TO: ALL HOLDERS OF MAIN LANDING GEAR TRUCK POSITIONER ASSEMBLY COMPONENT MAINTENANCE MANUAL 32-32-55

REVISION NO. 37 DATED MAR 01/05

HIGHLIGHTS

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

CHAPTER/SECTION AND PAGE NO.	DESCRIPTION OF CHANGE
104 REPAIR-GEN 601-602	Added clarifications and updated callouts.
1007	Changed RESERVED to LIMITED for positioner 273T6101-7 because this unit could be delivered as spares.

BOEING

COMPONENT
MAINTENANCE MANUAL

MAIN LANDING GEAR TRUCK POSITIONER ASSEMBLY

PART NUMBERS 273T6100-4,-6,-8,-10
273T6101-3 THRU -9

COMPONENT MAINTENANCE MANUAL
WITH
ILLUSTRATED PARTS LIST

44594

BOEING
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REVISION RECORD

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

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

COMPONENT
MAINTENANCE MANUAL

TEMPORARY REVISION AND SERVICE BULLETIN RECORD

BOEING SERVICE BULLETIN	BOEING TEMPORARY REVISION	OTHER DIRECTIVE	DATE OF INCORPORATION INTO MANUAL
32-27		PRR B11114	JUL 10/84
32-35		PRR B11186	APR 10/85
32-35 Rev 1			JAN 10/86
		PRR B11458	JUL 10/86

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BOEING
COMPONENT
MAINTENANCE MANUAL

TABLE OF CONTENTS

BOEING
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MAINTENANCE MANUAL

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 ofEffective 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 -- Mar 24/83
Disassembly -- Mar 24/83
Assembly -- Mar 24/83

MAIN LANDING GEAR TRUCK POSITIONER ASSEMBLY

DESCRIPTION AND OPERATION

1. The truck positioner assembly is a piston-type actuator consisting of rodend, relief valve, cylinder and piston rod. Hydraulic pressure applied to the actuator extends or retracts to stowed position, tilting the gear truck nose-down.

2. Leading Particulars (approximate)

   Length (stowed) -- 23 inches (overall)
   Width -- 6 inches
   Height -- 5 inches
   Proof Pressure -- 6750 psi
   Operating Fluid -- BMS 3-11 hydraulic fluid
   System Pressure -- 3000 psi
   Weight -- 21 lbs (max. dry)

TESTING/TROUBLE SHOOTING

1. Equipment and Materials

NOTE: Equivalent substitutes can be used.

A. Test Stand -- A32068-7 (Supersedes A32068-1)

B. Test Stand -- A32119-1 (Replaces A32068-7)

C. Hydraulic test stand -- to supply BMS 3-11 hydraulic fluid at variable pressure of 0-6750 psi, with pressure measurement to within ±2%.

D. Fittings -- To fit MS33649-6, -10 ports.

E. Sealant -- BMS 5-26 (SOPM 20-60-04)

F. Hydraulic Fluid -- BMS 3-11 (SOPM 20-60-03)

G. Lockwire -- MS20995NC32 (optional MS20995C32) (SOPM 20-60-04)

2. Test

WARNING: DO NOT APPLY COMPRESSED AIR TO PORT AT ANY TIME.

CAUTION: DO NOT OPERATE THE UNIT AT PROOF PRESSURE (6750 PSI).

A. Install the unit in the test stand. Connect hydraulic lines and bleed all air from the unit.

B. Proof Pressure Test

(1) With port AA blocked, apply 6750 psi to port BB at a pressure increase rate of 2500-3500 psi per second. Hold the pressure for 2 minutes minimum. Make sure there is no external leakage or permanent set.

C. Stowed Position Test

(1) With the unit depressurized and extended to maximum length, gradually apply 3000 psi to port AA. Make sure piston rod retracts to stowed position (Fig. 102). Make sure there is no external leakage.

(2) Do step (1) but start with the unit at retracted length. Make sure piston rod extends to stowed position. Make sure there is no external leakage.

D. Relief Valve Test

(1) Increase the pressure at port AA until there is a flow of 30 milliliters per minute from port BB. Make sure the pressure at which this occurs is not more than 3650 psi.

(2) Continue to increase the pressure until the flow from port BB is more than 0.52 gpm. Decrease the pressure until the flow is less than 5 milliliters per minute. Make sure the pressure at which this occurs is not less than 3200 psi.

E. External Leakage Test

(1) With the unit pressurized with 2950-3050 psi at port AA, use an external loading device to operate the unit from the stowed position to 3 inches extended position and then back to stowed position, at an average linear rate of 0.3-1.3 inch per second. Do this for a minimum of 25 cycles. Make sure the leakage from rod seal or from piston vent valve is not more than one drop for the 25 cycles.

(2) Repeat test (1) using 3-7 psi at port AA.

TROUBLE	PROBABLE CAUSE	CORRECTION
External Leakage in B.(1), E.(1), E.(2), C.(1), C.(2)	Defective seal (145), backup rings (25, 65, 95, 150) and packing (30, 70, 85, 90, 100, 155, 190).	Disassemble and replace defective parts per par. 3.A., 3.B.
Pressure required in D.(1), D.(2) below or above limit.	Defective valve (120). Defective valve (178).	Disassemble and replace defective parts per par. 3.A., 3.B.
Stowed length out of tolerance.	Tolerance buildup of replaced parts not adjusted for bolt (125) length.	Disassemble and replace bolt (125) per par. 3.A., 3.B.

Trouble Shooting Chart
Figure 101

3. Corrective Procedures

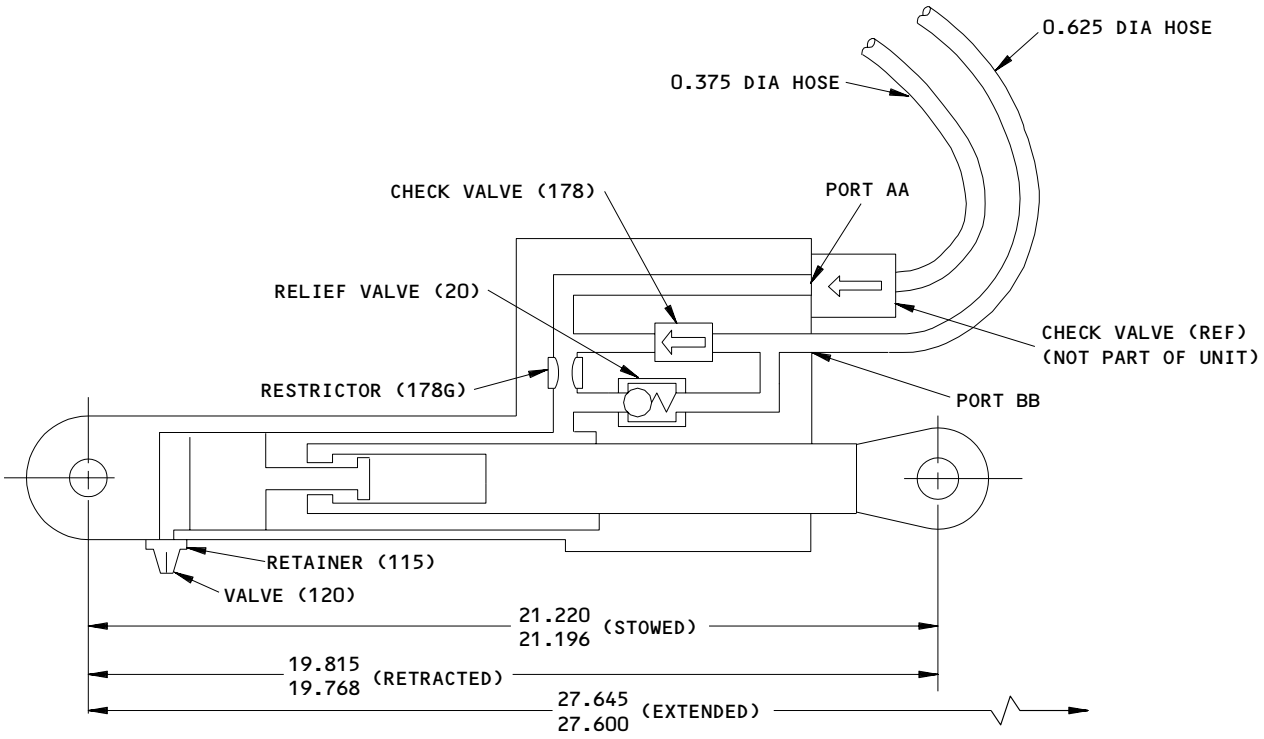
A. Remove the unit from the test stand and drain all hydraulic fluid.

B. Replacement of vent valve (120), check valve (178), bolt (125), seal assy (145), backup rings (25, 65, 95), packings (30, 70, 85, 90, 100, 150, 155, 190), spring (205), piston (140), cylinder (179) or rod (135).

(1) Completely disassemble the unit per DISASSEMBLY.

(2) Replace defective parts.

(3) Assemble the unit per ASSEMBLY and do the test again per par. 2.



ITEM NUMBERS REFER TO IPL FIG. 1

ALL DIMENSIONS ARE IN INCHES

Testing/Trouble Shooting
Figure 102

44601

DISASSEMBLY

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

1. Parts Replacement (IPL Fig. 1)

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

   A. Rings (25, 35, 65, 95, 150, 160).

   B. Packings (30, 40, 70, 90, 100, 155, 230, 240).

   C. Seals (85, 105, 145, 190).

   D. Lockwashers (60, 165, 180).

   E. Spring Pin (195).

   F. Scraper (80).

   G. Valve (120).

2. Equipment

   NOTE: Equivalent substitutes may be used.

   A. Torque Wrench -- A32045-46

   B. Clamp Equipment -- A32076-5 (supersedes A32076-1)

3. Disassembly (IPL, Fig. 1)

   A. Remove all lockwire.

   B. Remove valve (225), union (235), packing (230, 240) from cylinder assy (175).

   C. Remove retainer (115), valve (120) from cylinder assy (175).

      NOTE: Do not remove nameplate (15), valve (178), restrictor (178G), plug (176), pin (177), lube fitting (5, 10) unless otherwise necessary for repair or replacement.

CAUTION: BEARING (45) HALVES ARE MATCHED PARTS AND MUST BE KEPT TOGETHER TO ENSURE PROPER OPERATION AFTER ASSEMBLY. DO NOT MIX BEARING HALVES.

D. Remove bearings (45) from cylinder (175) and rod end (55).

E. Hold cylinder (175), and use spanner wrench A32045-46 to unscrew retainer (50) from cylinder (175).

CAUTION: USE EXTREME CARE WHEN REMOVING PISTON ROD (135) FROM CYLINDER (175) TO AVOID NICKS, DENTS AND SCRATCHES ON ROD.

F. Slide out rod end (55), rod (135) and attached parts from cylinder (175).

G. Pry up lockwasher (165) tab from slot of piston (140). Restrain piston (140), using adjustable face spanner and unscrew nut from piston. Discard lockwasher (165).

H. Grip onto bolt (125) and pull bolt outward of piston (140) until retaining ring halves (160) becomes accessible. Remove retaining ring halves (160) from bolt (125). Slide out piston (140) along bolt (125).

I. Remove seal (145) from piston (140). Remove rings (150), packing (155) from piston (140).

J. Pry up lockwasher (60) tab from slot of rod end (55).

CAUTION: IN ORDER TO ACHIEVE SPECIFIED STOWED LENGTH OF ASSEMBLED UNIT, BOLT (125) IS SELECTED TO COMPENSATE FOR TOLERANCE BUILDUP OF PARTS SUCH AS CYLINDER (175), PISTON ROD (135) AND ROD END (55). THESE PARTS (55, 125, 135, 175) SHOULD BE KEPT TOGETHER. IF THEY ARE NOT REPLACED OR INTERCHANGED, EXTENSIVE DISASSEMBLY TO REPLACE BOLT (125) AND OBTAIN SPECIFIED STOWED LENGTH MAY BE AVOIDED AFTER REASSEMBLY.

K. Hold rod (135) with clamp A32076-5. With a wrench on the rod end (55) wrench flat, unscrew rod end (55) from rod (135). Discard lockwasher (60).

L. Slide out retainer (50), scraper (80), bushing (75), seal (85), packing (90), bushing (110) along rod (135).

M. Remove packing (100), and rings (95) from bushing (110). Remove seal (105) from bushing (110).

N. Pry up lockwasher (180) tab, and unscrew dog (185) from rod end (55). Discard lockwasher (180).

CAUTION: IN ORDER TO GET THE SPECIFIED STOWED LENGTH OF ASSEMBLED UNIT, BOLT (125) IS SELECTED TO ADJUST FOR TOLERANCE BUILDUP OF PARTS SUCH AS CYLINDER (175), PISTON ROD (135) AND ROD END (55). THESE PARTS (55, 125, 135, 175) MUST BE KEPT TOGETHER. IF THEY ARE NOT REPLACED OR INTERCHANGED, DISASSEMBLY TO REPLACE BOLT (125) TO ADJUST THE STOWED LENGTH CAN BE PREVENTED AFTER REASSEMBLY.

