TO: ALL HOLDERS OF NOSE GEAR LOCK ACTUATOR COMPONENT MAINTENANCE MANUAL 32-34-31

REVISION NO. 6 DATED DEC 01/97

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
REPAIR-GEN 601-602 REPAIR 1-1 601 REPAIR 3-1 601 REPAIR 4-1 601 REPAIR 5-1 601	Added clarification to details.
REPAIR 2-1 601-602	Changed details on the piston.

NOSE GEAR LOCK ACTUATOR ASSEMBLY

PART NUMBER 273T4120-2
273T4121-1

COMPONENT MAINTENANCE MANUAL
WITH
ILLUSTRATED PARTS LIST

BOEING
COMPONENT
MAINTENANCE MANUAL

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

24577

BOEING
COMPONENT
MAINTENANCE MANUAL

TEMPORARY REVISION AND SERVICE BULLETIN RECORD

BOEING SERVICE BULLETIN	BOEING TEMPORARY REVISION	OTHER DIRECTIVE	DATE OF INCORPORATION INTO MANUAL

PAGE	DATE	CODE
32-34-31		
TITLE PAGE		
1	JUL 10/83	01
2	BLANK	
REVISION RECORD		
1	JUL 10/83	01
2	BLANK	
TR & SB RECORD		
1	JUL 10/83	01
2	BLANK	
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302	JAN 01/93	01.1
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501	JUL 10/83	01
502	BLANK	
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*601	DEC 01/97	01.1
*602	DEC 01/97	01.1
REPAIR 1-1		
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602	JAN 10/85	01.1
REPAIR 2-1		
*601	DEC 01/97	01.1
*602	DEC 01/97	01.1
REPAIR 3-1		
*601	DEC 01/97	01.1
602	BLANK	
REPAIR 4-1		
*601	DEC 01/97	01.1
602	BLANK	
REPAIR 5-1		
*601	DEC 01/97	01.1
602	BLANK	
ASSEMBLY		
701	JAN 01/93	01.1
702	JAN 01/93	01.1
703	JUL 10/83	01
704	BLANK	
FITS AND CLEARANCES		
801	JAN 10/85	01.1
802	JUL 10/83	01
SPECIAL TOOLS		
901	JAN 01/93	01.1
902	BLANK	

* = REVISED, ADDED OR DELETED

PAGE	DATE	CODE
ILLUSTRATED PARTS LIST		
1001	JUL 10/83	01
1002	JUL 10/83	01.1
1003	JUL 10/83	01
1004	JUL 10/83	01.1
1005	JUL 10/83	01.1
1006	JUL 10/83	01.1

PAGE	DATE	CODE

* = REVISED, ADDED OR DELETED

TABLE OF CONTENTS

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

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

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:

Disassembly	June 9/82
Assembly	June 9/82

NOSE LANDING GEAR LOCK ACTUATOR ASSEMBLY

DESCRIPTION AND OPERATION

1. The nose landing gear lock actuator is a piston type actuator composed of a CRES cylinder, piston rod, and rod end. The actuator extends or retracts when hydraulic pressure is applied locking the nose gear either in the up or down position.

2. Leading Particulars (approximate)

   A. Length (between centers of bearings) -- 11.38 inch min (extended)
   -- 8.643 inch max (retracted)

   B. Diameter -- 2.75 inches

   C. Weight (Dry) -- 5.1 lbs
   (Wet) -- 5.7 lbs

   D. Operating Medium -- BMS 3-11 Hydraulic Fluid

   E. Operating Pressure -- 3000 psi

   F. Proof Pressure -- 5400 psi

TESTING/TROUBLE SHOOTING

1. Test Equipment

NOTE: Equivalent substitutes may be used.

A. Hydraulic test stand capable of supplying BMS 3-11 hydraulic pressure at variable rate of 0-5400 psi. Fluid must be filtered according to Society of Automotive Engineering, Aerospace Recommended Practices, APR 598. Fluid temperature shall be 70-110°F.

B. Holding Fixture -- A32058-1

C. Fittings -- To fit MS33649-6

D. Wrench -- A32045-53

2. Preparation for Test

A. Install hydraulic fittings. Install unit in holding fixture A32058-1 and attach test stand connections.

B. Fill unit with hydraulic fluid and bleed air from unit.

3. Test

WARNING: DO NOT APPLY AIR PRESSURE TO PORTS AT ANY TIME.

A. Cycle unit for 25 complete strokes at a rate of approximately 3 cycles per minute with inlet pressure 2900-3100 psi. Check that leakage from area between piston rod (40) and packing (65) does not exceed 1 drop per 25 cycles.

B. With piston fully extended, apply 3000 psi to the DOWN port, internal leakage from UP port shall not exceed 1.0 cc per minute.

