COMPONENT MAINTENANCE MANUAL WITH ILLUSTRATED PARTS LIST

AILERON CONTROL QUADRANT ASSEMBLY

PART NUMBER 251A1631–1, –3, –4

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COMPONENT MAINTENANCE MANUAL

Revision No. 10
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To: All holders of AILERON CONTROL QUADRANT ASSEMBLY 27-11-24.

Attached is the current revision to this COMPONENT MAINTENANCE MANUAL

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Subject/Page	Date	Subject/Page	Date	Subject/Page	Date
27-11-24 ILLUSTRATED PARTS LIST					
1001	Nov 01/2008				
1002	Nov 01/2006				
1003	Jul 01/2006				
1004	Mar 01/2006				
1005	Mar 01/2006				
1006	Mar 01/2006				
1007	Mar 01/2006				
1008	Nov 01/2006				
1009	Nov 01/2006				
1010	Mar 01/2006				
1011	Mar 01/2006				
1012	Nov 01/2006				
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1015	Nov 01/2006				
1016	Nov 01/2006				
1017	Nov 01/2006				
1018	Mar 01/2006				
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TEMPORARY REVISION AND SERVICE BULLETIN RECORD

BOEING SERVICE BULLETIN	BOEING TEMPORARY REVISION	OTHER DIRECTIVE	DATE OF INCORPORATION INTO MANUAL
		PRR 38156	NOV 01/98
		PRR 38274	NOV 01/98

All revisions to this manual will be accompanied by transmittal sheet bearing the revision number. Enter the revision number in numerical order, together with the revision date, the date filed and the initials of the person filing.

Revision		Filed	
Number	Date	Date	Initials

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Temporary Revision		Inserted		Removed	
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INTRODUCTION

1. General

A. The instructions in this manual supply the data necessary to do the maintenance functions together with the test, fault isolation, repair, and replacement of the defective parts.

B. This manual is divided into different parts:

(1) Title Page

(2) Transmittal Letter

(3) Highlights

(4) List of Effective Pages

(5) Table of Contents

(6) Temporary Revision & Service Bulletin Record

(7) Record of Revisions

(8) Record of Temporary Revisions

(9) Introduction

(10) Procedures & IPL Sections

C. Components that can be repaired have a different repair number for each specified repair. To find the repair number location of a component, look in the Repair-General procedure at the beginning of the REPAIR section. The Repair-General procedure also has an explanation of the True Position Dimension symbols used.

D. All dimensions, measures, quantities and weights included are in English units. When metric equivalents are given they will be in the parentheses that follow the English units.

E. The introduction to the Illustrated Parts List (IPL) shows how the IPL data is used.

F. Design changes, optional parts, configuration differences and Service Bulletin modifications may cause different part numbers. These part numbers are identified in the IPL with an alphabetical letter which is added to the end of the basic item number. This new item number is referred to as an alpha-variant. Throughout the manual, IPL basic item number references also apply to alpha-variants unless shown differently.

G. The tool reference numbers found in the individual procedures and in the Special Tools, Fixtures, and Equipment section are used to identify if a tool is a standard tool (STD-XXXX), a commercial tool (COM-XXXX), or a Special Tool (SPL-XXXX). This reference number is also used to distinguish between tools with similar names in the same procedure. These reference numbers are for use in the documentation only. They are not to be used for ordering tools.

AILERON CONTROL QUADRANT ASSEMBLY - DESCRIPTION AND OPERATION

1. Description

A. The Aileron Control Quadrant Assemblies covered in this component maintenance manual (CMM) consist of two types of quadrant assemblies. The 251A1631-1 has a quadrant assembly, a bearing housing assembly, and a lever control installed on one end of a shaft. It also has a support assembly and lever aileron pogo installed on the other end of the shaft.

B. The 251A1631-3 and -4 have a quadrant assembly, a bearing housing assembly, a lever control, and a follower assembly on one end of a shaft. It also has a support assembly and lever aileron pogo installed on the other end of the shaft. Two springs attach the lever control and the follower assembly.

2. Operation

A. The Aileron Control Quadrant Assembly supports the Aileron Control Mechanism Assembly at station 671.50 of the airplane. It receives and executes aileron control inputs from the captain and first officer through cables that attach to it. The 251A1631-3 and -4 quadrant assemblies mate with a 92-pound override assembly.

3. Leading Particulars (Approximate)

A. Length – 22 inches

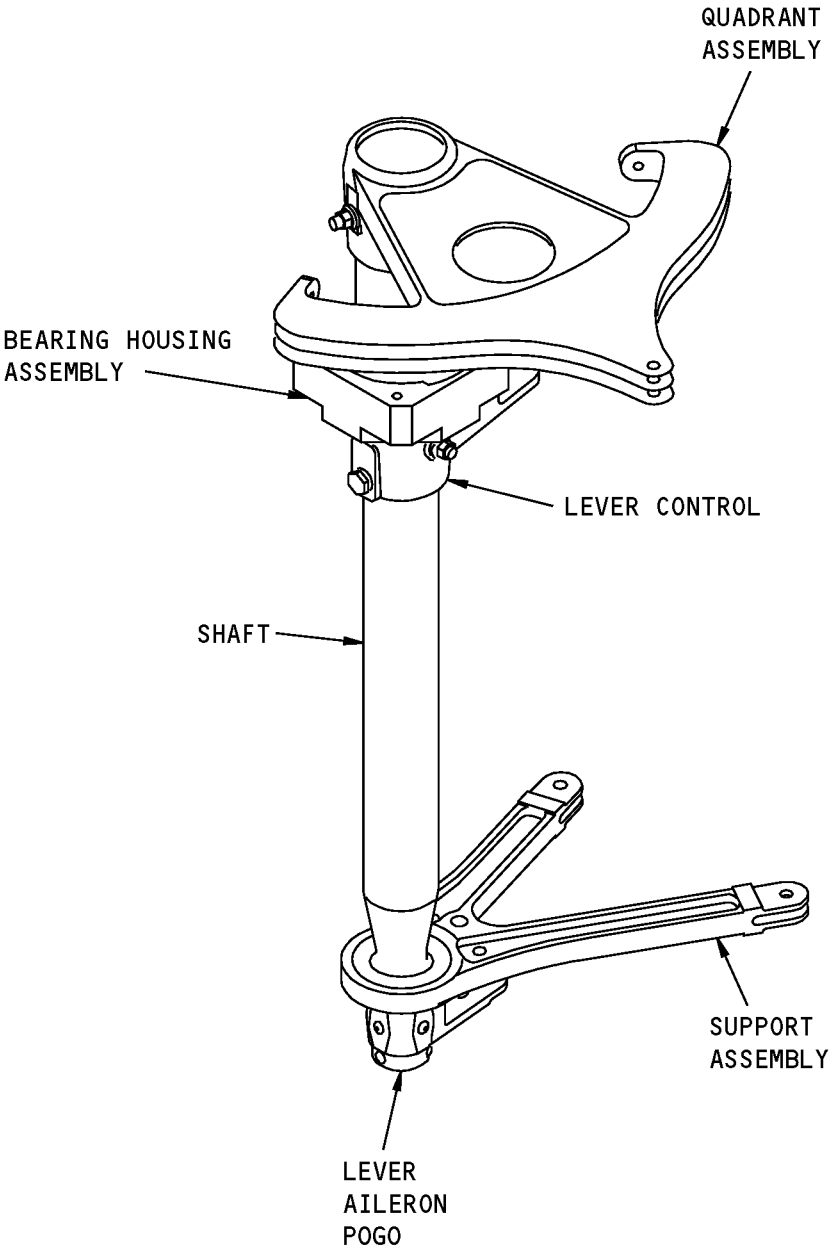
B. Width – 13 inches

C. Height – 13 inches

D. Weight

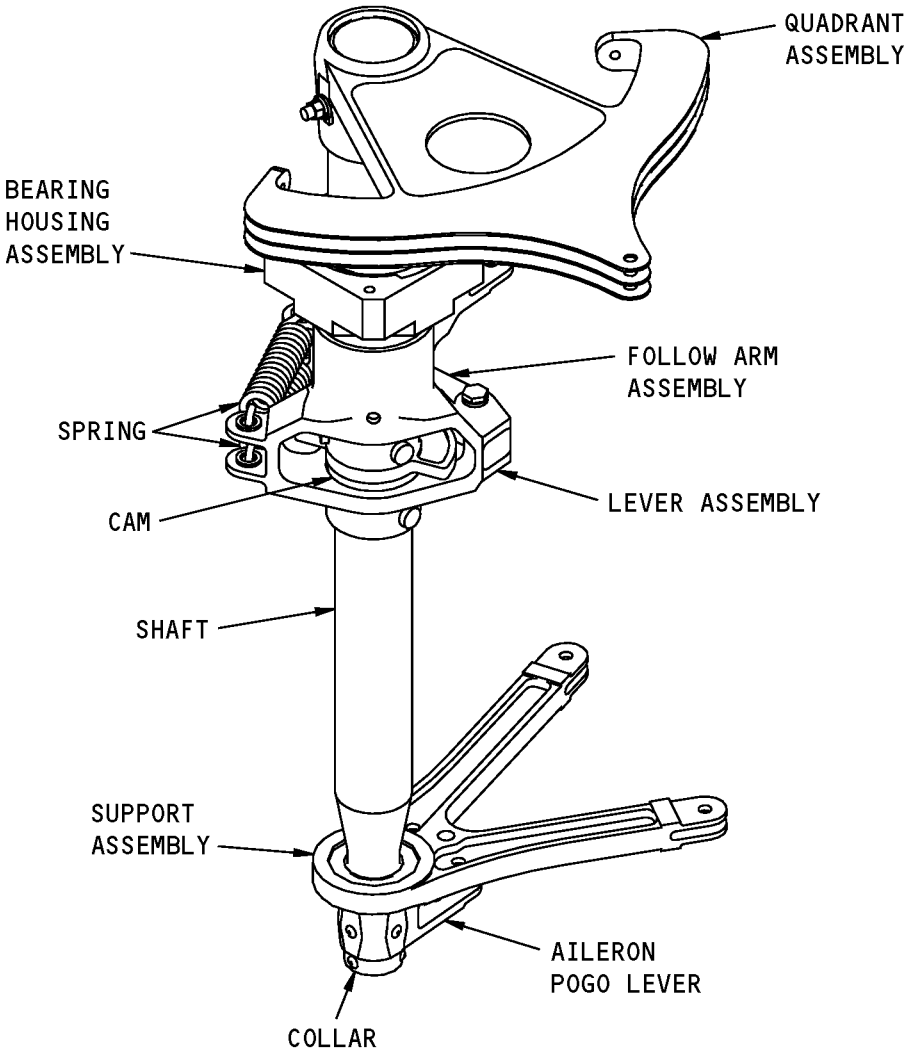
(1) 251A1631-1 – 4.5 pounds

(2) 251A1631-3, -4 – 6.1 pounds



251A1631-1 SHOWN

Aileron Control Quadrant Assembly
Figure 1



251A1631-3 SHOWN
251A1631-4 SILIMAR

Aileron Control Quadrant Assembly
Figure 2

TESTING AND FAULT ISOLATION

1. General

A. This procedure contains the necessary data to test the aileron control quadrant assembly after an overhaul or for fault isolation.

B. Refer to the Standard Overhaul Practice Manual (SOPM) for the SOPM subjects identified in the procedure.

C. Refer to IPL Figure 2 for item numbers.

2. Aileron Control Quadrant Assembly Test

A. Tools/Equipment

NOTE: Equivalent substitutes may be used.

Reference	Description
SPL-5394	Test Equipment - Quadrant Assembly, Aileron Assembly (Part #: C27077-1, Supplier: 81205)

B. General

(1) To do this test, it is necessary to set up the aileron control quadrant assembly on a aileron control quadrant assembly test equipment, SPL-5394.

NOTE: Refer also to DISASSEMBLY and ASSEMBLY .

C. Procedure - Quadrant Assemblies 251A1631-3, -4 (IPL Figure 2)

(1) Install the aileron control quadrant assembly (1) onto the C27077 Aileron Control Quadrant Assembly test equipment, SPL-5394.

(2) Do a cam (105) torque breakout test.

(a) Turn the lever assembly (195) in clockwise direction and hold it against the cam (105) at the minimum rigid torque of 320 pound-inches.

(b) Insert a 0.002-0.008 feeler gage between the cam (105) and the roller bearing (160) at the cam's detent position.

(c) There must be no gap between the cam (105) and the roller bearing (160).

(d) Turn the lever assembly (195) in the counter-clockwise direction and hold it against the cam (105) at the minimum rigid torque of 320 pound-inches.

(e) Insert a 0.002-0.008 feeler gage between the cam (105) and the roller bearing (160) at the cam's detent position.

(f) There must be no gap between the cam (105) and the roller bearing (160).

CAUTION: DO NOT TURN THE CAM (105) MORE THAN 90 DEGREES ROTATION OR ALLOW THE ROLLER BEARING (160) TO ROLL PAST THE END OF THE ROLL CAM (105).

(3) Do a check of the torque at 77-83 degrees cam (105) travel in the clockwise direction. Load must be between 20-60 pound-inches of torque.

(4) Do a check of the torque at 77-83 degrees cam (105) travel in counterclockwise direction. Load must be between 20-60 pound-inches of torque.

(5) Turn the lever assembly (195) in the clockwise direction with a maximum load of 550 pound-inches. There must be no binding or interference.

(6) Turn the lever assembly (195) in the counterclockwise direction with a maximum load of 550 pound-inches. There must be binding or interference.

DISASSEMBLY

1. General

A. This procedure has the data necessary to disassemble the aileron control quadrant assembly.

B. Disassemble this component sufficiently to isolate the defects, do the necessary repairs, and put the component back to a serviceable condition.

C. Refer to the Standard Overhaul Practices Manual (SOPM) for the SOPM subjects identified in this procedure.

D. Refer to IPL Figure 1 and IPL Figure 2 for item numbers.

2. Disassembly

A. Procedure

(1) Use standard industry procedures and the steps shown below to disassemble this component.

(2) For 251A1631-1 quadrant assembly, remove the bolts (IPL Figure 1, 5), the washers (15, 20), nuts (25), seal disc (27), and quadrant assembly (30) from shaft (125) as shown in DISASSEMBLY, Figure 301.

(3) For 251A1631-3 and -4 quadrant assemblies, remove the bolts (IPL Figure 2, 5), washers (10, 15), nuts (20), seal disc (25), and quadrant assembly (30) from shaft (250) as shown in DISASSEMBLY, Figure 302.

(4) Do not disassemble the quadrant assembly (IPL Figure 1, 30; IPL Figure 2, 30) unless replacement of the spacers (35) is necessary.

(5) For 251A1631-1 quadrant assembly, remove the rivets (IPL Figure 1, 95), collar (100), aileron pogo lever (105), and support assembly (110) from shaft (125) as shown in DISASSEMBLY, Figure 301, Sections B-B and C-C.

(6) Do not disassemble the support assembly (110) unless replacement of the bearing (115) is necessary.

(7) For 251A1631-3 and -4 quadrant assemblies, remove the rivets (IPL Figure 2, 220), collar (225), aileron pogo lever (230), and support assembly (235) from shaft (250) as shown in DISASSEMBLY, Figure 302, Sections B-B and C-C.

(8) Do not disassemble the support assembly (235) unless replacement of the bearing (240) is necessary.

(9) For 251A1631-1 quadrant assembly, remove the bolts (IPL Figure 1, 10), the washers (15, 20), the nuts (25), and the control lever (90) from the shaft (125) as shown in DISASSEMBLY, Figure 301, Section A-A.

(10) For 251A1631-3 and -4 quadrant assemblies, remove the springs (IPL Figure 2, 103) from the follower arm assembly (140) and the lever assembly (195) as shown in DISASSEMBLY, Figure 302, Section D-D.

(11) For 251A1631-3 and -4 quadrant assemblies, remove the bolts (110), washers (115, 125, 130), bushing (120), nut (135), and the follower arm assembly (140) from lever assembly (195) as shown in DISASSEMBLY, Figure 302, Section E-E.

(12) If required for 251A1631-3 and -4 quadrant assemblies, remove the bolt (145), the washers (150, 165, 170), the bushing (155), the bearing (160), and the nut (175) from the arm (190).

(13) For 251A1631-3 and -4 quadrant assemblies, remove the rivets (90), the spacer (95), the bearing (100), and the cam (105) from the shaft (250) as shown in DISASSEMBLY, Figure 302, Section A-A.

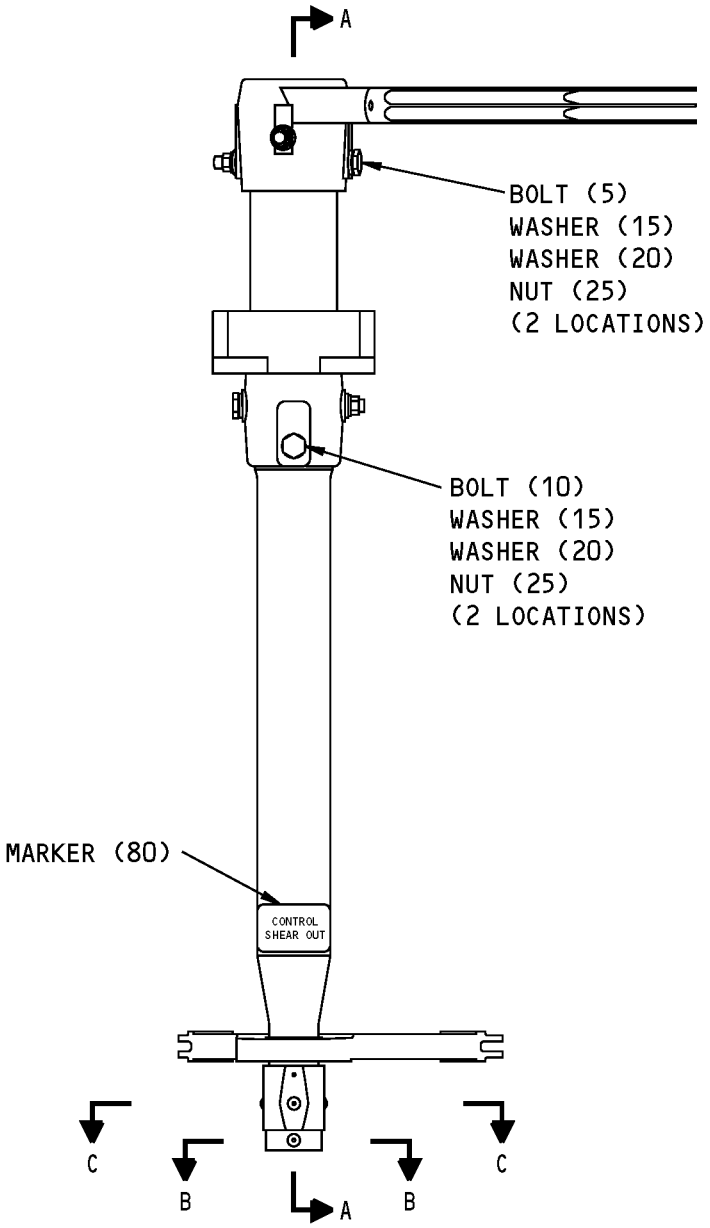
(14) For 251A1631-3 and -4 quadrant assemblies, remove the spacer (210), the lever assembly (195), the bearing (100), and the spacer (215) from the shaft (250).

(15) For 251A1631-1 quadrant assembly, remove the bearing housing assembly (IPL Figure 1, 55), the seal ring (45), and the packing (50) from the shaft (125) as shown in DISASSEMBLY, Figure 301, Section A-A.

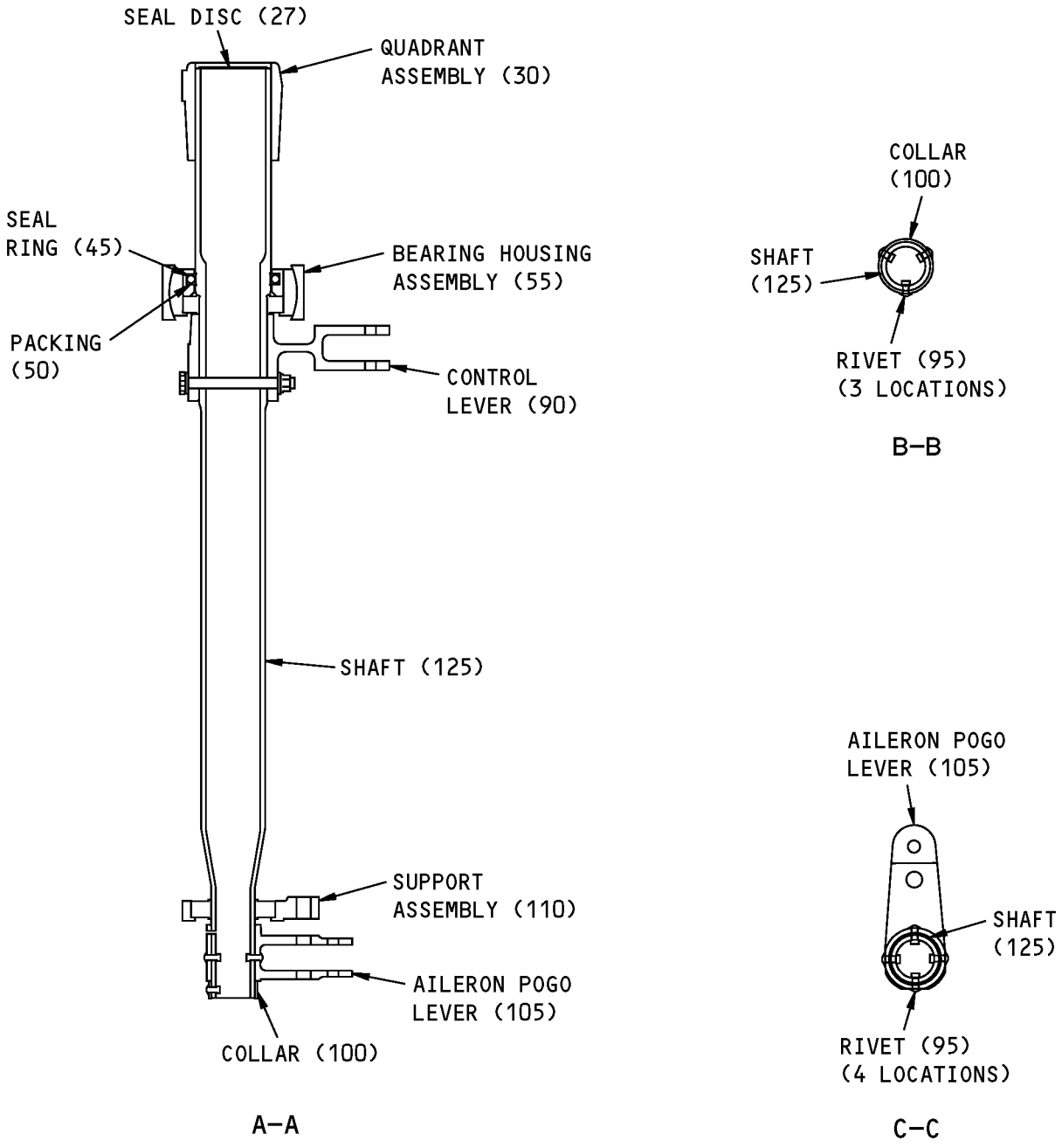
(16) Do not disassemble the bearing housing assembly (55) unless replacement of the housing seal (60) and bearing (65) or repair of the housing sphere (70) and housing (85) is necessary.

(17) For 251A1631-3 and -4 quadrant assemblies, remove the bearing housing assembly (IPL Figure 2, 55), the seal ring (45), and the packing (50) from the shaft (250) as shown in DISASSEMBLY, Figure 302, Section A-A.

(18) Do not disassemble the bearing housing assembly (55) unless replacement of the housing seal (60) and bearing (65) or repair of the housing sphere (70) and housing (85) is necessary.