O. Push retainer (210) against pressure of spring (205) and remove ring (215) from bolt (125). Slowly release retainer (210) until spring pressure is relieved. Slide rod (220) and attached parts from bolt (125).

P. Remove seal assy (190) from piston (200). Hold piston (200) on a padded support and drive pin (195) out with a roll pin type punch. Slide piston (200), spring (205), retainer (210), ring (215), dog (185), lockwasher (180) from rod (220).

Q. Remove valve assy (20) from cylinder assy (175). Remove packings (30, 40), rings (25, 35) from valve (20). Refer to vendor's instructions for overhaul of valve (20).

CLEANING

1. Clean all parts but relief valve (20, IPL Fig. 1) by standard industry practices and the instructions in SOPM 20-30-03.

2. Clean relief valve (20) by the vendor's instructions.

CHECK

1. Examine all parts for defects by standard industry practices. Refer to Fits and Clearances for design dimensions and wear limits.

2. Magnetic particle check (SOPM 20-20-01) -- Retainer (50), rod end (55), bolt (125), rod (135), cylinder (179), pistons (140, 200) and nut (170).

3. Penetrant check (SOPM 20-20-02) -- Bushings (75, 110), dog (185) and rod (220), retainer (160, 210).

4. Spring (205)

   A. Penetrant examine the spring (SOPM 20-20-02). Be sure to extend the spring during the check to look for defects between the coils.

   B. Do a load test of the spring as follows:

APPROXIMATE FREE LENGTH (INCHES)	TEST LENGTH (INCHES)	ALLOWABLE LOAD LIMITS (POUNDS)
2.00	1.86 1.47	12.2 - 14.8 34.5 - 42.9

REPAIR - GENERAL

1. Content

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

P/N	NAME	REPAIR
273T6102	CYLINDER	1-1, 1-2
273T6105	ROD END	2-1
273T6107	PISTON	3-1
273T6111	ROD, PISTON	4-1, 4-2
273T6112	BOLT	5-1
--	MISCELLANEOUS PARTS REFINISH	6-1
273T6101	POSITIONER ASSY	7-1
--	EXTERNAL PARTS REPLACEMENT	8-1

2. Standard Practices

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

20-00-00 Introduction
20-10-03 Shot Peening
20-30-02 Stripping of Protective Finishes
20-30-03 General Cleaning Procedures
20-41-01 Decoding Table for Boeing Finish Codes
20-42-03 Hard Chrome Plating
20-60-02 Finishing Materials
20-60-04 Miscellaneous Materials

3. Materials

NOTE: Equivalent substitutes may be used.

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

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

C. Enamel -- BMS 10-60, gray gloss color 707 (Ref 20-60-02)

D. Protective Finish -- Type 41 (Ref 20-60-02)

4. Dimensioning Symbols

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

CYLINDER ASSEMBLY - REPAIR 1-1

273T6102-2 thru -7

NOTE: Refer to REPAIR-GEN for list of applicable standard practices. If corrosion or damage exists on cylinder surfaces, refer to REPAIR 1-2 for repair instructions.

1. Pin, Plug and Check Valve Replacement (Fig. 601)

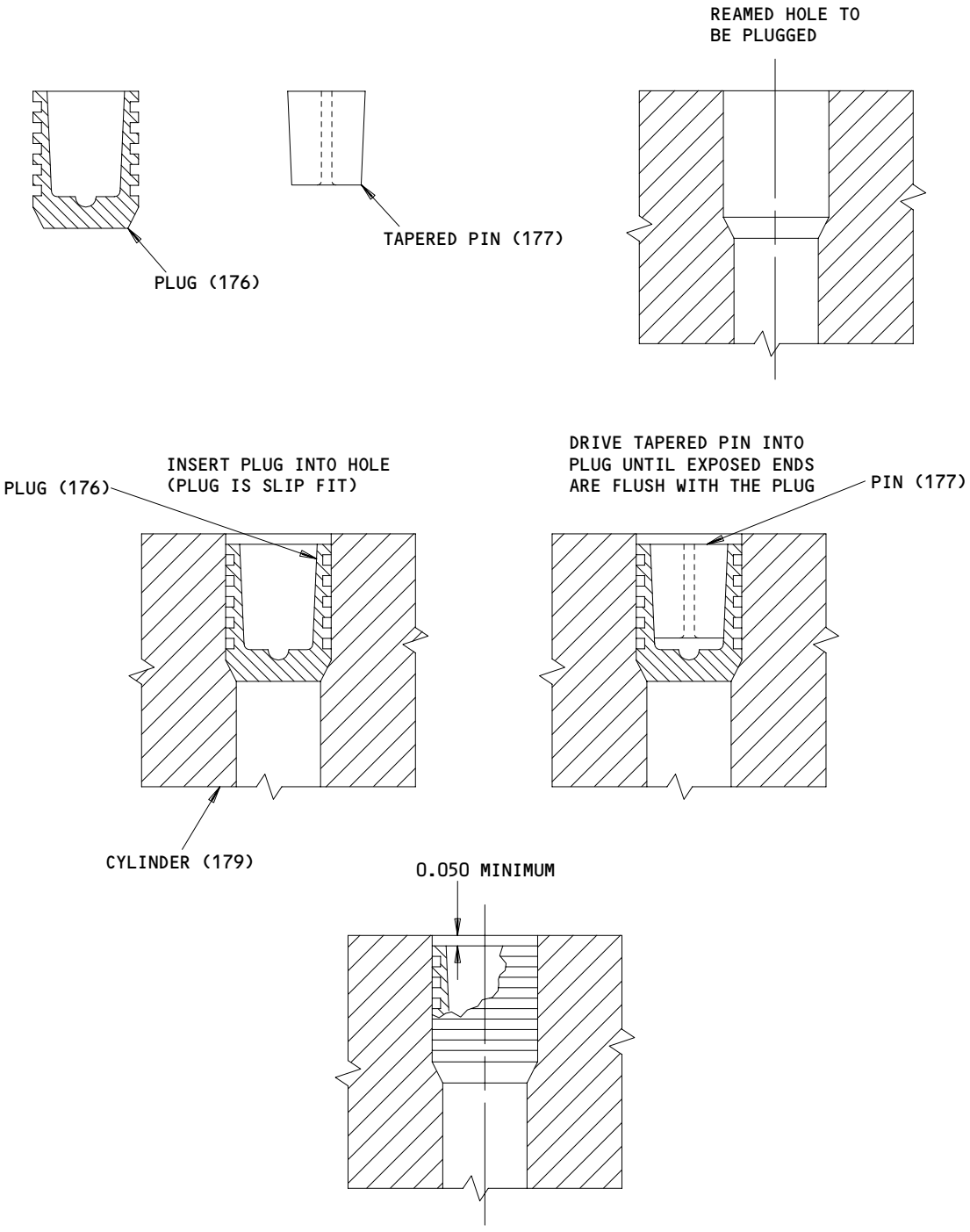
   A. Remove plug (176) and pin (177) from cylinder (175). Remove check valve (178) from cylinder (175).

   B. Clean and thoroughly dry reamed hole and OD of plug.

   CAUTION: INSERTING PIN (177) IN PLUG (176) BEFORE INSERTING PLUG IN HOLE MAY RESULT IN OVER-EXPANSION OF PLUG AND SUBSEQUENT DAMAGE TO REAMED HOLE.

   C. Insert check valve (178) into hole. Use tool if hole is deep. Insert plug (176) into hole until firmly seated on shoulder of hole, as shown.

   D. Drive tapered pin (177) into plug (176) until exposed end is flush with the plug as shown.



NOTE: PINS ARE PREWAXED. ADDITIONAL LUBRICATION IS NOT REQUIRED. PINS ARE COATED WITH ENTHONE #18 WAX. CONTACT WITH WATER SHOULD BE AVOIDED SINCE IT WILL DISSOLVE THE WAX.

ALL DIMENSIONS ARE IN INCHES

273T6102-2 THRU -7

Pin, Plug, and Check Valve Replacement
Figure 601

44605

CYLINDER - REPAIR 1-2

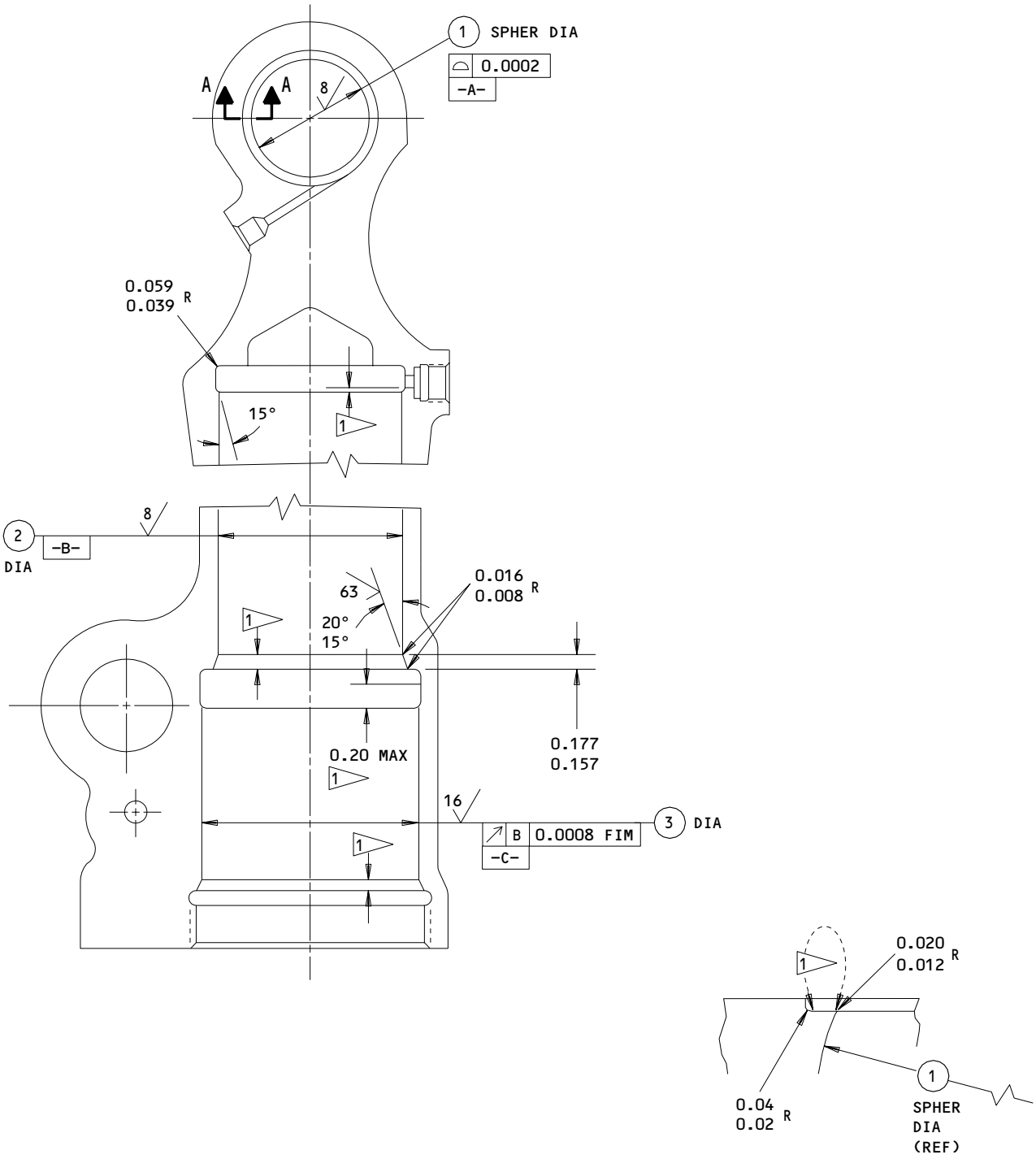
273T6103-2 thru -5

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

1. Plating Repair (Fig. 601)

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

   B. Shot-peen, plate and grind surfaces noted to design dimensions and finish.



273T6103-2 THRU -5
Cylinder Repair and Refinish
Figure 601 (Sheet 1)