C. With piston fully retracted, apply 3000 psi to the UP port, internal leakage from DOWN port shall not exceed 1.0cc per minute.

CAUTION: DO NOT EXTEND OR RETRACT PISTON AT PROOF PRESSURE (5400 PSI).

D. Slowly apply 5350-5450 psi hydraulic pressure at the DOWN port with no pressure at the UP port and hold for 3 minutes. There shall be no evidence of external leakage or permanent set. Repeat test at the UP port; there shall be no evidence of external leakage or permanent set.

E. After completion of testing, fill unit with hydraulic fluid and install shipping caps.

TROUBLE	PROBABLE CAUSE	CORRECTION
Excessive leakage at rod end	Defective seal (65) or (75)	Disassemble and replace parts per par. 4.A.,4.B.
Excessive leakage at DOWN or UP	Defective GT ring (85)	Disassemble and replace parts per par. 4.A., 4.C.
Binding or irregular movement of rod end	Defective piston (90), gland (80), rod end (35), or cylinder (100)	Disassemble and replace parts per par. 4.A., 4.D.
	Dirt or foreign materials in cylinder	Disassemble and clean parts.

Trouble Shooting Chart
Figure 101

4. Corrective Procedures

A. Drain hydraulic fluid from unit.

B. Replacement of seals (65, 75)

(1) Disassemble unit per DISASSEMBLY

(2) Replace defective parts.

(3) Assemble parts per ASSEMBLY and retest per par. 3.

C. Replacement of GT ring (85)

(1) Remove nut (45) using wrench A32045-53 and separate piston rod (90) with attached parts from cylinder (100).

(2) Replace GT ring (85) if defective.

(3) Assemble parts per ASSEMBLY par. 3.G. thru 3.J. and retest unit per par. 3.

D. Replacement of piston (90), gland (80), rod end (35) and cylinder (100).

(1) Completely disassemble unit per DISASSEMBLY and replace defective part(s).

(2) Assemble parts per ASSEMBLY and retest unit per par. 3.

DISASSEMBLY

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

1. Equipment

   NOTE: Equivalent substitutes may be used.

   A. Rod End Wrench -- A32040-12

   B. Holding Fixture -- A32058-1

   C. Actuator Nut Wrench -- A32045-53

2. Parts Replacement

   NOTE: The following listed parts are recommended for replacement. Actual replacement may be based on in-service experience.

   A. Lockwire

   B. Scraper (50)

   C. Packings and back-up rings (10, 65, 70, 75)

   D. Foot seal (60)

   E. G-T ring (85)

   F. Cup washer (40)

3. Disassembly (IPL Fig. 1)

   CAUTION: BEARINGS (30) HALVES ARE MATCHED PARTS AND MUST BE KEPT TOGETHER TO ENSURE PROPER OPERATION AFTER ASSEMBLY. DO NOT MIX BEARING HALVES.

   A. Remove lockwire and bearings (30).

   B. Remove restrictors (5B) and packings (10).

   C. Secure cylinder (100) in holding fixture A32058-1.

D. Carefully remove nut (45) using wrech A32045-53 until gland (80), gland follower (55), piston rod (90) and rod end (35) will slide out of cylinder (100).

E. Using rod end wrench A32040-12, remove rod end (35).

F. Remove nut (45), gland follower (55), scraper (50), foot seal (60), packing (65) and gland (80) from piston rod (90).

G. Remove packing (75) and back-up rings (70) from gland (80).

H. Remove GT ring (85) from piston rod (90).

CHECK

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

2. Refer to FITS AND CLEARANCES for design dimensions and wear limits.

3. Magnetic particle check per 20-20-01 the following listed items (IPL Fig. 1):

   A. Cylinder (100)

   B. Piston Rod (90)

   C. Rod End (35)

4. Penetrant check per 20-20-02 the following listed items (IPL Fig. 1)

   A. Gland (80)

   B. Gland Follower (55)

   C. Nut (45)

REPAIR - GENERAL

1. Content

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

P/N	NAME	REPAIR
273T0020	CYLINDER	1-1
273T0021	PISTON	2-1
273T0022	ROD END	3-1
- - -	MISCELLANEOUS PARTS REFINISH	4-1
BAC27THY0043	NAMEPLATE	5-1

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
20-10-04 Grinding of Chrome Plate Parts
20-30-02 Stripping of Protective Finishes
20-41-01 Decoding Table for Boeing Finish Codes
20-42-03 Hard Chrome Plating
20-42-05 Bright Cadmium Plating
20-42-09 Electrodeposited Nickel Plating
20-44-01 Application of Speical Purpose Coating and Finishes
20-50-08 Application of Dry Film Lubricant
20-60-02 Finishing Materials

3. Materials

NOTE: Equivalent substitutes can be used.

