TO: ALL HOLDERS OF STRUT THRUST REVERSER CONTROL BOX ASSEMBLY COMPONENT MAINTENANCE MANUAL 78-34-41

REVISION NO. 15 DATED SEP 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 to the Record of Revision Sheet.

CHAPTER/SECTION AND PAGE NO.	DESCRIPTION OF CHANGE
701	Changed note in assembly section to insert sleeve, P/N 315T3032-2 short end first.

BOEING

COMPONENT
MAINTENANCE MANUAL

STRUT THRUST REVERSER CONTROL BOX ASSEMBLY

PART NUMBERS 315T3016-2 THRU -6,-9,-10,
-21 THRU -14
015T0187-11 THRU -17
015T0376-12 THRU -18,-25 THRU -31

COMPONENT MAINTENANCE MANUAL
WITH
ILLUSTRATED PARTS LIST

183

REVISION RECORD

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

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

TEMPORARY REVISION AND SERVICE BULLETIN RECORD

BOEING SERVICE BULLETIN	BOEING TEMPORARY REVISION	OTHER DIRECTIVE	DATE OF INCORPORATION INTO MANUAL
		PRR B10060	JUL 10/81
		PRR B10184	JUL 10/81
		PRR B10984	OCT 10/83
		PRR B11009	OCT 10/83
		PRR B10911	OCT 10/83
767-76-4R1			APR 10/84
767-76-7			JUL 10/86
767-78-0028R1		PRR B11315	JUN 01/96
767-76-0018R2		PRR B11485	JUN 01/96

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TABLE OF CONTENTS

*[1] Special instructions not required. Testing to verify correct assembly is included in assembly instructions.

*[2] 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
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:

Disassembly
Assembly

STRUT THRUST REVERSER CONTROL BOX ASSEMBLY

DESCRIPTION AND OPERATION

1. The strut thrust reverser control box assembly controls the reverse thrust power schedule for deploy and stow cycles and drives the throttle to idle in the event of noncommanded deploy or stow. The control box provides thrust reverser directional control valve input and thrust reverser feedback interlock.

2. Gear racks, gear/cam assemblies and a lever arm that pivot on two shafts are contained in a covered housing and are actuated by a cable driven quadrant. Rotation of the cable quadrant moves a cam and gear. The gear moves a rack to drive an engine fuel control cable. The cam actuates a lever to position the thrust reverser directional control valve. Feedback cables from the right hand and left hand reverser sleeve mechanism each drive a rack and gear/cam. The cam section of the gear/cam limits throttle movement during thrust reverser deploy and stow cycles.

3. Leading Particulars (Approximate)

   Length -- 11 inches
   Width -- 12 inches
   Height -- 6 inches
   Weight -- 3 lbs

DISASSEMBLY

1. Disassembly (IPL Fig. 1)

A. Remove nut (10), washer (15) and quadrant assembly (5) from control box assembly (1). Remove washer (35) from shaft (225).

NOTE: Do not remove inserts (20) from quadrant (25) unless repair or replacement is necessary.

B. Remove access hole cover (40) with washer (50) and screw (45) from cover assembly (180, 180A).

C. Remove screws (60), washers (65), retainers (55), spring (70) and plunger assembly (75) from control box assembly (1).

NOTE: Do not remove cap (80) from plunger (85).

D. Remove nut (90), washers (95, 100), shim (105) and lift feedback shaft (110, 110A) from control box assembly (1).

E. Remove screw (196B, 196G), spacer (199, 199G), washer (197), nut (198), and filler (199H).

F. Remove bolts (185), washers (190), nuts (195), and cover assembly (180, 180A) from control box assembly (1).

NOTE: Do not remove bearing housing (211) or bushings (215) from cover (220) unless repair or replacement is required.

G. Remove gear/cam assembly (230, 232) from housing assembly (435).

NOTE: Do not remove bushings (245), rivets (240) and preload pad (235) from gear/cam (250, 252) unless repair or replacement is required.

H. Remove lever assembly (280) from housing assembly (435).

NOTE: Do not remove bearing (285) or bushings (290) from lever (295) unless repair or replacement is required.

I. Remove nut (115), washer (120), spacer (125A), and shaft (225) with cam and gear (320) attached, from housing assembly (435).

J. Remove bolts (255), washers (260), nuts (265), bearings (270) and bushings (275) from lever assembly (280).

K. Remove gear/cam assembly (325, 327) from housing assembly (435).

NOTE: Do not remove preload pad (330), rivets (335) and bushings (340) from gear/cam (345, 347) unless repair or replacement is necessary.

L. Remove bearing (30), laminated washer (155), and cam and gear (320) from shaft (225).

M. Note thickness of laminated washer (155) for reference during assembly.

N. Remove bolts (300), washers (305), nuts (310), and bearings (315) from cam and gear (320).

O. Remove retainer plate (130), screw (135), washers (140) and bearing (145) from housing assembly (435).

P. Remove nuts (355), bearings (360B), shim washers (356) if used, and pins (350) from housing assembly (435).

Q. Remove racks (390, 425) and sleeves (395, 430).

R. Remove retainer (365), screws (370), washer (375), washer (380), sleeves (385), retainer (400), washer (415), and sleeves (420) from housing assembly (435).

NOTE: Do not remove bearing housing (150), inserts (440, 445), pins (450), bushing (455), or fitting (457) from housing (460), unless repair or replacement is necessary.

CHECK

1. Check all parts for obvious defects in accordance with standard industry practices. Refer to Fits and Clearances for design limits.

2. Magnetic particle examine per 20-20-01 -- Feedback shaft (110, 110A), gear/cam (250, 252, 345, 347), quadrant shaft (225), cam and gear (320), and racks (390, 425).

3. Penetrant examine per 20-20-02 -- Quadrant (25), plunger (85), cover (220, 220G), lever (295), pin (350), sleeve (430), sleeve (395), sleeves (385, 420), housing (460, 462, 464), and fitting (457).

4. Check spring (70). Apply a load to the spring. Load should be 13-17 pounds at 0.80 inch spring length.

REPAIR - GENERAL

1. Content

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

P/N	NAME	REPAIR
315T3020	HOUSING	1-1
315T3021	COVER	2-1
315T3024	QUADRANT SHAFT	3-1
315T3029	LEVER	4-1
315T3030	GEAR/CAM	5-1
315T3031	FEEDBACK SHAFT	6-1
315T3023	GEAR/CAM	7-1
- -	MISCELLANEOUS PARTS	8-1

2. Standard Practices

A. Refer to the following standard practices as applicable for details of procedures in REPAIRS 1-1 thru 8-1.

20-10-01 Repair and Refinish of High Strength Steels
20-10-03 Shot Peening
20-10-04 Grinding of Chrome Plated Parts
20-30-02 Stripping of Protective Finishes
20-30-03 General Cleaning Procedures
20-41-01 Decoding Table for Boeing Finish Codes
20-42-03 Hard Chrome Plating
20-42-05 Bright Cadmium Plating
20-50-03 Bearing Installation and Retention
20-50-08 Application of Dry Lubricant

3. Materials

NOTE: Equivalent substitutes may be used.

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

B. Solid Film Lubricant -- Sermetel (Type 20), Teleflex Corp., P.O. Box 218, North Wales, PA 19454 (Ref 20-60-03)

C. Solid Film Lubricant -- BMS 3-8 (Ref 20-60-03)

4. Dimensioning Symbols

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

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

EXAMPLES

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

NOTE: DATUM MAY APPEAR AT EITHER SIDE OF TOLERANCE FRAME [0.020 | A] [A | 0.020]

True Position Dimensioning Symbols
Figure 601

HOUSING ASSEMBLY - REPAIR 1-1

315T3020-1, -5, -9

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

1. Bushing Replacement (Fig. 601)

   A. Remove bushing (455) and bearing housing (150) from housing (460). Bearing housing (150) is not part of housing (460), but is shown here for repair simplicity.

   B. Install bearing housing (150) in housing. Use shrink-fit method per 20-50-03.

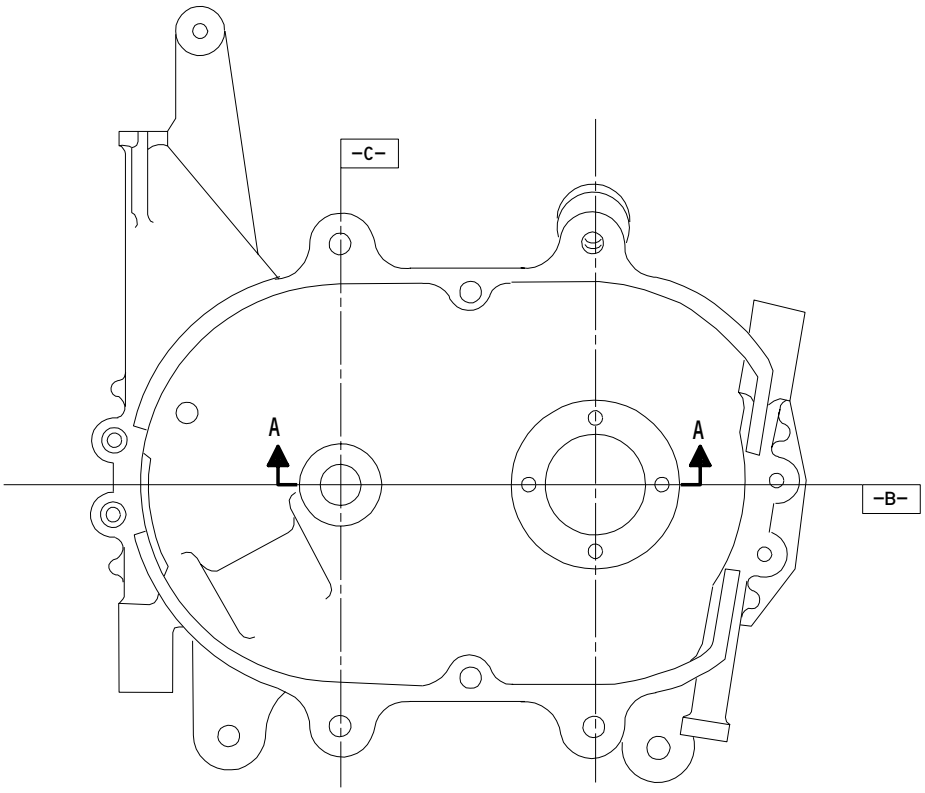
   C. Install bushing (455) in housing. Use shrink-fit method with wet primer BMS 10-11, type 1 on faying surfaces per 20-50-03. Wipe off excess primer.

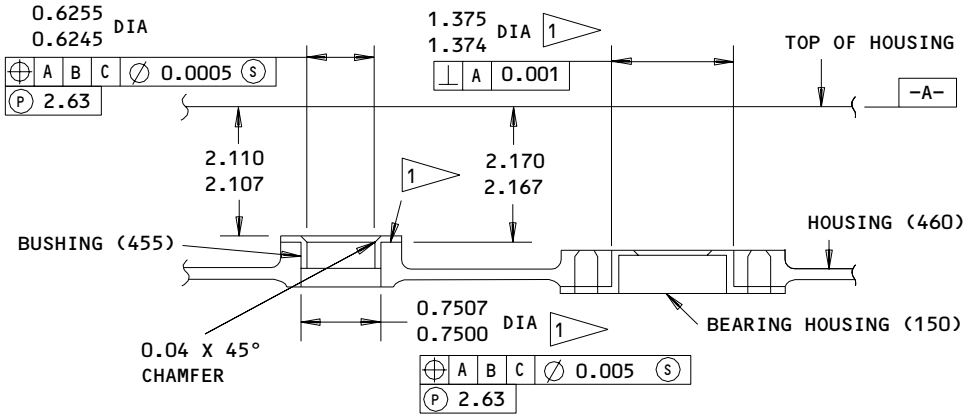
   D. Machine bushing (455) to obtain dimensions shown.

2. Fitting Replacement (315T3020-5 only)

   A. Drill out rivets.

   B. Replace fitting (457) using rivets (470). Refer to Repair 8-1 for refinish of fitting.





A-A

REFINISH

HOUSING (460):
CHROMIC ACID OR SULFURIC ACID ANODIZE
(F-17.05) APPLY ONE COAT OF PRIMER BMS 10-11
TYPE I (F-20.02) EXCEPT AS NOTED

1 OMIT PRIMER ON THESE SURFACES

63 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

BREAK ALL SHARP EDGES APPROXIMATELY 0.008 IN.