	(1)	(2)	(3)
DESIGN DIM	1.5660 1.5645	2.120 2.118	2.494 2.493
REPAIR LIMIT ▷3◁	1.5674	2.148 2.124	2.498

REFINISH

CHROME PLATE (F-15.03) DIA -A-, 0.0007-0.0010 THICK. CHROME PLATE (F-15.03) DIAS -B-, -C-, 0.002 THICK. OBSERVE PLATING RUNOUT AS NOTED ▷1◁. PASSIVATE (F-17.09) ALL OTHER AREAS

▷1◁ CHROME PLATE RUNOUT

▷2◁ DELETED

▷3◁ LIMIT FOR CHROME PLATE BUILDUP AND GRINDING TO DESIGN DIM AND FINISH. OBSERVE PLATING RUNOUT AS NOTED ▷1◁

REPAIR

REF ▷3◁

125 MACHINE FINISH EXCEPT AS NOTED

SHOT PEEN:
0.017-0.046 SHOT SIZE
0.012 A2 INTENSITY DIAS -A-, -C-
0.008-0.012 A2 INTENSITY DIA -B-

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

ALL DIMENSIONS ARE IN INCHES

273T6103-2 THRU -5
Cylinder Repair and Refinish
Figure 601 (Sheet 2)

131900

ROD END - REPAIR 2-1

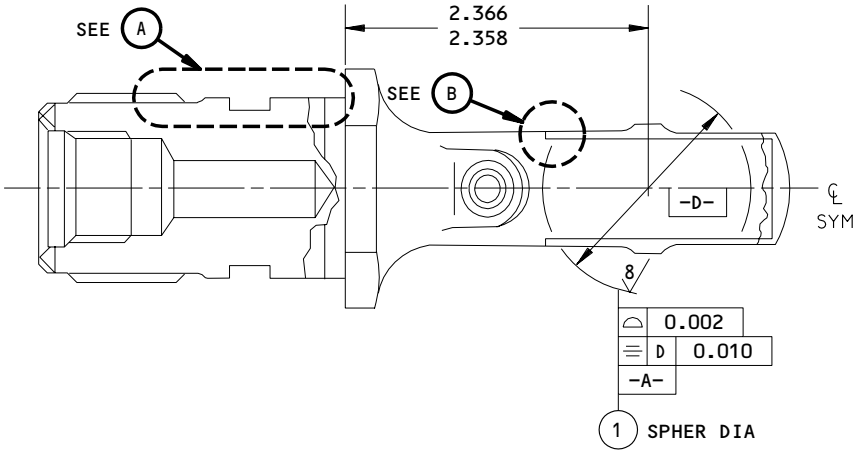
273T6105-2, -3, -4, -5

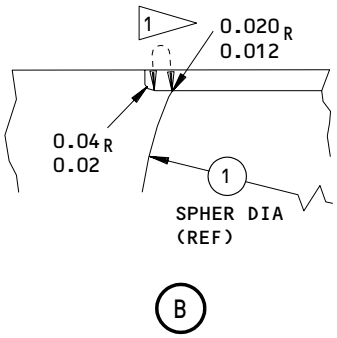
NOTE: Refer to REPAIR-GEN for a list of applicable standard practices. For repair of surfaces which is only replacement of the original finish, refer to Refinish instructions, Fig. 601.

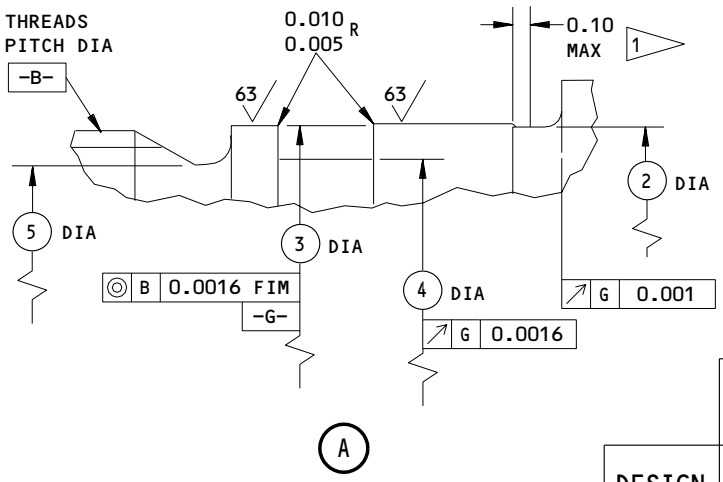
1. Plating Repair (Fig. 601)

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

B. Shot peen. Build up with chrome plate. Grind to design dimensions and finish.







	1	2	3	4	5
DESIGN DIM	1.5660 1.5645	1.480 1.474	1.489 1.488	1.248 1.246	1.265 1.245
REPAIR LIMIT 2	1.5674	-----	1.459	-----	-----

REFINISH

CHROME PLATE (F-15.03) DIA -A-, 0.0007-0.0010 THICK. CHROME PLATE (F-15.03) DIA -G-, 0.002 THICK. PUT A PLATING RUNOUT AS SHOWN BY 1. SILVER PLATE (F-15.07) DIA-B-THREADS, 0.0002-0.0004 THICK; PLATING CAN RUN OUT IN RELIEF AREAS. PASSIVATE (F-17.25, WHICH REPLACES F-17.09) ALL OTHER AREAS.

1 CHROME PLATE RUNOUT

2 LIMIT FOR CHROME PLATE BUILDUP AND GRIND TO DESIGN DIMEMSION AND FINISH. PUT A PLATING RUNOUT AS SHOWN BY 1

REPAIR

REF 2

125 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

SHOT PEEN:
0.017-0.046 SHOT SIZE
0.012 A2 INTENSITY

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

ALL DIMENSIONS ARE IN INCHES

273T6105-2 thru -5
Rod End Repair and Refinish
Figure 601

44606

PISTON - REPAIR 3-1

273T6107-2, -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.

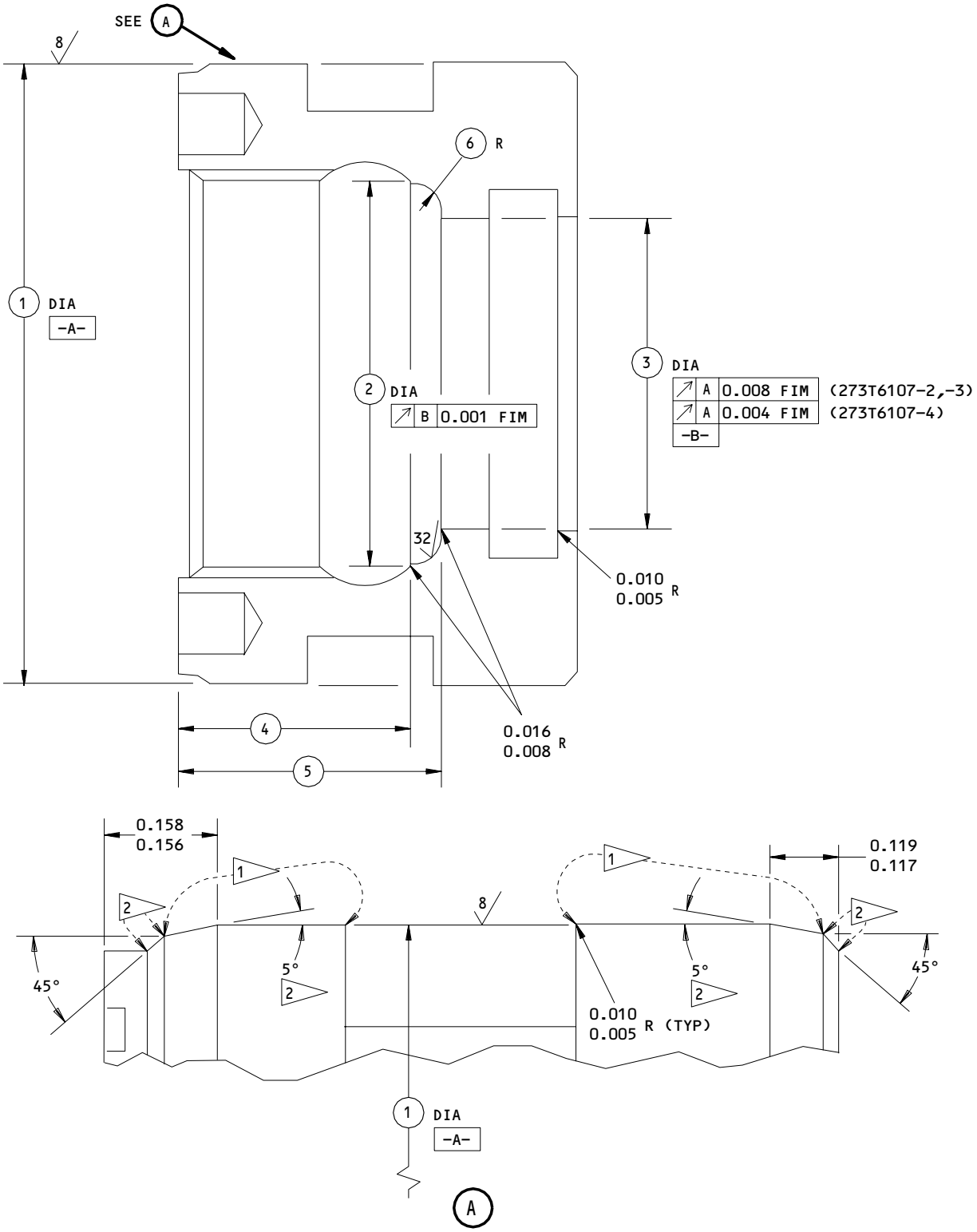
1. Plating Repair

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

B. Shot peen.

C. Build up with nickel plate.

D. Machine the nickel plate to design dimensions and finish.



273T6107-2,-3,-4
Piston Repair and Refinish
Figure 601 (Sheet 1)

	(1)	(2)	(3)	(4)	(5)	(6)
DESIGN DIM	2.115 2.114	1.266 1.262	1.063 1.062	0.7949 0.7791	0.890 0.886	0.1005 0.0990
REPAIR LIMIT ▷3◁	2.108	1.270	1.067	-----	-----	------

REFINISH

NICKEL PLATE OR PASSIVATE AREAS SHOWN BY ▷1◁. OBSERVE PLATING RUNOUT AS NOTED ▷2◁. PASSIVATE (F-17.25, WHICH REPLACES F-17.09) THE OTHER AREAS

▷1◁ 273T6107-2: NICKEL PLATE (F-15.33), 0.0015 THICK AFTER MACHINING

NOTE: THIS CHANGES ORIGINAL FINISH OF 273T6107-2 TO -4 CONFIG. THE -2 CONFIG IS NOT RECOMMENDED (SB 32-35).

273T6107-3: PASSIVATE (F-17.25, WHICH REPLACES F-17.09)

273T6107-4: NICKEL PLATE (F-15.33), 0.0015 THICK AFTER MACHINING

▷2◁ PLATING RUNOUT

▷3◁ LIMIT FOR NICKEL PLATE BUILDUP AND MACHINING TO DESIGN DIMENSION AND FINISH. PUT A PLATING RUNOUT AS SHOWN BY ▷2◁

REPAIR

REF ▷3◁

63 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

SHOT PEEN:
0.017-0.046 SHOT SIZE
0.016 A2 INTENSITY

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

DIMENSIONS ARE AFTER PLATING AND MACHINING

ALL DIMENSIONS ARE IN INCHES

273T6107-2,-3,-4
Piston Repair and Refinish
Figure 601 (Sheet 2)

ROD, PISTON - REPAIR 4-1

273T6111-5 thru -9, -12 thru -16

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.

