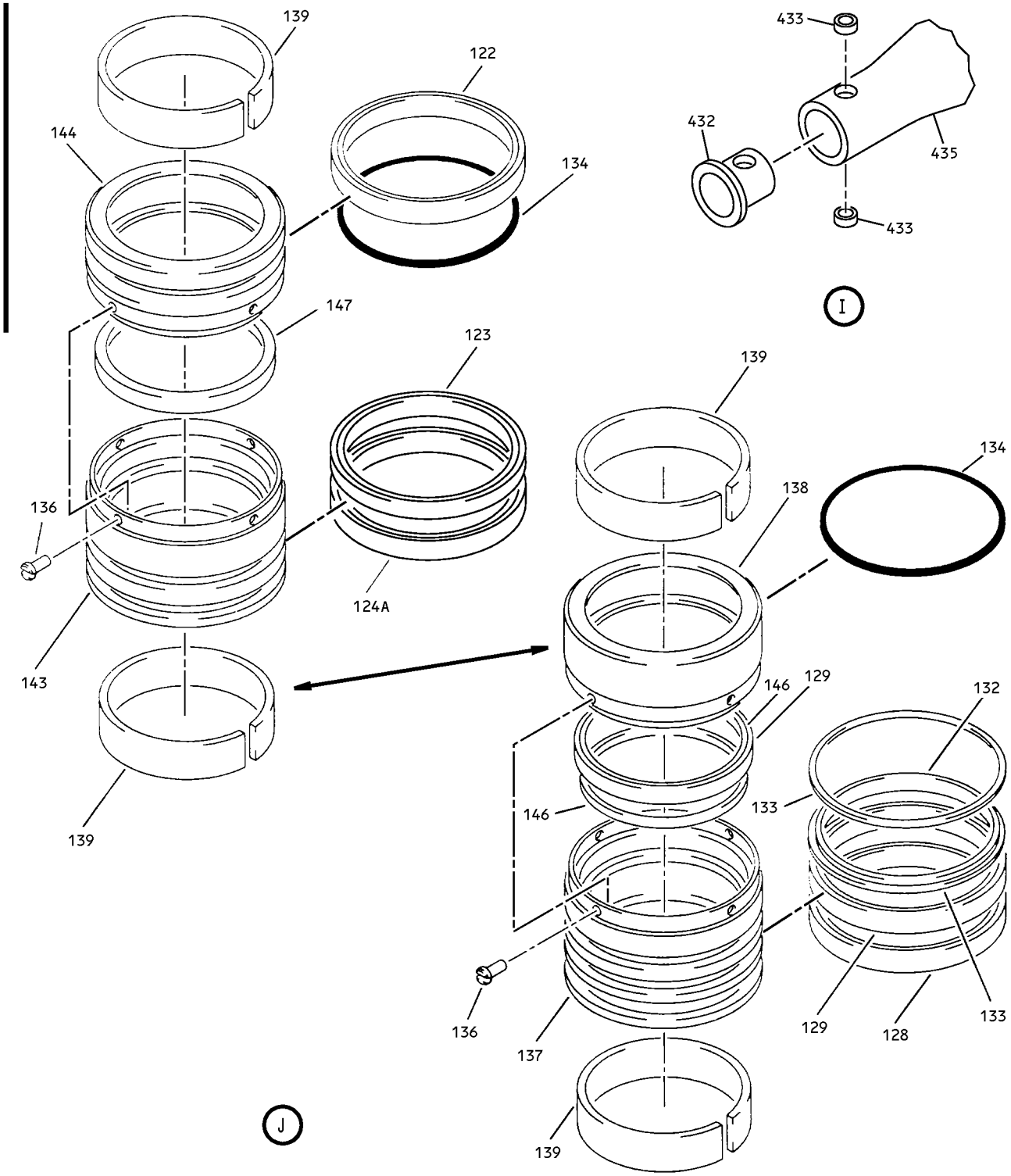
Main Landing Gear Shock Strut Assembly
Figure 1 (Sheet 4)

T55478

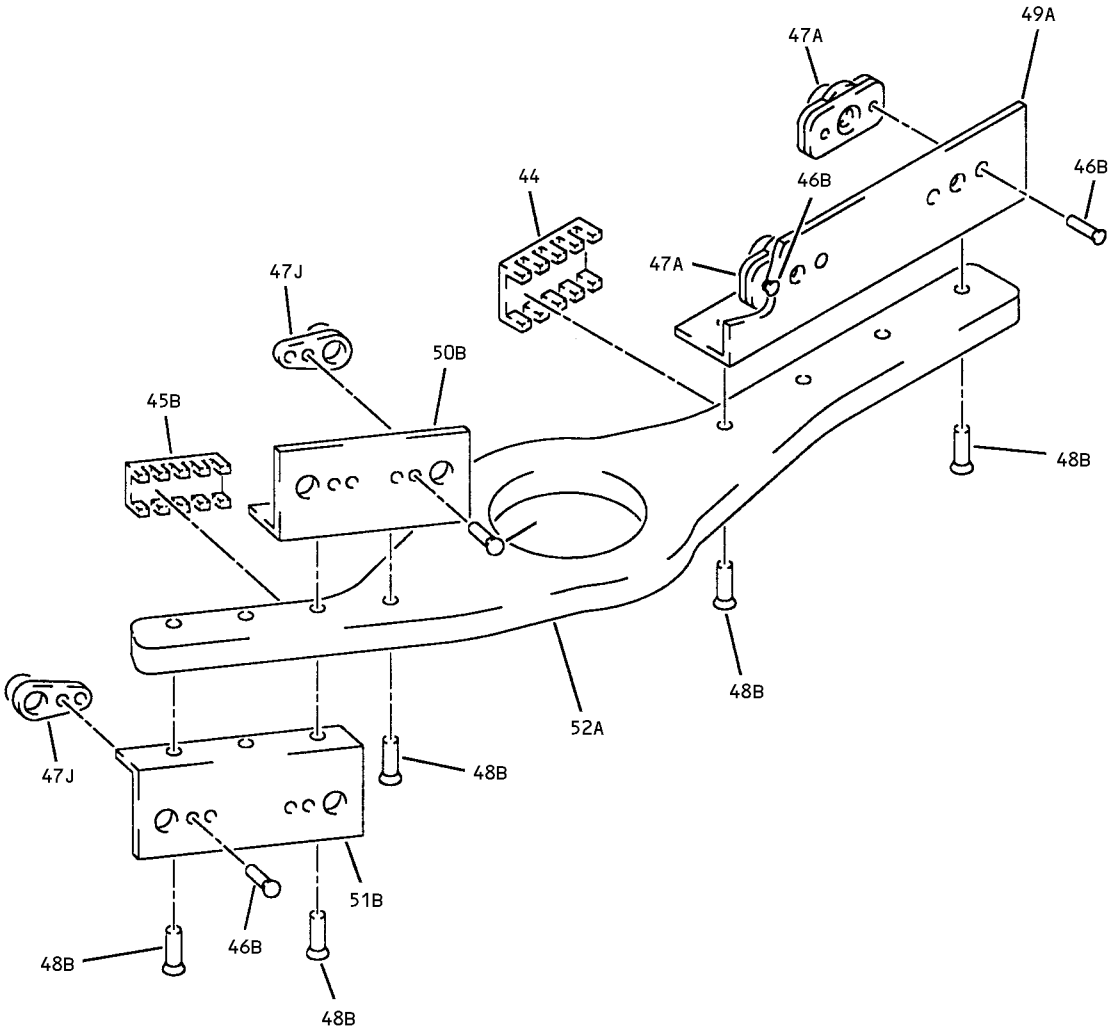


Main Landing Gear Shock Strut Assembly
Figure 1 (Sheet 5)

T55481



Main Landing Gear Shock Strut Assembly
Figure 1 (Sheet 6)



Main Landing Gear Shock Strut Assembly
Figure 1 (Sheet 7)

L98798

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01-					
-1C	161T1100-19		STRUT ASSY-MLG SHOCK (LH) (PRE SB 767-51-0007) (PRE SB 767-32A0148)	A	RF
-1D	161T1100-17		STRUT ASSY-MLG SHOCK (LH) (PRE SB 767-32A0148)	C	RF
-1G	161T1100-37		STRUT ASSY-MLG SHOCK (LH) (PRE SB 767-32A0148)	G	RF
-1H	161T1100-41		STRUT ASSY-MLG SHOCK (LH) (PRE SB 767-32A0148)	H	RF
-1J	161T1100-47		STRUT ASSY-MLG SHOCK (LH) (PRE SB 767-32A0148)	J	RF
-1K	161T1100-55		STRUT ASSY-MLG SHOCK (LH) (REWORK) (PRE SB 767-32A0148)	N	RF
-1L	161T1100-63		STRUT ASSY-MLG SHOCK (LH) (PRE SB 767-32A0148)	Q	RF
-1M	161T1100-67		STRUT ASSY-MLG SHOCK (LH) (POST SB 767-51-0007) (PRE SB 767-32A0148)	R	RF
-1N	161T1100-77		STRUT ASSY-MLG SHOCK (LH) (PRE SB 767-32A0148)	U	RF
-1Q	161T1100-87		STRUT ASSY-MLG SHOCK (LH) (PRE SB 767-32A0148)	W	RF
-1R	161T1100-71		STRUT ASSY-MLG SHOCK (LH) (PRE SB 767-32A0148)	E	RF
-1S	161T1100-89		STRUT ASSY-MLG SHOCK (LH) (PRE SB 767-32A0148) (PRE SB 767-32-0175)	Y	RF
-1T	161T1100-95		STRUT ASSY-MLG SHOCK (LH) (PRE SB 767-32A0148)	AA	RF
-1U	161T1100-103		DELETED		
-1V	161T1100-107		STRUT ASSY-MLG SHOCK (LH) (PRE SB 767-32A0148)	AF	RF
-1W	161T1100-115		STRUT ASSY-MLG SHOCK (LH) (PRE SB 767-32A0148)	AH	RF
-1X	161T1100-119		STRUT ASSY-MLG SHOCK (LH) (PRE SB 767-32A0148)	AJ	RF
-1Y	161T1100-127		STRUT ASSY-MLG SHOCK (LH) (PRE SB 767-32A0148)	AK	RF
-1Z	161T1100-133		DELETED		
-2	161T1100-137		DELETED		
-2A	161T1100-145		STRUT ASSY-MLG SHOCK (LH) (PRE SB 767-32-0135) (PRE SB 767-32A0148)	AZ	RF