MATERIAL: AL ALLOY 356-T6

ITEM NUMBERS REFER TO IPL FIG. 1

ALL DIMENSIONS ARE IN INCHES

315T3020-1,-5,-9
Housing Assembly Repair
Figure 601

COVER ASSEMBLY - REPAIR 2-1

315T3021-1, -6

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

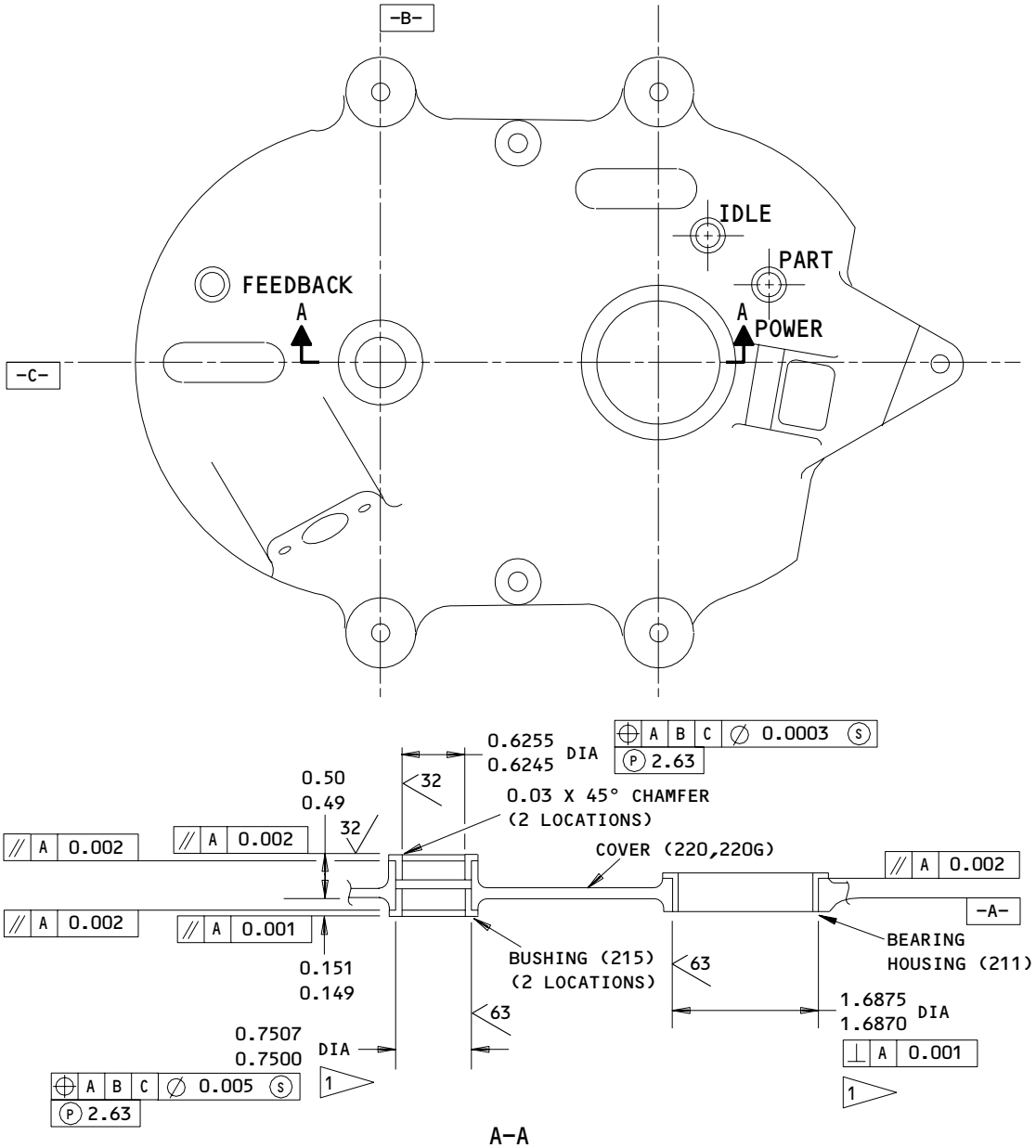
1. Bushing Replacement (Fig. 601)

   A. Remove bushings (215) and bearing housing (211).

   B. Install bearing housing (211) in cover. Use shrink-fit method per 20-50-03.

   C. Install bushings (215) in cover. Use shrink-fit method with wet primer BMS 10-11, type 1 on faying surfaces per 20-50-03. Wipe off excess primer.

   D. Machine bushings (215) to obtain dimensions shown.



A-A

REFINISH:

COVER (220,220G):
CHROMIC OR SULFURIC ACID ANODIZE (F-17.05)
APPLY ONE COAT OF PRIMER BMS 10-11, TYPE I
(F-20.02) EXCEPT AS NOTED

1 OMIT PRIMER ON THESE SURFACES

63 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

BREAK ALL SHARP EDGES APPROXIMATELY 0.008 IN.

MATERIAL: AL ALLOY 356-T6

ITEM NUMBERS REFER TO IPL FIG. 1

ALL DIMENSIONS ARE IN INCHES

315T3021-1 SHOWN
315T3021-6
Cover Assembly Repair
Figure 601

QUADRANT SHAFT - REPAIR 3-1

315T3024-1

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

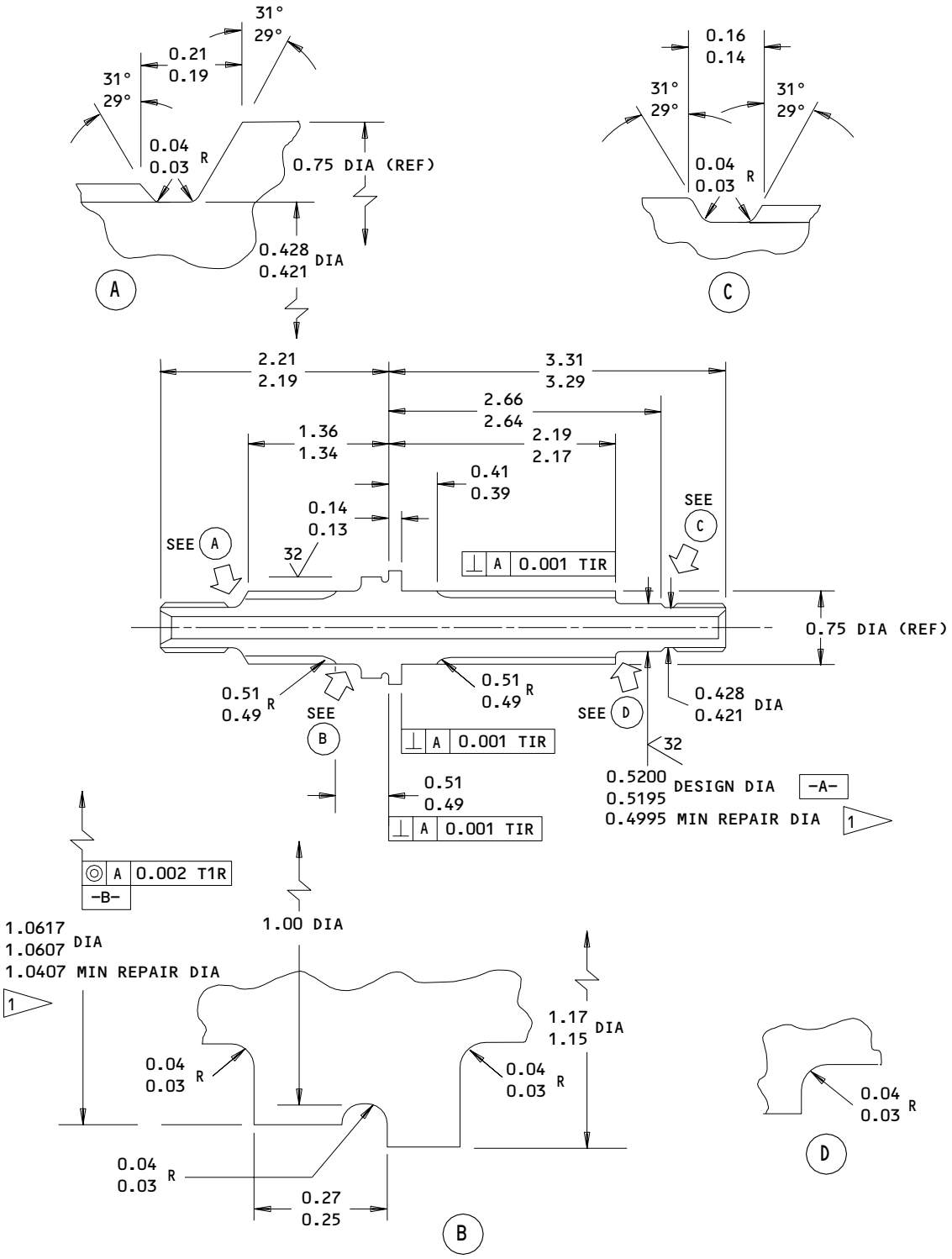
1. Bearing Lands - Diameters A and B (Fig. 601)

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

   B. Shot-peen, chrome plate, and grind to dimensions shown in Fig. 601.

2. Relief Grooves (Fig. 601)

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



315T3024-1

Shaft – Quadrant Repair
Figure 601 (Sheet 1)

REFINISH

PASSIVATE (F-17.09)

REPAIR

REF 1

63 ALL MACHINED SURFACES EXCEPT AS NOTED

BREAK SHARP EDGES APPROXIMATELY 0.008

SHOTPEEN 0.017-0.046 SHOT SIZE
0.016 A2 INTENSITY

MATERIAL: 15-5 PH CRES (180-200 KSI)

ALL DIMENSIONS ARE IN INCHES

1 BUILD UP WITH CHROME PLATE AND GRIND TO DIMENSIONS SHOWN.
OBSERVE 0.08 PLATING RUNOUT AT EDGES, HOLES AND RELIEFS.
DO NOT PLATE RELIEF RADII.

Shaft Quadrant Repair
Figure 601 (Sheet 2)

LEVER ASSEMBLY - REPAIR 4-1

315T3029-1

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

1. Bushing Replacement (Fig. 601)

   A. Remove bushings.

   B. Install bushings (290) on lever (295). Use shrink-fit method with wet primer BMS 10-11, type 1 on faying surfaces per 20-50-03. Wipe off excess primer.

   C. Machine bushings (290) to obtain dimensions shown.

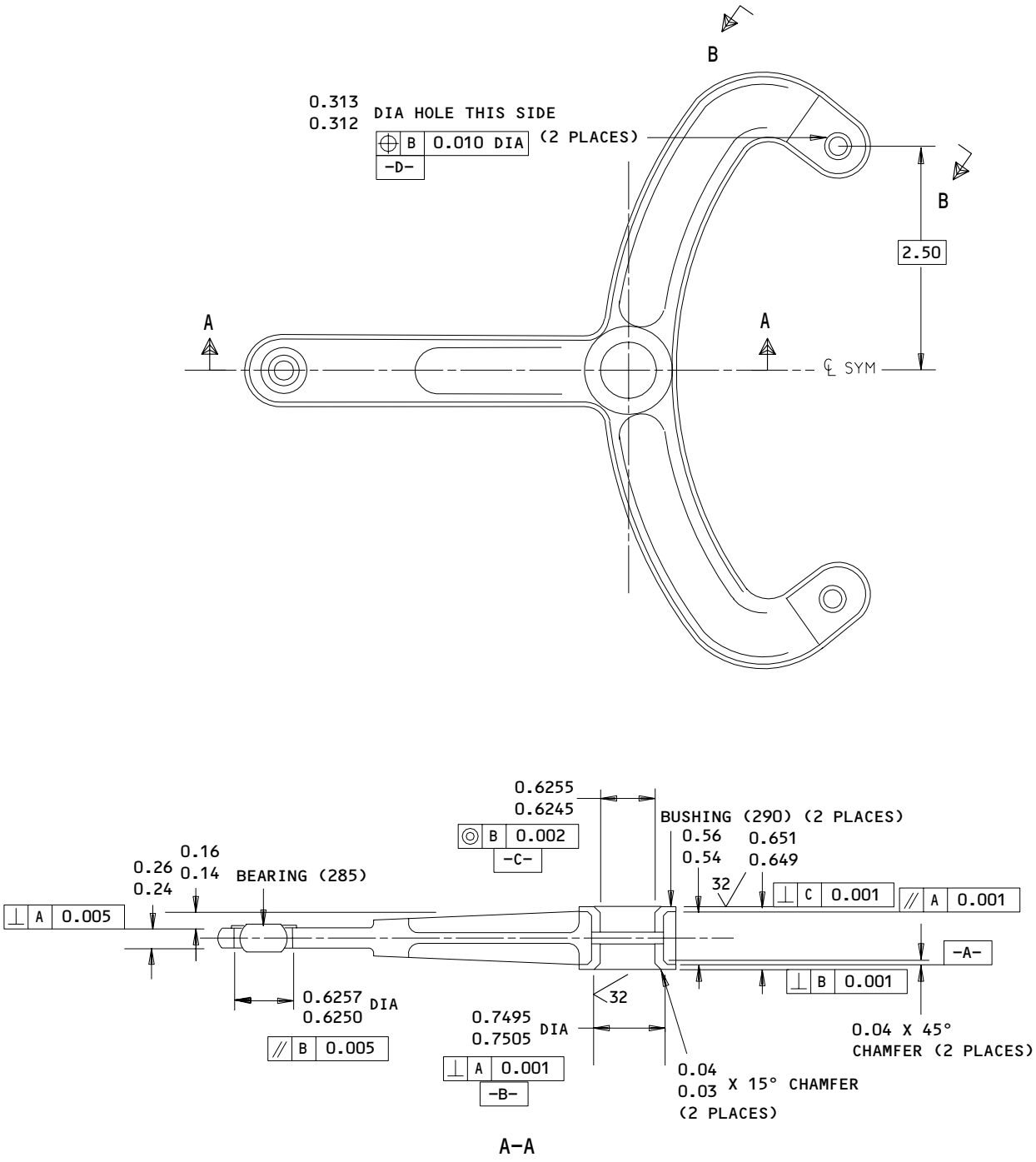
   D. Install bushings (275) in lever (295). Use shrink-fit method per 20-50-03.

      NOTE: Machining of bushings (275) is not required since bushings are premachined to installation dimensions.

2. Bearing Replacement

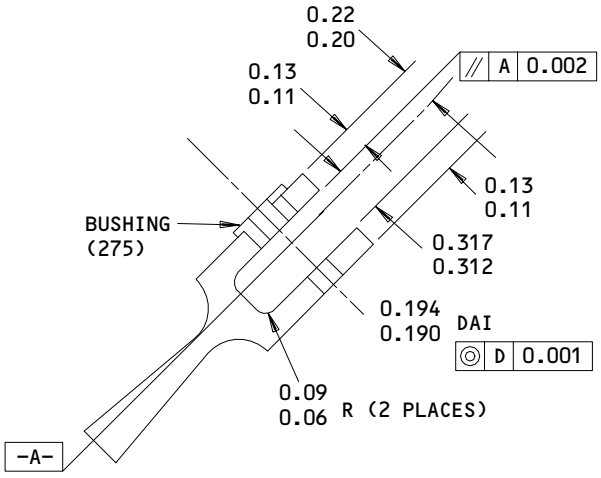
   A. Remove bearing.

   B. Install bearing (285) in lever (295) with wet primer BMS 10-11, type 1 on faying surfaces and roller swage per 20-50-03. Wipe off excess primer.