A. Solid Film Lubricant -- BMS 3-8 (Ref SOPM 20-50-08)

B. Solid Film Lubricant -- MIL-L-8937 (Ref SOPM 20-50-08)

C. Adhesive -- Type 54 (Ref SOPM 20-50-12)

D. Protective Finish -- Type 41 (Ref SOPM 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 - REPAIR 1-1

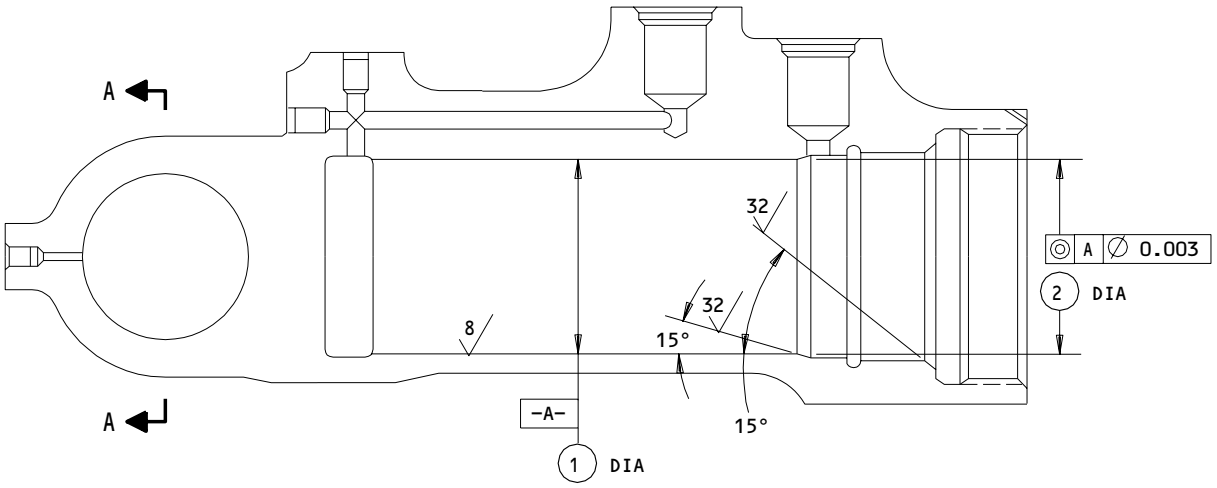
273T0020-1

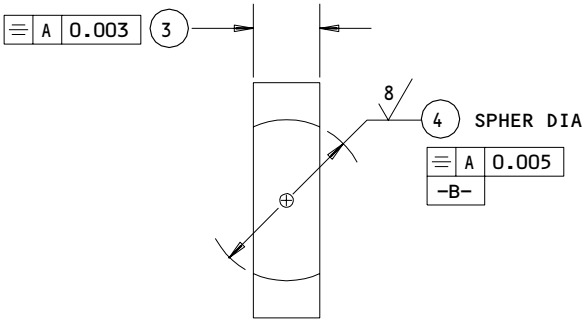
NOTE: Refer to REPAIR-GENERAL for a list of applicable standard practices. For repair of surfaces which is only replacement of the original finish, refer to Refinish instructions, Fig. 601.

1. Plating Repair (Fig. 601)

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

   B. Shot peen, chrome plate, and grind the surfaces to design dimensions and finish.





A-A

	1	2	3	4
DESIGN DIM	1.555 1.553	1.743 1.741	0.535 0.525	1.2848 1.2833
REPAIR LIMIT	1.575 1	—	—	1.2868 1

REFINISH:

