COMPONENT MAINTENANCE MANUAL WITH ILLUSTRATED PARTS LIST

TRAILING EDGE FLAP COMPONENTS

PART NUMBER 113A1120–1, –2, 113A1150–1, –101, –102, –2, 113A1220–1, 113A1317–1, –2, 113A1320–1, –2, 113A1350–105, –106, –109, –11, –110, –12, –7, –8, 113A1517–1, –2, 113A1520–1, –2, 113A1550–109, –11,

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113A1550–110, –12,
113A1717–1, –2,
113A1720–1, –2,
113A1750–105, –106, –7, –8

BOEING®

COMPONENT MAINTENANCE MANUAL

Revision No. 12
Jul 01/2009

To: All holders of TRAILING EDGE FLAP COMPONENTS 27-55-79.

Attached is the current revision to this COMPONENT MAINTENANCE MANUAL

The COMPONENT MAINTENANCE MANUAL is furnished either as a printed manual, on microfilm, or digital products, or any combination of the three. This revision replaces all previous microfilm cartridges or digital products. All microfilm and digital products are reissued with all obsolete data deleted and all updated pages added.

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TABLE OF CONTENTS

TEMPORARY REVISION AND SERVICE BULLETIN RECORD

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

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		Revision		Filed	
Number	Date	Date	Initials	Number	Date	Date	Initials

Revision		Filed		Revision		Filed	
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COMPONENT MAINTENANCE MANUAL

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Temporary Revision		Inserted		Removed	
Number	Date	Date	Initials	Date	Initials

Temporary Revision		Inserted		Removed	
Date	Initials	Number	Date	Date	Initials

Temporary Revision		Inserted		Removed	
Number	Date	Date	Initials	Date	Initials

Temporary Revision		Inserted		Removed	
Date	Initials	Number	Date	Date	Initials

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.

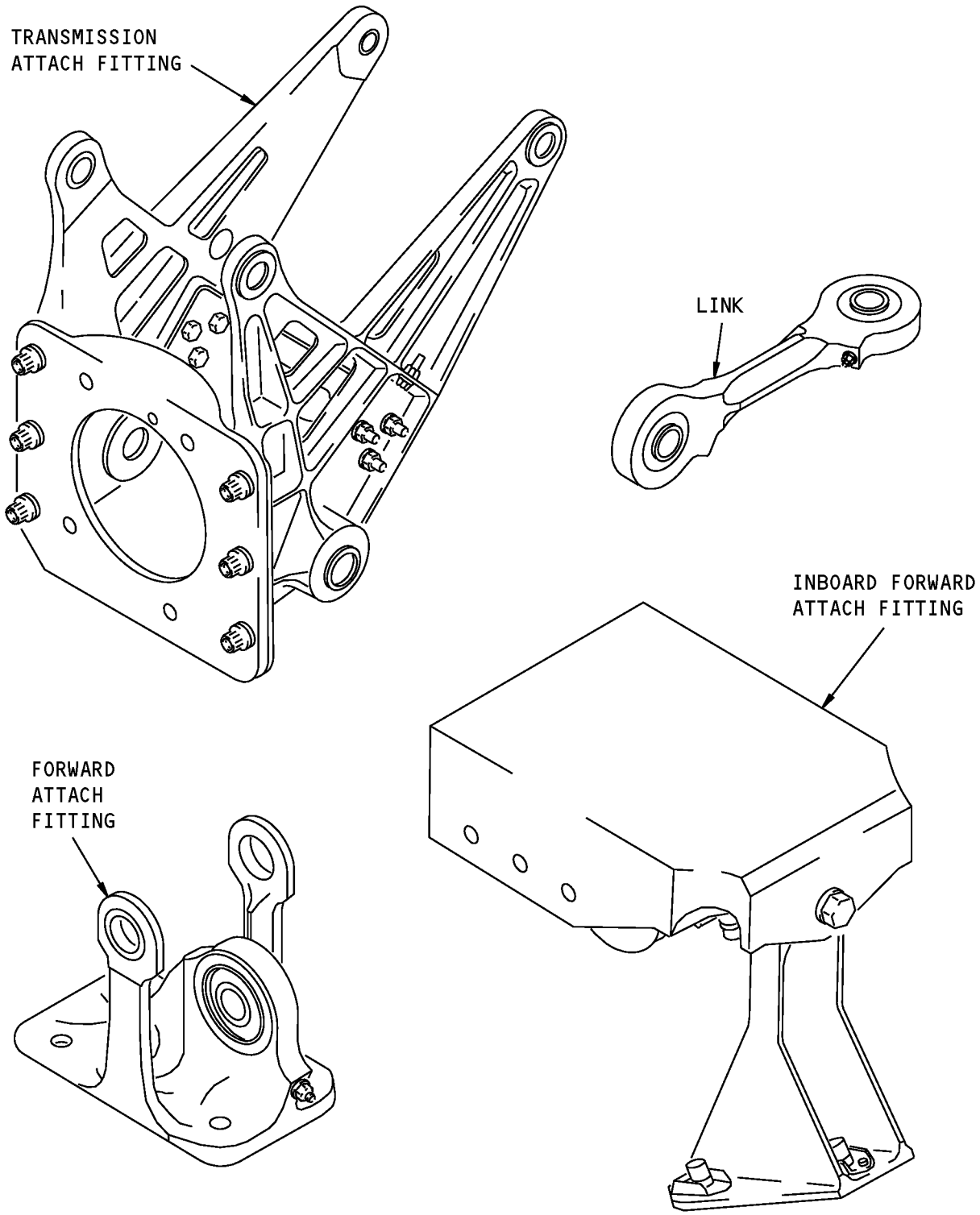
TRAILING EDGE FLAP COMPONENTS - DESCRIPTION AND OPERATION

1. Description

A. This manual contains repair data for some of the components of the Trailing Edge Flap installation.

2. Operation

A. The trailing edge flap components attach the trailing edge flap tracks to the wing and attach the flap transmissions to the flap tracks.



Trailing Edge Flap Components
Figure 1

(NOT APPLICABLE)

(NOT APPLICABLE)

(NOT APPLICABLE)

CHECK

1. General

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

B. Refer to FITS AND CLEARANCES for 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 thru IPL Figure 14 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 (SOPM 20-20-02) or magnetic particle (SOPM 20-20-01) check as indicated in the REPAIR if the visual check shows possible defects or if you think there are defects on the parts.

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
113A1120	FITTING ASSEMBLY, TRANSMISSION	2-1, 2-2
113A1150	FITTING ASSEMBLY, FORWARD	3-1
113A1151	FITTING ASSEMBLY, FORWARD	3-2
113A1220	LINK ASSEMBLY, INBOARD	4-1, 4-2
113A1317	FITTING ASSEMBLY, AFT	5-1, 5-2
113A1320	FITTING ASSEMBLY, TRANSMISSION ATTACH	6-1, 6-2
113A1350	FITTING ASSEMBLY, FORWARD	7-1
113A1352	FITTING	7-2
113A1353	FITTING	7-3
113A1517	FITTING ASSEMBLY, AFT	8-1, 8-2
113A1520	FITTING ASSEMBLY, TRANSMISSION ATTACH	9-1, 9-2
113A1550	FITTING ASSEMBLY, FORWARD	10-1
113A1552	FITTING	10-2
113A1553	FITTING	10-3
113A1717	FITTING ASSEMBLY, AFT	11-1, 11-2
113A1720	FITTING ASSEMBLY, TRANSMISSION ATTACH	12-1, 12-2
113A1750	FITTING ASSEMBLY, FORWARD	13-1
113A1752	FITTING	13-2
113A1753	FITTING	13-3

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)
Ø	DIAMETER
S Ø	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
TIR	TOTAL INDICATOR READING

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
[◎ | Ø 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
[⌖ | Ø 0.002 Ⓢ | B]	LOCATED AT TRUE POSITION WITHIN 0.002 DIA RELATIVE TO DATUM B, REGARDLESS OF FEATURE SIZE
[⊥ | Ø 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

REFINISH OF OTHER PARTS - REPAIR 1-1

1. General

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

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

2. Refinish of Other Parts

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
C00700	Coating - Exterior Protective Enamel, Gray Gloss Enamel	BMS10-60, Type I, BAC 707

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) These instructions replace the original finish of the parts listed in REPAIR 1-1, Table 601.

D. Procedure

NOTE: For stripping of protective finishes, refer to SOPM 20-30-02. For general cleaning procedures, refer to SOPM 20-30-03. 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 for the refinish of other parts.

Table 601: Refinish Details

IPL FIG. & ITEM	MATERIAL	FINISH
IPL Fig. 2		
Washer (20)	Phenolic	No finish.
IPL Fig. 3		
Plate (95)	15-5PH CRES 180-200 ksi	Cadmium plate (F-15.06). Apply primer, C00259 (F-20.02) and enamel coating, C00700 (F-14.9813, which replaces SRF-14.9813).
IPL Fig. 4		
Washer (20A)	Phenolic	No finish.

Table 601: Refinish Details (Continued)

IPL FIG. & ITEM	MATERIAL	FINISH
Faceplates (30,35)	Titanium alloy	Phosphate treat (F-14.882). Apply primer, C00259 (F-20.02) but not in holes.
Plate (95)	15-5PH CRES 180-200 ksi	Cadmium plate (F-15.06). Apply primer, C00259 (F-20.02) and enamel coating, C00700 (F-14.9813, which replaces SRF-14.9813).
Fitting (100)	Al alloy	Boric acid-sulfuric acid anodize or chromic acid anodize (F-17.31). Apply primer, C00259 (F-20.03).
Sideplates (165, 170,210,215)	Al alloy	Boric acid-sulfuric acid anodize or chromic acid anodize (F-17.31). Apply primer, C00259 (F-20.02) and enamel coating, C00700 (F-14.9813, which replaces SRF-14.9813).
IPL Fig. 6		
Faceplates (30,35)	Titanium alloy	Phosphate treat (F-14.882). Apply primer, C00259 (F-20.02) but not in holes.
Fitting (100)	Al alloy	Boric acid-sulfuric acid anodize or chromic acid anodize (F-17.31). Apply primer, C00259(F-20.03).
Plate (102)	15-5PH CRES 180-200 ksi	Cadmium plate (F-15.06). Apply primer, C00259 (F-20.02) and enamel coating, C00700 (F-14.9813, which replaces SRF-14.9813).
Sideplates (150, 155)	Al alloy	Boric acid-sulfuric acid anodize or chromic acid anodize (F-17.31). Apply primer, C00259 (F-20.02) and enamel coating, C00700 (F-14.9813, which replaces SRF-14.9813).
IPL Fig. 8		
Faceplates (30,35)	Titanium alloy	Phosphate treat (F-14.9813). Apply primer, C00259 (F-20.02) but not in holes.
Plate (95)	15-5PH CRES 180-200 ksi	Cadmium plate (F-15.06). Apply primer, C00259 (F-20.02) and enamel coating, C00700 (F-14.9813, which replaces SRF-14.9813).
Fitting (100)	Al alloy	Boric acid-sulfuric acid anodize or chromic acid anodize (F-17.31). Apply primer, C00259 (F-20.03).
Sideplates (155, 160,190,195)	Al alloy	Boric acid-sulfuric acid anodize or chromic acid anodize (F-17.31). Apply primer, C00259 (F-20.02) and enamel coating, C00700 (F-14,9813 which replaces SRF-14.9813).

FITTING ASSEMBLY - REPAIR 2-1

113A1120–1, –2

1. General

A. This procedure has the data necessary to replace the parts of the attach fitting assembly.

B. Refer to the Standard Overhaul Practices 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.

2. Parts Replacement

A. Consumable Materials

NOTE: Equivalent substitutes may be used.

Reference	Description	Specification
A00028	Adhesive - Modified Epoxy For Rigid PVC, Foam Cored Sandwiches	BAC5010, Type 70 (BMS5-92, Type 1)
A00247	Sealant - Pressure And Environmental - Chromate Type	BMS 5-95

B. References

Reference	Title
SOPM 20-30-03	GENERAL CLEANING PROCEDURES
SOPM 20-50-03	BEARING AND BUSHING REPLACEMENT
SOPM 20-50-12	APPLICATION OF ADHESIVES
SOPM 20-60-04	MISCELLANEOUS MATERIALS

C. Procedure (REPAIR 2-1, Figure 601)

NOTE: For general cleaning procedures, refer to SOPM 20-30-03. For miscellaneous materials, refer to SOPM 20-60-04.

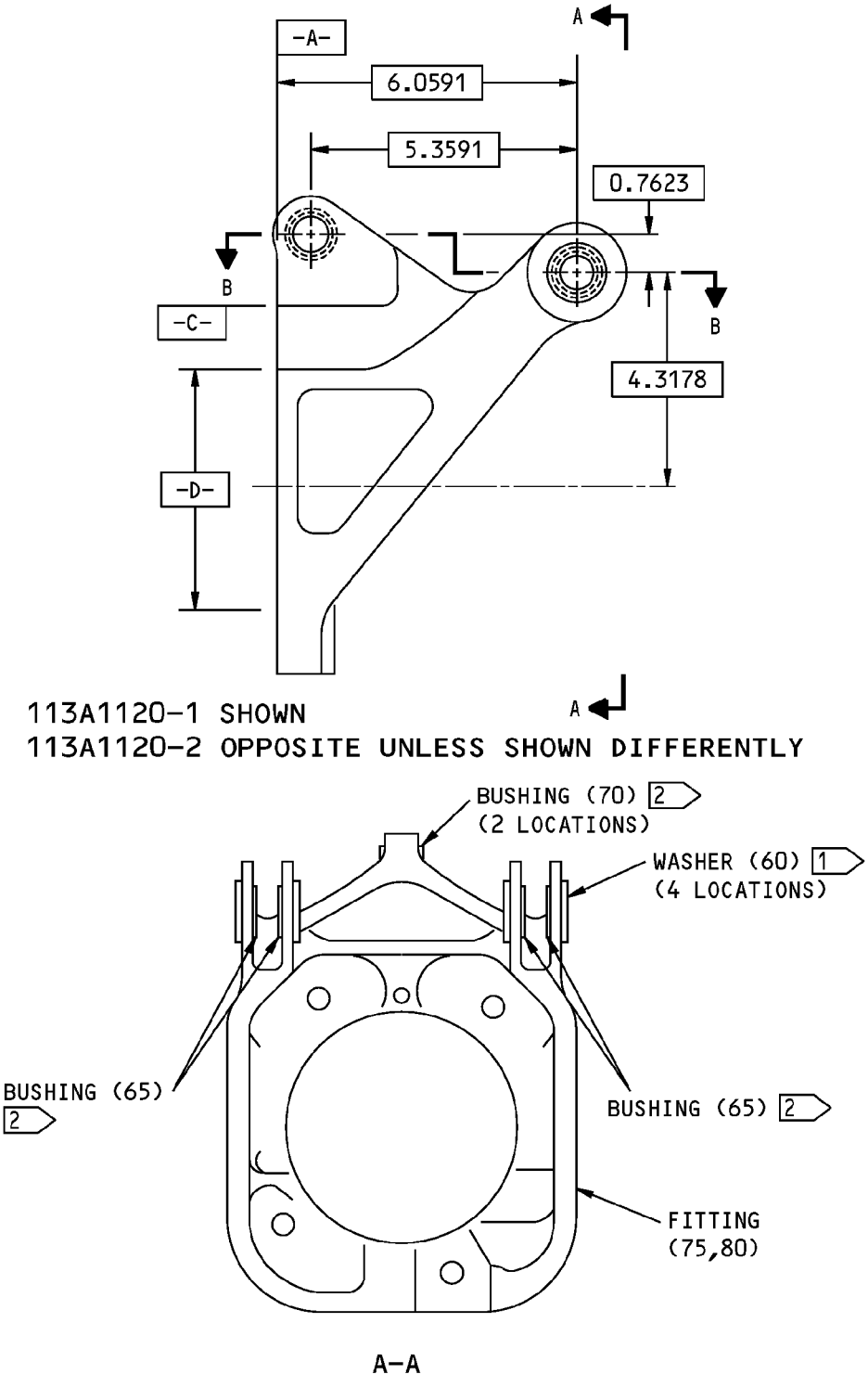
(1) Remove the old washers (60) and bushings (65, 70) from the attach fitting (75, 80).

(2) If you find defects on fitting surfaces, refer to REPAIR 2-2 for repair instructions.

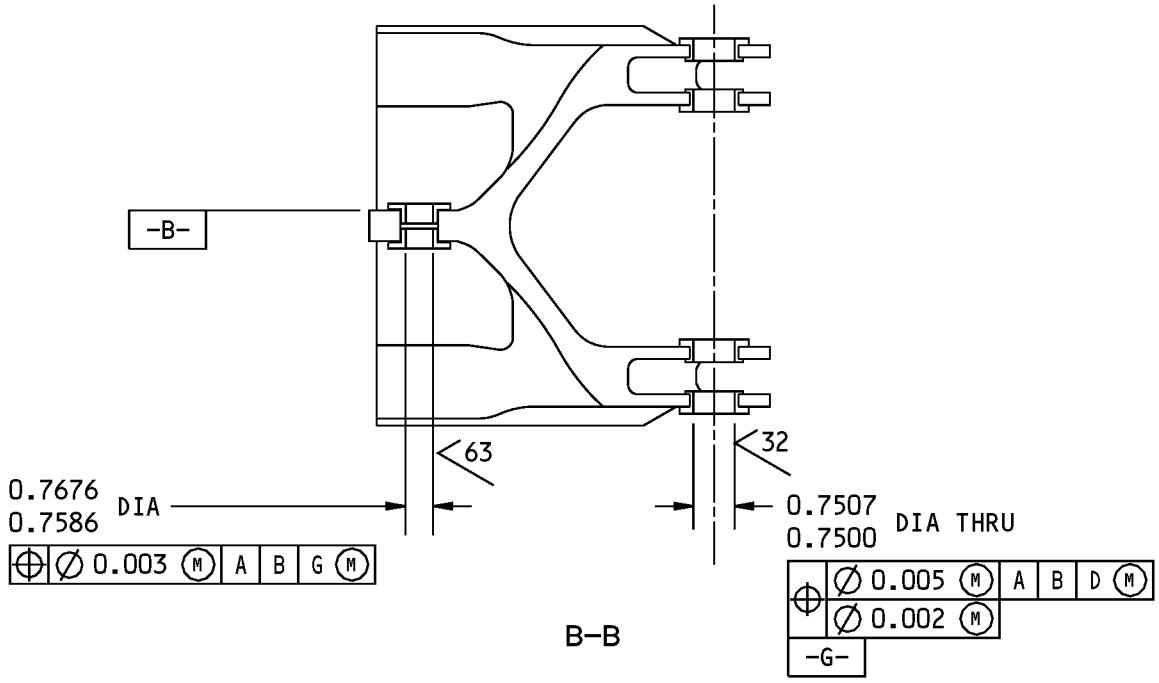
(3) Install replacement bushings (65, 70) by the shrink-fit method (SOPM 20-50-03) with sealant, A00247.

(4) Machine the bushings (65, 70) to design dimensions and finish.

(5) Bond replacement washers (60) with adhesive, A00028 to the fitting (75, 80). Make sure the adhesive fills the space between the washer and the end of the bushing (65, 70) (SOPM 20-50-12).



113A1120-1,-2 Attach Fitting Assembly
Figure 601 (Sheet 1 of 2)



1 ALIGN THE WASHER EVENLY AROUND THE HOLE

2 APPLY THE BMS 5-95 SEALANT TO THE BUSHING OUTSIDE DIAMETER. INSTALL THE BUSHING BY THE SHRINK FIT METHOD (SOPM 20-50-03)

ITEM NUMBERS REFER TO IPL FIG. 1

ALL DIMENSIONS ARE IN INCHES

113A1120-1,-2 Attach Fitting Assembly
Figure 601 (Sheet 2 of 2)

FITTING REPAIR 2-2

113A1120–3, –4

1. General

A. This procedure has the data necessary to repair and refinish the attach fitting (75, 80).

B. Refer to the Standard Overhaul Practices 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) Shot peen: All the surfaces, but not in the holes. Intensity 0.006-0.011A2. Overspray is permitted.

2. Attach Fitting Repair

A. References

Reference	Title
SOPM 20-10-03	SHOT PEENING
SOPM 20-20-02	PENETRANT METHODS OF INSPECTION

B. Procedure (REPAIR 2-2, Figure 601)

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

(2) Do a penetrant check (SOPM 20-20-02).

(3) Shot peen (SOPM 20-10-03) as indicated.

(4) Refinish as indicated (REPAIR 2-2, Paragraph 3. below).

(5) Make oversize bushings as shown in REPAIR 2-2, Figure 602 to adjust for the material removed.

(6) Install the bushings as shown in REPAIR 2-1.

3. Attach Fitting 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
C00700	Coating - Exterior Protective Enamel, Gray Gloss Enamel	BMS10-60, Type I, BAC 707

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

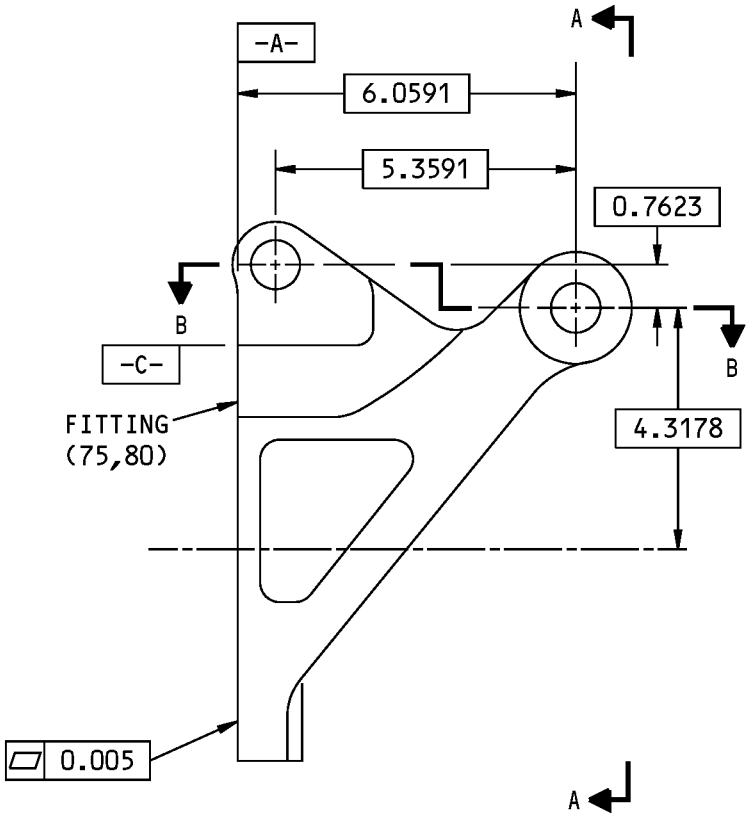
C. Procedure (REPAIR 2-2, Figure 601)

NOTE: For stripping of protective finishes, refer to SOPM 20-30-02. For general cleaning procedures, refer to SOPM 20-30-03. For the decoding table for Boeing finish codes, refer to SOPM 20-41-01. For finishing materials, refer to SOPM 20-60-02.

(1) Boric acid/sulfuric acid anodize solution or chromic acid anodize (F-17.31).

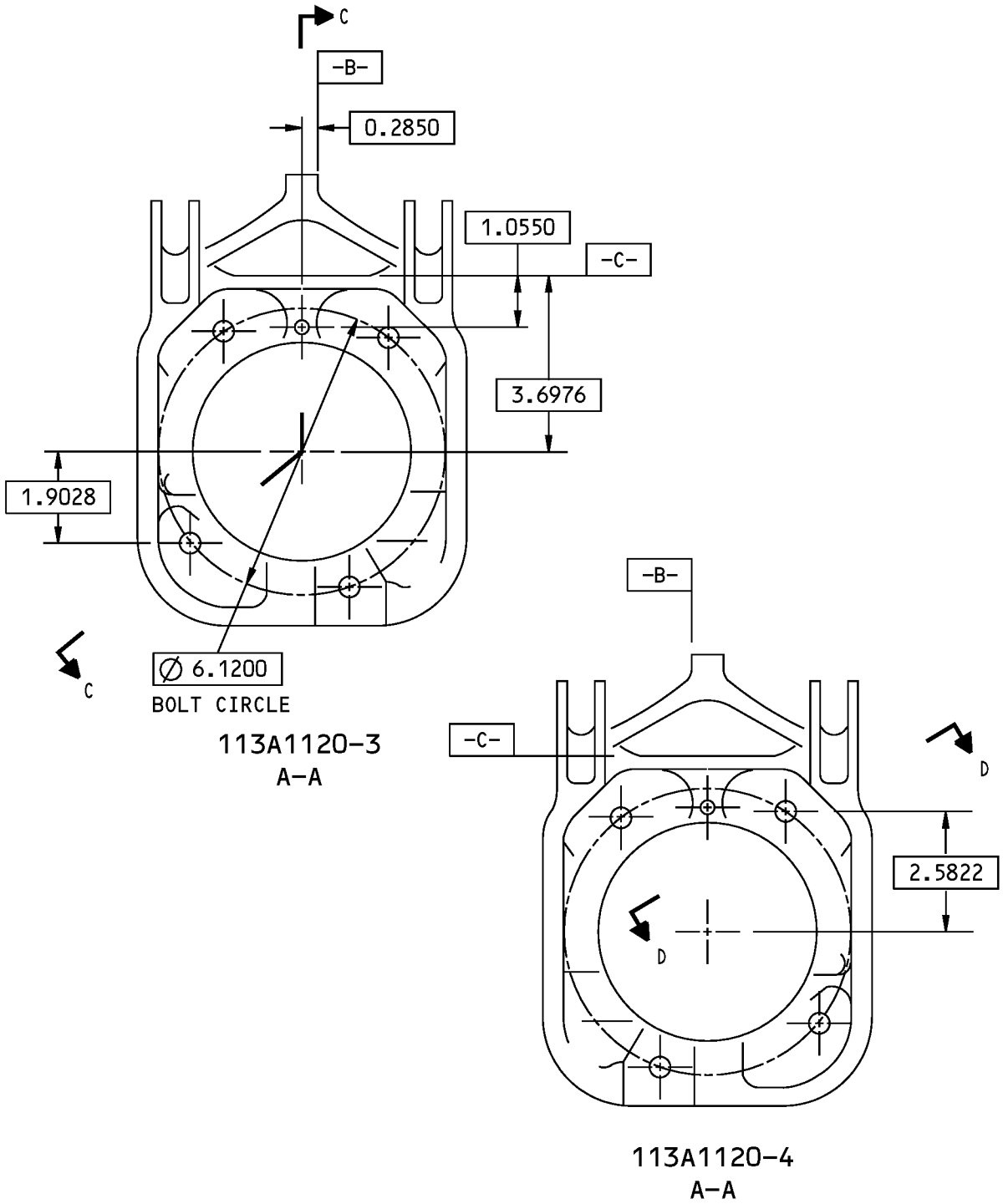
(2) Apply primer, C00259 (F-20.02).

(3) Apply enamel coating, C00700 (F-14.9813, which replaces SRF-14.9813).

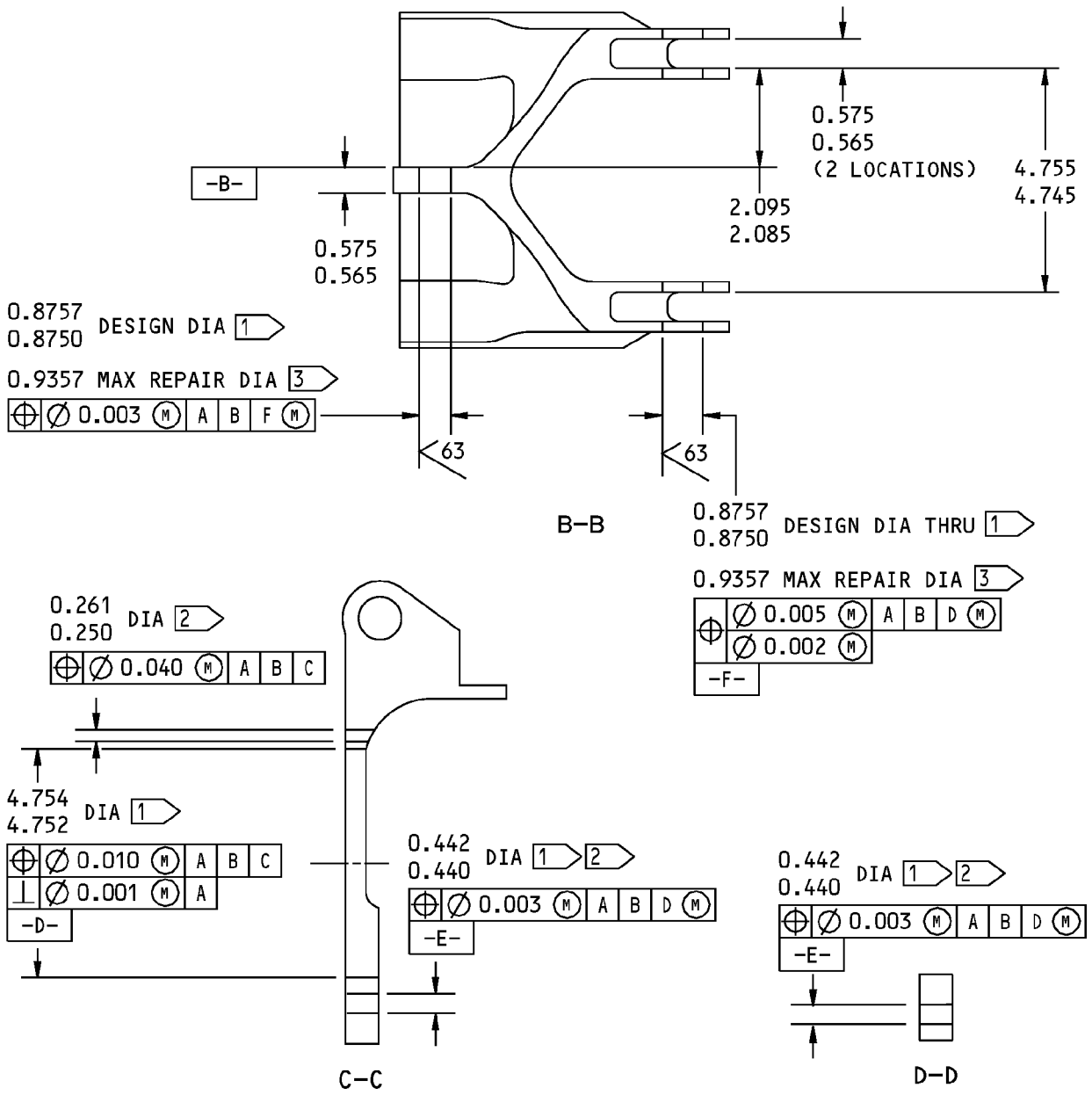


113A1120-3 SHOWN
113A1120-4 OPPOSITE UNLESS SHOWN DIFFERENTLY

113A1120-3,-4 Attach Fitting Repair
Figure 601 (Sheet 1 of 3)



113A1120-3,-4 Attach Fitting Repair
Figure 601 (Sheet 2 of 3)



1 DO NOT APPLY PRIMER OR ENAMEL TO THE BORE

2 OVERSPRAY IS PERMITTED

3 LIMIT FOR INSTALLATION OF OVERSIZE RUSHINGS

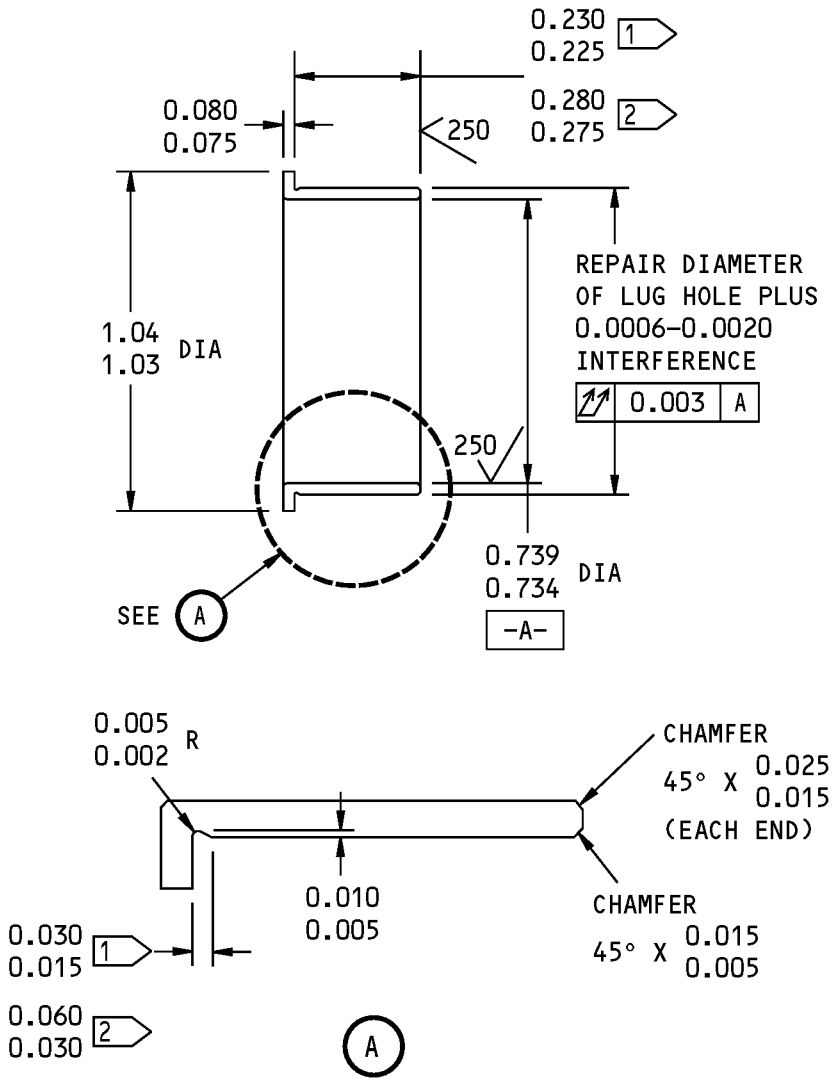
125 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

BREAK ALL SHARP EDGES

ITEM NUMBERS REFER TO IPL FIG. 1

ALL DIMENSIONS ARE IN INCHES

113A1120-3,-4 Attach Fitting Repair
Figure 601 (Sheet 3 of 3)



1 FOR BUSHING (65)

2 FOR BUSHING (70)

63 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

BREAK ALL SHARP EDGES 0.02-0.04 R

FINISH: CADMIUM PLATE (F-15.06) OR
ZINC-NICKEL PLATE (F-15.40)

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

ITEM NUMBERS REFER TO IPL FIG. 1

ALL DIMENSIONS ARE IN INCHES

REPLACES BUSHINGS (65,70) BACB28AT12B023C,BACB28AT12B028C

Oversize Bushing Details
Figure 602

FITTING ASSEMBLY - REPAIR 3-1

113A1150–1, –2, –101, –102, –201, –202

1. General

A. This procedure has the data necessary to replace the parts of the attach fitting assembly.

B. Refer to the Standard Overhaul Practices Manual (SOPM) for the SOPM chapters 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. Parts Replacement

A. Consumable Materials

NOTE: Equivalent substitutes may be used.

Reference	Description	Specification
A00028	Adhesive - Modified Epoxy For Rigid PVC, Foam Cored Sandwiches	BAC5010, Type 70 (BMS5-92, Type 1)
A00247	Sealant - Pressure And Environmental - Chromate Type	BMS 5-95
D00015	Grease - Aircraft Bearing (Use BMS 3-24 until existing stocks are depleted, BMS 3-33 supersedes BMS 3-24)	BMS3-24 (Superseded by BMS 3-33)
D00633	Grease - Aircraft General Purpose	BMS3-33

B. References

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

C. Procedure (REPAIR 3-1, Figure 601)

NOTE: For lubricants, refer to SOPM 20-60-03. For miscellaneous materials, refer to SOPM 20-60-04.

(1) Remove the old washers (20), bearing (15) and bushings (25) from the attach fitting (30, 35).

(2) If you find defects on fitting surfaces, refer to REPAIR 3-2 for repair instructions.

(3) Install replacement bushings (25) by the shrink-fit method (SOPM 20-50-03) with sealant, A00247.

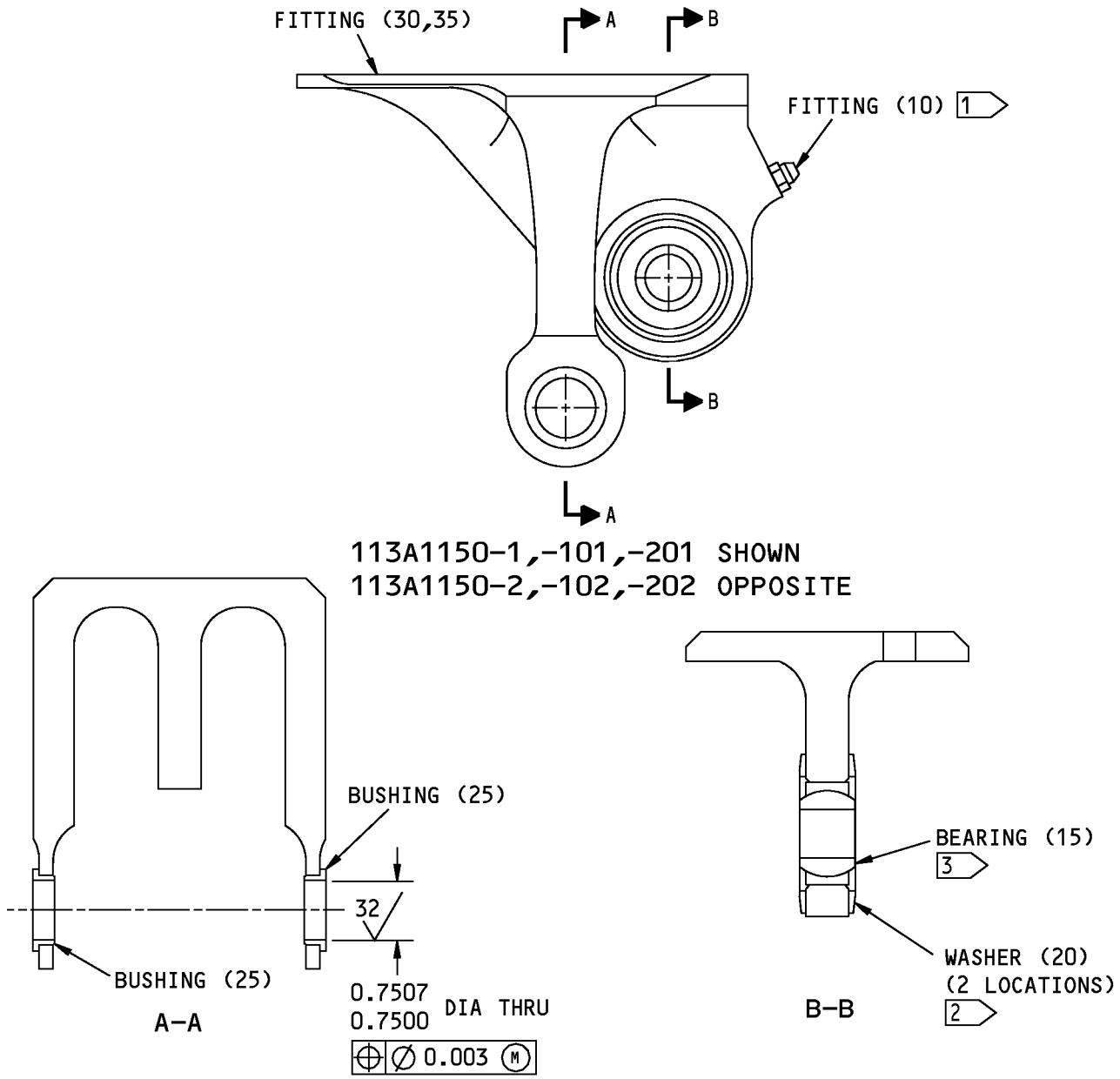
(4) Machine the bushings (25) to design dimensions and finish.