315T3029-1

Lever Assembly Bushing - Bearing Replacement
Figure 601 (Sheet 1)



B-B

REFINISH

LEVER (295) ONLY:
CHROMIC ACID ANODIZE AND APPLY ONE COAT OF
BMS 10-11 TYPE I (F-18.13) PER 20-41-02
DO NOT APPLY PRIMER IN BUSHING HOLES

125 ALL MACHINED SURFACES EXCEPT AS NOTED

BREAK SHARP EDGES APPROXIMATELY 0.008

MATERIAL: AL ALLOY 7075-T73

ALL DIMENSIONS ARE IN INCHES

ITEM NUMBERS REFER TO IPL FIG 1

315T3029-1

Lever Assembly Bushing - Bearing Replacement
Figure 601 (Sheet 2)

GEAR/CAM ASSEMBLY - REPAIR 5-1

315T3030-1, -2, -5, -6, -9, -10

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

1. Bushing Replacement (Fig. 601)

   A. Remove bushings.

   B. Install bushings (245) on gear/cam (250, 252) and bushings (340) on gear/cam (345, 347). Use shrink-fit method per 20-50-03.

   C. Machine bushings to obtain dimensions shown.

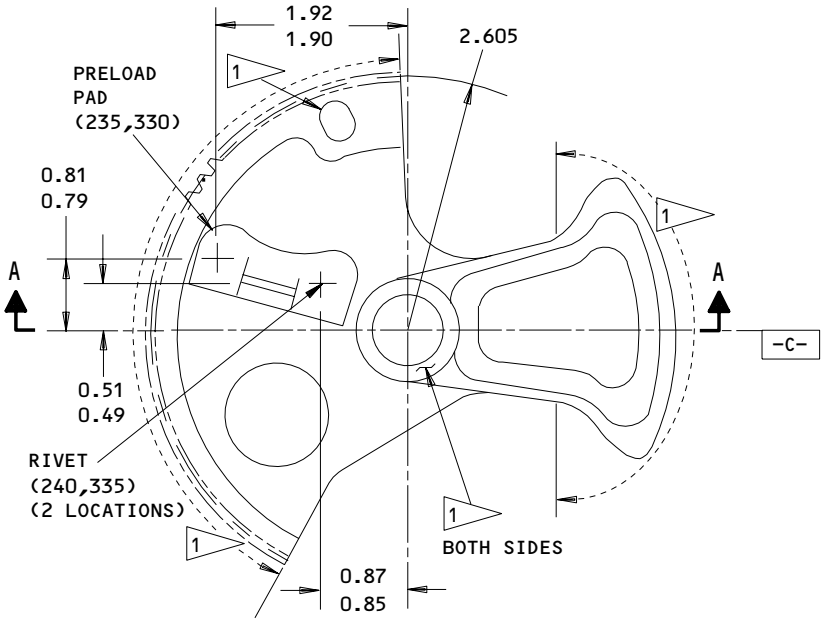
2. Gear/Cam Replacement (Fig. 601)

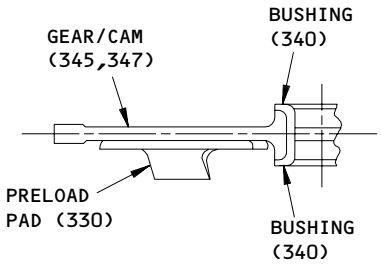
   A. Remove preload pad from gear/cam by removing attaching rivets.

   B. Drill two #20 (0.159-0.171 in. dia) holes in replacement gear to match preload pad (240 or 330). Locate as shown on figure 601.

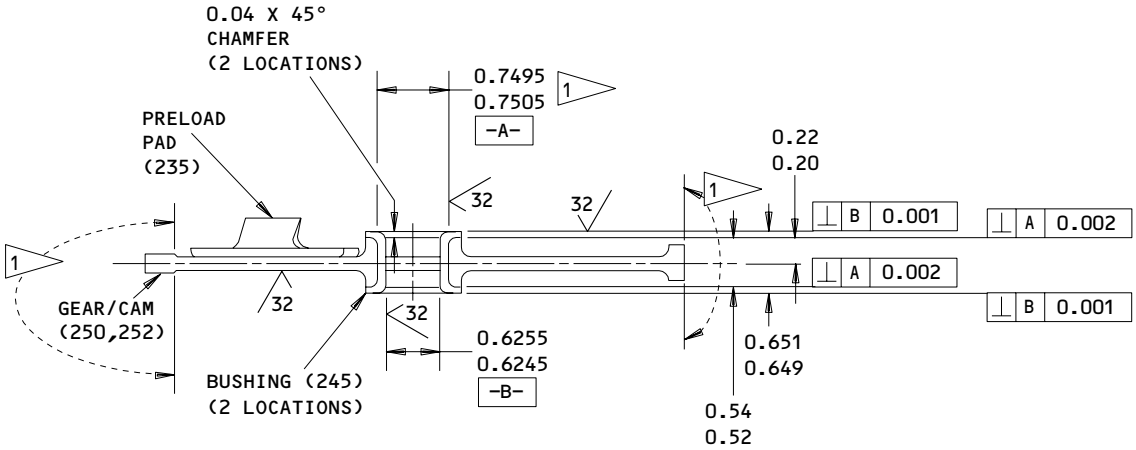
   C. Install preload pad on witness mark side of gear/cam (250, 252) or on side opposite witness marks of gear/cam (345, 347) with rivets (240, 335) and wet BMS 10-11, type 1, primer as shown in Fig. 601.

   D. Install bushings (245 or 340) in replacement gear/cam. Use shrink-fit method per 20-50-03.





(315T3030-2,-6 ASSEMBLY)



A-A

REFINISH

PASSIVATE (F-17.13) GEAR/CAM (250,252,345, 347) ALL OVER. FOR GEAR/CAM (253,348) APPLY TWO COATS BMS 10-11, TYPE 1 PRIMER (F-20.03) EXCEPT ON AREAS NOTED. APPLY SERMETEL (TYPE 20), TELEFLEX CORP., P.O. BOX 218, NORTHWALES, PA 19454 OR BMS 3-8 TO GEAR TEETH AFTER PASSIVATING AND NITRIDING PER 20-50-08

1 GEAR/CAM (250A,345A). NO PRIMER THIS SURFACE

63 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

BREAK ALL SHARP EDGES APPROXIMATELY 0.008

MATERIAL: 17-4PH CRES (130-150 KSI) NITRIDED

ITEM NUMBERS REFER TO IPL FIG. 1

ALL DIMENSIONS ARE IN INCHES

315T3030-1,-5 SHOWN
315T3030-2,-6,-9,-10
Gear/Cam Assembly Replacement
Figure 601

FEEDBACK SHAFT - REPAIR 6-1

315T3031-1

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

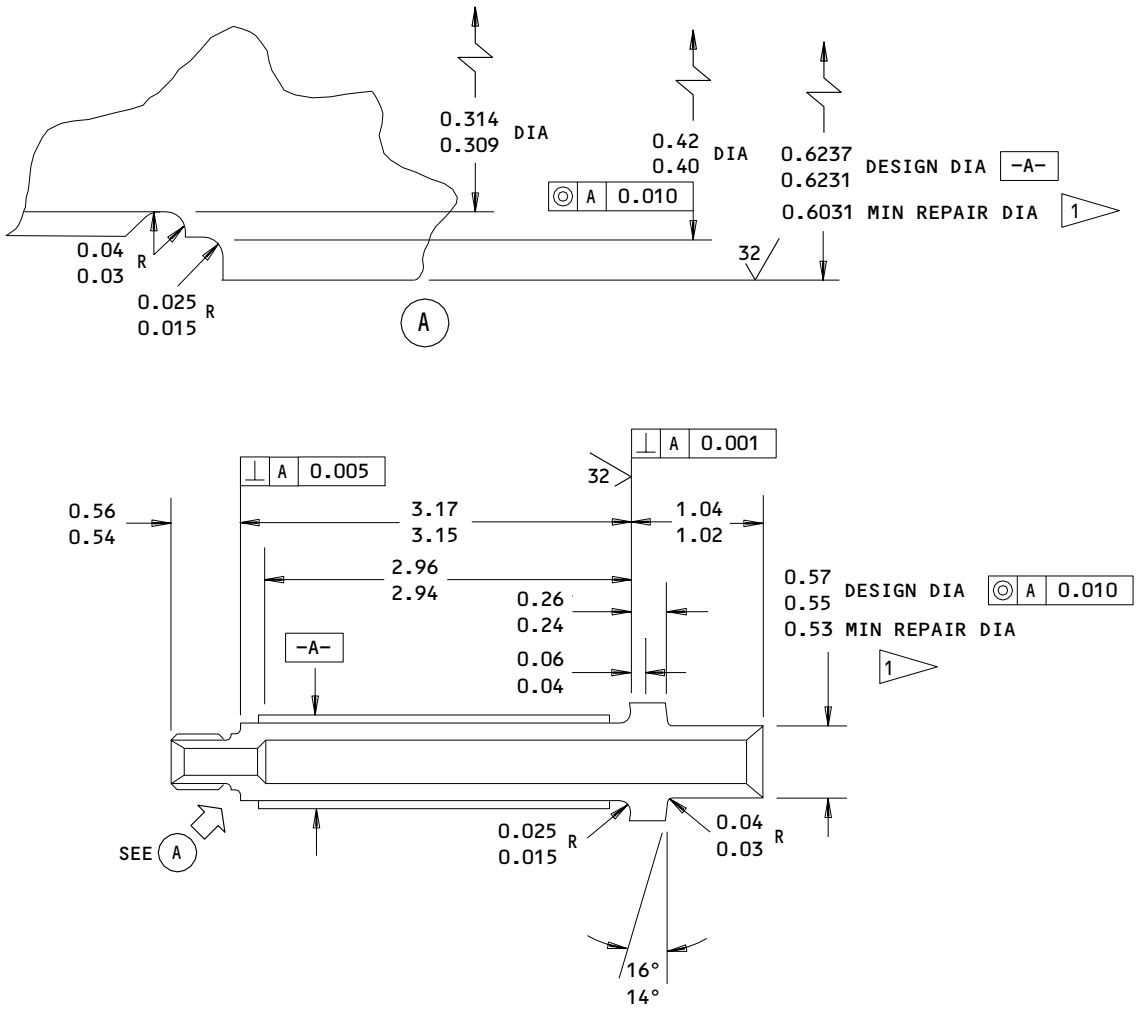
1. Shank Repair - Diameter A (Fig. 601)

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

   B. Shot-peen, chrome plate and grind to design dimensions.

2. Relief Grooves

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



REFINISH

CHROME PLATE (F-15.03) DIA -A- SINGLE PLATE THICKNESS 0.002 MIN. AFTER GRINDING

1 BUILDUP WITH CHROME PLATE AND GRIND TO DIMENSIONS SHOWN. OBSERVE 0.150 PLATING RUNOUT AT EDGES. DO NOT PLATE RELIEF RADII.

REPAIR

REF 1

63 ALL MACHINED SURFACES EXCEPT AS NOTED

BREAK SHARP EDGES APPROXIMATELY 0.008

SHOTPEEN 0.017 - 0.046 SHOT SIZE, 0.016A2 INTENSITY

MATERIAL: 15-5PH CRES (180-200 KSI)

ALL DIMENSIONS ARE IN INCHES

315T3031-1

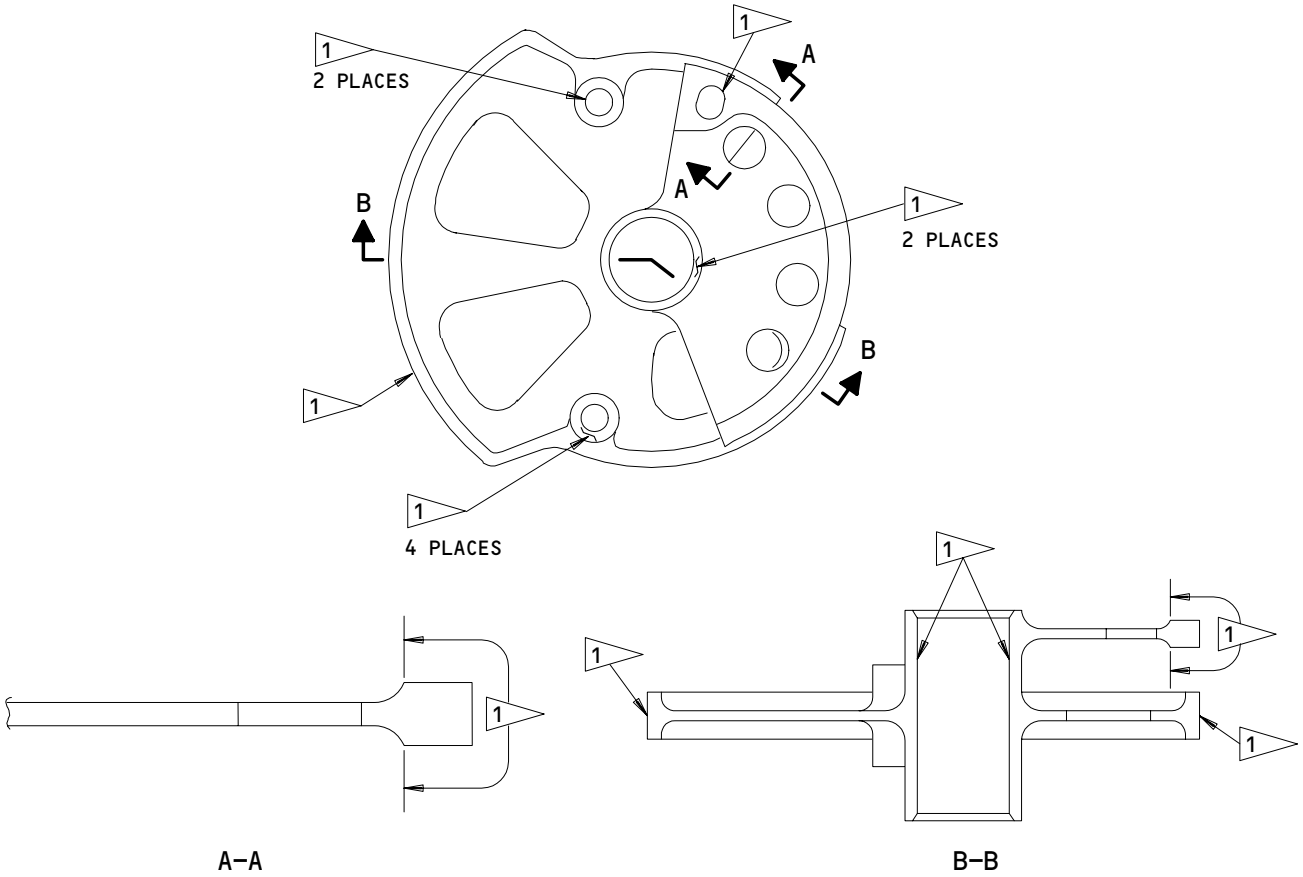
Shaft - Feedback Repair
Figure 601

GEAR/CAM - REPAIR 7-1

315T3023-1, -3

1. Plating Repair

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



REFINISH

PASSIVATE (F-17.09) AND APPLY TWO COATS OF BMS 10-11, TYPE 1, PRIMER (F-20.03) EXCEPT WHERE NOTED. APPLY SERMETEL, TYPE 20, DRY FILM LUBRICANT TO GEAR TEETH FOLLOWING PASSIVATION