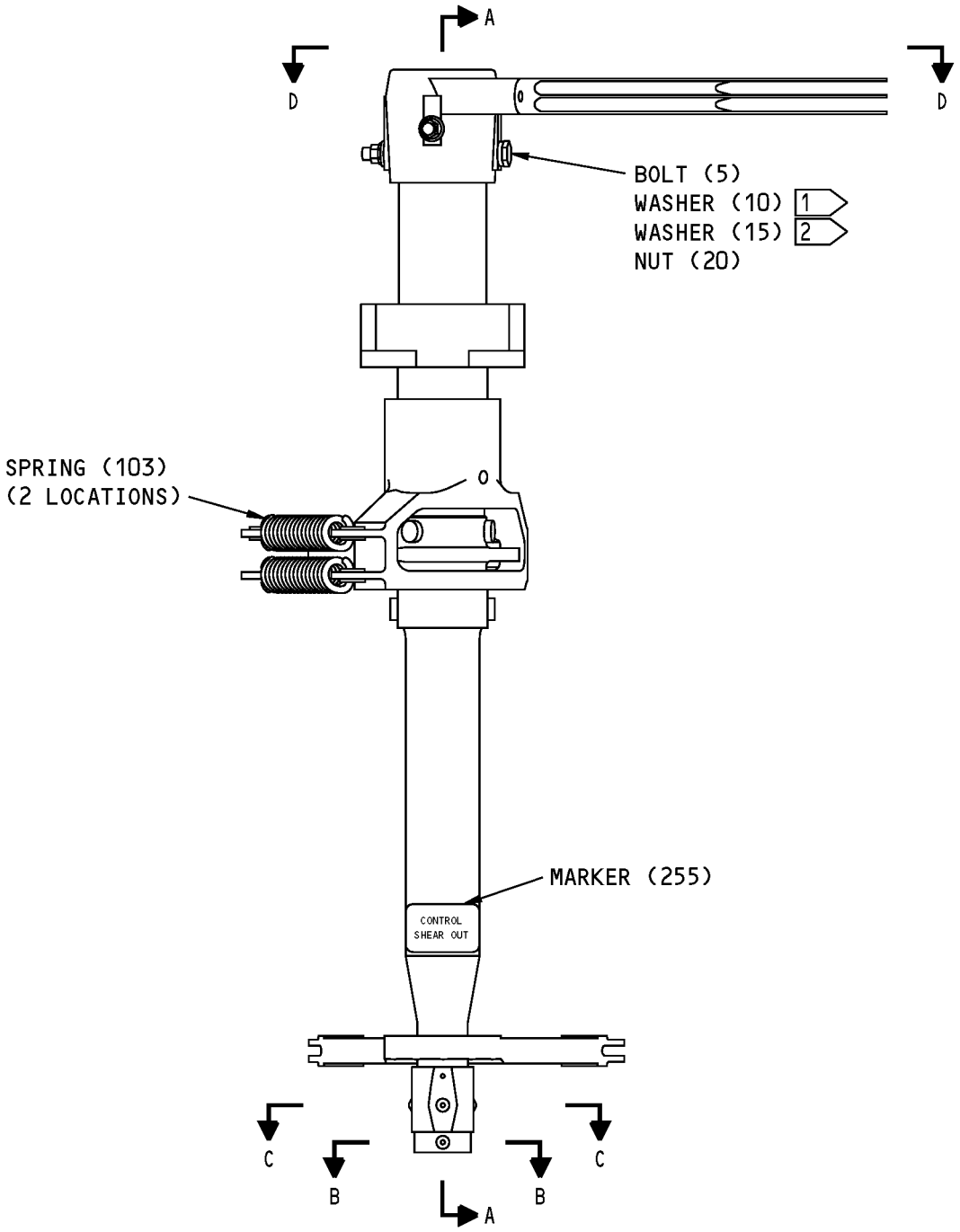


251A1631-1 Aileron Control Quadrant Assembly Disassembly
Figure 301 (Sheet 1 of 2)



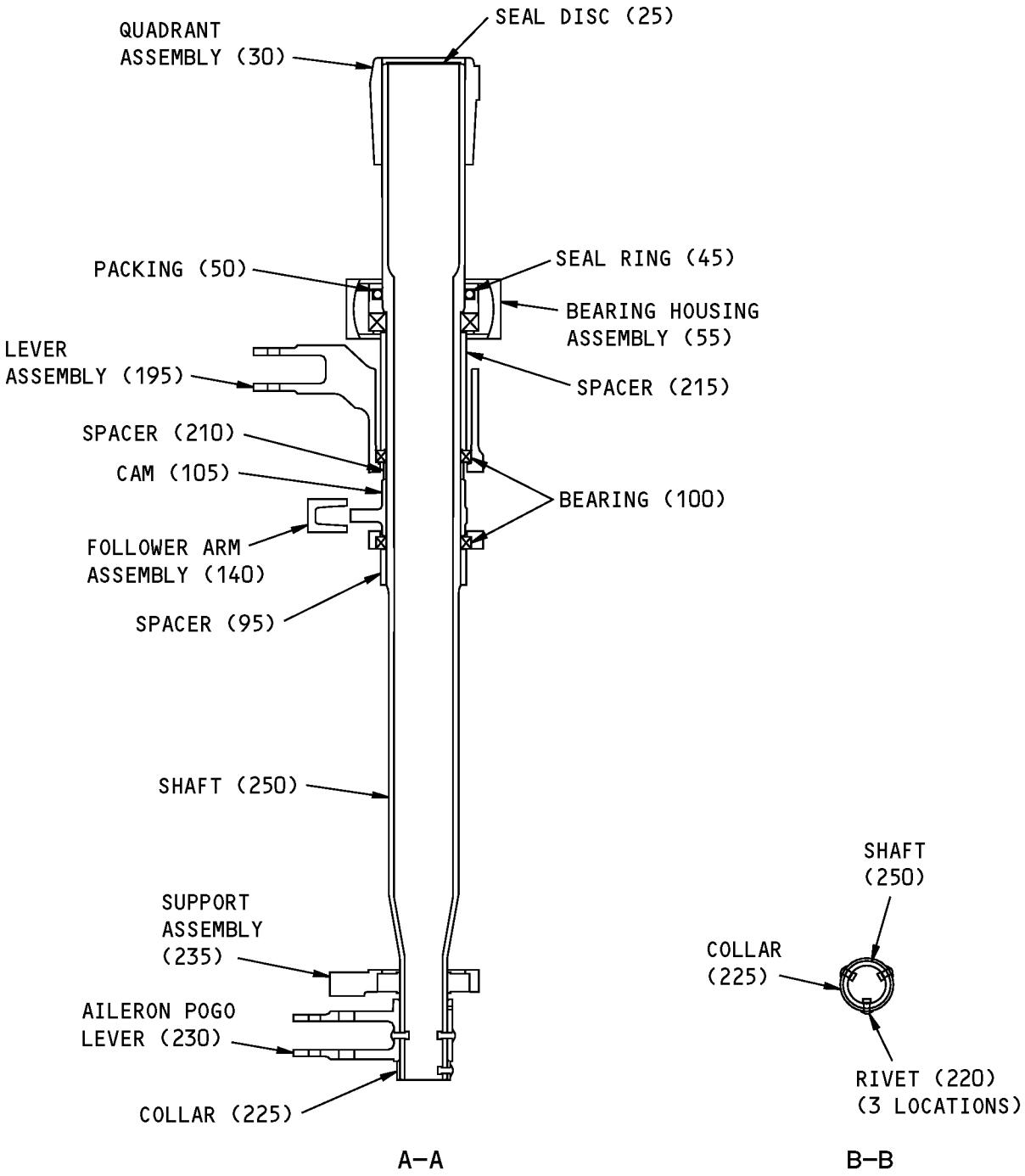
ITEM NUMBERS REFER TO IPL FIG. 1

251A1631-1 Aileron Control Quadrant Assembly Disassembly
Figure 301 (Sheet 2 of 2)

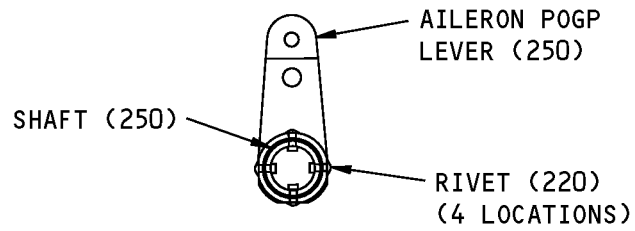


251A1631-3 SHOWN
251A1631-4 SIMILAR

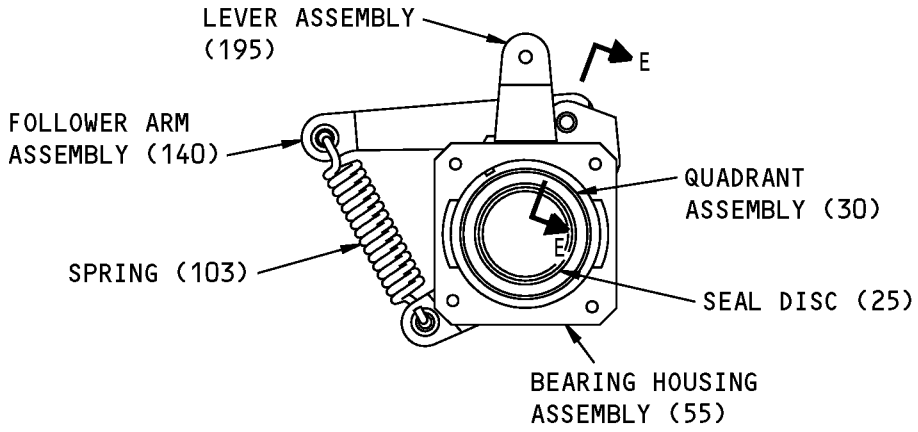
251A1631-3,-4 Aileron Control Quadrant Assembly Disassembly
Figure 302 (Sheet 1 of 3)



251A1631-3,-4 Aileron Control Quadrant Assembly Disassembly
Figure 302 (Sheet 2 of 3)

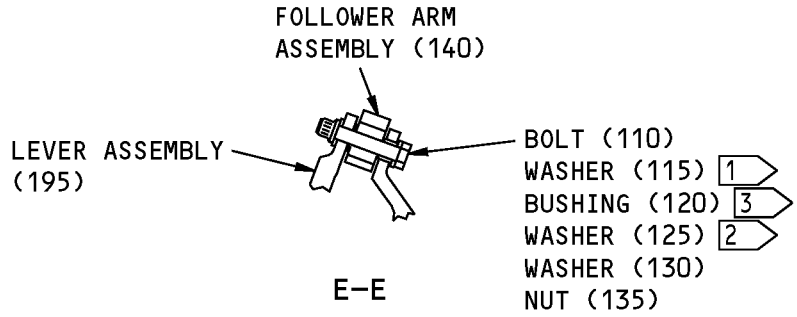


C–C



QUADRANT ASSEMBLY AND SUPPORT ASSEMBLY
NOT SHOWN FOR CLARITY

D–D



E–E

1 UNDER THE BOLT HEAD

2 UNDER THE NUT

3 UNDER THE FOLLOWER ARM ASSEMBLY

ITEM NUMBERS REFER TO IPL FIG. 2

251A1631-3,-4 Aileron Control Quadrant Assembly Disassembly
Figure 302 (Sheet 3 of 3)

CLEANING

1. General

A. This procedure has the data necessary to clean the aileron control quadrant assembly.

B. Refer to the Standard Overhaul Practices Manual (SOPM) for the SOPM subjects identified in this procedure.

C. Refer to IPL Figure 1 and IPL Figure 2 for item numbers.

2. Cleaning

A. References

Reference	Title
SOPM 20-30-01	CLEANING AND RELUBRICATING BEARINGS
SOPM 20-30-03	GENERAL CLEANING PROCEDURES

B. Procedure

(1) Clean the bearings (IPL Figure 1, 65, 115; IPL Figure 2, 65, 100, 160, 185, 240) as specified in SOPM 20-30-01.

(2) Use standard industry procedures and refer to SOPM 20-30-03 to clean all other parts.

CHECK

1. General

A. This procedure has the data necessary to find defects in the material of the specified parts.

B. Refer to FITS AND CLEARANCES for the design dimension and wear limits.

C. Refer to the Standard Overhaul Practices Manual (SOPM) for the SOPM subjects identified in this procedure.

D. Refer to IPL Figure 1 and IPL Figure 2 for item numbers.

2. Check

A. References

Reference	Title
SOPM 20-20-01	MAGNETIC PARTICLE INSPECTION
SOPM 20-20-02	PENETRANT METHODS OF INSPECTION

B. Procedure

(1) Use standard industry procedures to do a visual check of all the parts for defects. Do the penetrant or magnetic particle check if the visual check shows possible damage or if you suspect possible damage on the parts listed below:

(2) Do a penetrant check (SOPM 20-20-02) of these parts:

(a) Quadrant (IPL Figure 1, 40; IPL Figure 2, 40)

(b) Inner sphere housing (IPL Figure 1, 70; IPL Figure 2, 70)

(c) Housing (IPL Figure 1, 85; IPL Figure 2, 85)

(d) Control lever (IPL Figure 1, 90)

(e) Spacer (IPL Figure 2, 95, 210, 215)

(f) Aileron pogo level (IPL Figure 1, 105; IPL Figure 2, 230)

(g) Support (IPL Figure 1, 120; IPL Figure 2, 245)

(h) Shaft (IPL Figure 1, 125; IPL Figure 2, 250)

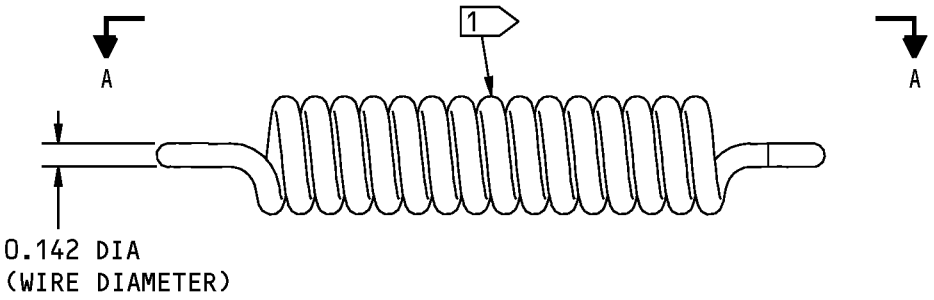
(i) Arm (IPL Figure 2, 190)

(j) Lever arm (IPL Figure 2, 200, 205A, 205B)

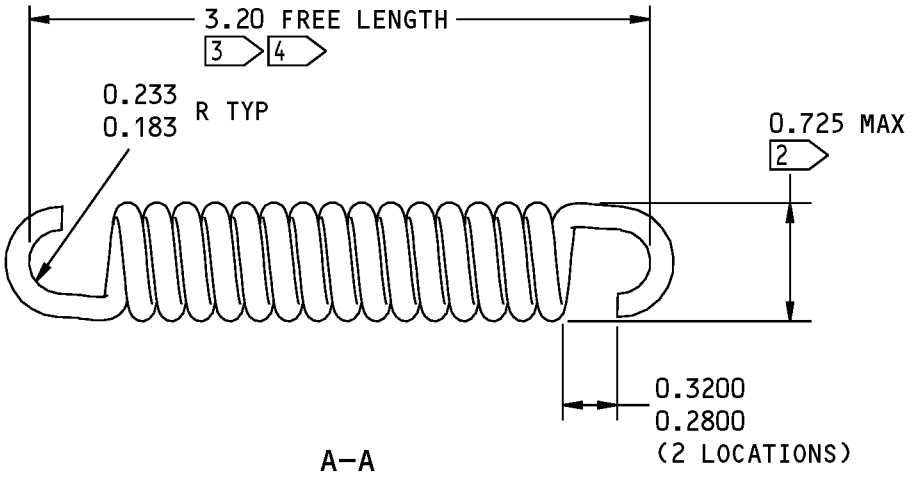
(3) Do a magnetic check (SOPM 20-20-01) of these parts:

(a) Cam (IPL Figure 2, 105)

(4) Do visual and dimension check of the spring (IPL Figure 2, 103) as shown in CHECK, Figure 501.



SPRING (103)



A–A

1 TOTAL NUMBER OF COILS IS 15.5 AND DIRECTION OF COILS IS OPTIONAL

2 MEAN DIAMETER IS 0.567 INCH

3 MAXIMUM EXTENDED LENGTH WITHOUT PERMANENT SET IS 4.652 INCHES

4 INITIAL TENSION IS 0.00 POUNDS. CHECK LOAD IS (46.25 - 53.75 POUNDS AT 3.70 INCHES) AND (109.948 - 127.768 POUNDS AT 4.388 INCHES)

ITEM NUMBERS REFER TO IPL FIG. 2

ALL DIMENSIONS ARE IN INCHES

251A1214-1 Spring Check
Figure 501

REPAIR

1. General

A. Instructions for repair, refinish, and replacement of the specified subassembly parts are included in each REPAIR when applicable:

Table 601:

PART NUMBER	NAME	REPAIR
—	REFINISH OF OTHER PARTS	1-1
251A1639	BEARING HOUSING ASSEMBLY	2-1
69-38713	HOUSING SEAL	2-2
69-38712	INNER SPHERICAL HOUSING	2-3
69-38711	OUTER HOUSING	2-4
65-52916	SUPPORT ASSEMBLY	3-1, 3-2
251A1633	FOLLOWER ARM ASSEMBLY	4-1, 4-2
251A1632	LEVER ASSEMBLY	5-1, 5-2

2. Dimensioning Symbols

A. Standard True Position Dimensioning Symbols used in the applicable repair procedures are shown in REPAIR-GENERAL, Figure 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 THIS FEATURE 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 DATUM B WITHIN 0.002
[// | 0.002 | A]	PARALLEL TO DATUM 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 A
[⌓ | 0.020 | A]	SURFACES MUST LIE WITHIN PARALLEL BOUNDARIES 0.020 INCH APART AND EQUALLY DISPOSED ABOUT TRUE PROFILE
[◎ | ∅ 0.0005 | C]	CONCENTRIC TO DATUM C WITHIN 0.0005 DIAMETER
[⌯ | 0.010 | A]	SYMMETRICAL WITH DATUM A WITHIN 0.010
[∠ | 0.005 | A]	ANGULAR TOLERANCE 0.005 WITH DATUM 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 DATUM A, AND EXTENDING 0.510 INCH ABOVE DATUM A, MAXIMUM MATERIAL CONDITION
[2.000] OR 2.000 BSC	THEORETICALLY EXACT DIMENSION IS 2.000

True Position Dimensioning Symbols
Figure 601

REFINISH OF OTHER PARTS - REPAIR 1-1

1. General

A. This procedure has the data necessary to refinish the parts which are not given in the specified repairs.

B. Refer to the Standard Overhaul Practice Manual (SOPM) for the SOPM subjects identified in this procedure.

C. Refer to IPL Figure 1 and IPL Figure 2 for item numbers.

2. Refinish of Other Parts

A. Consumable Materials

NOTE: Equivalent substitutes may be used.

Reference	Description	Specification
C00032	Coating - Exterior Protective Enamel, General Use	BMS10-60, Type I
C00064	Coating - Aluminum Chemical Conversion	BAC5719, Type II, Class A (MIL-C-5541, Class A)
C00175	Primer - Urethane Compatible, Corrosion Resistant (Less Than 1% Aromatic Amines)	BMS10-79, Type III
C00259	Primer - Chemical And Solvent Resistant Finish, Epoxy Resin	BMS10-11, Type I
C00260	Coating - Chemical And Solvent Resistant Finish, Epoxy Resin Enamel	BMS10-11, Type II
C00802	Coating - Nylon	BAC5710, Type 49
C50050	Coating - Exterior Protective Enamel, White Gloss Color (BAC 702)	BMS10-60, Type I
C50069	Coating - Enamel, Color 702 Gloss White	BMS10-11, Type II

B. References

Reference	Title
SOPM 20-30-02	STRIPPING OF PROTECTIVE FINISHES
SOPM 20-30-03	GENERAL CLEANING PROCEDURES
SOPM 20-41-01	DECODING TABLE FOR BOEING FINISH CODES
SOPM 20-60-02	FINISHING MATERIALS

C. General

(1) Instructions for the repair of the parts listed in REPAIR 1-1, Table 601 is for repair of the initial finish.

D. Procedure

NOTE: For stripping of protective finishes, refer to SOPM 20-30-02. For the decoding table for Boeing finish codes, refer to SOPM 20-41-01. For finishing materials, refer to SOPM 20-60-02.

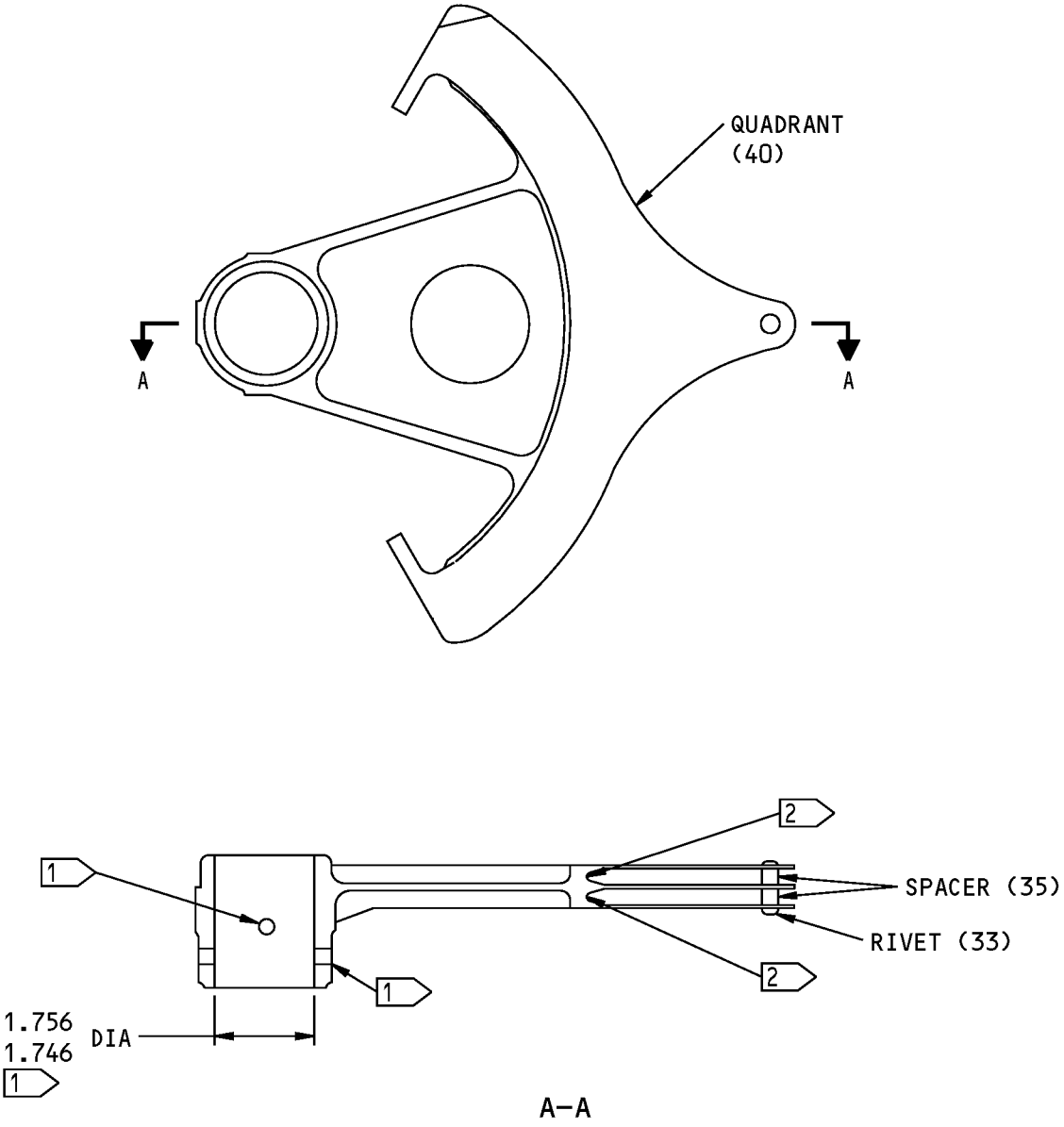
(1) Refer to REPAIR 1-1, Table 601

Table 601: Refinish Details

IPL FIG. & ITEM	MATERIAL	FINISH
IPL Fig. 1		
Seal Disc (27)	Aluminum alloy	Treat surface with colored film coating, C00064 or chromic acid anodize, but seal in dilute chromate solution. Apply primer, C00259 (F-18.05).
Quadrant (40)	Aluminum alloy	Chromic acid anodize and apply primer, C00259 (F-18.04) all surfaces except as noted by flag- note 1. Apply primer, C00259 (F-20.02) in cable grooves only. Overspray is permitted. See REPAIR 1-1, Figure 601
Pin (80)	4130 Steel 150-170 ksi	Cadmium plate, 0.0002-0.0004 inch thick (F-15.02).
Lever (90)	Aluminum alloy	Chemical treat with coating, C00064 or chromic acid anodize (SRF-2.30). Apply enamel coating, C50050 (SRF-14.9812) except no paint in 1.563-1.564 inch diameter hole.
Collar (100)	Aluminum alloy	Chemical treat with colored film coating, C00064 on the inside and outside surfaces (F-18.07) and apply enamel coating, C00260 (F-21.03) outside surfaces only.
Lever (105)	Aluminum alloy	Apply coating, C50050 (SRF-14.9812) except no paint on 1.000-1.001 inch diameter hole.
Shaft (125)	Aluminum alloy	Chemical treat with colored film coating, C00064 on the inside and outside surfaces (F-2.901). Apply coating, C50050 on outside surfaces (F-14.9812) except as noted by flagnotes 1 and 2. See REPAIR 1-1, Figure 602.
IPL Fig. 2		
Seal Disc (25)	Aluminum alloy	Treat surface with colored film coating, C00064 or chromic acid anodize, but seal in dilute chromate solution. Apply primer, C00259 (F-18.05).
Quadrant (40)	Aluminum alloy	Chromic acid anodize and apply (F-18.04) on all surfaces except as noted by flag- note 1. Apply primer, C00259 in cable grooves only. Overspray is permitted. See REPAIR 1-1, Figure 601.
Pin (80)	4130 Steel 150-170 ksi	Cadmium plate, 0.0002-0.0004 inch thick (F-15.02).
Spacer (95, 215)	Aluminum alloy	Boric acid-sulfuric acid anodize, class 1 or 5, or chromic acid anodized at 22 volts, class 3 or 5. Apply primer, C00259. Apply enamel coating, C50069 (SRF-14.9812) except no primer and paint in the inside diameter.