(5) For fitting assembly (1, 1A, 5, 5A), apply grease, D00015 or grease, D00633 to the fitting (10) until it shows at the inner diameter of the hole. For fitting assembly (1B, 5B), apply grease, D00633 to the fitting (10) until it shows at the inner diameter of the hole.

(6) For fitting assembly (1, 1A, 5, 5A), install a replacement bearing (15) with grease, D00015 or grease, D00633 on the outer diameter. For fitting assembly (1B, 5B), install a replacement bearing (15) with grease, D00633 on the outer diameter.

(7) Roller swage the bearing (SOPM 20-50-03).

(8) Bond replacement washers (20) with adhesive, A00028 to the fitting around the bearing flanges. Make sure the adhesive fills the space between the washer and the bearing flange.



1 APPLY GREASE UNTIL IT SHOWS AT THE INNER DIAMETER

2 ALIGN THE WASHER EQUALLY AROUND THE HOLE

3 INSTALL THE BEARING AND ROLLER SWAGE THE TWO SIDES (SOPM 20-50-03)

ITEM NUMBERS REFER TO IPL FIG. 2

ALL DIMENSIONS ARE IN INCHES

113A1150-1,-2,-101,-102,-201,-202 Forward Attach Fitting Assembly
Figure 601

FITTING - REPAIR 3-2

113A1151–1, –2, –101, –102, –201, –202

1. General

A. This procedure has the data necessary to repair and refinish the attach fitting (30, 35).

B. Refer to the Standard Overhaul Practices 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.

E. General repair details:

(1) Material: Titanium alloy

(2) Shot peen: All the surfaces, but not in the holes identified in REPAIR 3-2, Figure 601.

(a) Hard Shot (Rc 55-65)

(b) Intensity 0.006-0.011A2

(c) Overspray is permitted

2. Attach Fitting Repair

A. References

Reference	Title
SOPM 20-10-03	SHOT PEENING
SOPM 20-20-02	PENETRANT METHODS OF INSPECTION

B. Procedure (REPAIR 3-2, Figure 601)

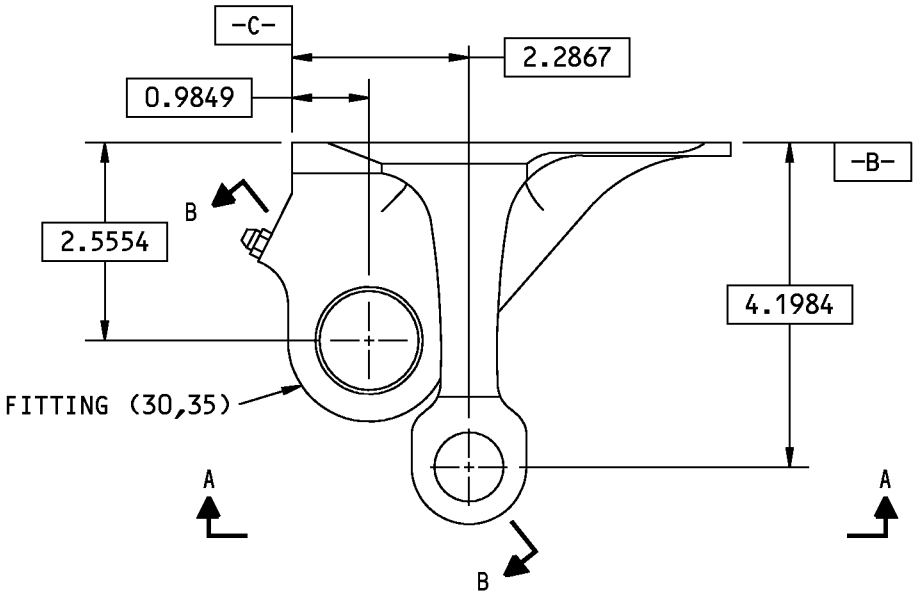
(1) Machine as required within repair limits, to remove defects.

(2) Do a penetrant check (SOPM 20-20-02).

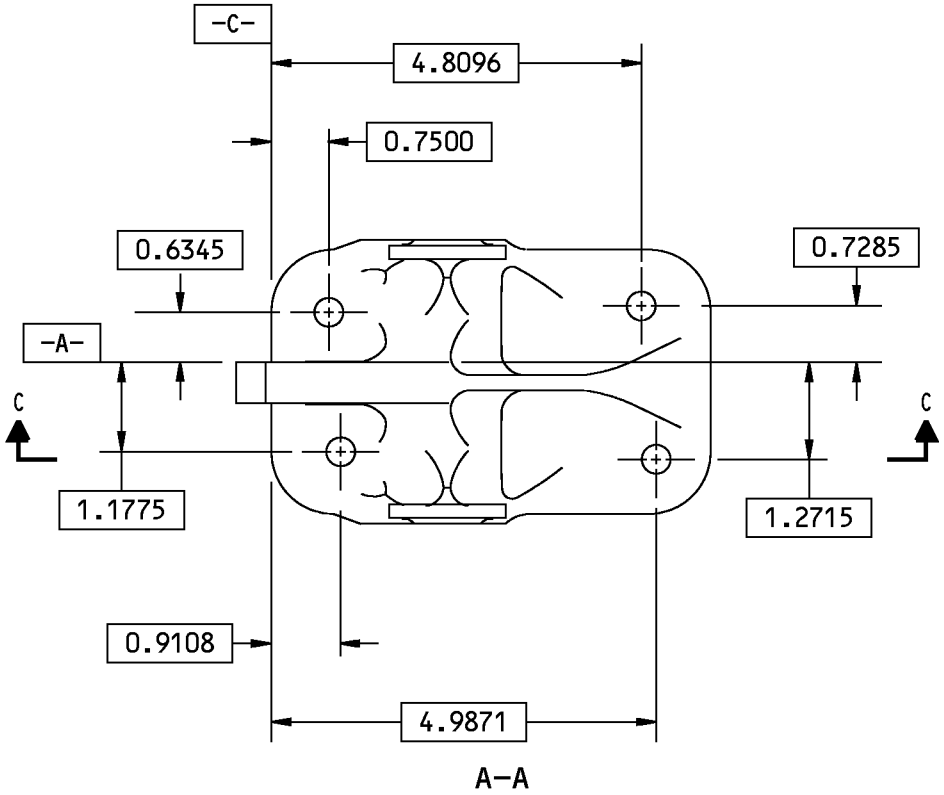
(3) Shot peen SOPM 20-10-03 as indicated.

(4) Make oversize bushings (REPAIR 3-2, Figure 602) to adjust for the material removed.

(5) Install the bushings as shown in REPAIR 3-1.

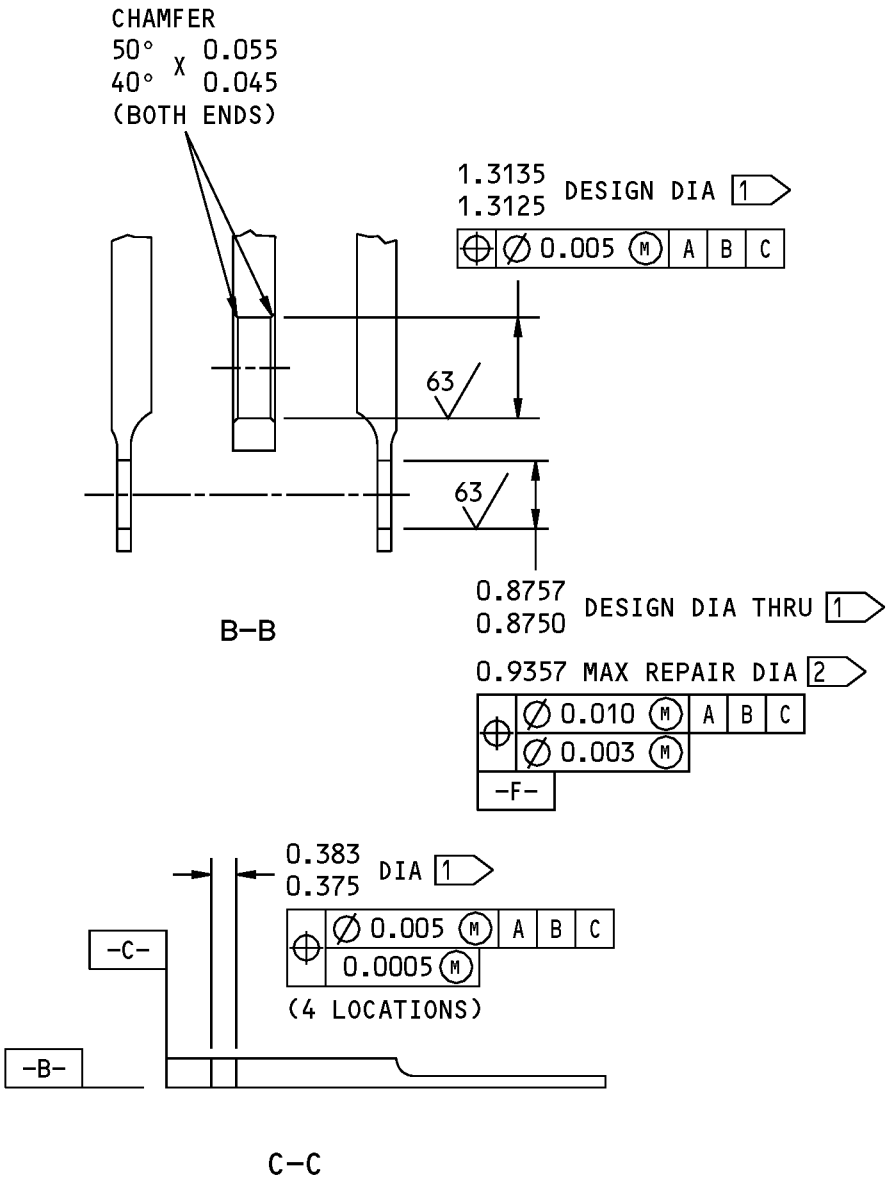


113A1151-1,-101,-201 SHOWN
113A1151-2,-102,-202 OPPOSITE



A-A

113A1151-1,-2,-101,-102,-201,-202 Forward Attach Fitting Repair
Figure 601 (Sheet 1 of 2)



1 DO NOT SHOT PEEN

2 LIMIT FOR INSTALLATION OF OVERSIZE BUSHINGS

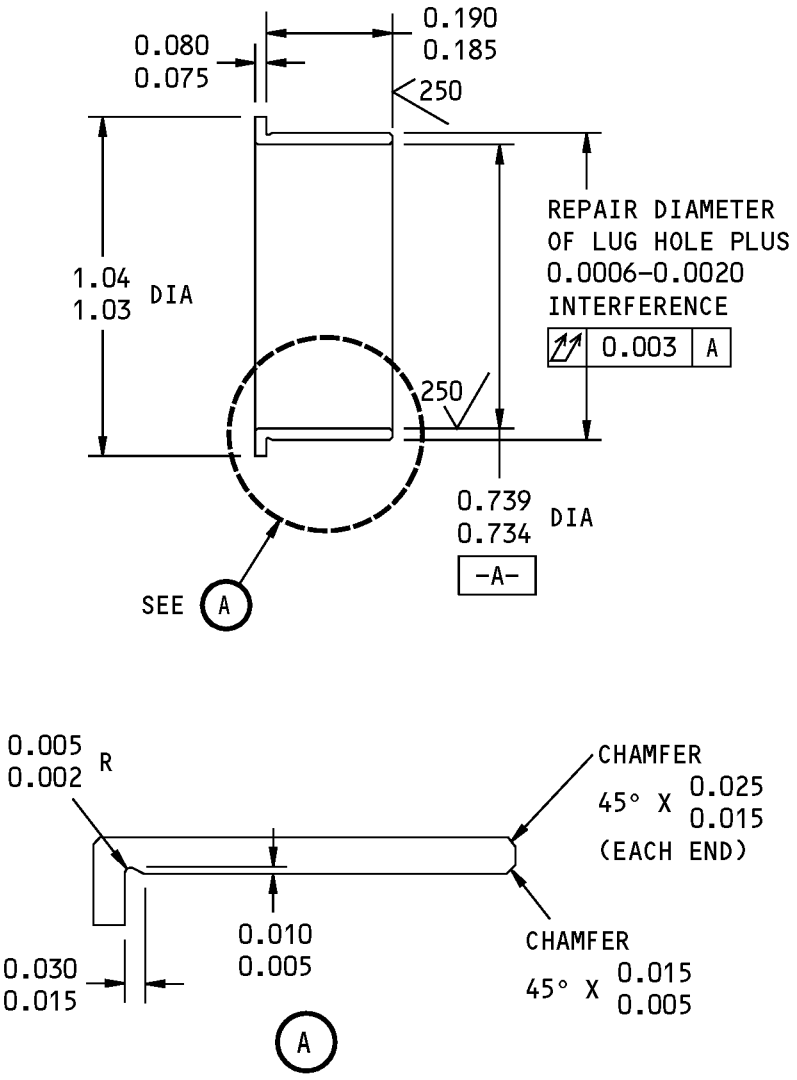
125 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

BREAK ALL SHARP EDGES

ITEM NUMBERS REFER TO IPL FIG. 2

ALL DIMENSIONS ARE IN INCHES

113A1151-1,-2,-101,-102,-201,-202 Forward Attach Fitting Repair
Figure 601 (Sheet 2 of 2)



63 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

BREAK ALL SHARP EDGES 0.02-0.04 R

FINISH: NO FINISH

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

ITEM NUMBERS REFER TO IPL FIG. 2

ALL DIMENSIONS ARE IN INCHES

REPLACES BUSHING (25) BAC28AT12B019A

Oversize Bushing Details
Figure 602

LINK ASSEMBLY - REPAIR 4-1

113A1220–1

1. General

A. This procedure has the data necessary to replace parts of the link assembly.

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

C. Refer to IPL Figure 3 for item numbers.

2. Parts Replacement

A. Consumable Materials

NOTE: Equivalent substitutes may be used.

Reference	Description	Specification
A00028	Adhesive - Modified Epoxy For Rigid PVC, Foam Cored Sandwiches	BAC5010, Type 70 (BMS5-92, Type 1)
D00015	Grease - Aircraft Bearing (Use BMS 3-24 until existing stocks are depleted, BMS 3-33 supersedes BMS 3-24)	BMS3-24 (Superseded by BMS 3-33)
D00633	Grease - Aircraft General Purpose	BMS3-33

B. References

Reference	Title
SOPM 20-50-03	BEARING AND BUSHING REPLACEMENT
SOPM 20-50-12	APPLICATION OF ADHESIVES
SOPM 20-60-03	LUBRICANTS
SOPM 20-60-04	MISCELLANEOUS MATERIALS

C. Procedure (REPAIR 4-1, Figure 601)

NOTE: For lubricants, refer to SOPM 20-60-03. For miscellaneous materials, refer to SOPM 20-60-04.

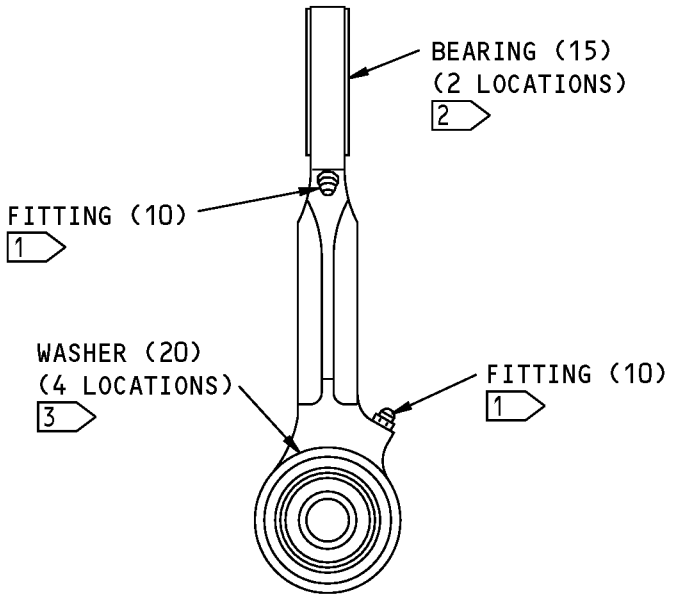
(1) Remove the old washers and bearings from the link.

(2) If you find defects on link surfaces, refer to REPAIR 4-2 for repair instructions.

(3) Install replacement bearings with grease, D00015 or grease, D00633 on the outer diameter.

(4) Roller swage the bearings (SOPM 20-50-03).

(5) Bond replacement washers (20) to the link around the bearings with adhesive, A00028. Make sure the adhesive fills the space between the washer and the bearing flange (SOPM 20-50-12).



1 APPLY GREASE UNTIL IT SHOWS AT THE INNER DIAMETER

2 INSTALL THE BEARING AND ROLLER SWAGE IT (SOPM 20-50-03)

3 ALIGN THE WASHER EQUALLY AROUND THE HOLE

ITEM NUMBERS REFER TO IPL FIG. 3

113A1220-1 Inboard Support Link Assembly
Figure 601

LINK - REPAIR 4-2

113A1220–3

1. General

A. This procedure has the data necessary to repair and refinish the link.

B. Refer to the Standard Overhaul Practices 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 3 for item numbers.

E. General repair details:

(1) Material: Aluminum alloy

(2) Shot peen: All the surfaces, but not in the holes identified in REPAIR 4-2, Figure 601.

(a) Intensity 0.006-0.011A2

(b) Overspray is permitted

2. Attach Fitting Repair

A. References

Reference	Title
SOPM 20-20-02	PENETRANT METHODS OF INSPECTION

B. Procedure (REPAIR 4-2, Figure 601)

(1) Repair is only replacement of the original finish. Refer to REPAIR 4-2, Paragraph 3. below.

(2) Do a penetrant check (SOPM 20-20-02) if you think there are defects.

3. Attach Fitting 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

B. References

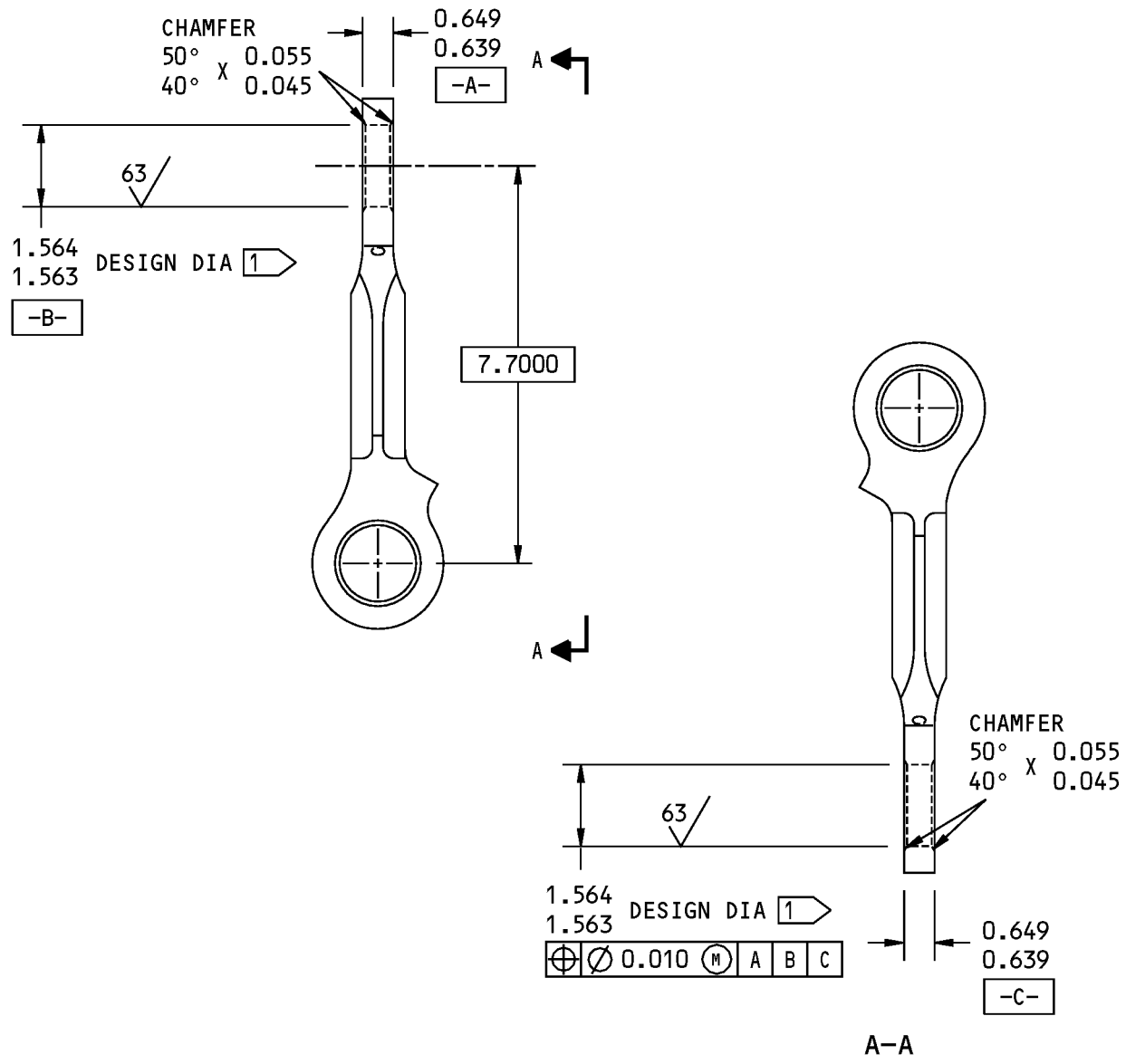
Reference	Title
SOPM 20-30-02	STRIPPING OF PROTECTIVE FINISHES
SOPM 20-30-03	GENERAL CLEANING PROCEDURES
SOPM 20-41-01	DECODING TABLE FOR BOEING FINISH CODES
SOPM 20-60-02	FINISHING MATERIALS

C. Procedure (REPAIR 4-2, Figure 601)

NOTE: For stripping of protective finishes, refer to SOPM 20-30-02. For general cleaning procedures, refer to SOPM 20-30-03. For the decoding table for Boeing finish codes, refer to SOPM 20-41-01. For finishing materials, refer to SOPM 20-60-02.

(1) Boric acid/sulfuric acid anodize or chromic acid anodize (F-17.31).

(2) Apply primer, C00259 (F-20.03).



1 NO ENAMEL IN THE HOLE

125 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

BREAK ALL SHARP EDGES

ITEM NUMBERS REFER TO IPL FIG. 3

ALL DIMENSIONS ARE IN INCHES

113A1220-3 Inboard Support Link Repair
Figure 601

ATTACH FITTING ASSEMBLY - REPAIR 5-1

113A1317–1, –2

1. General

A. This procedure has the data necessary to replace the bushings on the attach fitting assembly.

B. Refer to the Standard Overhaul Practices 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 13 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

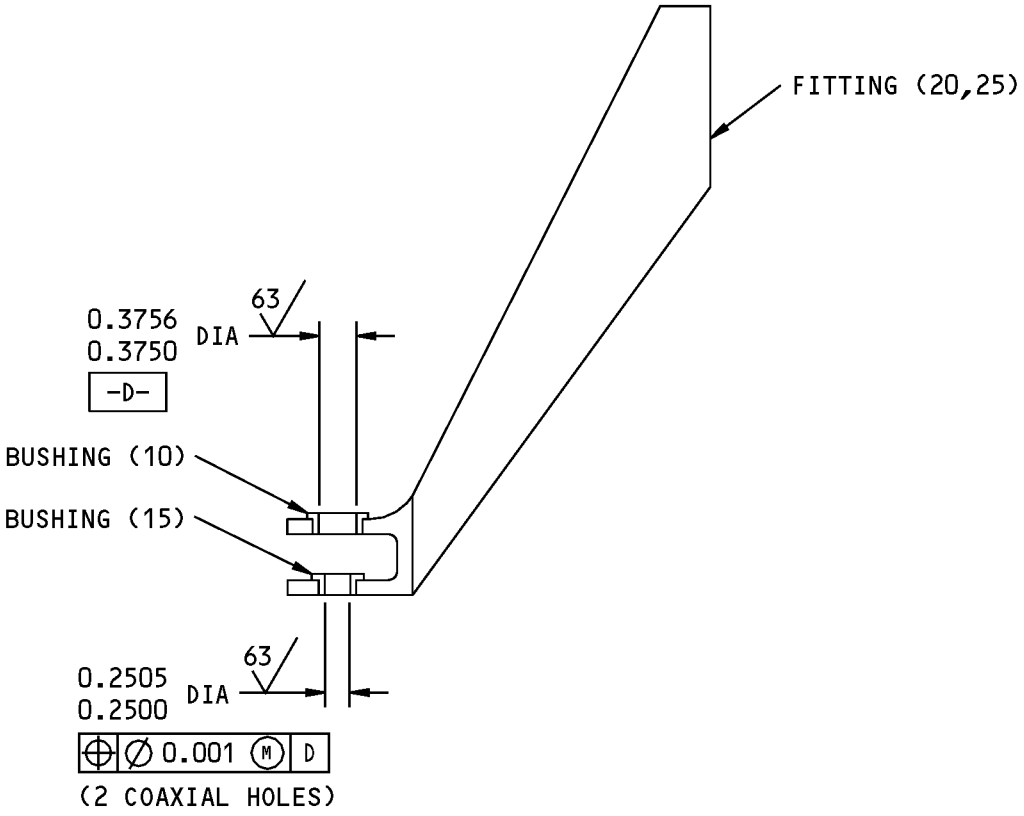
Reference	Title
SOPM 20-50-03	BEARING AND BUSHING REPLACEMENT

C. Procedure (REPAIR 5-1, Figure 601)

(1) Remove the bushings (10, 15) from the attach fitting (20, 25).

(2) Install the bushings (10, 15) by the shrink-fit method (SOPM 20-50-03) with sealant, A00247.

(3) Machine the bushings to design dimensions and finish.



113A1317-1 SHOWN
113A1317-2 OPPOSITE

ITEM NUMBERS REFER TO IPL FIG. 13

ALL DIMENSIONS ARE IN INCHES

113A1317-1,-2 Attach Fitting Assembly
Figure 601

ATTACH FITTING - REPAIR 5-2

113A1317–3, –4

1. General

A. This procedure has the data necessary to repair and refinish the attach fitting.

B. Refer to the Standard Overhaul Practices 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 13 for item numbers.

E. General repair details:

(1) Material: Aluminum alloy

(2) Shot peen: All the surfaces, but not in the holes.

(a) Intensity 0.006-0.011A2

(b) Overspray is permitted

2. Attach Fitting Repair

A. References

Reference	Title
SOPM 20-10-03	SHOT PEENING
SOPM 20-20-02	PENETRANT METHODS OF INSPECTION

B. Procedure (REPAIR 5-2, Figure 601)

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

(2) Do a penetrant check (SOPM 20-20-02).

(3) Shot peen (SOPM 20-10-03) as indicated.

(4) Refinish as indicated REPAIR 5-2, Paragraph 3. below.

(5) Make oversize bushings (REPAIR 5-2, Figure 602) to adjust for the material removed.

(6) Install the bushings as shown in REPAIR 5-1.

3. Attach Fitting Refinish

A. Consumable Materials

NOTE: Equivalent substitutes may be used.

Reference	Description	Specification
C00033	Coating - Exterior Protective Enamel, Flexibility Use	BMS10-60, Type II
C00175	Primer - Urethane Compatible, Corrosion Resistant (Less Than 1% Aromatic Amines)	BMS10-79, Type III

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

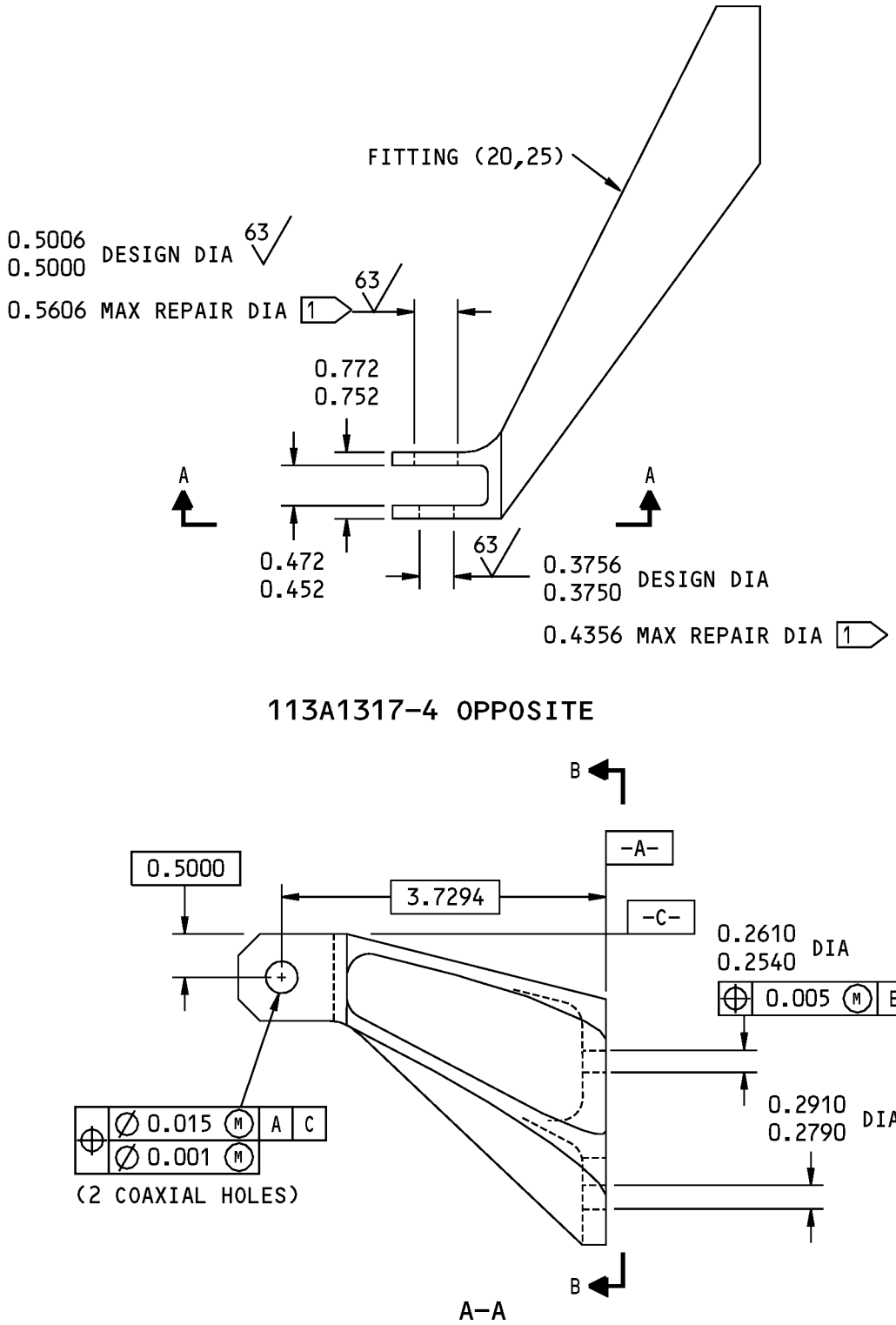
C. Procedure (REPAIR 5-2, Figure 601)

NOTE: For stripping of protective finishes, refer to SOPM 20-30-02. For general cleaning procedures, refer to SOPM 20-30-03. For the decoding table for Boeing finish codes, refer to SOPM 20-41-01. For finishing materials, refer to SOPM 20-60-02.

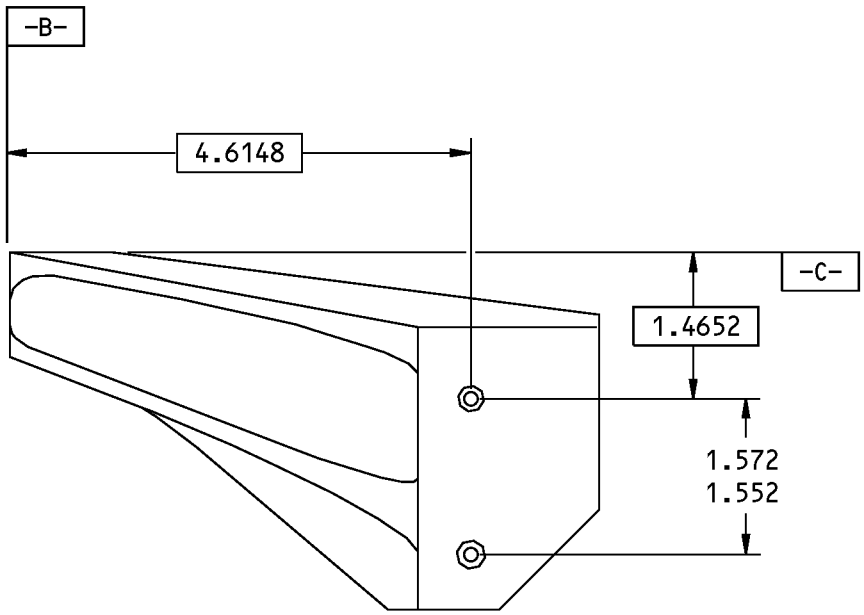
(1) Boric acid/sulfuric acid anodize or chromic acid anodize (F-17.31).

(2) Apply primer, C00175 (F-19.47).

(3) Apply enamel coating, C00033 (F-19.39-707).



113A1317-3,-4 Attach Fitting Repair
Figure 601 (Sheet 1 of 2)



B–B

1 LIMIT FOR INSTALLATION OF REPAIR BUSHINGS

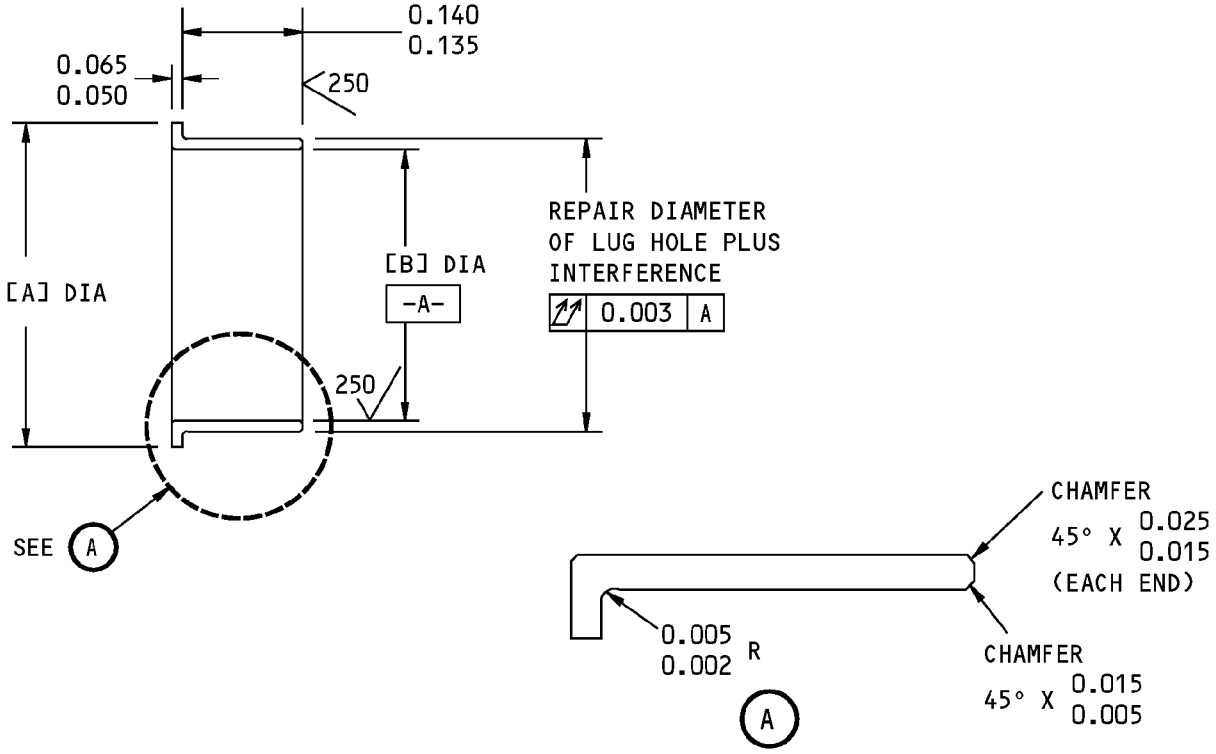
125 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

BREAK ALL SHARP EDGES

ITEM NUMBERS REFER TO IPL FIG. 13

ALL DIMENSIONS ARE IN INCHES

113A1317-3,-4 Attach Fitting Repair
Figure 601 (Sheet 2 of 2)



REPLACES BUSHING (IPL FIG. 13)	[A]	[B]	INTERFERENCE	MATERIAL
BACB28AT06B014C (10)	0.630 0.620	0.366 0.359	0.0015 0.0004	1
BACB28AP04P014 (15)	0.540 0.530	0.241 0.234	0.0014 0.0003	2

1 AL-NI-BRZ PER AMS 4640 OR AMS 4880

2 15-5PH OR 17-4PH CRES, 180-200 KSI

63 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

BREAK ALL SHARP EDGES 0.02-0.04 R

FINISH: CADMIUM PLATE (F-15.06) OR ZINC-NICKEL PLATE (F-15.40)

MATERIAL: AS NOTED

ITEM NUMBERS REFER TO IPL FIG. 13

ALL DIMENSIONS ARE IN INCHES

Oversize Bushing Details
Figure 602

TRANSMISSION ATTACH FITTING ASSEMBLY - REPAIR 6-1

113A1320–1, –2, –9, –10

1. General

A. This procedure has the data necessary to replace the parts of the fitting assembly.

B. Refer to the Standard Overhaul Practices 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 4 for item numbers.

2. Bushing and Washer 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 20-30-03	GENERAL CLEANING PROCEDURES
SOPM 20-50-03	BEARING AND BUSHING REPLACEMENT
SOPM 20-60-04	MISCELLANEOUS MATERIALS

C. Procedure (REPAIR 6-1, Figure 601)

NOTE: For general cleaning procedures, refer to SOPM 20-30-03. For miscellaneous materials, refer to SOPM 20-60-04.