MATERIAL: 17-4PH CRES, 130-150 KSI

1 NO PRIMER THIS SURFACE

Gear/Cam Refinish
Figure 601

119402

MISCELLANEOUS PARTS - REPAIR 8-1

1. Repair of parts listed in figure 601 consists of restoration of the original finish.

IPL FIG. & ITEM	MATERIAL	FINISH
Fig. 1		
Quadrant (25)	Al alloy casting 356-T6	Sulfuric acid anodize (F-17.03) followed by one coat primer, BMS 10-11, type 1 (F-20.02) except no primer on spline.
Retainer (55)	Al alloy 2024-T42	Alodize followed by one coat primer, BMS 10-11, type 1 (F-18.06).
Spring (70)	Steel wire	Cadmium plate followed by one coat primer, BMS 10-11, type 1 (F-16.03).
Plunger (85)	CRES 321/347	Cadmium plate followed by one coat primer, BMS 10-11, type 1 (F-16.01).
Washer, wave (100)	17-7PH CRES, 150-175 ksi	Passivate (F-17.09).
Coverplate (40)	Al alloy 2024-T3	Alodize followed by one coat primer, BMS 10-11, type 1 (F-18.06).
Bushing (215, 245, 290, 340, 455)	Aluminum-Nickel-Bronze	Cadmium plate (F-15.06).
Bushing, flange (211)	CRES 304	Cadmium plate (0.0002 to 0.0004 inch) (F-15.25).
Preload pad (240, 265)	Al alloy 2024-T4	Anodize followed by one coat primer, BMS 10-11, type 1 except canted surface (F-18.04).
Spacer (125)	CRES 321/347	Passivate (F-17.09).

Refinish Details
Figure 601 (Sheet 1)

IPL FIG. & ITEM	MATERIAL	FINISH
Washer (155)	CRES 301/321	Cadmium plate (F-15.06).
Cam and gear (320)	17-4PH CRES, 130-150 ksi	Passivate (F-17.09), apply Sermetel (type 20), or BMS 3-8 to gear teeth after passivating (Ref 20-50-08).
Retaining plate (130)	CRES 301	Passivate (F-17.09).
Pin (350)	CRES	Passivate (F-17.09).
Rack (390, 425)	15-5PH CRES, 180-200 ksi	Passivate (F-17.09), hard chrome plate Armoloy (Armoloy of Phila., 1105 Miller Ave., Croydon, PA). Apply Sermetel (type 20) after Armoloy (Ref 20-50-08).
Sleeve (430)	CRES 321/347	Cadmium plate followed by one coat primer, BMS 10-11, type 1 (F-16.01). No primer on threads.
Sleeve (395)	CRES 321/347	Cadmium plate followed by one coat primer, BMS 10-11, type 1 (F-16.01).
Retainer (365,400)	Al alloy 2024-T42	Alodize followed by one coat primer, BMS 10-11, type 1 (F-18.06).
Sleeve (385, 420)	CRES 321/347	Cadmium plate followed by one coat primer, BMS 10-11, type 1 (F-16.01).
Housing (460)	CRES 301	Passivate (F-17.09).
Fitting (457)	Al alloy 2024-T42	Alodize followed by one coat primer, BMS 10-11, type 1 (F-18.06).

Refinish Details
Figure 601 (Sheet 2)

ASSEMBLY

1. Materials

NOTE: Equivalent substitutes may be used.

A. Corrosion Preventive Compound -- MIL-C-16173, Grade 2 (Ref 20-60-02)

B. Corrosion Preventive Compound -- MIL-C-11796, Class 3 (Ref 20-60-02)

C. Lockwire -- MS20995C32

D. Corrosion Inhibiting Compound -- BMS 3-23, Type 2 (Ref 20-60-04)

E. Grease -- BMS 3-24 (Ref 20-60-03)

2. Equipment

A. Rig pin 0.311-0.312 in. dia.

3. Lubrication

A. Fill splines and voids of quadrant shaft (225), cam and gear (320, 323), and quadrant assembly (5) with corrosion preventive compound MIL-C-11796, Class 3.

B. Apply a light coat of corrosion preventive compound MIL-C-16173, Grade 2 to fastener threads before installation.

C. Deleted

D. After installation of bearings (30, 145) pack outside of bearing and crevices with BMS 3-24 grease.

4. Assembly (Fig. 701)

A. Install sleeves (385, 420) in housing assembly (435) with washers (380), retainer (365), washers (415), retainer (400), washers (375, 410), and screws (370, 405).

NOTE: Install sleeve (420) retained by retainer (400) with long end inside the housing.

NOTE: Install sleeve (385) retained by retainer (365) with the short end inside the housing.

B. Install sleeves (395, 430) in housing assembly (435).

C. Install racks (390, 425), pins (350), bearings (360B), shim washers (356) is used, and nuts (355). For control box assembly (315T3016-13), install pins (350), slider (362) and nuts (355). Apply corrosion compound MIL-C-11796, Class 3 to hole and then install pins. Leave nuts (355) loose so that pins (390, 425) are free to move during adjustment.

D. Install bearing (145) with retainer plate (130), washers (140), and screws (135) in housing assembly (435, 437, 439) in accordance with 20-50-03.

E. Install gear/cam assembly (325, 327) in housing assembly (435). Align witness marks on gear/cam assembly (325, 327) and rack (425) as shown in Fig. 701.

NOTE: A pilot shaft, drill rod or equivalent, approximately 0.600 inch in diameter, may be inserted through housing assembly (435). The pilot shaft will assist in alignment of housing (435), gear/cams (325, 327), lever (280), and cover (180, 180A).

F. Install bearings (315) with bolts (300), washers (305) and nuts (310) on cam and gear (320).

G. Fill shaft (225) splines and voids with corrosion preventive compound MIL-C-11796, Class 3.

H. Install cam and gear (320), washer (155) and spacer (125A) on shaft (225).

I. Install bearing (30) on shaft (225) and install shaft (225) with cam and gear attached in housing assembly (435). Align witness marks on cam and gear (320) and rack (390) as shown in figure 701.

J. Adjust thickness of washer (155) by removing laminations to obtain alignment of gear (320) centerline and rack (390) centerline within 0.015.

K. Apply corrosion preventive compound MIL-C-16173 to threads on shaft (225) and nut (115).

L. Install washer (120) and nut (115) on shaft (225). Tighten nut to 100-150 lb-in.

M. Install bearings (270), bolts (255), washers (260), nuts (265) on lever assembly (280). Apply corrosion preventive compound MIL-C-11796, Class 3 to holes, then install bolts.

N. Install lever assembly (280) in housing assembly (435).

O. Install gear/cam assembly (230) in housing assembly (435).

P. Install cover assembly (180, 180A) with bolts (185), washers (190) and nuts (195) on housing assembly (435). Apply corrosion preventive compound MIL-C-11796, Class 3 to holes, then install bolts. Leave cover bolts loose until feedback shaft (110, 110A) is installed.

Q. Install feedback shaft (110, 110A) through cover assembly (180, 180A) pushing the pilot shaft out through the housing.

R. Install shim (105), washers (95, 100) and nut (90) on feedback shaft (110, 110A).

S. Tighten cover bolts (185).

T. Install access hole cover (40) with screw (45) and washer (50) and spacer (175) with screw (160), washer (165) and nut (170) on cover assembly (180, 180A).

U. Install plunger assemblies (75), springs (70) and retainer (55) with screws (60) and washers (65) in housing assembly (435) and cover assembly (180, 180A).

V. Fill splines of quadrant shaft (225) with corrosion preventive compound MIL-C-11796, Class 3 and coat threads with corrosion preventive compound MIL-C-16173. Install washer (27) on quadrant shaft (225).

W. Install quadrant assembly (5) with washer (15) and nut (10).

NOTE: Tighten nut (10) by hand. Attach a tag which reads: "Tighten nut to 100-150 pound-inches after installation of cable"

X. Adjust rack (390, 425) to gears, three places, by turning eccentric pins (350) to obtain minimum backlash between racks and gears.

NOTE: Eccentric pins (350) have a self-holding taper head which must be free to move during adjustment.

Maintain a parallel condition between rack and housing walls to eliminate contact during adjustment. There should be no interference or binding when rack is moved through its total range of travel. Maintain an optimum smoothness of operation.

Y. Tighten nuts (355) to 25-50 lb-in.

Z. Check gearbox assembly travel as follows:

(1) Place control box assembly in a horizontal position.

(2) Move throttle and feedback racks through full stroke. There shall be no noticeable binding and rollers shall rotate over stroke of rack. The force required to move the throttle rack shall be 4 ounces maximum; except, during that portion of the stroke in which lever (280) travels, the force to move the throttle rack shall not exceed 12 ounces. The force required to move the feedback rack shall not exceed 8 ounces.

AA. Check gearbox assembly rack for backlash. Backlash shall be 0.003 max when a 4 to 6 pound force is applied to the rack in either direction.

AB. Check slider block functionality:

(1) Mount box horizontally with the pulley on top.

(2) Arrange set-up that allows a 5-pound weight to be suspended from a cable attached to the end of the throttle rack. The cable should attach to the rack end and pass over a turning pulley. Maintain good alignment between the rack and the cable holding the 5-pound weight.

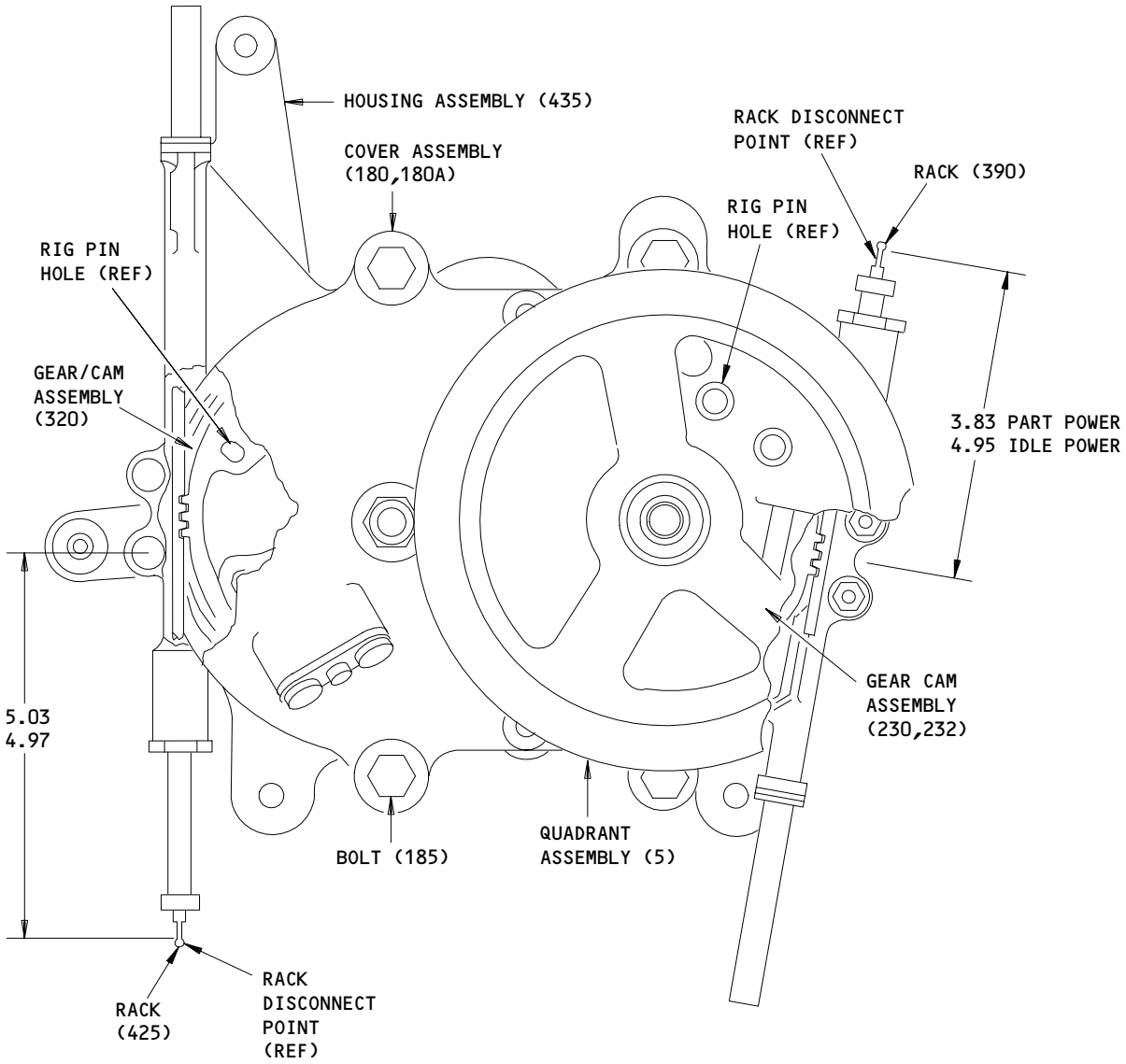
(3) Measure the force required to raise the weight, using a "free gauge". Pull tangential to the throttle box pulley. Force must not exceed 3.8 pounds.