Table 601: Refinish Details (Continued)

IPL FIG. & ITEM	MATERIAL	FINISH
Spring (103)	Aluminum alloy	Clean surfaces as shown in SOPM 20-30-03. Apply finish coating, C00802 (F-21.14) onto the hook ends only.
Cam (105)	15-5PH Cres 180-200 ksi	Cadmium plate, type 2, class 2 (F-15.06) . Apply primer, C00259 (F-20.02). Apply enamel coating, C50050 (SRF-14.9812) except no plating, primer, and paint in surface identified by by flagnotes 1 and 2 in REPAIR 1-1, Figure 603.
Spacer (210)	Aluminum alloy	Boric acid-sulfuric acid anodize, class 1 or 5, or chromic acid anodized at 22 volts, class 3 or 5. Apply primer, C00175 except no primer in the inside surfaces.
Collar (225)	Aluminum alloy	Chemical treat with colored film coating, C00064 the inside and outside surfaces and apply primer, C00259 (F-18.07).
Lever (230)	Aluminum alloy	Apply enamel coating, C50050 (SRF-14.9812) except no paint on 1.000-1.001 inch diameter hole.
Shaft (250)	Aluminum alloy	Chemical treat with colored film coating, C00064 all over (F-17.08). Apply primer, C00259 into the inside and outside surfaces (F-20.55). Apply enamel coating, C50050 (SRF-14.9812) to outside surfaces except no paint and primer in surfaces identified by flagnotes 1 and 2 in REPAIR 1-1, Figure 604. Touch up finish stenciled letters with coating, C00032 (SRF-14.9815.701).



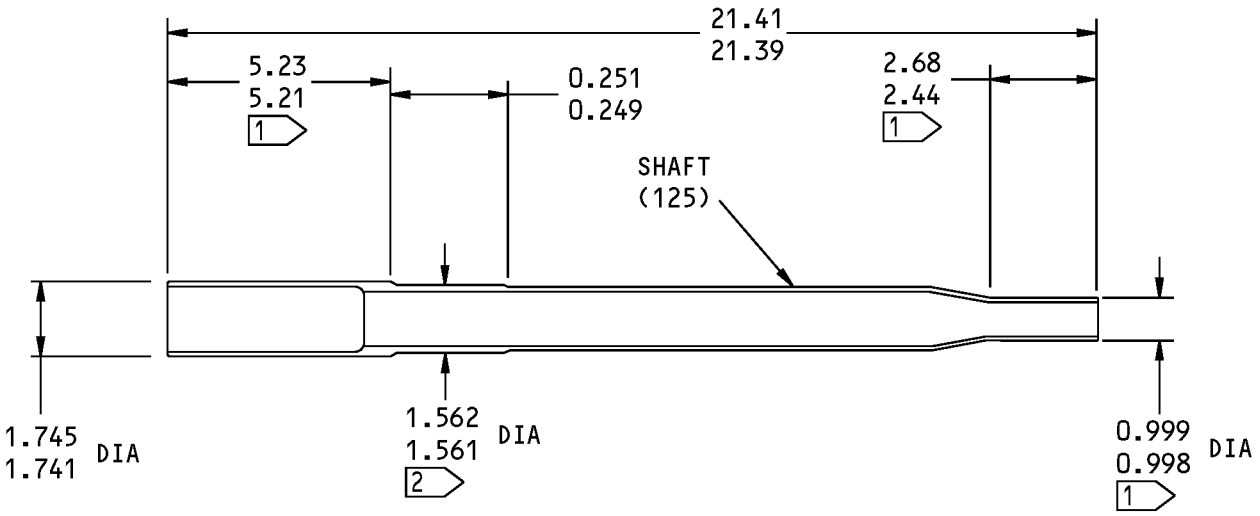
1 NO PRIMER ON THESE SURFACES

2 APPLY A LAYER OF BMS 10-11, TYPE 1 (F-20.20) IN CABLE GROOVES ONLY. OVERSPRAY PERMITTED

ITEM NUMBER REFER TO IPL FIG. 1

ALL DIMENSIONS ARE IN INCHES

65-46992-10 Aileron Control Quadrant Refinish
Figure 601



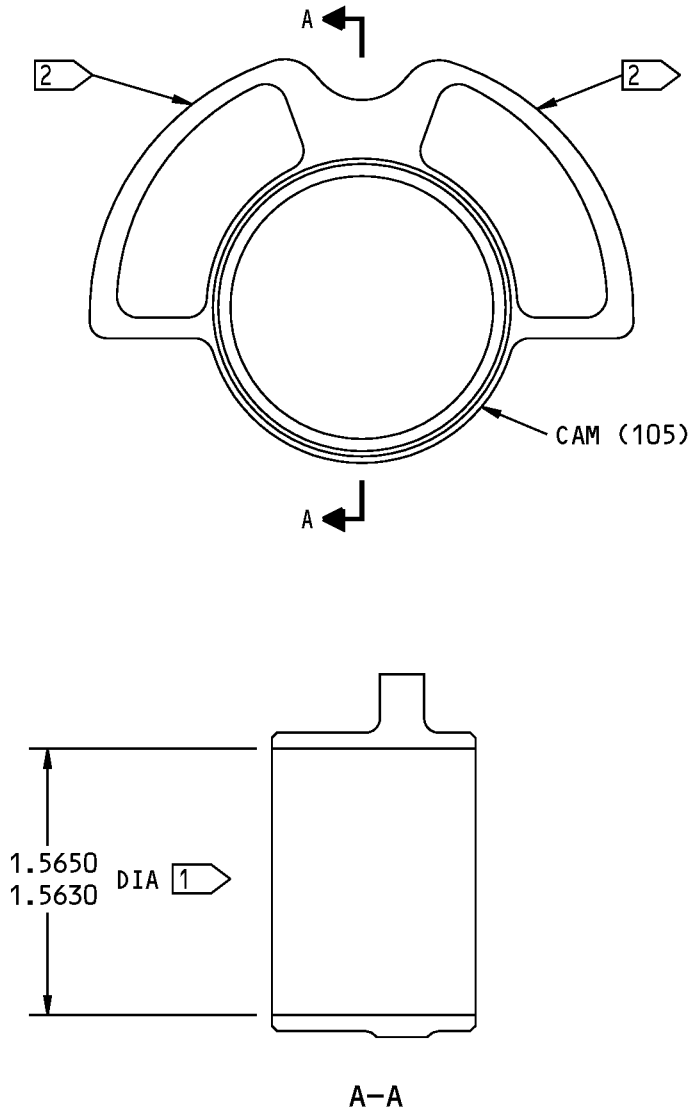
1 CHEMICAL TREAT WITH MIL-C-5541 COLORED FILM AND LAYER OF BMS 10-11, TYPE I PRIMER THIS SURFACE ONLY

2 NO PAINT (SRF-14.9812) ON THESE SURFACES

ITEM NUMBER REFER TO IPL FIG. 1

ALL DIMENSIONS ARE IN INCHES

65-56665-4 Shaft Refinish
Figure 602



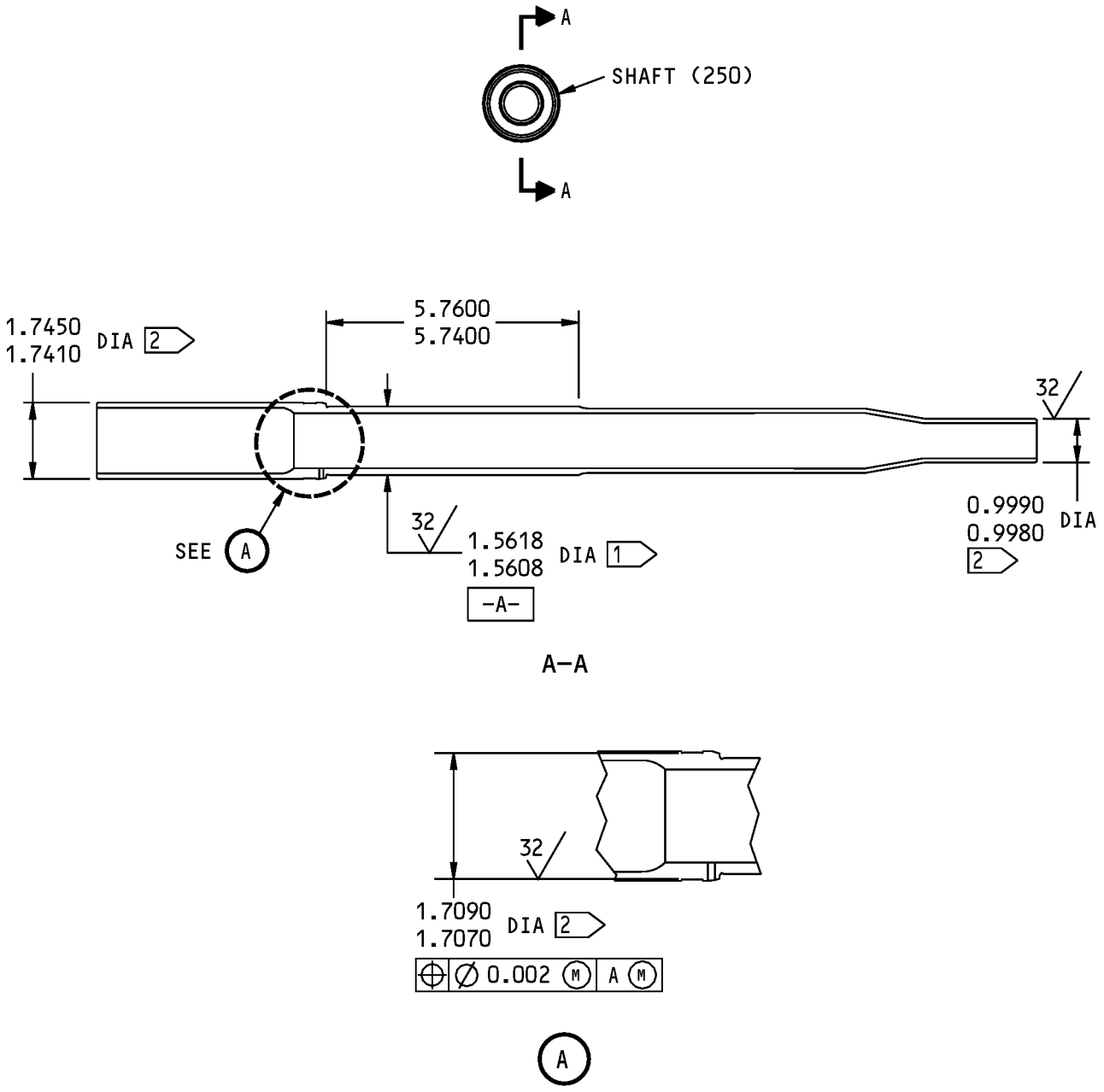
1 NO PRIMER AND ENAMEL ON THIS SURFACE

2 NO PLATING, PRIMER, AND ENAMEL ON THIS SURFACE

ITEM NUMBERS REFER TO IPL FIG. 2

ALL DIMENSIONS ARE IN INCHES

251A1634-1 Cam Refinish
Figure 603



1 NO PAINT AND PRIMER ON THIS SURFACE

2 NO PAINT ON THIS SURFACE

125 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

BREAK ALL SHARP EDGES

ITEM NUMBERS REFER TO IPL FIG. 2

ALL DIMENSIONS ARE IN INCHES

251A1623-1 Shaft Refinish
Figure 604

BEARING HOUSING ASSEMBLY - REPAIR 2-1

251A1639–1

1. General

A. This procedure has the data necessary to repair and refinish the bearing housing assembly (55).

B. Refer to the Standard Overhaul Practice Manual (SOPM) for the SOPM subjects identified in this procedure.

C. Refer to the REPAIR-GENERAL, Figure 601 for the Standard True Position Dimensioning Symbols shown in the repair.

D. Refer to IPL Figure 1 and IPL Figure 2 for item numbers.

2. Bearing Replacement

A. Consumable Materials

NOTE: Equivalent substitutes may be used.

Reference	Description	Specification
C00528	Compound - Corrosion Preventive, Petroleum Hot Application (Soft Film)	MIL-C-11796, Class III

B. References

Reference	Title
SOPM 20-50-03	BEARING AND BUSHING REPLACEMENT
SOPM 20-60-04	MISCELLANEOUS MATERIALS

C. Procedure

NOTE: For miscellaneous materials, refer to SOPM 20-60-04.

(1) Remove the housing seal (60) and bearing (65) from the inner sphere housing (70).

(2) Apply a layer of compound, C00528 onto the inside diameter of the sphere housing assembly (75).

(3) Install the housing seal (60) and bearing (65) onto the inner sphere housing (70) by roller-swage procedure as shown in SOPM 20-50-03.

(4) Roller swage the inner sphere housing (70) onto the seal housing (60) (SOPM 20-50-03).

3. Refinish

A. Consumable Materials

NOTE: Equivalent substitutes may be used.

Reference	Description	Specification
C00260	Coating - Chemical And Solvent Resistant Finish, Epoxy Resin Enamel	BMS10-11, Type II

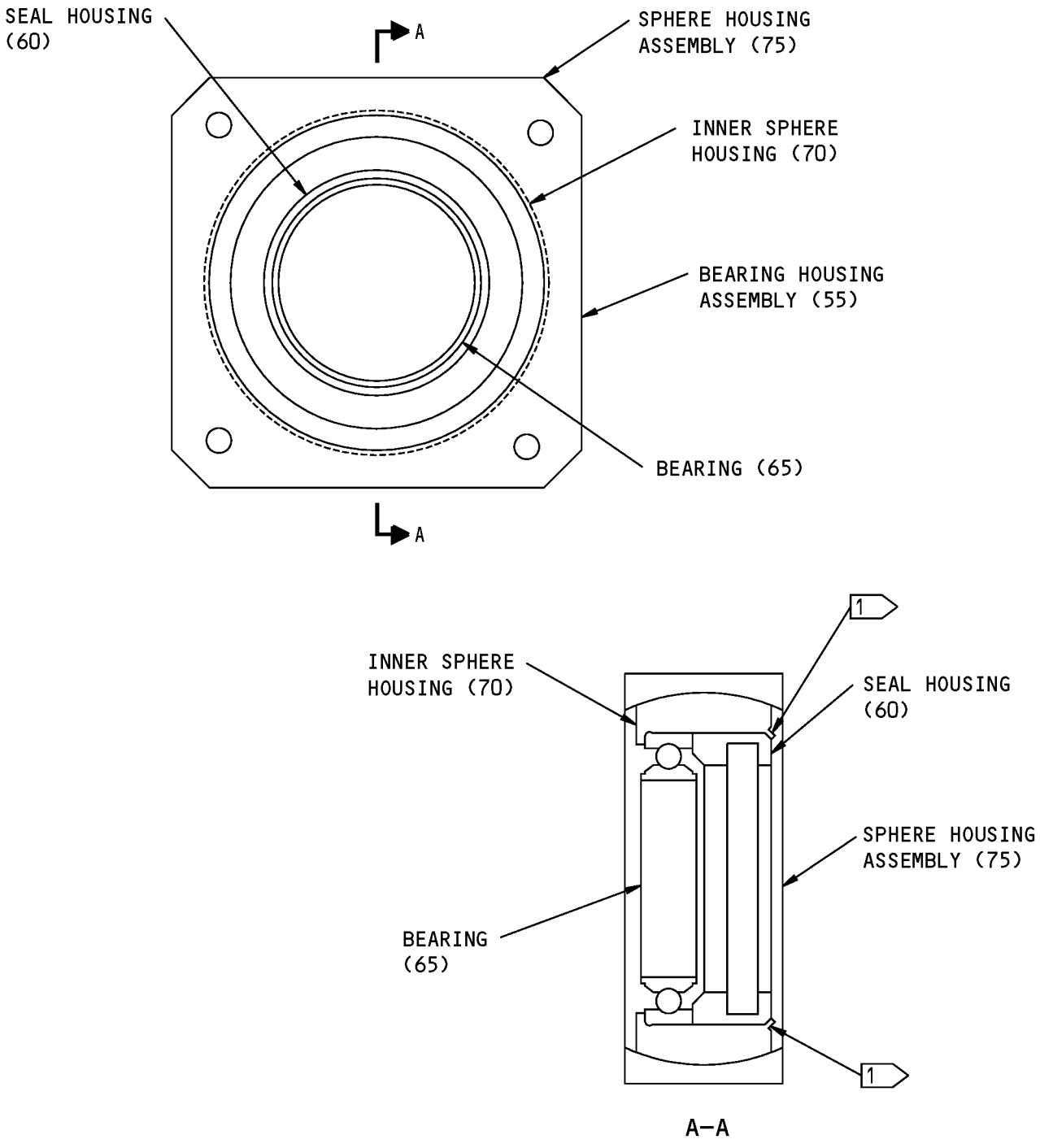
B. References

Reference	Title
SOPM 20-30-02	STRIPPING OF PROTECTIVE FINISHES
SOPM 20-41-01	DECODING TABLE FOR BOEING FINISH CODES
SOPM 20-60-02	FINISHING MATERIALS

C. Procedure

NOTE: For stripping of protective finishes, refer to SOPM 20-30-02. For the decoding table for Boeing finish codes, refer to SOPM 20-41-01. For finishing materials, refer to SOPM 20-60-02.

(1) Apply enamel coating, C00260 (F-21.02) on all exterior surfaces of sphere housing assembly (75). No paint allowed on interior of sphere housing assembly (75) or on other components of bearing housing assembly (55).



1 ROLLER SWAGE

ITEM NUMBER REFER TO IPL FIG. 1 AND 2

251A1639-1 Bearing Housing Assembly Repair
Figure 601

HOUSING SEAL - REPAIR 2-2

69-38713–2

1. General

A. This procedure has the data necessary to refinish the housing seal (60).

B. Refer to the Standard Overhaul Practice Manual (SOPM) for the SOPM subjects identified in this procedure.

C. Refer to REPAIR-GENERAL, Figure 601 for the Standard True Position Dimensioning Symbols shown in the repair.

D. Refer to IPL Figure 1 and IPL Figure 2 for item numbers.

E. General repair details:

(1) Material: Aluminum alloy

2. Refinish Procedures

A. Consumable Materials

NOTE: Equivalent substitutes may be used.

Reference	Description	Specification
C00064	Coating - Aluminum Chemical Conversion	BAC5719, Type II, Class A (MIL-C-5541, Class A)
C00259	Primer - Chemical And Solvent Resistant Finish, Epoxy Resin	BMS10-11, Type I

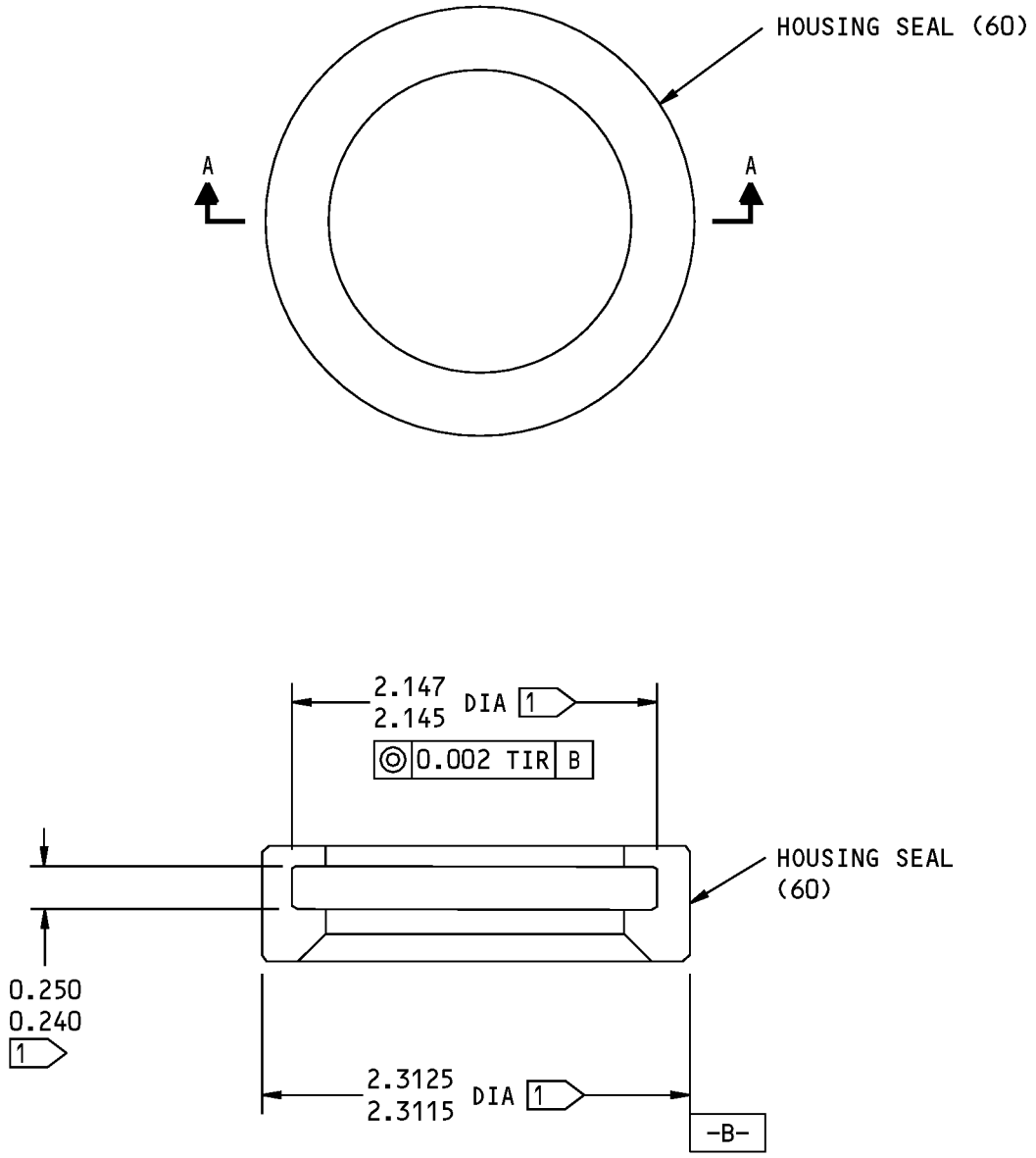
B. References

Reference	Title
SOPM 20-30-02	STRIPPING OF PROTECTIVE FINISHES
SOPM 20-41-01	DECODING TABLE FOR BOEING FINISH CODES
SOPM 20-60-02	FINISHING MATERIALS

C. Housing Seal (60)

NOTE: For stripping of protective finishes, refer to SOPM 20-30-02. For the decoding table for Boeing finish codes, refer to SOPM 20-41-01. For finishing materials, refer to SOPM 20-60-02.