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01-					
-2B	161T1100-151		STRUT ASSY-MLG SHOCK (LH) (PRE SB 767-32A0148)	BA	RF
-2C	161T1100-161		STRUT ASSY-MLG SHOCK (LH) (PRE SB 767-32A0148)	AT	RF
-2D	161T1100-165		DELETED		
-2E	161T1100-167		STRUT ASSY-MLG SHOCK (LH) (PRE SB 767-32-0135) (PRE SB 767-32A0148) (PRE SB 767-32-0175)	AR	RF
-2F	161T1100-169		STRUT ASSY-MLG SHOCK (LH) (PPRE SB 767-32A0148)	AS	RF
-2G	161T1100-173		DELETED		
-2H	161T1100-225		STRUT ASSY-MLG SHOCK (LH) (PRE SB 767-32A0148)	AD	RF
-2J	161T1100-257		STRUT ASSY-MLG SHOCK (LH) (PRE SB 767-32A0148)	BF	RF
-2K	161T1100-259		STRUT ASSY-MLG SHOCK (LH) (PRE SB 767-32A0148)	BH	RF
-2L	161T1100-261		DELETED		
-2M	161T1100-263		DELETED		
-2N	161T1100-277		STRUT ASSY-MLG SHOCK (LH) (PRE SB 767-32A0148)	BN	RF
-2P	161T1100-279		STRUT ASSY-MLG SHOCK (LH) (PRE SB 767-32A0148)	BQ	RF
-2Q	161T1100-281		STRUT ASSY-MLG SHOCK (LH) (PRE SB 767-32A0148)	BS	RF
-2R	161T1100-321		STRUT ASSY-MLG SHOCK (LH) (PRE SB 767-32A0148)	BU	RF
-2S	161T1100-323		STRUT ASSY-MLG SHOCK (LH) (PRE SB 767-32A0148)	BW	RF
-2T	161T1100-325		DELETED		
-2U	161T1100-327		DELETED		
-2V	161T1100-337		DELETED		
-2W	161T1100-339		STRUT ASSY-MLG SHOCK (LH) (PRE SB 767-32A0148)	CE	RF
-2X	015T0819-7		STRUT ASSY-MLG SHOCK (LH) (POST SB 767-32-0135)	CG	RF
-2Y	015T0819-9		STRUT ASSY-MLG SHOCK (LH) (POST SB 767-32-0135)	CJ	RF
-2Z	161T1100-343		STRUT ASSY-MLG SHOCK (LH) (PRE SB 767-32A0148)	CL	RF
-3	161T1100-345		STRUT ASSY-MLG SHOCK (LH) (PRE SN 767-32A0148)	CN	RF
-3A	161T1100-361		STRUT ASSY-MLG SHOCK (LH)	CW	RF

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01-					
-3B	161T1100-377		STRUT ASSY-MLG SHOCK (LH) (POST SB 767-32-0175)	CQ	RF
-3C	161T1100-357		STRUT ASSY-MLG SHOCK (LH) (POST SB 767-32A0148) (POST SB 767-32-0175)	CR	RF
-3D	161T1100-373		DELETED		
-3E	015T1504-7		STRUT ASSY-MLG SHOCK (LH) (POST SB 767-32A0148)	FS	RF
-3F	015T1504-5		STRUT ASSY-MLG SHOCK (LH) (POST SB 767-32A0148)	AL	RF
-3G	015T1504-9		STRUT ASSY-MLG SHOCK (LH) (POST SB 767-32A0148)	CY	RF
-3H	015T1504-11		STRUT ASSY-MLG SHOCK (LH) (POST SB 767-32A0148)	CZ	RF
-3J	015T1504-13		STRUT ASSY-MLG SHOCK (LH) (POST SB 767-32A0148)	DA	RF
-3K	015T1504-15		STRUT ASSY-MLG SHOCK (LH) (POST SB 767-32A0148)	DB	RF
-3L	015T1504-17		STRUT ASSY-MLG SHOCK (LH) (POST SB 767-32A0148)	DC	RF
-3M	015T1504-19		STRUT ASSY-MLG SHOCK (LH) (POST SB 767-32A0148)	DD	RF
-3N	015T1504-25		STRUT ASSY-MLG SHOCK (LH) (POST SB 767-32A0148)	DE	RF
-3P	015T1504-23		STRUT ASSY-MLG SHOCK (LH) (POST SB 767-32A0148)	DF	RF
-3Q	015T1504-21		STRUT ASSY-MLG SHOCK (LH) (POST SB 767-32A0148)	DG	RF
-3R	015T1504-27		STRUT ASSY-MLG SHOCK (LH) (POST SB 767-32A0148)	DH	RF
-3S	015T1504-29		STRUT ASSY-MLG SHOCK (LH) (POST SB 767-32A0148)	DJ	RF
-3T	015T1504-31		STRUT ASSY-MLG SHOCK (LH) (POST SB 767-32A0148)	DK	RF
-3U	015T1504-33		STRUT ASSY-MLG SHOCK (LH) (POST SB 767-32A0148)	DL	RF
-3V	015T1504-35		STRUT ASSY-MLG SHOCK (LH) (POST SB 767-32A0148)	DM	RF
-3W	015T1504-37		STRUT ASSY-MLG SHOCK (LH) (POST SB 767-32A0148)	DN	RF
-3X	015T1504-39		STRUT ASSY-MLG SHOCK (LH) (POST SB 767-32A0148)	DP	RF
-3Y	015T1504-41		STRUT ASSY-MLG SHOCK (LH) (POST SB 767-32A0148)	DQ	RF

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01-					
-3Z	015T1504-45		STRUT ASSY-MLG SHOCK (LH) (POST SB 767-32A0148)	DR	RF
-4	015T1504-47		STRUT ASSY-MLG SHOCK (LH) (POST SB 767-32A0148)	DS	RF
-4A	015T1504-49		STRUT ASSY-MLG SHOCK (LH) (POST SB 767-32A0148)	DT	RF
-4B	015T1504-51		STRUT ASSY-MLG SHOCK (LH) (POST SB 767-32A0148)	DU	RF
-4C	015T1504-53		STRUT ASSY-MLG SHOCK (LH) (POST SB 767-32A0148)	DV	RF
-4D	015T1504-55		STRUT ASSY-MLG SHOCK (LH) (POST SB 767-32A0148)	DW	RF
-4E	015T1504-57		STRUT ASSY-MLG SHOCK (LH) (POST SB 767-32A0148)	DX	RF
-4F	015T1504-59		STRUT ASSY-MLG SHOCK (LH) (POST SB 767-32A0148)	DY	RF
-4G	015T1504-61		STRUT ASSY-MLG SHOCK (LH) (POST SB 767-32A0148)	DZ	RF
-4H	015T1504-63		STRUT ASSY-MLG SHOCK (LH) (POST SB 767-32A0148)	EA	RF
-4J	015T1504-65		STRUT ASSY-MLG SHOCK (LH) (POST SB 767-32A0148)	EB	RF
-4K	015T1504-67		STRUT ASSY-MLG SHOCK (LH) (POST SB 767-32A0148)	EC	RF
-4L	015T1504-69		STRUT ASSY-MLG SHOCK (LH) (POST SB 767-32A0148)	ED	RF
-4M	161T1100-395		STRUT ASSY-MLG SHOCK (LH)	FN	RF
-4N	161T1100-397		DELETED		
-4P	161T1100-403		STRUT ASSY-MLG SHOCK (LH)	V	RF
-4Q	161T1100-405		DELETED		
-4R	161T1100-417		DELETED		
-4S	161T1100-419		DELETED		
-4T	161T1100-445		STRUT ASSY-MLG SHOCK (LH)	AV	RF
-4U	161T1100-447		STRUT ASSY-MLG SHOCK (LH)	AX	RF
-4V	161T1100-449		DELETED		
-4W	161T1100-461		STRUT ASSY-MLG SHOCK (LH)	CC	RF
-4X	161T1100-465		STRUT ASSY-MLG SHOCK (LH)	FY	RF
-4Y	161T1100-467		DELETED		

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01-					
-5C	161T1100-20		STRUT ASSY-MLG SHOCK (RH) (PRE SB 51-7) (PRE SB 767-32A0148)	B	RF
-5D	161T1100-18		STRUT ASSY-MLG SHOCK (RH) (PRE SB 767-32A0148)	D	RF
-5G	161T1100-38		STRUT ASSY-MLG SHOCK (RH) (PRE SB 767-32A0148)	K	RF
-5H	161T1100-42		STRUT ASSY-MLG SHOCK (RH) (PRE SB 767-32A0148)	L	RF
-5J	161T1100-48		STRUT ASSY-MLG SHOCK (RH) (PRE SB 767-32A0148)	M	RF
-5K	161T1100-56		STRUT ASSY-MLG SHOCK (RH) (PRE SB 767-32A0148) (REWORK)	P	RF
-5L	161T1100-64		STRUT ASSY-MLG SHOCK (RH) (PRE SB 767-32A0148)	S	RF
-5M	161T1100-68		STRUT ASSY-MLG SHOCK (RH) (POST SB 51-7) (PRE SB 767-32A0148)	T	RF
-5N	161T1100-78		STRUT ASSY-MLG SHOCK (RH) (PRE SB 767-32A0148)	X	RF
-5Q	161T1100-88		STRUT ASSY-MLG SHOCK (RH) (PRE SB 767-32A0148)	Z	RF
-5R	161T1100-72		STRUT ASSY-MLG SHOCK (RH) (PRE SB 767-32A0148)	F	RF
-5S	161T1100-90		STRUT ASSY-MLG SHOCK (RH) (PRE SB 767-32A0148) (PRE SB 767-32-0175)	AB	RF
-5T	161T1100-96		STRUT ASSY-MLG SHOCK (RH) (PRE SB 767-32A0148)	AC	RF
-5U	161T1100-104		DELETED		
-5V	161T1100-108		STRUT ASSY-MLG SHOCK (RH) (PRE SB 767-32A0148)	AG	RF
-5W	161T1100-114		DELETED		
-5X	161T1100-120		STRUT ASSY-MLG SHOCK (RH) (PRE SB 767-32A0148)	AN	RF
-5Y	161T1100-128		STRUT ASSY-MLG SHOCK (RH) (PRE SB 767-32A0148)	AP	RF
-5Z	161T1100-134		DELETED		