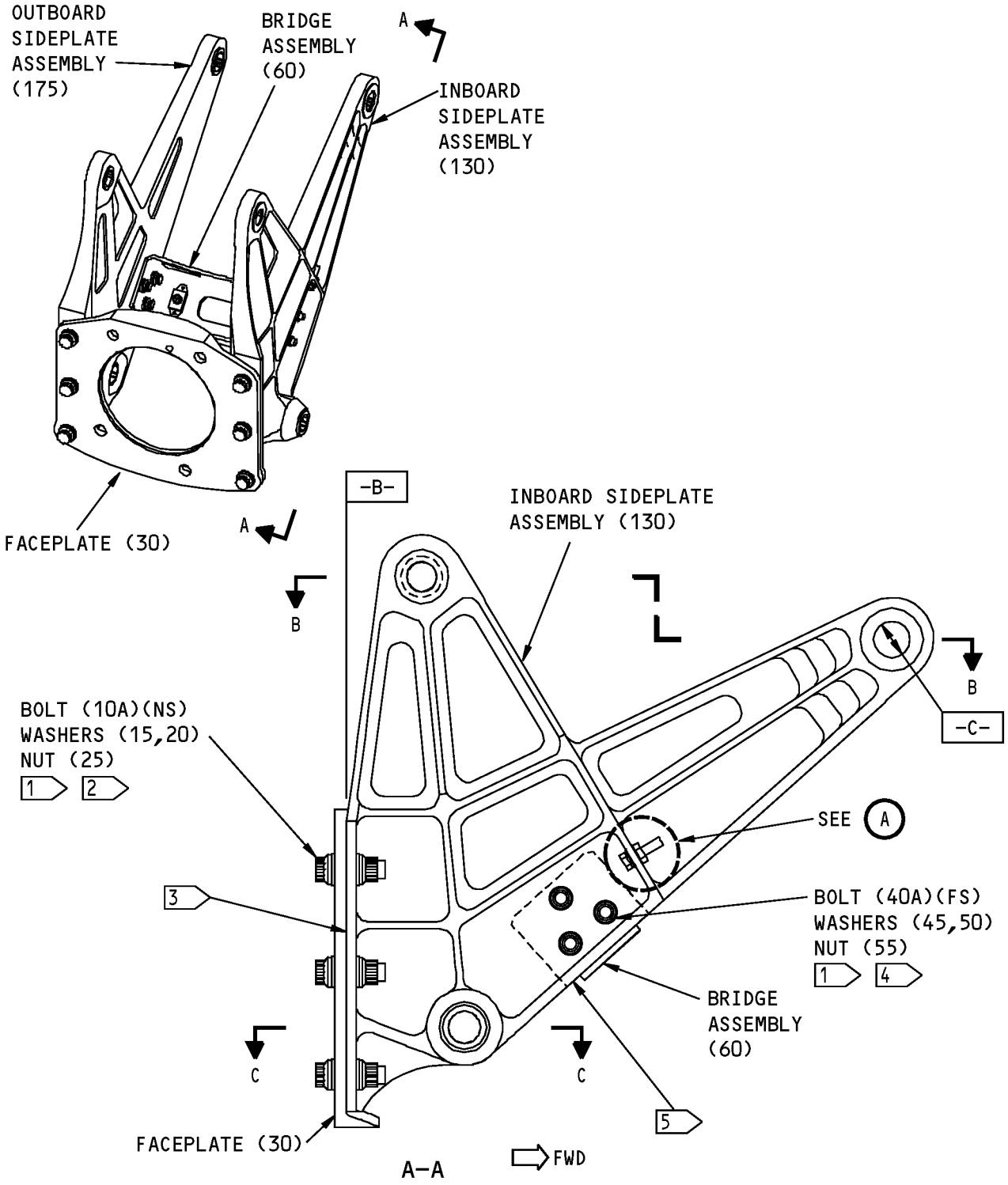
(1) Remove the old washers and bushings from the attach fitting.

(2) If you find defects on component surfaces, refer to REPAIR 6-2 for repair instructions.

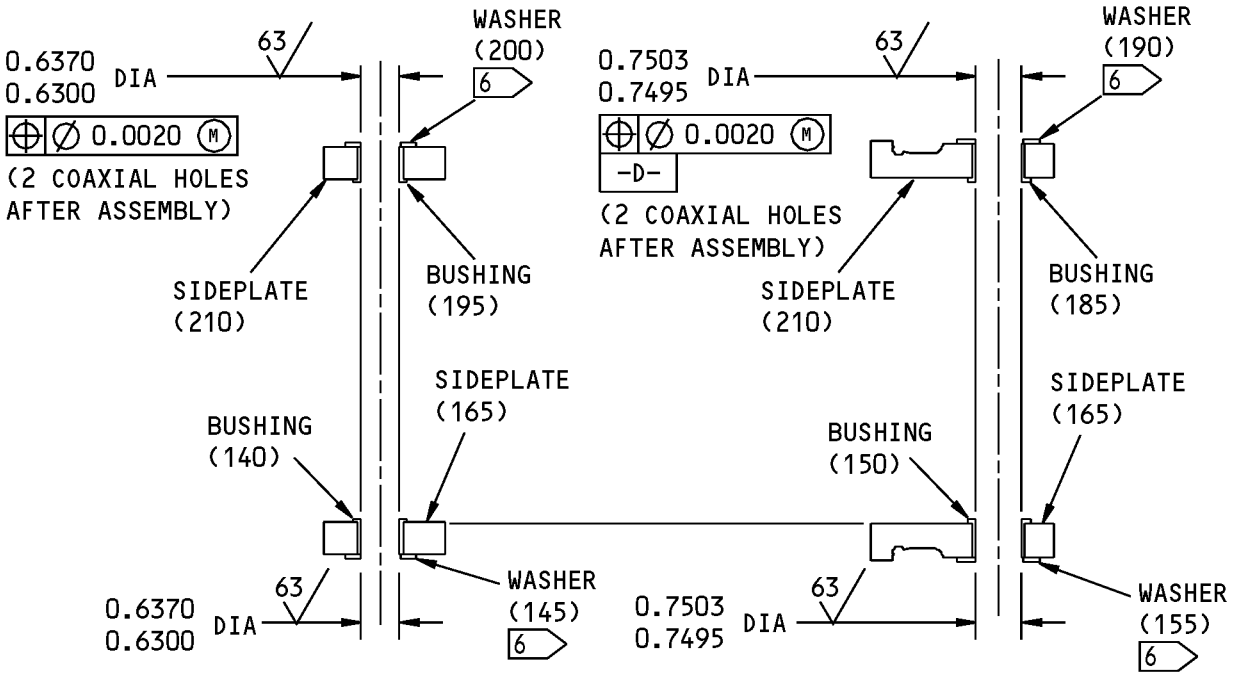
(3) Install replacement bushings by the shrink-fit method (SOPM 20-50-03) with sealant, A00247.

(4) Machine the bushings to design dimensions and finish.

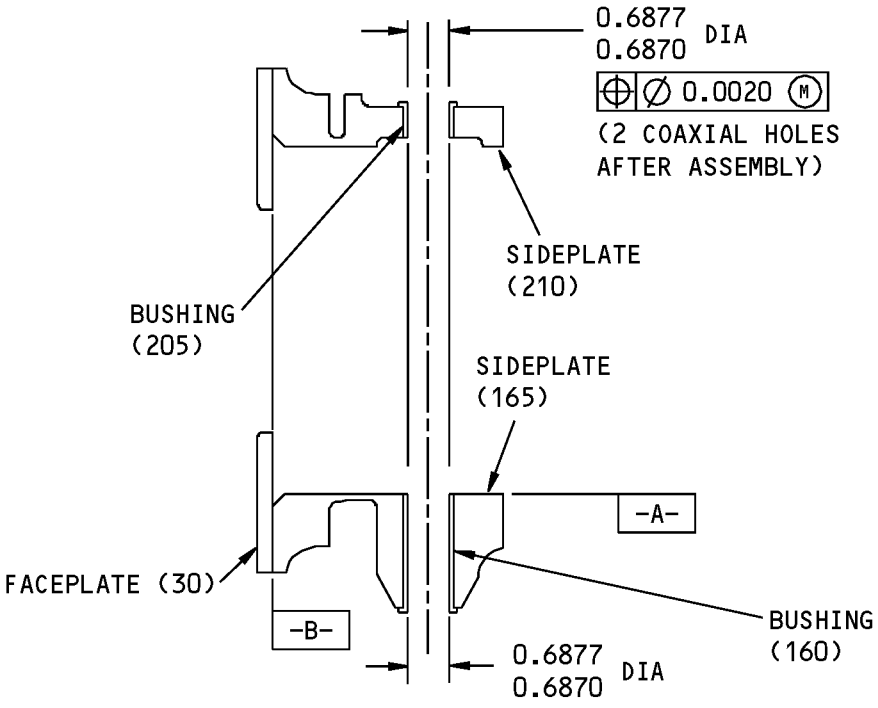
(5) Bond replacement washers to the inside surfaces at the bushings, with adhesive. Make sure the adhesive fills the space between the washer and the end of the bushing.



113A1320-1,-2,-9,-10 Transmission Attach Fitting Assembly Parts Replacement
Figure 601 (Sheet 1 of 3)

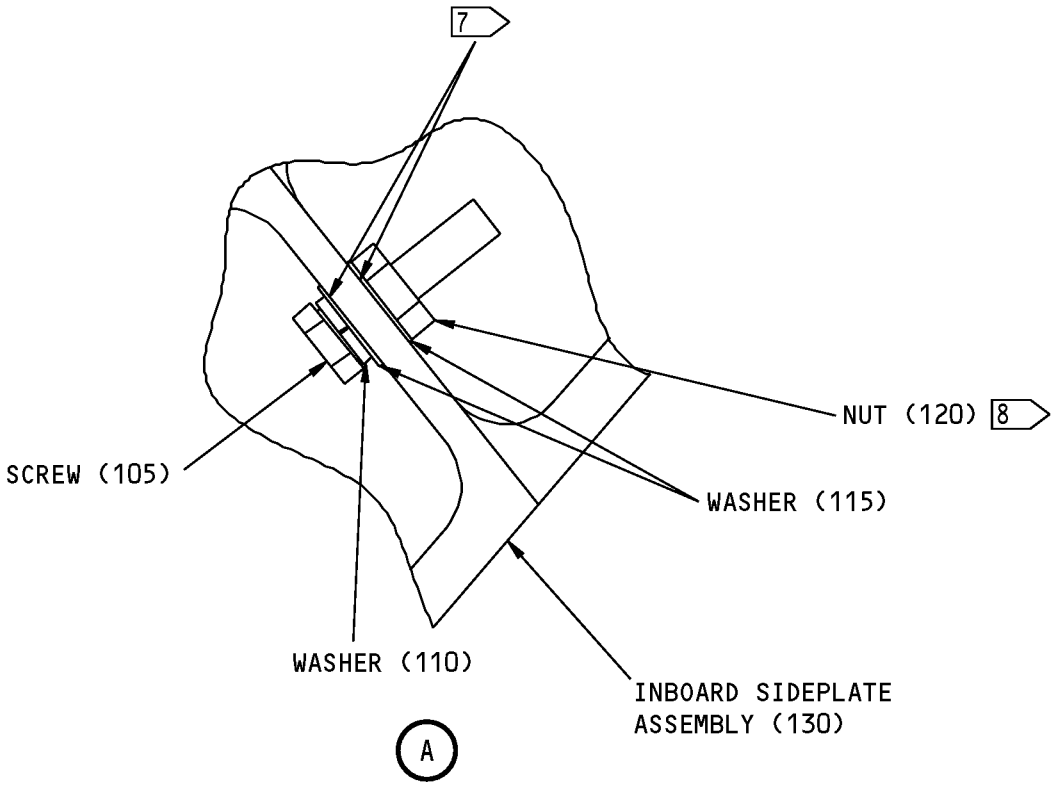


B–B



C–C

113A1320-1,-2,-9,-10 Transmission Attach Fitting Assembly Parts Replacement
Figure 601 (Sheet 2 of 3)



1 INSTALL WITH BMS 5-95 SEALANT (SOPM 20-50-19, METHOD 2)

2 TIGHTEN NUTS TO 220-410 POUND-INCHES, OR TIGHTEN BOLTHEADS TO 369-451 POUND-INCHES

3 FAY SURFACE SEAL WITH BMS 5-95 SEALANT (SOPM 20-50-19)

4 TIGHTEN NUTS TO 65-100 POUND-INCHES, OR TIGHTEN BOLTHEADS TO 90-110 POUND-INCHES

5 MAKE THE BOTTOM EDGE OF BRIDGE ASSEMBLY (60) FLUSH WITH BOTTOM OF SIDEPLATE ASSEMBLIES (130,175)

6 BOND WITH TYPE 70 ADHESIVE. FILL THE GAP WITH ADHESIVE BETWEEN WASHER AND BUSHING

7 ELECTRICAL BOND (SOPM 20-11-03). CLEAN BY METHOD CM1. CHEMICAL TREAT (F-17.28) BEFORE BONDING

8 TIGHTEN THE NUT TO 25-30 POUND-INCHES

125 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

ITEM NUMBERS REFER TO IPL FIG. 4

ALL DIMENSIONS ARE IN INCHES

113A1320-1,-2,-9,-10 Transmission Attach Fitting Assembly Parts Replacement
Figure 601 (Sheet 3 of 3)

ATTACH FITTING COMPONENTS - REPAIR 6-2

113A1320–1, –2, –9, –10

1. General

A. This procedure has the data necessary to repair the subassemblies of the transmission attach fitting assembly.

B. Refer to the Standard Overhaul Practices 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 4 for item numbers.

E. General repair details:

(1) Material: Aluminum alloy

(2) Shot peen: All the surfaces, except in the holes identified in REPAIR 6-2, Figure 601 and REPAIR 6-2, Figure 602)

(a) Intensity 0.006-0.011A2

(b) Overspray is permitted

2. Sideplate Repair

A. References

Reference	Title
SOPM 20-10-03	SHOT PEENING
SOPM 20-20-02	PENETRANT METHODS OF INSPECTION

B. Procedure (REPAIR 6-2, Figure 601 and REPAIR 6-2, Figure 602)

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

(2) Do a penetrant check (SOPM 20-20-02).

(3) Shot peen (SOPM 20-10-03) as indicated.

(4) For holes [1], [2], make oversize bushings (REPAIR 6-2, Figure 604) to adjust for the material removed. For holes [3], get an oversize equivalent of bushing (160 or 205) and adjust its OD to get a 0.0007-0.0019 inch interference fit with the oversize hole.

(5) Install the bushings per REPAIR 6-1.

3. Bridge Assembly Repair

A. Consumable Materials

NOTE: Equivalent substitutes may be used.

Reference	Description	Specification
A00247	Sealant - Pressure And Environmental - Chromate Type	BMS 5-95
C00913	Compound - Corrosion Inhibiting Material, Nondrying Resin Mix	BMS 3-27

B. References

Reference	Title
SOPM 20-60-04	MISCELLANEOUS MATERIALS

C. Procedure

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

(1) Remove rivets and defective nutplates. Install replacement nutplates with new rivets with sealant, A00247.

(2) Remove bolts (85), collars (90) and defective plate (95). Refinish or replace the plate. Apply corrosion preventive compound, C00913 on the faying surface of plate (95). Install the plate with replacement bolts and collars with sealant, A00247 (F-19.48).

4. Component 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

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. Faceplates (30,35). Material: Titanium alloy

NOTE: For stripping of protective finishes, refer to SOPM 20-30-02. For general cleaning procedures, refer to SOPM 20-30-03. For the decoding table for Boeing finish codes, refer to SOPM 20-41-01. For finishing materials, refer to SOPM 20-60-02.

(1) Phosphate treat (F-14.882).

(2) Apply primer, C00259 (F-20.02) but not in holes.

D. Bridge Assembly (60,65) (REPAIR 6-2, Figure 603)

(1) Serrated plate ((95). Material: 15-5PH CRES 180-200 ksi

(a) Cadmium plate (F-15.06)

(b) Apply primer, C00259 (F-20.02) , but not on serrations or in holes.

(2) Fitting (100). Material: Aluminum alloy

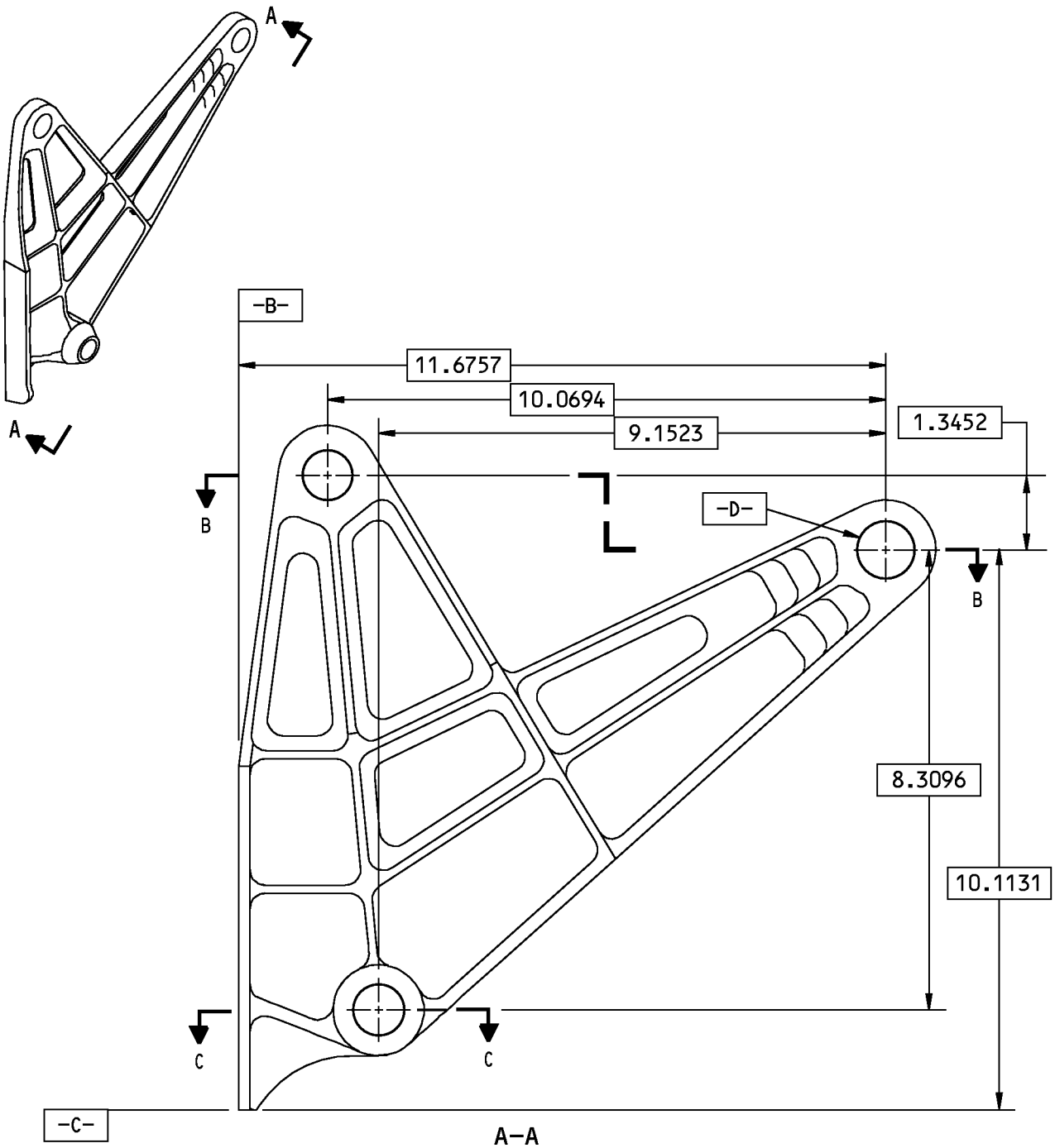
(a) Boric acid-sulfuric acid anodize or chromic acid anodize (F-17.31)

(b) Apply primer, C00259 (F-20.03) but not in holes.

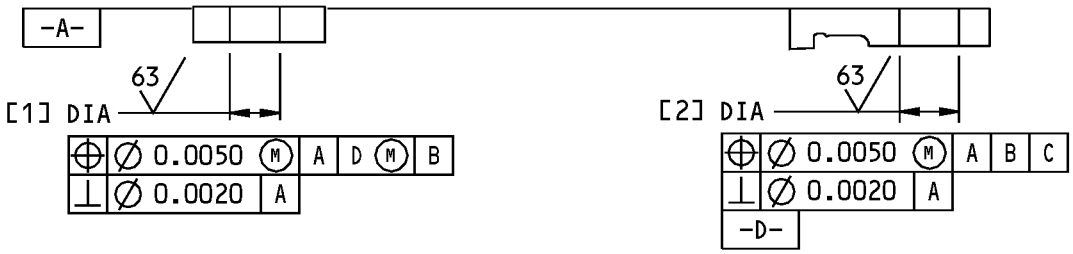
E. Sideplates (165,170,210,215). Material: Aluminum alloy (REPAIR 6-2, Figure 601, REPAIR 6-2, Figure 602)

(1) Boric acid-sulfuric acid anodize or chromic acid anodize (F-17.31).

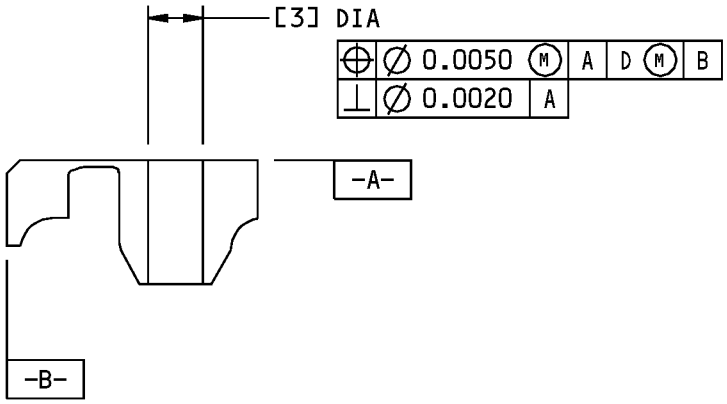
(2) Apply primer, C00259 (F-20.02), but not in holes.



113A1320-5,-6,-11,-12 Inboard Sideplate Repair and Refinish
Figure 601 (Sheet 1 of 2)



B–B



C–C

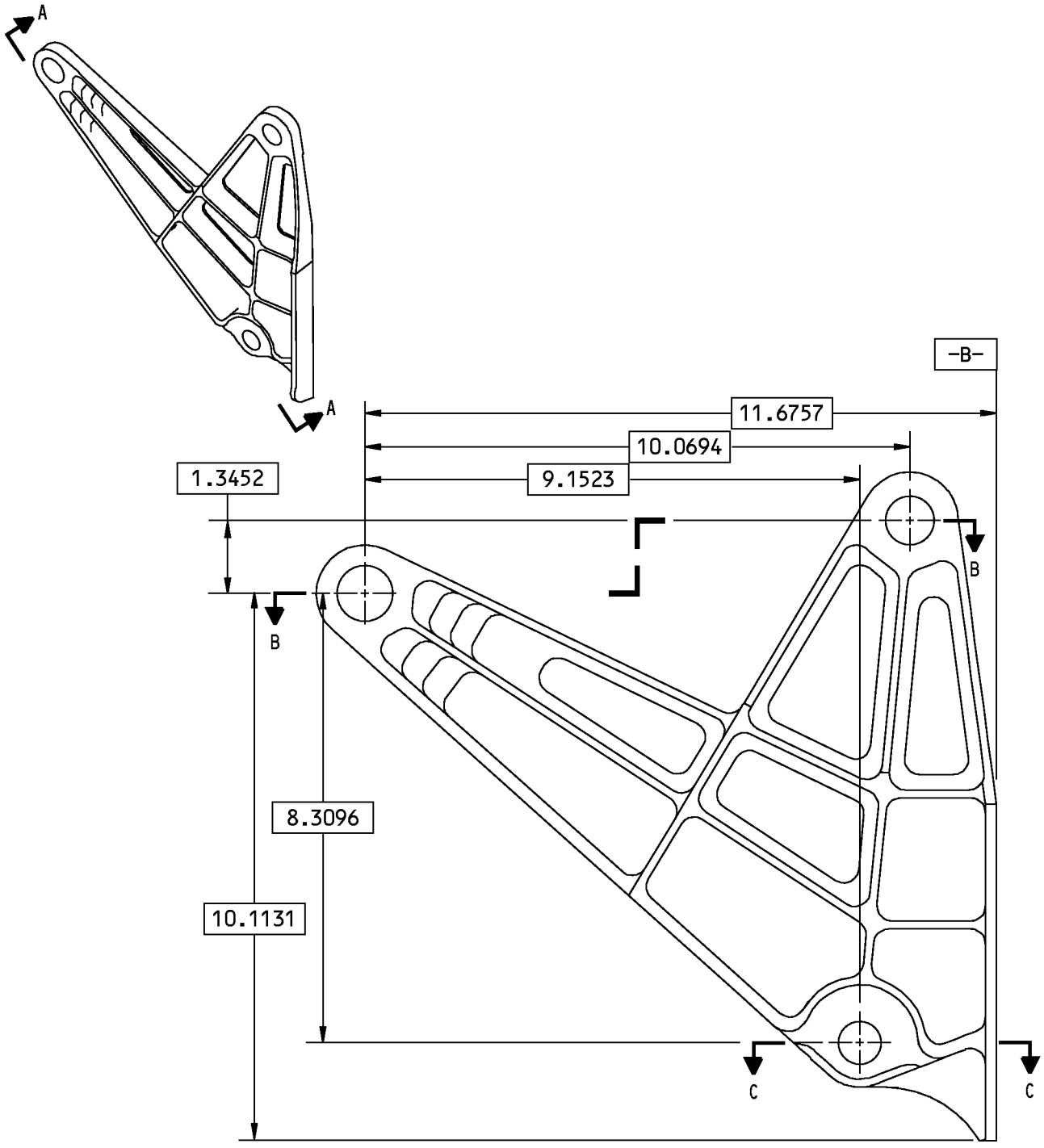
REFERENCE NUMBER	[1]	[2]	[3]
DESIGN DIMENSION	0.7507 0.7500	0.8757 0.8750	0.8132 0.8125
REPAIR LIMIT	0.7567	0.9357	0.8732

1 LIMIT FOR INSTALLATION OF OVESIZE BUSHING

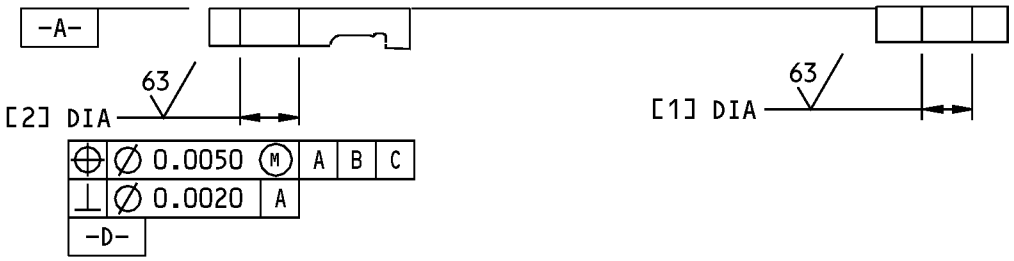
125 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

ALL DIMENSIONS ARE IN INCHES

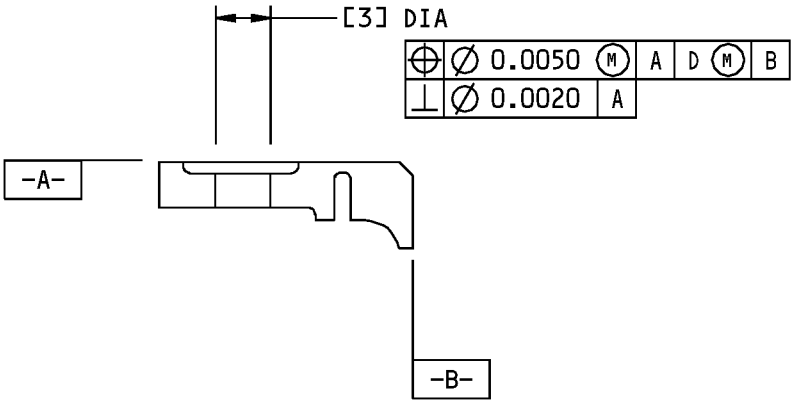
113A1320-5,-6,-11,-12 Inboard Sideplate Repair and Refinish
Figure 601 (Sheet 2 of 2)



113A1320-7,-8,-13,-14 Outboard Sideplate Repair and Refinish
Figure 602 (Sheet 1 of 2)



B–B



C–C

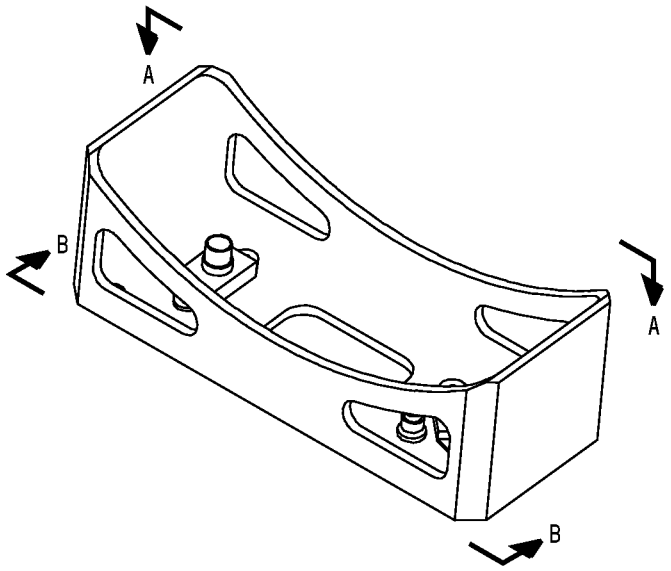
REFERENCE NUMBER	[1]	[2]	[3]
DESIGN DIMENSION	0.7507 0.7500	0.8757 0.8750	0.8132 0.8125
REPAIR LIMIT [1]	0.7567	0.9357	0.8732

[1] LIMIT FOR INSTALLATION OF OVESIZE BUSHING

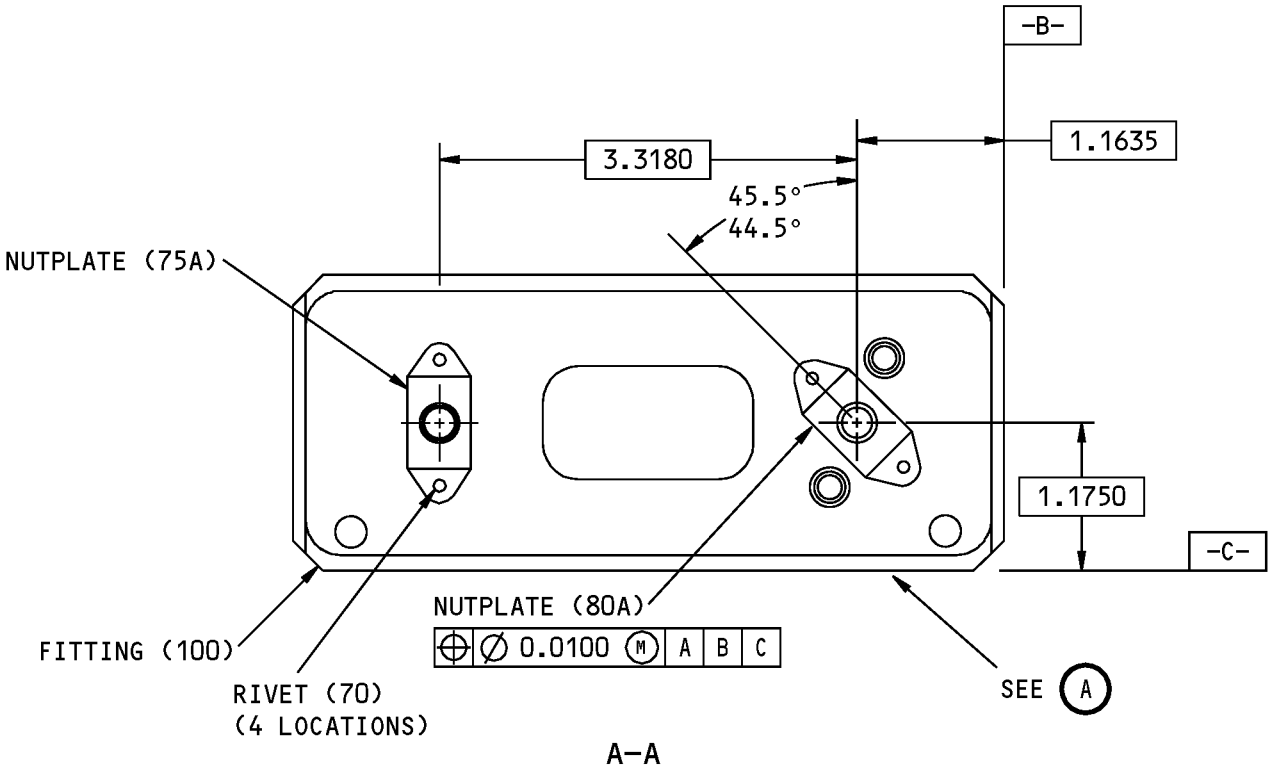
125 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

ALL DIMENSIONS ARE IN INCHES

113A1320-7,-8,-13,-14 Outboard Sideplate Repair and Refinish
Figure 602 (Sheet 2 of 2)

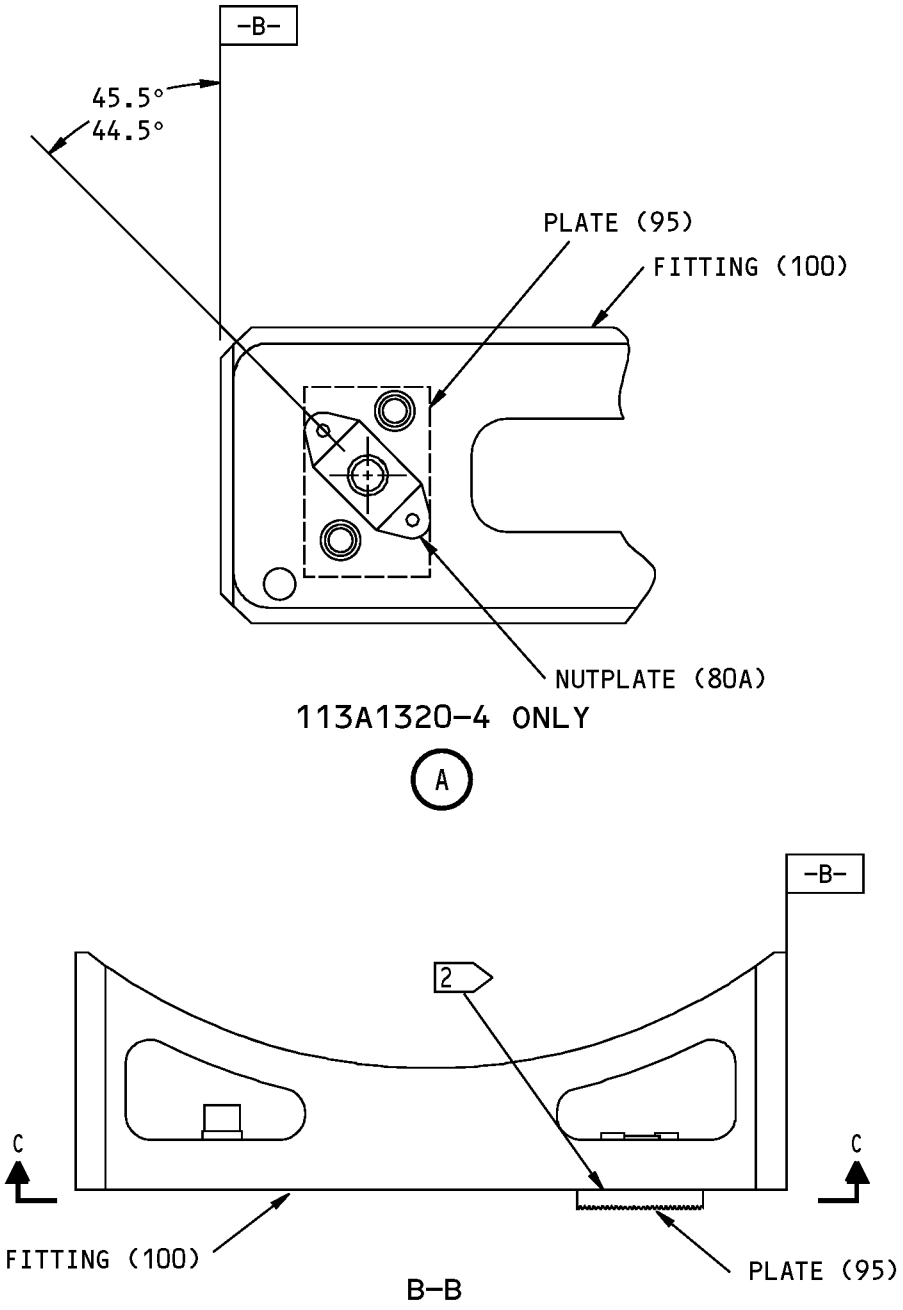


113A1320-3 SHOWN
113A1320-4 OPPOSITE UNLESS SHOWN

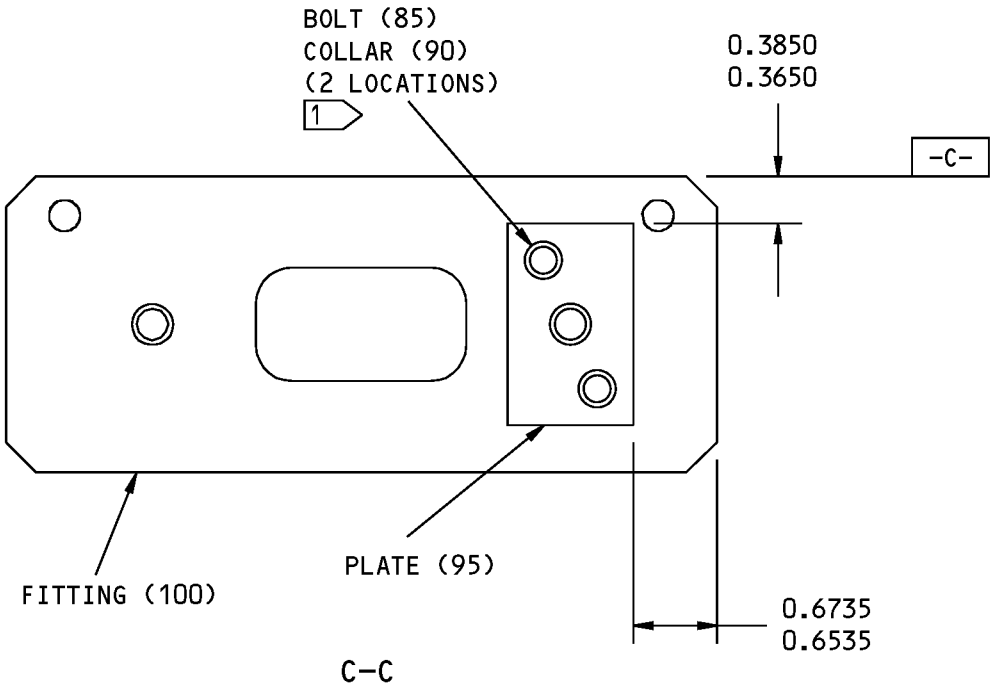


A-A

113A1320-3,-4 Bridge Assembly Parts Replacement
Figure 603 (Sheet 1 of 3)