(1) Treat surface with colored film coating, C00064 or chromic acid anodize and apply primer, C00259 (F-18.05) except as noted by flagnote 1 in REPAIR 2-2, Figure 601.



A-A

1 NO PRIMER ON THIS SURFACE

ITEM NUMBER REFER TO IPL FIG. 1 AND 2

ALL DIMENSIONS IN INCHES

69-38713-2 Housing Seal Refinish
Figure 601

INNER SPHERICAL HOUSING - REPAIR 2-3

69-38712–1

1. General

A. This procedure has the data necessary to refinish the inner spherical housing (70).

B. Refer to the Standard Overhaul Practice Manual (SOPM) for the SOPM subjects identified in this procedure.

C. Refer to REPAIR-GENERAL, Figure 601 for the Standard True Position Dimensioning Symbols shown in the repair.

D. Refer to IPL Figure 1 and IPL Figure 2 for item numbers.

E. General repair details:

(1) Material: Aluminum alloy

2. Inner Sphere Housing Refinish

A. Consumable Materials

NOTE: Equivalent substitutes may be used.

Reference	Description	Specification
C00064	Coating - Aluminum Chemical Conversion	BAC5719, Type II, Class A (MIL-C-5541, Class A)
C00259	Primer - Chemical And Solvent Resistant Finish, Epoxy Resin	BMS10-11, Type I

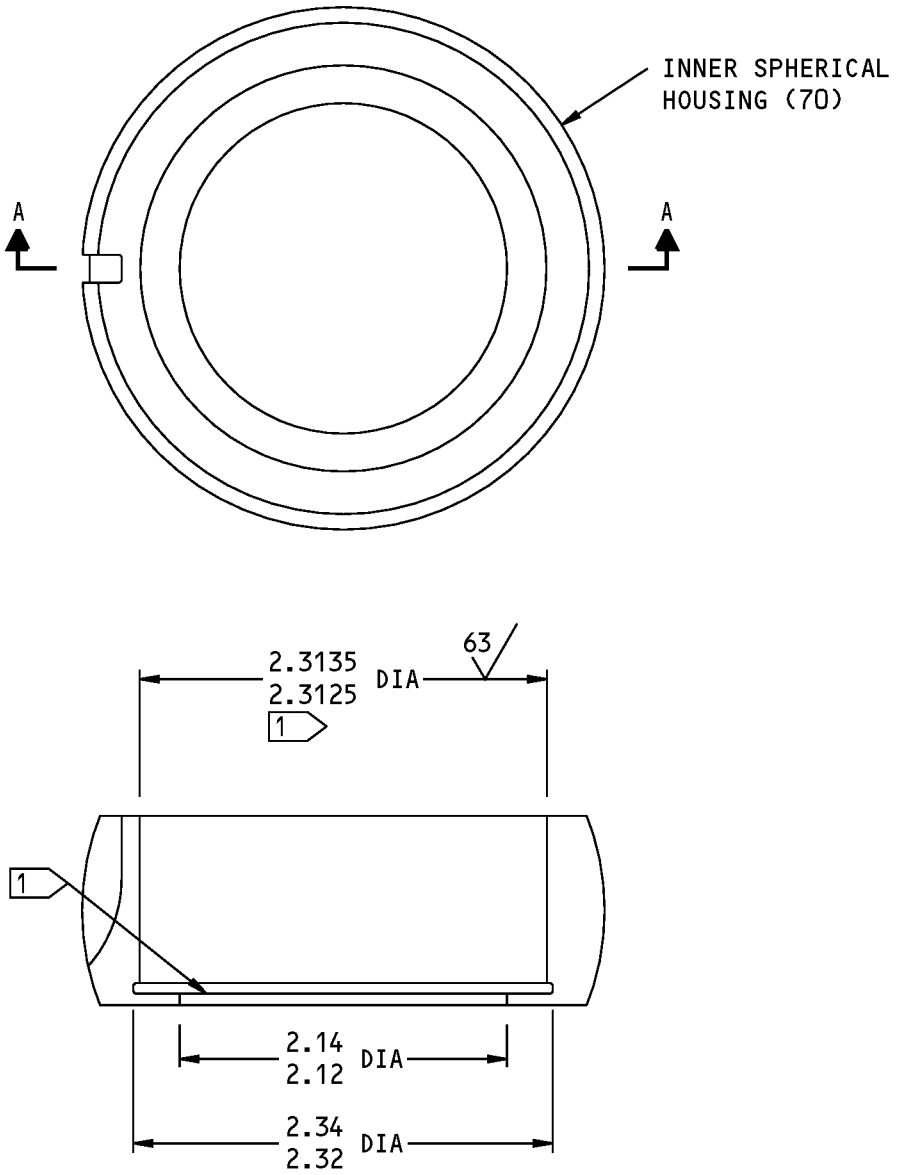
B. References

Reference	Title
SOPM 20-30-02	STRIPPING OF PROTECTIVE FINISHES
SOPM 20-41-01	DECODING TABLE FOR BOEING FINISH CODES
SOPM 20-60-02	FINISHING MATERIALS

C. Procedure

NOTE: For stripping of protective finishes, refer to SOPM 20-30-02. For the decoding table for Boeing finish codes, refer to SOPM 20-41-01. For finishing materials, refer to SOPM 20-60-02.

(1) Treat surface with colored film coating, C00064 or chromic acid anodize and apply primer, C00259 (F-18.05) except as noted by flagnote 1 in REPAIR 2-3, Figure 601.



A–A

1 NO PRIMER ON THESE SURFACES

ITEM NUMBER REFER TO IPL FIG. 1 AND 2

ALL DIMENSIONS ARE IN INCHES

69-38712-1 Inner Spherical Housing Refinish
Figure 601

HOUSING - REPAIR 2-4

69-38711–8

1. General

A. This procedure has the data necessary to repair and refinish the housing (80).

B. Refer to the Standard Overhaul Practice Manual (SOPM) for the SOPM subjects identified in this procedure.

C. Refer to REPAIR-GENERAL, Figure 601 for the Standard True Position Dimensioning Symbols shown in the repair.

D. Refer to IPL Figure 1 for item numbers.

E. General repair details:

(1) Material: Aluminum alloy

2. Outer Housing Refinish

A. Consumable Materials

NOTE: Equivalent substitutes may be used.

Reference	Description	Specification
C00064	Coating - Aluminum Chemical Conversion	BAC5719, Type II, Class A (MIL-C-5541, Class A)
C00259	Primer - Chemical And Solvent Resistant Finish, Epoxy Resin	BMS10-11, Type I

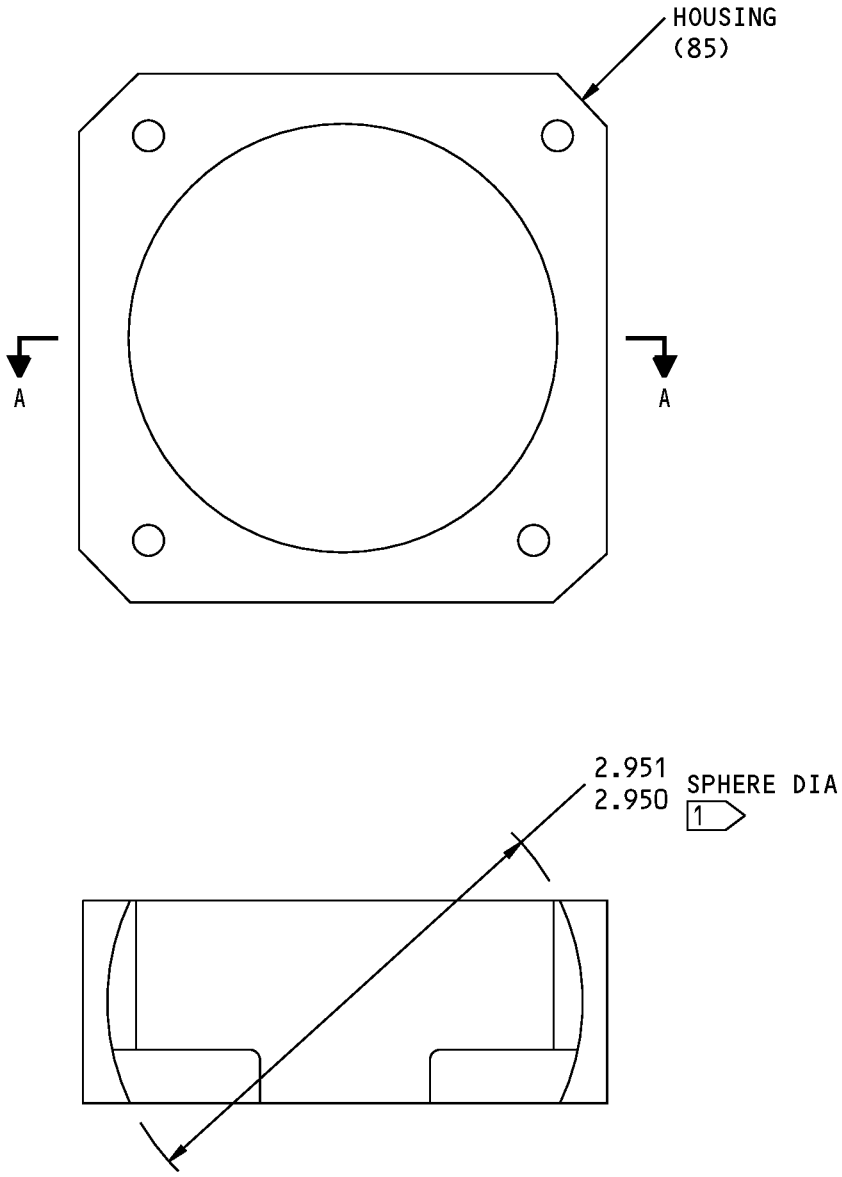
B. References

Reference	Title
SOPM 20-30-02	STRIPPING OF PROTECTIVE FINISHES
SOPM 20-41-01	DECODING TABLE FOR BOEING FINISH CODES
SOPM 20-60-02	FINISHING MATERIALS

C. Procedure

NOTE: For stripping of protective finishes, refer to SOPM 20-30-02. For the decoding table for Boeing finish codes, refer to SOPM 20-41-01. For finishing materials, refer to SOPM 20-60-02.

(1) Treat surface with colored film coating, C00064 or chromic acid anodize and apply primer, C00259 (F-18.05) except as noted by flagnote 1 in REPAIR 2-4, Figure 601.



1 NO PRIMER ON THESE SURFACES

ITEM NUMBER REFER TO IPL FIG. 1

ALL DIMENSIONS ARE IN INCHES

69-38711-8 Housing Refinish
Figure 601

SUPPORT ASSEMBLY - REPAIR 3-1

65-52916–11

1. General

A. This procedure has the data necessary to repair and refinish the support assembly (IPL Figure 1, 110; IPL Figure 2, 235).

B. Refer to the Standard Overhaul Practice Manual (SOPM) for the SOPM subjects identified in this procedure.

C. Refer to REPAIR-GENERAL, Figure 601 for the Standard True Position Dimensioning Symbols shown in the repair.

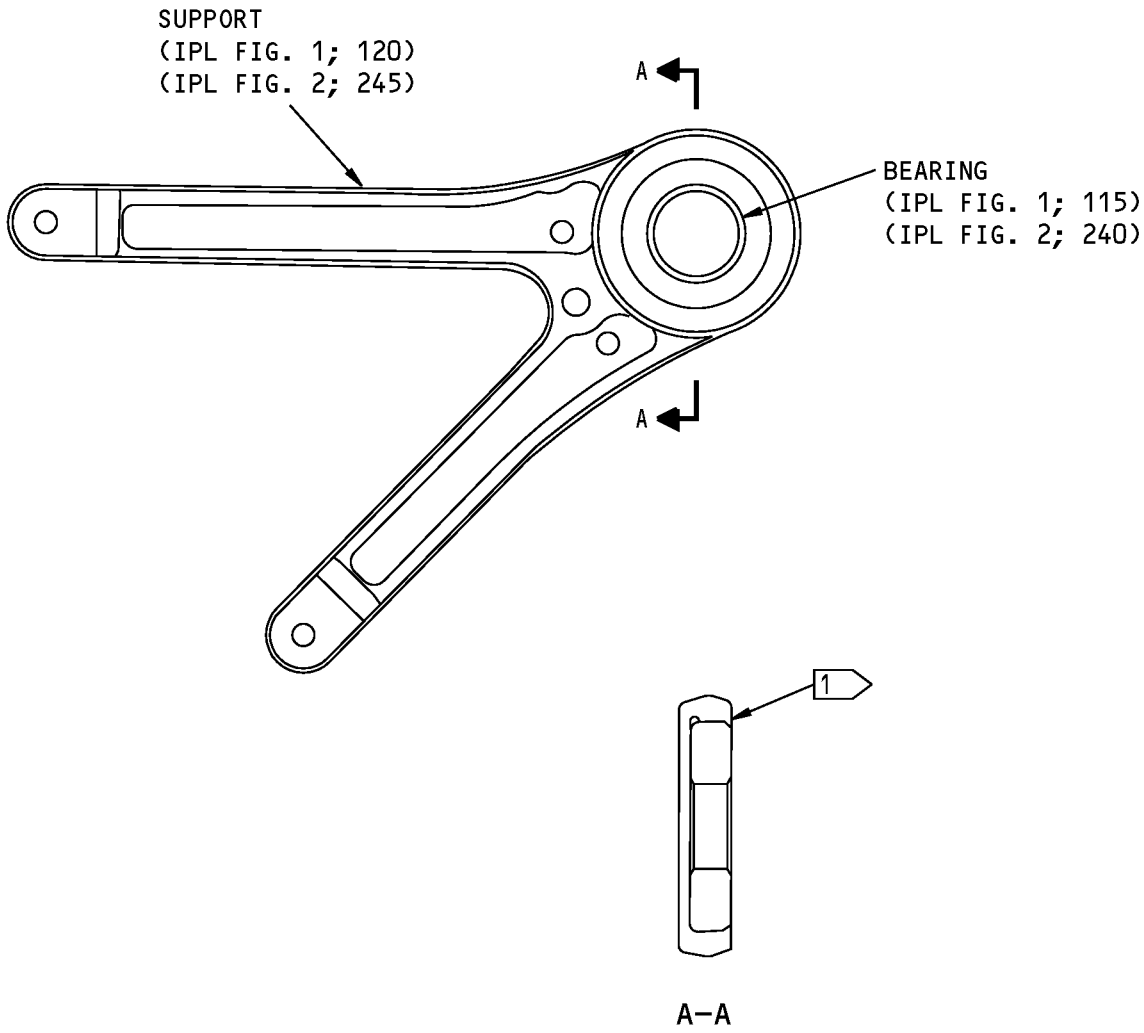
D. Refer to IPL Figure 1 and IPL Figure 2 for item numbers.

2. Bearing Replacement

A. Procedure

(1) Remove the bearing (IPL Figure 1, 115; IPL Figure 2, 240) from the support (IPL Figure 1, 120; IPL Figure 2, 245) as shown in REPAIR 3-1, Figure 601.

(2) Install the new bearing (IPL Figure 1, 115; IPL Figure 2, 240) onto the support (IPL Figure 1, 120; IPL Figure 2, 245) by roller-swage procedure as shown in SOPM 20-50-03.



1 INSTALL BY ROLLER-SWAGE PROCEDURE
AS SHOWN IN SOPM 20-50-03

65-52916-11 Support Assembly Repair
Figure 601

SUPPORT - REPAIR 3-2

65-52916–10

1. General

A. This procedure has the data necessary to repair and refinish the support (IPL Figure 1, 120; IPL Figure 2, 245).

B. Refer to the Standard Overhaul Practice Manual (SOPM) for the SOPM subjects identified in this procedure.

C. Refer to REPAIR-GENERAL, Figure 601 for the Standard True Position Dimensioning Symbols shown in the repair.

D. Refer to IPL Figure 1 and IPL Figure 2 for item numbers.

2. Support Refinish

A. Consumable Materials

NOTE: Equivalent substitutes may be used.

Reference	Description	Specification
C00259	Primer - Chemical And Solvent Resistant Finish, Epoxy Resin	BMS10-11, Type I
C50050	Coating - Exterior Protective Enamel, White Gloss Color (BAC 702)	BMS10-60, Type I

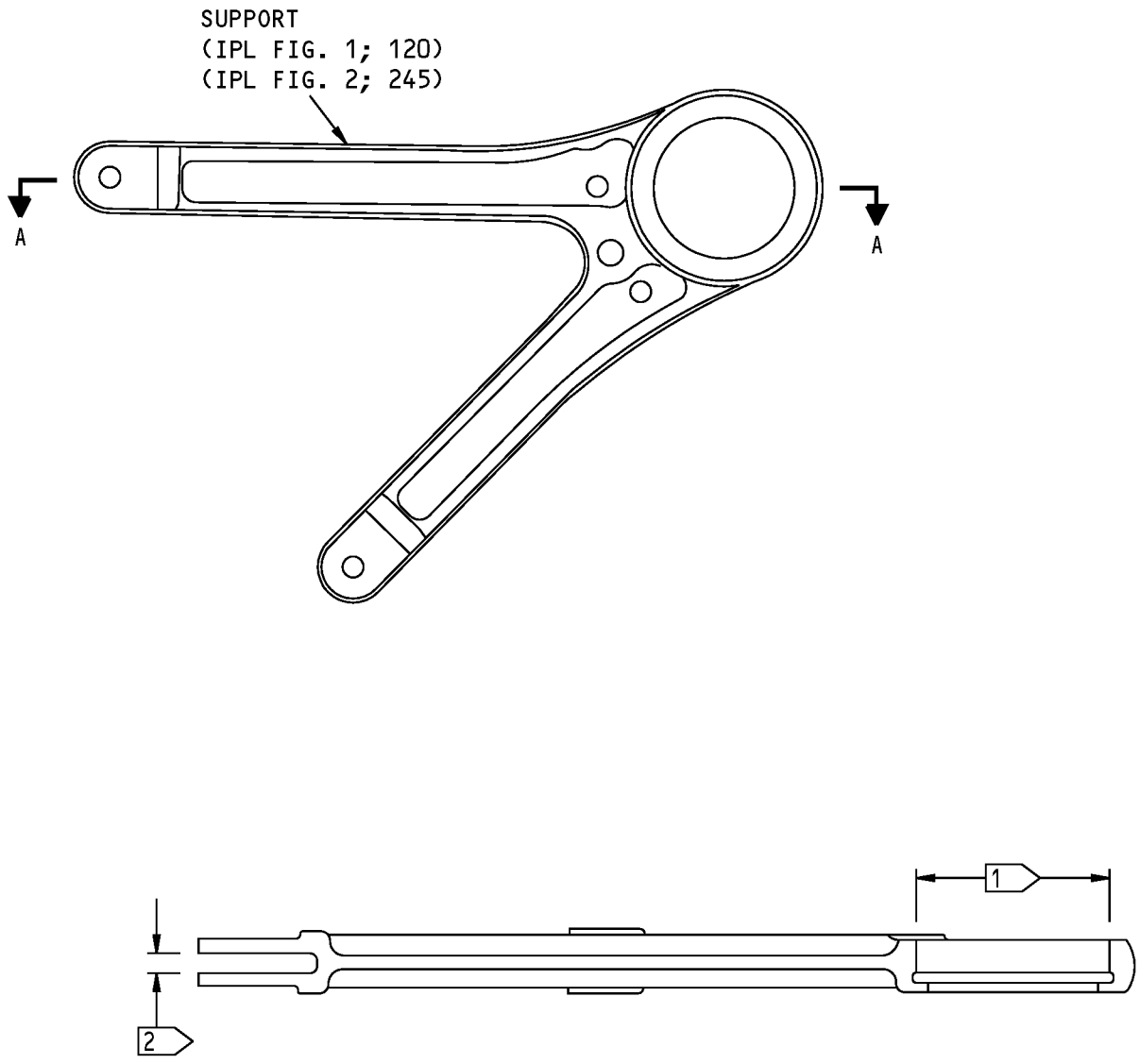
B. References

Reference	Title
SOPM 20-30-02	STRIPPING OF PROTECTIVE FINISHES
SOPM 20-41-01	DECODING TABLE FOR BOEING FINISH CODES
SOPM 20-60-02	FINISHING MATERIALS

C. Procedure

NOTE: For stripping of protective finishes, refer to SOPM 20-30-02. For the decoding table for Boeing finish codes, refer to SOPM 20-41-01. For finishing materials, refer to SOPM 20-60-02.

(1) Chromic acid anodize and apply primer, C00259 (F-18.13). Apply enamel coating, C50050 (F-14.9812) except as noted by flagnotes 1 and 2 in REPAIR 3-2, Figure 601.



A–A

1 NO PAINT ON THESE SURFACES

2 NO BMS 10–60 WHITE GLOSS ENAMEL (F–14.9812) ON THESE SURFACES

65-52916-10 Support Refinish
Figure 601

FOLLOWER ARM ASSEMBLY - REPAIR 4-1

251A1633–1

1. General

A. This procedure has the data necessary to repair the follower arm assembly (140).

B. Refer to the Standard Overhaul Practice Manual (SOPM) for the SOPM subjects identified in this procedure.

C. Refer to REPAIR-GENERAL, Figure 601 for the Standard True Position Dimensioning Symbols shown in the repair.

D. Refer to IPL Figure 2 for item numbers.

2. Bushing Replacement

A. Consumable Materials

NOTE: Equivalent substitutes may be used.

Reference	Description	Specification
A00247	Sealant - Pressure And Environmental - Chromate Type	BMS 5-95

B. References

Reference	Title
SOPM 20-50-03	BEARING AND BUSHING REPLACEMENT
SOPM 20-60-04	MISCELLANEOUS MATERIALS

C. Procedures

NOTE: For miscellaneous materials, refer to SOPM 20-60-04.

(1) Remove the bushing(s) (180) from the arm (190) as shown in REPAIR 4-1, Figure 601.

(2) Install the replacement bushing (180) onto the arm (190) with sealant, A00247 and by staked flange bushing procedure as shown in SOPM 20-50-03.

3. Bearing Replacement

A. Consumable Materials

NOTE: Equivalent substitutes may be used.

Reference	Description	Specification
A00247	Sealant - Pressure And Environmental - Chromate Type	BMS 5-95

B. References

Reference	Title
SOPM 20-50-03	BEARING AND BUSHING REPLACEMENT
SOPM 20-60-04	MISCELLANEOUS MATERIALS

C. Procedures

NOTE: For miscellaneous materials, refer to SOPM 20-60-04.

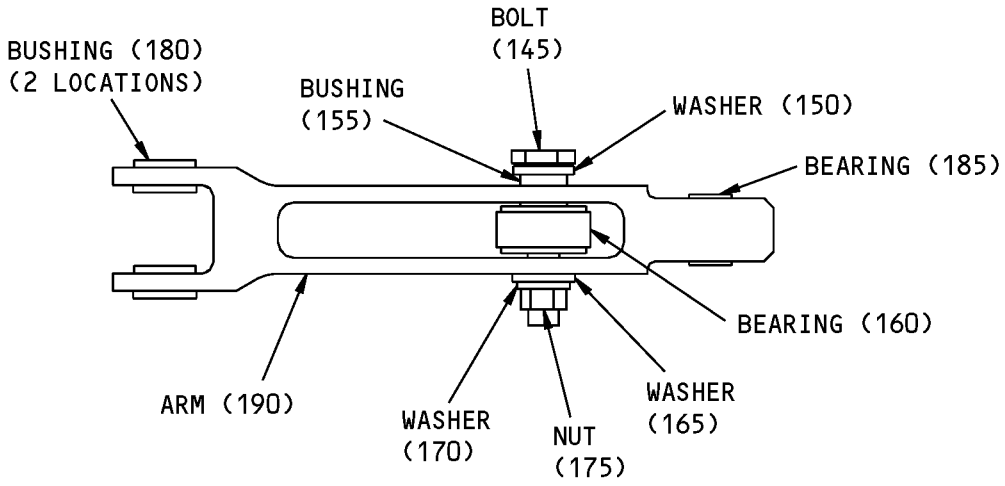
(1) Remove the bolt (145), the washers (150, 165, 170), the bushing (155), the bearing (160), and the nut (175) from the arm (190) as shown in REPAIR 4-1, Figure 601.