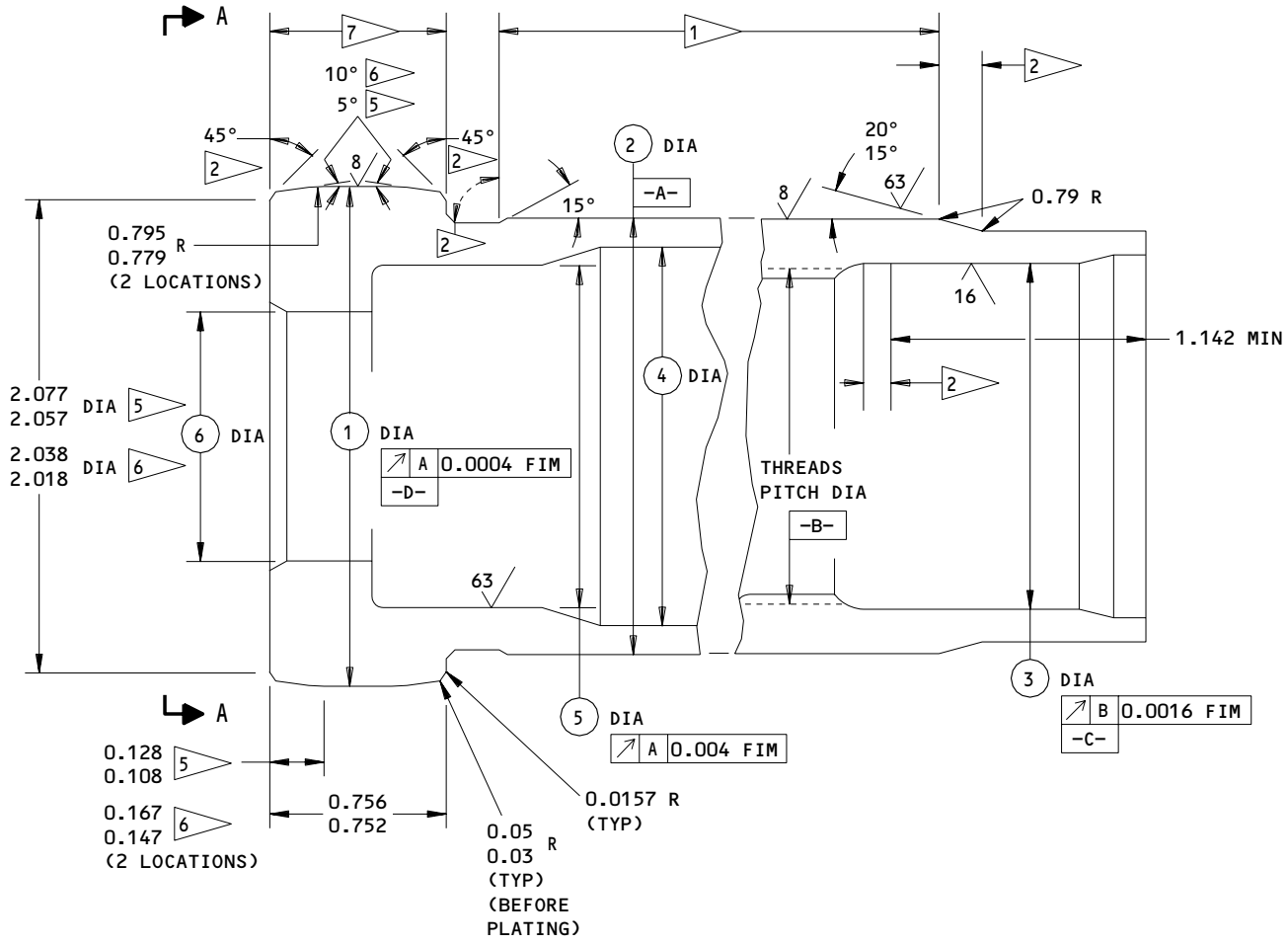
1. Diameter A, C, D (Fig. 601)

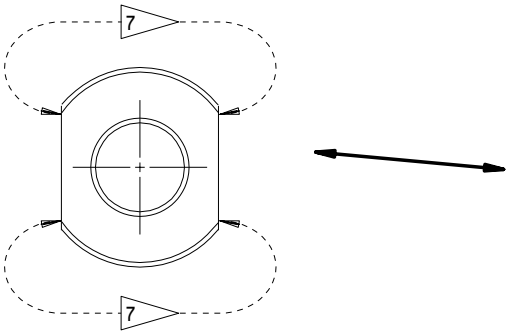
   A. Machine as required, within repair limits, to remove defects.

   B. Shot peen. Build up with nickel plate. Machine the surfaces to design dimensions and finish.

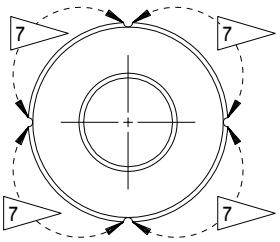
2. Rivet Replacement (Rods 273TT6111-7, -8, -14, -15 only) (Fig. 602)

   A. Prepare the hole and install the rivet as shown.





273T6111-5 THRU -8,-12 THRU -15
A-A



273T6111-9,-10,-16
A-A

273T6111-5 THRU -9,-12 THRU -16
Piston Rod Repair and Refinish
Figure 601 (Sheet 1)

44616

REFERENCE NUMBER	(1)	(2)	(3)	(4)	(5)	(6)
DESIGN DIMENSION	2.115 2.114	1.873 1.871	1.493 1.491	1.628 1.622	1.470 1.465	1.075 1.071
REPAIR LIMIT ▷4◁	2.108	1.866	1.497	-----	-----	-----

REFINISH

CHROME PLATE AREAS NOTED ▷1◁. NICKEL PLATE OR PASSIVATE AREAS NOTED ▷7◁. OBSERVE PLATING RUNOUT AS NOTED ▷2◁. PASSIVATE (F-17.09) UNPLATED AREAS

▷1◁ CHROME PLATE (F-15.03) 0.002 THICK

▷2◁ PLATING RUNOUT

▷3◁ DELETED

▷4◁ LIMIT FOR NICKEL PLATE BUILDUP AND MACHINING TO DESIGN DIM AND FINISH. OBSERVE PLATING RUNOUT AS NOTED ▷2◁

▷5◁ 273T6111-5,-6,-9,-12,-16

▷6◁ 273T6111-7,-8,-13,-14,-15

▷7◁ 273T6111-5 THRU -8,-12 THRU -16: NICKEL PLATE (F-15.33), 0.0015 MIN THICK AFTER MACHINING.

NOTE: THIS CHANGES ORIGINAL FINISH OF 273T6111-5 THRU -8 TO -12 THRU -16 CONFIG. THE -5 THRU -8 CONFIG IS NOT RECOMMENDED (SB 32-35).

273T6111-9: PASSIVATE (F-17.09)

REPAIR

REF ▷4◁

63 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

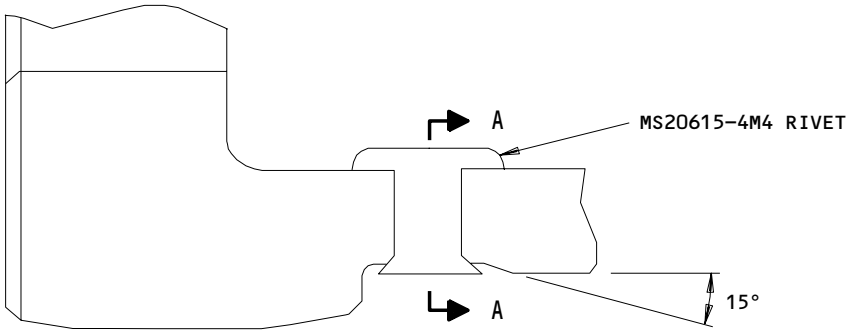
SHOT PEEN: 0.017-0.046 SHOT SIZE
0.016 A2 INTENSITY (DIA -D-)
0.010 A2 INTENSITY (DIAS -A-, -C-)

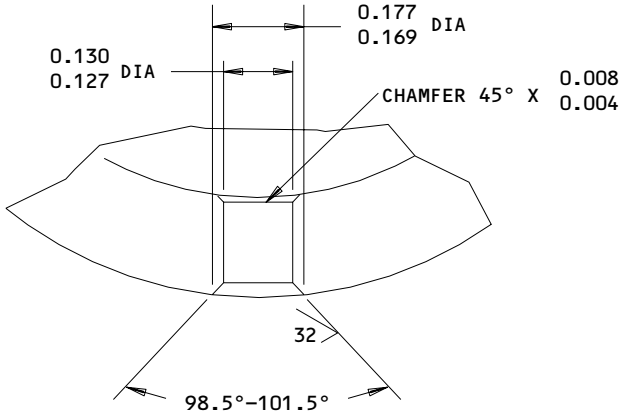
MATERIAL: 15-5PH CRES, 150-170 KSI

ALL DIMENSIONS ARE IN INCHES

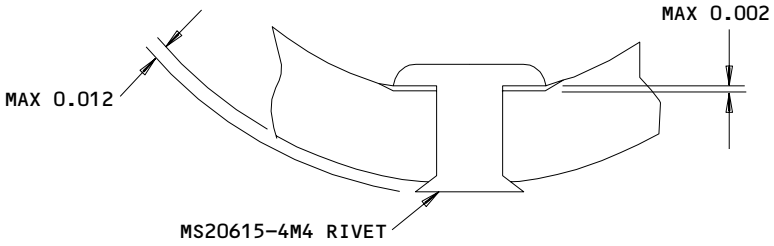
273T6111-5 THRU -9,-12 THRU -16
Piston Rod Repair and Refinish
Figure 601 (Sheet 2)

142927





A-A
HOLE PREPARATION



A-A
RIVET INSTALLED

273T6111-7,-8,-14,-15
Rivet Installation
Figure 602

ROD, PISTON - REPAIR 4-2

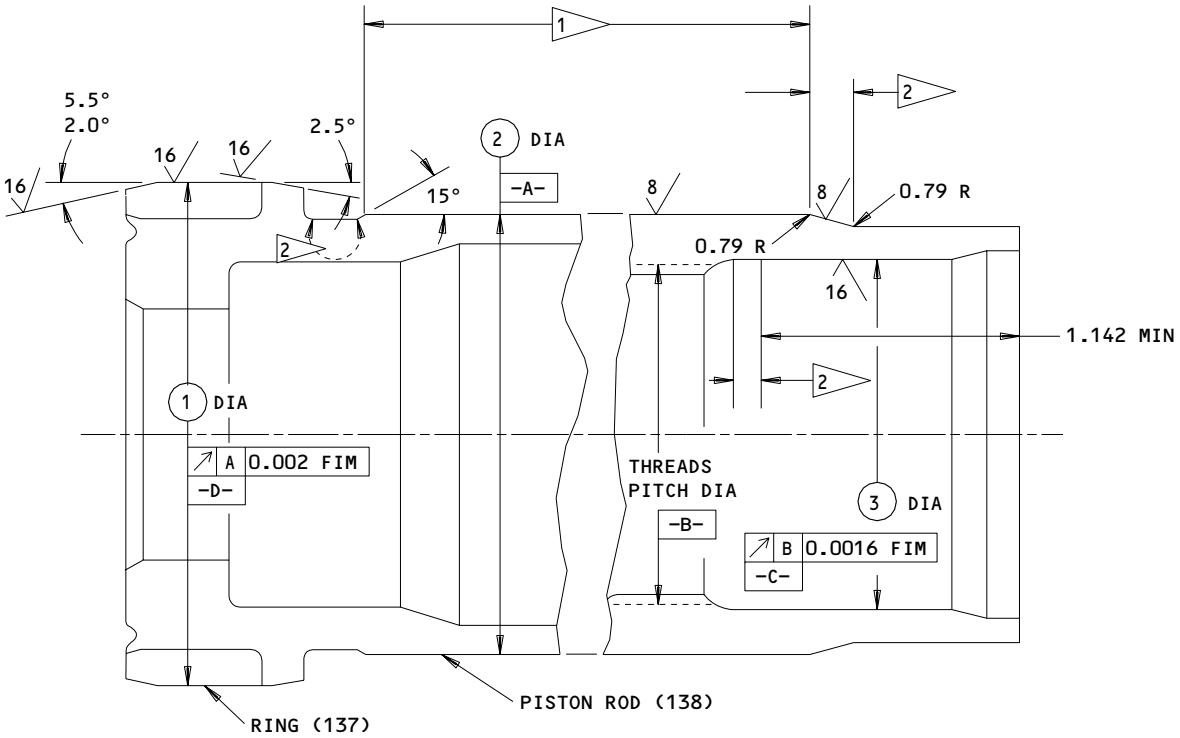
273T6111-10

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.