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01-					
-6	161T1100-138		DELETED		
-6A	161T1100-146		STRUT ASSY-MLG SHOCK (RH) (PRE SB 767-32-0135) (PRE SB 767-32A0148)	BB	RF
-6B	161T1100-152		STRUT ASSY-MLG SHOCK (RH) (PRE SB 767-32A0148)	BC	RF
-6C	161T1100-156		STRUT ASSY-MLG SHOCK (RH) (PRE SB 767-32A0148)	BD	RF
-6D	161T1100-162		STRUT ASSY-MLG SHOCK (RH) (PRE SB 767-32A0148)	AW	RF
-6E	161T1100-166		DELETED		
-6F	161T1100-168		STRUT ASSY-MLG SHOCK (RH) (PRE SB 767-32-0135) (PRE SB 767-32A0148) (PRE SB 767-32-0175)	AQ	RF
-6G	161T1100-170		STRUT ASSY-MLG SHOCK (RH) (PRE SB 767-32A0148)	AU	RF
-6H	161T1100-172		DELETED		
-6J	161T1100-174		DELETED		
-6K	161T1100-226		STRUT ASSY-MLG SHOCK (RH) (PRE SB 767-32A0148)	AE	RF
-6L	161T1100-258		STRUT ASSY-MLG SHOCK (RH) (PRE SB 767-32A0148)	BE	RF
-6M	161T1100-260		STRUT ASSY-MLG SHOCK (RH) (PRE SB 767-32A0148)	BG	RF
-6N	161T1100-262		DELETED		
-6P	161T1100-264		DELETED		
-6Q	161T1100-276		DELETED		
-6R	161T1100-284		DELETED		
-6S	161T1100-286		DELETED		
-6T	161T1100-288		DELETED		
-6U	161T1100-278		STRUT ASSY-MLG SHOCK (RH) (PRE SB 767-32A0148)	BP	RF
-6V	161T1100-280		STRUT ASSY-MLG SHOCK (RH) (PRE SB 767-32A0148)	BR	RF
-6W	161T1100-282		STRUT ASSY-MLG SHOCK (RH) (PRE SB 767-32A0148)	BT	RF
-6X	161T1100-322		STRUT ASSY-MLG SHOCK (RH) (FPRE SB 767-32A0148)	BV	RF
-6Y	161T1100-324		STRUT ASSY-MLG SHOCK (RH) (PRE SB 767-32A0148)	BX	RF
-6Z	161T1100-326		DELETED		

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01-					
-7	161T1100-328		DELETED		
-7A	161T1100-338		DELETED		
-7B	161T1100-340		STRUT ASSY-MLG SHOCK (RH) (PRE SB 767-32A0148)	CF	RF
-7C	015T0819-8		STRUT ASSY-MLG SHOCK (RH) (POST SB 767-32-0135)	CH	RF
-7D	015T0819-10		STRUT ASSY-MLG SHOCK (RH) (POST SB 767-32-0135)	CK	RF
-7E	161T1100-344		STRUT ASSY-MLG SHOCK (RH) (PRE SB 767-32A0148)	CM	RF
-7F	161T1100-346		STRUT ASSY-MLG SHOCK (RH) (PRE SB 767-32A0148)	CP	RF
-7G	161T1100-362		STRUT ASSY-MLG SHOCK (RH)	CX	RF
-7H	161T1100-378		STRUT ASSY-MLG SHOCK (RH) (POST SB 767-32-0175)	CS	RF
-7J	161T1100-358		STRUT ASSY-MLG SHOCK (RH) (POST SB 767-32A0148) (POST SB 767-32-0175)	CT	RF
-7K	161T1100-374		DELETED		
-7L	015T1504-6		STRUT ASSY-MLG SHOCK (RH) (POST SB 767-32A0148)	EE	RF
-7M	015T1504-8		STRUT ASSY-MLG SHOCK (RH) (POST SB 767-32A0148)	EF	RF
-7N	015T1504-10		STRUT ASSY-MLG SHOCK (RH) (POST SB 767-32A0148)	EG	RF
-7P	015T1504-12		STRUT ASSY-MLG SHOCK (RH) (POST SB 767-32A0148)	EH	RF
-7Q	015T1504-14		STRUT ASSY-MLG SHOCK (RH) (POST SB 767-32A0148)	EJ	RF

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01-					
-7R	015T1504-16		STRUT ASSY-MLG SHOCK (RH) (POST SB 767-32A0148)	EK	RF
-7S	015T1504-20		STRUT ASSY-MLG SHOCK (RH) (POST SB 767-32A0148)	EL	RF
-7T	015T1504-18		STRUT ASSY-MLG SHOCK (RH) (POST SB 767-32A0148)	EM	RF
-7U	015T1504-24		STRUT ASSY-MLG SHOCK (RH) (POST SB 767-32A0148)	EN	RF
-7V	015T1504-26		STRUT ASSY-MLG SHOCK (RH) (POST SB 767-32A0148)	EP	RF
-7W	015T1504-22		STRUT ASSY-MLG SHOCK (RH) (POST SB 767-32A0148)	EQ	RF
-7X	015T1504-28		STRUT ASSY-MLG SHOCK (RH) (POST SB 767-32A0148)	ER	RF
-7Y	015T1504-30		STRUT ASSY-MLG SHOCK (RH) (POST SB 767-32A0148)	ES	RF
-7Z	015T1504-32		STRUT ASSY-MLG SHOCK (RH) (POST SB 767-32A0148)	ET	RF
-8	015T1504-36		STRUT ASSY-MLG SHOCK (RH) (POST SB 767-32A0148)	EU	RF
-8A	015T1504-38		STRUT ASSY-MLG SHOCK (RH) (POST SB 767-32A0148)	EV	RF
-8B	015T1504-40		STRUT ASSY-MLG SHOCK (RH) (POST SB 767-32A0148)	EW	RF
-8C	015T1504-42		STRUT ASSY-MLG SHOCK (RH) (POST SB 767-32A0148)	EX	RF
-8D	015T1504-44		STRUT ASSY-MLG SHOCK (RH) (POST SB 767-32A0148)	EY	RF
-8E	015T1504-46		STRUT ASSY-MLG SHOCK (RH) (POST SB 767-32A0148)	EZ	RF
-8F	015T1504-48		STRUT ASSY-MLG SHOCK (RH) (POST SB 767-32A0148)	FA	RF
-8G	015T1504-50		STRUT ASSY-MLG SHOCK (RH) (POST SB 767-32A0148)	FB	RF

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01-					
-8H	015T1504-52		STRUT ASSY-MLG SHOCK (RH) (POST SB 767-32A0148)	FC	RF
-8J	015T1504-54		STRUT ASSY-MLG SHOCK (RH) (POST SB 767-32A0148)	FD	RF
-8K	015T1504-56		STRUT ASSY-MLG SHOCK (RH) (POST SB 767-32A0148)	FE	RF
-8L	015T1504-58		STRUT ASSY-MLG SHOCK (RH) (POST SB 767-32A0148)	FF	RF
-8M	015T1504-60		STRUT ASSY-MLG SHOCK (RH) (POST SB 767-32A0148)	FG	RF
-8N	015T1504-62		STRUT ASSY-MLG SHOCK (RH) (POST SB 767-32A0148)	FH	RF
-8P	015T1504-64		STRUT ASSY-MLG SHOCK (RH) (POST SB 767-32A0148)	FJ	RF
-8Q	015T1504-66		STRUT ASSY-MLG SHOCK (RH) (POST SB 767-32A0148)	FK	RF
-8R	015T1504-68		STRUT ASSY-MLG SHOCK (RH) (POST SB 767-32A0148)	FL	RF
-8S	015T1504-70		STRUT ASSY-MLG SHOCK (RH) (POST SB 767-32A0148)	FM	RF
-8T	161T1100-396		STRUT ASSY-MLG SHOCK (RH)	FQ	RF
-8U	161T1100-398		DELETED		
-8V	161T1100-404		STRUT ASSY-MLG SHOCK (RH)	AM	RF
-8W	161T1100-406		DELETED		
-8X	161T1100-418		DELETED		
-8Y	161T1100-420		DELETED		
-8Z	161T1100-446		STRUT ASSY-MLG SHOCK (RH)	BZ	RF
-9	161T1100-448		STRUT ASSY-MLG SHOCK (RH)	CA	RF
-9A	161T1100-450		STRUT ASSY-MLG SHOCK (RH)	CB	RF
-9B	161T1100-462		STRUT ASSY-MLG SHOCK (RH)	CD	RF
-9C	161T1100-466		STRUT ASSY-MLG SHOCK (RH)	GA	RF
-9D	161T1100-468		DELETED		
-10	NAS6604-32		DELETED		
-10A	161T1100-479		STRUT ASSY-MLG SHOCK (LH)	BJ	RF
-10B	161T1100-481		STRUT ASSY-MLG SHOCK (LH)	BL	RF
-12	161T1100-480		STRUT ASSY-MLG SHOCK (RH)	BK	RF
-12A	161T1100-482		STRUT ASSY-MLG SHOCK (RH)	BM	RF

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01-					
18	NAS6604-32		.BOLT		1
20	AN960-416		.WASHER	A-U, W-AK, AN-AU ,AW,A Z-BH BN-BX ,CE,C F,C M-CT, CV-CX	1
-20A	NAS1149F0463P		.WASHER	V,AM, AV,AX ,BJ-B M,B Z-CD FN,FQ ,FY, GA	1
25	BRH10A4		.NUT- (V52828) (SPEC BACN10JC4) (OPT T6S428J (V11815)) (OPT 96-048 (V80539)) (OPT VN303A048 (V92215)) (OPT RMLH9075-4W (V72962)) (OPT NS202101-048 (V80539)) (OPT H10-4BAC (V15653))	A-U, W-AL, AN-AU AW, AZ-BH BN-BX CE-FM FS	1
-25A	BRH10C4D		.NUT- (V52828) (SPEC BACN10JC4CD) (OPT T6C428JCD (V11815)) (OPT NS202486-048 (V80539)) (OPT 102LH9075-4W (V72962)) (OPT H51650-4BAC (V15653))	V,AM, AV,AX ,BJ-B M,B Z-CD FN,FQ ,FY, GA	1

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01-					
30	161T1163-1		.NUT		1
35A	273T6001-7		.SUPPORT ASSY-HOSE (PRE SB 767-32-0162)	A,C,E ,G-J, Q,R, U-W,Y ,AA,A D AF,A H-AK, AR-AT ,AV,A X,AZ BA,BN ,BQ,B S,BU, BW,BZ CC-CE ,CL,C N,CQ, CR,CW FN,CW	1
35B	272T0275-1		DELETED		
35C	272T0275-5		.BRACKET ASSY (POST SB 767-32-0162)	BJ,BL ,FY	1
-40A	273T6001-8		.SUPPORT ASSY-HOSE (PRE SB 767-32-0162)	B,D,F ,K-M, S,T,X ,Z,AB ,AC AE,AG ,AM-A Q,A U-AX BB-BD ,BP,B R,BT, BV,BX CF,CM ,CP,C T,CX, FQ	1
-40B	272T0275-2		DELETED		
-40C	272T0275-6		.BRACKET ASSY (POST SB 767-32-0162)	BK,BM ,GA	1

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01-					
41	273T6001-5		..STOP		2
42	273T6001-9		..SUPPORT-HOSE	A,C,E ,G-J, Q,R, U-W,Y ,AA,A D AF,A H-AK, AR-AT ,AV,A X,AY BA,BN ,BQ,B S,BU, BW CC,CE ,CL,C N,CQ, CR,FN	1
-43	273T6001-10		..SUPPORT-HOSE	B,D,F ,K-M, S,T,X ,Z,AB ,AC AE,AG ,AM-A Q,AU, AW,B B-BD BP,BR ,BT,B V,BX, BZ-CB CD,CF ,CM,C P,CT, FQ	1