(2) Remove the bearing (185) from the arm (190).

(3) Install the replacement bearing (185) into the arm (190) with sealant, A00247 and by roller-swage procedure as shown in SOPM 20-50-03.

(4) Roller-swage the arm (190) onto the bearing (185) to depth of 0.005-0.009 inch.

(5) Install replacement bearing (160) into the arm (190) with the bolt (145), the washer (150), the bushing (155), the washers (165, 170), and the nut (175).



ITEM NUMBERS REFER TO IPL FIG. 2

251A1633-1 Follower Arm Assembly Repair
Figure 601

ARM - REPAIR 4-2

251A1633–2

1. General

A. This procedure has the data necessary to refinish the arm (190).

B. Refer to the Standard Overhaul Practice Manual (SOPM) for the SOPM subjects identified in this procedure.

C. Refer to REPAIR-GENERAL, Figure 601 for the Standard True Position Dimensioning Symbols shown in the repair.

D. Refer to IPL Figure 2 for item numbers.

2. Arm Refinish

A. Consumable Materials

NOTE: Equivalent substitutes may be used.

Reference	Description	Specification
C00259	Primer - Chemical And Solvent Resistant Finish, Epoxy Resin	BMS10-11, Type I
C50050	Coating - Exterior Protective Enamel, White Gloss Color (BAC 702)	BMS10-60, Type I

B. References

Reference	Title
SOPM 20-30-02	STRIPPING OF PROTECTIVE FINISHES
SOPM 20-41-01	DECODING TABLE FOR BOEING FINISH CODES
SOPM 20-60-02	FINISHING MATERIALS
SOPM 20-60-04	MISCELLANEOUS MATERIALS

C. Procedures

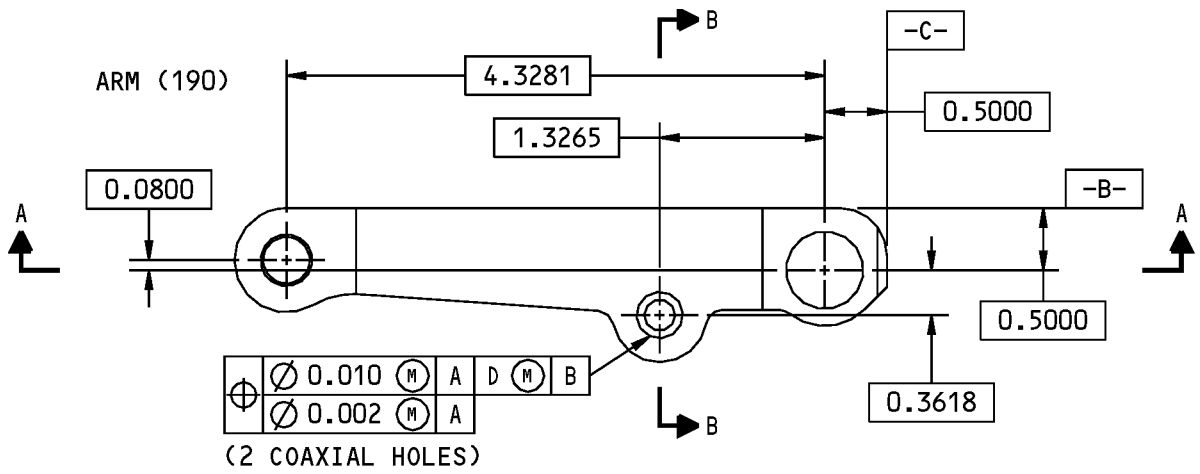
NOTE: For stripping of protective finishes, refer to SOPM 20-30-02. For the decoding table for Boeing finish codes, refer to SOPM 20-41-01. For finishing materials, refer to SOPM 20-60-02. For miscellaneous materials, refer to SOPM 20-60-04.

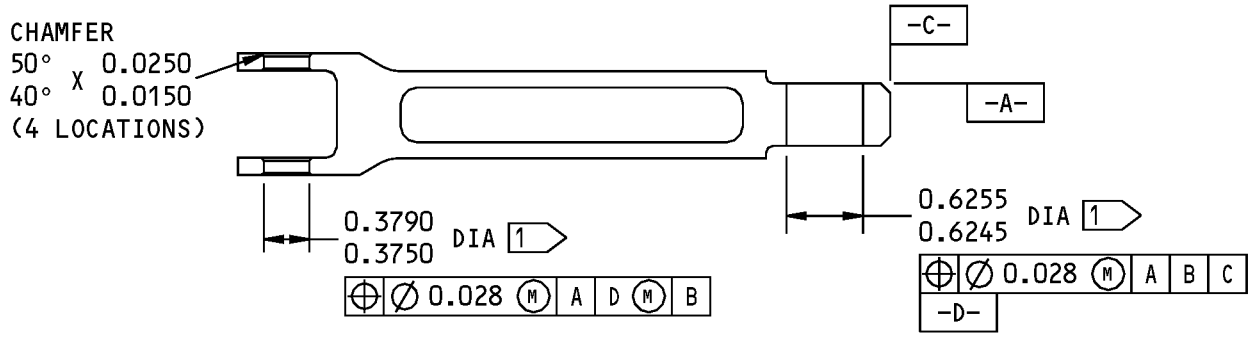
(1) Boric acid - sulfuric acid anodize, class 1 or 5, or chromic acid anodize at 22 volts, class 3 or 5 (F-17.31).

(2) Apply primer, C00259 (F-20.03) except to surfaces identified by flagnote 1 in REPAIR 4-2, Figure 601.

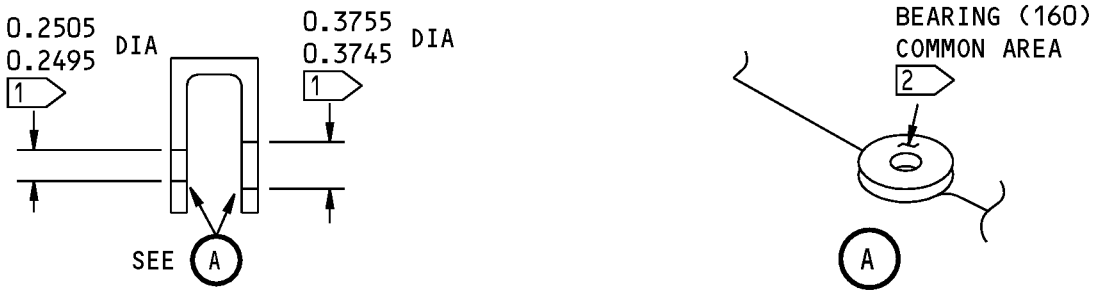
(3) Apply enamel coating, C50050 (SRF-14.9812) to outside surfaces except no paint in surfaces identified by flagnote 1.

(4) Apply enamel coating, C50050 (SRF-14.9812) to inside upper and lower surfaces except no paint to surfaces identified by flagnote 2.





A–A



B–B

1 NO PAINT AND PRIMER ON THIS SURFACE

2 NO PAINT ON 0.75 DIAMETER COMMON AREA TO BEARING

125 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

BREAK ALL SHARP EDGES

ITEM NUMBERS REFER TO IPL FIG. 2

ALL DIMENSIONS ARE IN INCHES

251A1633-2 Arm Refinish
Figure 601

LEVER ASSEMBLY - REPAIR 5-1

251A1632–1, –3, –5

1. General

A. This procedure has the data necessary to repair the lever assembly (195, 195A, 195B).

B. Refer to the Standard Overhaul Practice Manual (SOPM) for the SOPM subjects identified in this procedure.

C. Refer to REPAIR-GENERAL, Figure 601 for the Standard True Position Dimensioning Symbols shown in the repair.

D. Refer to IPL Figure 2 for item numbers.

2. Bushing Replacement

A. Consumable Materials

NOTE: Equivalent substitutes may be used.

Reference	Description	Specification
A00247	Sealant - Pressure And Environmental - Chromate Type	BMS 5-95

B. References

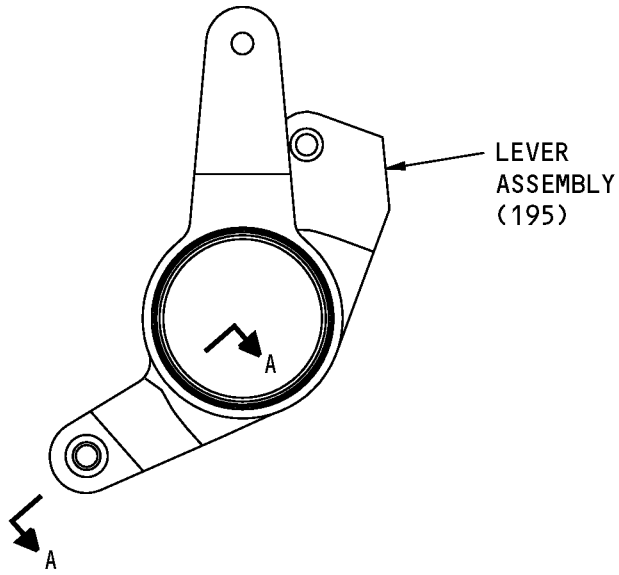
Reference	Title
SOPM 20-50-03	BEARING AND BUSHING REPLACEMENT
SOPM 20-60-04	MISCELLANEOUS MATERIALS

C. Procedures

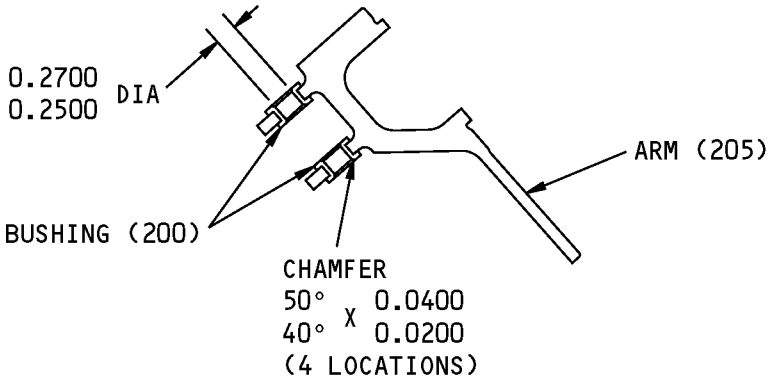
NOTE: For miscellaneous materials, refer to SOPM 20-60-04.

(1) Remove the bushing(s) (200) from the arm (205) as shown in REPAIR 5-1, Figure 601.

(2) Install the replacement bushing (200) onto the arm (205) with sealant, A00247 and by staked flange bushing procedure as shown in SOPM 20-50-03.



251A1632-1 SHOWN
251A1632-3,-5 SIMILAR



A-A

BREAK ALL SHARP EDGES
ITEM NUMBERS REFER TO IPL FIG. 1
ALL DIMENSIONS ARE IN INCHES

251A1632-1,-3,-5 Lever Assembly Repair
Figure 601

ARM - REPAIR 5-2

251A1632–2, –4, –6

1. General

A. This procedure has the data necessary to refinish the arm (205, 205A, 205B).

B. Refer to the Standard Overhaul Practice Manual (SOPM) for the SOPM subjects identified in this procedure.

C. Refer to REPAIR-GENERAL, Figure 601 for the Standard True Position Dimensioning Symbols shown in the repair.

D. Refer to IPL Figure 2 for item numbers.

2. Arm Refinish

A. Consumable Materials

NOTE: Equivalent substitutes may be used.

Reference	Description	Specification
C00259	Primer - Chemical And Solvent Resistant Finish, Epoxy Resin	BMS10-11, Type I
C50050	Coating - Exterior Protective Enamel, White Gloss Color (BAC 702)	BMS10-60, Type I

B. References

Reference	Title
SOPM 20-30-02	STRIPPING OF PROTECTIVE FINISHES
SOPM 20-41-01	DECODING TABLE FOR BOEING FINISH CODES
SOPM 20-60-02	FINISHING MATERIALS
SOPM 20-60-04	MISCELLANEOUS MATERIALS

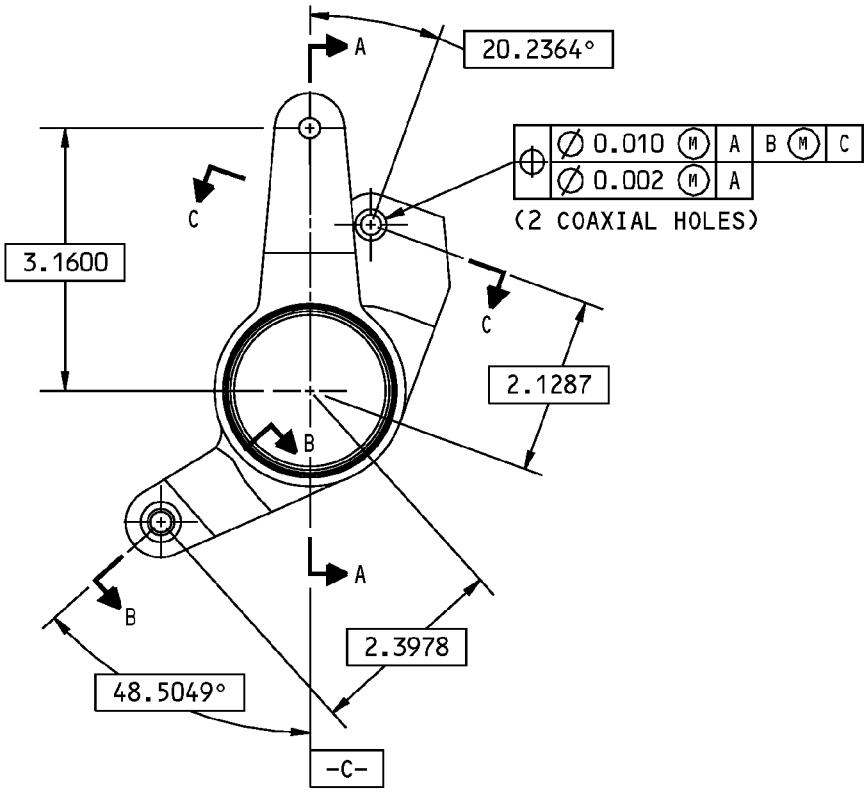
C. Procedures

NOTE: For stripping of protective finishes, refer to SOPM 20-30-02. For the decoding table for Boeing finish codes, refer to SOPM 20-41-01. For finishing materials, refer to SOPM 20-60-02. For miscellaneous materials, refer to SOPM 20-60-04.

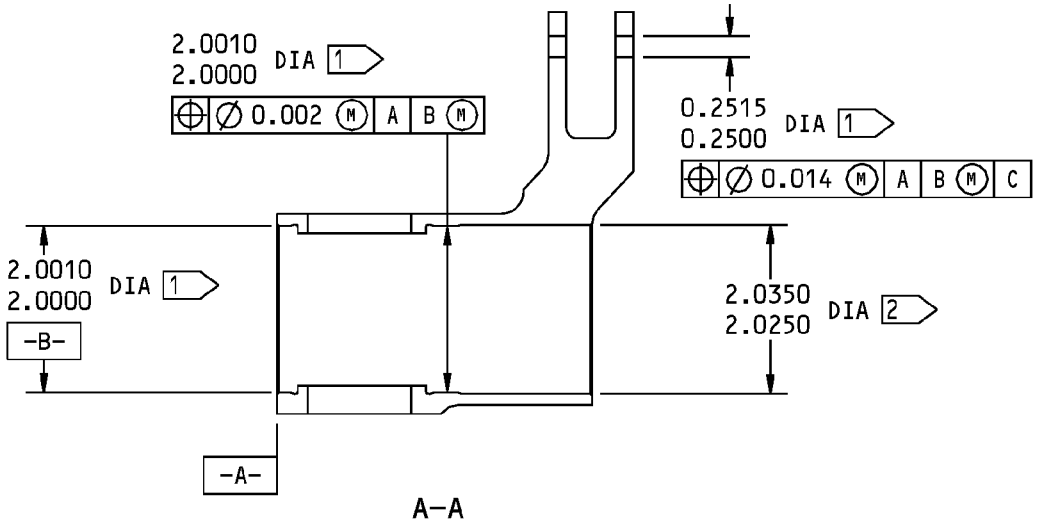
(1) Boric acid - sulfuric acid anodize, class 1 or 5, or chromic acid anodize at 22 volts, class 3 or 5 (F-17.31).

(2) Apply primer, C00259 (F-20.03) except to surfaces identified by flagnote 1 in REPAIR 5-2, Figure 601.

(3) Apply enamel coating, C50050 (SRF-14.9812) to all surfaces except no paint in surfaces identified by flagnote 2.

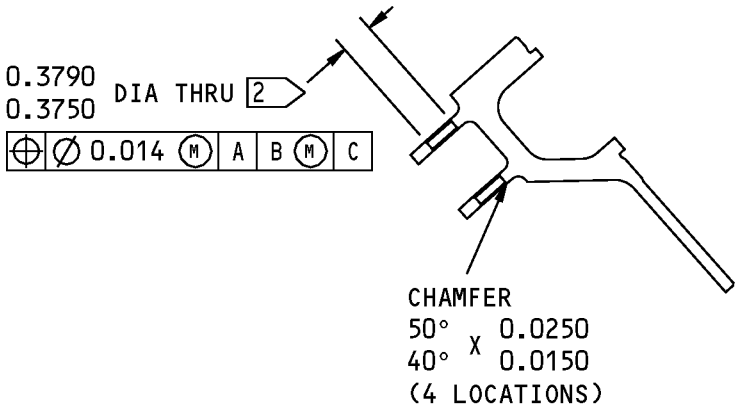


251A1632-2 SHOWN
251A1632-4,-6 SIMILAR

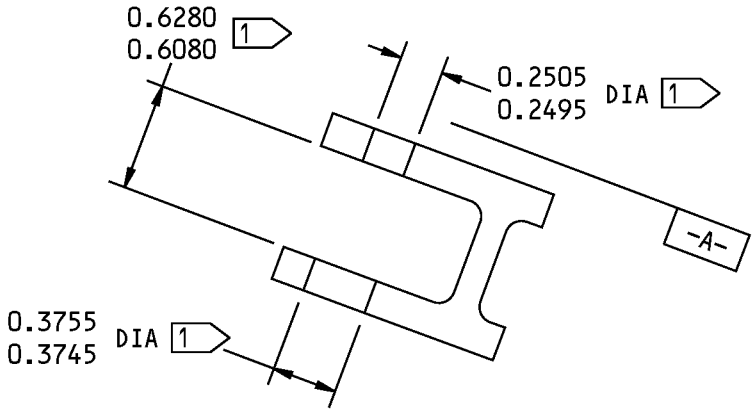


A–A

251A1632-2,-4,-6 Lever Arm Refinish
Figure 601 (Sheet 1 of 2)



B–B



C–C

1 NO PAINT AND PRIMER ON THIS SURFACE

2 NO PAINT ON THIS SURFACE

125 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

BREAK ALL SHARP EDGES

ITEM NUMBERS REFER TO IPL FIG. 2

ALL DIMENSIONS ARE IN INCHES

251A1632-2,-4,-6 Lever Arm Refinish
Figure 601 (Sheet 2 of 2)

ASSEMBLY

1. General

A. This procedure has the data necessary to assemble the aileron control quadrant assembly.

B. Refer to the Standard Overhaul Practices Manual (SOPM) for the SOPM subjects identified in this procedure.

C. Refer to IPL Figure 1 and IPL Figure 2 for item numbers.

2. Assembly

A. Consumable Materials

NOTE: Equivalent substitutes may be used.

Reference	Description	Specification
A00195	Adhesive - Corrosion Inhibiting Coating, Adhesive Primer	BMS5-89
A00551	Sealant - Fuel Tank	BAC5010, Type 44 (BMS5-44, BMS5-45)
D00633	Grease - Aircraft General Purpose	BMS3-33

B. References

Reference	Title
SOPM 20-50-01	BOLT AND NUT INSTALLATION
SOPM 20-50-14	APPLICATION OF CORROSION INHIBITING ADHESIVE PRIMER
SOPM 20-60-03	LUBRICANTS
SOPM 20-60-04	MISCELLANEOUS MATERIALS

C. Procedure

NOTE: For bolt and nut installation, refer to SOPM 20-50-01. For lubricants, refer to SOPM 20-60-03. For miscellaneous materials, refer to SOPM 20-60-04.

(1) Use standard industry procedures and the steps shown below to assemble this component.

(2) For 251A1631-1 quadrant assembly, install the seal ring (IPL Figure 1, 45), the packing (50), and the bearing housing assembly (55) onto the shaft (125) as shown in ASSEMBLY, Figure 701, Section A-A.

(3) For 251A1631-3 and -4 quadrant assemblies, install the seal ring (IPL Figure 2, 45), the packing (50), and the bearing housing assembly (55) onto the shaft (250) as shown in ASSEMBLY, Figure 702, Section A-A.

(4) For 251A1631-3 and -4 quadrant assemblies, apply grease, D00633 (SOPM 20-60-03) into the outside diameter of bearings (100) as indicated by flagnote 1 in ASSEMBLY, Figure 702.

(5) For 251A1631-3 and -4 quadrant assemblies, apply sealant, A00551 (SOPM 20-60-04) into the spacers (95, 210, 215), the inside diameter of bearings (100), the cam (105), and the rivets (90).

(6) For 251A1631-3 and -4 quadrant assemblies, install the spacer (215), the bearing (100), the lever assembly (195), and the spacer (210) onto the shaft (250) with the rivets (90).

(7) For 251A1631-3 and -4 quadrant assemblies, install the cam (105), the bearing (100), and the spacer (95) onto the shaft (250) with the rivets (90).

(8) For 251A1631-3 and -4 quadrant assemblies, install the bearing (160) onto the arm (190) with the bolt (145), the washers (150, 165, 170), the busing (155), and the nut (175).

(9) For 251A1631-3 and -4 quadrant assemblies, install the follower arm assembly (140) onto the lever assembly (195) with the bolts (110), washers (115, 125, 130), bushing (120), nut (135) as shown in ASSEMBLY, Figure 702, Section F-F.

(10) For 251A1631-1 quadrant assembly, install the control lever (IPL Figure 1, 90) onto the shaft (125) with the bolts (10), the washers (15, 20), and the nuts (25) as shown in ASSEMBLY, Figure 701, Section A-A.

(11) For 251A1631-1 quadrant assembly, tighten the nuts (25) to 50-80 pound-inches of torque as identified by flagnote 1 in ASSEMBLY, Figure 701.

(12) For 251A1631-3 and -4 quadrant assemblies, install the springs (IPL Figure 2, 103) onto the follower arm assembly (140) and the lever assembly (195) as shown in ASSEMBLY, Figure 702, Section D-D.

(13) For 251A1631-1 quadrant assembly, install the support assembly (IPL Figure 1, 110), aileron pogo lever (105), and collar (100) onto the shaft (125) with the rivets (95), as shown in ASSEMBLY, Figure 701.

(14) For 251A1631-3 and -4 quadrant assemblies, install the support assembly (IPL Figure 2, 235), and aileron pogo lever (230) onto the shaft (250) with the rivets (220) as shown in ASSEMBLY, Figure 702, Section C-C.

(15) For 251A1631-3 and -4 quadrant assemblies, install the collar (225) onto the shaft (250) with the rivets (220) as shown in ASSEMBLY, Figure 702, Section B-B.

(16) For 251A1631-1 quadrant assembly, install the quadrant assembly (IPL Figure 1, 30) onto the shaft (125) with the bolts (5), washers (15, 20), and the nuts (25) as shown in ASSEMBLY, Figure 701.