1. Diameter A, C (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.



	1	2	3	4
DESIGN DIM	2.115 2.114	1.873 1.871	1.493 1.491	1.628 1.622
REPAIR LIMIT 4	-----	1.866	1.497	-----

REFINISH

CHROME PLATE AREAS NOTED 1. OBSERVE PLATING RUNOUT AS NOTED 2. PASSIVATE (F-17.09) ALL OTHER AREAS

1. CHROME PLATE (F-15.03) 0.002 MINIMUM THICKNESS AFTER GRINDING
2. CHROME PLATE RUNOUT
3. DELETED
4. LIMIT FOR CHROME PLATE BUILDUP AND GRINDING TO DESIGN DIM AND FINISH. OBSERVE PLATING RUNOUT AS NOTED 2

REPAIR

REF 4

125 MACHINE FINISH EXCEPT AS NOTED

SHOT PEEN:
0.017-0.046 SHOT SIZE
0.016 A2 INTENSITY (DIA -D-)
0.010 A2 INTENSITY (DIA -C-)

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

ALL DIMENSIONS ARE IN INCHES

273T6111-10
Piston Rod Repair and Refinish
Figure 601

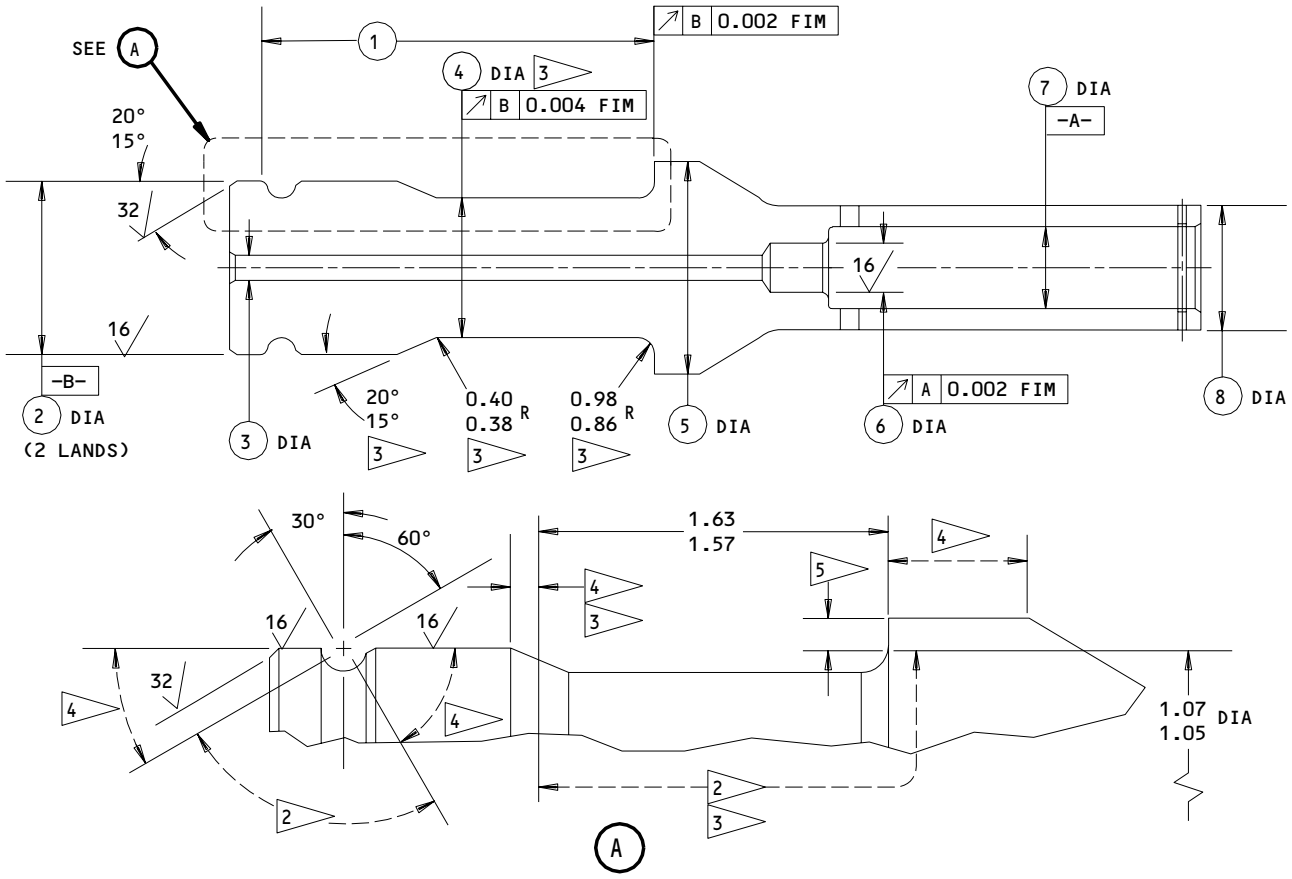
144343

BOLT - REPAIR 5-1

273T6112-3, -4, -5, -6

1. Coating Repair

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



	1 (1)	1 (6)	2	3	4	5	6	7	8
DESIGN DIM	2.520 2.516	2.496 2.492	1.060 1.058	0.1397 0.1339	0.866 0.852	1.331 1.327	0.330 0.329	0.555 0.551	0.787 0.779
REPAIR LIMIT	-----	-----	-----	-----	-----	-----	-----	-----	-----

REFINISH

PASSIVATE (F-17.09) ALL OVER.

1 273T6112-3,-5

2 SHOT PEEN THIS AREA

3 125 FINISH BEFORE SHOT PEENING

4 SHOT PEEN RUNOUT

5 AFTER MACHINING, SHOT PEEN THIS ANNULAR AREA TO ACHIEVE 63 TO 125 FINISH

6 273T6112-4,-6

REPAIR

125 MACHINE FINISH EXCEPT AS NOTED

SHOT PEEN (AREAS 2 5)
0.017-0.046 SHOT SIZE
0.016 A2 INTENSITY
OBSERVE RUNOUT PER 4

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

ALL DIMENSIONS ARE IN INCHES

273T6112-3,-4,-5,-6
Bolt Repair and Refinish
Figure 601

157640

MISCELLANEOUS PARTS REFINISH - REPAIR 6-1

1. Repair of parts listed in Fig. 601 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 (170)	15-5PH, 150-170 ksi	Silver plate (F-15.07) threads and cross slots, 0.0002-0.0004 thick. Plating may run out on thread reliefs. Passivate (F-17.09) all other surfaces. Optional: Silver plate (F-15.07) all over.
Piston (200) Ring (160A)	15-5PH, 150-170 ksi	Passivate (F-17.09)
Retainer (50)	15-5PH, 150-170 ksi	Silver plate (F-15.07) threads, 0.0002-0.0004 thick. Plating may run out on thread reliefs and face adjoining smaller ID. Passivate (F-17.09) all other surfaces. Optional: Silver plate (F-15.07) all over.
Ring (215)	17-7PH	Passivate (F-17.09).
Dog (185) Rod (220) Retainer (210)	Al alloy	Anodize (F-17.04)

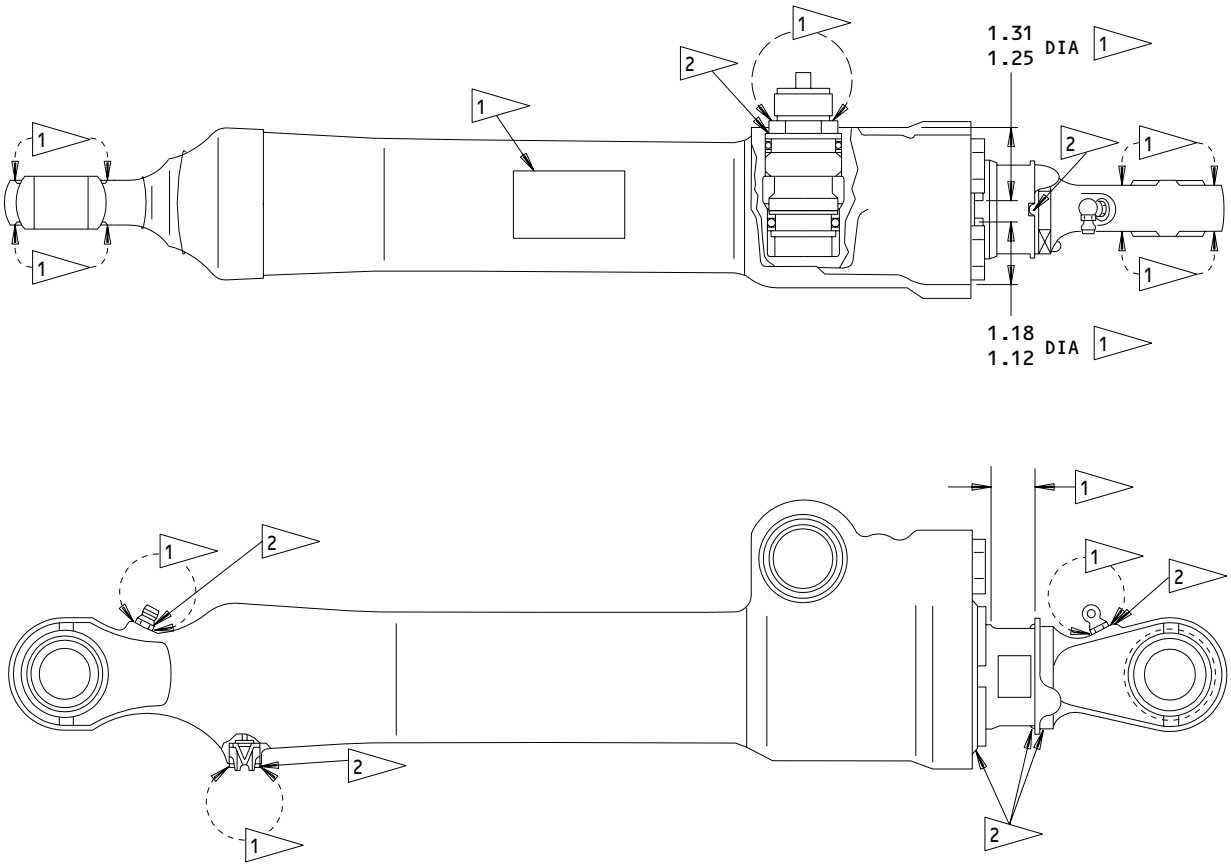
Refinish Details
Figure 601

POSITIONER ASSY - REPAIR 7-1

273T6101

1. Topcoat Repair

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



NOTE: APPLICATION OF PRIMER AND ENAMEL AS A FINISH IS OPTIONAL.

REFINISH

APPLY BMS 10-60 BOEING COLOR 707 GRAY GLOSS ENAMEL OVER BMS 10-11, TYPE 1, PRIMER UNLESS SHOWN BY 1

1 NO PRIMER OR ENAMEL ON THIS SURFACE

2 FILLET SEAL WITH BMS 5-26 OR MIL-S-8802 SEALANT

ALL DIMENSIONS ARE IN INCHES

273T6101
Positioner Assembly Refinish and Sealant Application
Figure 601

81084

EXTERNAL PARTS REPLACEMENT - REPAIR 8-1

BAC27THY0048, BAC27THY0157
273T0050-4

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

1. Nameplate Replacement (BAC27THY0048)

   A. Steel stamp the serial number and the dash number of the part number on new nameplate (15A).

   B. Clean surface of cylinder (175) and nameplate (15A) per 20-30-03.

   C. Bend the nameplate to agree with the curve of the cylinder contour and install with BMS 5-95 sealant per 20-50-12. Before the sealant cures, make the squeezed-out into a fillet seal all around the edges.

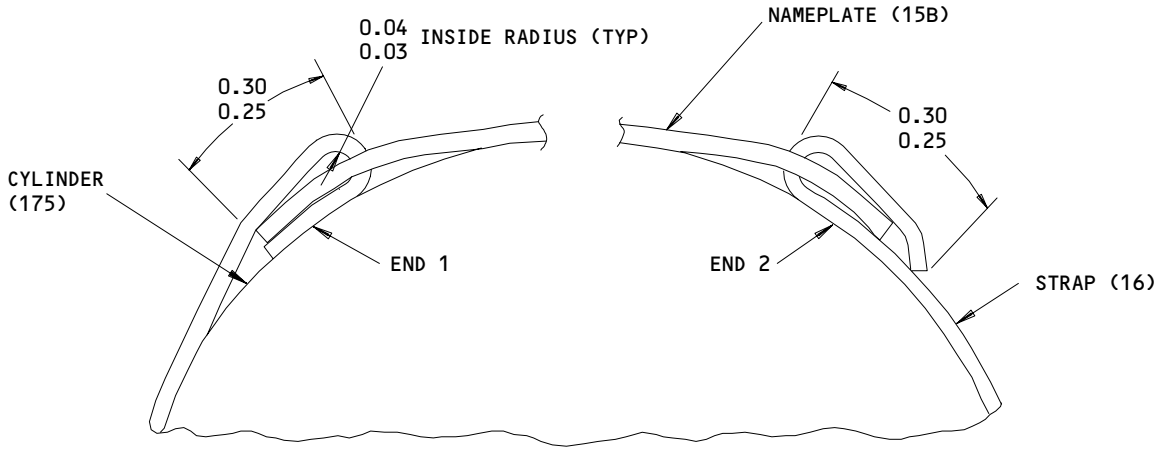
   D. Apply Type 41 clear protective finish to the nameplate and the adjacent area.

2. Nameplate and Strap Replacement (BAC27THY0157, 273T0050-4)

   A. Replace nameplate (15B) and strap (16) as shown on Fig. 601, with BMS 5-95 sealant under the nameplate and the strap.

   B. Before the sealant cures, make the squeezed-out bead into a fillet seal all around the edges.

   C. Apply Type 41 clear protective finish to the nameplate and the adjacent area.



NOTE: THE STRAP CAN BE USED ONLY ONCE. MAKE SURE THE STRAP AND NAMEPLATE ARE TIGHT ON THE MOUNTING SURFACE.