(4) Readjust eccentric pins if force is exceeded.

AC. Check nuts (355) for 25-50 lb-in. torque and lockwire using double-twist method.

AD. Verify correct assembly of throttle rack and gear by inserting a rig pin (0.311-0.312 in. dia) in rig hole with gear in part power position. Rack disconnect point shall be 3.83 inch from centerline tangent point of rack and gear (Fig. 701).

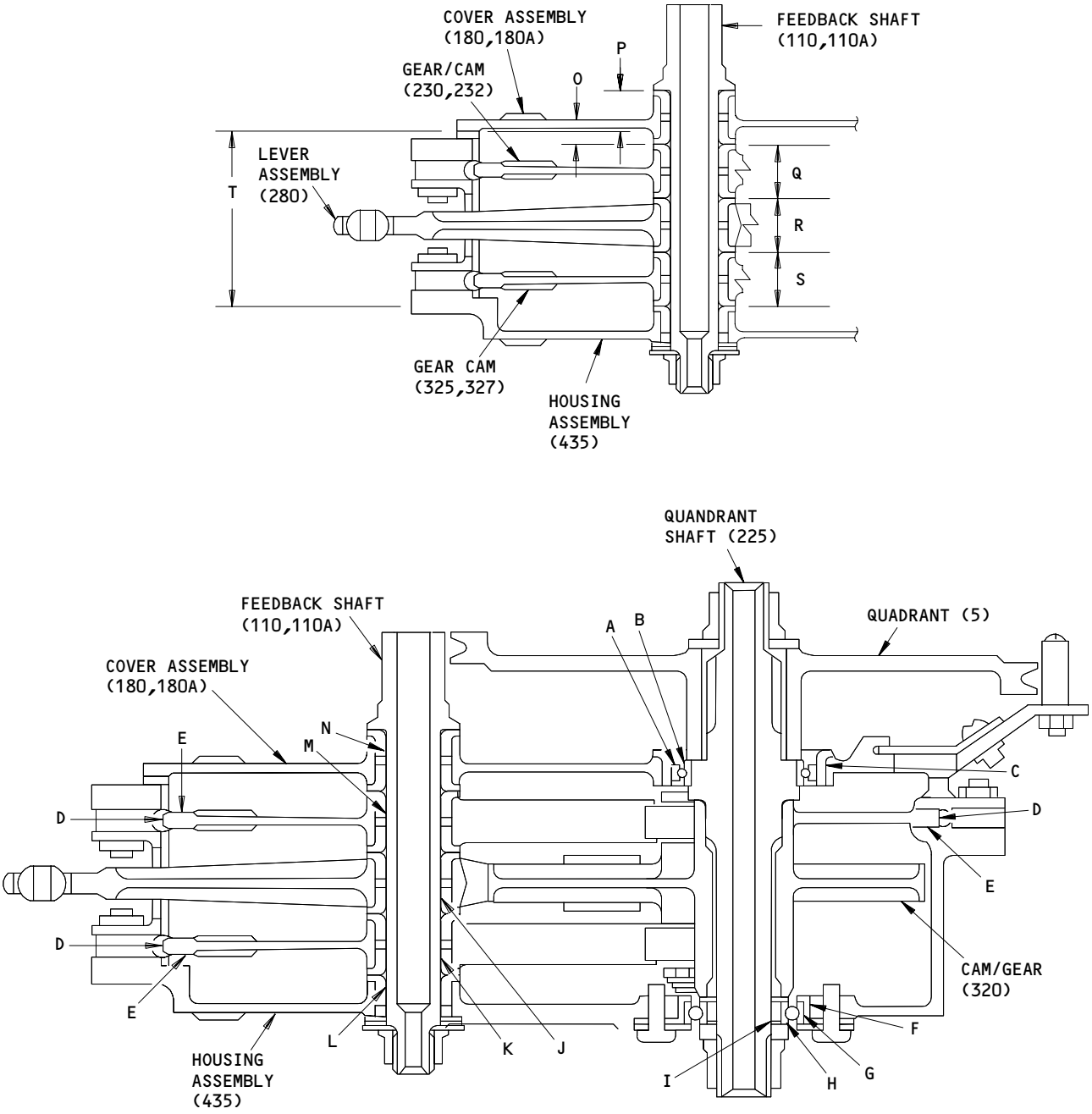
AE. Verify correct assembly of thrust reverser feedback racks and gears by inserting a rig pin (0.311-0.312 in. dia) in rig hole with gear in forward thrust position. Rack disconnect point shall be 4.97 to 5.03 inch from centerline of roller axis (Fig. 701).



Gear and Rack Installation
Figure 701

418

FITS AND CLEARANCES



Fits and Clearances
Figure 801 (Sheet 1)

Ref Letter Fig.801	Mating Item No. IPL Fig.1	Design Dimension				Service Wear Limit		
		Dimension		Assembly Clearance		Dimension		Maximum Clearance
		Min	Max	Min	Max	Min	Max	
A	ID 211 OD 30	1.5000 1.5000	1.5010 1.5010	0.001 [5]	0.001			
B	ID 30 OD 225	1.0625 1.0607	1.0632 1.0617	0.0008	0.0025			
C	ID 220,220G OD 211	1.6870 1.6880	1.6875 1.6885	0.0005	0.0015			
D	250,252 345,347 425 [1]				0.0015			
E	250,252 345,347 425 [2]	0.0504	0.0514					
F	ID 460,460A OD 150	1.373 1.374	1.374 1.375	0.000	0.002			
G	ID 150 OD 145	1.1875 1.1865	1.1885 1.1875	0.000	0.0020			
H	ID 145 OD 125A	0.7493 0.7482	0.7570 0.7492	0.0001	0.0088			
I	ID 125A OD 225	0.5190 0.5195	0.5195 0.5200	0.0000	0.0001			
J	ID 280 OD 110,110A	0.6245 0.6231	0.6255 0.6237	0.0008	0.0024			
K	ID 325,327 OD 110,110A	0.6245 0.6231	0.6255 0.6237	0.0008	0.0024			

ALL DIMENSIONS ARE IN INCHES

Fits and Clearances
Figure 801 (Sheet 2)

Ref Letter Fig.801	Mating Item No. IPL Fig.1	Design Dimension				Service Wear Limit		
		Dimension		Assembly Clearance		Dimension		Maximum Clearance
		Min	Max	Min	Max	Min	Max	
L	ID 435 OD 110,110A	0.6245 0.6231	0.6255 0.6237	0.0008	0.0024			
M	ID 230,232 OD 110,110A	0.6245 0.6231	0.6255 0.6237	0.0008	0.0024			
N	ID 180,180A OD 110,110A	0.6245 0.6231	0.6255 0.6237	0.0008	0.0024			
O	3 180, 180A	0.149	0.151					
P	4 180, 180A	0.490	0.500					
Q	4 230, 232	0.649	0.651					
R	4 280	0.649	0.651					
S	4 325, 327	0.649	0.651					
T	3 435	2.107	2.110					

ALL DIMENSIONS ARE IN INCHES

1 GEAR TEETH BACKLASH

2 GEAR TEETH THICKNESS AT PITCH DIAMETER

3 BUSHING FLANGE FACE TO COVER HOUSING FAYING SURFACE

4 WIDTH BETWEEN BUSHING FLANGE FACES

5 INTERFERENCE FIT

Fits and Clearances
Figure 801 (Sheet 3)

FOR TORQUE VALUE OF STANDARD FASTENERS, REFER TO 20-50-01			
ITEM NO. IPL FIG. 1	NAME	TORQUE	
		POUND-INCHES	POUND-FEET
10,90,115 355	NUT NUT	100-150 25-50	

Torque Table
Figure 802

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

K8455 RHP BEARINGS PLC RHP AEROSPACE
OLDENDS LANE
STONEHOUSE GL10 3RM UK

02758 NETWORKS ELECTRONIC CORP U S BEARING DIV
9750 DE SOTO AVENUE
CHATSWORTH, CALIFORNIA 91311-4409

06710 LAMSON AND SESSIONS CO THE VALLEY-TODECO
12975 BRADLEY AVENUE
SYLMAR, CALIFORNIA 91342-3830

09192 ALUMINUM COMPANY OF AMERICA VERNON WORKS
5151 ALCOA AVENUE
VERNON, CALIFORNIA 90058-3715

10630 ANILLO INDUSTRIES, INCORPORATED
2090 NORTH GLASSELL
ORANGE, CALIFORNIA 92667

11815 CHERRY AEROSPACE FASTENERS DIV OF TEXTRON
1224 EAST WARNER AVENUE PO BOX 2157
SANTA ANA, CALIFORNIA 92707-0157

15653 MICRODOT INC AEROSPACE FASTENING SYS KAYNAR MFG DIV
800 SOUTH STATE COLLEGE BLVD PO BOX 3001
FULLERTON, CALIFORNIA 92634-3001

21335 TORRINGTON CO FAFNIR BEARING DIV
59 FIELD STREET
TORRINGTON, CONNECTICUT 06790-4942

30163 VALENTEC DAYRON INC
333 MAGUIRE BLVD PO BOX 140394
ORLANDO, FLORIDA 32814-0394

38443 MRC BEARINGS
402 CHANDLER STREET
JAMESTOWN, NEW YORK 14701-3802

39317 MC GILL MANUFACTURING COMPANY, INC.
1002 NORTH CAMPBELL
VALPARAISO, INDIANA 46383-4210

42838 NATIONAL RIVET AND MANUFACTURING COMPANY
1-21 EAST JEFFERSON STREET
WAUPUN, WISCONSIN 53963-2028

VENDORS

43991 FAG BEARING INCORPORATED
118 HAMILTON AVENUE
STAMFORD, CONNECTICUT 06904

50632 KAMATICS CORP SUB OF KAMAN CORP
1335 BLUE HILLS ROAD
BLOOMFIELD, CONNECTICUT 06002-1304

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

53551 ALLFAST FASTENING SYSTEMS INC
15200 EAST DON JULIAN ROAD PO BOX 3166
CITY OF INDUSTRY, CALIFORNIA 91745-1001

55231 TRIBON BEARING COMPANY
5581 WEST 164TH STREET
CLEVELAND, OHIO 44142-1513

55580 BRILES RIVET CORP
2640 VISTA PACIFIC DRIVE
OCEANSIDE, CALIFORNIA 92056-3514

57606 PSI BEARINGS INC
2175 UNION PLACE
SIMI VALLEY, CALIFORNIA 93065

60380 TORRINGTON CO BEARINGS DIV SUBSIDIARY OF INGERSOLL-RAND CORP
59 FIELD STREET PO BOX 1008
TORRINGTON, CONNECTICUT 06790-4942

71087 BOOTS ACFT NUT DIV TOWNSEND CO SEE TEXTRON INC CHERRY
FASTENER TOWNSEND DIV V11815

72962 ELASTIC STOP NUT A DIV OF HARTFORD INDUSTRIES INC
2330 VAUXHALL ROAD
UNION, NEW JERSEY 07083-5038

80539 SPS TECHNOLOGIES INC AEROSPACE PRODUCTS DIV
2701 SOUTH HARBOR BOULEVARD PO BOX 1259
SANTA ANA, CALIFORNIA 92702-1259

VENDORS

92215 FAIRCHILD IND INC FAIRCHILD AEROSP FASTNR DIV DESIGN & ENGRG
3000 WEST LOMITA BLVD
TORRANCE, CALIFORNIA 90505-5102

92563 MCGILL MFG CO INC BEARINGS DIV
909 LAFAYETTE STREET
VALPARAISO, INDIANA 46383-4210

PART NUMBER	AIRLINE PART NO.	FIG.	ITEM	TTL REQ
AN960C10		1	380	1
AN960C10L		1	140	4
		1	260	2
AN960C416L		1	305	2
AN960PD10		1	50	1
		1	165	
		1	197	2
AN960PD10L		1	65	4
		1	217	1
		1	375	1
		1	410	1
AN960PD416		1	190	4
ATF3		1	270	
		1	270C	
		1	270D	2
		1	270F	
ATF3LUBECODE93		1	270B	2
ATF4		1	315D	4
		1	315F	
ATF4LUBECODE93		1	315B	4
BACB10CF12PP		1	145	1
		1	145A	1
BACB10CF17PP		1	30	1
		1	30A	1
BACB10ET03		1	270D	2
BACB10ET04		1	315D	4
BACB28X3E016		1	275	2
BACN10JC3		1	198	1
BACN10JC4CM		1	310A	2
BACN10JN3		1	205	1
BACN10JP3A		1	219G	1
BACR15BA3AD2		1	219	2
BACR15BA3AD2R5		1	210	2
BACR15BB4AD8		1	458	4
BACR15BB5D		1	240	2
		1	335	2
BACW10AT28		1	15	1
BACW10BP12ACU		1	35	1
BACW10P136AL		1	415	2
BACW10P74S		1	95	1
BRFM20A3		1	205	1
BRH10-3		1	170	
BRH10A3		1	198	1
BRM200A3		1	219G	1
B539-2TS		1	145	1
		1	145A	1