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01-					
44	BACG20ZT00100B		..GROMMET	BJ-BM ,FY, GA	1
45	EQ1009D		DELETED		
45A	BACG20ZF000100B		DELETED		
45B	BACG20ZS000100B		..GROMMET	BJ-BM ,FY, GA	2
46	MS28889-2		DELETED		
46A	BACR15BA3AD		DELETED		
46B	BACR15BA3AD3C		..RIVET	BJ-BM ,FY- GB	12
47A	BRFM20A3		..NUTPLATE- (V52828) (SPEC BACN10JN3) (OPT MF1000-3BAC (V15653)) (OPT NS103218-02 (V80539)) (OPT RMF9201M3 (V72962)) (OPT VN252A02 (V92215)) (OPT MF53049-3 (V15653)) (OPT T8124S3S (V11815))	BJ-BM ,FY, GA	2
47J	BRM100A3		..NUTPLATE- (V52828) (SPEC BACN10JP3B) (OPT MK2000-3BAC (V15653)) (OPT NS103198-02 (V80539)) (OPT RMA9207-3 (V72962)) (OPT VN201A1-02 (V92215)) (OPT T8077S1032 (V11815))	BJ-BM ,FY, GA	4

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01-					
48A	BACR15BA5AD		DELETED		
48B	BACR15BA5AD7C		..RIVET	BJ-BM,FY-GB	8
49A	272T0277-1		..BRACKET	BJ-BM,FY,GA	1
50A	272T0277-2		DELETED		
50B	272T0277-5		..BRACKET	BJ,BL,FY	1
-50J	272T0277-6		..BRACKET	GA	1
51A	272T0276-1		DELETED		
51B	272T0277-7		..BRACKET	BJ,BL,FY	1
52A	272T0276-2		..BRACKET	BJ-BM,FY,GA	1
53A	EQ1009D		.TAG-OIL (V13002)	A-AX,AZ-BH,BN-BX,BZ-CT CW-FN,FQ,FS	1
54A	MS28889-2		.VALVE-AIR		1
55A	AFP241-04		.CAP ASSY-PRESSURE SEAL (V30974) (SPEC BACC14AD04) (OPT DB0C14AD4 (V14798)) (OPT FER22661-04 (V14397)) (OPT 2-02813-4 (V11328)) (OPT 4690009-04 (V50948)) (OPT DB0C14AD4 (V61498)) (OPT AP1008-04 (V01673))		1

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01-					
60	2C9344		.VALVE-CHK (V99240) (PRE SB 767-32A0182)	A-AU, AW,A Z-BH, BN-BX CE-CT ,CX,C Z-FN, FQ,FS ,FU	1
60A	1C4048		.VALVE-CHK (V99240)	AV,AX ,BJ-B M,B Z-CD, FY,GA	1
-60B	1C4048		.VALVE-CHK (V99240) (POST SB 767-32A0182)	A-AU, AW,A Z-BH, BN-BX CE-CT ,CX,C Z-FN, FQ,FS ,FU	1
65	MS28778-6		.PACKING		1
70	161T1169-1		.LOCKTAB ATTACHING PARTS		1
75	NAS6604-14		.BOLT		2
80	AN960-416		.WASHER	A-U, W-AK, AN-AU ,AW,A Z-BH BN-BX ,CE,C F,C M-CT, CV-CX	2

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01- -80A	NAS1149F0463P		.WASHER	V,AM, AV,AY ,BJ-B M,B Z-CD FN,FQ ,FY, GA	2
85	BRH10A4		.NUT- (V52828) (SPEC BACN10JC4) (OPT T6S428J (V11815)) (OPT 96-048 (V80539)) (OPT VN303A048 (V92215)) (OPT RMLH9075-4W (V72962)) (OPT NS202101-048 (V80539)) (OPT H10-4BAC (V15653))	A-U, W-AK, AN-AU ,AW,A Z-BH BN-BX ,CE,C F,C M-CT, CV-CX	2
-85A	BRH10C4D		.NUT- (V52828) (SPEC BACN10JC4CD) (OPT T6C428JCD (V11815)) (OPT NS202486-048 (V80539)) (OPT 102LH9075-4W (V72962)) (OPT H51650-4BAC (V15653)) -------*-------	V,AM, AV,AY ,BJ-B M,B Z-CD FN-FQ ,FY, GA	2

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01-90A	161T1150-3		.NUT ASSY-GLAND (161T1150-3 GLAND NUT ASSEMBLY T/W 1 EACH 161T1151-1 CARRIER SEAL AND 1 EACH 5994-44901-318-02 SCRAPER RING ASSEMBLY IS I/W 161T1150-5 GLAND NUT ASSEMBLY T/W 1 EACH 161T1150-2 CARRIER SEAL, 1 EACH 161T1256-1 FILLER, 1 EACH 37563 SCRAPER RING ASSEMBLY AND 1 EA MS28775-377) (161T1150-5 T/W 161T1256-1 FILLER I/W 161T1150-7 OR 161T1150-10 OR 161T1150-11 OR 161T1075-1) (CONT AT ITEM 90F)	A-U, W-AC, AF-AH	1

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01- -90B	161T1150-5		.NUT ASSY-GLAND (161T1150-3 GLAND NUT ASSEMBLY T/W 1 EACH 161T1151-1 CARRIER SEAL AND 1 EACH 5994-44901-318-02 SCRAPER RING ASSEMBLY IS I/W 161T1150-5 GLAND NUT ASSEMBLY T/W 1 EACH 161T1151-2 CARRIER SEAL, 1 EACH 161T1256-1 FILLER, 1 EACH S37563 SCRAPER RING ASSEMBLY AND 1 EA MS28775-377) (161T1150-5 T/W 161T1256-1 FILLER I/W 161T1150-7) (161T1150-5 T/W 161T1256-1 FILLER I/W 161T1150-7 OR 161T1150-10 OR 161T1150-11 OR 161T1075-1) (ITEM 90B WITH ITEM 103 OPT ITEM 90C)	AD,AE ,AJ,A K,A N-AU, AW AZ-BD ,BN-B X,C L-CP	1
-90C	161T1150-7		.NUT ASSY-GLAND (161T1150-5 T/W 161T1256-1 FILLER I/W 161T1150-7 OR 161T1150-10 OR 161T1150-11 OR 161T1075-1) (161T1150-3 OR -5 T/W 161T1256-1 FILLER I/W 161T1150- 7 OR 161T1150-10 OR 161T1150-11 OR 161T1075-1) (ITEM 90B WITH ITEM 103 OPT ITEM 90C)	AD,AE ,AJ,A K,A N-AU, AW AZ-BD ,BP-B X,C L-CP	1

	FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
	01-					
	-90D	161T1150-10		.NUT ASSY-GLAND (OPT ITEM 90E) (161T1150-5 T/W 161T1256-1 FILLER I/W 161T1150-7 OR 161T1150-10 OR 161T1150-11 OR 161T1075-1)	V,AM, AV,BZ ,CC-C R,CT, CW CX,F N-FQ	1
	-90E	161T1150-11		.NUT ASSY-GLAND (161T1150-5 T/W 161T1256-1 FILLER I/W 161T1150-7 OR 161T1150-10 OR 161T1150-11 OR 161T1075-1) (OPT ITEM 90D)	V,AM, AV,BZ ,CC-C R,CT, CW CX,F N-FQ	1
R	-90F	161T1150-3		.NUT ASSY-GLAND (CONT FROM ITEM 90A)	A-U, W-AC, AF-AH	1
	95A	161T1150-4		..FITTING-LUBE		1
	-96	BACR15BB66DD5		..RIVET- (USED ON ITEM 90D)	AV,BZ ,CC-C R,CT, CW,CX	1
	100	161T1150-2		..NUT (PRE SB 32-0083)		1
	-100A	161T1150-6		..NUT (USED ON ITEM 90B) (POST SB 32-0083)	AD,AE ,AJ,A K,A N-AU, AW AZ-BD ,BU-B X,CE, CF	1

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01- -100B	161T1150-8		..NUT (USED ON ITEM 90C, 90D)	V,AD, AE,AJ ,AK,A M-AW AZ-BD ,BU-B X,BZ, CC-CR CT,CW ,CX,F N-FQ	1
101	161T1075-1		.NUT-GLAND (161T1150-5 T/W 161T1256-1 FILLER I/W 161T1150-7 OR 161T1150-10 OR 161T1150-11 OR 161T1075-1) (161T1150-3 OR -5 T/W 161T1256-1 FILLER I/W 161T1150- 7 OR 161T1150-10 OR 161T1150-11 OR 161T1075-1)	AX,B J-BM, CA,CB ,FY- GB	1
103	161T1256-1		.FILLER- (ITEM 90B WITH ITEM 103 OPT ITEM 90C)	AD,AE ,AJ,A K,A N-AU, AW AZ-BD ,BN-B X,C L-CP	1

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01-105	BCREF4926		.RING ASSY-SCRAPER (V5F573) (5994-44901-318-02) (PRE SB 32-0083)	A-U, W-AC, AF-AH	1
-105A	S37563		.RING ASSY-SCRAPER (V09257) (POST SB 32-0083) (ITEM 105B OR ITEM 105C OPT TO ITEM 105A WITH ITEM 107)	AD,AE,AJ,AK,AM-AW AZ-BD,BN-BX,CC,CE,CF CL-CR,CT,CW,CX,FQ	1
-105B	MSE30-500219		.RING ASSY-SCRAPER (V5F573) (ITEM 105B OR ITEM 105C OPT TO TIEM 105A WITH ITEM 107)	AD,AE,AJ,AK,AN-AU,AW AZ-BD,BN-BX,CD-CF,CL-CP	1
-105C	351-44900-312A		.RING ASSY-SCRAPER (FULLY INTERCHANGEABLE, EXCEPT DO NOT USE SCRAPERS 351-44900-312A OR MSE30-500219 WITH 161T1150-5 GLAND NUT ASSY) (V5F573) (ITEM 105B OR ITEM 105C OPT TO ITEM 105A WITH ITEM 107)	AD,AE,AJ,AK,AM-AW AZ-BD,BN-BX,CC,CE,CF CL-CR,CT,CW,CX,FQ	1

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01-					
-105D	S37563		.RING ASSY-SCRAPER (V09257) (ITEM 105E OPT TO ITEM 105D WITH ITEM 107A WHEN USED WITH ITEM 90C)	BN-BX,CE,CF,CL-CP	1
-105E	351-44900-312A		.RING ASSY-SCRAPER (FULLY INTERCHANGEABLE, EXCEPT DO NOT USE SCRAPERS 351-44900-312A OR MSE30-500219 WITH 161T1150-5 GLAND NUT ASSY) (V5F573) (ITEM 105E OPT TO ITEM 105D WITH ITEM 107A WHEN USED WITH ITEM 90C)	BU-BX,CE,CF	1
-105F	S37563		.RING ASSY-SCRAPER (V09257) (OPT ITEMS 105G, 105H)	V,AV,AX,BJ-BM,BZ-CD,FN FY,GA	1
-105G	351-44900-312A		.RING ASSY-SCRAPER (FULLY INTERCHANGEABLE, EXCEPT DO NOT USE SCRAPERS 351-44900-312A OR MSE30-500219 WITH 161T1150-5 GLAND NUT ASSY) (V5F573) (OPT ITEMS 105F, 105H)	V,AV,AX,BJ-BM,BZ-CD,FN FY,GA	1