1. BEND THE NAMEPLATE TO A RADIUS SLIGHTLY SMALLER THAN THE CYLINDER RADIUS.
2 BEND THE CORNERS OF THE NAMEPLATE SLIGHTLY TOWARDS THE MOUNTING SURFACE.
3. BEND STRAP END 1, PUT THRU THE HOLE IN THE NAMEPLATE AND BEND STRAP END DOWN AS SHOWN.
4. HOLD THE NAMEPLATE ON THE CYLINDER AND PUT STRAP THRU HOLE.
5. SLIGHTLY BEND STRAP END 2 WHILE YOU PULL TO MAKE THE NAMEPLATE AND STRAP TIGHT.
6. CUT STRAP END 2 TO THE DIMENSION SHOWN.
7. WHILE YOU PULL, USE A SUITABLE TOOL TO MAKE THE FINAL BEND OF STRAP END 2 AND TO MAKE THINGS TIGHTER. BE CAREFUL NOT TO TEAR THE NAMEPLATE HOLE BY TOO MUCH TENSION.
8. BEND STRAP END 2 DOWN OVER THE EDGE OF THE NAMEPLATE AND HIT LIGHTLY WITH A SOFT NOSED HAMMER.

ITEM NUMBERS REFER TO IPL FIG. 1

ALL DIMENSIONS ARE IN INCHES

Nameplate Installation
Figure 601

ASSEMBLY

1. Materials

NOTE: Equivalent substitutes can be used.

A. Sealant -- BMS 5-26 (SOPM 20-60-04)

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

C. Assembly Lube -- MCS 352 (SOPM 20-60-03)

D. Lockwire -- MS20995NC32 (optional MS20995C32) (SOPM 20-60-04)

2. Equipment

NOTE: Equivalent substitutes can be used.

A. Torque Wrench -- A32045-46

B. Clamp Equipment -- A32076-5 (supersedes A32076-1)

3. Lubrication

A. Lubricate fittings (5, 10) with grease.

B. Apply assembly lube on threads of dog (185), valve (20), rod end (55) when you install these parts.

C. Apply sealant to external threads of retainer (115, 50) and install the part while the sealant is wet.

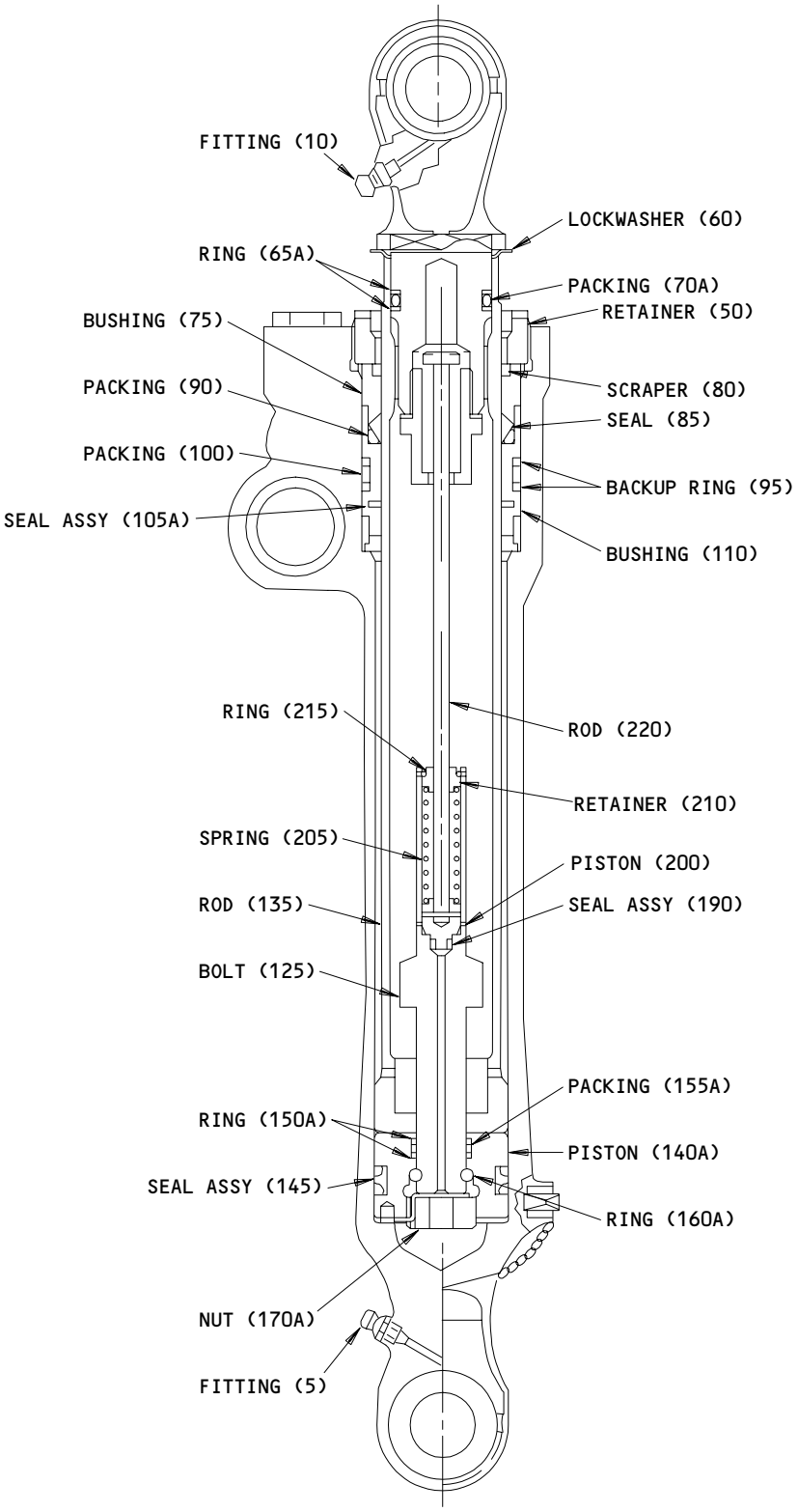
4. Assembly (IPL Fig. 1)

NOTE: See Fig. 701 for seal installation.

CAUTION: IF PARTS SUCH AS CYLINDER (175), PISTON ROD (135), ROD END (55) OR BOLT (125) ARE REPLACED, TOLERANCE BUILDUP COULD MAKE THE STOWED LENGTH OF THE ASSEMBLED UNIT BECOME OUT OF TOLERANCE. IF THIS OCCURS, BOLT (125) MUST BE REPLACED TO ADJUST.

CAUTION: IN SOME CONFIGURATIONS, THE CYLINDER ID IS NOT PLATED, AND THE MATING PISTON OD IS CHROME PLATED. IN LATER CONFIGURATIONS, THE CYLINDER ID IS CHROME PLATED AND THE MATING PISTON OD IS NOT PLATED. A CHROME PLATED CYLINDER MUST NOT BE USED WITH A CHROME PLATED PISTON. FOR REPAIRED CONFIGURATIONS, A NICKEL PLATED PISTON CAN BE USED WITH A CHROME PLATED CYLINDER.

A. Install packings (30, 40), rings (25, 35) into valve (20). Install seal (145), packing (155), rings (150) into piston (140).



Assembly Details
Figure 701

B. Install seal (105), packings (90, 100), rings (95) into bushing (110). Install packing (70), rings (65) into rod end (55).

CAUTION: BEARING (45) IS A PAIR OF MATCHED HALVES. BEARINGS MUST BE INSTALLED AS A MATCHED SET. DO NOT MIX BEARING HALVES WITH THOSE FROM OTHER SETS. BEARINGS MUST BE INSTALLED WITH INDEX MARKS ALIGNED.

C. Install bearings (45) with index marks aligned into cylinder (179) and rod end (55). If removed, install lube fittings (5, 10) into cylinder (179) and rod end (55). Tighten the fittings to the value shown in Fig. 802.

D. Slide dog (185), ring (215), retainer (210), spring (205) and piston (200) in rod (220).

E. Hold rod (220) on a padded surface and install a new pin (195) thru piston (200) and rod (220) after holes are aligned. Install seal assy (190) in piston. Pin must be below surface of piston on both sides.

CAUTION: BOLT (125) COMES IN TWO LENGTHS. IF OTHER PARTS ARE REPLACED, TOLERANCE BUILDUP COULD MAKE NECESSARY A DIFFERENT BOLT (125) TO ADJUST THE STOWED LENGTH OF THE ASSEMBLED UNIT.

F. Slide bolt (125) into piston (200). Push retainer (210) into bolt past inside groove in bolt end. Install and push ring (215) down into bolts (125) groove.

G. Install new lockwasher (180) in rod end. Screw dog (185) in rod end (55A). Hold rod end (55A) and tighten dog (185) to 25-35 pound-inches. Bend lockwasher (180) against two of the flats on the dog that are furthest from the keyway slots in the rod end. Make sure the keys on lockwasher (180) are in the keyways of the rod end and are not damaged while you tighten the dog.

H. Install bushings (75, 110), packing (90), seal (85), scraper (80), retainer (50) into rod (135).

CAUTION: WHEN YOU INSTALL PISTON ROD (135) IN ROD END (55), BE CAREFUL NOT TO DAMAGE THE ROD.

I. Install lockwasher (60) on rod end (55). Screw rod end (55) on rod (135).

J. With clamp A32076-5, hold rod (135) and tighten rod end (55) to the value shown in Fig. 802. Bend lockwasher (60) against two of flats on rod end (55) that are furthest from keyway slots on rod (135).

K. Slide piston (140) on bolt (125) until you can get at the groove in the bolt. Install ring (160) in the groove and slide bolt (125) back until ring (160) is fully down in the groove.

L. Install lockwasher (165) on nut (170) and turn the nut into piston (140). Hold the piston (140) with an adjustable face spanner and tighten nut (170) to the value shown in Fig. 802, and until the tab of lockwasher (165) aligns with the slot on piston (140) face. Bend the tab of the lockwasher into the slot on the face of the piston.

M. Carefully slide piston (140), rod (135) and attached parts into cylinder assy (175).

N. Hold cylinder (175) in a padded vise and, with spanner wrench A32045-46, tighten retainer (50) to the value shown in Fig. 802.

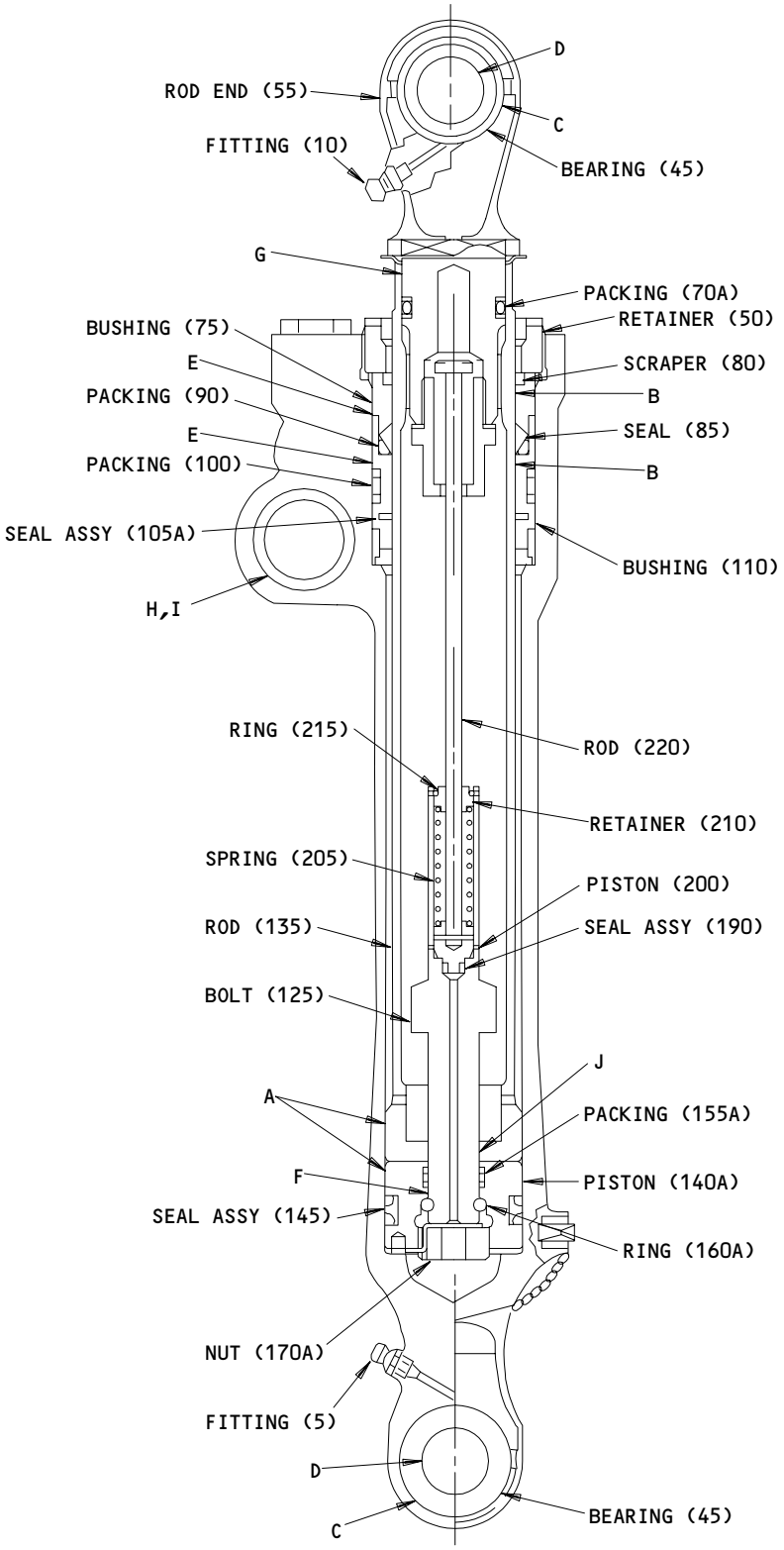
O. Install valve (20) and tighten to 712-788 lb-in.