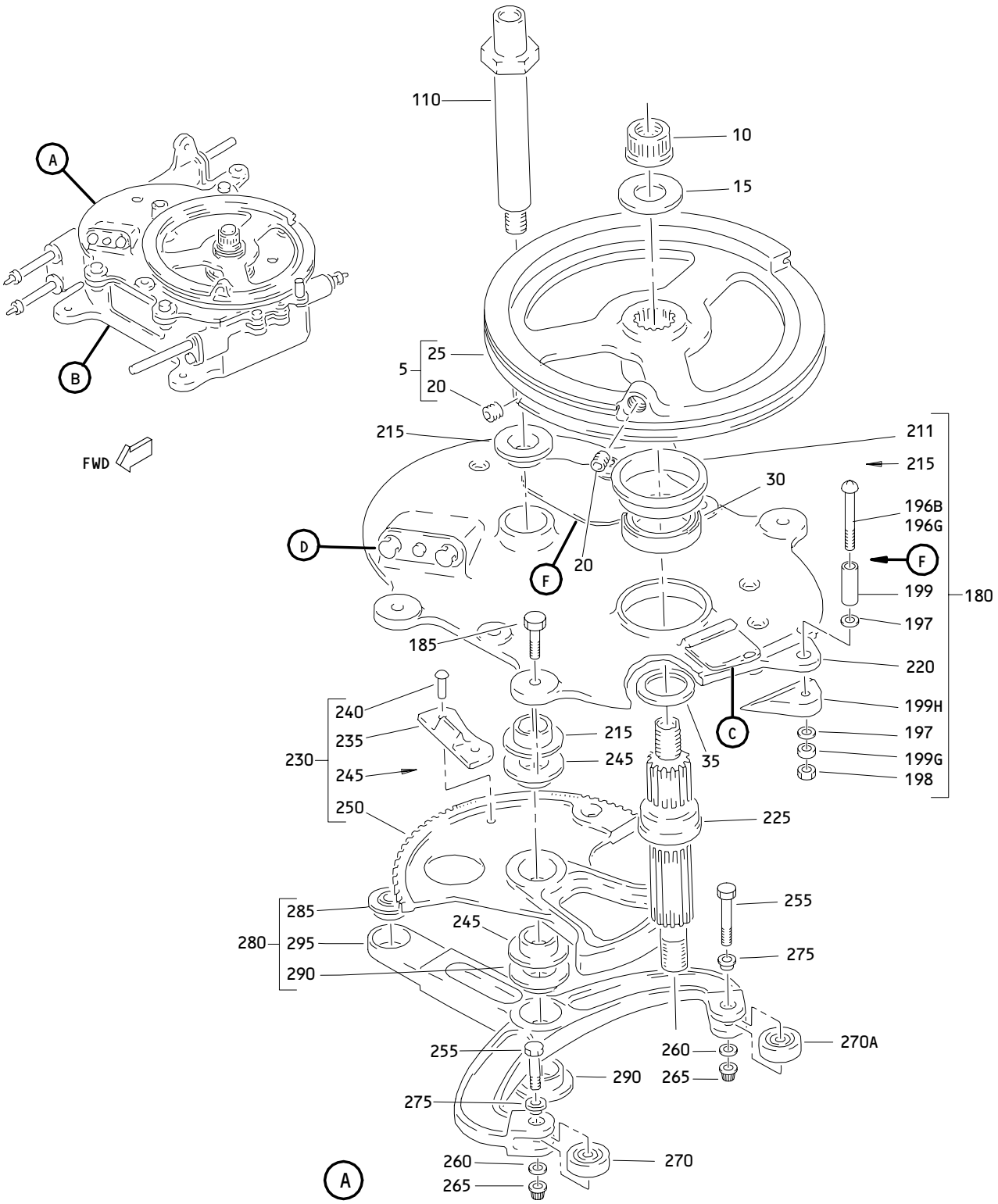
PART NUMBER	AIRLINE PART NO.	FIG.	ITEM	TTL REQ
B539DD		1	145	1
		1	145A	1
B539DDA3257		1	145B	1
B539DDFS428		1	145	1
		1	145A	1
B539SSG27		1	145	1
		1	145A	1
B541-2TS		1	30	1
		1	30A	1
B541DD		1	30	1
		1	30A	1
B541DDA3257		1	30B	1
B541DDFS428		1	30	1
		1	30A	1
B541SSG27		1	30	1
		1	30A	1
HSP4TL104		1	360C	6
H01-4BAC		1	310A	2
H10-3BAC		1	198	1
KJT115204B		1	362	3
KRP114804BT		1	360C	6
LA362BA		1	360B	
MF1000-3BAC		1	205	1
		1	205	1
MF53049-3		1	205	1
MK1000-3BAC		1	219G	1
MS16998-33		1	196A	
MS21209F1-15P		1	200	2
		1	440	8
MS21209F1-20P		1	20	2
MS21209F7-15P		1	445	3
MS21438-103G		1	270E	2
MS21438-104G		1	315E	4
NAS1801-3-7		1	135	4
NAS1801-3-8		1	60	4
		1	370	1
		1	405	1
NAS1801-3-9		1	216	1
NAS1805-3N		1	265	2
NAS1805-4N		1	195	4
		1	310	2
NAS1805-6N		1	90	1
NAS1805-8N		1	10	1
		1	115	1
NAS42DD6-3		1	199G	1
NAS42DD6-48		1	175	
		1	199	1

PART NUMBER	AIRLINE PART NO.	FIG.	ITEM	TTL REQ
NAS509-3C		1	355	6
NAS603-9		1	45	1
NAS607-4-4P		1	450	2
NAS623-3-15		1	160	
		1	196G	1
NAS623-3-19		1	196B	1
NAS623-33		1	196	
NAS6703-10		1	255	2
NAS6704-25		1	300A	2
NAS6704-26		1	300	2
NAS6704-6		1	185	4
NS103197-02		1	219G	1
NS103218-02		1	205	1
NS202101-02		1	198	1
NS202101SE048		1	310A	2
P21620		1	285A	1
		80	1	R6
P21621		80	5	1
RMA9201M3		1	219G	1
RMF9201M3		1	205	1
RMLH9075-3W		1	198	1
S302T001-301		1	285	1
S302T001-301A		1	285A	1
		1	285B	
S302T001-301B		80	5	1
S315N166-1		1	360A	
		1	360C	6
T339E		1	145	1
		1	145A	1
T341E		1	30	1
		1	30A	1
T6C428JM		1	310A	2
T6S1032J		1	198	1
T8076S1032		1	219G	1
VN202A1-02		1	219G	1
VN252A02		1	205	1
VN303A02		1	198	1
VN303D048		1	310A	2
VTB04540		1	285A	1
		80	1	RF
VTB04541		80	5	1
VTB04542		80	10	1
015T0187-11		1	1M	RF
015T0187-12		1	1N	RF
015T0187-13		1	1P	RF
015T0187-14		1	1Q	RF
015T0187-15		1	1R	RF

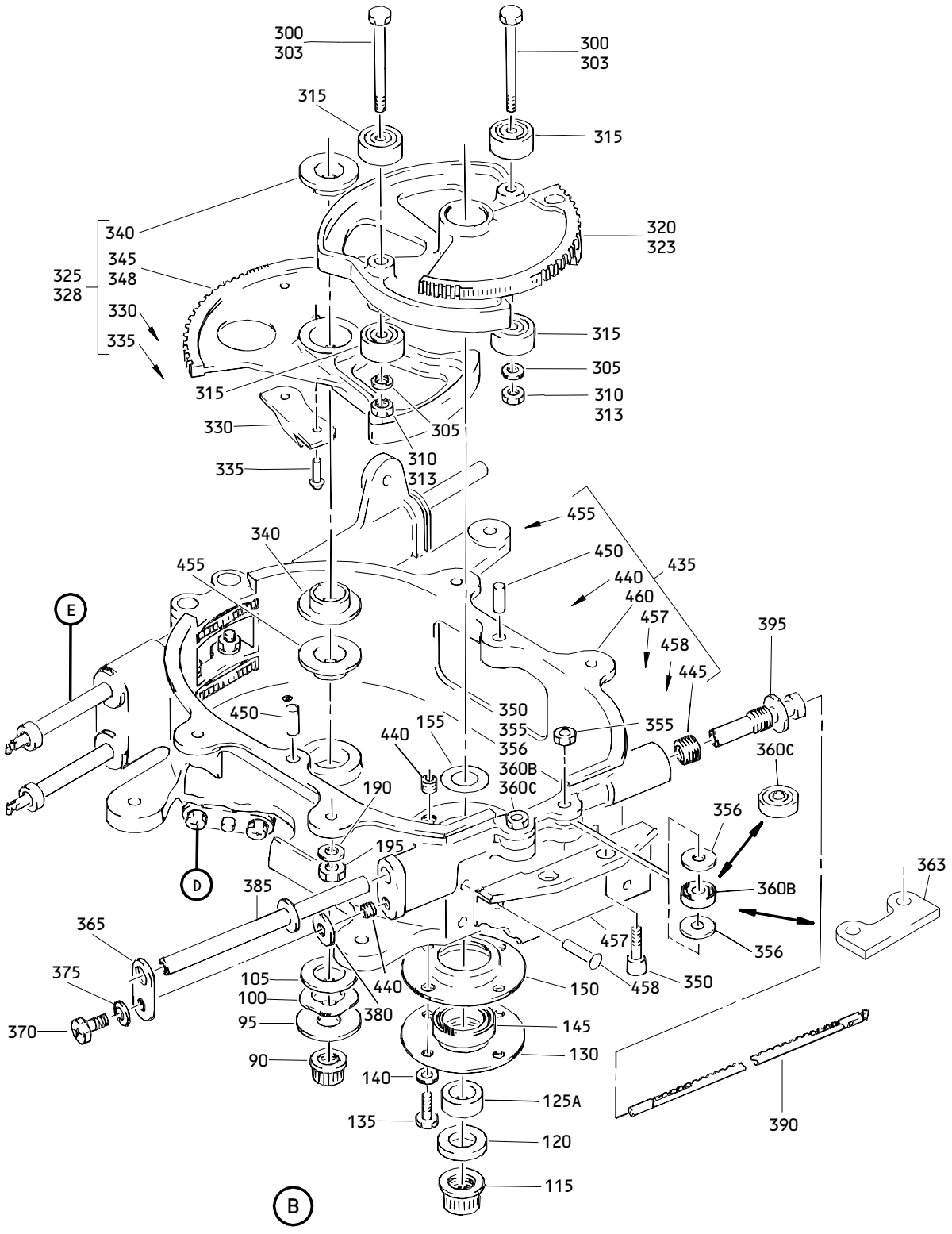
PART NUMBER	AIRLINE PART NO.	FIG.	ITEM	TTL REQ
015T0187-16		1	1S	RF
015T0187-17		1	1T	RF
015T0376-12		1	1U	RF
015T0376-13		1	1V	RF
015T0376-14		1	1W	RF
015T0376-15		1	1X	RF
015T0376-16		1	1Y	RF
015T0376-17		1	1Z	RF
015T0376-18		1	1AA	RF
015T0376-25		1	1AB	RF
015T0376-26		1	1AF	RF
015T0376-27		1	1AC	RF
015T0376-28		1	1AD	RF
015T0376-29		1	1AE	RF
015T0376-30		1	1AG	RF
015T0376-31		1	1AH	RF
10602-00		1	360C	6
109LH9075-4W		1	310A	2
3AFC512		1	270D	2
3AFC512LJ		1	270A	2
315T1022-1		1	218	1
315T1029-1		1	350	6
315T3016-10		1	1G	RF
315T3016-11		1	1H	
315T3016-12		1	1J	RF
315T3016-13		1	1K	RF
315T3016-14		1	1L	RF
315T3016-2		1	1	RF
315T3016-3		1	1E	RF
315T3016-4		1	1A	RF
315T3016-5		1	1B	RF
315T3016-6		1	1C	RF
315T3016-8		1	1D	
315T3016-9		1	1F	RF
315T3020-1		1	435	1
315T3020-10		1	460B	1
315T3020-2		1	460	1
315T3020-5		1	435A	1
315T3020-6		1	460A	1
315T3020-8		1	457	1
315T3020-9		1	435B	1
315T3021-1		1	180	1
315T3021-2		1	220	1
315T3021-4		1	199H	1
315T3021-5		1	220G	1
315T3021-6		1	180A	1
315T3022-1		1	5	1

PART NUMBER	AIRLINE PART NO.	FIG.	ITEM	TTL REQ
315T3022-2		1	25	1
315T3023-1		1	320	1
315T3023-3		1	320A	1
315T3024-1		1	225	1
315T3025-1		1	120	1
315T3026-1		1	75	2
315T3027-1		1	70	2
315T3028-1		1	400	1
315T3028-2		1	365	1
315T3028-3		1	55	2
315T3029-1		1	280	1
315T3029-2		1	295	1
315T3030-1		1	230	1
		1	230A	1
315T3030-10		1	325C	1
315T3030-2		1	325	1
		1	325A	1
315T3030-3		1	250	1
		1	345	1
315T3030-5		1	230B	1
315T3030-6		1	325B	1
315T3030-7		1	250A	1
		1	345A	1
315T3030-8		1	252	1
		1	347	1
315T3030-9		1	230C	1
315T3031-1		1	110	1
315T3031-2		1	110A	1
315T3032-2		1	385	1
		1	420	2
		1	385A	1
		1	420A	2
315T3032-3		1	385B	1
		1	420B	2
315T3038-1		1	40	1
315T3039-1		1	215	2
		1	245	2
		1	290	2
		1	340	2
		1	455	1
315T3043-1		1	235	1
		1	330	1
315T3044-2		1	85	1
315T3045-1		1	80	1
315T3370-1		1	356	12
315T4001-1		1	125	
315T4001-2		1	125A	1

PART NUMBER	AIRLINE PART NO.	FIG.	ITEM	TTL REQ
315T4002-1		1	100	1
315T4003-1		1	155	1
315T4005-1		1	430	2
315T4005-2		1	395	1
315T4011-1		1	390	1
		1	425	2
315T4011-3		1	390A	
		1	425A	
4AFC614		1	315	
		1	315C	
		1	315D	4
4AFC614LJ		1	315A	4
60B96210-1		1	360	6
66-27022-3		1	105	1
69B89033-1		1	150	1
69B89038-1		1	211	1
69B89044-1		1	130	1
96-02		1	198	1
97E48		1	310A	2