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01- -105H	351-44900-330G		.RING ASSY-SCRAPER (FULLY INTERCHANGEABLE, EXCEPT DO NOT USE SCRAPERS 351-44900-312A OR MSE30-500219 WITH 161T1150-5 GLAND NUT ASSY) (V5F573) (OPT ITEMS 105F, 105G)	V,AV, AX,B J-BM, BZ-CD ,FN FY,GA	1
107	MS28775-377		.PACKING- (ITEM 105B OR ITEM 105C OPT TO ITEM 105A WITH ITEM 107)	AD,AE ,AJ,A K,A N-AU, AW AZ-BD	1
-107A	MS28775-377		.PACKING- (ITEM 105E OPT TO ITEM 105D WITH ITEM 107A WHEN USED WITH ITEM 90C)	BU-BX ,CE,C F,CR, CT	1
-107B	M83461-1-377		.PACKING	AM,AV ,AX,B J-BM, BZ-CD ,FQ FY,GA	1
110	161T1151-1		.CARRIER-SEAL (161T1150-3 GLAND NUT ASSEMBLY T/W 1 EACH 161T1151-1 CARRIER SEAL AND 1 EACH 5994-44901-318-02 SCRAPER RING ASSEMBLY IS I/W 161T1150-5 GLAND NUT ASSEMBLY T/W 1 EACH 161T1150-2 CARRIER SEAL, 1 EACH 161T1256-1 FILLER, 1 EACH 37563 SCRAPER RING ASSEMBLY AND 1 EA MS28775-377)	A-U, W-AC, AF-AH	1

	FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
	01- -110A	161T1151-2		.CARRIER-SEAL (161T1150-3 GLAND NUT ASSEMBLY T/W 1 EACH 161T1151-1 CARRIER SEAL AND 1 EACH 5994-44901-318-02 SCRAPER RING ASSEMBLY IS I/W 161T1150-5 GLAND NUT ASSEMBLY T/W 1 EACH 161T1150-2 CARRIER SEAL, 1 EACH 161T1256-1 FILLER, 1 EACH 37563 SCRAPER RING ASSEMBLY AND 1 EA MS28775-377)	V,AD, AE,A J-AW AY-BD ,BN-B X,CC, CE,CF CL-CR ,CT,C W,CX, FN,FQ FV,FX	1
	115	7451MT2N		.RING-BACKUP (V5F573)		2
	120	7451MT987		.PACKING- (V5F573)		1
	122	7711MT987		.SEAL- (V5F573)	AX,B J-BM, CA,FY ,GA	1
R	123	7711MT987P8		.SEAL ASSY- (V5F573)	AX,B J-BM, CA,FY ,GA	1
	124	S346697-3005		DELETED		
	124A	S34697-3005		.SEAL- (V09257)	AX,B J-BM, CA,FY ,GA	1
	125	7449FT4780		.SET-BACKUP RING *|1! (V5F573) ((QTY 1) 7449FT972, BACKUP RING T/W (QTY 1) 7449FT4780, BACKUP RING SET I/W (QTY 1) 744C9FT965 SEAL T/W (QTY 1) S34697-449GLF, SEAL T/W (QTY 1) S37692-3001, BACKUP RING SET)	AD,AE ,AJ,A K,A N-AU, AW AZ-BD ,BN-B X	1

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01-					
-125A	S37692-3001		.RING SET-BACKUP (V09257) ((QTY 1) 7449FT972, BACKUP RING T/W (QTY 1) 7449FT4780, BACKUP RING SET I/W (QTY 1) 744C9FT965 SEAL T/W (QTY 1) 7449FT4780, BACKUP RING SET I/W (QTY 1) S34697-449GLF, SEAL T/W (QTY 1) S37692-30001, BACKUP RING SET)	A-AU, AW,A Z-BH, BN-BX CE-CT ,CX-F N,FQ, FS,FU	1
128	7451MT987		.PACKING-BACKUP (V5F573)	AV,BZ ,CC,C D	1
129	S34697-449GLF		.PACKING- (V5F573)	AV,BZ ,CC,C D	2
130	7449FT972		.PACKING- *|1! (V72902)		1
-130A	744C9FT965-4780		.PACKING- *|1! (V72902) (POST RR B41049-26)		1
-130B	S34697-449GLF		.PACKING- *|1! (V5F573)		1
132	7451MT987		.PACKING-BACKUP (V5F573)	AV,BZ ,CC,C D	1
133	7451MT2N		.RING-BACKUP (V5F573)	AV,BZ ,CC,C D	2
134	MS28775-175		.PACKING	AV,AX ,BZ-C D,F Y-GB	1
-134A	M83461-1-175		.PACKING	BJ-BM	1

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01-135	MS20392-3C13		.PIN-DRILLED SHANK (OPT ITEM 135A)	A-AK, AM-AU ,AZ-BH,B N-BX CE,CF ,CL-CR,CT, CW,CX FN,FQ	3
-135A	161U0002-1		.PIN-STRAIGHT HEADED (OPT ITEM 135)	A-AK, AM-AU ,AZ-BH,B N-BX CE,CF ,CL-CR,CT, CW,CX FN,FQ	3
-135B	MS20392-3C13		.PIN-DRILLED SHANK	BN-BX ,CE,CF,C L-CP	3
-135C	161U1500-5		.PIN (OPT)		3
136	161T1044-1		.PIN	AV,AX ,BJ-BM,B Z-CD, FY,GA	4

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01-					
137	161T1060-1		.BEARING-LWR	AV,BZ ,CC,C D	1
138	161T1064-1		.BEARING-LWR	AV,BZ ,CC,C D	1
139	161T1061-1		.LINER-LWR BRG	AV,AX ,BJ-B M,B Z-CD, FY,GA	2
140	161T1152-1		.BEARING-LWR	V,AM, BN-BX ,CE,C F CL-CR ,CT,C W,CX, FN,FQ	1
143	161T1070-1		.BEARING-LWR	AX,B J-BM, CA,CB ,FY, GA	1
144	161T1074-1		.BEARING-LWR	AX,B J-BM, CA,CB ,FY, GA	1

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01-145	7451MT987		.PACKING- (V5F573)	A-AK,AM-AU,AZ-BH,BN-BXCE,CF,CL-CR,CT,CW,CXFN,FQ	2
146	S37692-3001		.RING SET-BACKUP (V09257)	AV,BZ,CC,CD	2
147	RBZF0A0001		.SEAL ASSY- (V09257)	AX,BJ-BM,CA,FY,GA	1
150	7449FT972		.PACKING- *|1! (V72902)		2
-150A	S34697-449GLF		.PACKING- *|1! (V5F573)		2
155A	161T1120-3		.CYLINDER ASSY-INNER (OPT ITEM 155H)	A-D	1
-155C	161T1120-6		.CYLINDER ASSY-INNER (OPT ITEM 155J)	H,L	1
-155D	161T1120-7		.CYLINDER ASSY-INNER (OPT ITEM 155L)	J,M	1
-155E	161T1120-8		.CYLINDER ASSY-INNER (OPT ITEM 155K)	N,P	1
-155F	161T1120-9		.CYLINDER ASSY-INNER	Q,S,BD	1
-155G	161T1120-11		.CYLINDER ASSY-INNER (OPT ITEM 155M)	R,T	1
-155H	161T1120-12		.CYLINDER ASSY-INNER (OPT ITEM 155A)	A-D	1
-155J	161T1120-12		.CYLINDER ASSY-INNER (OPT ITEM 155C)	H,L	1
-155K	161T1120-12		.CYLINDER ASSY-INNER (OPT ITEM 155E)	N,P	1
-155L	161T1120-9		.CYLINDER ASSY-INNER (OPT ITEM 155D)	J,M	1
-155M	161T1120-9		.CYLINDER ASSY-INNER (OPT ITEM 155G)	R,T	1

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01-					
-155N	161T1120-14		.CYLINDER ASSY-INNER (OPT ITEM 155W) (PRE SB 767-32-0129)	E,F	1
-155P	161T1120-6		.CYLINDER ASSY-INNER (OPT ITEMS 155Q, 155R)	G,K,U ,X,AJ ,AN	1
-155Q	161T1120-12		.CYLINDER ASSY-INNER (OPT ITEMS 155P, 155R)	G,K,U ,X,AJ ,AN	1
-155R	161T1120-20		.CYLINDER ASSY-INNER (OPT ITEMS 155P, 155Q)	G,K,U ,X,AJ ,AN	1
-155S	161T1120-16		.CYLINDER ASSY-INNER (PRE SB 767-32-0129)	Y,AB, AH,AK ,AP-A R,AZ BB,BD	1
-155T	161T1120-9		.CYLINDER ASSY-INNER (OPT ITEM 155U)	W,BD	1
-155U	161T1120-22		.CYLINDER ASSY-INNER (OPT ITEM 155T) (PRE SB 767-32-0129)	W,BD	1
-155V	161T1120-26		.CYLINDER ASSY-INNER (PRE SB 767-32-0129)	AA,AC	1
-155W	161T1120-24		.CYLINDER ASSY-INNER (OPT ITEM 155N) (PRE SB 767-32-0129)	E,F	1
-155X	161T1120-27		.CYLINDER ASSY-INNER (PRE SB 767-32-0129)	AF,AG ,AS-A U,AW, BA,BC	1
-155Y	161T1120-9		.CYLINDER ASSY-INNER (OPT ITEMS 155Z, 157)	Z,AM, BD	1
-155Z	161T1120-22		.CYLINDER ASSY-INNER (OPT ITEMS 155Y, 157) (PRE SB 767-32-0129)	A,AM, BD	1

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01-					
-156	161T1120-29		.CYLINDER ASSY-INNER (POST SB 767-32-0135)	AD,AE	1
-156A	161T1120-31		.CYLINDER ASSY-INNER (POST SB 767-32-0135)	V,AM, AV,AX ,BJ,B K,B Q-BV BZ,CA ,CC-C F,CN, CP,CR ,CT FN,FQ ,FY, GA	1
-156B	161T1120-32		.CYLINDER ASSY-INNER	BN,BP ,BW,B X,CL, CM,CW ,CX	1
-156C	161T1120-30		.CYLINDER ASSY-INNER (PRE SB 767-32-0129)	AS,AU	1
-156D	015T1433-4		.CYLINDER ASSY-INNER (POST SB 767-32-0129)	AS,AU	1
-156E	015T1433-5		.CYLINDER ASSY-INNER (POST SB 767-32-0129)	AS,AU	1
-156F	015T1433-6		.CYLINDER ASSY-INNER (POST SB 767-32-0129)	AS,AU	1
-156G	015T1433-7		.CYLINDER ASSY-INNER (POST SB 767-32-0129)	AS,AU	1
-156H	015T1433-8		.CYLINDER ASSY-INNER (POST SB 767-32-0129)	AS,AU	1
-156J	015T1433-9		.CYLINDER ASSY-INNER (POST SB 767-32-0129)	AS,AU	1
-156K	015T1433-14		.CYLINDER ASSY-INNER (POST SB 767-32-0129)	AS,AU	1
-156L	015T1433-15		.CYLINDER ASSY-INNER (POST SB 767-32-0129)	AS,AU	1