CHROME PLATE (F-15.03) DIA -B- 0.0007-0.0010 THICK. PASSIVATE (F-17.09) UNPLATED SURFACES

1 LIMIT FOR CHROME PLATE BUILDUP AND GRINDING TO DESIGN DIM AND FINISH

REPAIR

REF 1

125 MACHINE FINISH EXCEPT AS NOTED

SHOT PEEN:
0.017-0.046 SHOT SIZE
0.003-0.006 A2 INTENSITY

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

ALL DIMENSIONS ARE IN INCHES

273T0020-1
Cylinder Repair and Refinish
Figure 601

24594

PISTON - REPAIR 2-1

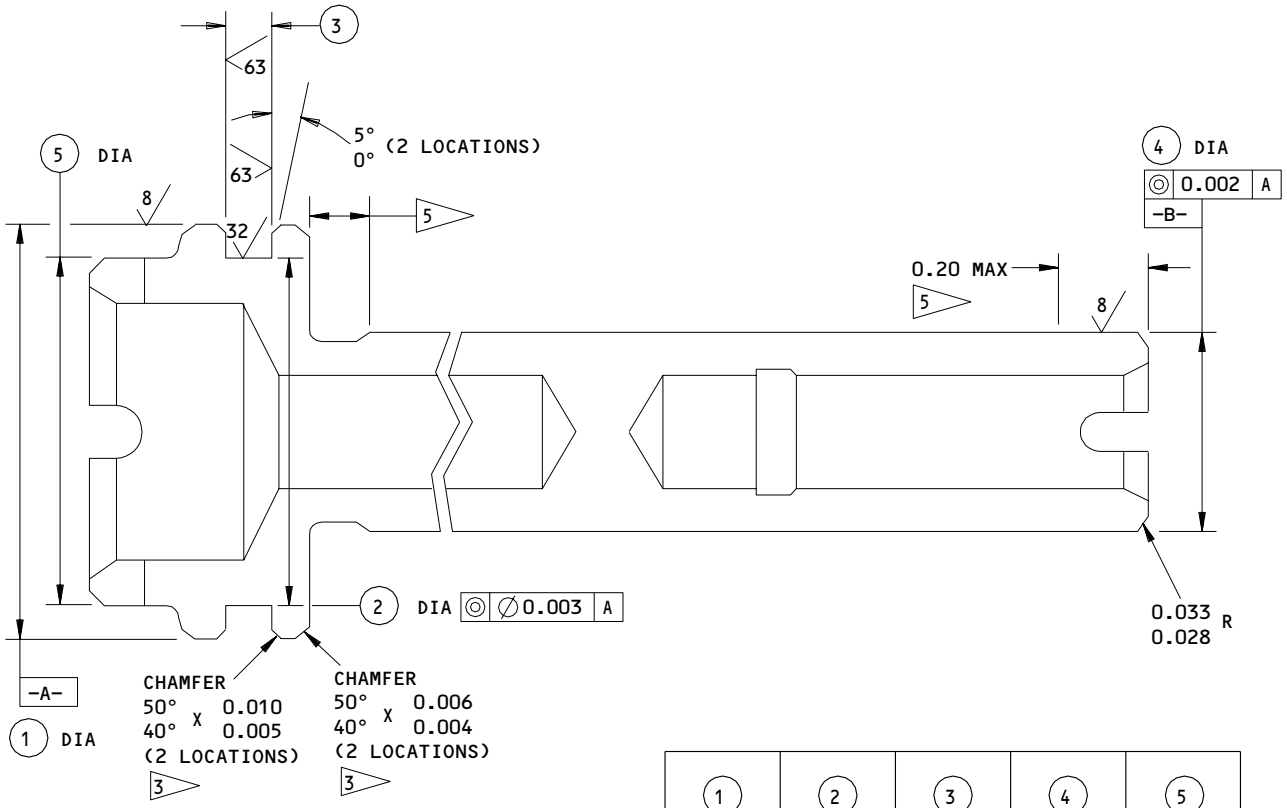
273T0021-1

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 and B (Fig. 601)

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

B. Shot peen, chrome plate or nickel plate. Grind the chrome plate and machine the nickel plate to design dimensions and finish.



	1	2	3	4	5
DESIGN DIM	1.551 1.550	1.310 1.308	0.198 0.188	0.748 0.746	1.31 1.29
REPAIR LIMIT	1.540 2	—	—	0.736 4	

REFINISH:

NICKEL PLATE (F-15.33) DIA -A- 1. PUT A PLATING RUNOUT AS SHOWN BY 3. CHROME PLATE (F-15.03) DIA -B-, 0.003-0.005 THICK. PUT A PLATING RUNOUT AS SHOWN 5. PASSIVATE (F-17.09) OTHER AREAS

1. THIS CHANGES THE ORIGINAL CHROME PLATED SURFACE OF DIA -A- TO NICKEL PLATE. THE CHROME PLATED CONFIG IS NOT RECOMMENDED
2. LIMIT FOR NICKEL PLATE BUILDUP AND MACHINING TO DESIGN DIM AND FINISH
3. NICKEL PLATE RUNOUT
4. LIMIT FOR CHROME PLATE BUILDUP AND GRINDING TO DESIGN DIM AND FINISH
5. CHROME PLATE RUNOUT