(17) For 251A1631-1 quadrant assembly, tighten the nuts (25) finger-tight only as identified by flagnote 2 in ASSEMBLY, Figure 701. Final torque will be applied on installation of the aileron control quadrant assembly into the airplane.

(18) For 251A1631-3 and -4 quadrant assemblies, install the quadrant assembly (IPL Figure 2, 30) onto the shaft (250) with the bolts (5), washers (10, 15), and the nuts (20) as shown in ASSEMBLY, Figure 702.

(19) For 251A1631-3 and -4 quadrant assemblies, tighten the nuts (25) finger-tight only as identified by flagnote 3 in ASSEMBLY, Figure 702. Final torque will be applied on installation of the aileron control quadrant assembly into the airplane.

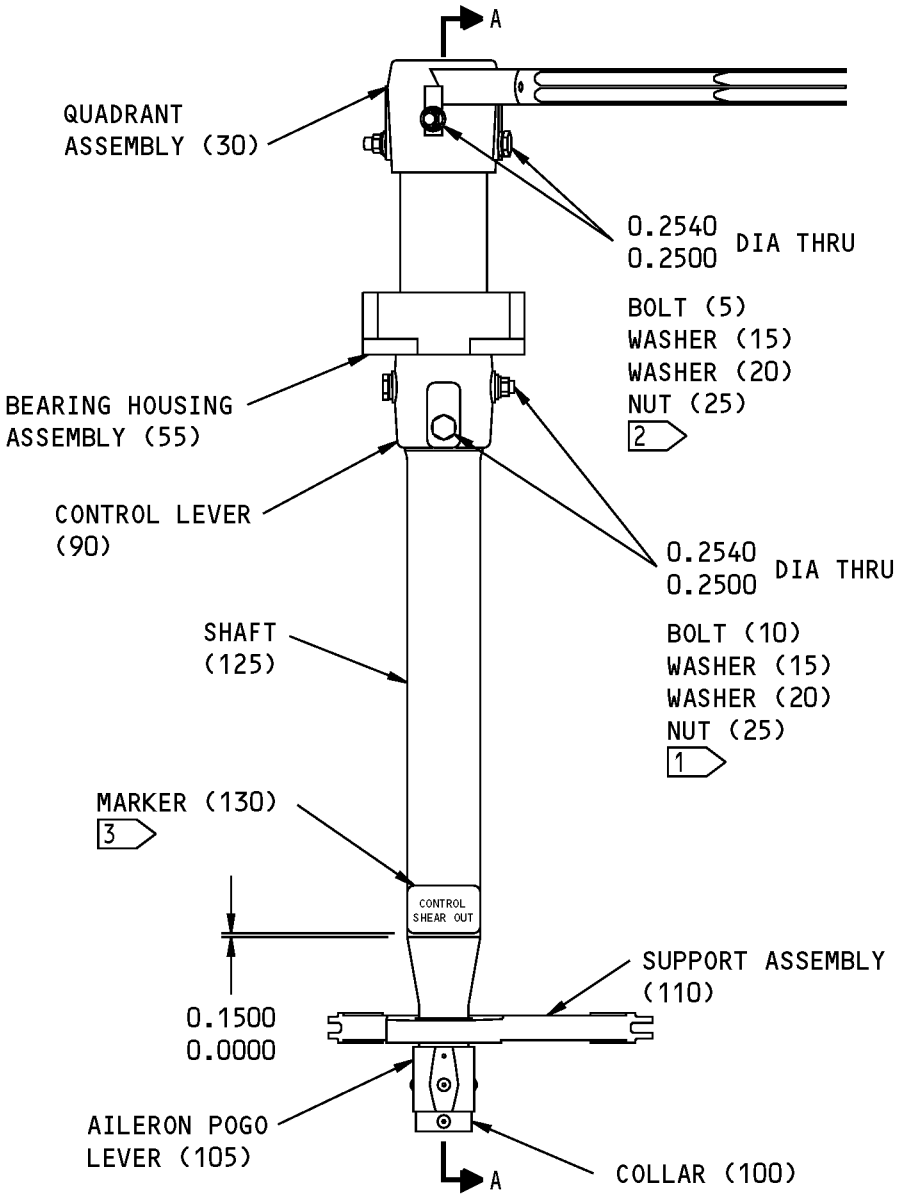
(20) For 251A1631-3 and -4 quadrant assemblies, verify clocking angles between the quadrant assembly (IPL Figure 2, 30) lever assembly (195) as shown in ASSEMBLY, Figure 702, Section D-D.

(21) If necessary for 251A1631-1 quadrant assembly, install the marker (130) onto the shaft (125) with adhesive, A00195 (SOPM 20-50-14) as identified by flagnote 3 in ASSEMBLY, Figure 701.

(22) If necessary for 251A1631-3 and -4 quadrant assemblies, install the marker (255) onto the shaft (250) with adhesive, A00195 (SOPM 20-50-14) as identified by flagnote 4 in ASSEMBLY, Figure 702.

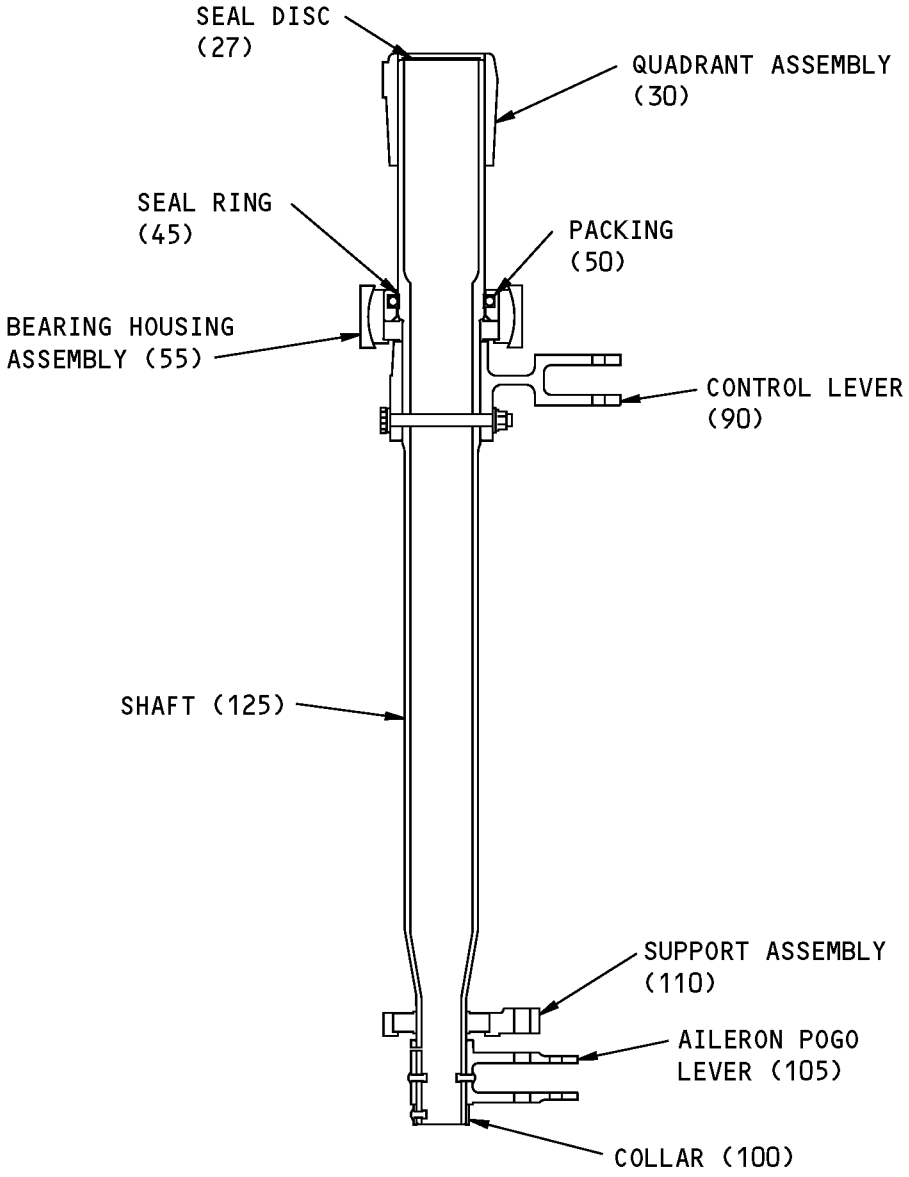
(23) For 251A1631-1 quadrant assembly, install the seal disc (IPL Figure 1, 27) onto the shaft assembly (125) with a removable tape as shown in ASSEMBLY, Figure 701. Final installation of seal disc will be done during installation of the aileron control quadrant assembly on the airplane.

(24) For 251A1631-3 and -4 quadrant assemblies, install the seal disc (IPL Figure 2, 25) onto the shaft assembly (250) with a removable tape as shown in ASSEMBLY, Figure 702. Final installation of seal disc will be done during installation of the aileron control quadrant assembly on the airplane.



251A1631-1 SHOWN

Aileron Control Quandrant Assembly
Figure 701 (Sheet 1 of 2)



A–A

1 TIGHTEN WITHIN TORQUE RANGE OF 50 TO 80 POUNDS-INCHES

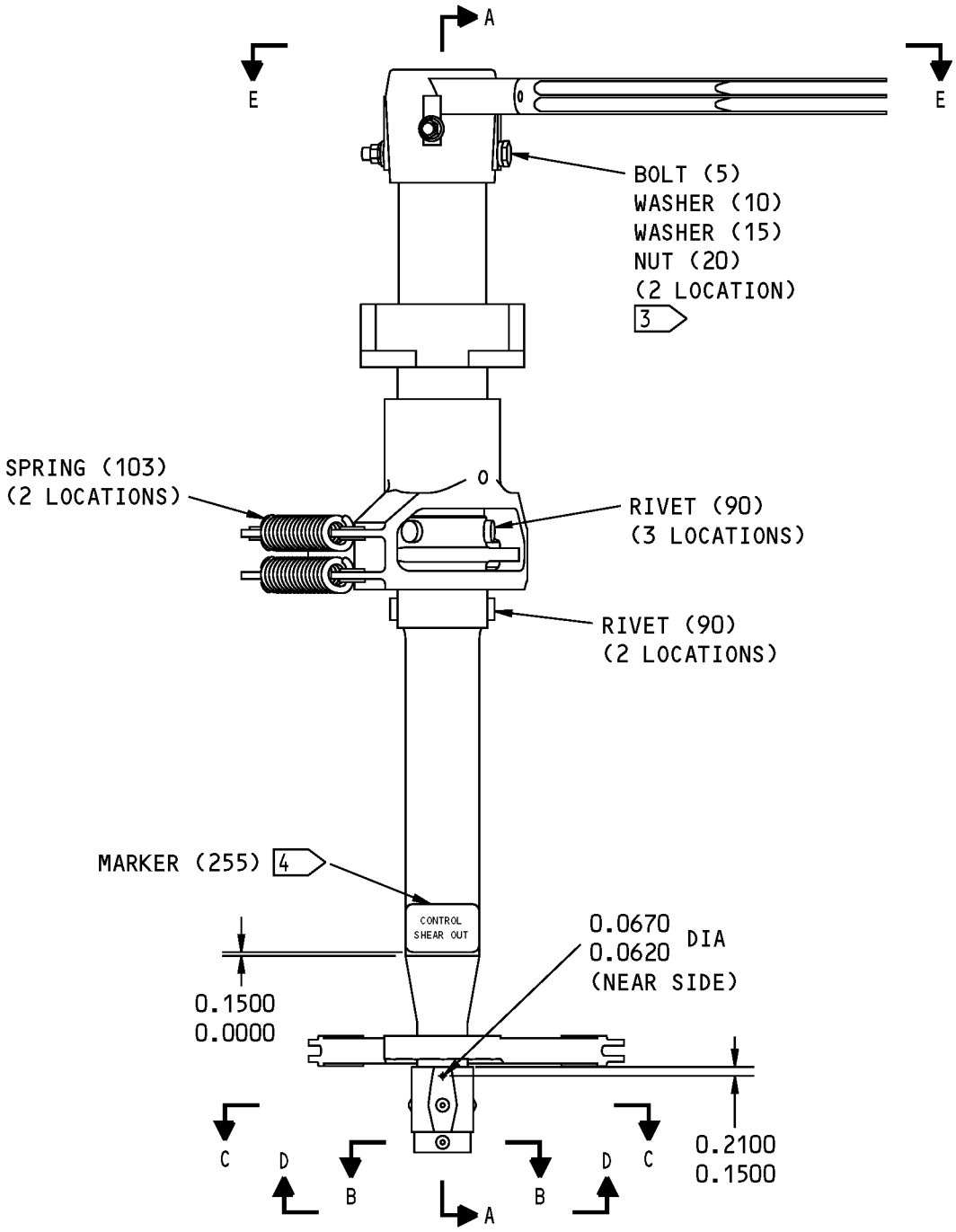
2 TIGHTEN FINGER ONLY. TORQUE ON INSTALLATION

3 BOND FOIL MARKER AS SHOWN IN SOPM 20-50-14, 100 PERCENT FAY SURFACE COVERAGE AND EDGE SQEEZE OUT IS REQUIRED. LOCATE AS SHOWN

ITEM NUMBER REFER TO IPL FIG. 1

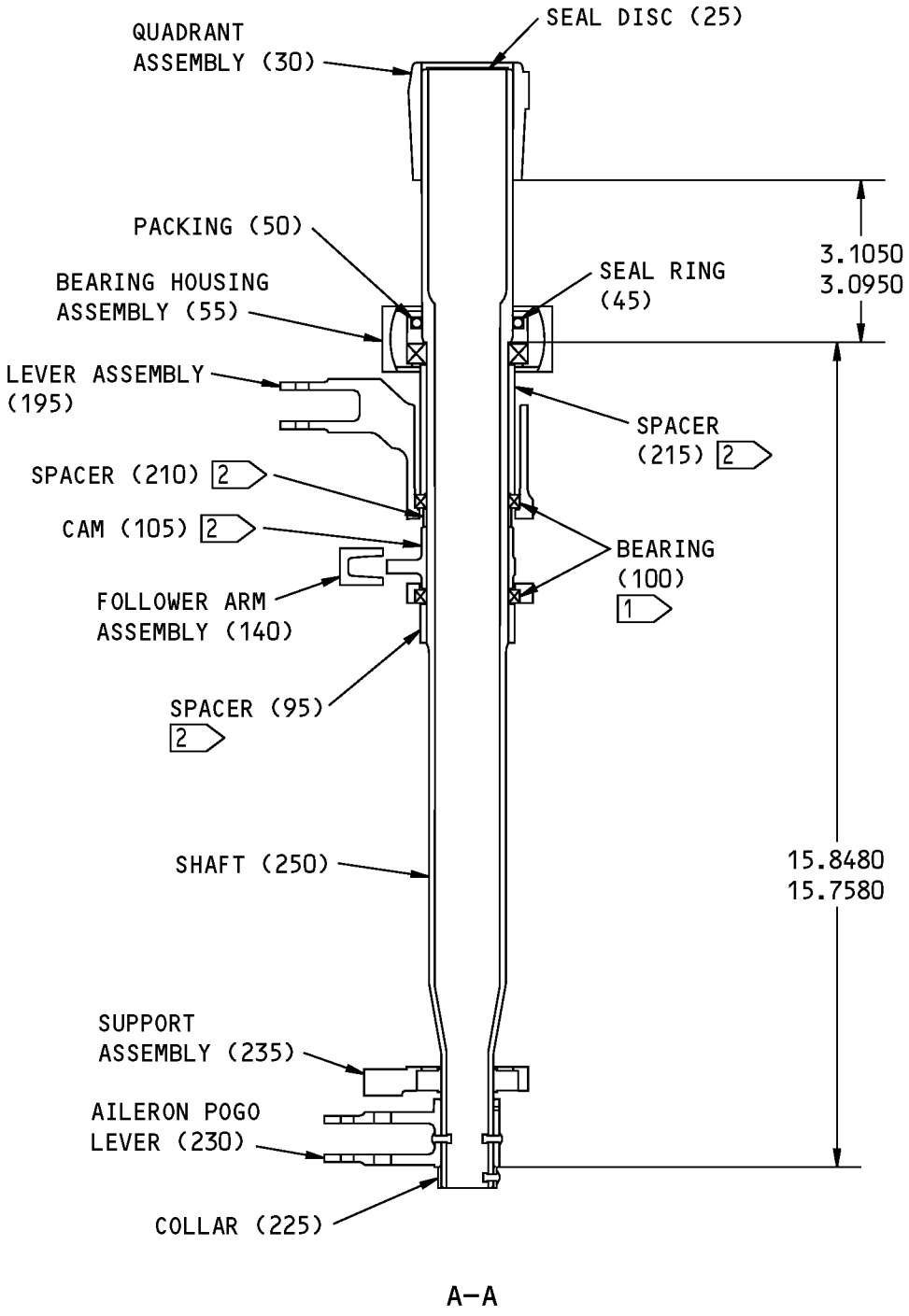
ALL DIMENSIONS ARE IN INCHES

Aileron Control Quandrant Assembly
Figure 701 (Sheet 2 of 2)

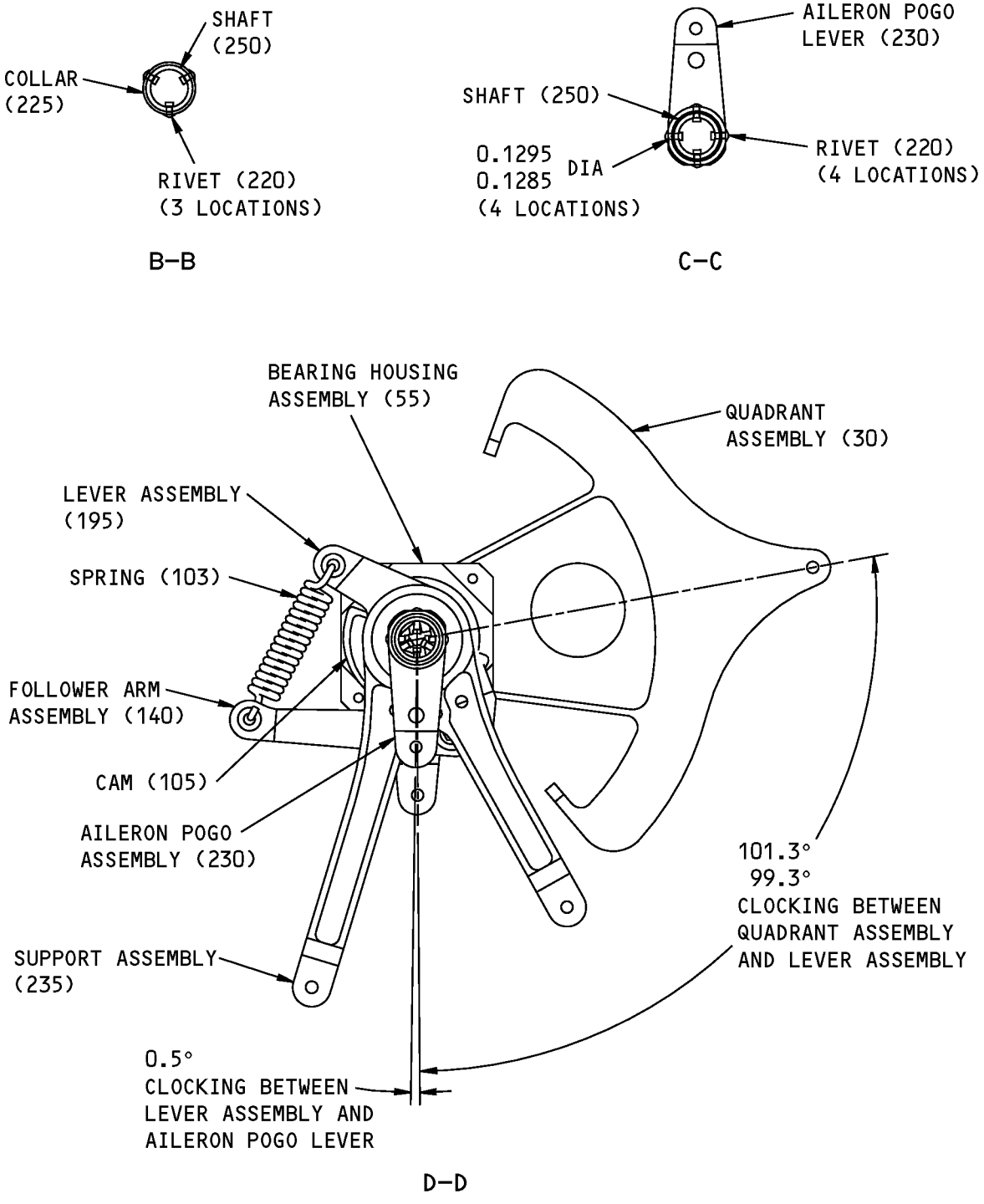


251A1631-3 SHOWN
251A1631-4 SIMILAR

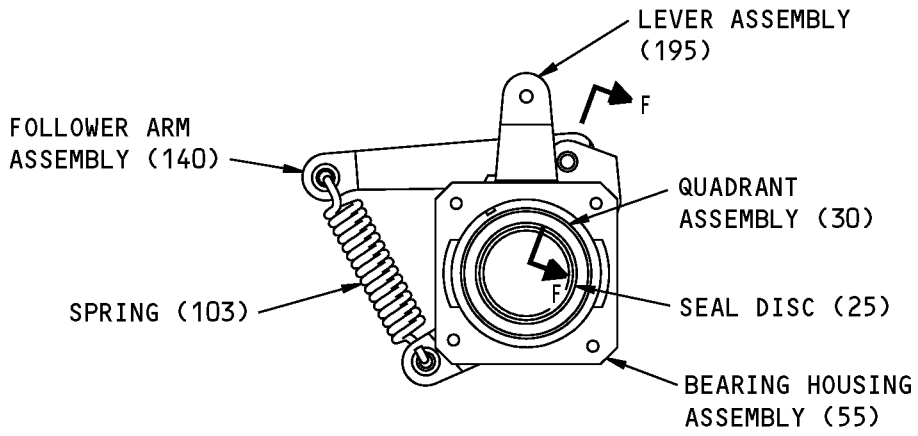
251A1631-3,-4 Aileron Control Quadrant Assembly Disassembly
Figure 702 (Sheet 1 of 4)



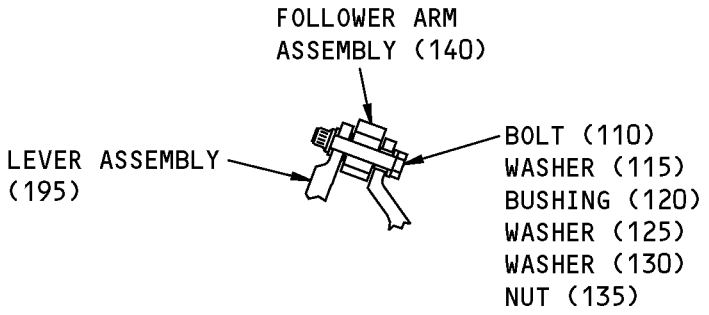
251A1631-3,-4 Aileron Control Quadrant Assembly Disassembly
Figure 702 (Sheet 2 of 4)



251A1631-3,-4 Aileron Control Quadrant Assembly Disassembly
Figure 702 (Sheet 3 of 4)



QUADRANT ASSEMBLY AND SUPPORT ASSEMBLY
NOT SHOWN FOR CLARITY
E-E



F-F

1. INSTALL WITH BMS 3-33 GREASE INSIDE LEVER ASSEMBLY
2. INSTALL WITH BMS 5-26 SEALANT
3. FINGER TIGHTEN ONLY. TORQUE ON INSTALLATION
4. BOND FOIL MARKER AS SHOWN IN SOPM 20-50-14, 100 PERCENT FAY SURFACE COVERAGE AND EDGE SQUEEZE OUT IS REQUIRED. LOCATE AS SHOWN

ITEM NUMBERS REFER TO IPL FIG. 2

ALL DIMENSIONS ARE IN INCHES

251A1631-3,-4 Aileron Control Quadrant Assembly Disassembly
Figure 702 (Sheet 4 of 4)

COMPONENT MAINTENANCE MANUAL

FITS AND CLEARANCES

(NOT APPLICABLE)

SPECIAL TOOLS, FIXTURES, AND EQUIPMENT

1. General

A. This section lists the special tools, fixtures, and equipment necessary for maintenance.

NOTE: Equivalent substitutes may be used.