113A1320-3,-4 Bridge Assembly Parts Replacement
Figure 603 (Sheet 2 of 3)



1 INSTALL FASTENERS WITH BMS 5-95 SEALANT (SOPM 20-50-19 METHOD 2)

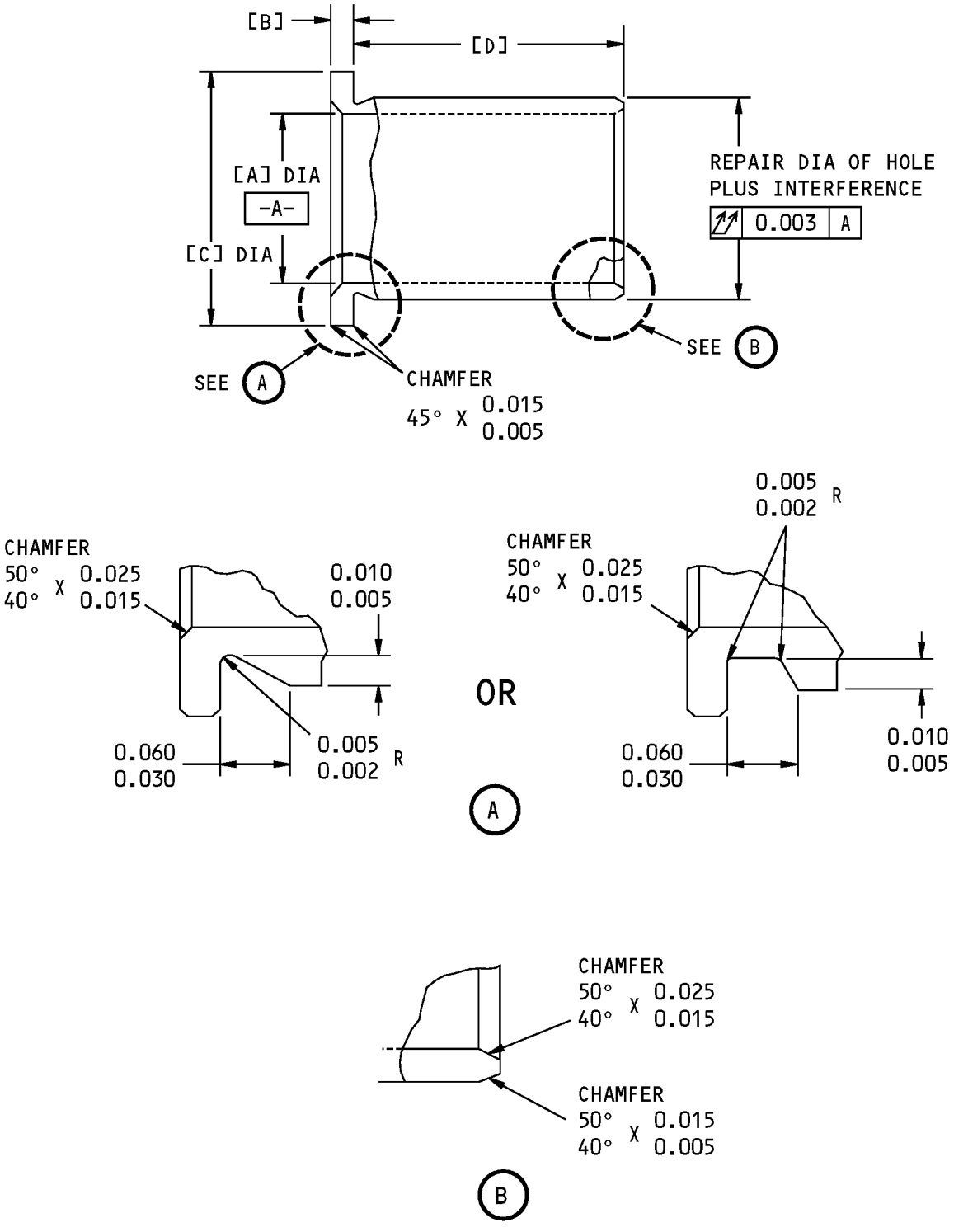
2 APPLY A THIN LAYER OF BMS 3-27 CORRISION PREVENTIVE COMPOUND TO THESE MATING SURFACES

125 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

ITEM NUMBERS REFER TO IPL FIG. 4

ALL DIMENSIONS ARE IN INCHES

113A1320-3,-4 Bridge Assembly Parts Replacement
Figure 603 (Sheet 3 of 3)



Oversize Bushing Details
Figure 604 (Sheet 1 of 2)

REPAIR FIG.	HOLE LOATION	REPLACES BUSHING (IPL FIG. 4)	[A]	[B]	[C]	[D]	INTER-FERENCE
601	[1]	(140A) BACB28AT10D052C	0.615 0.609	0.068 0.063	0.890 0.880	0.520 0.515	0.0019 0.0007
601	[2]	(150A) BACB28AT12D054C	0.739 0.734	0.080 0.075	1.040 1.030	0.540 0.535	0.0020 0.0008
602	[2]	(185) BACB28AT12D054C	0.739 0.734	0.080 0.075	1.040 1.030	0.540 0.535	0.0020 0.0008
602	[1]	(195) BACB28AT10D052C	0.615 0.609	0.068 0.063	0.890 0.880	0.520 0.515	0.0019 0.0007

63 ALL MACHINED SURFACES

BREAK ALL SHARP EDGES

FINISH: CADMIUM PLATE (F-15.06) OR ZINC-NICKEL PLATE (F-15.40) (OPT IN ID) PLATING CAN RUN OUT IN THE BORE

ALL DIMENSIONS APPLY AFTER PLATING, BUT THE BORE IS NOT PLATED

MATERIAL: 15-5PH CRES (AMS 5659), OR 17-4PH CRES (AMS 5643), Rc 32-37

ITEM NUMBERS REFER TO IPL FIG. 4

ALL DIMENSIONS ARE IN INCHES

Oversize Bushing Details
Figure 604 (Sheet 2 of 2)

FORWARD FITTING ASSEMBLY - REPAIR 7-1

113A1350–7, –8, –11, –12, –105, –106, –109, –110, –201, –202

1. General

A. This procedure has the data necessary to replace the parts of the forward fitting assembly.

B. Refer to the Standard Overhaul Practices 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 5 for item numbers.

2. Disassembly

A. Remove nut (25), washers (20), bolt (15).

B. Separate fitting (30) from fitting (55A or 60A). Refer to REPAIR 7-1, Paragraph 3. and REPAIR 7-1, Paragraph 4. below for repair of these fitting assemblies.

3. Fitting Assembly (30)

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. Bushing Replacement (REPAIR 7-1, Figure 603)

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

(1) Press out the old bushing from fitting (50).

(2) If you find defects on the surfaces of fitting (50), refer to REPAIR 7-2 for repair instructions.

(3) Install a replacement bushing by the press-fit method (SOPM 20-50-03) with sealant, A00247.

D. Nutplates (40)

(1) Remove rivets (35) and the bad nutplate.

(2) Install a replacement nutplate (40) with new rivets.

4. Fitting Assembly (55A,60A)

A. Consumable Materials

NOTE: Equivalent substitutes may be used.

Reference	Description	Specification
D00015	Grease - Aircraft Bearing (Use BMS 3-24 until existing stocks are depleted, BMS 3-33 supersedes BMS 3-24)	BMS3-24 (Superseded by BMS 3-33)
D00633	Grease - Aircraft General Purpose	BMS3-33

B. References

Reference	Title
SOPM 20-50-03	BEARING AND BUSHING REPLACEMENT
SOPM 20-60-03	LUBRICANTS

C. Bushing Replacement (REPAIR 7-1, Figure 601, REPAIR 7-1, Figure 602)

NOTE: For lubricants, refer to SOPM 20-60-03.

(1) Remove the old bushings from fittings (80A, 85A).

(2) If you find defects on fitting surfaces, refer to REPAIR 7-3 for repair instructions.

(3) For all assemblies except 113A1350-203,-204, install replacement bushings (70A, 75) by the shrink-fit method (SOPM 20-50-03) with grease, D00015 or grease, D00633. For 113A1350-203,-204 assemblies, install replacement bushings (70A, 75) by the shrink-fit method (SOPM 20-50-03) with grease, D00633.

(4) Machine bushings (70A, 75) to design dimensions and finish.

5. Assembly

A. Consumable Materials

NOTE: Equivalent substitutes may be used.

Reference	Description	Specification
D00015	Grease - Aircraft Bearing (Use BMS 3-24 until existing stocks are depleted, BMS 3-33 supersedes BMS 3-24)	BMS3-24 (Superseded by BMS 3-33)
D00633	Grease - Aircraft General Purpose	BMS3-33

B. References

Reference	Title
SOPM 20-60-03	LUBRICANTS

C. Procedure

NOTE: For lubricants, refer to SOPM 20-60-03.

(1) For all assemblies except 113A1350-203,-204, apply a layer of grease, D00015 or grease, D00633 on bolt (15) outside diameter and in the hole of bushings (75). For 113A1350-203,-204 assemblies, apply a layer of grease, D00633 on bolt (15) outside diameter and in the hole of bushings (75).

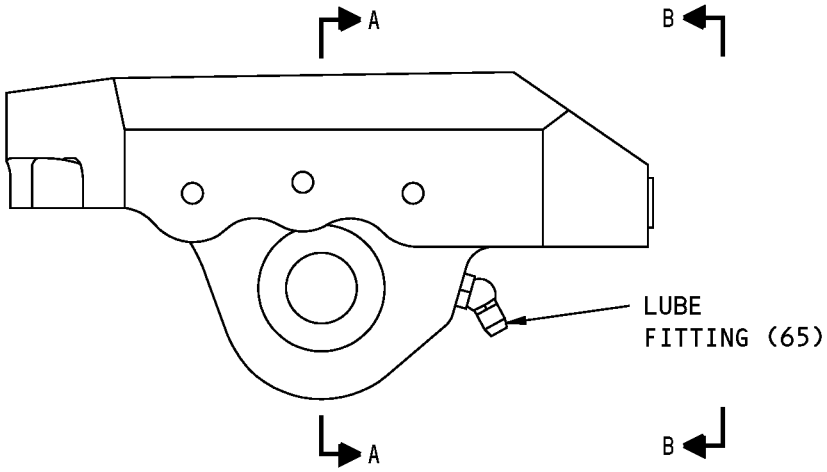
(2) Install fitting (30) in fitting (55A) with bolt (15) and washers (20).

(3) Wipe unwanted grease from the threads of bolt (15).

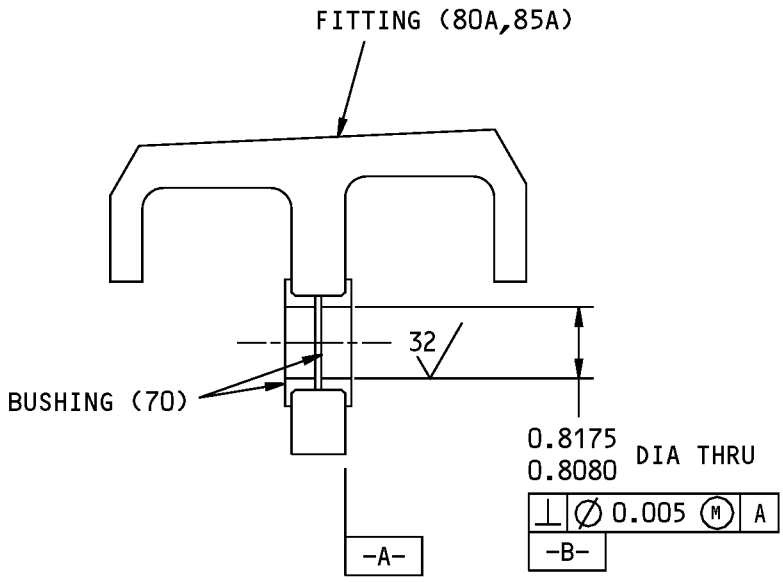
(4) Make sure the run-on torque of nut (25) is between 6.5 - 60 pound-inches.

(5) Tighten nut (25) to 10 - 20 pound-inches higher than the run-on torque.

(6) Install cotter pin (10).

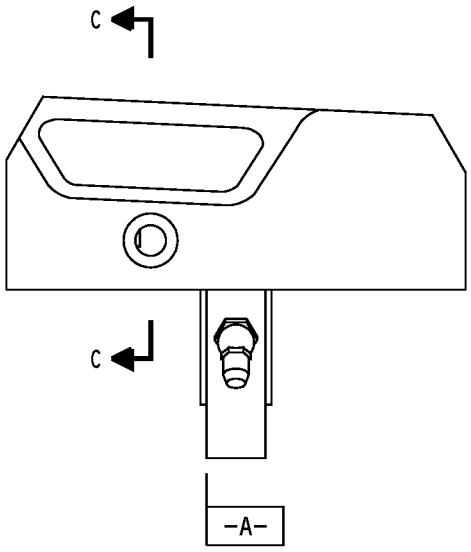


113A1350-9 SHOWN
113A1350-10 OPPOSITE

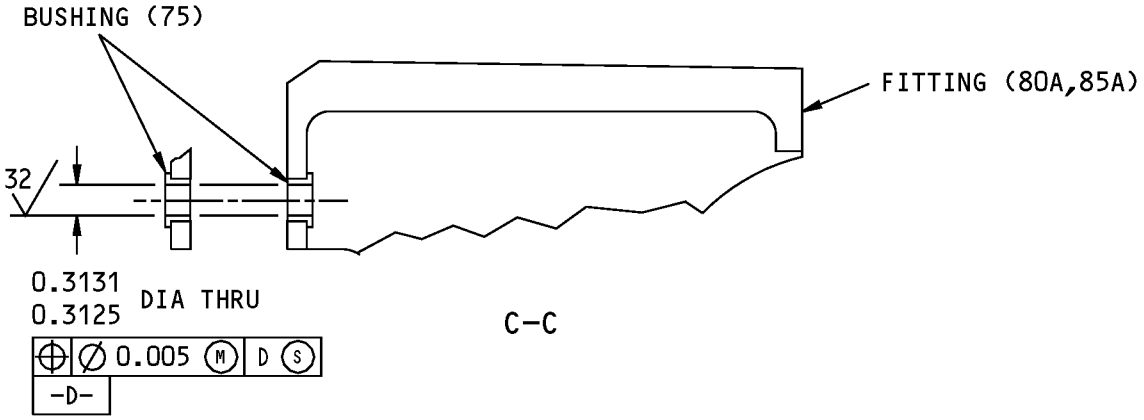


A-A

113A1350-9,-10,-13,-14,-107,-108,-111,-112 Forward Fitting Assembly Bushing Replacement
Figure 601 (Sheet 1 of 2)



B–B



C–C

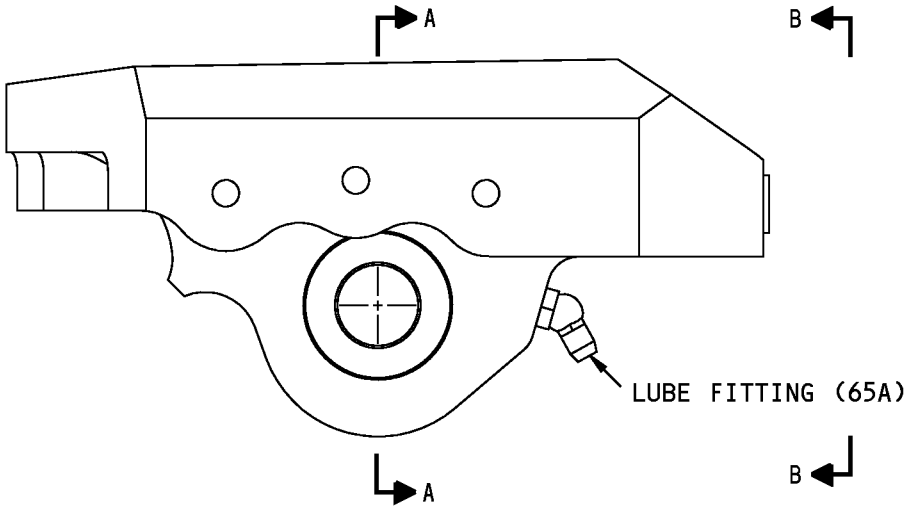
125 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

BREAK ALL SHARP EDGES

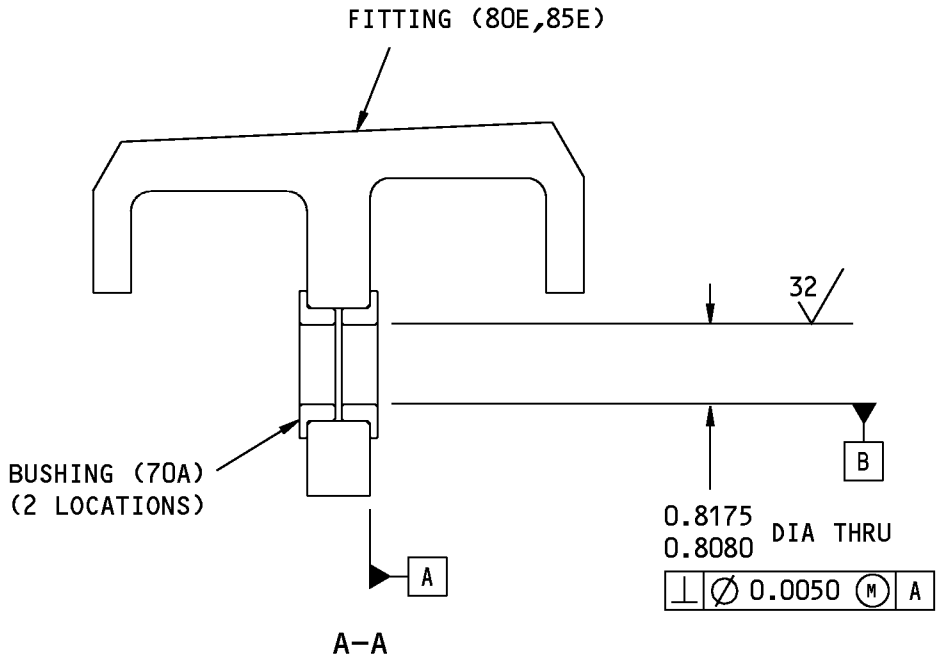
ITEM NUMBERS REFER TO IPL FIG. 5

ALL DIMENSIONS ARE IN INCHES

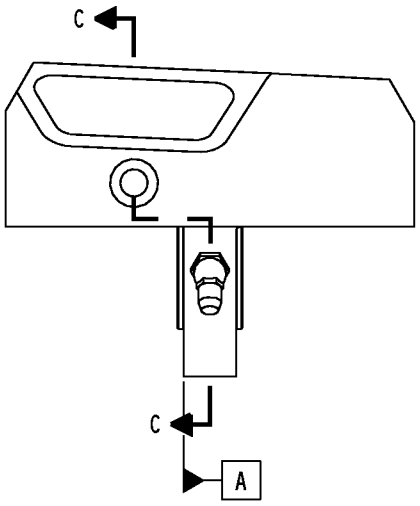
113A1350-9,-10,-13,-14,-107,-108,-111,-112 Forward Fitting Assembly Bushing Replacement
Figure 601 (Sheet 2 of 2)



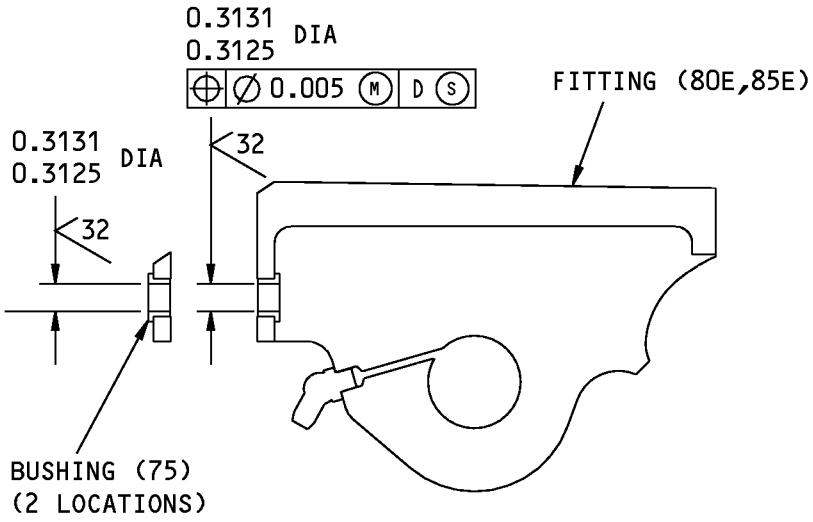
113A1350-203 SHOWN
113A1250-204 OPPOSITE



113A1350-203,-204 Forward Fitting Assembly Bushing Replacement
Figure 602 (Sheet 1 of 2)



B–B



C–C

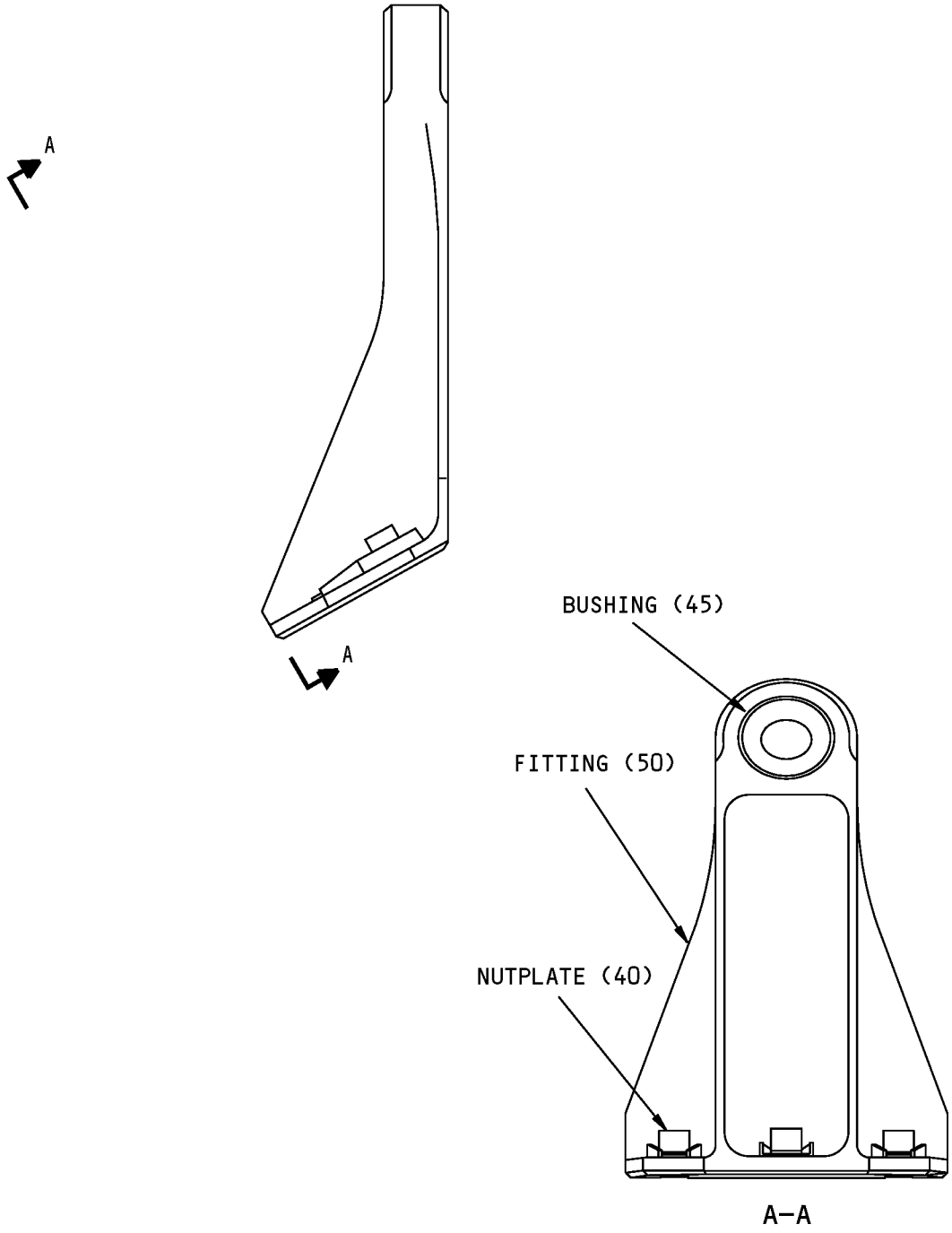
125 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

BREAK ALL SHARP EDGES

ITEM NUMBERS REFER TO IPL FIG. 5

ALL DIMENSIONS ARE IN INCHES

113A1350-203,-204 Forward Fitting Assembly Bushing Replacement
Figure 602 (Sheet 2 of 2)



ITEM NUMBERS REFER TO IPL FIG. 5

113A1350-3 Fitting Assembly Parts Replacement
Figure 603

FITTING - REPAIR 7-2

113A1352–1

1. General

A. This procedure has the data necessary to refinish fitting (50).

B. Refer to the Standard Overhaul Practices 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 5 for item numbers.

E. General repair details:

(1) Material: Aluminum alloy

(2) Shot peen: All the surfaces, but not in the holes

(a) Intensity 0.006-0.011A2

(b) Overspray is permitted

2. Fitting 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

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

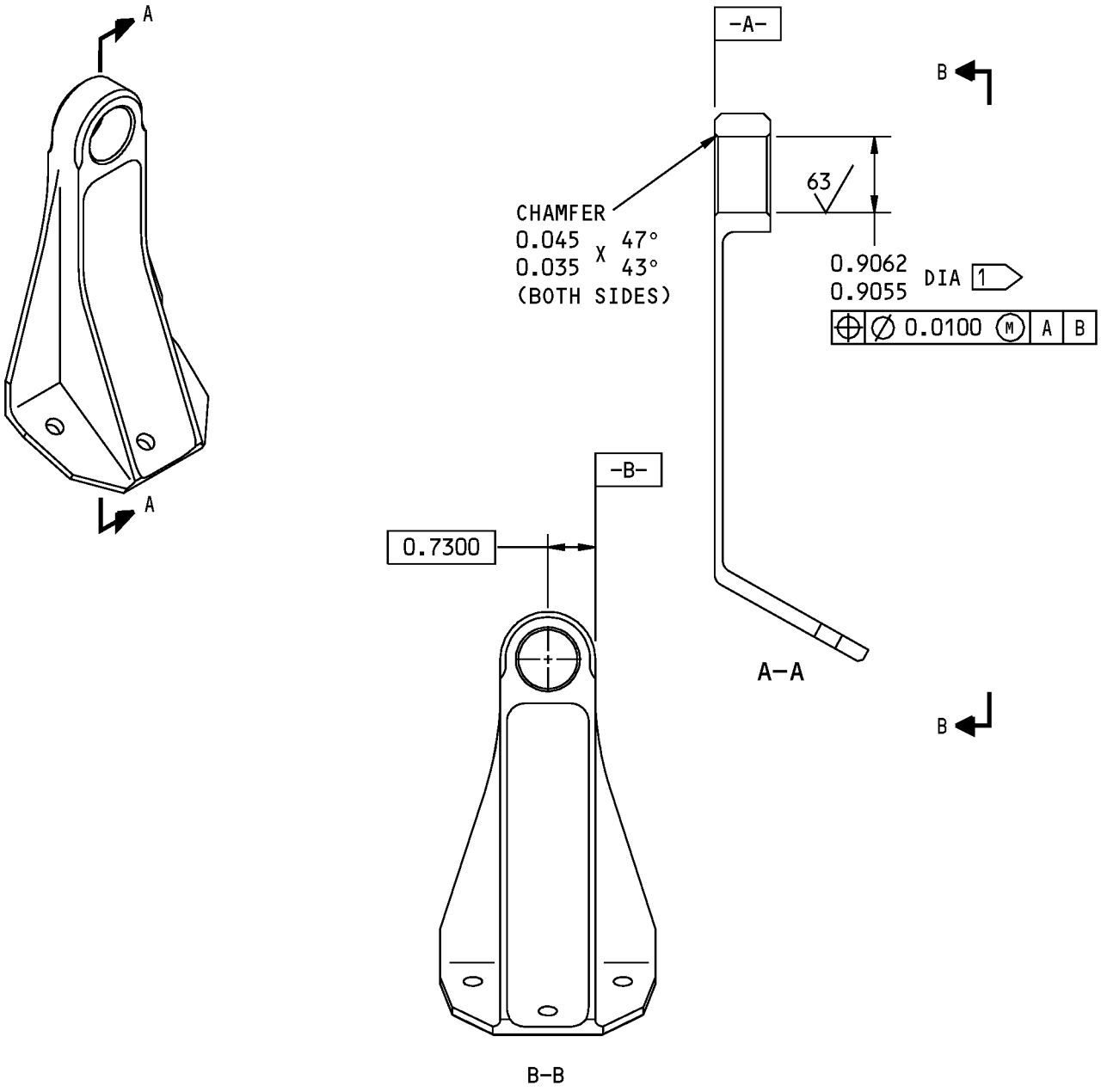
C. Procedure (REPAIR 7-2, Figure 601)

NOTE: For stripping of protective finishes, refer to SOPM 20-30-02. For general cleaning procedures, refer to SOPM 20-30-03. For the decoding table for Boeing finish codes, refer to SOPM 20-41-01. For finishing materials, refer to SOPM 20-60-02.

(1)

(a) Boric acid/sulfuric acid anodize or chromic acid anodize (F-17.31).

(b) Apply primer, C00259 (F-20.03), but not in the hole for the bushings.



1 DO NOT SHOT PEEN OR APPLY PRIMER

125 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

BREAK ALL SHARP EDGES

ITEM NUMBERS REFER TO IPL FIG. 5

ALL DIMENSIONS ARE IN INCHES

113A1352-1 Fitting Refinish
Figure 601

FITTING - REPAIR 7-3

113A1353–3, –4, –5, –6, –103, –104, –105, –106, –201, –202

1. General

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

B. Refer to the Standard Overhaul Practices 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 5 for item numbers.

E. General repair details:

(1) Material: Titanium alloy

(2) Shot peen: All the surfaces, but not in the holes identified in REPAIR 7-3, Figure 601 and REPAIR 7-3, Figure 602.

(a) Intensity 0.012-0.017A2

(b) Overspray is permitted

2. Attach Fitting Repair

A. References

Reference	Title
SOPM 20-10-03	SHOT PEENING
SOPM 20-10-07	MACHINING OF TITANIUM
SOPM 20-20-02	PENETRANT METHODS OF INSPECTION

B. Procedure (REPAIR 7-3, Figure 601, REPAIR 7-3, Figure 602)

(1) Machine as necessary, within repair limits, to remove defects (SOPM 20-10-07).

(2) Do a penetrant check (SOPM 20-20-02).

(3) Shot peen (SOPM 20-10-03) as indicated.

(4) Make oversize bushings (REPAIR 7-3, Figure 603) or REPAIR 7-3, Figure 604 to adjust for the material removed.

(5) Install the bushings as shown in REPAIR 7-1.

3. Fitting 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

B. References

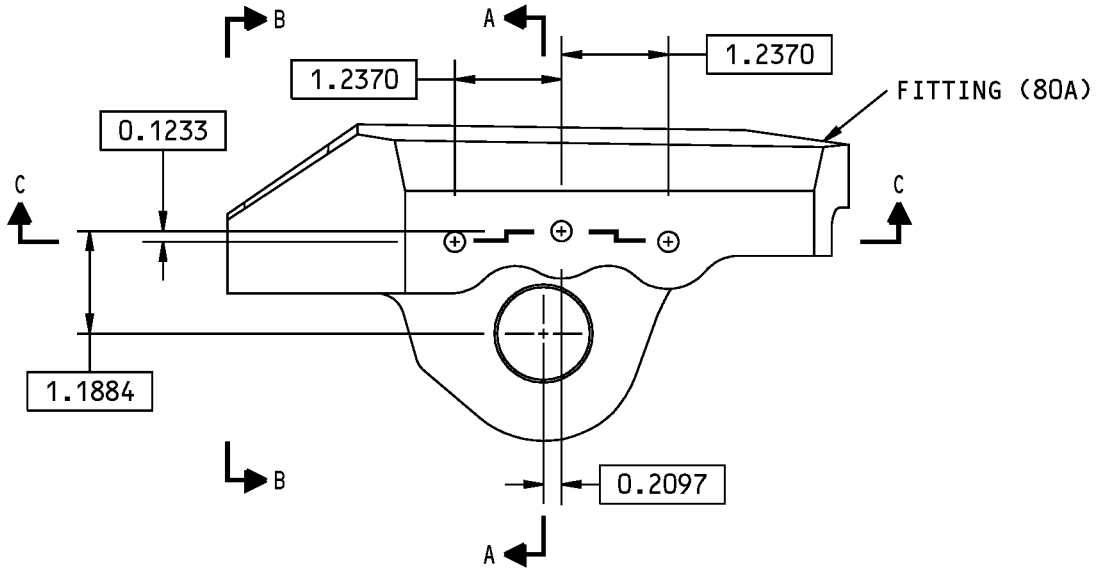
Reference	Title
SOPM 20-30-02	STRIPPING OF PROTECTIVE FINISHES
SOPM 20-30-03	GENERAL CLEANING PROCEDURES
SOPM 20-41-01	DECODING TABLE FOR BOEING FINISH CODES
SOPM 20-60-02	FINISHING MATERIALS

C. Procedure (REPAIR 7-3, Figure 601, REPAIR 7-3, Figure 602)

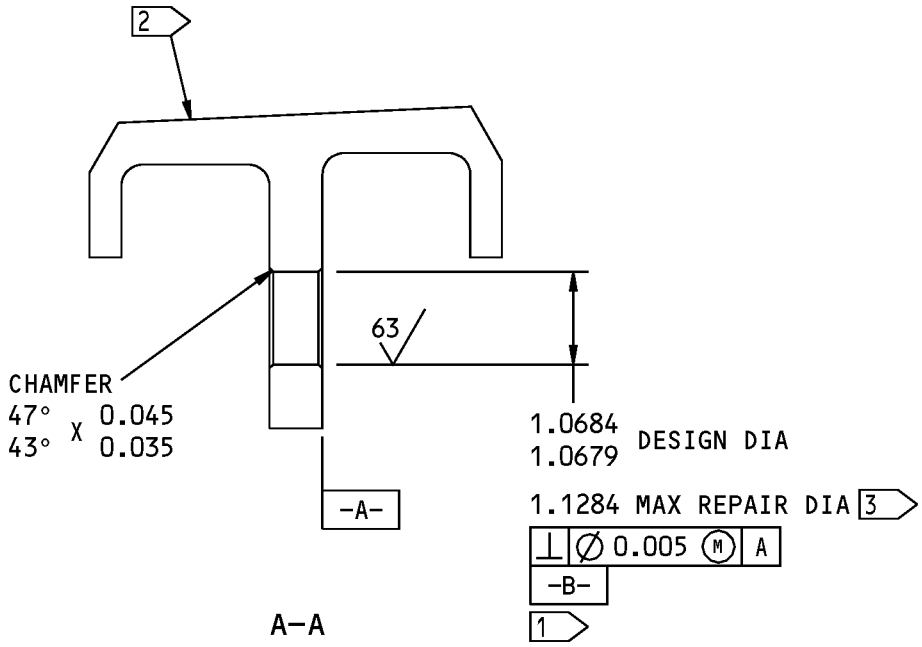
NOTE: For stripping of protective finishes, refer to SOPM 20-30-02. For general cleaning procedures, refer to SOPM 20-30-03. For the decoding table for Boeing finish codes, refer to SOPM 20-41-01. For finishing materials, refer to SOPM 20-60-02.

(1) Clean the surface (F-14.882).

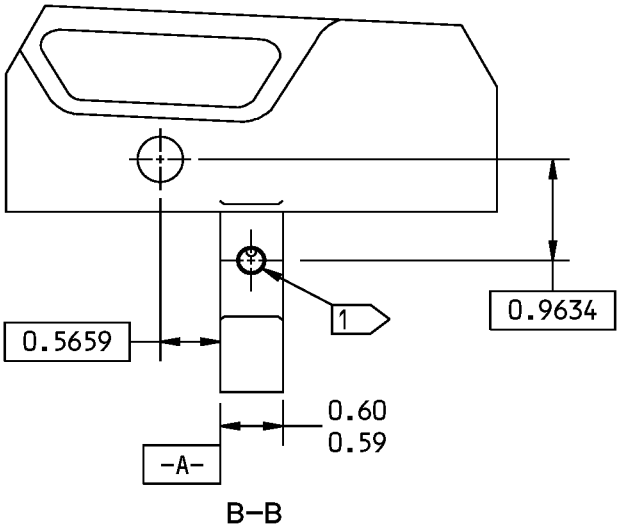
(2) Apply primer, C00259 (F-20.02), but not in the bores.