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01-					
157	015T1433-16		.CYLINDER ASSY-INNER (POST SB 32-0129)	Y,Z,AB,AH,AK,AP,AQ,AR BB,BD,BE,BF	1
160	1728B		..FITTING-LUBE (V95879)		6
165	161T1119-1		..BUSHING- (USED ON ITEM 155A) (PRE SB 767-32-0021)	A-D	4
-165A	161T1251-1		..BUSHING- (USED ON ITEMS 155C, 155D,155F,155G,155H, 155J,155K,155N,155R, 155S,155U,155W,156, 156A) (POST SB 767-32-0021)	A-Y,AB,AD,AE,AH-AK,AM-AR AV,AX,AZ,BB,BD,BF,BJ,BK BQ-BV,BZ,CA,CC-CF,CN,CP CR,CT,FN,FQ,FY,GA	4

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01-					
-165C	161T1255-1		..BUSHING- (USED ON ITEMS 155V, 155X,156B,156C)	AA,AC ,AF,A G,A S-AU, AW BA,BC ,BN,B P,BW, BX,CL CM,CW ,CX	4
-165D	015T0106-11		..BUSHING-OVERSIZED (REPLACEMENT FOR ITEM 165A) (POST SB 767-32-0021)		4
-165E	161T1261-1		..BUSHING-OVERSIZE (POST SB 32A0176)		4
170A	161T1128-2		..BUSHING		2
175	161T1210-21		..BUSHING		4
180	161T1210-22		..BUSHING	AD,AE ,AP,A R,BE, BF	4
-180B	161T1018-1		..BUSHING- (USED ON ITEMS 156A, 156B)	V,AM, AV,AX ,BJ,B K,B N-BX BZ,CA ,CC-C F,C L-CP, CR,CT CW,CX ,FN,F Q,FY, GA	4

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01-					
-180C	161T1018-2		..BUSHING-OVERSIZED (POST SB 767-32-0129) (USED ON ITEMS 156D, 156E,156F,156G,156H, 156J,156K,156L,157)	AS,AU	4
185	161T1210-28		..BUSHING		4
190	161T1120-2		..CYLINDER- (USED ON ITEMS 155A, 155C,155P)	A-D,G ,H,K, L,U,X ,AJ,A N,BD	1
-190A	161T1120-4		..CYLINDER- (USED ON ITEMS 155D, 155G)	J,M,R ,T	1
-190B	161T1120-10		..CYLINDER- (USED ON ITEMS 155F, 155L,155M,155T,155Y, 157)	A,M,R ,T,W, Z,AM, BD	1
-190C	161T1120-13		..CYLINDER- (USED ON ITEMS 155H, 155J,155K,155Q)	A-D,G ,H,K, L,N,P ,U,X, AJ,AN BD,AN	1
-190D	161T1120-15		..CYLINDER- (USED ON ITEM 155N, 156E)	E,F	1
-190E	161T1120-25		..CYLINDER- (USED ON ITEMS 155V, 155W,156G,156N)	E,F,A A,AC	1
-190F	161T1120-17		..CYLINDER- (USED ON ITEMS 155S, 155X,156E,156J)	Y,Z,A B,A F-AH, AK,AM ,AP-A U AW,A Z-BD	1
-190G	161T1120-21		..CYLINDER- (USED ON ITEM 155R)	G,K,U ,X,AJ ,AN	1
-190H	161T1120-23		..CYLINDER- (USED ON ITEMS 155U, 155Z,156F)	W,Z,A Z,BB, BD	1

	FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
	01-					
	-190J	161T1120-28		..CYLINDER- (USED ON ITEMS 156, 156C,156K,156L)	AD,AE ,AS,A U	1
R	-190K	161T1120-28		..CYLINDER- (OPT ITEM 190L) (USED ON ITEMS 156A, 156B)	V,AM, AV,AX ,BJ,B K,B N-BX BZ,CA ,CC-C F,C L-CP, CR,CT CW,CX ,FN,F Q,FY, GA	1
R	-190L	161T1120-33		..CYLINDER- (OPT ITEM 190K) (USED ON ITEMS 156A, 156B)	V,AM, AV,AX ,BJ,B K,B N-BX BZ,CA ,CC-C F,C L-CP, CR,CT CW,CX ,FN,F Q,FY, GA	1
	195	161T1162-1		.TUBE-SPRT ATTACHING PARTS		1
	200	NAS6604-32		.BOLT		1
	205	AN960-416		.WASHER	A-U, W-AK, AN-AU ,AW,A Z-BH BN-BX ,CE,C F,C M-CT, CV-CX	1

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01- -205A	NAS1149F0463P		.WASHER	V,AM, AV,AX ,BY-C D,FN, FQ	1
210	BRH10A4		.NUT- (V52828) (SPEC BACN10JC4) (OPT T6S428J (V11815)) (OPT 96-048 (V80539)) (OPT VN303A048 (V92215)) (OPT RMLH9075-4W (V72962)) (OPT NS202101-048 (V80539)) (OPT H10-4BAC (V15653))	A-U, W-AK, AN-AU ,AW,A Z-BH BN-BX ,CE,C F,C M-CT, CV-CX	1
-210A	BRH10C4D		.NUT- (V52828) (SPEC BACN10JC4CD) (OPT T6C428JCD (V11815)) (OPT NS202486-048 (V80539)) (OPT 102LH9075-4W (V72962)) (OPT H51650-4BAC (V15653)) -------*-------	V,AM, AV,AX ,BJ-B M,B Z-CD FN,FQ ,FY, GA	1

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01-					
215	7449MT2N		.RING-BACKUP (V5F573)		2
220	7449MTE987		.PACKING- (V5F573)		1
225	161T1161-1		.BULKHEAD-UPR (OPT ITEM 225A) (PRE SB 32-46)	A-D,H,J,L-T	1
-225A	161T1161-2		.BULKHEAD-UPR (OPT ITEM 225) (POST SB 32-46)	A-D,H,J,L-T	1
-225B	161T1161-1		DELETED		
-225C	161T1161-2		.BULKHEAD-UPR (OPT ITEM 225E)	E-G,K,U,W,X,Z,AA,AC,AF,AH AJ,AN,AQ,AW	1
-225D	161T1161-3		.BULKHEAD-UPR	Y,AB,AK,AP,AZ-BD	1
-225E	161T1161-3		.BULKHEAD-UPR (OPT ITEM 225C)	E-G,K,U,W,X,Z,AA,AC,AF,AH AJ,AN,AT,AW	1

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01-					
-225F	161T1161-4		.BULKHEAD-UPR (SERIALIZED)	AD,AE ,AQ-A S,AU, AY BN-BX ,CL-C P	1
-225G	161T1161-6		.BULKHEAD-UPR (SERIALIZED)	V,AM, AV,AX ,BJ-B M,B Z-CF, CQ CR,CT ,CX,F N,FQ, FY,GA	1
			ATTACHING PARTS		
230	NAS6604-14		.BOLT		1
235	AN960-416		.WASHER	A-U, W-AK, AN-AU ,AW,A Z-BH BN-BX ,CE,C F,C M-CT, CV-CX	1

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01- -235A	NAS1149F0463P		.WASHER	V,AM, AV,AX ,BJ-B M,B Z-CD FN,FQ ,FY, GA	1
240	BRH10A4		.NUT- (V52828) (SPEC BACN10JC4) (OPT T6S428J (V11815)) (OPT 96-048 (V80539)) (OPT VN303A048 (V92215)) (OPT RMLH9075-4W (V72962)) (OPT NS202101-048 (V80539)) (OPT H10-4BAC (V15653))	A-U, W-AK, AN-AU ,AW,A Z-BH BN-BX ,CE,C F,C M-CT, CV-CX	1
-240A	BRH10C4D		.NUT- (V52828) (SPEC BACN10JC4CD) (OPT T6C428JCD (V11815)) (OPT NS202486-048 (V80539)) (OPT 102LH9075-4W (V72962)) (OPT H51650-4BAC (V15653)) -------*-------	V,AM, AV,AX ,BJ-B M,B Z-CD FN,FQ ,FY, GA	1

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01-245A	MS28775-369		.PACKING	A-U, W-AK, AN-AU ,AW,A Z-BH BN-BX ,CE,C F,C M-CT, CV-CX	1
-245B	M83461-1-369		.PACKING	V,AM, CC,CD ,FN,F Q	1
-245C	161T1063-1		.LINER-UPR BRG	AV,AX ,BJ,B K,BZ, CA,FY ,GA	1
250	161T1155-1		.BEARING ASSY-UPR	A-AU, AW,A Z-BH, BN-BX CC-CT ,CX-F N,FQ, FS,FU	1
-250A	161T1062-1		.BEARING ASSY-UPR	AV,AX ,BJ,B K,BZ, CA,FY ,GA	1

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01- 255	161T1155-2		..BEARING HALF-(MATCHED SET)	A-AU, AW,AZ-BH, BN-BX CE-CT ,CX-FN,FQ, FS-FU	1
-255A	161T1062-2		..BEARING HALF	AV,AX ,BJ,BK,BZ, CA,FY ,GA	1
260	161T1155-3		..BEARING HALF-(MATCHED SET)	A-AU, AW,AZ-BH, BN-BX CE-CT ,CX-FN,FQ, FS-FU	1
-260A	161T1062-3		..BEARING HALF	AV,AX ,BJ,BK,BZ, CA,FY ,GA	1
265	161T1154-1		.VALVE-RECOIL		1
270	161T1165-1		.RING-PISTON	A-U, W-Z,AB,AC, AE,AG ,AN-AQ AU,AW ,BB-BE,BG,	1

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01-				BP BR,B T-BX, CE-CQ ,CS CY-FM ,FS	
-270A	161T1165-1		.RING-PISTON (OPT ITEM 270B)	V,AM, AV,AX ,BJ-B M,B Y-CD CR,CT ,CW,C X,FN, FQ,FY ,GA	1
-270B	161T1165-2		.RING-PISTON (OPT ITEM 270A)	V,AM, AV,AX ,BJ-B M,B Z-CD CR,CT ,CW,C X,FN, FQ,FY ,GA	1
275	161T1168-1		.RETAINER-ORIFICE (OPT ITEM 275A)		1
-275A	161T1168-2		.RETAINER-ORIFICE (OPT ITEM 275)		1
			ATTACHING PARTS		
280	NAS6604-13		.BOLT		1
285	AN960-416		.WASHER	A-U, W-AK, AN-AU ,AW,A Z-BH BN-BX ,CE,C F,C M-CT, CV-CX	1