REPAIR

REF 2 4

125 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

SHOT PEEN: 0.016-0.046 SHOT SIZE
0.012 A2 INTENSITY

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

ALL DIMENSIONS ARE IN INCHES

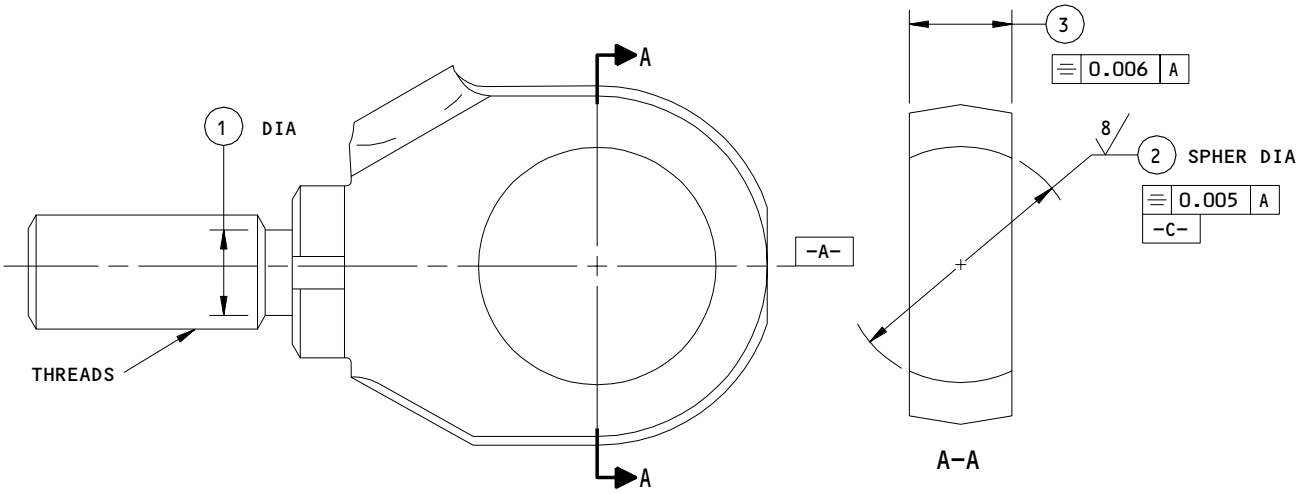
273T0021-1
Piston Repair and Refinish
Figure 601

ROD END – REPAIR 3-1

273T0022-1

1. Plating Repair

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



	1	2	3
DESIGN DIM	0.428 0.421	1.2848 1.2833	0.535 0.525
REPAIR LIMIT	—	—	—

REFINISH:

CHROME PLATE (F-15.03) DIA -C- 0.0007-0.0010 THICK. PASSIVATE (F-17.09) OTHER SURFACES

APPLY TYPE 6 OR 8 SOLID FILM LUBRICANT ON THREADS PER SOPM 20-50-08

REPAIR

(SAME AS REFINISH)

125 MACHINE FINISH EXCEPT AS NOTED

SHOT PEEN: 0.017-0.046 SHOT SIZE
0.008-0.012 A2 INTENSITY

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

ALL DIMENSIONS ARE IN INCHES

273T0022-1
Rod End Repair and Refinish
Figure 601

24603

MISCELLANEOUS PARTS REFINISH - REPAIR 4-1

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 (45)	4130 steel	Cadmium plate (F-15.02) all over.

Refinish Details
Figure 601

NAMEPLATE - REPAIR 5-1

BAC27THY0043

1. Nameplate (95) Replacement

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

A. Remove the bad nameplate.

B. Steel stamp the serial number and part number on the replacement nameplate.

C. Bend the nameplate to agree with the curved surface of the cylinder.

D. Install the replacement nameplate on the cylinder with Type 54 adhesive per SOPM 20-50-12.

E. Seal the edges of the nameplate with Type 41 protective finish.

ASSEMBLY

1. Materials

NOTE: Equivalent substitutes may be used.

A. Grease -- MIL-G-23827 (Ref 20-60-03)

B. Hydraulic Fluid -- BMS 3-11 (Ref 20-60-03)

C. Sealant -- BMS 5-26 (Ref 20-60-04)

D. Lockwire -- MS20995NC32 (Ref 20-50-02)

2. Equipment

NOTE: Equivalent substitutes may be used.

A. Rod End Wrench -- A32040-12

B. Holding Fixture -- A32058-1

C. Actuator Nut Wrench -- A32045-53

3. Assembly (Fig. 701, IPL Fig. 1)

CAUTION: IN A LIMITED NUMBER OF CONFIGURATIONS, THE CYLINDER ID IS NOT PLATED, AND THE MATING PISTION 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 SHALL NOT BE USED WITH A CHROME PLATED PISTON. FOR REPAIRED CONFIGURATIONS, A NICKEL PLATED PISTON MAY BE USED IWTH A CHROME PLATED CYLINDER.