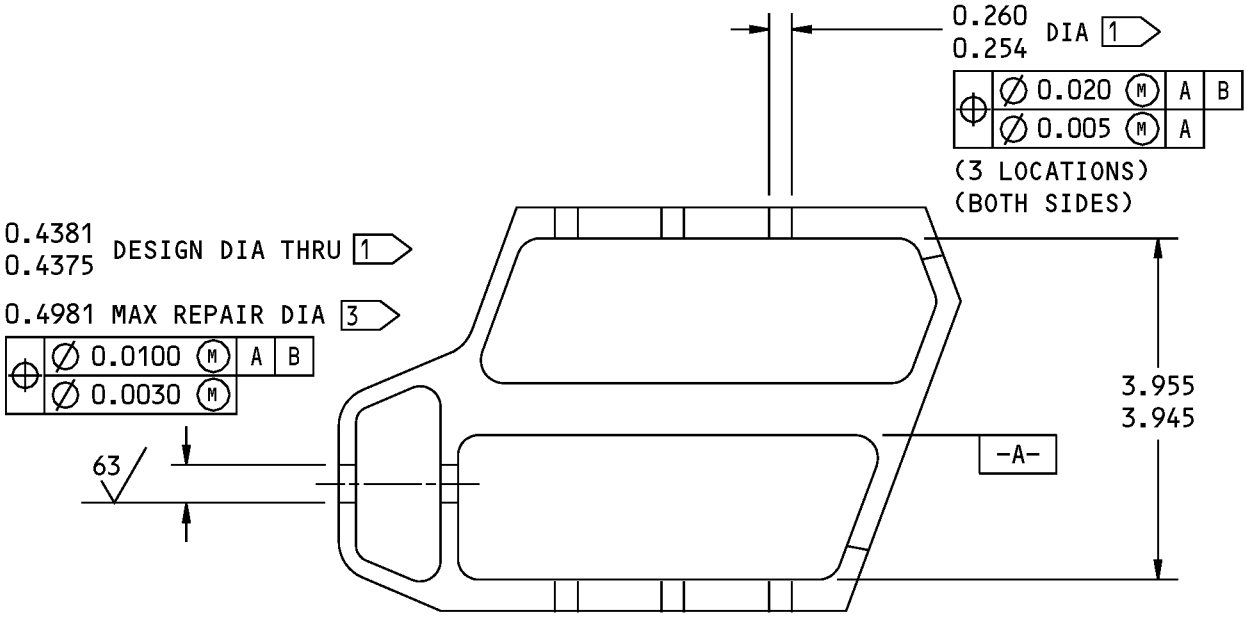
113A1353-3 SHOWN
113A1353-4 OPPOSITE



113A1353-3,-4,-5,-6,-103,-104,-105,-106 Fitting Repair
Figure 601 (Sheet 1 of 2)



B–B



C–C

1 DO NOT SHOT PEEN THESE HOLES

2 CLEAN AND APPLY PRIMER TO THIS SURFACE

3 LIMIT FOR INSTALLATION OF OVERSIZE BUSHINGS

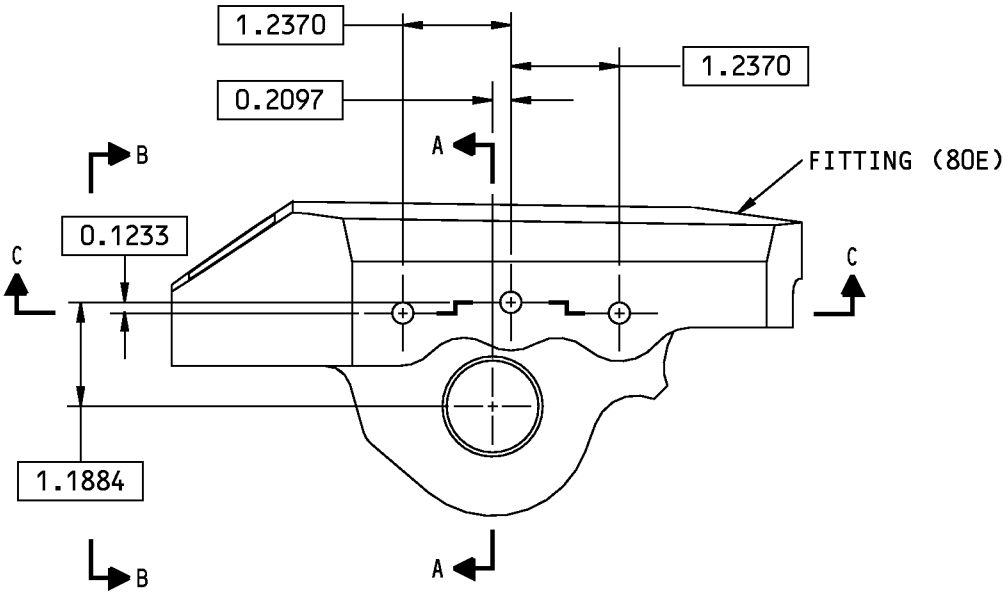
125 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

BREAK ALL SHARP EDGES

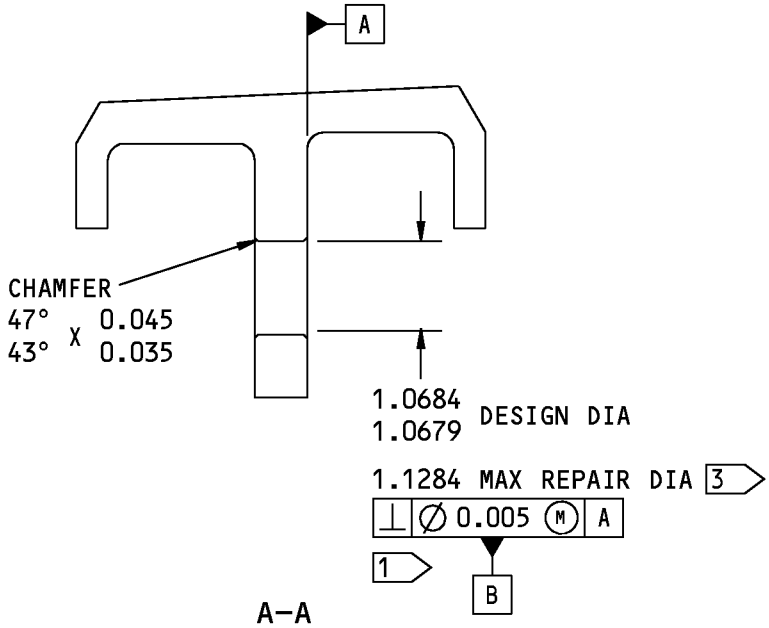
ITEM NUMBERS REFER TO IPL FIG. 5

ALL DIMENSIONS ARE IN INCHES

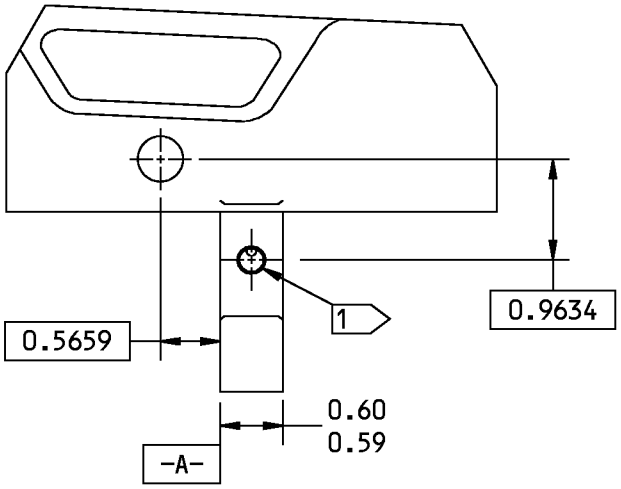
113A1353-3,-4,-5,-6,-103,-104,-105,-106 Fitting Repair
Figure 601 (Sheet 2 of 2)



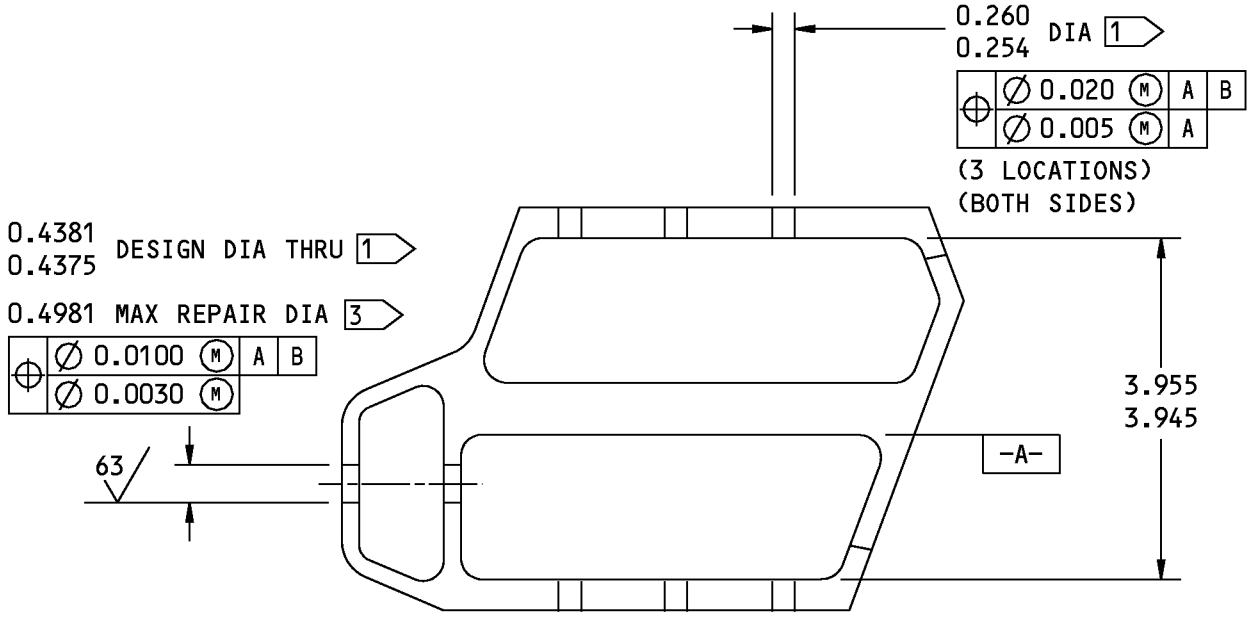
113A1353-201,-202 SHOWN
113A1353-202 OPPOSITE



113A1353-201,-202 Fitting Repair
Figure 602 (Sheet 1 of 2)



B–B



C–C

1 DO NOT SHOT PEEN THESE HOLES

2 CLEAN AND APPLY PRIMER TO THIS SURFACE

3 LIMIT FOR INSTALLATION OF OVERSIZE BUSHINGS

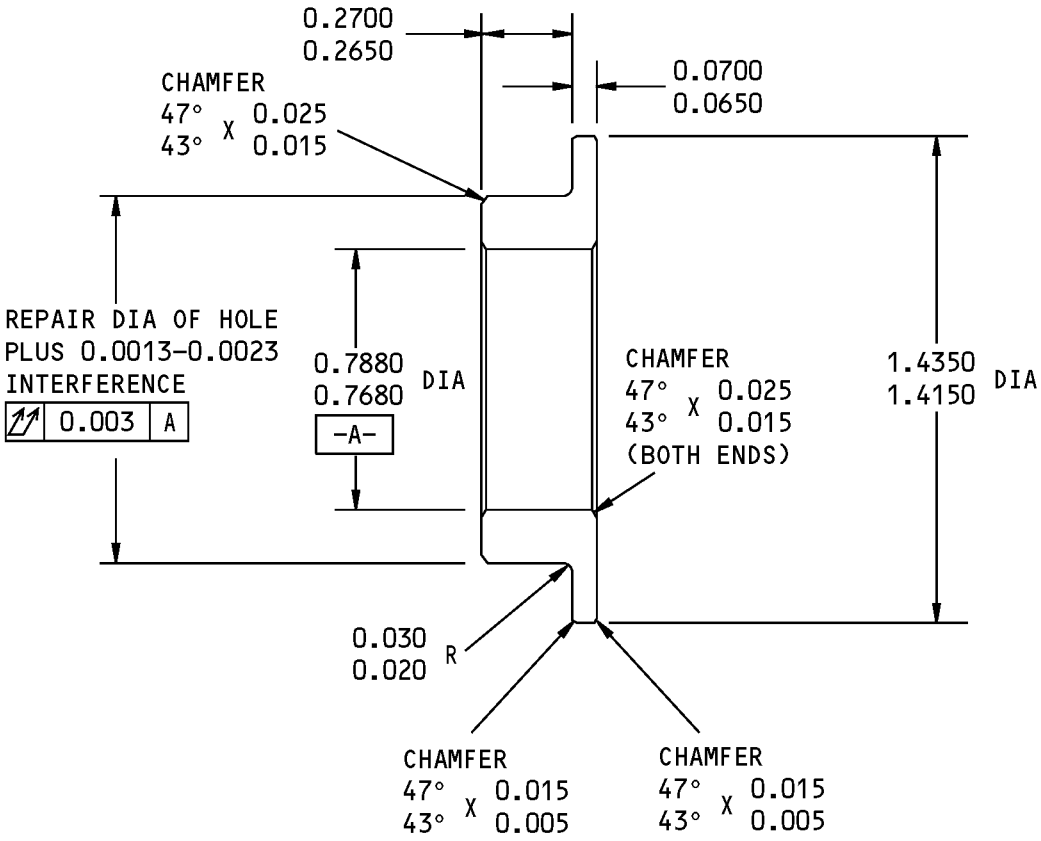
125 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

BREAK ALL SHARP EDGES

ITEM NUMBERS REFER TO IPL FIG. 5

ALL DIMENSIONS ARE IN INCHES

113A1353-201,-202 Fitting Repair
Figure 602 (Sheet 2 of 2)



63 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

BREAK ALL SHARP EDGES

FINISH: NO FINISH

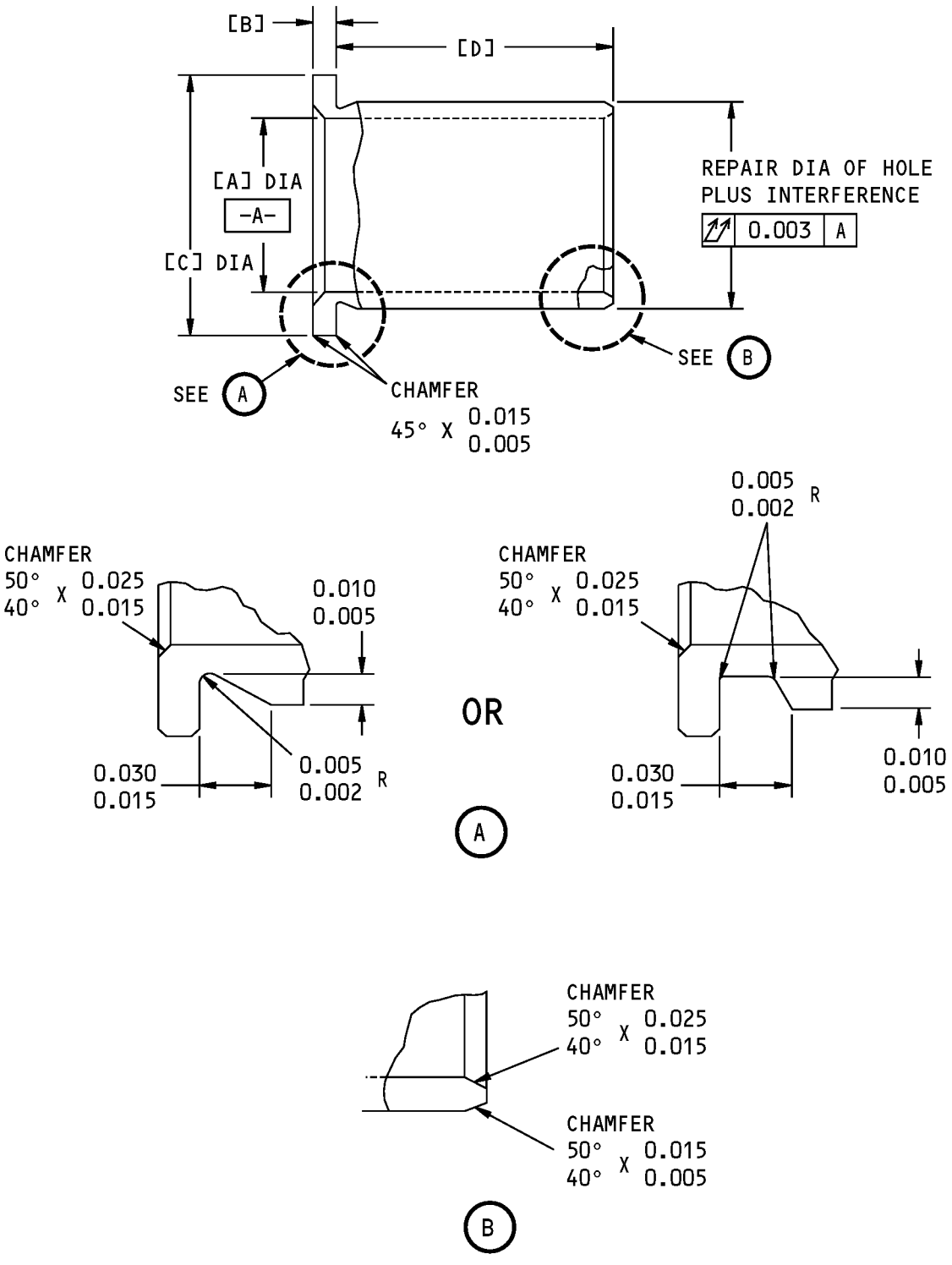
MATERIAL: CU-BE (AMS 4535 OR AMS 4533 OR AMS 4650) (HEAT TREAT AMS 4650 TO "AT" TEMPER, CONDITION TF00, Rc 36 MINIMUM)

ITEM NUMBERS REFER TO IPL FIG. 1

ALL DIMENSIONS ARE IN INCHES

REPLACES BUSHING (IPL FIG. 5; 70A) 113A1240-8

Oversize Bushing Details
Figure 603



REPLACES BUSHING (IPL FIG. 5; 75) BACB28AT05B019A

Oversize Bushing Details
Figure 604 (Sheet 1 of 2)

[A]	[B]	[C]	[D]	INTERFERENCE
0.303 0.297	0.065 0.060	0.560 0.550	0.190 0.185	0.0014 0.0003

63 ALL MACHINED SURFACES

BREAK ALL SHARP EDGES

FINISH: CADMIUM PLATE (F-15.06) OR ZINC-NICKEL PLATE (F-15.40) (OPT IN ID) PLATING CAN RUN OUT IN THE BORE

MATERIAL: ALUMINUM-BRONZE (AMS 4640)

ALL DIMENSIONS APPLY AFTER PLATING, BUT THE BORE IS NOT PLATED

ITEM NUMBERS REFER TO IPL FIG. 1

ALL DIMENSIONS ARE IN INCHES

REPLACES BUSHING (IPL FIG. 5; 75) BACB28AT05B019A

Oversize Bushing Details
Figure 604 (Sheet 2 of 2)

ATTACH FITTING - REPAIR 8-1

113A1517–1, –2

1. General

A. This procedure has the data necessary to replace the bushings of the attach fitting assembly.

B. Refer to the Standard Overhaul Practices 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 14 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 20-30-03	GENERAL CLEANING PROCEDURES
SOPM 20-50-03	BEARING AND BUSHING REPLACEMENT
SOPM 20-60-04	MISCELLANEOUS MATERIALS

C. Procedure (REPAIR 8-1, Figure 601)

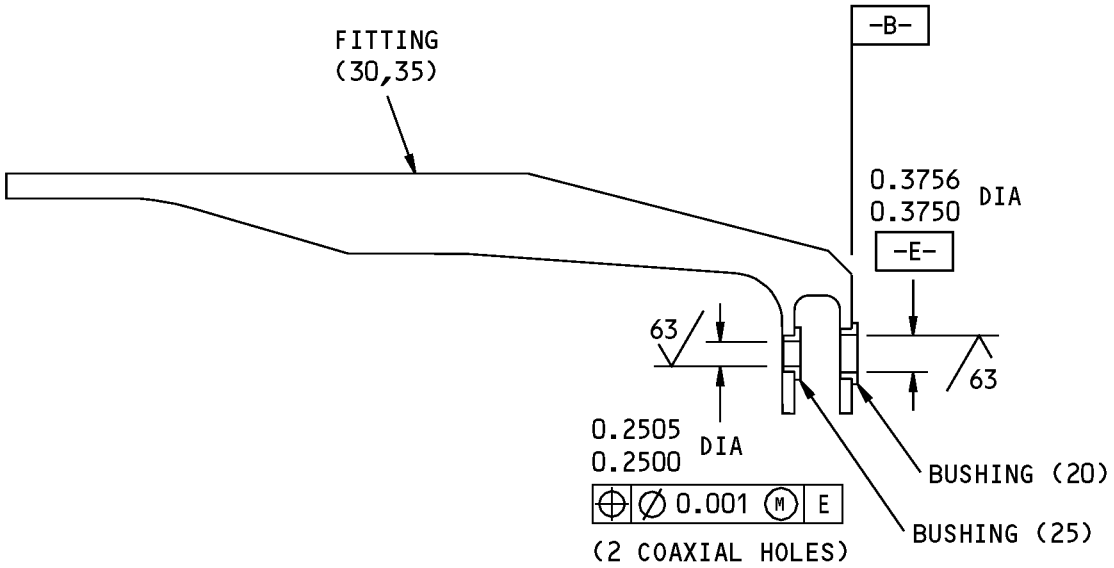
NOTE: For general cleaning procedures, refer to SOPM 20-30-03. For miscellaneous materials, refer to SOPM 20-60-04.

(1) Remove the old bushings (20, 25) from the attach fitting (30, 35).

(2) If you find defects on fitting surfaces, refer to REPAIR 8-2 for repair instructions.

(3) Install replacement bushings by the shrink-fit method (SOPM 20-50-03) with sealant, A00247.

(4) Machine the bushings to design dimensions and finish.



113A1517-1 SHOWN
113A1517-2 OPPOSITE

125 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

BREAK ALL SHARP EDGES

ITEM NUMBERS REFER TO IPL FIG. 14

ALL DIMENSIONS ARE IN INCHES

113A1517-1,-2 Attach Fitting Bushing Replacement
Figure 601

ATTACH FITTING - REPAIR 8-2

113A1517–3, –4

1. General

A. This procedure has the data necessary to repair and refinish the attach fitting.

B. Refer to the Standard Overhaul Practices 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 14 for item numbers.

E. General repair details:

(1) Material: 15-5PH CRES (AMS 5659), 180-200 ksi

(2) Shot peen: All the surfaces, but not in the holes identified in REPAIR 8-2, Figure 601

(a) Intensity 0.006-0.011A2

(b) Overspray is permitted

2. Attach Fitting Repair

A. References

Reference	Title
SOPM 20-10-01	REPAIR AND REFINISH OF HIGH STRENGTH STEEL PARTS
SOPM 20-10-02	MACHINING OF ALLOY STEEL
SOPM 20-10-03	SHOT PEENING
SOPM 20-20-01	MAGNETIC PARTICLE INSPECTION

B. Procedure (REPAIR 8-2, Figure 601)

(1) Machine as necessary, within repair limits, to remove defects (SOPM 20-10-01 and SOPM 20-10-02).

(2) Do a magnetic particle check (SOPM 20-20-01).

(3) Shot peen (SOPM 20-10-03) as indicated.

(4) Make oversize bushings (REPAIR 8-2, Figure 602) to adjust for the material removed.

(5) Install the bushings as shown in REPAIR 8-1.

3. Attach Fitting 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

B. References

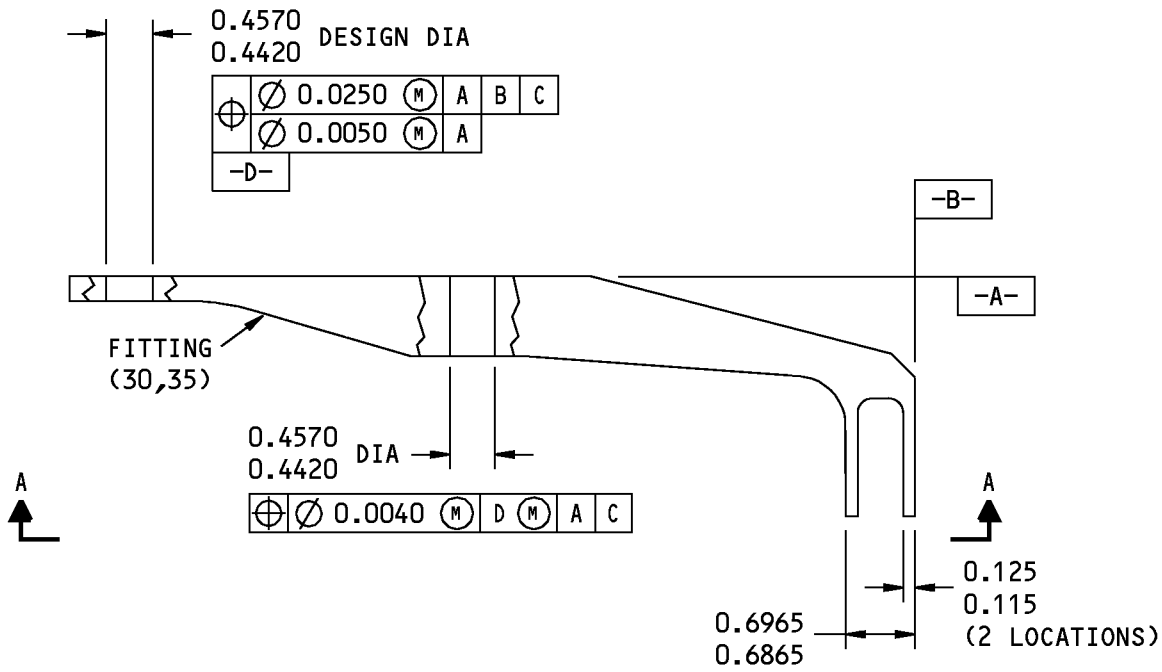
Reference	Title
SOPM 20-30-02	STRIPPING OF PROTECTIVE FINISHES
SOPM 20-30-03	GENERAL CLEANING PROCEDURES
SOPM 20-41-01	DECODING TABLE FOR BOEING FINISH CODES
SOPM 20-60-02	FINISHING MATERIALS

C. Procedure (REPAIR 8-2, Figure 601)

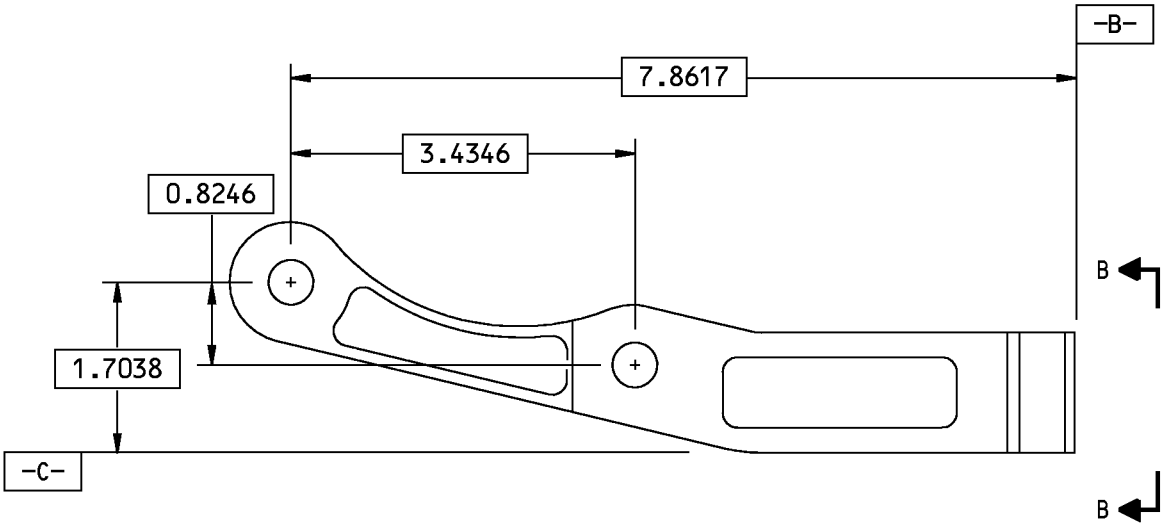
NOTE: For stripping of protective finishes, refer to SOPM 20-30-02. For general cleaning procedures, refer to SOPM 20-30-03. For the decoding table for Boeing finish codes, refer to SOPM 20-41-01. For finishing materials, refer to SOPM 20-60-02.

(1) Cadmium plate (F-16.06).

(2) Apply primer, C00259 (F-20.02).

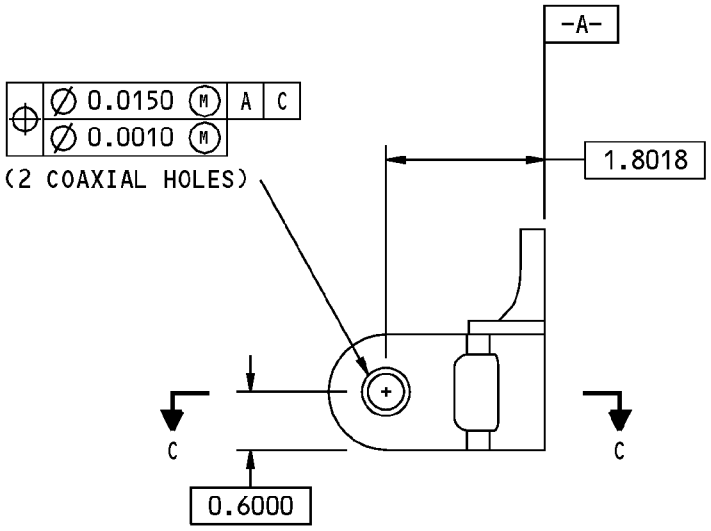


113A1517-3 SHOWN
113A1517-4 OPPOSITE

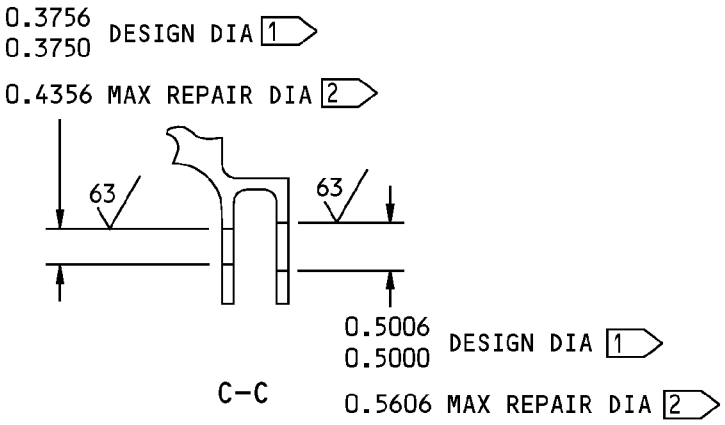


A-A

113A1517-3,-4 Attach Fitting Repair
Figure 601 (Sheet 1 of 2)



B–B



C–C

1 NO SHOT PEEN OR PRIMER IN THESE HOLES

2 LIMIT FOR INSTALLATION OF OVERSIZE BUSHING

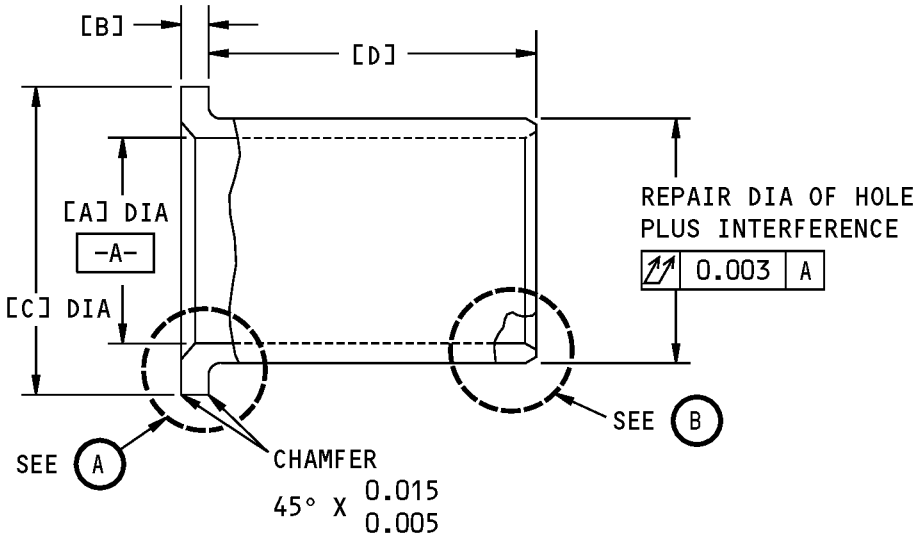
125 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

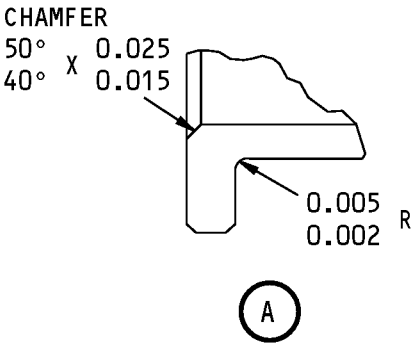
BREAK ALL SHARP EDGES

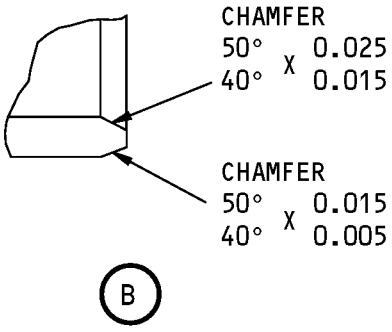
ITEM NUMBERS REFER TO IPL FIG. 14

ALL DIMENSIONS ARE IN INCHES

113A1517-3,-4 Attach Fitting Repair
Figure 601 (Sheet 2 of 2)







Oversize Bushing Details
Figure 602 (Sheet 1 of 2)

REPLACES BUSHING (IPL FIG. 14)	[A]	[B]	[C]	[D]	INTER-FERENCE	MATERIAL	FINISH
(25) BACB28AP04-011	0.241 0.234	0.065 0.060	0.540 0.530	0.110 0.105	0.0014 0.0003	3	1
(20) BACB28AT06B011A	0.366 0.359	0.065 0.060	0.630 0.620	0.110 0.105	0.0015 0.0004	4	2

1 PASSIVATE (F-17.25)

2 NO FINISH

3 15-5PH CRES (AMS 5659), OR 17-4PH CRES (AMS 5643), Rc 32-37

4 ALUMINUM-BRONZE (AMS 4640)

63 ALL MACHINED SURFACES

BREAK ALL SHARP EDGES

FINISH: AS SHOWN BY 1 2

MATERIAL: AS SHOWN BY 3 4

ITEM NUMBERS REFER TO IPL FIG. 14

ALL DIMENSIONS ARE IN INCHES

Oversize Bushing Details
Figure 602 (Sheet 2 of 2)

ATTACH FITTING ASSEMBLY - REPAIR 9-1

113A1520–1, –2

1. General

A. This procedure has the data necessary to replace the bushings on the attach fitting assembly.

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 6 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 20-30-03	GENERAL CLEANING PROCEDURES
SOPM 20-50-03	BEARING AND BUSHING REPLACEMENT
SOPM 20-60-04	MISCELLANEOUS MATERIALS

C. Procedure

NOTE: For general cleaning procedures, refer to SOPM 20-30-03. For miscellaneous materials, refer to SOPM 20-60-04.

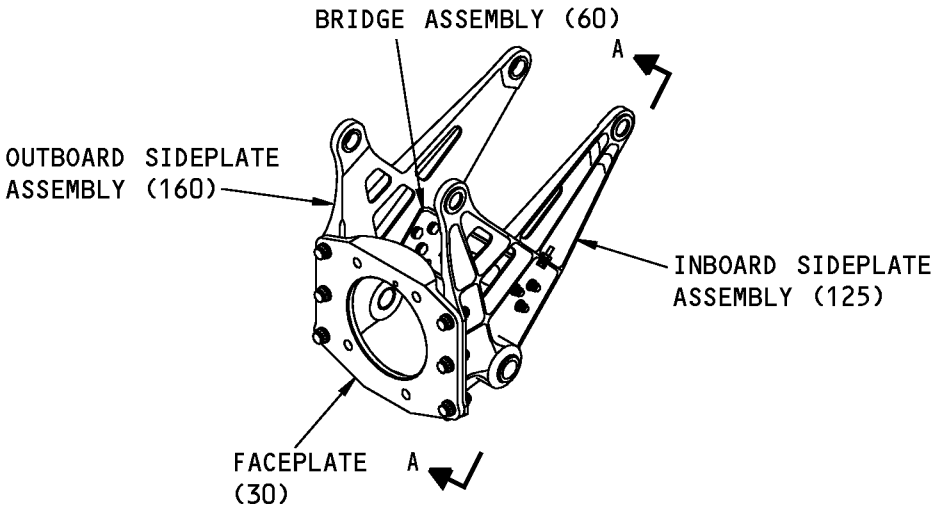
(1) Remove the old washers (140, 175) and bushings (135, 145, 170, 180) from the attach fittings assemblies (125, 130, 160, 165).

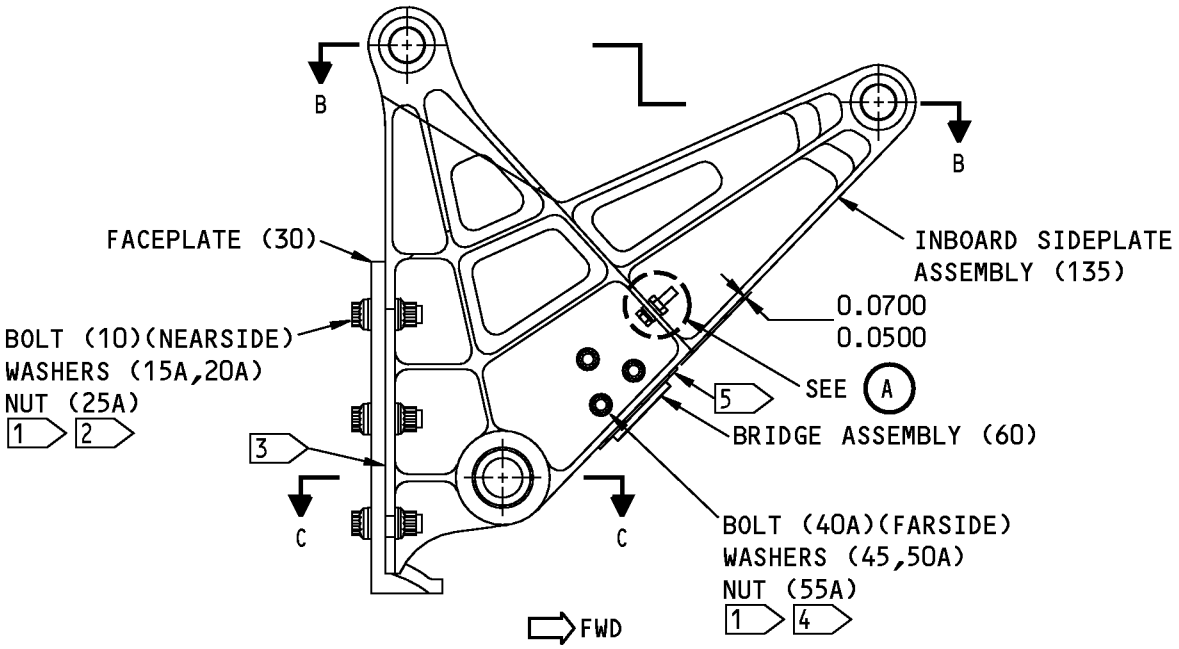
(2) If you find defects on component surfaces, refer to REPAIR 9-2 for repair instructions.