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01- -285A	NAS1149F0463P		.WASHER	V,AM, AV,AX ,BJ-B M,B Z-CD FN,FQ ,FY, GA	1
290	BRH10A4		.NUT- (V52828) (SPEC BACN10JC4) (OPT T6S428J (V11815)) (OPT 96-048 (V80539)) (OPT VN303A048 (V92215)) (OPT RMLH9075-4W (V72962)) (OPT NS202101-048 (V80539)) (OPT H10-4BAC (V15653))	A-U, W-AK, AN-AU ,AW,A Z-BH BN-BX ,CE,C F,C M-CT, CV-CX	1
-290A	BRH10C4D		.NUT- (V52828) (SPEC BACN10JC4CD) (OPT T6C428JCD (V11815)) (OPT NS202486-048 (V80539)) (OPT 102LH9075-4W (V72962)) (OPT H51650-4BAC (V15653)) -------*-------	V,AM, AV,AX ,BJ-B M,B Z-CD FN,FQ ,FY, GA	1

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01-295	161T1159-1		.PLATE-ORIFICE	A-U, W-AC, AF,A H-AK, AN,AP AT,AW ,AZ-B D	1
-295A	161T1159-2		.PLATE-ORIFICE	V,AD, AE,AM ,AQ-A S,AU, AV AX,B J-BX, BZ-CF ,CL-C R CT,CW ,CX,F N,FQ, FY,GA	1
300	161T1160-1		.TUBE-ORIFICE SPRT	A-AK, AN-AV ,AX,A Z-CF CL-CR ,CT,C W,CX FN,FQ ,FY, GA	1

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01-					
305	744K5MT2N		.RING-BACKUP (V5F573)		2
310	744K5MT987		.PACKING- *|1! (V5F573)		1
315	161T1157-1		.RING-RTNR		1
320	161T1158-1		.NUT ASSY-METERING PIN RTNR		1
325	162T1518-1		..PLUG-LOCK (MFD FROM NYLON ROD 6/6 L-P-410 STOCK 0.38 DIA 0.32 IN.)		1
330	161T1158-2		..NUT		1
335	161T1156-1		.PIN-METERING	A-X,Z,AA,AC,AH,AJ,BD	1
-335A	161T1156-2		.PIN-METERING	Y,AB,AF,AG,AK,AP,AT,AZ-BC	1
-335B	161T1156-3		DELETED		
-335C	161T1156-4		.PIN-METERING (SERIALIZED)	V,AD,AE,AM,AQ-AS,AV,AX BJ-CR,CT,FN,FQ,FY-GB	1
340	161T1153-1		.TUBE-SPACER		1

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01-					
-345	161T1110-1		.CYLINDER ASSY-OUTER (LIMITED)	A,E	1
345B	161T1110-11		.CYLINDER ASSY-OUTER (161T1110-9 TOGETHER (161T1110-9 TOGETHER WITH 161T1306-1 I/W 161T1100-11 TOGETHER WITH 161T1306-2) (PRE SB 767-32A0148)	A,H,N ,U,AJ	1
-345C	161T1110-9		.CYLINDER ASSY-OUTER (161T1110-9 TOGETHER WITH 161T1306-1 I/W 161T1100-11 TOGETHER WITH 161T1306-2) (PRE SB 767-32A0148)	C,G	1
-345D	161T1110-17		.CYLINDER ASSY-OUTER (PRE SB 767-32A0148)	J,Q,R ,W	1
-345E	161T1110-21		.CYLINDER ASSY-OUTER (PRE SB 767-32A0148) (PRE SB 767-32A0148)	E,AH	1
-345F	161T1110-25		.CYLINDER ASSY-OUTER (PRE SB 767-32A0148) (PRE SB 767-32A0148)	Y,AA, AF,AK ,AT	1
-345G	161T1110-29		DELETED		
-345H	161T1110-33		.CYLINDER ASSY-OUTER (PRE SB 767-32-0135) (PRE SB 767-32A0148)	AR,AS ,AZ, BA	1
-345J	161T1110-55		.CYLINDER ASSY-OUTER (POST SB 767-32-0135) (PRE SB 767-32A0148)	AD	1
-345K	161T1110-59		.CYLINDER ASSY-OUTER (PRE SB 767-32A0148)	BH	1
-345L	161T1110-61		.CYLINDER ASSY-OUTER (POST SB 767-32-0135) (PRE SB 767-32A0148)	BF,BN ,BQ,B S,BU, BW,CL ,CN FTN	1
-345M	161T1110-63		.CYLINDER ASSY-OUTER (PRE SB 767-32A0148)	BF,BQ	1
-345N	161T1110-65		DELETED		
-345P	161T1110-67		.CYLINDER ASSY-OUTER (PRE SB 767-32A0148)	CE	1
-345Q	161T1110-69		.CYLINDER ASSY-OUTER	CQ	1

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01-					
-345R	161T1110-73		.CYLINDER ASSY-OUTER (POST SB 767-32A0148)	CR,CW ,FN	1
-345S	161T1110-77		DELETED		
-345T	015T1504-73		.CYLINDER ASSY-OUTER (POST SB 767-32A0148)	CR,CW ,CZ, DB,DF ,DM,F N	1
-345U	015T1504-71		.CYLINDER ASSY-OUTER (POST SB 767-32A0148)	CX,CY	1
-345V	015T1504-75		.CYLINDER ASSY-OUTER (POST SB 767-32A0148)	DA,D C-DE	1
-345W	015T1504-77		.CYLINDER ASSY-OUTER (POST SB 767-32A0148)	DG,DL	1
-345X	015T1504-79		.CYLINDER ASSY-OUTER (POST SB 767-32A0148)	DH-DK ,DN,D R	1
-345Y	015T1504-81		.CYLINDER ASSY-OUTER (POST SB 767-32A0148)	DP,DQ ,DS,D T	1
-345Z	015T1504-83		.CYLINDER ASSY-OUTER (POST SB 767-32A0148)	DU	1
-346	015T1504-85		.CYLINDER ASSY-OUTER (POST SB 767-32A0148)	DW	1
-346A	015T1504-87		.CYLINDER ASSY-OUTER (POST SB 767-32A0148)	DX-ED	1
-346B	015T1504-89		.CYLINDER ASSY-OUTER (POST SB 767-32A0148)	DV	1
-346C	161T1110-81		.CYLINDER ASSY-OUTER	V	1
-346D	161T1110-85		.CYLINDER ASSY-OUTER	AV,CC	1
-346E	161T1110-89		.CYLINDER ASSY-OUTER	AX,BJ ,BL,F Y	1
-346F	161T1280-1		.CYLINDER ASSY-OUTER	BJ,BL	1
-350	161T1110-2		.CYLINDER ASSY-OUTER (LIMITED)	B,F	1
-350B	161T1110-12		.CYLINDER ASSY-OUTER (161T1110-10 TOGETHER WITH 161T1306-1 I/W 161T1110-12 TOGETHER WITH 161T1306-2) (PRE SB 767-32A0148)	B,L,P ,X,AN	1

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01-					
-350C	161T1110-10		.CYLINDER ASSY-OUTER (161T1110-10 TOGETHER WITH 131T1306-1 I/W 161T1110-12 TOGETHER WITH 161T1306-2) (PRE SB 767-32A0148)	D,K	1
-350D	161T1110-18		.CYLINDER ASSY-OUTER (PRE SB 767-32A0148)	M,S,T,Z	1
-350E	161T1110-22		.CYLINDER ASSY-OUTER (PRE SB 767-32A0148)	F	1
-350F	161T1110-26		.CYLINDER ASSY-OUTER (PRE SB 767-32A0148)	AB,AC,AG,AP	1
-350G	161T1110-30		DELETED		
-350H	161T1110-34		.CYLINDER ASSY-OUTER (PRE SB 767-32-0135) (PRE SB 767-32A0148)	AQ,AU,BB,BC	1
-350J	161T1110-38		.CYLINDER ASSY-OUTER (PRE SB 767-32A0148)	BD	1
-350K	161T1110-56		.CYLINDER ASSY-OUTER (POST SB 767-32-0135) (POST SB 767-32-0135) (PRE SB 767-32A0148)	AE	1
-350L	161T1110-60		.CYLINDER ASSY-OUTER (PRE SB 767-32A0148)	BG,BP,BR,BT,BV,BX,CM,CP	1
-350M	161T1110-62		.CYLINDER ASSY-OUTER (PRE SB 767-32A0148)	BE,BP,BR,BT,BV,BX,CM,CP	1
-350N	161T1110-64		.CYLINDER ASSY-OUTER (PRE SB 767-32A0148)	BE,BR	1
-350P	161T1110-66		DELETED		
-350Q	161T1110-68		.CYLINDER ASSY-OUTER (PRE SB 767-32A0148)	CF	1

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01-					
-350R	161T1110-70		.CYLINDER ASSY-OUTER	CS	1
-350S	161T1110-74		.CYLINDER ASSY-OUTER (POST SB 767-32A0148)	CT,CX ,FQ	1
-350T	161T1110-78		DELETED		
-350U	015T1504-74		.CYLINDER ASSY-OUTER (POST SB 767-32A0148)	CT,EF ,EH,E K,EN, EU,FQ	1
-350V	015T1504-72		.CYLINDER ASSY-OUTER (POST SB 767-32A0148)	EE,EG	1
-350W	015T1504-76		.CYLINDER ASSY-OUTER (POST SB 767-32A0148)	EJ,EL ,EM,E P	1
-350X	015T1504-78		.CYLINDER ASSY-OUTER (POST SB 767-32A0148)	EQ	1
-350Y	015T1504-80		.CYLINDER ASSY-OUTER (POST SB 767-32A0148)	ER,ES ,EV,E Z	1
-350Z	015T1504-82		.CYLINDER ASSY-OUTER (POST SB 767-32A0148)	EW,EX ,FA, FB	1
-351	015T1504-92		.CYLINDER ASSY-OUTER (POST SB 767-32A0148)	EY	1
-351A	015T1504-84		.CYLINDER ASSY-OUTER (POST SB 767-32A0148)	FC	1
-351B	015T1504-86		.CYLINDER ASSY-OUTER (POST SB 767-32A0148)	FE	1
-351C	015T1504-88		.CYLINDER ASSY-OUTER (POST SB 767-32A0148)	FF-FM	1
-351D	015T1504-90		.CYLINDER ASSY-OUTER (POST SB 767-32A0148)	FD	1
-351E	161T1110-82		.CYLINDER ASSY-OUTER	AM	1