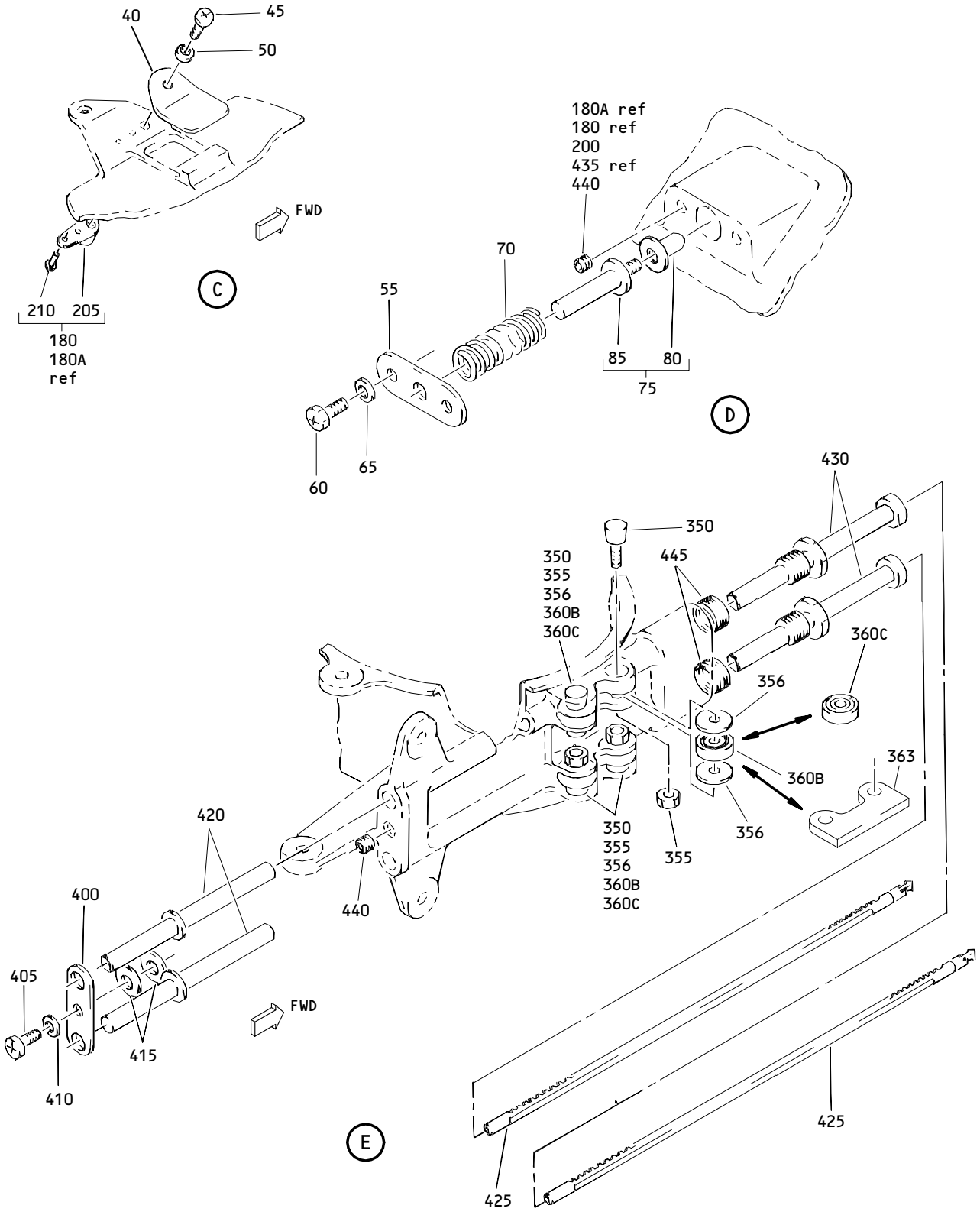


Thrust Reverser Strut Control Box Assembly
Figure 1 (Sheet 1)



Thrust Reverser Strut Control Box Assembly
Figure 1 (Sheet 2)

T55307



Thrust Reverser Strut Control Box Assembly
Figure 1 (Sheet 3)

T55308

	FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
	01-					
	-1	315T3016-2		BOX ASSY-THRUST REVERSER STRUT CONT (PRE SB 767-76-0004, SB 767-76-0018R2, SB 767-78-0028R1)	A	RF
	-1A	315T3016-4		BOX ASSY-THRUST REVERSER STRUT CONT (PRE SB 767-76-0004, SB 767-76-0018R2, SB 767-78-0028R1)	B	RF
	-1B	315T3016-5		BOX ASSY-THRUST REVERSER STRUT CONT (PRE SB 767-76-0004, SB 767-76-0018R2, SB 767-78-0028R1)	C	RF
	-1C	315T3016-6		BOX ASSY-THRUST REVERSER STRUT CONT (PRE SB 767-76-0004, SB 767-76-0018R2, SB 767-78-0028R1)	D	RF
	-1D	315T3016-8		DELETED		
	-1E	315T3016-3		BOX ASSY-THRUST REVERSER STRUT CONT (PRE SB 767-76-0004, SB 767-76-0018R2, SB 767-78-0028R1)	F	RF
	-1F	315T3016-9		BOX ASSY-THRUST REVERSER STRUT CONT (POST SB 767-76-0004, SB 767-76-0018R2, SB 767-78-0028R1)	E	RF
	-1G	315T3016-10		BOX ASSY-THRUST REVERSER STRUT CONT (PRE SB 767-76-0018R2, SB 767-78-0028R1)	G	RF
	-1H	315T3016-11		DELETED		
	-1J	315T3016-12		BOX ASSY-THRUST REVERSER STRUT CONT (PRE SB 767-76-0018R2)	H	RF
R	-1K	315T3016-13		BOX ASSY-THRUST REVERSER STRUT CONT (POST SB 767-76-0018R2)	J	RF
R	-1L	315T3016-14		BOX ASSY-THRUST REVERSER STRUT CONT	K	RF

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01-					
-1M	015T0187-11		BOX ASSY-THRUST REVERSER STRUT CONT (POST SB 767-78-0028R1) (PRE SB 767-76-0018R2)	L	RF
-1N	015T0187-12		BOX ASSY-THRUST REVERSER STRUT CONT (POST SB 767-78-0028R1) (PRE SB 767-76-0018R2)	M	RF
-1P	015T0187-13		BOX ASSY-THRUST REVERSER STRUT CONT (POST SB 767-78-0028R1) (PRE SB 767-76-0018R2)	N	RF
-1Q	015T0187-14		BOX ASSY-THRUST REVERSER STRUT CONT (POST SB 767-78-0028R1) (PRE SB 767-76-0018R2)	P	RF
-1R	015T0187-15		BOX ASSY-THRUST REVERSER STRUT CONT (POST SB 767-78-0028R1) (PRE SB 767-76-0018R2)	Q	RF
-1S	015T0187-16		BOX ASSY-THRUST REVERSER STRUT CONT (POST SB 767-78-0028R1) (PRE SB 767-76-0018R2)	R	RF
-1T	015T0187-17		BOX ASSY-THRUST REVERSER STRUT CONT (POST SB 767-78-0028R1) (PRE SB 767-76-0018R2)	S	RF
-1U	015T0376-12		BOX ASSY-THRUST REVERSER STRUT CONT (POST SB 767-76-0018R2)	T	RF
-1V	015T0376-13		BOX ASSY-THRUST REVERSER STRUT CONT (POST SB 767-76-0018R2)	U	RF
-1W	015T0376-14		BOX ASSY-THRUST REVERSER STRUT CONT (POST SB 767-76-0018R2)	V	RF
-1X	015T0376-15		BOX ASSY-THRUST REVERSER STRUT CONT (POST SB 767-76-0018R2)	W	RF

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01-					
-1Y	015T0376-16		BOX ASSY-THRUST REVERSER STRUT CONT (POST SB 767-76-0018R2)	X	RF
-1Z	015T0376-17		BOX ASSY-THRUST REVERSER STRUT CONT (POST SB 767-76-0018R2)	Y	RF
-1AA	015T0376-18		BOX ASSY-THRUST REVERSER STRUT CONT (POST SB 767-76-0018R2)	Z	RF
-1AB	015T0376-25		BOX ASSY-THRUST REVERSER STRUT CONT (POST SB 767-76-0018R2)	AA	RF
-1AC	015T0376-27		BOX ASSY-THRUST REVERSER STRUT CONT (POST SB 767-76-0018R2)	AB	RF
-1AD	015T0376-28		BOX ASSY-THRUST REVERSER STRUT CONT (POST SB 767-76-0018R2)	AC	RF
-1AE	015T0376-29		BOX ASSY-THRUST REVERSER STRUT CONT (POST SB 767-76-0018R2)	AD	RF
-1AF	015T0376-26		BOX ASSY-THRUST REVERSER STRUT CONT (POST SB 767-76-0018R2)	AE	RF
-1AG	015T0376-30		BOX ASSY-THRUST REVERSER STRUT CONT (POST SB 767-76-0018R2)	AF	RF
-1AH	015T0376-31		BOX ASSY-THRUST REVERSER STRUT CONT (POST SB 767-76-0018R2)	AG	RF

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01-					
5	315T3022-1		.QUADRANT ASSY ATTACHING PARTS		1
10	NAS1805-8N		.NUT		1
15	BACW10AT28		.WASHER- (V10630) (SPEC BACW10AT28) -------*-------		1
20	MS21209F1-20P		..INSERT		2
25	315T3022-2		..QUADRANT		1
30	B541DD		.BEARING- (V38443) (SPEC BACB10CF17PP) (OPT B541-2TS (V43991)) (OPT B541DDFS428 (V21335)) (OPT B541SSG27 (V30163)) (OPT T341E (VK8455))	A-G L-S T-Z AA-AG	1
-30A	B541DD		.BEARING- (V38443) (SPEC BACB10CF17PP) (OPT B541-2TS (V43991)) (OPT B541DDFS428 (V21335)) (OPT B541SSG27 (V30163)) (OPT T341E (VK8455)) (OPT ITEM 30B)	H-K	1
-30B	B541DDA3257		.BEARING- (V21335) (OPT ITEM 30A)	H-K	1

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01-					
35	BACW10BP12ACU		.WASHER- (V10630) (SPEC BACW10BP12ACU)	A-F L-R T-Y	1
40	315T3038-1		.COVER-ACCESS HOLE ATTACHING PARTS	AA-AF	1
45	NAS603-9		.SCREW		1
50	AN960PD10		.WASHER -------*-------		1
55	315T3028-3		.RETAINER ATTACHING PARTS		2
60	NAS1801-3-8		.SCREW		4
65	AN960PD10L		.WASHER -------*-------		4
70	315T3027-1		.SPRING-HELICAL CPRSN		2
75	315T3026-1		.PLUNGER ASSY		2
80	315T3045-1		..CAP		1
85	315T3044-2		..PLUNGER		1
90	NAS1805-6N		.NUT		1
95	BACW10P74S		.WASHER- (V10630) (SPEC BACW10P74S)		1
100	315T4002-1		.WASHER-WAVE SPR		1
105	66-27022-3		.SHIM		1
110	315T3031-1		.SHAFT-FEEDBACK	A-F L-R T-Y AA-AF	1
-110A	315T3031-2		.SHAFT-FEEDBACK	G-K	1
115	NAS1805-8N		.NUT	S,Z	1
120	315T3025-1		.WASHER	AG	1
125	315T4001-1		DELETED		

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01-					
125A	315T4001-2		.SPACER		1
130	69B89044-1		.PLATE-RETAINING		1
			ATTACHING PARTS		
135	NAS1801-3-7		.SCREW		4
140	AN960C10L		.WASHER		4
			-------*-------		
145	B539DD		.BEARING-	A-G	1
			(V38443)	L-S	
			(SPEC BACB10CF12PP)	T-Z	
			(OPT B539-2TS	AA-AG	
			(V43991))		
			(OPT B539DDFS428		
			(V21335))		
			(OPT B539SSG27		
			(V30163))		
			(OPT T339E		
			(VK8455))		
-145A	B539DD		.BEARING-	H-K	1
			(V38443)		
			(SPEC BACB10CF12PP)		
			(OPT B539-2TS		
			(V43991))		
			(OPT B539DDFS428		
			(V21335))		
			(OPT B539SSG27		
			(V30163))		
			(OPT T339E		
			(VK8455))		
			(OPT ITEM 145B)		

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01-					
-145B	B539DDA3257		.BEARING-	H-K	1
			(V21335)		
			(OPT ITEM 145A)		
150	69B89033-1		.HOUSING-BRG		1
155	315T4003-1		.WASHER		1
160	NAS623-3-15		DELETED		
165	AN960PD10		DELETED		
170	BRH10-3		DELETED		
175	NAS42DD6-48		DELETED		
180	315T3021-1		.COVER ASSY-		1
			(OPT ITEM 180A)		
-180A	315T3021-6		.COVER ASSY-		1
			(OPT ITEM 180)		
			ATTACHING PARTS		
185	NAS6704-6		.BOLT		4
190	AN960PD416		.WASHER		4
195	NAS1805-4N		.NUT		4
			-------*-------		
196	NAS623-33		DELETED		
196A	MS16998-33		DELETED		
196B	NAS623-3-19		..SCREW-		1
			(USED ON ITEM 180)		
196G	NAS623-3-15		..SCREW-		1
			(USED ON ITEM 180A)		
197	AN960PD10		..WASHER		2
198	H10-3BAC		..NUT-		1
			(V15653)		
			(SPEC BACN10JC3)		
			(OPT NS202101-02		
			(V80539))		
			(OPT RMLH9075-3W		
			(V72962))		
			(OPT T6S1032J		
			(V71087))		
			(OPT VN303A02		
			(V92215))		
			(OPT 96-02		
			(V80539))		
			(OPT BRH10A3		
			(V52828))		