(3) Install the bushings (135, 145, 170, 180) with the wet sealant, A00247 using the shrink-fit method (SOPM 20-50-03).

(4) Machine the ID of the bushings (135, 145, 170, 180) to the dimensions shown in REPAIR 9-1, Figure 601.

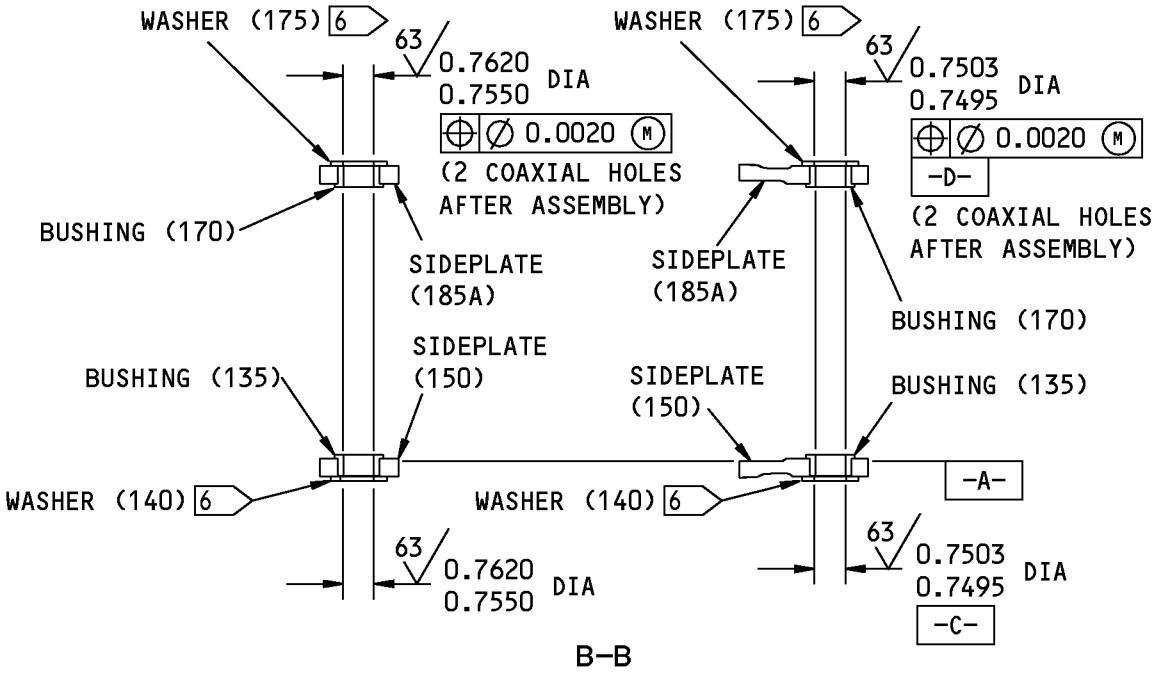
(5) Bond replacement washers (140, 175) to the inside surfaces at the bushings (135, 170) with adhesive. Make sure the adhesive fills the space between the washer and the end of the bushing.



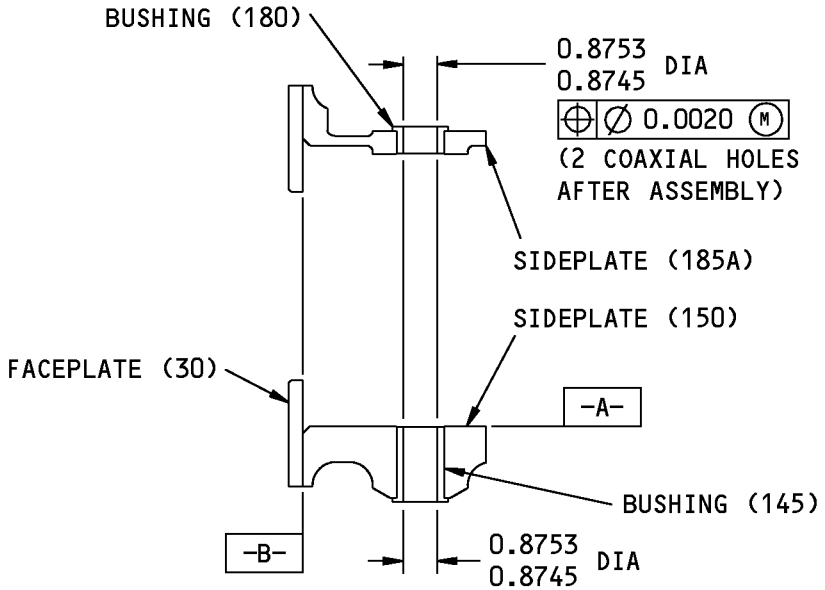


A–A

113A1520-1,-2 Transmission Attach Fitting Assembly Parts Replacement
Figure 601 (Sheet 1 of 3)

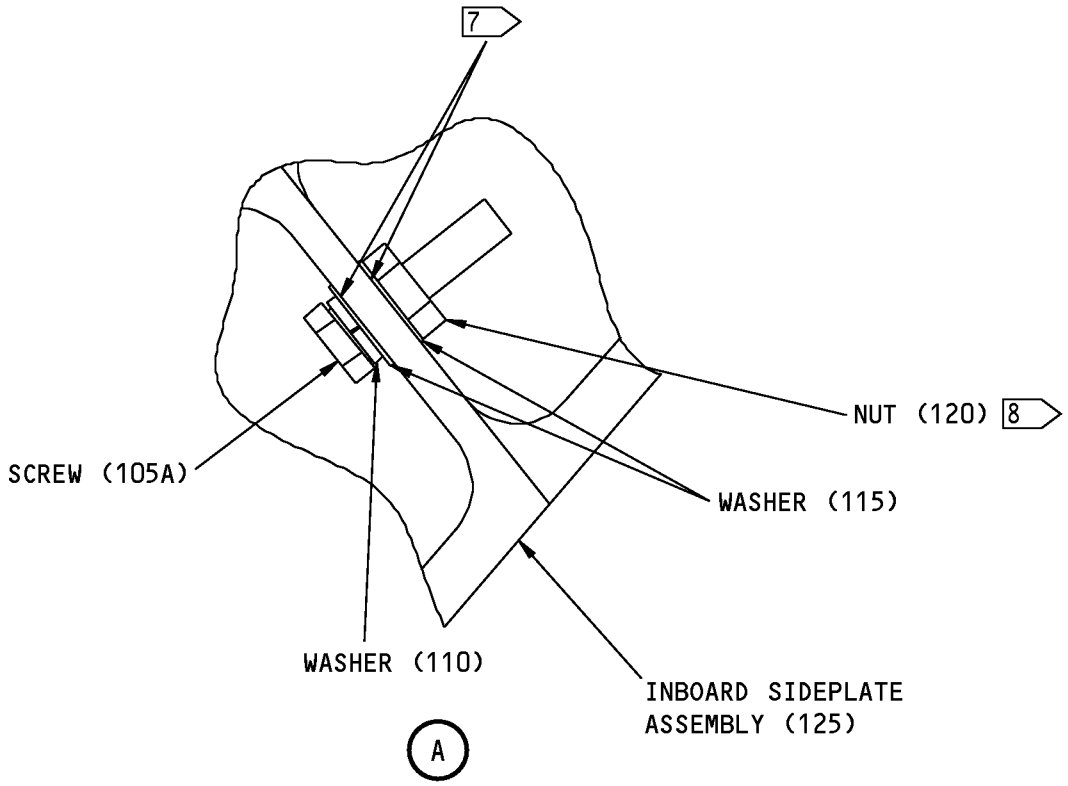


B–B



C–C

113A1520-1,-2 Transmission Attach Fitting Assembly Parts Replacement
Figure 601 (Sheet 2 of 3)



1 INSTALL WITH BMS 5-95 SEALANT (SOPM 20-50-19, METHOD 2) OR BMS 3-27

2 TIGHTEN NUTS TO 350-410 POUND-INCHES, OR TIGHTEN BOLTHEADS TO 369-451 POUND-INCHES

3 FAY SURFACE SEAL WITH BMS 5-95 SEALANT (SOPM 20-50-19)

4 TIGHTEN NUTS TO 65-100 POUND-INCHES, OR TIGHTEN BOLTHEADS TO 90-110 POUND-INCHES

5 MAKE THE BOTTOM EDGE OF BRIDGE ASSEMBLY (60) FLUSH WITH BOTTOM OF SIDEPLATE ASSEMBLIES (125,160)

6 BOND WITH TYPE 70 ADHESIVE. FILL THE GAP WITH ADHESIVE BETWEEN WASHER AND BUSHING

7 ELECTRICAL BOND (SOPM 20-11-03). CLEAN BY METHOD CM1. CHEMICAL TREAT (F-17.28) BEFORE BONDING

8 TIGHTEN THE NUT TO 25-30 POUND-INCHES

125 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

ITEM NUMBERS REFER TO IPL FIG. 6

ALL DIMENSIONS ARE IN INCHES

113A1520-1,-2 Transmission Attach Fitting Assembly Parts Replacement
Figure 601 (Sheet 3 of 3)

ATTACH FITTING COMPONENTS REPAIR 9-2

113A1520–1, –2

1. General

A. This procedure has the data necessary to repair and refinish the attach fitting.

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 6 for item numbers.

E. General repair details:

(1) Material: Titanium alloy

(2) Shot peen: All the surfaces using hard shot (Rc 55-65), except in the holes identified in REPAIR 9-2, Figure 601 and REPAIR 9-2, Figure 602.

(a) Intensity 0.005A-0.010A

(b) Coverage 1.0 automatic or 2.0 manual

(c) Overspray is permitted

2. Sideplate Assembly (125,130,160,165) Repair

A. Procedure (REPAIR 9-2, Figure 601, REPAIR 9-2, Figure 602)

(1) Machine the holes, for the bushings, in the sideplate (150,155,185A,190A) to remove defects; to the repair limit as shown in REPAIR 9-2, Figure 601 and REPAIR 9-2, Figure 602.

(2) Do a penetrant check (SOPM 20-20-02).

(3) Shot peen the sideplate (150,155,185A,190A) (SOPM 20-10-03).

(a) Obey the flagnote in REPAIR 9-2, Figure 601 and REPAIR 9-2, Figure 602.

(4) Manufacture the oversize bushing to replace bushing (135,170) as shown in REPAIR 9-2, Figure 604 to adjust for the material removed in REPAIR 9-2, Paragraph 2.A.(1). For the holes for bushings (145,180), get an oversize equivalent of the bushing and adjust its OD to get a 0.0007-0.0019 inch interference fit with the oversize hole.

(5) Install the oversize bushing as shown in REPAIR 9-1, Paragraph 2.C.(3) and REPAIR 9-1, Paragraph 2.C.(4).

3. 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

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. Face Plate (30, 35)

NOTE: For stripping of protective finishes, refer to SOPM 20-30-02. For general cleaning procedures, refer to SOPM 20-30-03. For the decoding table for Boeing finish codes, refer to SOPM 20-41-01. For finishing materials, refer to SOPM 20-60-02.

(1) Clean the faceplates (30, 35) (F-14.882).

(2) Apply primer, C00259 (F-20.02) all over but not in the bore and holes.

D. Bridge Assembly (60, 65) (REPAIR 9-2, Figure 603)

(1) Bridge fitting (100). Material: Aluminum alloy

(a) Boric acid-sulfuric acid anodize or chromic acid anodize (F-17.31).

(b) Apply primer, C00259 (F-20.03) all over.

(2) Serrated plate (102). Material: 15-5PH CRES

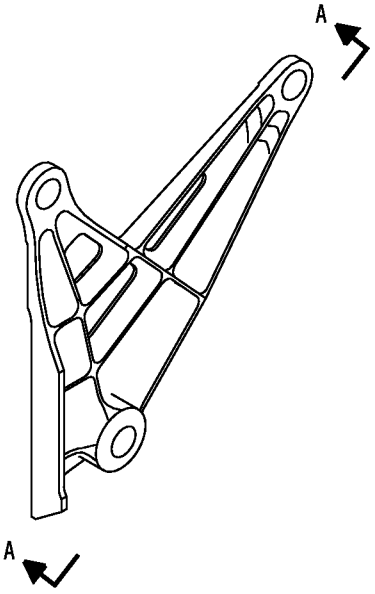
(a) Cadmium plate (F-15.06).

(b) Apply primer, C00259 (F-20.02) but not on serrations and in the holes.

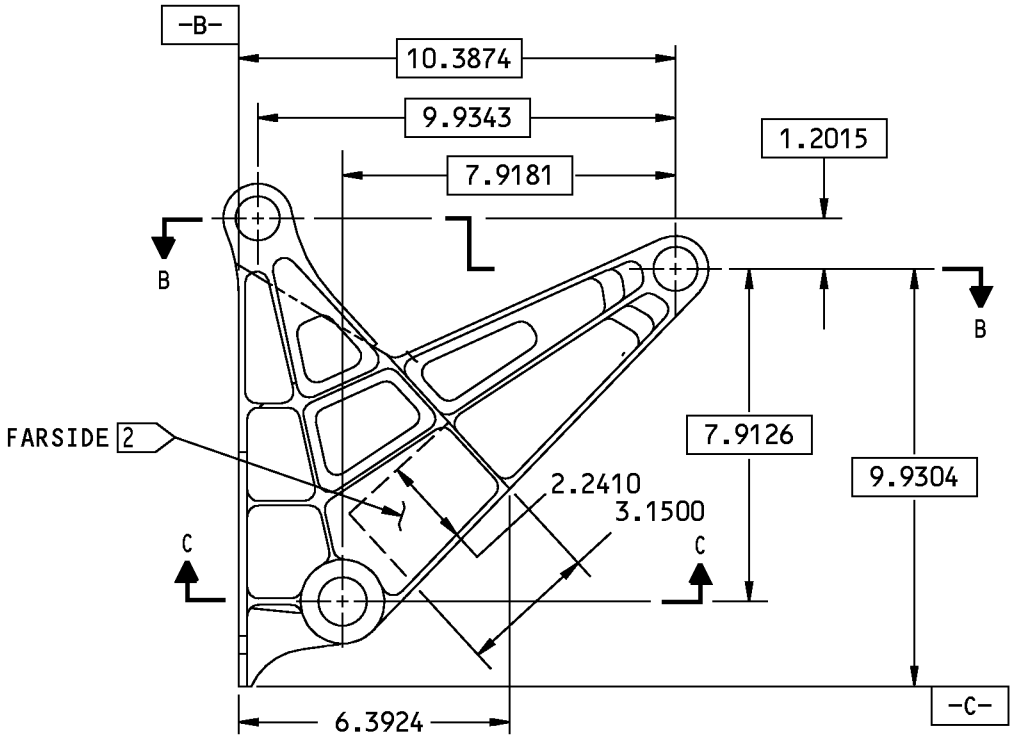
E. Sideplates (150,155,185A,190A). Material: Titanium alloy REPAIR 9-2, Figure 601, REPAIR 9-2, Figure 602)

(1) Clean the sideplates (150,155,185A,190A) (F-14.882).

(2) Apply primer, C00259 (F-20.03) as shown in REPAIR 9-2, Figure 601 and REPAIR 9-2, Figure 602.

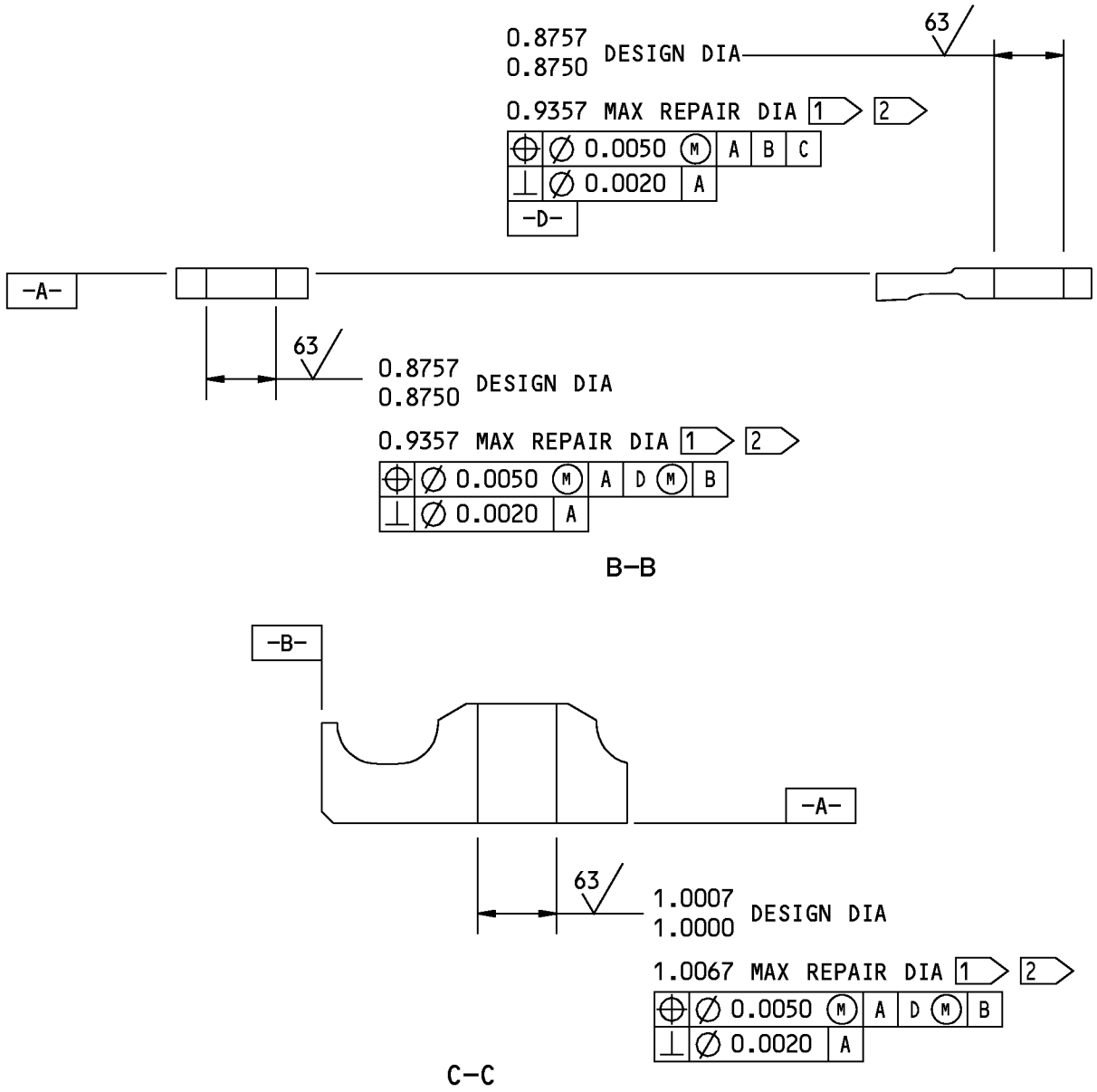


113A1520-5 SHOWN
113A1520-6 OPPOSITE



A-A

113A1520-5,-6 Inboard Sideplate Repair and Refinish
Figure 601 (Sheet 1 of 2)



1 LIMIT FOR INSTALLATION OF OVESIZE BUSHING

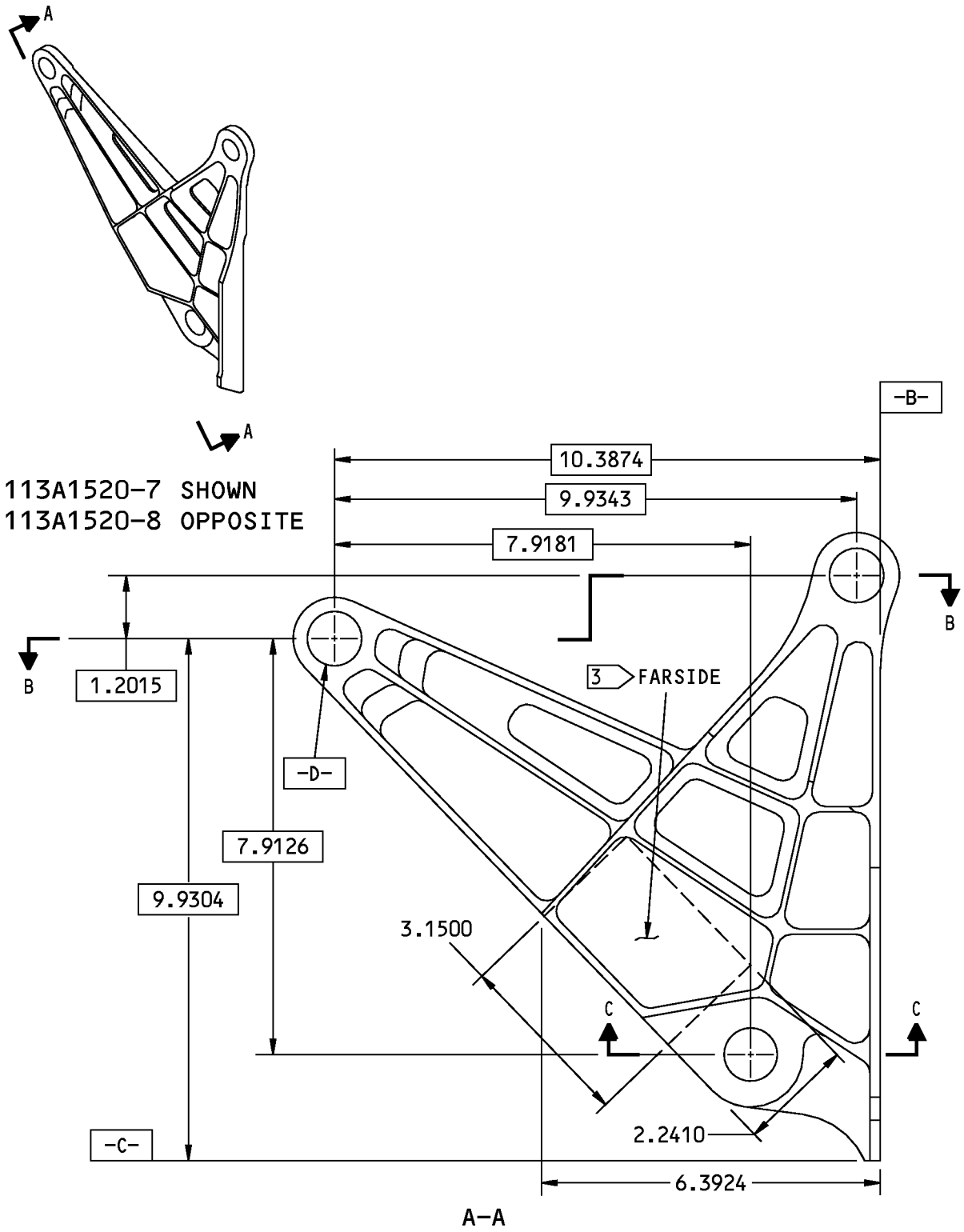
2 DO NOT SHOT PEEN

3 CLEAN (F-14.882) AND APPLY BMS 10-11 TYPE I, PRIMER (F-20.03) TO INDICATED SURFACE

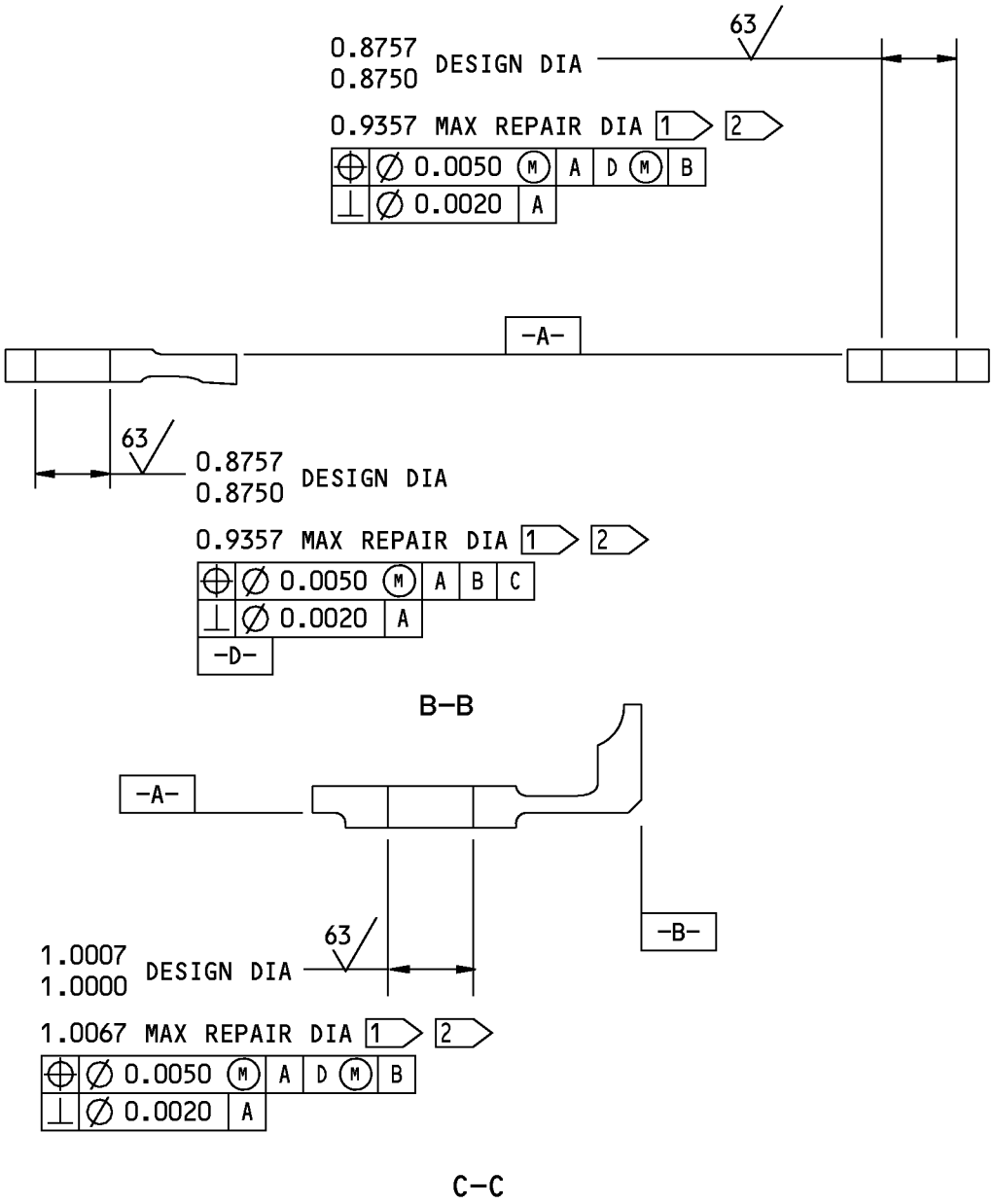
125 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

ALL DIMENSIONS ARE IN INCHES

113A1520-5,-6 Inboard Sideplate Repair and Refinish
Figure 601 (Sheet 2 of 2)



113A1520-7,-8 Outboard Sideplate Repair and Refinish
Figure 602 (Sheet 1 of 2)



1 LIMIT FOR INSTALLATION OF OVESIZE BUSHING

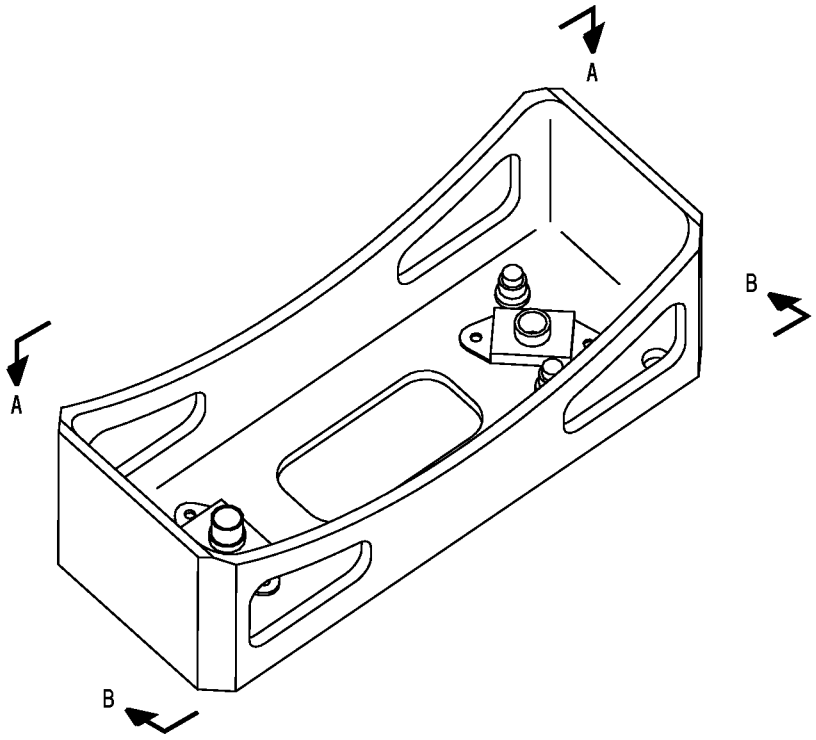
2 DO NOT SHOT PEEN

3 CLEAN (F-14.882) AND APPLY BMS 10-11 TYPE I, PRIMER (F-20.03) TO INDICATED SURFACE

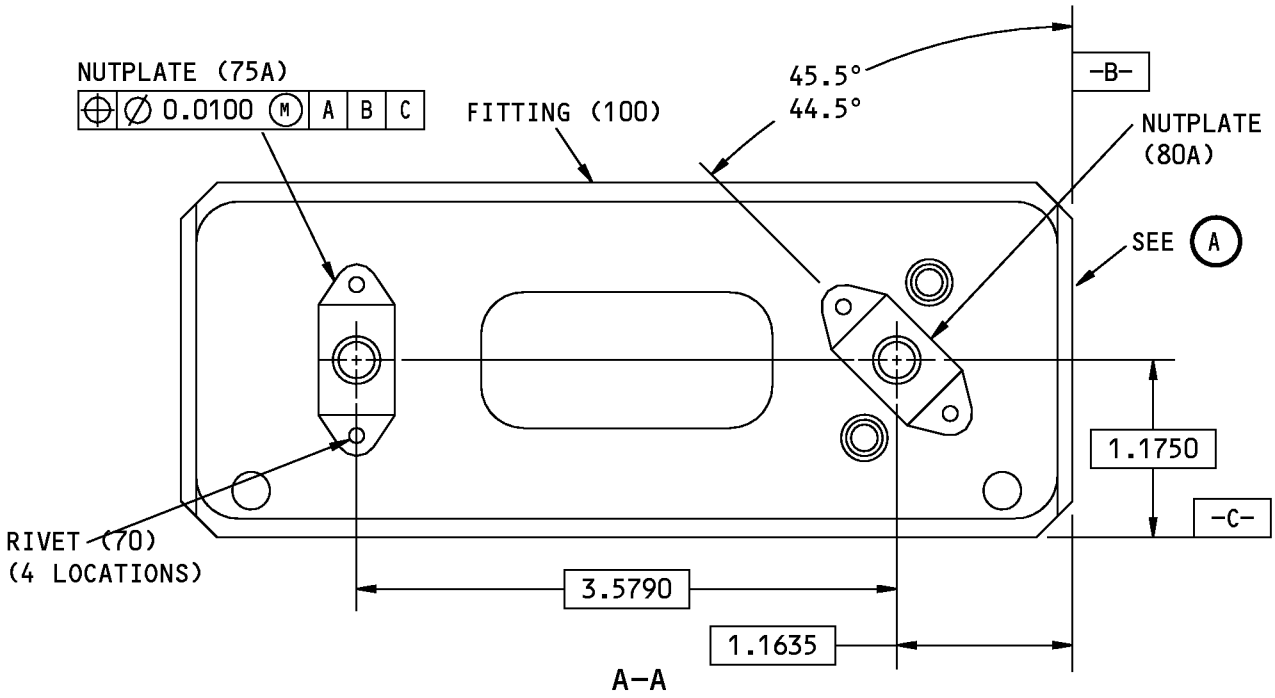
125 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

ALL DIMENSIONS ARE IN INCHES

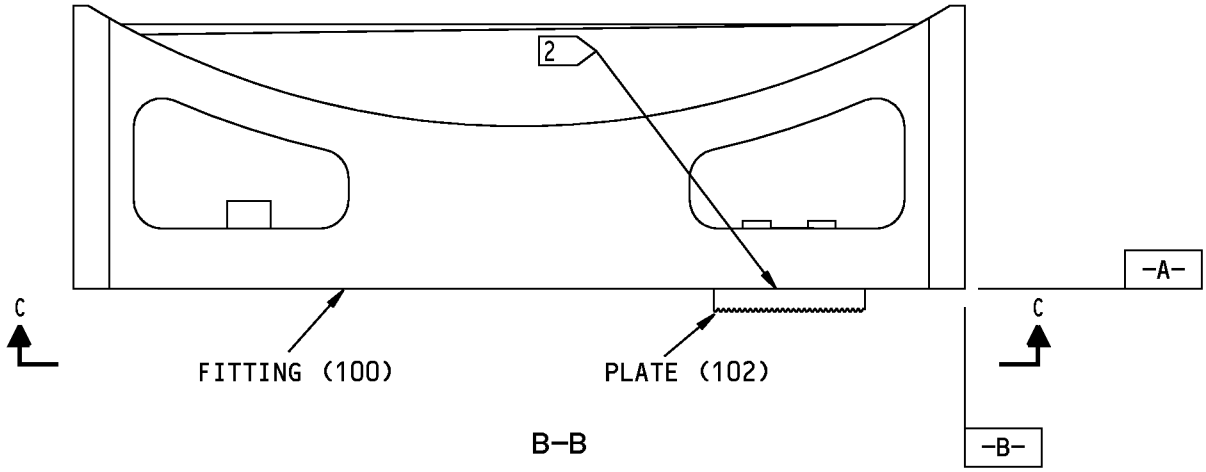
113A1520-7,-8 Outboard Sideplate Repair and Refinish
Figure 602 (Sheet 2 of 2)



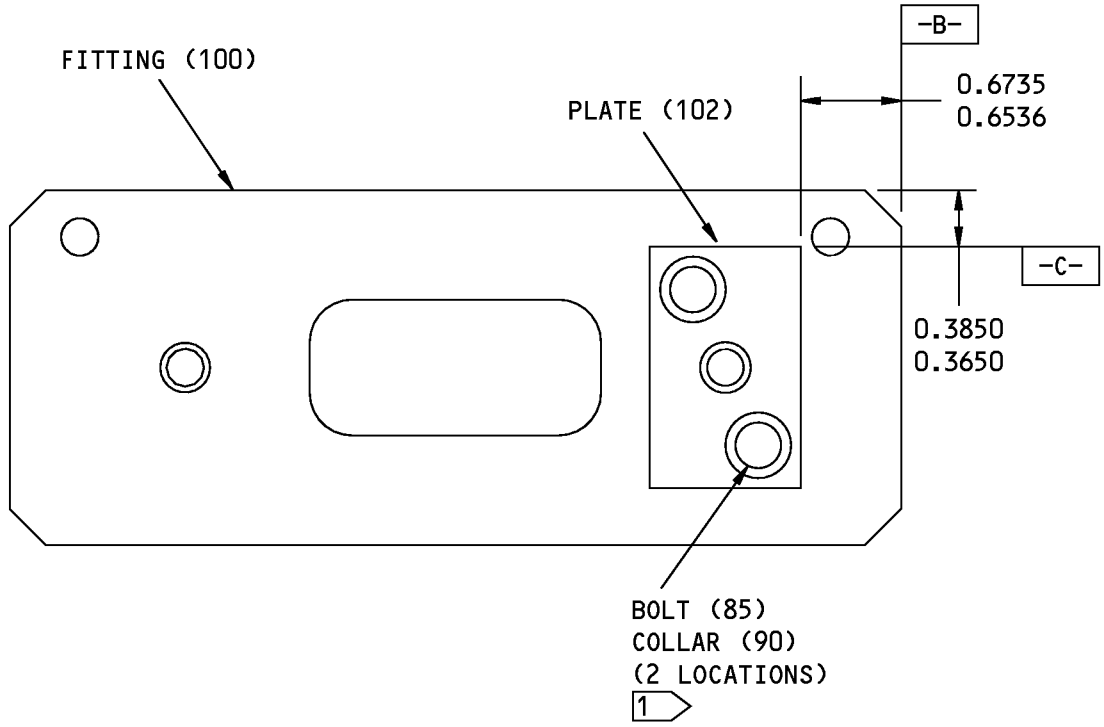
113A1520-3 SHOWN
113A1520-4 OPPOSITE UNLESS SHOWN DIFFERENTLY



113A1520-3,-4 Bridge Assembly
Figure 603 (Sheet 1 of 3)

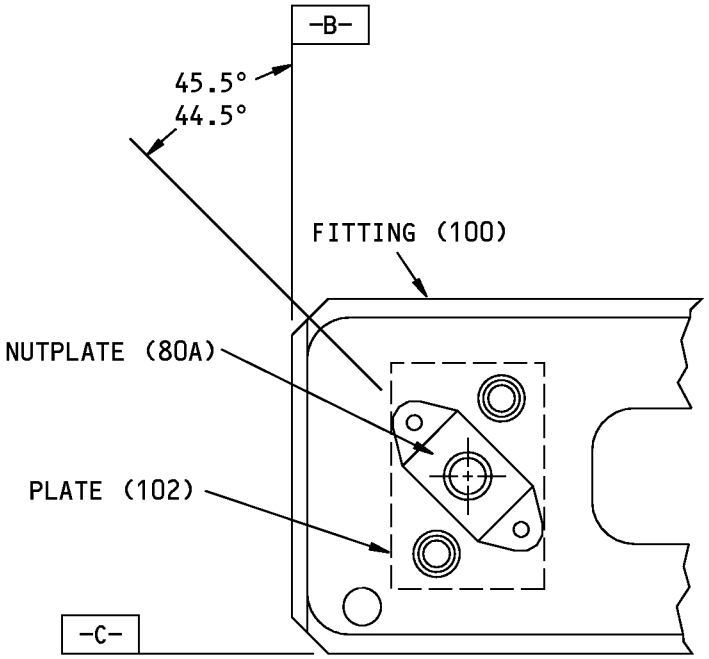


B–B



C–C

113A1520-3,-4 Bridge Assembly
Figure 603 (Sheet 2 of 3)