P. Install valve (225), union (235), packing (230, 240) into cylinder (175). Install valve (120), retainer (115) into cylinder (175) and tighten the retainer to the value shown in Fig. 802.

Q. Refer to REPAIR 7-1 for sealant application and application of optional topcoat.

R. Do the test per TESTING AND TROUBLE SHOOTING.

S. After the test, lockwire retainer (50, 115) to cylinder (179) per SOPM 20-50-02.



Fits and Clearances
Figure 801 (Sheet 1)

Ref Letter Fig.801	Mating Item No. IPL Fig.	Design Dimension				Service Wear Limit		
		Dimension		Assembly Clearance		Dimension		Maximum Clearance
		Min	Max	Min	Max	Min	Max	
A	ID 179 OD 135,140	2.1180 2.1140	2.1200 2.1150	0.0030	0.0060	2.114	2.121	0.008
B	ID 75,110 OD 135	1.8760 1.8710	1.8780 1.8730	0.0030	0.0070	1.8705	1.8785	0.008
C	ID 55,179 OD 45	1.5645 1.5620	1.5660 1.5625	0.002	0.004	1.5615	1.5665	0.005
D	ID 45	0.9995	1.0000					
E	ID 179 OD 75,110	2.493 2.491	2.494 2.492	0.001	0.003	2.490	2.495	0.005
F	ID 140 OD 125	1.062 1.058	1.063 1.060	0.002	0.005	1.0575	1.0635	0.006
G	ID 135 OD 55	1.491 1.488	1.493 1.489	0.002	0.005	1.4875	1.4935	0.006
H	ID 179 OD 20	1.178 1.175	1.179 1.176	0.002	0.004	1.1745	1.1795	0.005
I	ID 179 OD 20	1.366 1.363	1.367 1.364	0.002	0.004	1.3625	1.3675	0.005
J	ID 135 OD 125	1.071 1.058	1.075 1.060	0.011	0.017			

ALL DIMENSIONS ARE IN INCHES

Fits and Clearances
Figure 801 (Sheet 2)

44598

FOR TORQUE VALUES OF STANDARD FASTENERS, REFER TO 20-50-01			
ITEM NO. IPL FIG. 1	NAME	TORQUE	
		POUND-INCHES	POUND-FEET
5,10	FITTING LUBE	57.5-70.5 [1] 57-72 [2]	
20	VALVE ASSEMBLY	712-788	
50	RETAINER	2478-2832 [1] 2475-2850 [2]	
55	RODEND	2478-2832 [1] 2475-2850 [2]	
115	RETAINER	57.5-70.5 57-72 [2]	
170	NUT	532-621 [1] 530-1200 [2]	
185	DOG	25-35	

[1] UNITS 273T6101-3,-4,-8
[2] UNITS 273T6101-5,-6,-7,-9

Torque Table
Figure 802

SPECIAL TOOLS, FIXTURES AND EQUIPMENT

NOTE: Equivalent substitutes can be used.

1. A32045-46 -- Torque Wrench, Retainer (50)
2. A32076-5 -- Clamp Equipment for Rod (135) (supersedes A32076-1)
3. A32068-7 -- Test Stand (Supersedes A32068-1)
4. A32119-1 -- Test Stand (Replaces A32068-7)

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

02107 SPARTA MANUFACTURING COMPANY
PO BOX 449 5200 NORTH WOOSTER ROAD
DOVER, OHIO 44622

02886 DODGE-WASMUND MFG CO INC
9603 BEVERLY ROAD
PICO RIVERA, CALIFORNIA 90660

0463B LEE COMPANY, THE
4676 ADMIRALTY WAY
MARINA DEL REY, CALIFORNIA 90291

07128 TETRAFLUOR INC
2051 EAST MAPLE AVENUE
EL SEGUNDO, CALIFORNIA 90245

09257 SHAMBAN, W.S. & COMPANY
2531 BREMER DRIVE PO BOX 176
FORT WAYNE, INDIANA 46801

26303 OHIO AIRCRAFT SUPPLIES INC
717 HINDRY AVENUE
INGLEWOOD, CALIFORNIA 90301

26879 CORONADO MFG INC
11069 PENROSE AVENUE
SUN VALLEY, CALIFORNIA 91352

71687 DOVER CORP COOK AIRTOMIC DIV
916 SOUTH 8TH STREET PO BOX 1038
LOUISVILLE, KENTUCKY 40201

72902 GREENE TWEED AND CO INC
320 ELM AVENUE
NORTH WALES, PENNSYLVANIA 19454

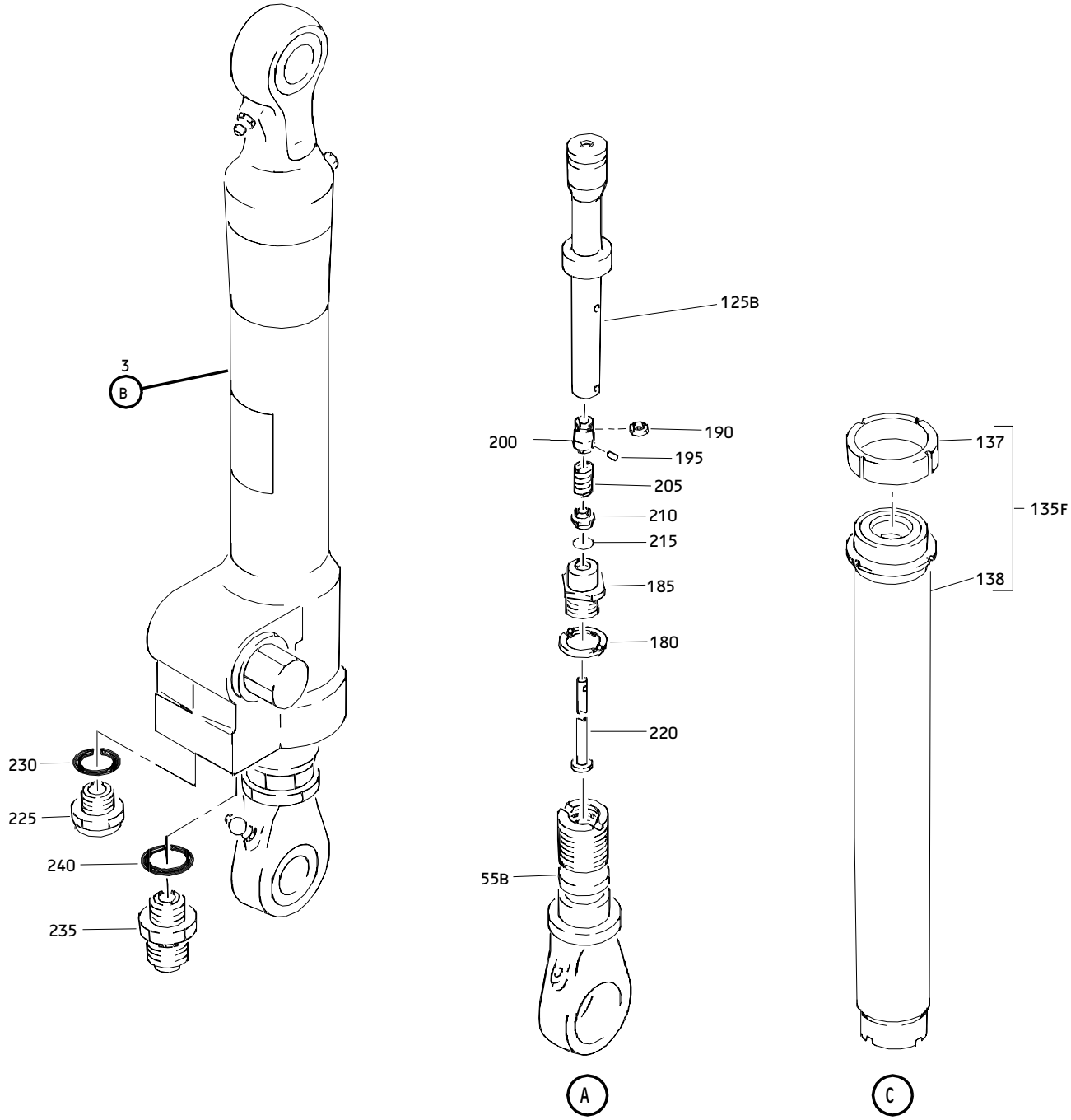
94878 RAYBESTOS-MANHATTAN INC PACIFIC COAST DIV
1400 E. ORANGETHROPE
FULLERTON, CALIFORNIA 92631

97820 SHAMBAN W S AND CO
711 MITCHELL ROAD
NEWBURY PARK, CALIFORNIA 91320

VENDORS

99240 CRISSAIR, INCORPORATED
122 ARENA STREET
EL SEGUNDO, CALIFORNIA 90246

99643 STERER ENG AND MFG CO
PO BOX 39787 4690 COLORADO BOULEVARD
LOS ANGELES, CALIFORNIA 90039



Main Landing Gear Truck Positioner Assembly
Figure 1 (Sheet 1)

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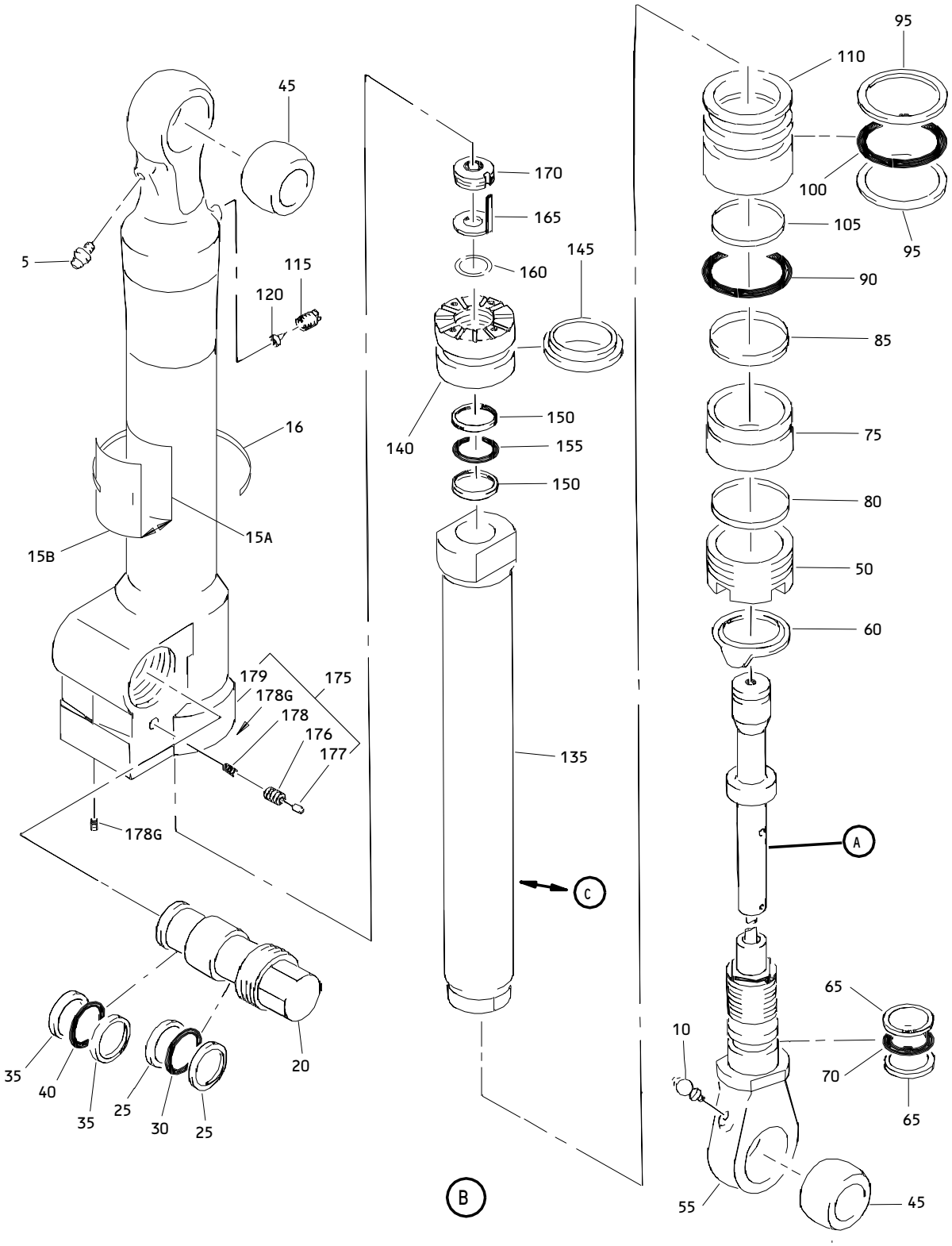