A. Lubricate GT ring (85) with hydraulic fluid and install on piston rod (90).

B. Lubricate packings (65, 75), foot seal (60) and back-up rings (70) with hydraulic fluid and install on gland (80).

C. Carefully slide gland (80), gland follower (55), scraper (50) and nut (45) over rod end of piston rod (90).

D. Install rod end (35) on piston rod (90) with lockwasher (40).

E. Using rod end wrench A32040-12, tighten rod end (35) to 440-650 in.-lb.

F. Break flanges of cup lock washer (40) into grooves provided in rod end (35), using a square punch.

G. Carefully insert piston rod (90), gland (80), gland follower (55) and scraper (50) into cylinder bore.

H. Apply wet BMS 5-26 sealant to threads of nut (45).

I. Secure cylinder with holding fixture A32058-1 and tighten nut (45) to 150-180 in.-lb using wrench A32045-53.

J. Lockwire nut (45) to cylinder (100) using double twist method per Fig. 701 (Ref 20-50-02).

CAUTION: BEARINGS (30) EACH CONSISTS OF A PAIR OF MATCHED HALVES. BEARINGS MUST BE INSTALLED AS A MATCHED SET. DO NOT MIX BEARING HALVES.

K. Coat OD of bearings (30), bearing bore ID of rod end (35) and cylinder (100) with grease.

CAUTION: BEARINGS MUST BE INSTALLED WITH INDEX MARKS ALIGNED.

L. Align index marks of bearings; then install bearings (30) in rod end (35) and cylinder (100).

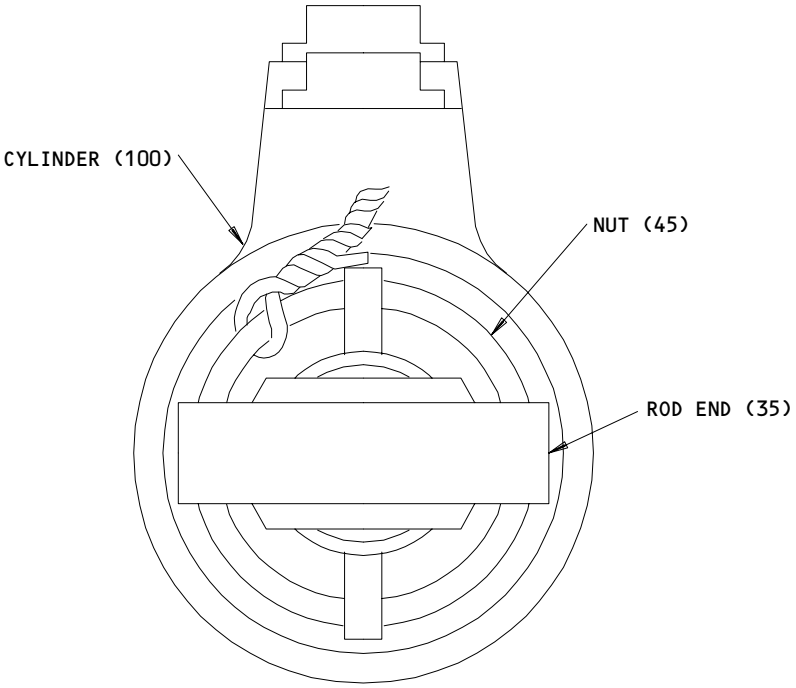
M. Test unit per TESTING/TROUBLE SHOOTING.

4. Storage

A. Fill unit with hydraulic fluid BMS 3-11 and plug ports with shipping caps (20).

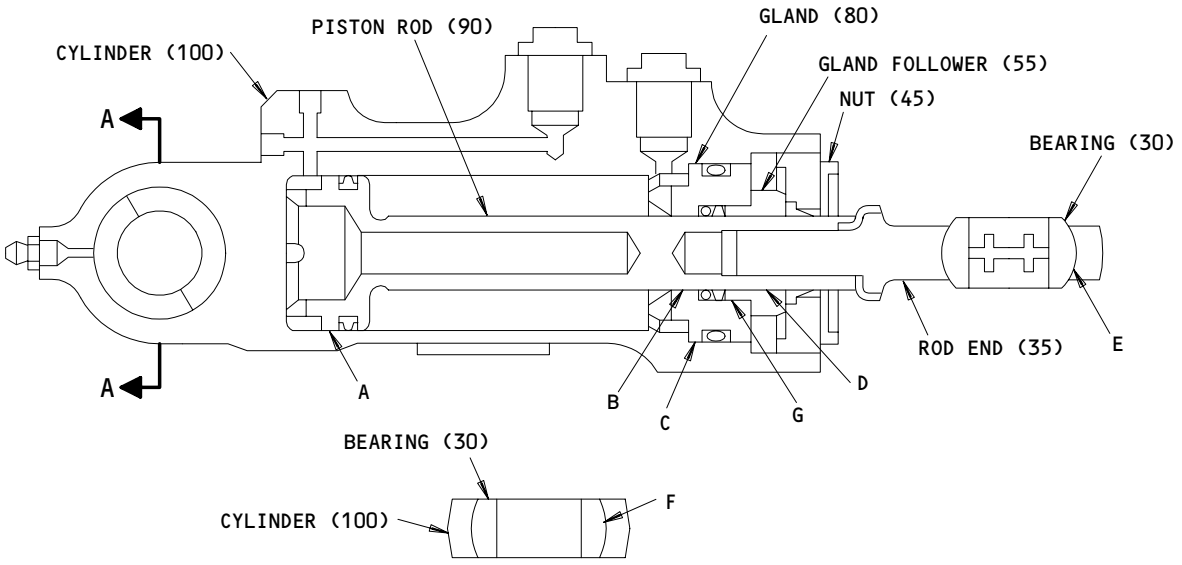
B. Lubricate packings (10) with hydraulic fluid and install on restrictors (5B). Store restrictors with actuator assembly.