113A1520-4 ONLY

A

1 INSTALL FASTENERES WITH BMS 5-95 SEALANT (SOPM 20-50-19 METHOD 2)

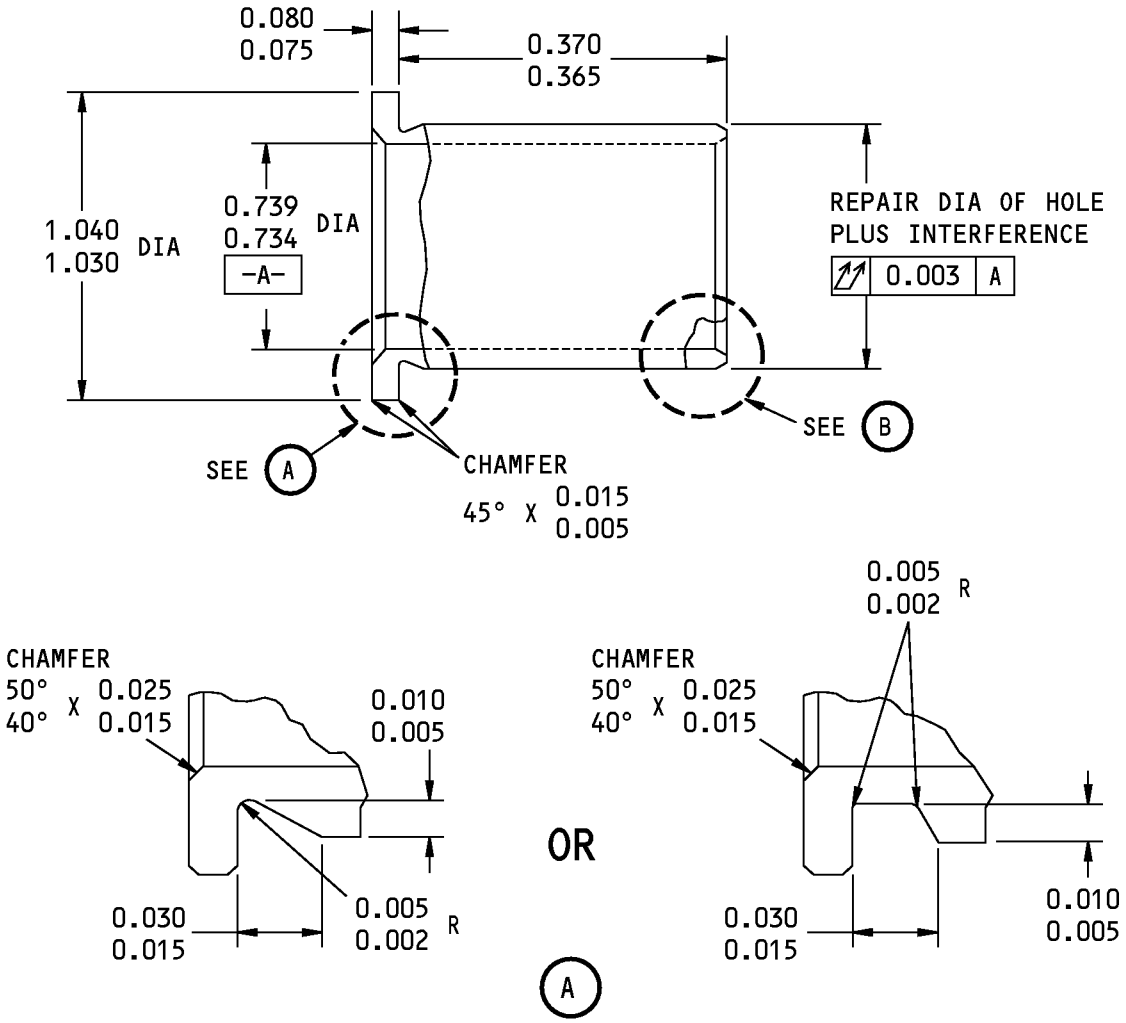
2 APPLY A THIN LAYER OF BMS 3-27 CORRISION PREVENTIVE COMPOUND TO THESE MATING SURFACES

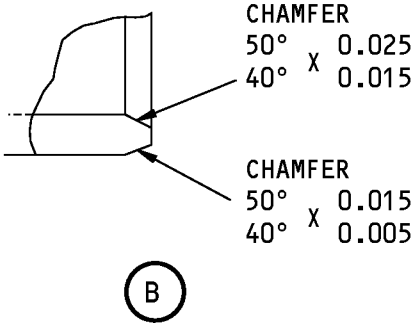
125 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

ITEM NUMBERS REFER TO IPL FIG. 9

ALL DIMENSIONS ARE IN INCHES

113A1520-3,-4 Bridge Assembly
Figure 603 (Sheet 3 of 3)





63 ALL MACHINED SURFACES

BREAK ALL SHARP EDGES

FINISH: PASSIVATE

ALL DIMENSIONS APPLY AFTER PLATING, BUT THE BORE IS NOT PLATED

MATERIAL: 15-5PH CRES OR 17-4PH CRES
Rc 32-37

ITEM NUMBERS REFER TO IPL FIG. 6

ALL DIMENSIONS ARE IN INCHES

REPLACES BUSHING (IPL FIG. 6; 135,170) BACB28AT12D037B

Oversize Bushing Details
Figure 604

ATTACH FITTING ASSEMBLY - REPAIR 10-1

113A1550–11, –12, –109, –110, –201, –202

1. General

A. This procedure has the data necessary to replace the parts of the attach fitting assembly.

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

C. Refer to IPL Figure 7 for item numbers.

2. Disassembly

A. Remove nut (25), washers (20) and bolt (15).

B. Separate fitting assembly (55, 60) from fitting assembly (30C).

3. Fitting Assembly (30C)

A. Consumable Materials

NOTE: Equivalent substitutes may be used.

Reference	Description	Specification
D00015	Grease - Aircraft Bearing (Use BMS 3-24 until existing stocks are depleted, BMS 3-33 supersedes BMS 3-24)	BMS3-24 (Superseded by BMS 3-33)
D00633	Grease - Aircraft General Purpose	BMS3-33

B. References

Reference	Title
SOPM 20-50-03	BEARING AND BUSHING REPLACEMENT
SOPM 20-60-03	LUBRICANTS

C. Bushing Replacement (REPAIR 10-1, Figure 601, REPAIR 10-1, Figure 602)

NOTE: For lubricants, refer to SOPM 20-60-03.

(1) Remove the old bushings from the attach fitting (50B).

(2) If you find defects on the fittings, refer to REPAIR 10-3 for repair instructions.

(3) For fitting assemblies (30C,30D), install replacement bushings (40B, 45) by the shrink-fit method (SOPM 20-50-03) with grease, D00015 or grease, D00633. For fitting assembly (30E), install replacement bushings (40B, 45) by the shrink-fit method (SOPM 20-50-03) with grease, D00633.

(4) Machine the bushings to design dimensions and finish.

4. Fitting Assembly (55, 60)

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. Bushing Replacement (REPAIR 10-1, Figure 604)

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

(1) Press out the old bushing (75).

(2) If you find defects on fitting (80, 85), refer to REPAIR 10-2 for repair instructions.

(3) Install a replacement bushing (75) by the press-fit method (SOPM 20-50-03) with sealant sealant, A00247.

D. Nutplates (70)

(1) Remove rivets (65) and the bad nutplate.

(2) Install a repalcement nutplate (75) with new rivets.

5. Fitting Assembly (1C, 5C)

A. Consumable Materials

NOTE: Equivalent substitutes may be used.

Reference	Description	Specification
D00015	Grease - Aircraft Bearing (Use BMS 3-24 until existing stocks are depleted, BMS 3-33 supersedes BMS 3-24)	BMS3-24 (Superseded by BMS 3-33)
D00633	Grease - Aircraft General Purpose	BMS3-33

B. References

Reference	Title
SOPM 20-60-03	LUBRICANTS
SOPM 20-60-04	MISCELLANEOUS MATERIALS

C. Procedure (REPAIR 10-1, Figure 601, REPAIR 10-1, Figure 602, REPAIR 10-1, Figure 603)

NOTE: For lubricants, refer to SOPM 20-60-03. For miscellaneous materials, refer to SOPM 20-60-04.

(1) For fitting assemblies (1C,1D,5C,5D), apply a layer of grease, D00015 or grease, D00633 on bolt (15) outside diameter and in the hole of bushings (45). For fitting assemblies (1E,5E), apply a layer of grease, D00633 on bolt (15) outside diameter and in the hole of bushings (45).

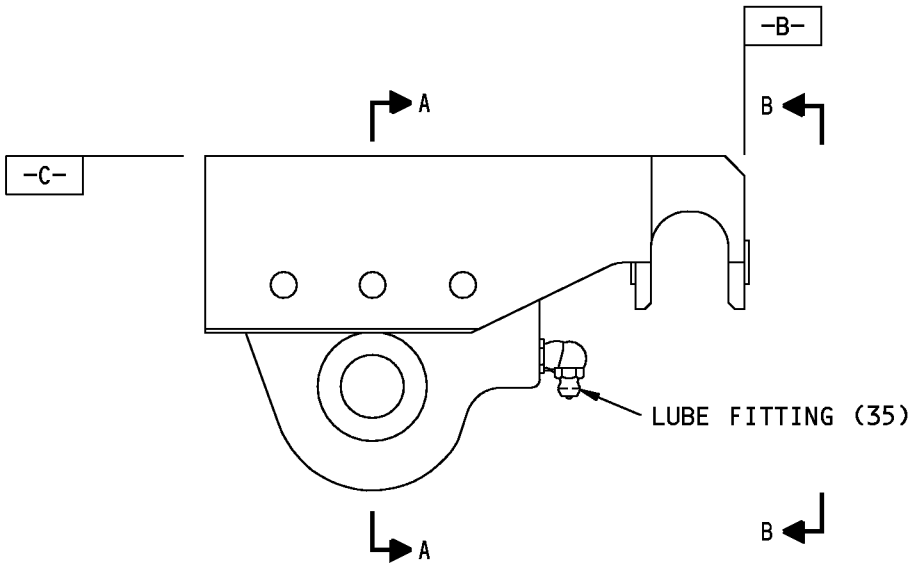
(2) Install fitting (55) in the fitting (30) with bolt (15) and washers (20).

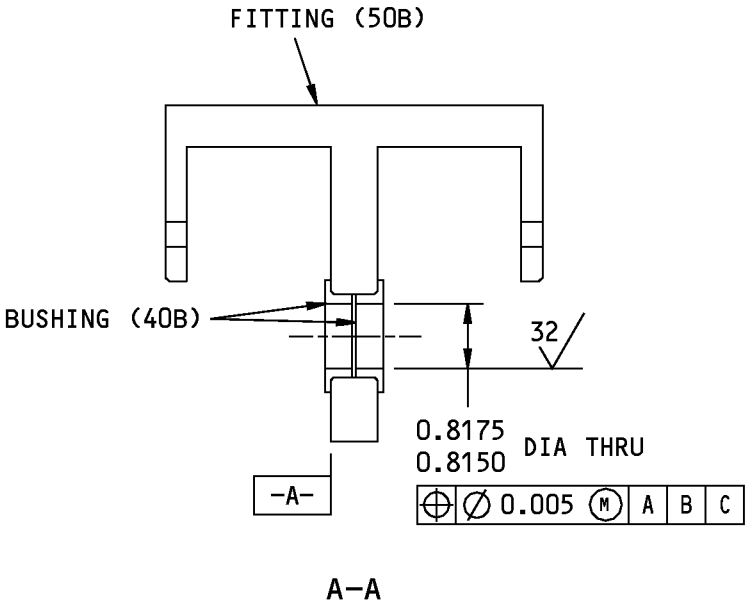
(3) Wipe unwanted grease from the threads of bolt (15).

(4) Make sure the run-on torque value of nut (25) is between 6.5 and 60 pound-inches.

(5) Tighten nut (25) to 10 - 20 pound-inches above the run-on torque value.

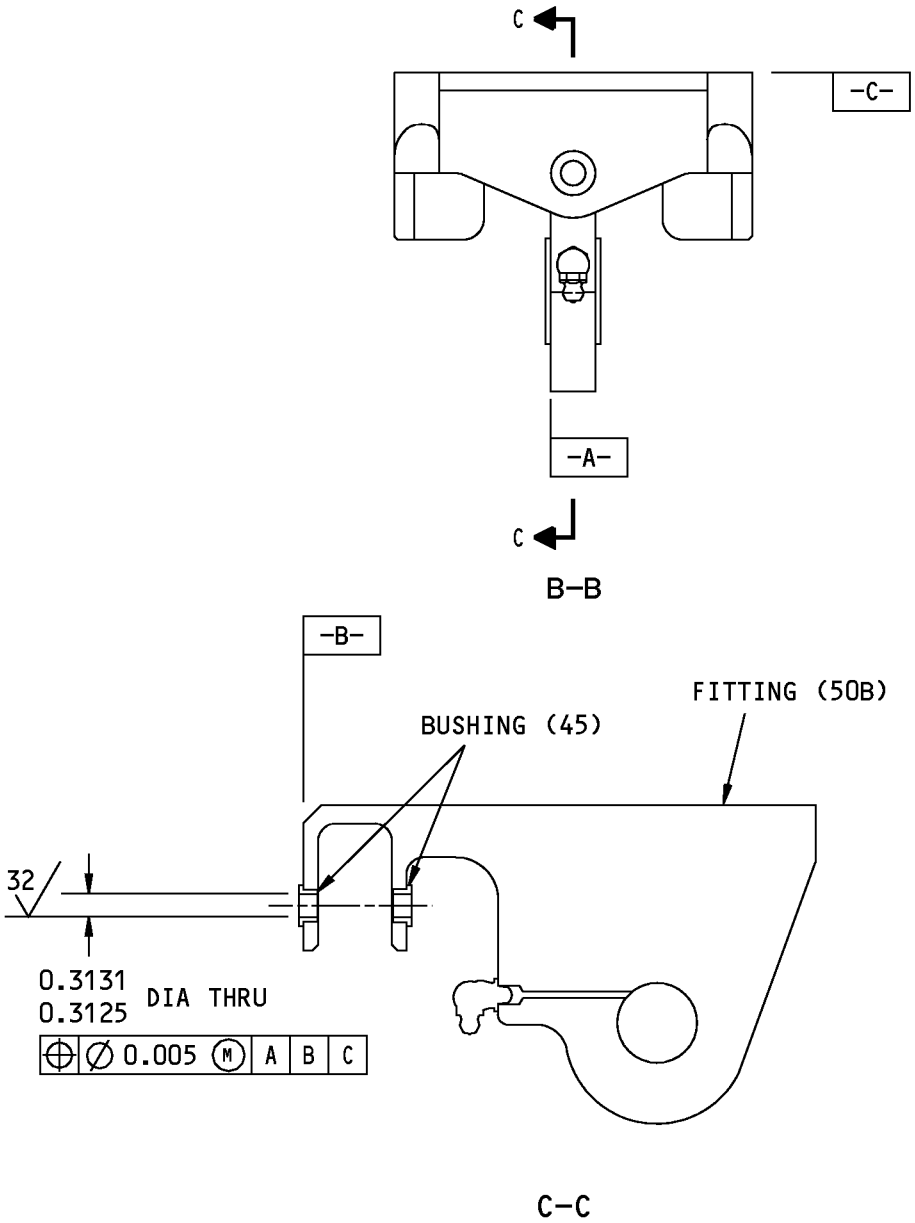
(6) Install the cotter pin (10).





A-A

113A1550-13 Forward Fitting Assembly Bushing Replacement
Figure 601 (Sheet 1 of 2)



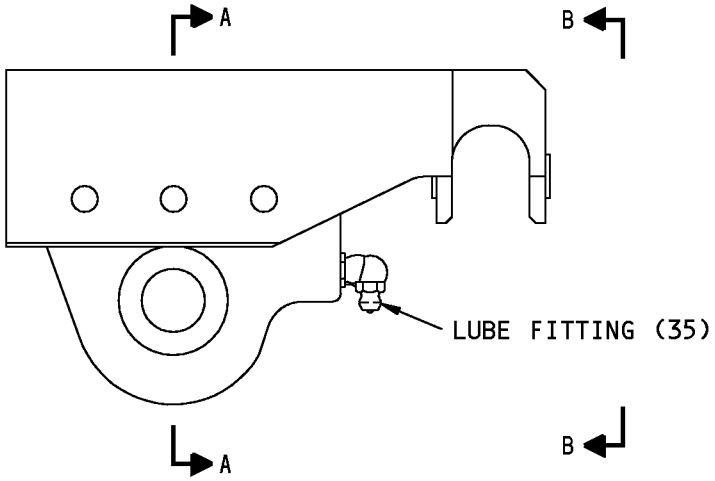
125 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

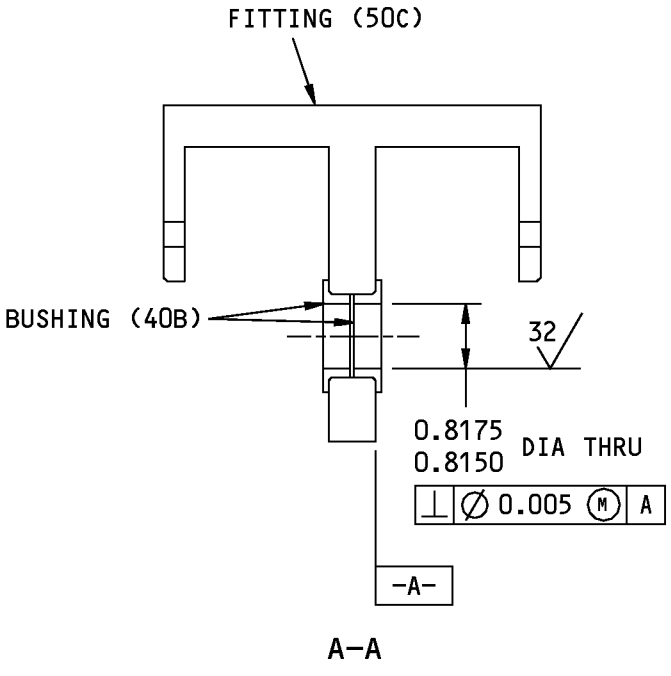
BREAK ALL SHARP EDGES

ITEM NUMBERS REFER TO IPL FIG. 7

ALL DIMENSIONS ARE IN INCHES

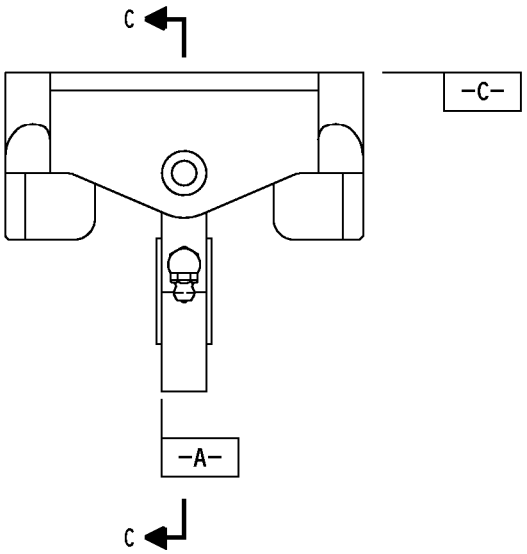
113A1550-13 Forward Fitting Assembly Bushing Replacement
Figure 601 (Sheet 2 of 2)



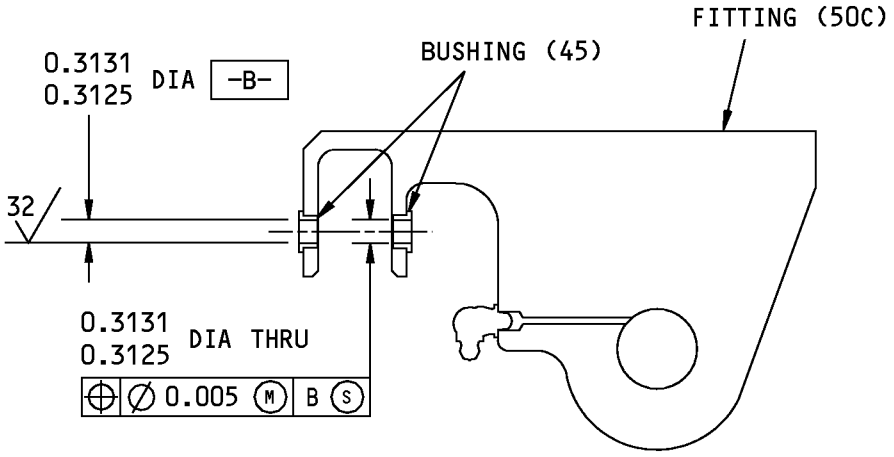


A-A

113A1550-111 Forward Fitting Assembly Bushing Replacement
Figure 602 (Sheet 1 of 2)



B–B



C–C

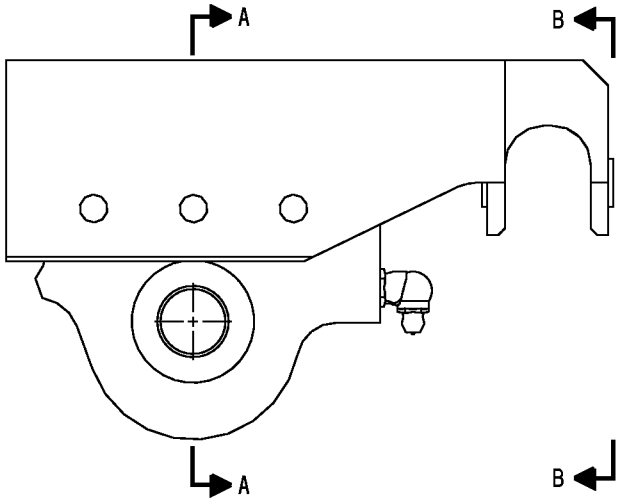
125 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

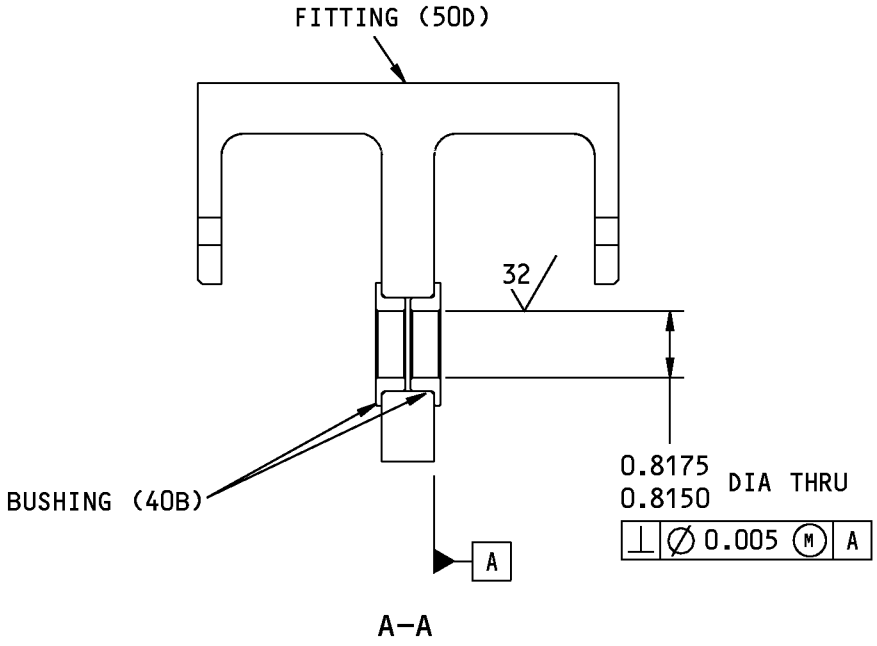
BREAK ALL SHARP EDGES

ITEM NUMBERS REFER TO IPL FIG. 7

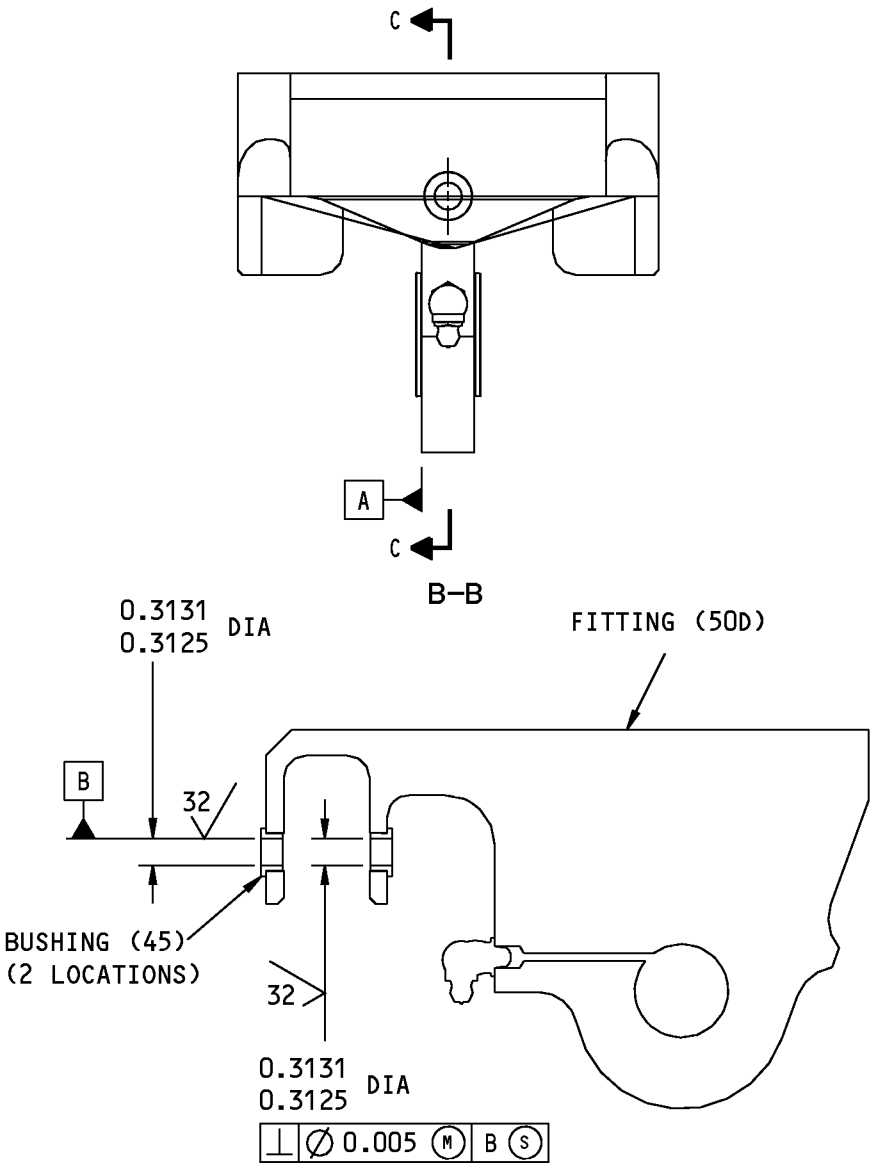
ALL DIMENSIONS ARE IN INCHES

113A1550-111 Forward Fitting Assembly Bushing Replacement
Figure 602 (Sheet 2 of 2)





113A1550-203 Forward Fitting Assembly Bushing Replacement
Figure 603 (Sheet 1 of 2)



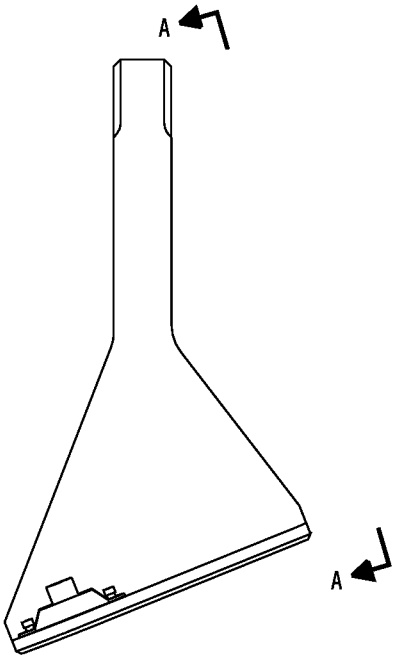
125 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

BREAK ALL SHARP EDGES

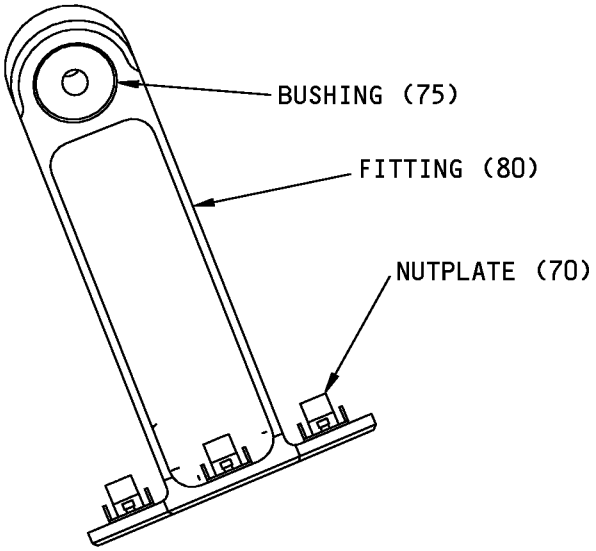
ITEM NUMBERS REFER TO IPL FIG. 7

ALL DIMENSIONS ARE IN INCHES

113A1550-203 Forward Fitting Assembly Bushing Replacement
Figure 603 (Sheet 2 of 2)



113A1550-3 SHOWN
113A1550-4 OPPOSITE



A-A

ITEM NUMBERS REFER TO IPL FIG. 5

113A1550-3,-4 Fitting Assembly Bushing Replacement
Figure 604

FITTING - REPAIR 10-2

113A1552–1, –2

1. General

A. This procedure has the data to repair and refinish fitting (85).

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

C. Refer to IPL Figure 7 for item numbers.

D. General repair details:

(1) Material: Aluminum alloy

(2) Shot peen:

(a) Intensity 0.006-0.011A2

(b) Overspray is permitted

2. Attach Fitting 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

B. References

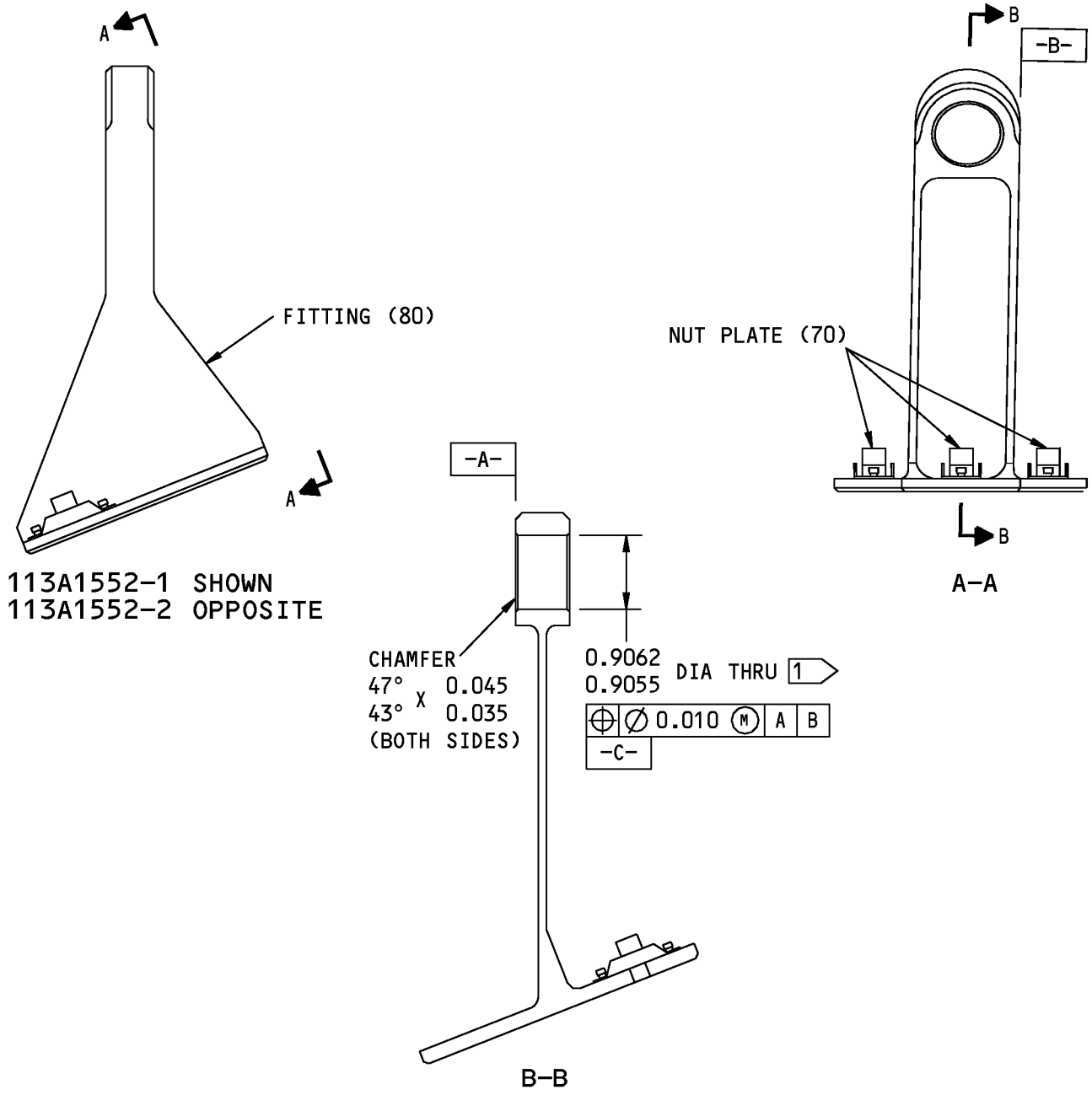
Reference	Title
SOPM 20-30-02	STRIPPING OF PROTECTIVE FINISHES
SOPM 20-30-03	GENERAL CLEANING PROCEDURES
SOPM 20-41-01	DECODING TABLE FOR BOEING FINISH CODES
SOPM 20-60-02	FINISHING MATERIALS

C. Procedure (REPAIR 10-2, Figure 601)

NOTE: For stripping of protective finishes, refer to SOPM 20-30-02. For general cleaning procedures, refer to SOPM 20-30-03. For the decoding table for Boeing finish codes, refer to SOPM 20-41-01. For finishing materials, refer to SOPM 20-60-02.

(1) Boric acid/sulfuric acid anodize or chromic acid anodize (F-17.31).

(2) Apply primer, C00259 (F-20.03).



125 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

BREAK ALL SHARP EDGES

ITEM NUMBERS REFER TO IPL FIG. 7

ALL DIMENSIONS ARE IN INCHES

1 DO NOT SHOT PEEN OR APPLY PRIMER HERE.

113A1552-1,-2 Fitting Refinish
Figure 601

ATTACH FITTING - REPAIR 10-3

113A1553–3, –103, –201

1. General

A. This procedure has the data to repair the attach fitting (IPL Figure 7, 50B, 50C, 50D).

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

C. Refer to IPL Figure 7 for item numbers.

D. General repair details:

(1) Material: Titanium alloy

(2) Shot peen:

(a) Intensity 0.012-0.017A2

(b) Overspray is permitted.

2. Attach Fitting Repair

A. Procedure (REPAIR 10-3, Figure 601 or REPAIR 10-3, Figure 602)

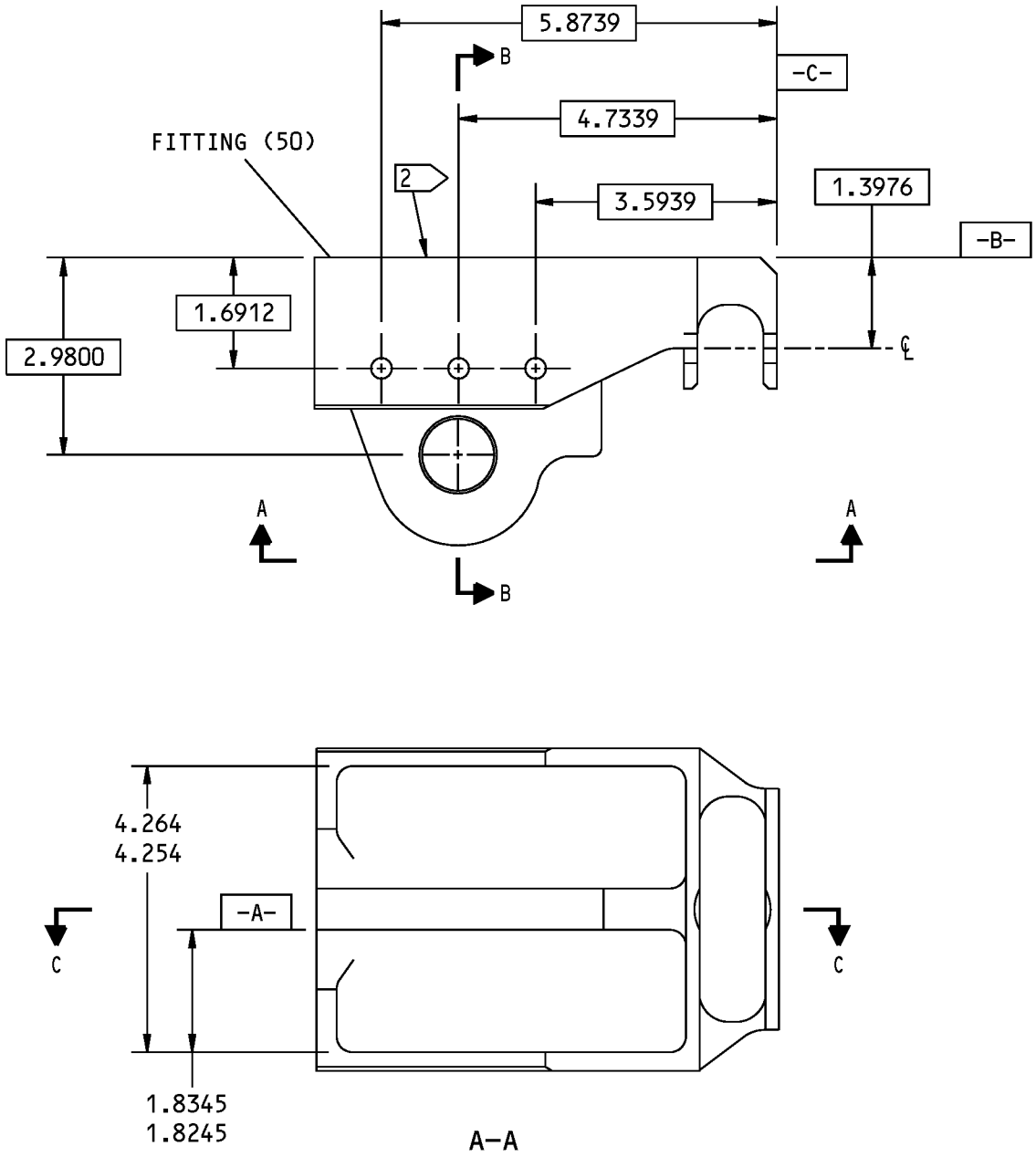
(1) Machine as necessary, within repair limits to remove defects (SOPM 20-10-07).