Special Tools

Reference	Description	Part Number	Supplier
SPL-5394	Test Equipment - Quadrant Assembly, Aileron Assembly	C27077-1	81205

Tool Supplier Information

CAGE Code	Supplier Name	Supplier Address
81205	THE BOEING COMPANY	17930 INTERNATIONAL BLVD. SOUTH SEATAC, WA 98188-4321 Telephone: 206-662-6650 Facsimile: 206-662-7145

ILLUSTRATED PARTS LIST

1. Introduction

A. The Illustrated Parts List (IPL) contains an illustration and a list of component parts you can repair or replace. The Illustrated Parts Catalog (IPC) shows how to use the Boeing part number system.

B. This shows how parts are related: The relation of each item to its next higher assembly (NHA) is shown in the NOMENCLATURE column. Use the indenture system that follows:

1 2 3 4 5 6 7

. Assembly

. Attaching parts for assembly

. . Detail parts for assembly

. . Subassembly

. . Attaching parts for subassembly

. . . Detail parts for subassembly

. . . Sub-subassembly

. . . Attaching parts for subassembly

. . . . . Details parts for sub-subassembly

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

C. Each top assembly is given one use code letter (A, B, C, etc.) in the USAGE CODE column. All subsequent component parts in the list can have one or more of the use code letters to show effectivity to top assemblies. A component part without a use code applies to all top assemblies.

D. An alphabetical letter is added after the item number for optional parts, parts changed by a Service Bulletin, configuration differences (except left-handed and right-handed parts), last engineering releases, and parts added between item numbers in a sequence. The alphabetical letter will not be shown on the illustration for equivalent parts of the same part number.

E. Color-coded parts are identified with a single digit alpha following the dash number or with ''SP'' suffix. If the ''SP'' suffix is used, it represents consolidation of all color codes applicable for a given usage which are not separately listed. Orders for color-coded parts should include the registry number of the airplane for which the parts are ordered.

F. If a part number is 15 characters long but will not fit in the part number column, the part number will be displayed with a ''~'' at the end of the line and will be continued on the next line. The ''~'' denotes that the part number continues on the next line.

G. Parts changed by a Service Bulletin are shown by PRE SB XXXX and POST SB XXXX added to the NOMENCLATURE column.

(1) When a new top assembly is added by a Service Bulletin, PRE SB XXXX and POST SB XXXX will be added at the top assembly level only. The configuration differences at the detail part level are shown by use code letters.

(2) When the top assembly part number is not changed by the Service Bulletin, PRE SB XXXX and POST SB XXXX will be added at the detail level.

H. Interchangeable Parts

Optional (OPT)	The part is optional to and interchangeable with other parts that have the same item number.
Replaces, Replaced by and not interchangeable with (REPLACES, REPLACED BY AND NOT INTCHG/W)	The part replaces and is not interchangeable with the initial part.
Replaces, Replaced by (REPLACES, REPLACED BY)	The part replaces and is interchangeable with, or is an alternative to, the initial part.

VENDOR CODES

Code	Name
15653	ALCOA GLOBAL FASTENERS INC DIV KAYNAR PRODUCTS 800 S STATE COLLEGE BLVD FULLERTON, CALIFORNIA 92831-3001 FORMERLY VK6405 MICRODOT AEROSP LTD; FORMERLY KAYNAR TECH FORMERLY FAIRCHILD FASTENERS KAYNAR DIV
21335	TIMKEN US CORPORATION DIV FAFNIR 336 MECHANIC STREET LEBANON, NH 03766-0267 FORMERLY FAFNIR BRG AND TEXTRON INC FAFNIR DIV IN NEW BRITAIN, CONNECTICUT ; FORMERLY TORRINGTON CO THE SPECIAL PRODUCTS DIV SUB OF THE INGERSOLL-RAND CO V8D210 FORMERLY TORRINGTON CO FAFNIR BEARING DIV IN TORRINGTON, CT
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 FORMERLY MARLIN-ROCKWELL CORP DIV TRW AND TRW INC
40920	MPB MINIATURE PRECISION BEARING DIV PRECISION PARK PO BOX 547 KEENE, NEW HAMPSHIRE 03431 FORMERLY MPB CORP AND MINIATURE BRG DIV MPB CORP

Code	Name
43991	FAG BEARING INCORPORATED 118 HAMILTON AVENUE STAMFORD, CONNECTICUT 06904 FORMERLY NORMA-HOFFMAN BEARING CORPORATION FORMERLY NORMA FAG BEARINGS CORPORATION
62554	SIMMONDS MECAERO FASTENERS INC 1734 SEQUOIA AVENUE ORANGE, CALIFORNIA 92668
83086	NEW HAMPSHIRE BALL BEARING, INC HITECH DIVISION 172 JAFFREY ROAD PETERBOROUGH, NEW HAMPSHIRE 03458
K8455	RHP BEARINGS PLC RHP AEROSPACE OLDENDS LANE STONEHOUSE GL10 3RM UK

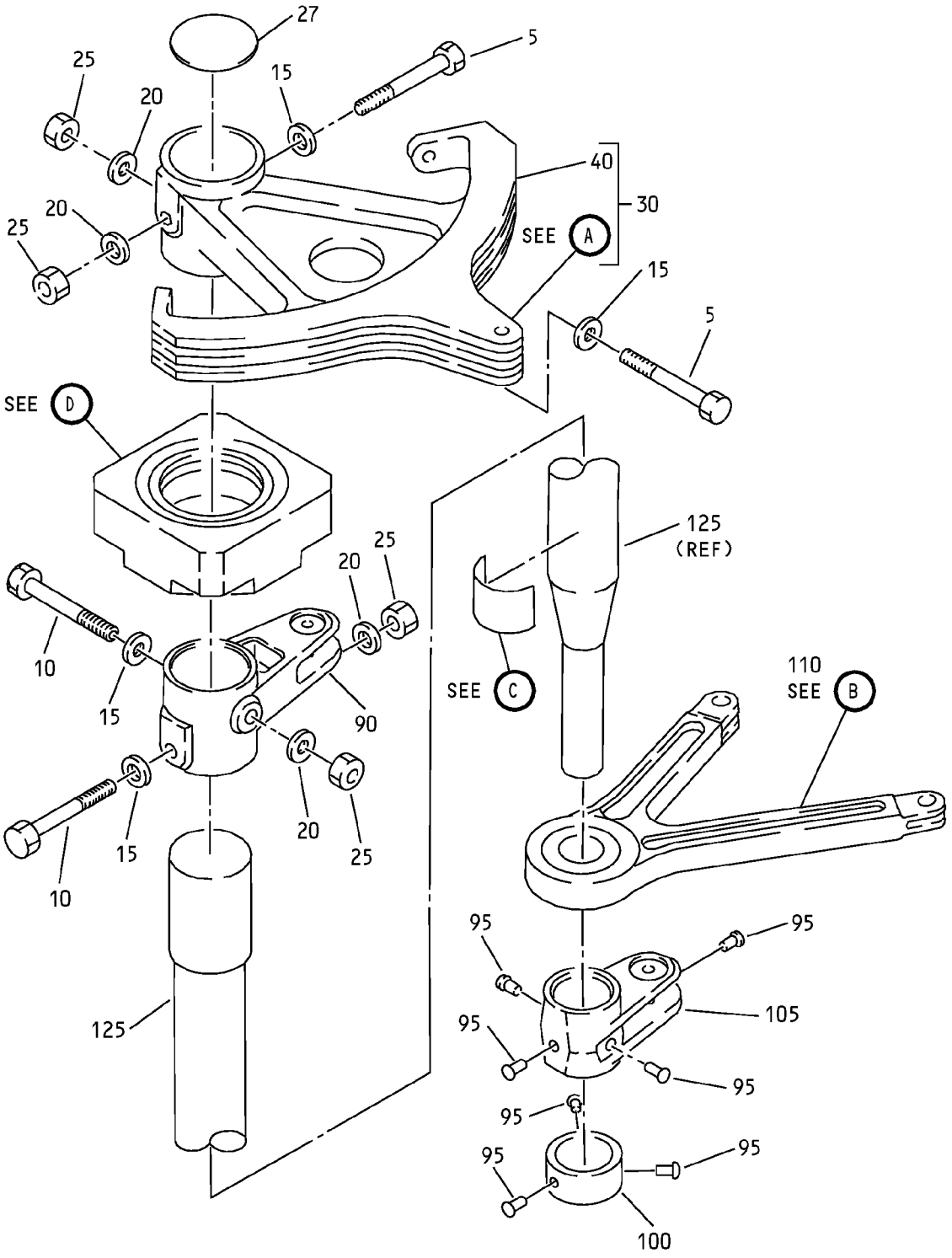
NUMERICAL INDEX

PART NUMBER	AIRLINE PART NUMBER	FIGURE	ITEM	UNITS PER ASSEMBLY
251A1214-1		2	103	2
251A1623-1		2	250	1
251A1631-1		1	1A	RF
251A1631-2		1	27	1
		2	25	1
251A1631-3		1	1B	RF
		2	1	RF
251A1631-4		1	1C	RF
		2	1A	RF
251A1632-1		2	195	1
251A1632-2		2	205	1
251A1632-3		2	195A	1
251A1632-4		2	205A	1
251A1632-5		2	195B	1
251A1632-6		2	205B	1
251A1633-1		2	140	1
251A1633-2		2	190	1
251A1634-1		2	105	1
251A1635-1		2	95	1
251A1635-2		2	210	1
251A1635-3		2	215	1
251A1639-1		1	55	1
		2	55	1
65-46992-10		1	40	1
		2	40	1
65-46992-9		1	30	1
		2	30	1
65-52916-10		1	120	1
		2	245	1
65-52916-11		1	110	1
		2	235	1
65-52998-3		1	90	1
65-54407-4		1	105	1
		2	230	1

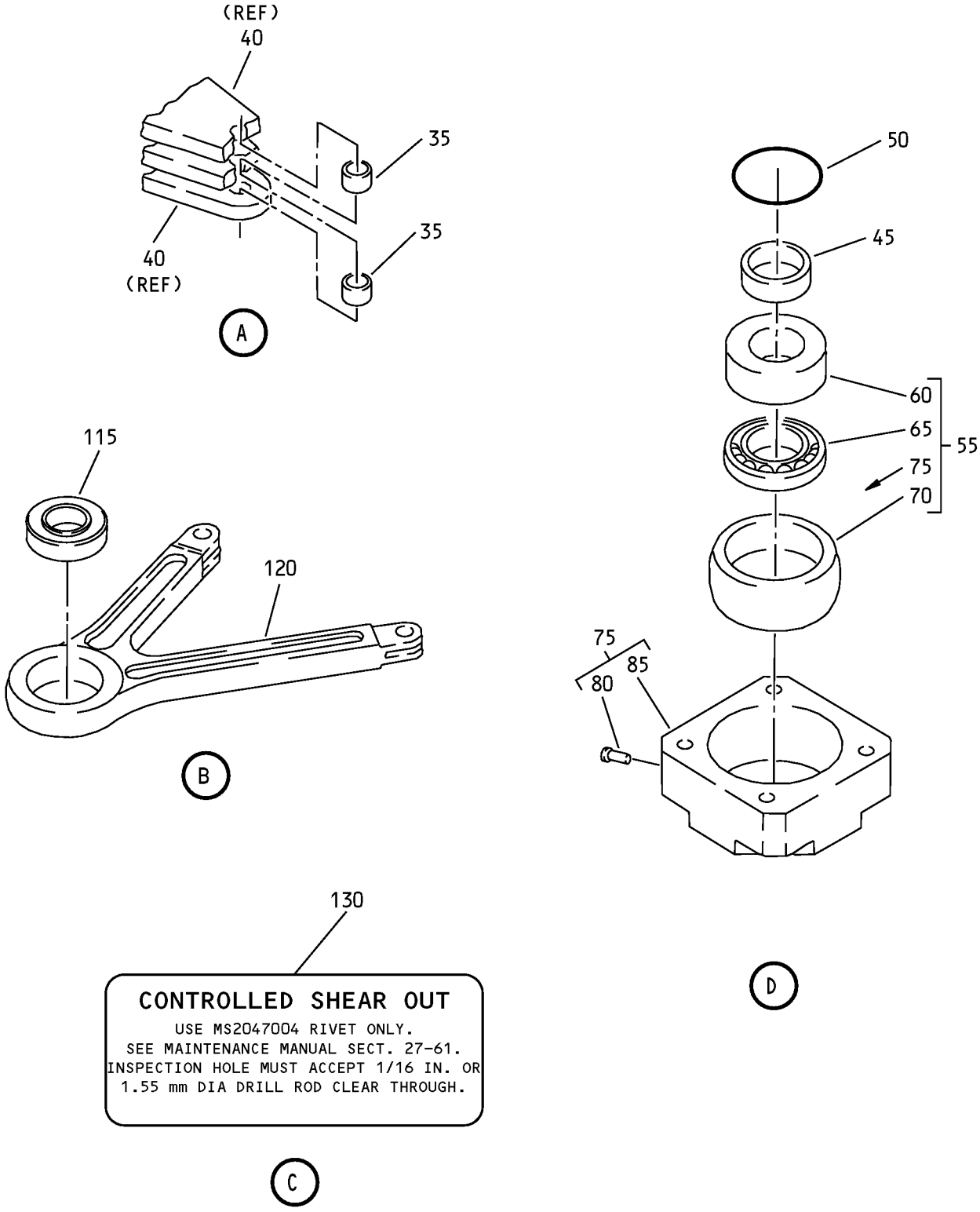
PART NUMBER	AIRLINE PART NUMBER	FIGURE	ITEM	UNITS PER ASSEMBLY
65-56665-4		1	125	1
66-24199-1		1	80	1
		2	80	1
69-16695-5		1	45	1
		2	45	1
69-38711-7		1	75	1
		2	75	1
69-38711-8		1	85	1
		2	85	1
69-38712-1		1	70	1
		2	70	1
69-38713-2		1	60	1
		2	60	1
69-41206-2		1	100	1
		2	225	1
ACMB543DDP181LY		2	100	2
ACMGDW4K2A3908		2	185	1
ACMKP25BP26LY19		2	65	1
ACMKP25BP26LY198		1	65	1
ACMKP25BP510LY1		2	65	1
ACMKP25BP510LY198		1	65	1
ACMKP25P26LY198		1	65	1
		2	65	1
B543-2TS		2	100A	2
B543DD		2	100A	2
B543DDFS428		2	100A	2
B543SSG27		2	100A	2
BAC27DCT510		1	130	1
		2	255	1
BACB10CC4A		2	160	1
BACB10CC4E		2	160A	1
BACB10CF25PP		2	100A	2
BACB10CG4		2	185A	1
BACB10EX16		1	115A	1
		2	240A	1

PART NUMBER	AIRLINE PART NUMBER	FIGURE	ITEM	UNITS PER ASSEMBLY
BACB10FR25		1	65	1
		2	65	1
BACB10FU25		2	100	2
BACB10FV16G		1	115	1
		2	240	1
BACB10FY4		2	185	1
BACB28B4-275P		2	180	2
		2	200	2
BACB28BA0406025		2	120	1
		2	155	1
BACB30LJ4-14		2	145	1
BACB30LJ4-18		2	110	1
BACB30NR4K34		1	10	2
BACB30NR4K39		1	5	2
		2	5	2
BACN10YR4CD		1	25	4
		2	20	2
		2	135	1
		2	175	1
BACR15BA4D		1	33	1
		2	33	1
BACR15BB4D8C		1	95	7
		2	220	7
BACW10BP4CD		1	15	4
		2	10	2
		2	115	1
		2	150	1
DW4K2-1		2	185A	1
GDW4K2FS428		2	185A	1
GDW4K2SD610		2	185A	1
GDW4K2TT		2	185A	1
H52732-4CD		1	25	4
		2	20	2
		2	135	1
		2	175	1

PART NUMBER	AIRLINE PART NUMBER	FIGURE	ITEM	UNITS PER ASSEMBLY
KP16BSLY196		1	115A	1
		2	240A	1
KP16BSSD610		1	115A	1
		2	240A	1
LLDW4K2-1		2	185A	1
MS21141U8P		2	90	5
NAS1149D0432J		2	125	1
		2	165	1
NAS1149D0463J		1	20	4
		2	15	2
		2	130	1
		2	170	1
NAS1611-327		1	50	1
		2	50	1
NAS42DD4-18		1	35	2
		2	35	2
PACMB543DDA3908		2	100	2
PACMKP16GBSA390		2	240	1
PACMKP16GBSA3908		1	115	1
PACMKP25BA3908		1	65	1
		2	65	1
PLH54CD		1	25	4
		2	20	2
		2	135	1
		2	175	1
SSMGDW4K2SD705		2	185	1
SSMKP16GBSSD705		1	115	1
		2	240	1
SSMKP25BSD703		1	65	1
		2	65	1
T343E		2	100A	2



Aileron Control Quadrant Assembly
IPL Figure 1 (Sheet 1 of 2)



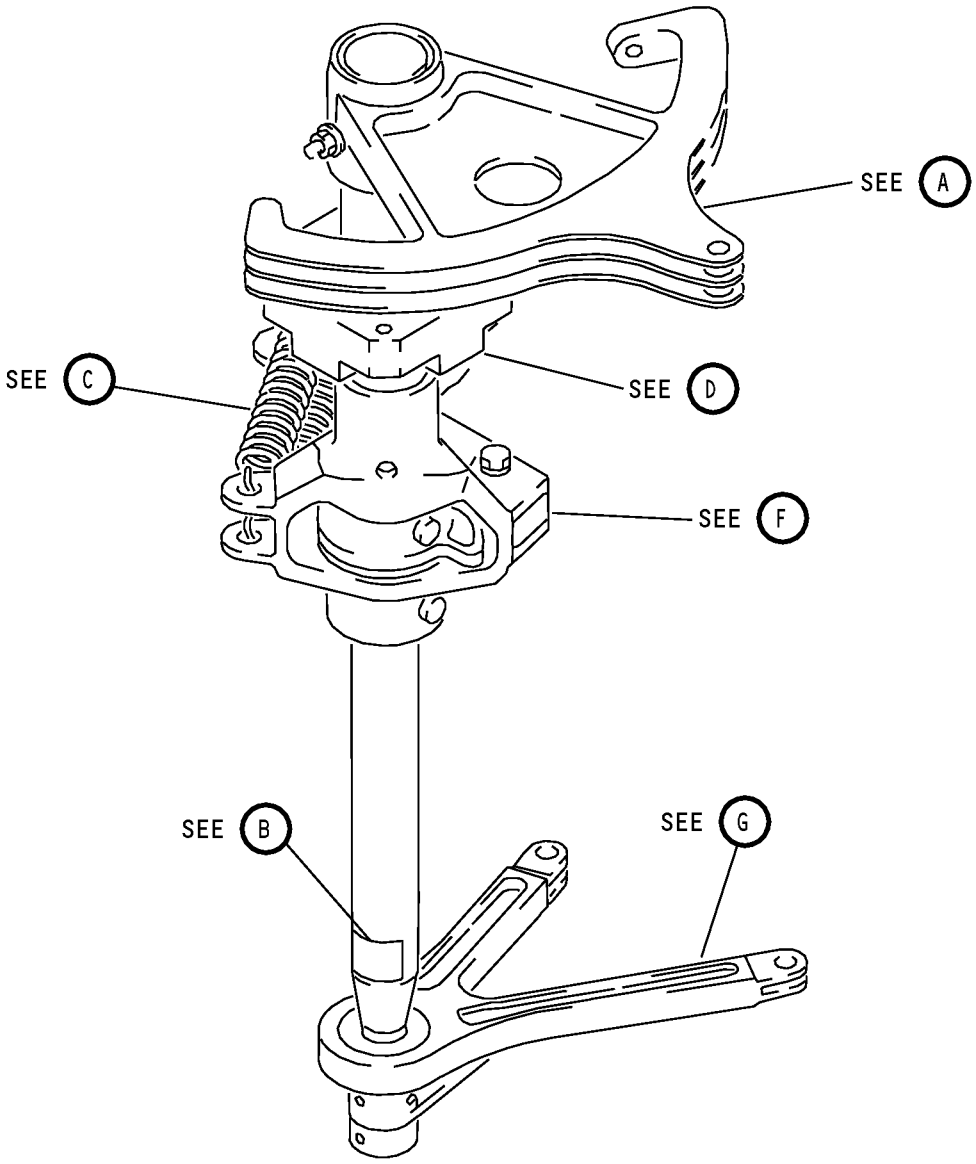
Aileron Control Quadrant Assembly
IPL Figure 1 (Sheet 2 of 2)

FIG/ ITEM	PART NUMBER	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USAGE CODE	UNITS PER ASSY
1–					
–1A	251A1631-1		QUADRANT ASSY-AIL. CONT	A	RF
–1B	251A1631-3		QUADRANT ASSY-AIL. CONT (FOR DETAILS SEE FIG. 2)	B	RF
–1C	251A1631-4		QUADRANT ASSY-AIL. CONT (FOR DETAILS SEE FIG. 2)	C	RF
5	BACB30NR4K39		. BOLT	A	2
10	BACB30NR4K34		. BOLT	A	2
15	BACW10BP4CD		. WASHER	A	4
20	NAS1149D0463J		. WASHER	A	4
25	H52732-4CD		. NUT (V15653) (SPEC BACN10YR4CD) (OPT PLH54CD (V62554))	A	4
27	251A1631-2		. DISC-SEAL	A	1
30	65-46992-9		. QUADRANT ASSY	A	1
33	BACR15BA4D		. . RIVET (SIZE DETERMINED ON INST)	A	1
35	NAS42DD4-18		. . SPACER	A	2
40	65-46992-10		. . QUADRANT	A	1
45	69-16695-5		. RING-SEAL	A	1
50	NAS1611-327		. PACKING	A	1
55	251A1639-1		. HOUSING ASSY-BEARING	A	1
60	69-38713-2		. . SEAL-HOUSING	A	1
65	PACMKP25BA3908		. . BEARING (V21335) (SPEC BACB10FR25) (OPT ACMKP25BP510LY198 (V40920)) (OPT ACMKP25BP26LY198 (V40920)) (OPT ACMKP25P26LY198 (V40920)) (OPT SSMKP25BSD703 (V83086))	A	1
70	69-38712-1		. . HOUSING-INNER SPHERE	A	1
75	69-38711-7		. . HOUSING ASSY-SPHERE	A	1
80	66-24199-1		. . . PIN	A	1