C. For further information, refer to 20-44-02.



Lockwire Diagram
Figure 701

FITS AND CLEARANCES



A-A

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 100 OD 90	1.5530 1.550	1.5550 1.551	0.002	0.005	1.547	1.559	0.008
B	ID 80 OD 90	0.750 0.746	0.751 0.748	0.002	0.005			
C	ID 100 OD 80	1.741 1.738	1.743 1.739	0.002	0.005			
D	ID 55 OD 90	0.750 0.746	0.751 0.748	0.002	0.005	0.744	0.758	0.007
E	ID 35 OD 30	1.2833 1.2808	1.2848 1.2813	0.002	0.004	1.2788	1.2858	0.006
F	ID 100 OD 30	1.2833 1.2808	1.2848 1.2813	0.002	0.004	1.2788	1.2858	0.006
G	ID 80 OD 55	0.926 0.923	0.928 0.925	0.001	0.005			

ALL DIMENSIONS ARE IN INCHES

Fits and Clearances
Figure 801

FOR TORQUE VALUES OF STANDARD FASTENERS, REFER TO 20-50-01			
ITEM NO. IPL FIG. 1	NAME	TORQUE	
		POUND-INCHES	POUND-FEET
35	ROD END	440-650	
45	NUT	150-180	

Torque Table
Figure 802

SPECIAL TOOLS, FIXTURES, AND EQUIPMENT

NOTE: Equivalent substitutes may be used.

1. A32040-12 -- Rod End Wrench

2. A32058-1 -- Holding Fixture

3. A32045-53 -- Actuator Nut Wrench

ILLUSTRATED PARTS LIST

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 lette 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 are 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