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01-					
199	NAS42DD6-48		..SPACER		1
199G	NAS42DD6-3		..SPACER-		1
199H	315T3021-4		..FILLER-		1
			(USED ON ITEM 180)		
200	MS21209F1-15P		..INSERT		2
205	BRFM20A3		..NUTPLATE-		1
			(V52828)		
			(SPEC BACN10JN3)		
			(OPT MF1000-3BAC		
			(V15653))		
			(OPT NS103218-02		
			(V80539))		
			(OPT RMF9201M3		
			(V72962))		
			(OPT VN252A02		
			(V92215))		
			(OPT MF1000-3BAC		
			(V15653))		
			(OPT MF53049-3		
			(V15653))		
			ATTACHING PARTS		
210	BACR15BA3AD2R5		..RIVET-		2
			(V09192)		
			(SPEC BACR15BA3AD2R5)		
			(OPT BACR15BA3AD2R5		
			(V42838))		
			(OPT BACR15BA3AD2R5		
			(V53551))		
			(OPT BACR15BA3AD2R5		
			(V55580))		
			-------*-------		

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01-					
211	69B89038-1		..HOUSING-BRG		1
215	315T3039-1		..BUSHING		2
216	NAS1801-3-9		..SCREW		1
217	AN960PD10L		..WASHER		1
218	315T1022-1		..PLATE		1
219	BACR15BA3AD2		..RIVET- (V09192) (SPEC BACR15BA3AD2) (OPT BACR15BA3AD2 (V42838)) (OPT BACR15BA3AD2 (V53551)) (OPT BACR15BA3AD2 (V55580))		2
219G	BRM200A3		..NUTPLATE- (V52828) (SPEC BACN10JP3A) (OPT MK1000-3BAC (V15653)) (OPT NS103197-02 (V80539)) (OPT RMA9201M3 (V72962)) (OPT T8076S1032 (V11815)) (OPT VN202A1-02 (V92215))		1
220	315T3021-2		..COVER- (USED ON ITEM 180)		1
-220G	315T3021-5		..COVER- (USED ON ITEM 180A)		1
225	315T3024-1		.SHAFT		1

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01-					
230	315T3030-1		.GEAR AND CAM ASSY-FEEDBACK (PRE SB 767-78-0028R1) *[1]	A-D,F T-X	1
230A	315T3030-1		.GEAR AND CAM ASSY-FEEDBACK (POST SB 767-78-0028R1) *[1]	L-Q AA-AE	1
-230B	315T3030-5		.GEAR AND CAM ASSY-FEEDBACK *[2]	E,G, R,S, Y,Z, AF,AG	1
-230C	315T3030-9		.GEAR AND CAM ASSY-FEEDBACK	H-K	1
235	315T3043-1		..PAD-PRELOAD ATTACHING PARTS		1
240	BACR15BB5D		..RIVET- (SIZE DETERMINE ON INST) -------*-------		2
245	315T3039-1		..BUSHING		2
250	315T3030-3		..GEAR AND CAM	A-D, F,L-Q T-X AA-AE	1
-250A	315T3030-7		..GEAR AND CAM	E,G, R,S, Y,Z, AF,AG	1
-252	315T3030-8		..GEAR AND CAM	H,J	1
255	NAS6703-10		.BOLT		2
260	AN960C10L		.WASHER		2
265	NAS1805-3N		.NUT		2

	FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
	01-					
	270	ATF3		DELETED		
R	270A	3AFC512LJ		.BEARING- (V39317) (OPT ITEMS 270B, 270D, 270E)	A-K L-S T-Z AA-AG	2
	-270B	ATF3LUBECODE93		.BEARING- (V60380) (OPT ITEMS 270A, 270D, 270E)	A-K L-S T-Z AA-AG	2
	-270C	ATF3		DELETED		
R	-270D	ATF3		.BEARING- (V60380) (SPEC BACB10ET03) (OPT 3AFC512 (V92563)) (OPT ITEMS 270A, 270B, 270E)	A-K L-S T-Z AA-AG	2
R	-270E	MS21438-103G		.BEARING- (OPT ITEMS 270A, 270B, 270D)	A-K L-S T-Z	2
	-270F	ATF3		DELETED	AA-AG	
	275	BACB28X3E016		.BUSHING		2
	280	315T3029-1		.LEVER ASSY		1
	285	S302T001-301		..BEARING ASSY- (OPT ITEM 285A)		1
	-285A	VTB04540		..BEARING ASSY- (V06710) (SPEC S302T001-301A) (OPT P21620 (V57606)) (OPT ITEM 285) (FOR DETAILS SEE FIG. 80)		1

	FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
	01-					
	285B	S302T001-301A		DELETED		
	290	315T3039-1		..BUSHING		2
	295	315T3029-2		..LEVER		1
	300	NAS6704-26		.BOLT	A-D	2
	-300A	NAS6704-25		.BOLT	E-K	2
	305	AN960C416L		.WASHER	A-D	2
	310	NAS1805-4N		.NUT	A-D	2
	-310A	H01-4BAC		.NUT- (V15653) (SPEC BACN10JC4CM) (OPT NS202101SE048 (V80539)) (OPT T6C428JM (V11815)) (OPT VN303D048 (V92215)) (OPT 109LH9075-4W (V72962)) (OPT 97E48 (V80539))	E-J	2
	315	4AFC614		DELETED		
R	315A	4AFC614LJ		.BEARING- (V39317) (OPT ITEMS 315B, 315D, 315E)	A-K L-S T-Z AA-AG	4
	-315B	ATF4LUBECODE93		.BEARING- (V60380) (OPT ITEMS 315A, 315D, 315E)	A-K L-S T-Z AA-AG	4
	-315C	4AFC614		DELETED		
R	-315D	ATF4		.BEARING- (V60380) (SPEC BACB10ET04) (OPT 4AFC614 (V92563)) (OPT ITEMS 315A, 315B, 315E)	A-K L-S T-Z AA-AG	4
R	-315E	MS21438-104G		.BEARING- (OPT ITEMS 315A, 315B, 315D)	A-K L-S T-Z	4
	-315F	ATF4		DELETED	AA-AG	

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01-					
320	315T3023-1		.GEAR AND CAM-THROT	A-D, F,L-Q T-X AA-AE	1
-320A	315T3023-3		.GEAR AND CAM-THROT	E,G-K R,S, Y,Z, AF,AG	1
325	315T3030-2		.GEAR AND CAM ASSY-FEEDBACK (PRE SB 767-78-0028R1) *[1]	A-D, F,L-Q T-X, AA-AE	1
-325A	315T3030-2		.GEAR AND CAM ASSY-FEEDBACK (PRE SB 767-78-0028R1) *[2]	L-Q AA-AE	1
-325B	315T3030-6		.GEAR AND CAM ASSY-FEEDBACK *[2]	E,G, R,S, Y,Z, AF,AG	1
-325C	315T3030-10		.GEAR AND CAM ASSY-FEEDBACK	H-K	1
330	315T3043-1		..PAD-PRELOAD ATTACHING PARTS		1
335	BACR15BB5D		..RIVET- (SIZE DETERMINE ON INST) -------*-------		2
340	315T3039-1		..BUSHING		2
345	315T3030-3		..GEAR AND CAM	A-D,F L-Q, T-X, AA-AE	1
-345A	315T3030-7		..GEAR AND CAM	E,G R,S,Y, Z, AF,AG	1
-347	315T3030-8		..GEAR AND CAM	H-K	1
350	315T1029-1		.PIN		6
355	NAS509-3C		.NUT		6
356	315T3370-1		.WASHER-SHIM (MFD FROM 301 CRES PER MIL-S5059 .012 IN. X .31 IN. X .31 IN.) (ITEM 360 WITH ITEM 356 OPT ITEM 360C) (USED WITH ITEM 360)	A-H L-S T-Z AA-AG	12

	FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
	01-					
	360	60B96210-1		.BEARING ASSY- (ITEM 360 WITH ITEM 356 OPT ITEM 360C)	A-H L-S T-Z	6
	360A	S315N166-1		DELETED	AA-AG	
	360B	LA362BA		DELETED		
	360C	10602-00		.BEARING- (V55231) (SPEC S315N166-1) (ITEM 360 WITH ITEM 356 OPT ITEM 360C) (OPT KRP114804BT (V50632)) (OPT HSP4TL104 (V02758))	A-H L-S T-Z AA-AG	6
R	362	KJT115204B		.SLIDER- (V50632)	J,K T-Z	3
	365	315T3028-2		.RETAINER ATTACHING PARTS	AA-AG	1
	370	NAS1801-3-8		.SCREW		1
	375	AN960PD10L		.WASHER		1
	380	AN960C10		.WASHER -------*-------		1
	385	315T3032-2		.SLEEVE	A-J L-S, T-Z, AA-AG	1
R	-385A	315T3032-2		.SLEEVE- (OPT ITEM 365B)	K	1
R	-385B	315T3032-3		.SLEEVE- (OPT ITEM 365A)	K	1
	390	315T4011-1		.RACK-THROT SYS PUSH AND PULL GEAR		1
	-390A	315T4011-3		DELETED		

	FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
	01-					
	395	315T4005-2		.SLEEVE		1
	400	315T3028-1		.RETAINER		1
				ATTACHING PARTS		
	405	NAS1801-3-8		.SCREW		1
	410	AN960PD10L		.WASHER		1
	415	BACW10P136AL		.WASHER-		2
				(V10630)		
				(SPEC BACW10P136AL)		
				-------*-------		
|	420	315T3032-2		.SLEEVE	A-J L-S, T-Z, AA-AG	2
R	-420A	315T3032-2		.SLEEVE-	K	2
				(OPT ITEM 420B)		
R	-420B	315T3032-3		.SLEEVE-	K	2
				(OPT ITEM 420A)		
	425	315T4011-1		.RACK-THROT SYS PUSH AND PULL GEAR		2
	-425A	315T4011-3		DELETED		
	430	315T4005-1		.SLEEVE		2
|	435	315T3020-1		.HOUSING ASSY-	A,B L,N,T, V, AA,AC	1
|	-435A	315T3020-5		.HOUSING ASSY-	C,D,F M,P,Q, U,W,X, AB,AE, AF	1
|	-435B	315T3020-9		.HOUSING ASSY	E,G-K R,S,Y, Z, AF,AG	1
	440	MS21209F1-15P		..INSERT		8
	445	MS21209F7-15P		..INSERT		3
	450	NAS607-4-4P		..PIN		2

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01-					
455	315T3039-1		..BUSHING		1
457	315T3020-8		..FITTING	A,B, L,N, T,V, AA,AC	1
			ATTACHING PARTS		
458	BACR15BB4AD8		..RIVET (V09192) (SPEC BACR15BB4AD8) (OPT BACR15BB4AD8 (V42838)) (OPT BACR15BB4AD8 (V53551)) (OPT BACR15BB4AD8 (V55580)) -------*-------	A,B, L,N, T,V, AA,AC	4
460	315T3020-2		..HOUSING	A,B, L,N, T,V, AA,AC	1
-460A	315T3020-6		..HOUSING	C,D, F,M, P,Q, U,W, X,AB, AE,AF	1

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01- -460B	315T3020-10		..HOUSING	E,G-K R,S, Y,Z, AF,AG	1

*[1] Replace gear/cam assemblies 315T3030-1 and -2 if made from casting 315T1030-4 with gear/cam assemblies 015T0187-7 and -8 or 315T3030-9 and -10, respectively.

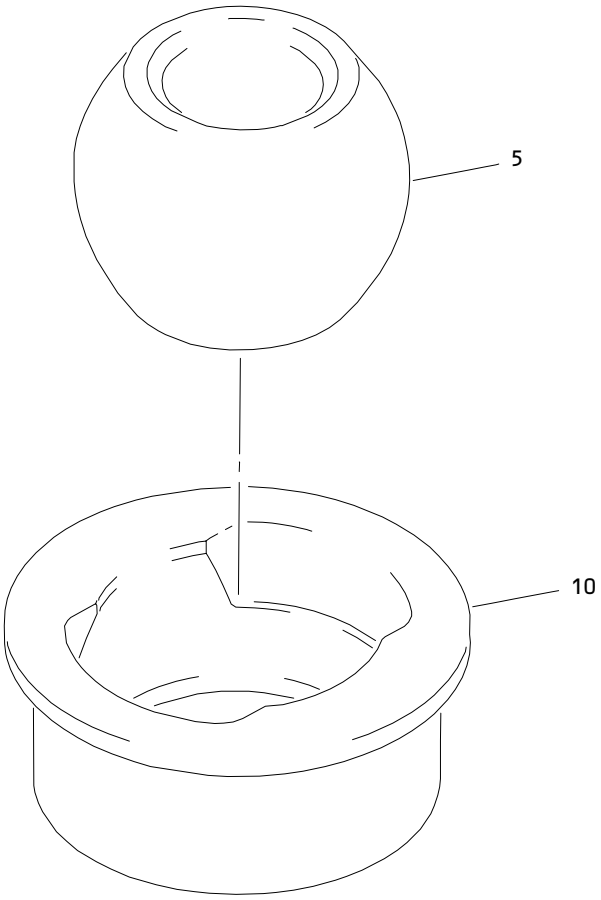
Rework gear/cam assemblies 315T3030-1 and -2 if made from casting 315T1030-5 and reidentify as gear/cam assemblies 015T0187-7 and -8, respectively.

Reidentify gear/cam assemblies 315T3030-1 and -2 if made from casting 315T3030-4 4as gear/cam assemblies 015T0187-7 and -8, respectively (no rework is required).

*[2] Replace gear/cam assemblies 315T3030-5 and -6 if made from casting 315T1030-4 with gear/cam assemblies 315T3030-9 and -10, respectively.

Rework gear/cam assemblies 315T3030-5 and -6 if made from casting 315T1030-5 and reidentify as gear/cam assemblies 015T3030-9 and -10, respectively.

Reidentify gear/cam assemblies 315T3030-5 and -6 if made from casting 315T3030-4 as gear/cam assemblies 015T3030-9 and -10, respectively (no rework is required).



Bearing Assembly
Figure 80

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
80-					
1	VTB04540		BEARING ASSY- (V06710) (OPT P21620 (V57606))		RF
5	VTB04541		.BALL- (V06710) (SPEC S302T001-301B) (OPT P21621 (V57606))		1
10	VTB04542		.RACE- (V06710)		1