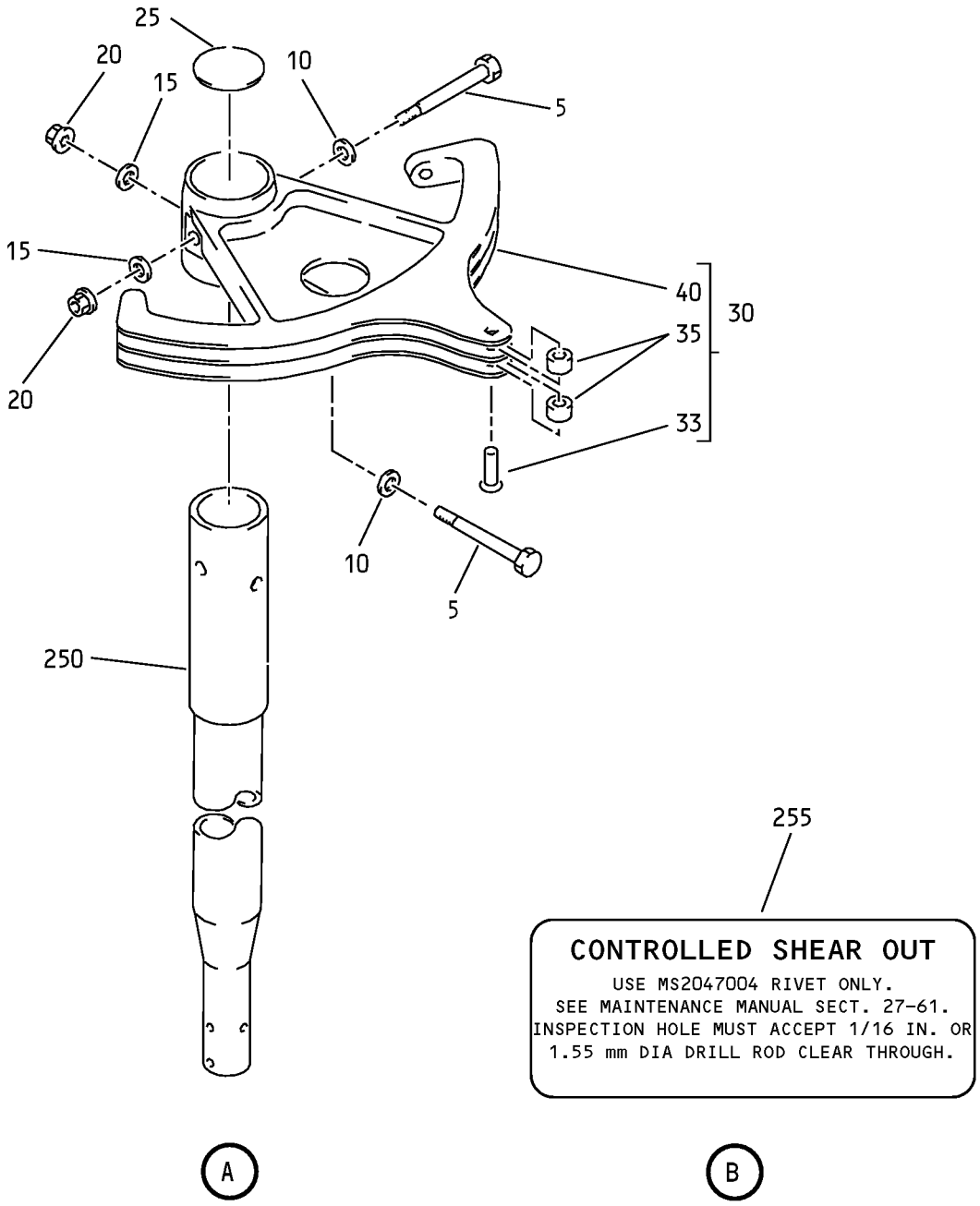
–Item not Illustrated

FIG/ ITEM	PART NUMBER	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USAGE CODE	UNITS PER ASSY
1–					
85	69-38711-8		. . . HOUSING	A	1
90	65-52998-3		. LEVER-CONT	A	1
95	BACR15BB4D8C		. RIVET	A	7
100	69-41206-2		. COLLAR	A	1
105	65-54407-4		. LEVER-AIL. POGO	A	1
110	65-52916-11		. SUPPORT ASSY	A	1
115	SSMKP16GBSS˜ D705		. . BEARING (V83086) (SPEC BACB10FV16G) (OPT PACMKP16GBSA3908 (V21335)) (OPT ITEM 115A)	A	1
–115A	KP16BSLY196		. . BEARING (V40920) (SPEC BACB10EX16) (OPT KP16BSSD610 (V83086)) (OPT ITEM 115)	A	1
120	65-52916-10		. . SUPPORT	A	1
125	65-56665-4		. SHAFT	A	1
130	BAC27DCT510		. MARKER	A	1

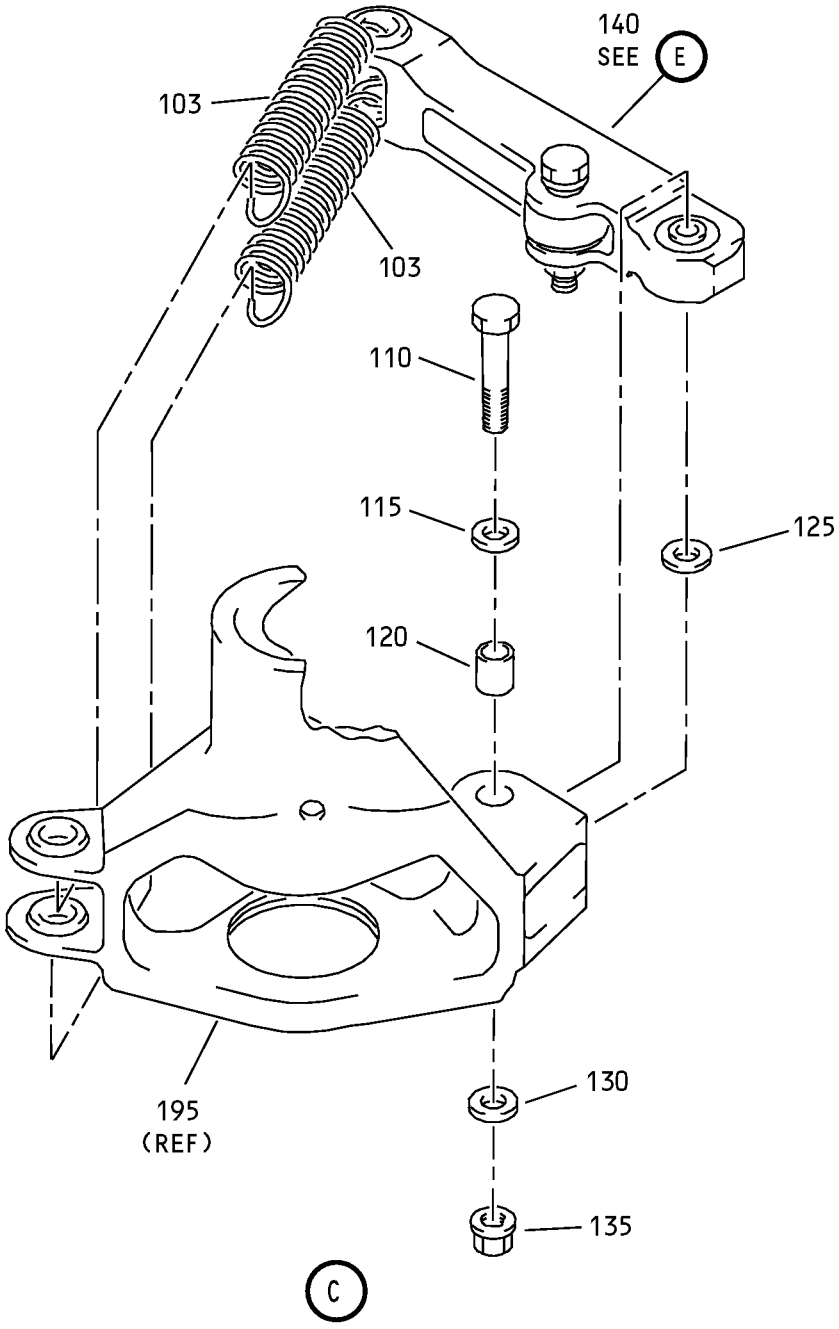
–Item not Illustrated



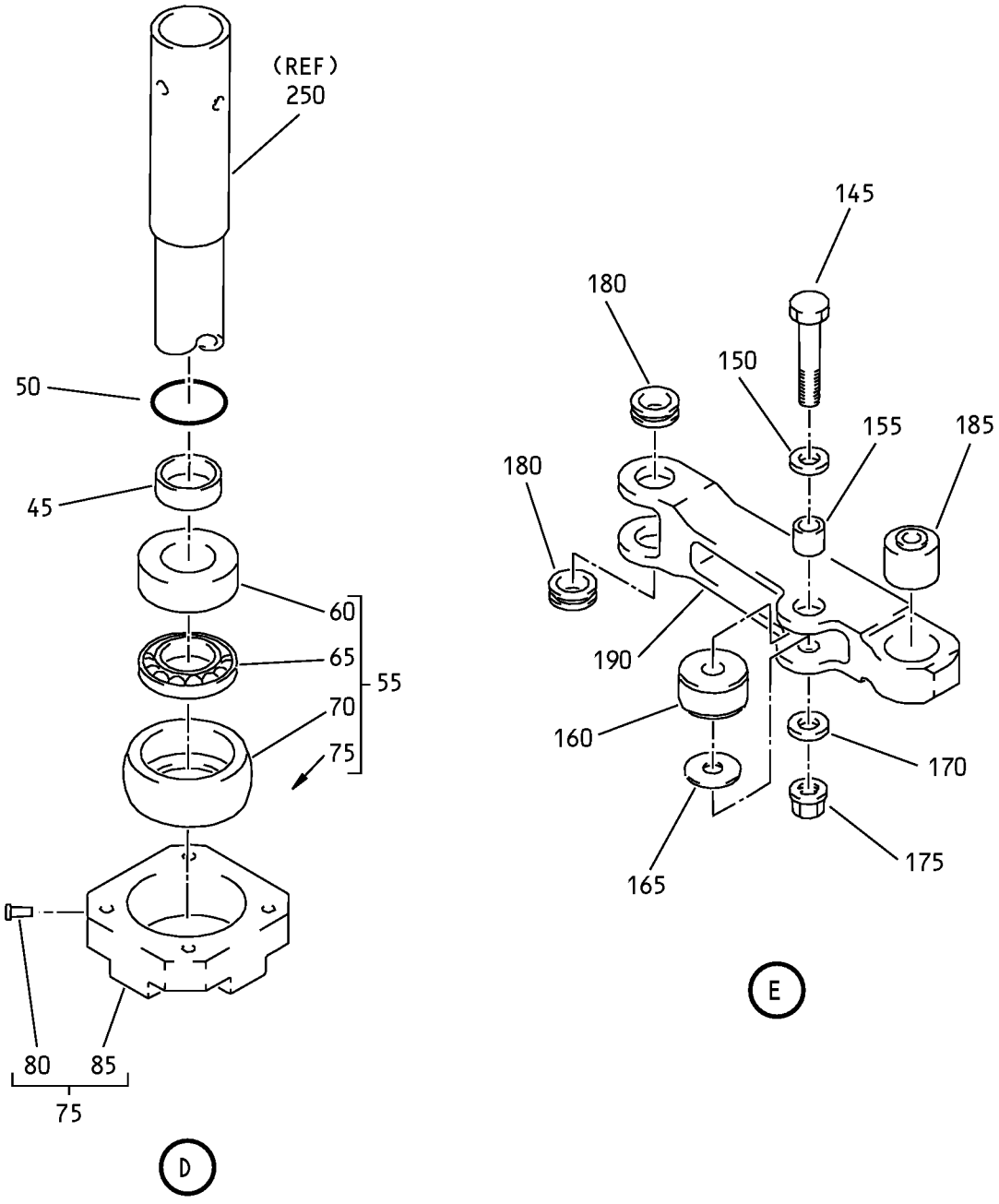
Aileron Control Quadrant Assembly
IPL Figure 2 (Sheet 1 of 6)



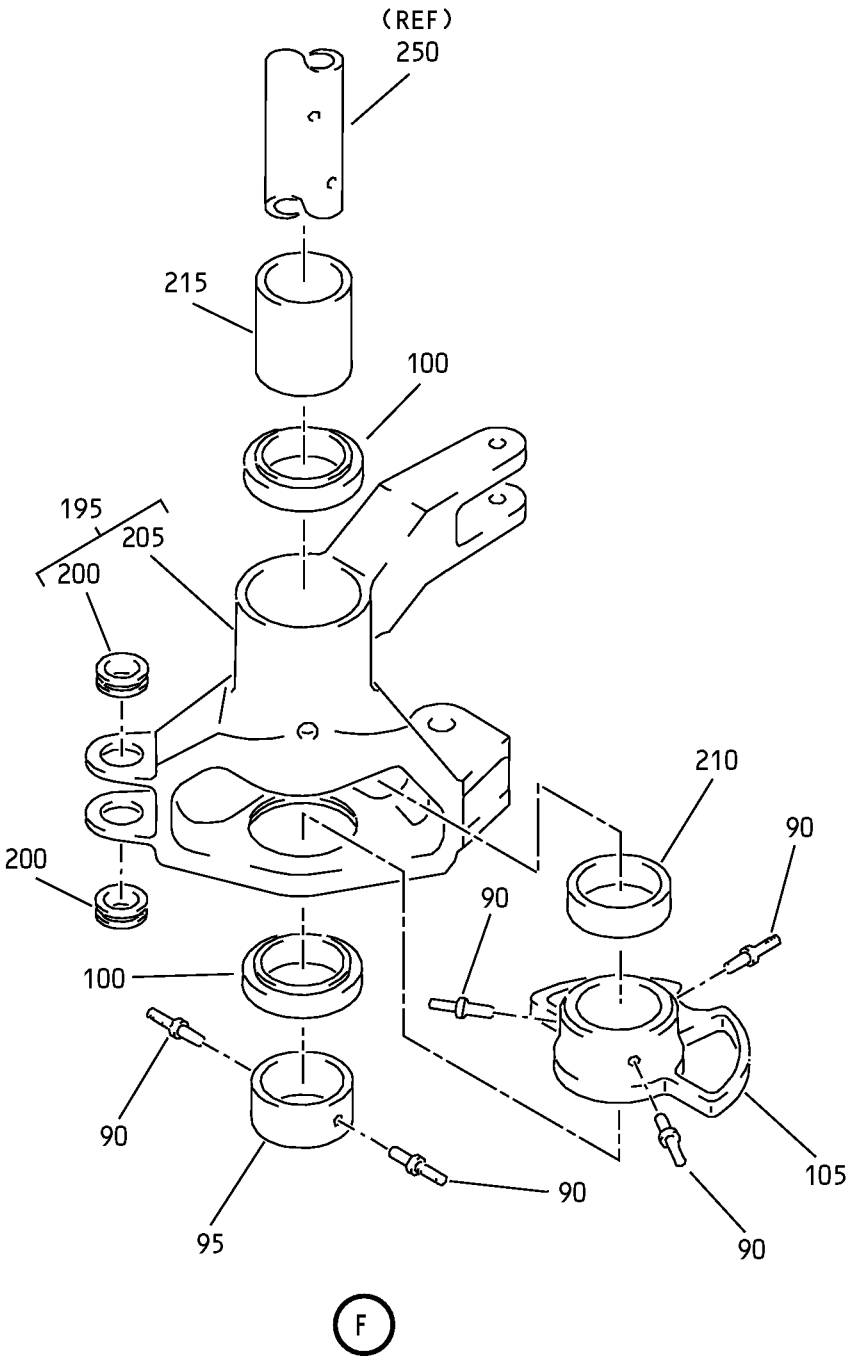
Aileron Control Quadrant Assembly
IPL Figure 2 (Sheet 2 of 6)



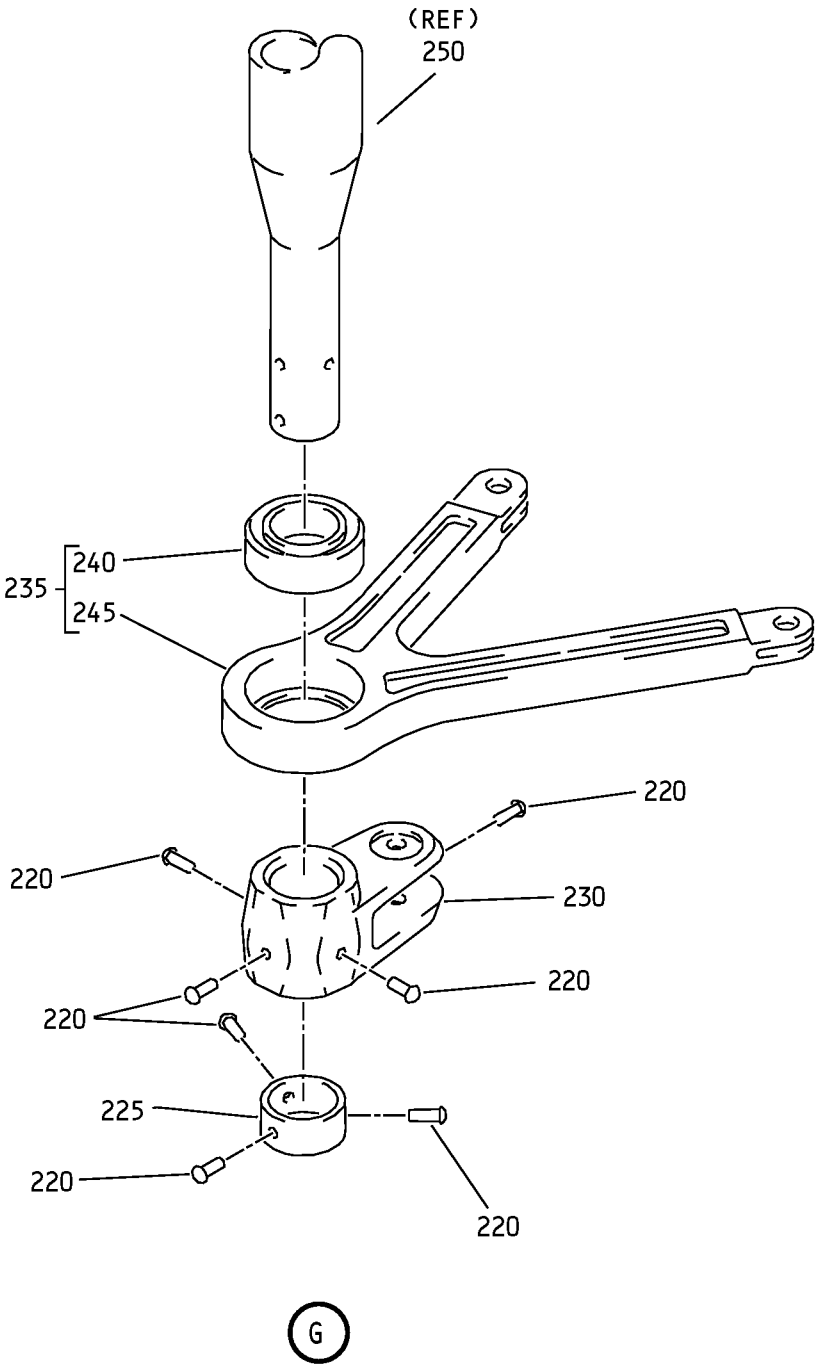
Aileron Control Quadrant Assembly
IPL Figure 2 (Sheet 3 of 6)



Aileron Control Quadrant Assembly
IPL Figure 2 (Sheet 4 of 6)



Aileron Control Quadrant Assembly
IPL Figure 2 (Sheet 5 of 6)



Aileron Control Quadrant Assembly
IPL Figure 2 (Sheet 6 of 6)

FIG/ ITEM	PART NUMBER	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USAGE CODE	UNITS PER ASSY
2–					
–1	251A1631-3		QUADRANT ASSY-AIL. CONT	B	RF
–1A	251A1631-4		QUADRANT ASSY-AIL. CONT	C	RF
5	BACB30NR4K39		. BOLT	B, C	2
10	BACW10BP4CD		. WASHER	B, C	2
15	NAS1149D0463J		. WASHER	B, C	2
20	H52732-4CD		. NUT (V15653) (SPEC BACN10YR4CD) (OPT PLH54CD (V62554))	B, C	2
25	251A1631-2		. DISC-SEAL	B, C	1
30	65-46992-9		. QUADRANT ASSY	B, C	1
33	BACR15BA4D		. . RIVET (SIZE DETERMINED ON INST)	B, C	1
35	NAS42DD4-18		. . SPACER	B, C	2
40	65-46992-10		. . QUADRANT	B, C	1
45	69-16695-5		. RING-SEAL	B, C	1
50	NAS1611-327		. PACKING	B, C	1
55	251A1639-1		. HOUSING ASSY-BEARING	B, C	1
60	69-38713-2		. . SEAL-HOUSING	B, C	1
65	PACMKP25BA3908		. . BEARING (V21335) (SPEC BACB10FR25) (OPT ACMKP25BP510LY1 (V40920)) (OPT ACMKP25BP26LY19 (V40920)) (OPT ACMKP25P26LY198 (V40920)) (OPT SSMKP25BSD703 (V83086))	B, C	1
70	69-38712-1		. . HOUSING-INNER SPHERE	B, C	1
75	69-38711-7		. . HOUSING ASSY-SPHERE	B, C	1
80	66-24199-1		. . . PIN	B, C	1
85	69-38711-8		. . . HOUSING	B, C	1
90	MS21141U8P		. RIVET (SIZE DETERMINED ON INST)	B, C	5
95	251A1635-1		. SPACER	B, C	1

–Item not Illustrated

FIG/ ITEM	PART NUMBER	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USAGE CODE	UNITS PER ASSY
2–					
100	PACMB543D˜ DA3908		. BEARING (V21335) (SPEC BACB10FU25) (OPT ACMB543DDP181LY (V40920)) (OPT ITEM 100A)	B, C	2
–100A	B543DD		. BEARING (V38443) (SPEC BACB10CF25PP) (OPT B543-2TS (V43991)) (OPT B543DDFS428 (V21335)) (OPT B543SSG27 (V30163)) (OPT T343E (VK8455)) (OPT ITEM 100)	B, C	2
103	251A1214-1		. SPRING	B, C	2
105	251A1634-1		. CAM	B, C	1
110	BACB30LJ4-18		. BOLT	B, C	1
115	BACW10BP4CD		. WASHER	B, C	1
120	BACB28BA0406025		. BUSHING	B, C	1
125	NAS1149D0432J		. WASHER	B, C	1
130	NAS1149D0463J		. WASHER	B, C	1
135	H52732-4CD		. NUT (V15653) (SPEC BACN10YR4CD) (OPT PLH54CD (V62554))	B, C	1
140	251A1633-1		. ARM ASSY-FOLLOWER	B, C	1
145	BACB30LJ4-14		. . BOLT	B, C	1
150	BACW10BP4CD		. . WASHER	B, C	1
155	BACB28BA0406025		. . BUSHING	B, C	1
160	BACB10CC4A		. . BEARING (OPT ITEM 160A)	B, C	1
–160A	BACB10CC4E		. . BEARING (OPT ITEM 160)	B, C	1
165	NAS1149D0432J		. . WASHER	B, C	1
170	NAS1149D0463J		. . WASHER	B, C	1
175	H52732-4CD		. . NUT (V15653) (SPEC BACN10YR4CD) (OPT PLH54CD (V62554))	B, C	1

–Item not Illustrated

FIG/ ITEM	PART NUMBER	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USAGE CODE	UNITS PER ASSY
2–					
180	BACB28B4-275P		. . BUSHING	B, C	2
185	SSMGDW4K2SD705		. . BEARING (V83086) (SPEC BACB10FY4) (OPT ACMGDW4K2A3908 (V21335)) (OPT ITEM 185A)	B, C	1
–185A	LLDW4K2-1		. . BEARING (V38443) (SPEC BACB10CG4) (OPT GDW4K2TT (V43991)) (OPT GDW4K2FS428 (V21335)) (OPT DW4K2-1 (V38443)) (OPT GDW4K2SD610 (V83086)) (OPT ITEM 185)	B, C	1
190	251A1633-2		. . ARM	B, C	1
195	251A1632-1		. LEVER ASSY (OPT ITEM 195A)	B	1
–195A	251A1632-3		. LEVER ASSY (OPT ITEM 195)	B	1
–195B	251A1632-5		. LEVER ASSY	C	1
200	BACB28B4-275P		. . BUSHING	B, C	2
205	251A1632-2		. . ARM (USED ON ITEM 195)	B	1
–205A	251A1632-4		. . ARM (USED ON ITEM 195A)	B	1
–205B	251A1632-6		. . ARM	C	1
210	251A1635-2		. SPACER	B, C	1
215	251A1635-3		. SPACER	B, C	1
220	BACR15BB4D8C		. RIVET	B, C	7
225	69-41206-2		. COLLAR	B, C	1
230	65-54407-4		. LEVER-AIL. POGO	B, C	1
235	65-52916-11		. SUPPORT ASSY	B, C	1
240	SSMKP16GBSS˜ D705		. . BEARING (V83086) (SPEC BACB10FV16G) (OPT PACMKP16GBSA390 (V21335)) (OPT ITEM 240A)	B, C	1

–Item not Illustrated

FIG/ ITEM	PART NUMBER	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USAGE CODE	UNITS PER ASSY
2–					
–240A	KP16BSLY196		. . BEARING (V40920) (SPEC BACB10EX16) (OPT KP16BSSD610 (V83086)) (OPT ITEM 240)	B, C	1
245	65-52916-10		. . SUPPORT	B, C	1
250	251A1623-1		. SHAFT	B, C	1
255	BAC27DCT510		. MARKER	B, C	1

–Item not Illustrated