Main Landing Gear Truck Positioner Assembly
Figure 1 (Sheet 2)

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01-					
1	273T6101-1		DELETED		
-1A	273T6100-2		DELETED		
-1B	273T6100-3		DELETED		
-1C	273T6100-4		POSITIONER ASSY-MLG TRUCK	A	RF
-1D	273T6100-6		POSITIONER ASSY-MLG TRUCK	B	RF
-1E	273T6100-8		POSITIONER ASSY-MLG TRUCK	C	RF
-1F	273T6100-9		DELETED		
-1G	273T6100-10		POSITIONER ASSY-MLG TRUCK	D	RF
3	273T6101-1		DELETED		
-3A	273T6101-2		DELETED		
3B	273T6101-3		.POSITIONER ASSY-MLG TRUCK	A	1
3C	273T6101-4		.POSITIONER ASSY-MLG TRUCK (PRE SB 32-35)	B	1
3D	273T6101-5		.POSITIONER ASSY-MLG TRUCK (ITEM 3E OPT)	C	1
3E	273T6101-6		.POSITIONER ASSY-MLG TRUCK (OPT TO ITEM 3D)	C	1
3F	273T6101-7		.POSITIONER ASSY-MLG TRUCK (LIMITED)		1
3G	273T6101-8		.POSITIONER ASSY-MLG TRUCK (POST SB 32-35)	B	1
3H	273T6101-9		.POSITIONER ASSY-MLG TRUCK	D	1
5	MS15004-1		..FITTING-LUBE		1
10	MS15004-3		..FITTING-LUBE		1
15	BAC27THY18		DELETED		
15A	BAC27THY0048		..NAMEPLATE *[3]		1
15B	BAC27THY0157		..NAMEPLATE *[4 THRU 9]		1
16	273T0050-4		..STRAP *[4 THRU 9] (USED WITH ITEM 15B)		1
20	62630-1		..VALVE ASSY-RAPID RESPONSE RELIEF (V99643) (SPEC 60B00269-3)		1

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01-					
25	BACR12BM216		..RING-BACKUP		2
30	NAS1611-216		..PACKING		1
35	BACR12BM213		..RING-BACKUP		2
40	NAS1611-213		..PACKING		1
45	270T0002-16		..BEARING		2
-45A	270T0002-41		..BEARING *[9] (OPT)		2
50	273T6110-1		..RETAINER *[1] THRU *[4], *[7]		1
-50A	273T6110-2		..RETAINER *[5]*[6]*[8]*[9]		1
-50B	273T6110-3		DELETED		
55	273T6105-1		DELETED		
55A	273T6105-2		..ROD END *[3]*[4]*[8] (OPT TO ITEM 55C)		1
55B	273T6105-2		DELETED		
55C	273T6105-3		..ROD END *[3]*[4]*[8] (OPT ITEM 55A)		1
55D	273T6105-3		..ROD END *[7]		1
55E	273T6105-3		DELETED		
55F	273T6105-4		..ROD END *[5]*[9] (OPT ITEM 55H)		1
55G	273T6105-4		..ROD END *[6]		1
55H	273T6105-5		..ROD END *[5]*[9] (OPT)		1
60	273T6115-1		..LOCKWASHER		1
65	C11236-217B		DELETED		
65A	BACR12BM218		..RING-BACKUP		2
70	NAS1611-217		DELETED		
70A	NAS1611-218		..PACKING		1
75	273T6109-1		..BUSHING-OUTER ROD		1
80	BACS34A20A		..SCRAPER		1
85	BACS11AA328A		..SEAL		1

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01-					
90	NAS1611-328		..PACKING		1
95	BACR12BP330		..RING-BACKUP		2
100	NAS1611-330		..PACKING		1
105	BACS11AM328		DELETED		
105A	AIR15377		..SEAL ASSY-ROD (V71687)		1
110	273T6108-1		DELETED		
110A	273T6108-2		..BUSHING-ROD		1
115	69B80017-1		..RETAINER		1
120	69B80006-1		..VALVE-VENT		1
125	273T6112-1		DELETED		
-125A	273T6112-1		DELETED		
125B	273T6112-3		..BOLT- *[3]*[4]*[7]*[8] (GRIP LENGTH 2.516-2.520) (OPT ITEM 125C)		1
-125C	273T6112-4		..BOLT- *[3]*[4]*[7]*[8] (GRIP LENGTH 2.492-2.496) (OPT ITEM 125B)		1
125D	273T6112-5		..BOLT- *[5]*[6]*[9] (GRIP LENGTH 2.516-2.520) (OPT ITEM 125E)		1
-125E	273T6112-6		..BOLT- *[5]*[6]*[9] (GRIP LENGTH 2.492-2.496) (OPT ITEM 125D)		1
130	273T6116-1		DELETED		
-130A	273T6116-2		DELETED		
135	273T6111-1		DELETED		
135A	273T6111-6		..ROD-PISTON *[3]*[4] (OPT ITEMS 135B, 135C, 135D)		1

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01-					
-135B	273T6111-5		..ROD-PISTON *[3]*[4] (OPT TO ITEM 135A)		1
-135C	273T6111-7		..ROD-PISTON *[3]*[4] (OPT TO ITEM 135A)		1
-135D	273T6111-8		..ROD-PISTON *[3]*[4] (OPT TO ITEM 135A)		1
-135E	273T6111-9		..ROD-PISTON *[5] *[9] (OPT TO ITEM 135L)		1
-135F	273T6111-10		..ROD ASSY-PISTON *[6]*[8]		1
-135G	273T6111-12		..ROD-PISTON *[7] (OPT ITEM 135H,135J, 135K)		1
-135H	273T6111-13		..ROD PISTON *[7] (OPT TO ITEM 135G)		1
-135J	273T6111-14		..ROD-PISTON *[7] (OPT ITEM 135G)		1
-135K	273T6111-15		..ROD PISTON *[7] (OPT TO ITEM 135G)		1
-135L	273T6111-16		..ROD-PISTON *[5]*[9] (OPT ITEM 135E)		1
-137	273T6126-1		...RING (USED ON ITEM 135F)		1
-138	273T6111-11		...ROD (USED ON ITEM 135F)		
140	273T6107-1		DELETED		
140A	273T6107-2		..PISTON *[3]*[4]		1
140B	273T6107-3		..PISTON *[5]*[9]		1
140C	273T6107-4		..PISTON *[6]*[7]*[8]		1
140D	273T6107-4		DELETED		
145	7327MT952-4780		..SEAL ASSY- *[3] (V72902)(PRE SB 32-27)		1

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01-					
145A	BCREF125872		..SEAL ASSY-*[3] (V72902)(POST SB 32-27) (596-32700-952-0190)		1
145A	S34516-327H99N		DELETED		
145B	BCREF125872		..SEAL ASSY *[4] THRU *[9] (V72902) (596-32700-952-0190)		1
145C	5979A32700P812		..SEAL ASSY *[4] THRU *[9] (OPT)		1
150	C11236-117B		DELETED		
150A	BACR12BM121		..RING-BACKUP		2
155	NAS1611-117		DELETED		
155A	NAS1611-121		..PACKING		1
160	273T6118-1		DELETED		
160A	273T6118-2		..RING-RTNR		2
165	273T6114-1		DELETED		
165A	273T6114-2		..LOCKWASHER		1
170	273T6113-1		DELETED		
170A	273T6113-2		..NUT *[3]*[4]*[7]		1
170B	273T6113-3		..NUT *[5]*[6]*[8]*[9]		1
170C	273T6113-3		DELETED		
175	273T6102-1		DELETED		

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01-					
175A	273T6102-2		..CYLINDER ASSY- *[3] (OPT ITEM 175B)		1
-175B	273T6102-3		..CYLINDER ASSY- *[3] (OPT ITEM 175A)		1
-175C	273T6102-3		..CYLINDER ASSY- *[3]*[4]		1
-175D	273T6102-4		..CYLINDER ASSY- *[5] (REPLD BY ITEM 175I)		1
-175E	273T6102-4		..CYLINDER ASSY- *[6] (OPT ITEMS 175F,175H) (REPLD BY ITEM 175I)		1
-175F	273T6102-5		..CYLINDER ASSY- *[6] (REWORK) (OPT TO ITEM 175E) (REPLD BY ITEM 175I)		1
-175G	273T6102-5		..CYLINDER ASSY- *[7]*[8] *[8] (REWORK) (OPT ITEM 175H) (REPLD BY ITEM 175I)		1
-175H	273T6102-6		..CYLINDER ASSY- *[6]*[7] *[8] (REWORK) (OPT TO ITEMS 175E, 175G) (REPLD BY ITEM 175I)		1
-175I	273T6102-7		..CYLINDER ASSY- *[5] THRU *[8] (REPLS ITEMS 175E THRU 175H)		1
-175J	273T6102-7		..CYLINDER ASSY- *[9]		1
176	BACP20AX25		...PLUG		1
177	BACP20AX25P		...PIN		1
178	CKFA2506005A		...VALVE-CHK (V0463B)		1
178G	JETA1872800L		...RESTRICTOR- (V0463B)		1
179	273T6103-2		...CYLINDER- (USED ON ITEM 175A)		1
-179A	273T6103-3		...CYLINDER- (USED ON ITEM 175B)		1

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01-					
-179B	273T6103-2		DELETED		1
-179C	273T6103-4		...CYLINDER- (USED ON ITEMS 175D, 175E)		1
-179D	273T6103-2 *[2]		...CYLINDER- (REWORKED) *[6]		1
-179E	273T6103-3 *[2]		...CYLINDER- (REWORKED) *[6]		1
-179F	273T6103-5		...CYLINDER- (USED ON ITEMS 175I, 175J)		1
180	273T6123-1		..LOCKWASHER		1
185	273T6121-1		..DOG		1
190	7009MS952-5708		..SEAL ASSY- (V72902)		1
195	MS16562-194		..PIN-SPR		1
200	273T6122-1		..PISTON		1
205	273T6124-1		..SPRING		1
210	273T6119-1		..RETAINER		1
215	273T6125-1		..RING-SPR		1
220	273T6120-1		..ROD		1
225	1C1322		.VALVE- (V99240)		1
230	NAS1612-6		.PACKING	ABC	1
-230A	NAS1612-6A		.PACKING	D	1
235	MS21902-10		.UNION (OPT ITEM 235A)	ABC	1
-235A	BACU24K10		.UNION (OPT ITEM 235)	ABC	1
-235B	MS21902-10T		.UNION	D	1
240	NAS1612-10		.PACKING	ABC	1
-240A	NAS1612-10A		.PACKING	D	1

*[1] RESERVED
*[2] REWORKED TO 273T6103-4 CONFIG FROM PART NUMBER SHOWN.
*[3] USED ON 273T6101-3 POSITIONER (ITEM 3B).
*[4] USED ON 273T6101-4 POSITIONER (ITEM 3C).
*[5] USED ON 273T6101-5 POSITIONER (ITEM 3D).
*[6] USED ON 273T6101-6 POSITIONER (ITEM 3E).
*[7] USED ON 273T6101-7 POSITIONER (ITEM 3F).
*[8] USED ON 273T6101-8 POSITIONER (ITEM 3G).
*[9] USED ON 273T6101-9 POSITIONER (ITEM 3H).