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

23540 NIAGARA PLASTICS COMPANY
PO BOX 3264 RD NO. 3 EDINBORO RD
ERIE, PENNSYLVANIA 16508

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

26879 CORONADO PLASTICS INCORPORATED
11069 PENROSE AVENUE
SUN VALLEY, CALIFORNIA 91352

34662 ROBROY PLASTICS DIV ROBROY INDUSTRIES INC
SOUTH PENNSYLVANIA AVENUE
MORRISVILLE, PENNSYLVANIA 19067

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

81904 G T I CORP CLOVER INDUSTRIES DIV
600 YOUNG STREET
TONAWANDA, NEW YORK 14150

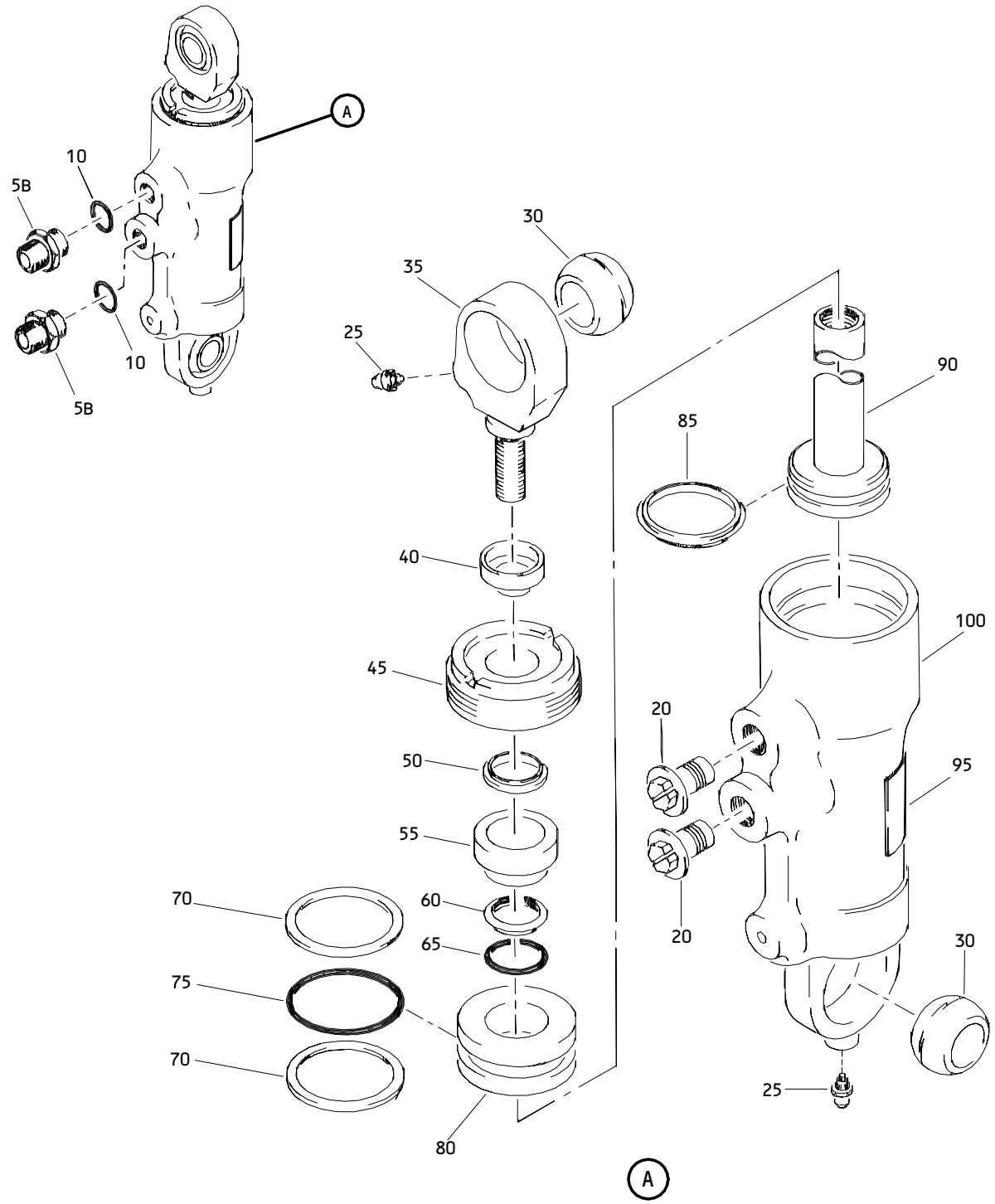
92555 LEE COMPANY
2 PETTIPAUG ROAD
WESTBROOK, CONNECTICUT 06498

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



Nose Landing Gear Lock Actuator Assembly
Figure 1

T58414

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01-					
-1	273T4120-2		ACTUATOR ASSY-NLG LOCK		RF
5	6F3146		DELETED		
5A	JETX0504850A		DELETED		
5B	6F3146-1		.RESTRICTOR (V99240) (OPT ITEM 5C)		2
-5C	JETX0504850AC		.RESTRICTOR (V92555) (OPT ITEM 5B)		2
10	NAS1612-6		.PACKING		2
15	273T4121-1		.ACTUATOR ASSY		1
20	FP108		..CAP-SHIPPING (V34662) (SPEC BACP20BH6) (OPT TF9 (V23540)) (OPT 809 (V81904))		2
25	MS15004-1		..FITTING		2
30	270T0002-13		..BEARING		2
35	273T0022-1		..ROD END		1
40	66-12156-1		..LOCKWASHER-CUP		1
45	273T0025-1		..NUT		1
50	CWR76-5B		..SCRAPER- (V26879) (SPEC BACS34A5A) (OPT S30388-5-1 (V97820)) (OPT TF005-5A (V07128)) (OPT 2140-5A (V26303))		1

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01-					
55	273T0024-1		..FOLLOWER-GLAND		1
60	CSF11-116A		..SEAL-FOOT (V26879) (SPEC BACS11AA116) (OPT FS100-116 (V02107)) (OPT RMS11-116 (V94878)) (OPT S12095-116 (V97820)) (OPT 2053-116 (V26303))		1
65	NAS1611-116		..PACKING		1
70	MS28774-222		..RING-BACKUP		2
75	NAS1611-222		..PACKING		1
80	273T0023-1		..GLAND		1
85	7219MR952T		..RING-GT (V72902)		1
90	273T0021-1		..ROD-PISTON		1
95	BAC27THY0043		..NAMEPLATE		1
100	273T0020-1		..CYLINDER ASSY		1