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01-					
-351F	161T1110-86		.CYLINDER ASSY-OUTER	BZ,CD	1
-351G	161T1110-90		.CYLINDER ASSY-OUTER	BK,BM ,CA, CB,GA	1
-351H	161T1280-2		.CYLINDER ASSY-OUTER	BK,BM	1
355	1728B		..FITTING-LUBE (V95879)		7
360	161T1117-1		..BUSHING- (USED ON ITEMS 345,345B, 345C,345D,345E,345F, 345H,346D,346E,350,350B, 350C,350D,350E,350F, 350H,350J,351F,351G)	A-AK, AN-AU BA-BD	1
-360A	161T1117-2		..BUSHING- (USED ON ITEMS 345H, 345J,345K,345L,345M, 345N,345P,345R,345S, 346F,350H,350J,350K, 350L,350M,350N,350P, 350Q,350S,350T,351H)	B,AD, AE,AM A1-AS AU, AZ-BH BP-BX CE, CL-CP CT, CX, FQ,FV	1
365	161T1118-1		..BUSHING- (USED ON ITEMS 345, 345B,345C,345D,345E, 345F,345H,350,350B, 350C,350D,350E,350F, 350H,350J)	A-AK, AN-AU BA-BD	1

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01-					
-365A	161T1118-2		..BUSHING- (USED ON ITEMS 345H, 345J, 345K, 345L, 345M 345R, 345S, 346D, 346E 350H,350J,350K, 350L 350M, 350N,350S, 350T 351E, 351G)	AD,AE ,AM,A Q-AS, AU,AV ,AX AZ,B A-BH, BJ-BX ,BZ-C D CL-CP ,CT,C X,FQ, FY,GA	1
370	161T1122-1		..BUSHING- (USED ON ITEMS 345, 345B,345C,345D,345E, 345F,350,350B,350C, 350D,350E,350F,350H, 350J)		1
-370A	161T1122-2		..BUSHING- (USED ON ITEMS 345H, 345J, 345K, 345L, 345M, 345R, 345S, 346D, 346E, 350H, 350J, 350K, 350L 350M, 350N, 350S, 350T 351F, 351G)	AD,AE ,AM,A Q-AS, AU,AV ,AX AZ-BH ,BJ-B X,B Z-CD CL-CP ,CT,C X,FQ, FY,GA	1

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01-375	161T1123-1		..BUSHING- (USED ON ITEMS 345, 345B 345C, 345D, 345E, 345F 350, 350B, 350C, 350D 350E, 350F)	A-U, W-AC, AF-AK ,AN,A P,AT	1
-375A	161T1123-2		..BUSHING- (USED ON ITEMS 345H, 345J, 345K, 345L, 345M, 345R, 345S, 346D, 346E, 350H, 350J, 350K, 350L 350M, 350N, 350S, 350T 351E, 351G)	AD,AE ,AM,A Q-AS, AU,AZ BA-BX ,CL-C P,CT, CX FQ,FY ,GA	1
380A	161T1124-2		..BUSHING (USED ON ITEMS 345-345E,345K,345T-345W, 346,350-350E,350J,350L, 350U-350Y,351,351B)	A-X, Z,AH, AJ, AN,BD	2
-380B	161T1124-3		..BUSHING (USED ON ITEMS 345F, 345H,345J,345L,345M, 345P-345R,345X-345Z, 346A-346F,350F,350H, 350K,350N,350Q-350S, 350Y,350Z,351A, 351C-351H)	Y, AA-AG AK, AP-AV AX, AZ-BC BJ-BM BZ-CD CR, CT, FN, FQ, FY,GA	2

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01-390	161T1210-58		..BUSHING	A-AU,AW,AZ-BH,BN-BXCE-CT,CX-FN,FQ,FS,FU	4
-390A	161T1210-68		..BUSHING	AV,AX,AY,BJ-BM,BZ-CDFY,GA	4
395	161T1126-1		..BUSHING- (PRE SB 767-32A0148)		1
-395A	161T1126-2		..BUSHING- (PRE SB 767-32A0148)		1
-395B	161T1126-3		..BUSHING- (PRE SB 767-32A0148)	AV,AX,AY,BJ-BM,BZ-CDCQ-CT,FN,FQ,FY,GA	1
-395C	161T1127-1		..BUSHING- (POST SB 767-32A0148)	CW-FM	1
400	161T1210-57		..BUSHING		1
405	161T1210-10		..BUSHING- (PRE SB 767-32A0148)		2

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01-					
-405A	161T1210-65		..BUSHING- (PRE SB 767-32A0148)	V,AM, AV,BZ ,CC,C D,C Q-CV FN,FQ ,FV	2
-405B	161T1127-2		..BUSHING- (POST SB 767-32A0148)	CW-FM	2
-405C	161T1210-69		..BUSHING	AX,B J-BM, CA,CB ,FY, GA	2
410	161T1210-23		..BUSHING		4
415	161T1210-24		..BUSHING		4
420	161T1210-25		..BUSHING	A-U, W-AJ, AN-AU ,AW AZ-BH ,BN-B X,C D-CQ, CS CW,CX ,FP	4
-420A	161T1210-63		..BUSHING	V,AM, AV,AX ,BJ-B M,B Z-CD CR,CT ,FN,F Q,FY, GA	4

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01-					
425	161T1210-26		..BUSHING	A-U, W-AK, AN-AU ,AW AZ-BH ,BN-B X,C D-CQ, CS CW,CX ,FP,F T	4
-425A	161T1210-64		..BUSHING	V,AM, AV,B J-BM, BZ-CD CR,CT ,FN,F Q,FY, GA	4
430	161T1210-6		..BUSHING		12
432	161T1328-1		..BUSHING (USED ON ITEMS 346D, 346E,351F,351G)		1
-432A	161T1328-2		..BUSHING (USED ON ITEMS 346F, 351H)		1
433	161T1330-2		..BUSHING (USED ON ITEMS 346D, 346E,351F,351G)		2
-433A	161T1330-4		..BUSHING (USED ON ITEMS 346F, 351H)		2
435	161T1110-3		..CYLINDER- (USED ON ITEMS 345 AND 345C)	A,C,E ,G	1
-435A	161T1110-7		..CYLINDER- (USED ON ITEMS 345B)	A,H,N ,U,AJ	1

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01-					
-435B	161T1110-19		..CYLINDER- (USED ON ITEM 345D)	J,Q,R,W	1
-435C	161T1110-23		..CYLINDER- (USED ON ITEM 345E)	E,AH	1
-435D	161T1110-27		..CYLINDER- (USED ON ITEM 345F)	Y,AA,AF,AK,AT	1
-435E	161T1110-31		..CYLINDER- (USED ON ITEMS 345K)	BH	1
-435F	161T1110-35		..CYLINDER- (USED ON ITEMS 345H AND 345M)	AR,AS,AZ,BA	1
-435G	161T1110-57		..CYLINDER- (USED ON ITEMS 345J AND 345L)	AD,BF,BN,BQ,BS,BU,BW,CL CNL	1
-435H	161T1110-71		..CYLINDER- (USED ON ITEMS 345Q, 345R)	V,CQ,CR,CW,FN,FX	1
-435J	161T1110-83		..CYLINDER- (OPT ITEM 435L)	AV,CC	1
-435K	161T1110-87		..CYLINDER- (OPT ITEMS 435M,435N)	AX,BJ,BL,FY	1
-435L	161T1110-91		..CYLINDER- (OPT ITEM 435J)	AV,CC	1
-435M	161T1110-93		..CYLINDER- (OPT ITEMS 435K,435N)	AX,BJ,BL,FY,FZ	1
-435N	161T1110-95		..CYLINDER- (OPT ITEMS 435K,435M)	AX,BJ,BL,FY,FZ	1

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01-					
-440	161T1110-4		..CYLINDER- (USED ON ITEMS 350, 350C)	B,D,F ,K	1
-440A	161T1110-8		..CYLINDER- (USED ON ITEM 350B)	B,L,P ,X,AN	1
-440B	161T1110-20		..CYLINDER- (USED ON ITEM 350D)	M,S,T ,Z	1
-440C	161T1110-24		..CYLINDER- (USED ON ITEM 350E)	F	1
-440D	161T1110-28		..CYLINDER- (USED ON ITEM 350F)	AB,AC ,AG,A P	1
-440E	161T1110-32		..CYLINDER- (USED ON ITEM 350L)	BG,BP ,BR,B T,BV, BX,CM ,CP	1
-440F	161T1110-36		..CYLINDER- (USED ON ITEMS 350H, 350N)	AQ,AU ,BB,B C,BE, BR	1
-440G	161T1110-40		..CYLINDER- (USED ON ITEM 350J)	BD	1
-440H	161T1110-58		..CYLINDER- (USED ON ITEMS 350K, 350M)	AE,BE ,BP,B R,BT, BV,BX ,CM CPM	1
-440J	161T1110-72		..CYLINDER- (USED ON ITEMS 350R, 350S)	AM,CS ,CT,C X,FQ FVFQ	1
-440K	161T1110-84		..CYLINDER- (OPT ITEM 440M)	BZ,CD	1
-440L	161T1110-88		..CYLINDER- (OPT ITEMS 440N,440P)	BK,BM ,CA, CB,GA	1

	FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
	01-					
	-440M	161T1110-92		..CYLINDER- (OPT ITEM 440K)	BZ,CD	1
	-440N	161T1110-94		..CYLINDER- (OPT ITEMS 440L,440P)	BK,BM ,CA, CB,GA	1
	-440P	161T1110-96		..CYLINDER- (OPT ITEMS 440L,440N)	BK,BM ,CA, CB,GA ,GB	1
	445	BAC27ELG21		.MARKER		1
	450A	BACS38E8-37		.STRAP		2
	455	44PB134-4441		.SEAL-STRAPPING (V00266) (SPEC BACS11AK1) (OPT 42-134-4201 (V00266))	A-U, W-AK, AN-AU ,AW,A Z-BH BN-BX ,CE,C F,C M-CT, CV-CX	2
	-455A	44PB134-4441		.SEAL-STRAPPING (V00266) (SPEC BACS11AK2)	V,AM, AV,AX ,BJ-B M,B Y-CD FN,FQ ,FY, GA	2
R	460	162T1103-1		.NAMEPLATE	A-Z,A A-AU, AW,AZ ,BA-B H BN-BX ,CE-C T,C W-CZ	1
R	-460A	162T1103-1		.NAMEPLATE- (OPT ITEM 460B)	AV,AX ,BJ-B M,BZ, CA-CD ,FY GAY	1

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01- -460B	162T1103-2		.NAMEPLATE- (OPT ITEM 460A)	AV,AX ,BJ-B M,BZ, CA-CD ,FY GAY	1

- Item Not Illustrated

*[1] SEAL 7449FT972 WITH RING 7449FT4780 IS OPT TO SEAL 744C9FT965 WITH RING 7449FT4780, WHICH IS OPT TO SEAL S34697-449 GLF WITH RING S37692-3001