(2) Do a penetrant check (SOPM 20-20-02).

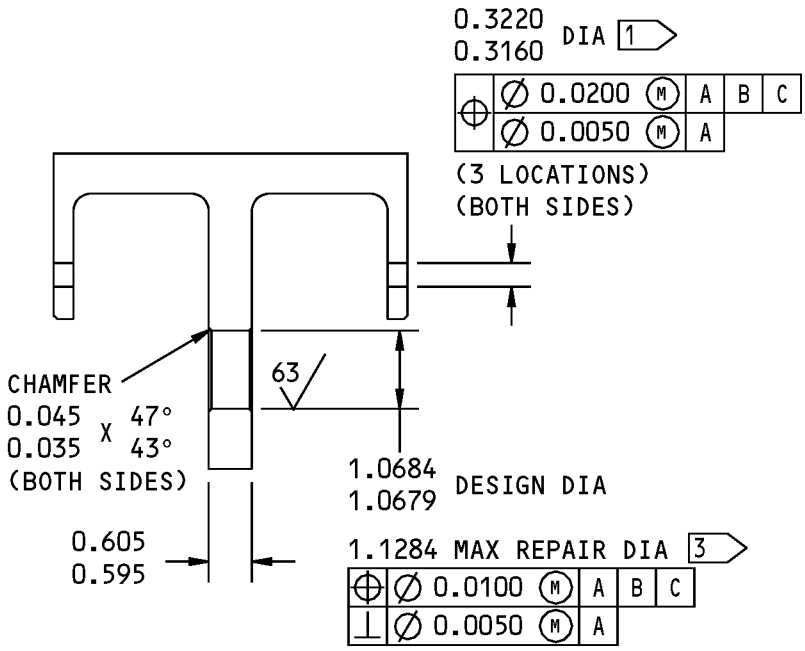
(3) Shot peen (SOPM 20-10-03).

(4) Make oversize bushings REPAIR 10-3, Figure 603
REPAIR 10-3, Figure 603 or REPAIR 10-3, Figure 604 to adjust for the material removed.

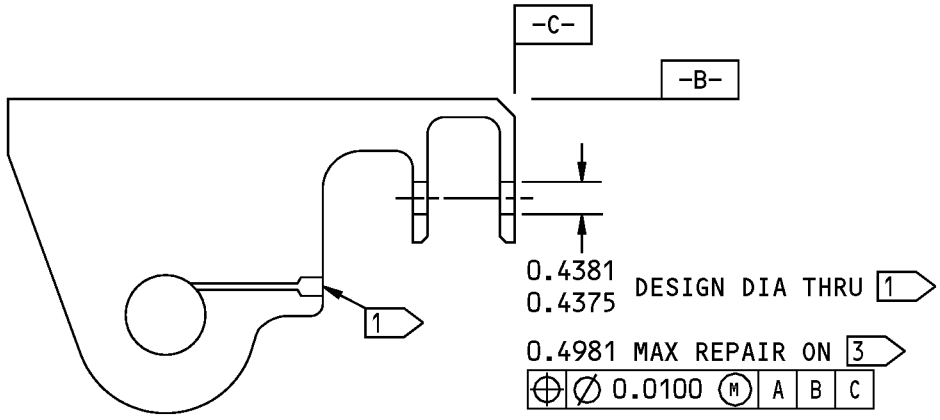
(5) Install the bushings REPAIR 10-1.



113A1553-3,-103 Fitting Repair
Figure 601 (Sheet 1 of 2)



B–B



C–C

1 DO NOT SHOT PEEN THESE HOLES.

2 CLEAN THIS SURFACE BY THE ABRASIVE BLAST METHODS AND THEN APPLY BMS 10-11, TYPE 1 PRIMER (F-20.02).

3 LIMIT FOR INSTALLATION OF OVERSIZE BUSHINGS.

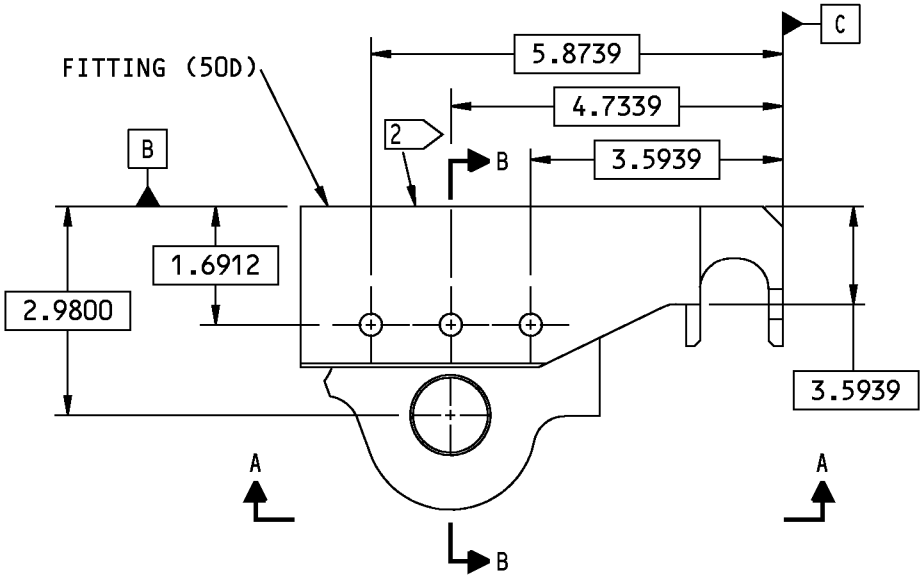
125 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

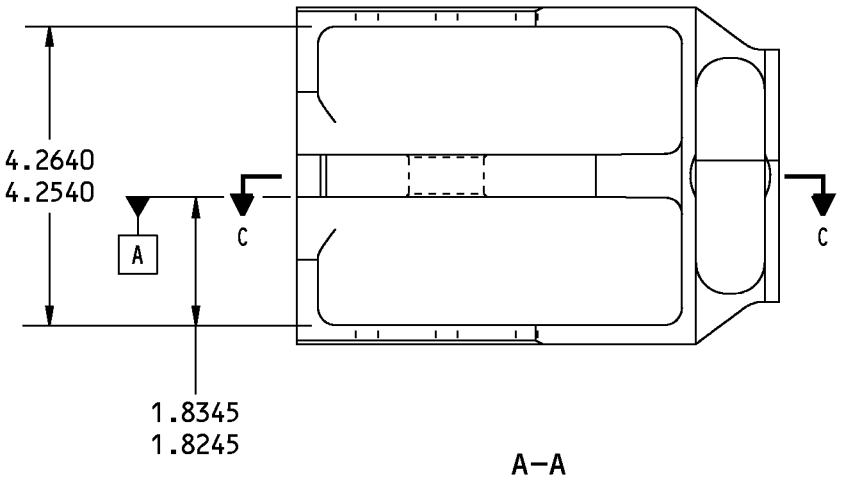
BREAK ALL SHARP EDGES

ITEM NUMBERS REFER TO IPL FIG. 7

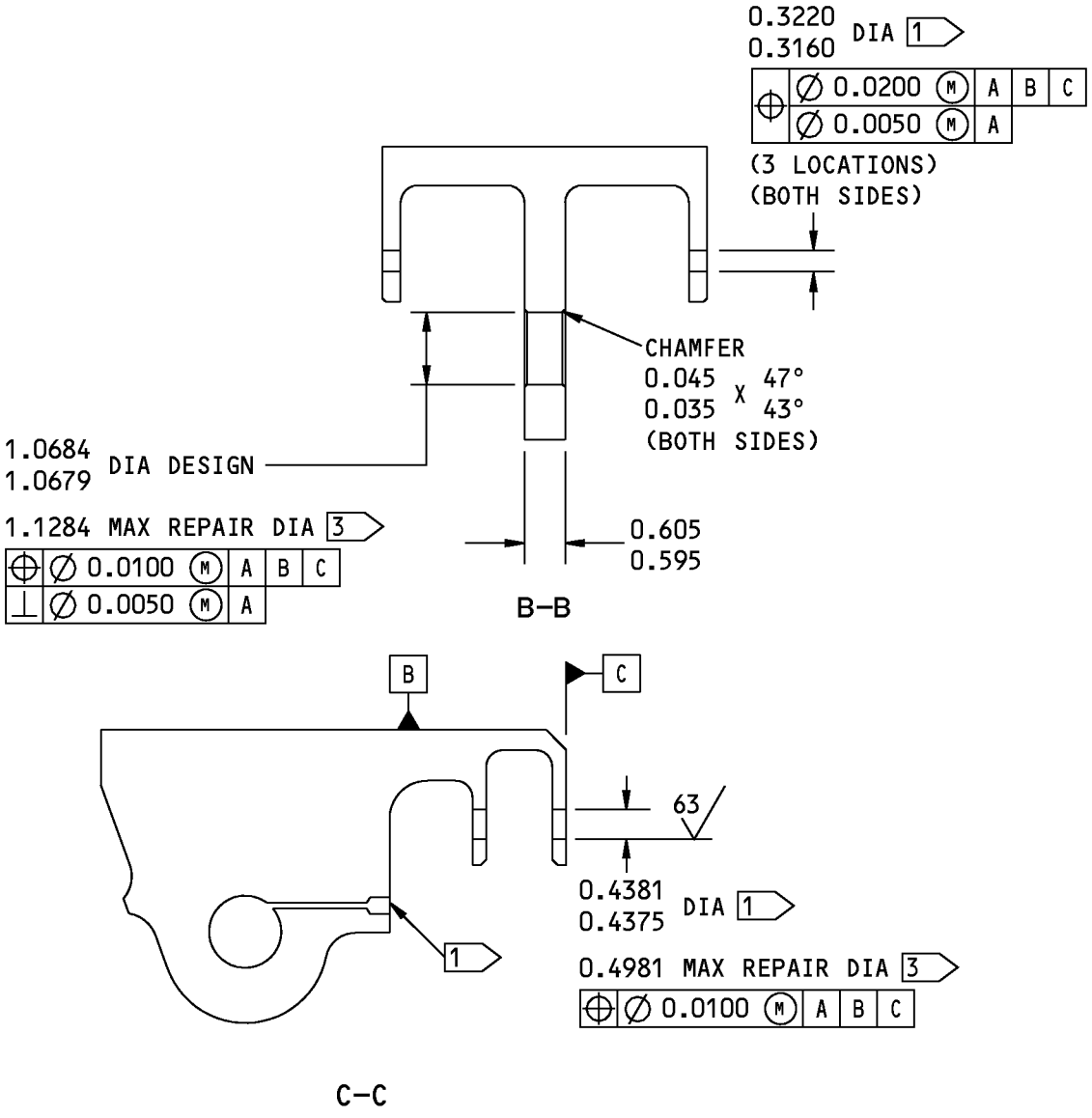
ALL DIMENSIONS ARE IN INCHES

113A1553-3,-103 Fitting Repair
Figure 601 (Sheet 2 of 2)





113A1553-201 Fitting Repair
Figure 602 (Sheet 1 of 2)



1 DO NOT SHOT PEEN THESE HOLES.

2 CLEAN THIS SURFACE BY THE ABRASIVE BLAST METHODS AND THEN APPLY BMS 10-11, TYPE 1 PRIMER (F-20.02).

3 LIMIT FOR INSTALLATION OF OVERSIZE BUSHINGS.

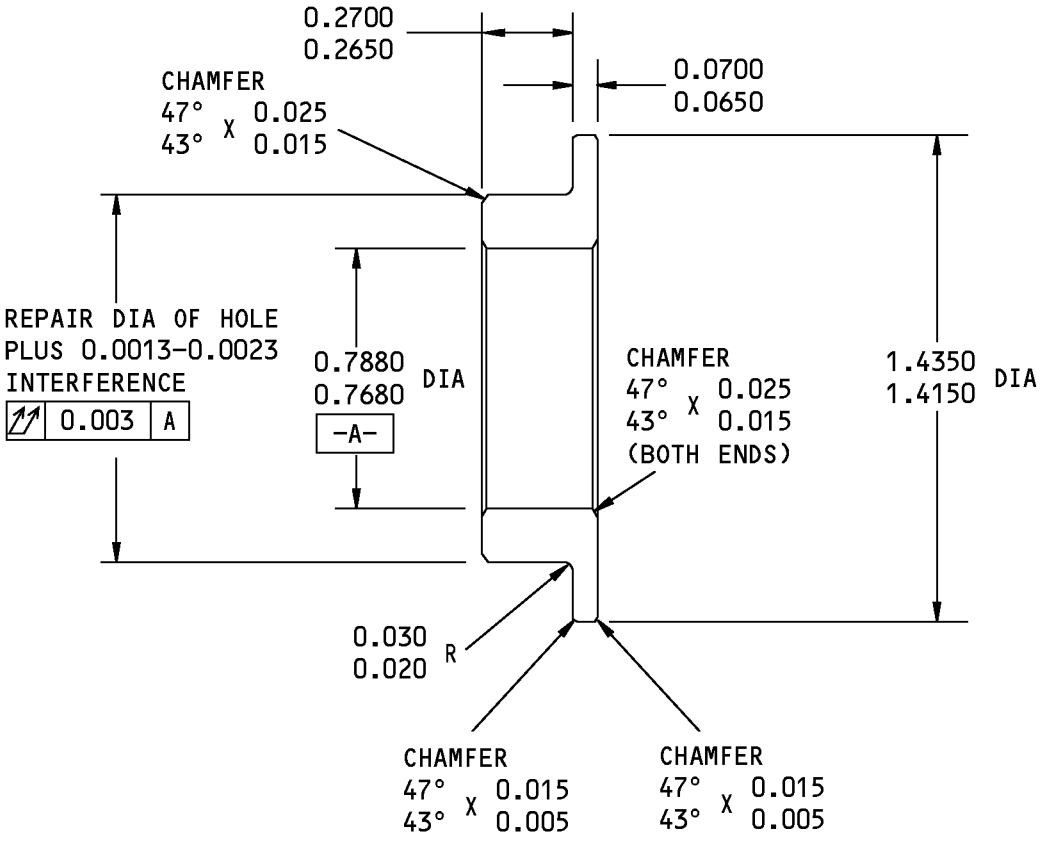
125 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

BREAK ALL SHARP EDGES

ITEM NUMBERS REFER TO IPL FIG. 7

ALL DIMENSIONS ARE IN INCHES

113A1553-201 Fitting Repair
Figure 602 (Sheet 2 of 2)



63 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

BREAK ALL SHARP EDGES

FINISH: NO FINISH

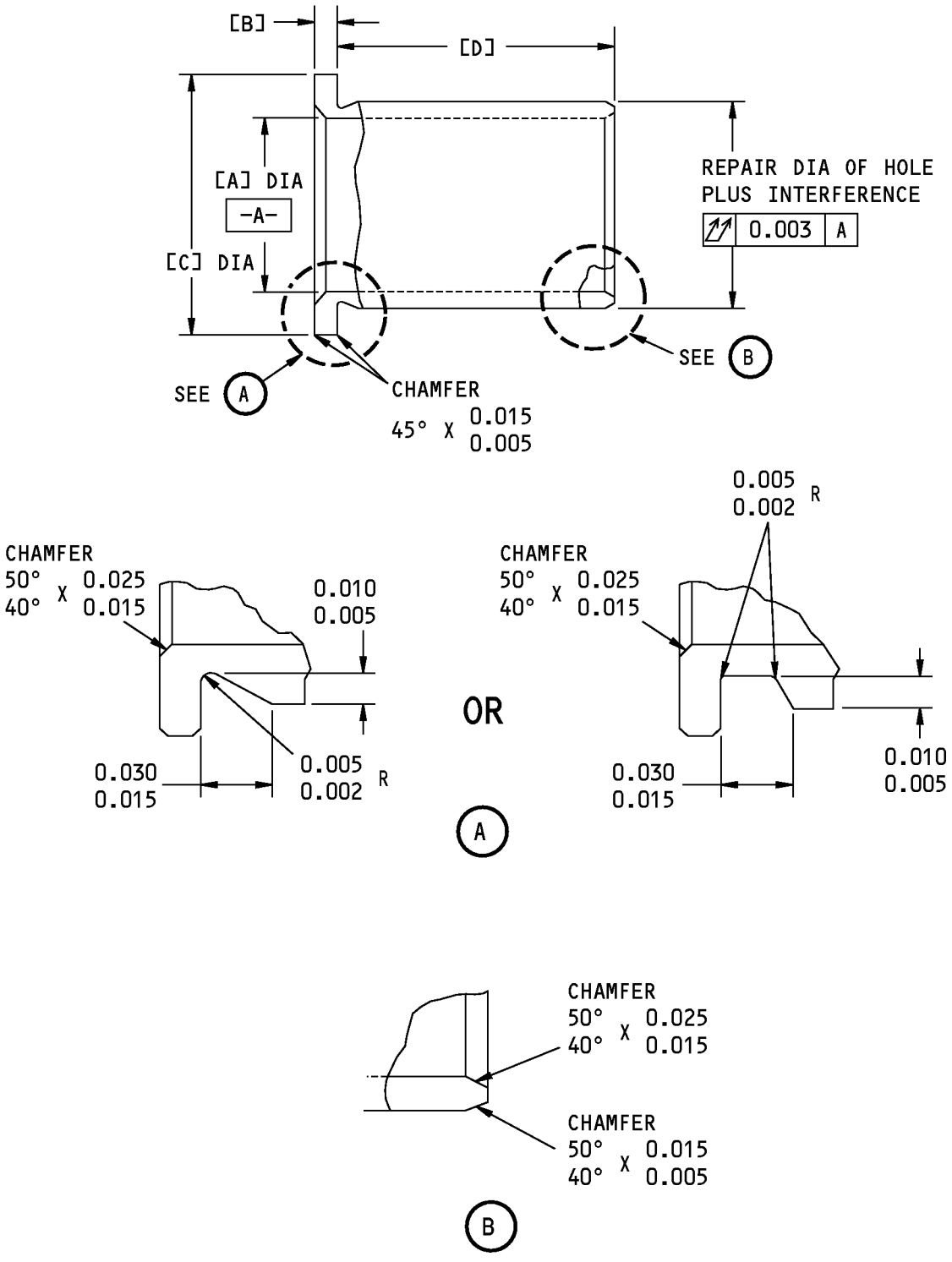
MATERIAL: CU-BE (AMS 4535 OR AMS 4533 OR AMS 4650) (HEAT TREAT AMS 4650 TO "AT" TEMPER, CONDITION TF00, Rc 36 MINIMUM)

ITEM NUMBERS REFER TO IPL FIG. 1

ALL DIMENSIONS ARE IN INCHES

REPLACES BUSHING (IPL FIG. 7; 40B) 113A1240-8

Oversize Bushing Details
Figure 603



REPLACES BUSHING (IPL FIG. 7; 45) BACB28AT05B019A

Oversize Bushing Details
Figure 604 (Sheet 1 of 2)

[A]	[B]	[C]	[D]	INTERFERENCE
0.303 0.297	0.065 0.060	0.560 0.550	0.190 0.185	0.0014 0.0003

63 ALL MACHINED SURFACES

BREAK ALL SHARP EDGES

FINISH: NO FINISH

MATERIAL: ALUMINUM-BRONZE (AMS 4640)

ALL DIMENSIONS APPLY AFTER PLATING, BUT THE BORE IS NOT PLATED

ITEM NUMBERS REFER TO IPL FIG. 1

ALL DIMENSIONS ARE IN INCHES

REPLACES BUSHING (IPL FIG. 7; 45) BACB28AT05B019A

Oversize Bushing Details
Figure 604 (Sheet 2 of 2)

ATTACH FITTING REPAIR 11-1

113A1717–1, –2

1. General

A. This procedure has the data necessary to replace the bushings on the attach fitting assembly (40, 45).

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 14 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

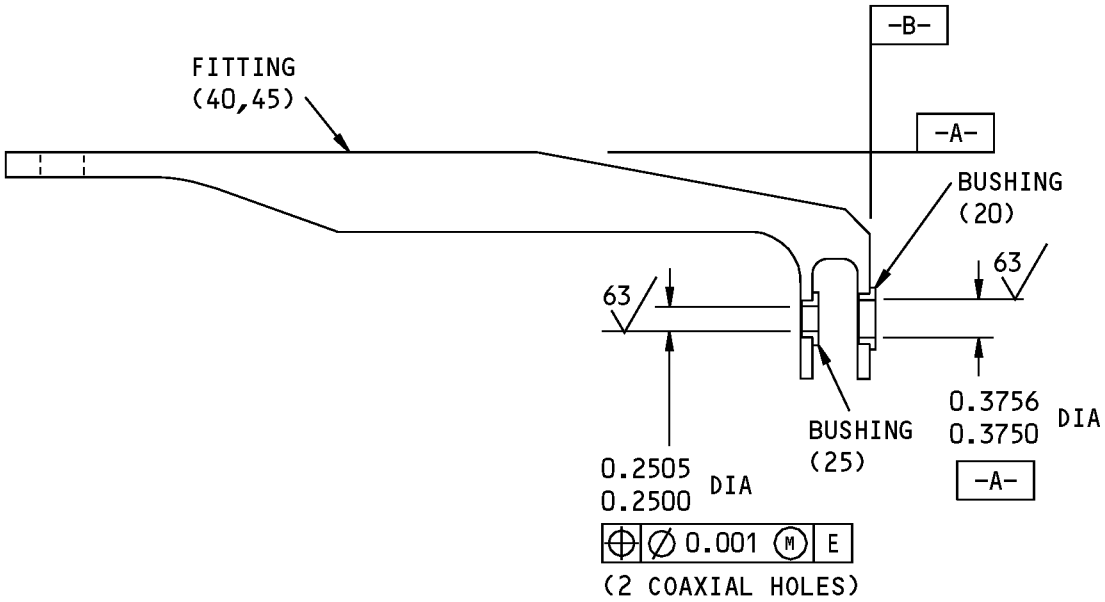
C. Procedure

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

(1) Remove the bushings from the attach fitting (40, 45).

(2) Install the bushings (20, 25) with the wet sealant, A00247 using the shrink-fit method (SOPM 20-50-03).

(3) Machine the ID of the bushings (20, 25) to the dimensions shown in REPAIR 11-1, Figure 601.



113A1717-1 SHOWN
113A1717-2 OPPOSITE

125 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

BREAK ALL SHARP EDGES

ITEM NUMBERS REFER TO IPL FIG. 14

ALL DIMENSIONS ARE IN INCHES

113A1717-1,-2 Attach Fitting Repair
Figure 601

ATTACH FITTING REPAIR 11-2

113A1717–3, –4

1. General

A. This procedure has the data necessary to repair and refinish the attach fitting (40, 45).

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 14 for item numbers.

E. General repair details:

(1) Material: CRES, per AMS 5659, 180-200 ksi

(2) Shot peen: All the surfaces, except in the holes identified in REPAIR 11-2, Figure 601.

(a) Intensity 0.006A-0.011A

(b) Coverage 1.0 automatic or 2.0 manual

(c) Overspray is permitted.

2. Attach Fitting Repair

A. Procedure (REPAIR 11-2, Figure 601)

(1) Machine the holes, for the bushings, in the attach fitting (40, 45) to remove defects; to the repair limit as shown in REPAIR 11-2, Figure 601.

(2) Do a magnetic particle check (SOPM 20-20-01).

(3) Shot peen the attach fitting (40, 45) (SOPM 20-10-03).

(a) Obey the flagnote in REPAIR 11-2, Figure 601.

3. Attach Fitting 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

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. Procedure (REPAIR 11-2, Figure 601)

NOTE: For stripping of protective finishes, refer to SOPM 20-30-02. For general cleaning procedures, refer to SOPM 20-30-03. For the decoding table for Boeing finish codes, refer to SOPM 20-41-01. For finishing materials, refer to SOPM 20-60-02.

(1) Put a finish on the attach fitting (40, 45).

(a) Apply cadmium plate to the attach fitting (40, 45), (F-16.06).

(b) Apply primer, C00259 (F-20.03).

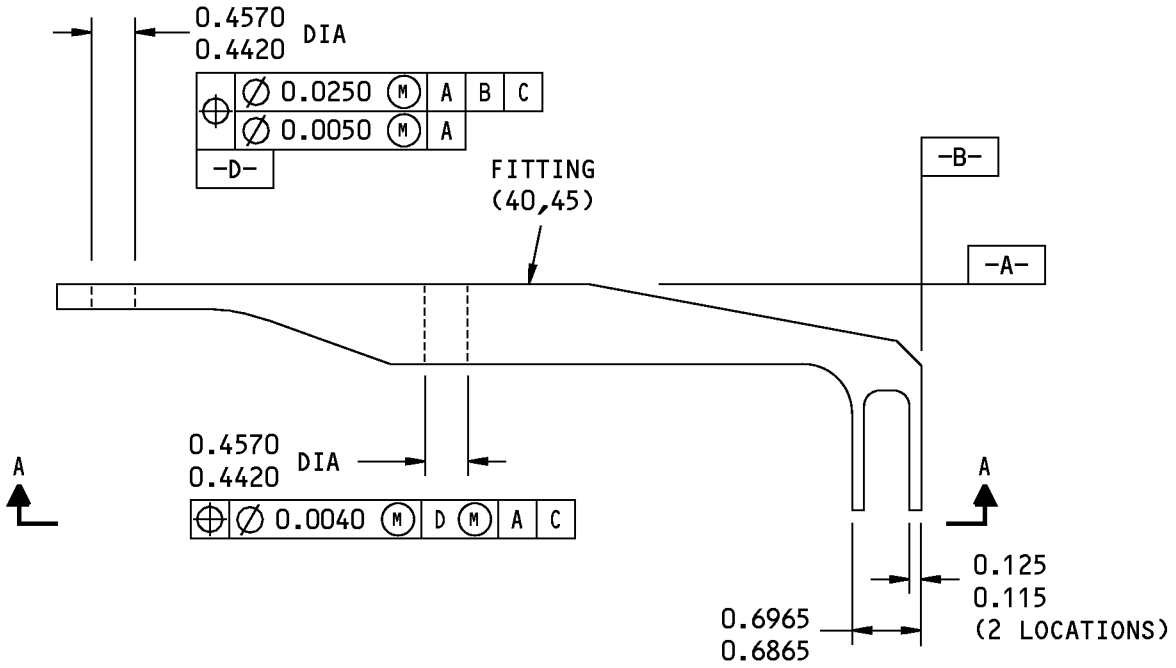
1) Obey the flagnote in REPAIR 11-2, Figure 601.

4. Manufacture of Oversize Bushing

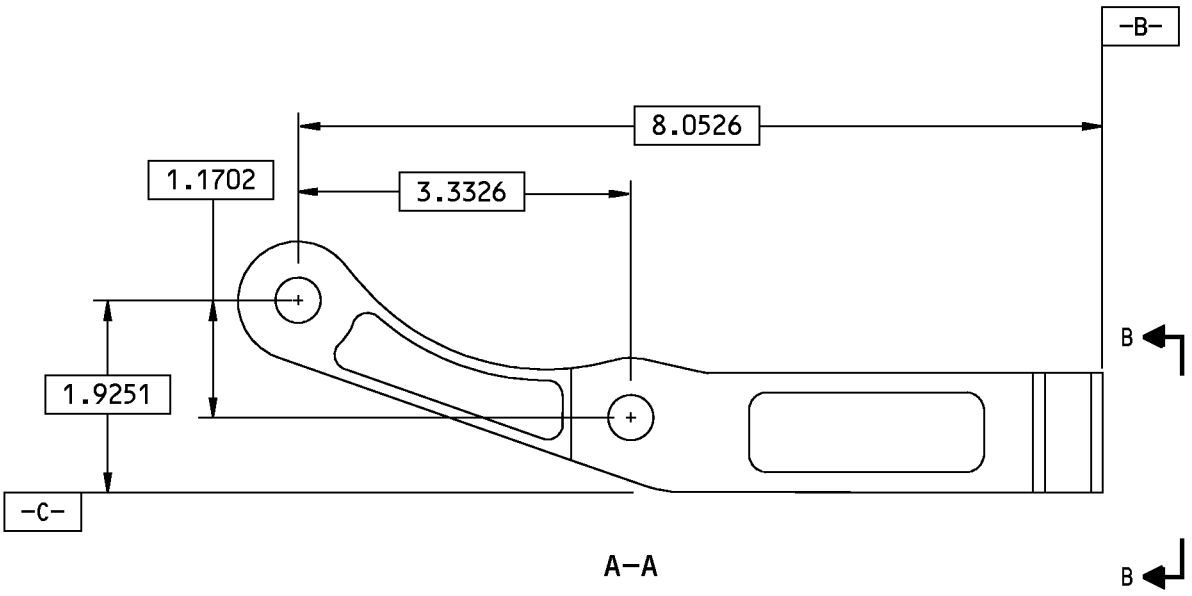
A. Procedure

(1) Manufacture the oversize bushing as shown in REPAIR 11-2, Figure 602 to adjust for the material removed in REPAIR 11-2, Paragraph 2.A.(1).

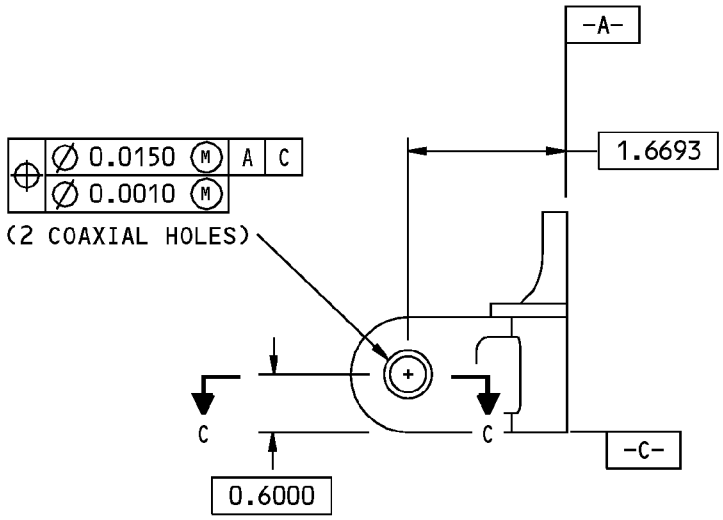
(2) Install the oversize bushing as shown in .



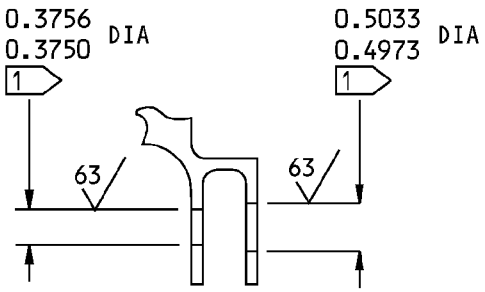
113A1717-3 SHOWN
113A1717-4 OPPOSITE



113A1717-3,-4 Attach Fitting Repair
Figure 601 (Sheet 1 of 2)



B–B



C–C

1 NO SHOT PEEN OR PRIMER IN THESE HOLES.

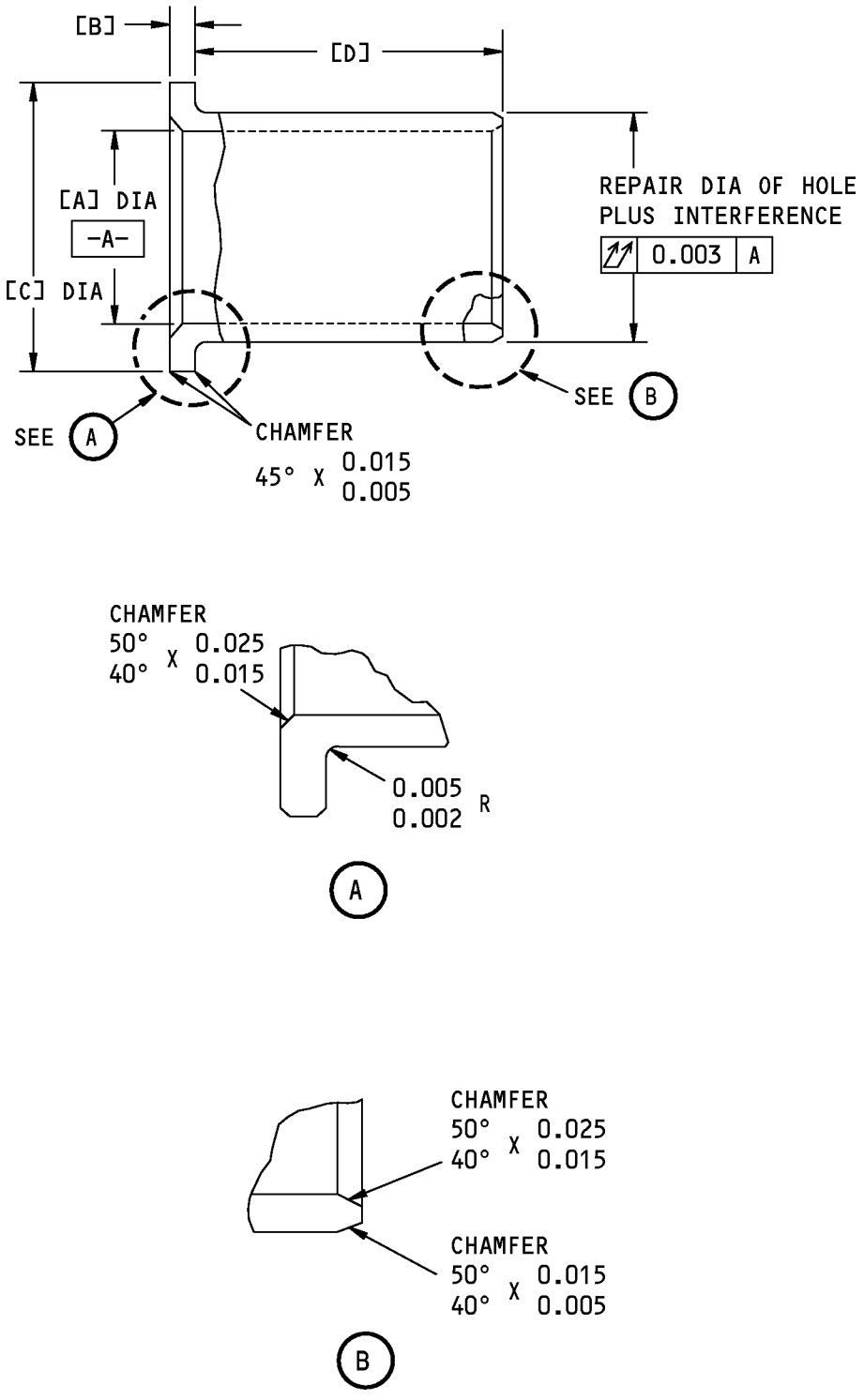
125 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

BREAK ALL SHARP EDGES

ITEM NUMBERS REFER TO IPL FIG. 14

ALL DIMENSIONS ARE IN INCHES

113A1717-3,-4 Attach Fitting Repair
Figure 601 (Sheet 2 of 2)



Oversize Bushing Details
Figure 602 (Sheet 1 of 2)

REPLACES BUSHING (IPL FIG. 14)	[A]	[B]	[C]	[D]	INTER-FERENCE	MATERIAL	FINISH
(25) BACB28AP04-011	0.241 0.234	0.065 0.060	0.540 0.530	0.110 0.105	0.0014 0.0003	3	1
(20) BACB28AT06B011A	0.366 0.359	0.065 0.060	0.630 0.620	0.110 0.105	0.0015 0.0004	4	2

1 PASSIVATE (F-17.25)

2 NO FINISH

3 15-5PH CRES (AMS 5659), OR 17-4PH CRES (AMS 5643), Rc 32-37

4 ALUMINUM-BRONZE (AMS 4640)

63 ALL MACHINED SURFACES

BREAK ALL SHARP EDGES

FINISH: AS SHOWN BY 1 2

MATERIAL: AS SHOWN BY 3 4

ITEM NUMBERS REFER TO IPL FIG. 14

ALL DIMENSIONS ARE IN INCHES

Oversize Bushing Details
Figure 602 (Sheet 2 of 2)

TRANSMISSION ATTACH FITTING REPAIR 12-1

113A1720–1, –2, –11, –12

1. General

A. This procedure has the data necessary to replace the bushings on the attach fitting assembly (1, 5).

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 8 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

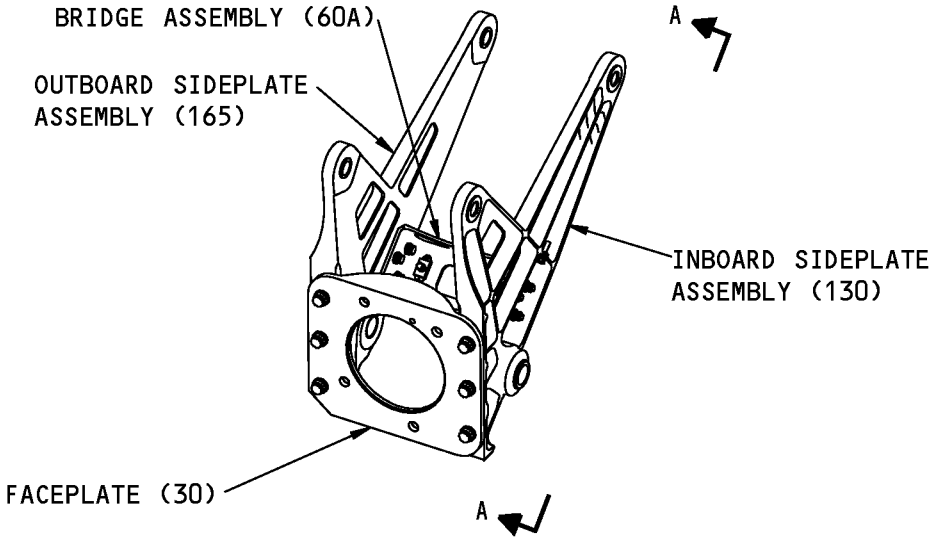
Reference	Title
SOPM 20-50-03	BEARING AND BUSHING REPLACEMENT

C. Procedure

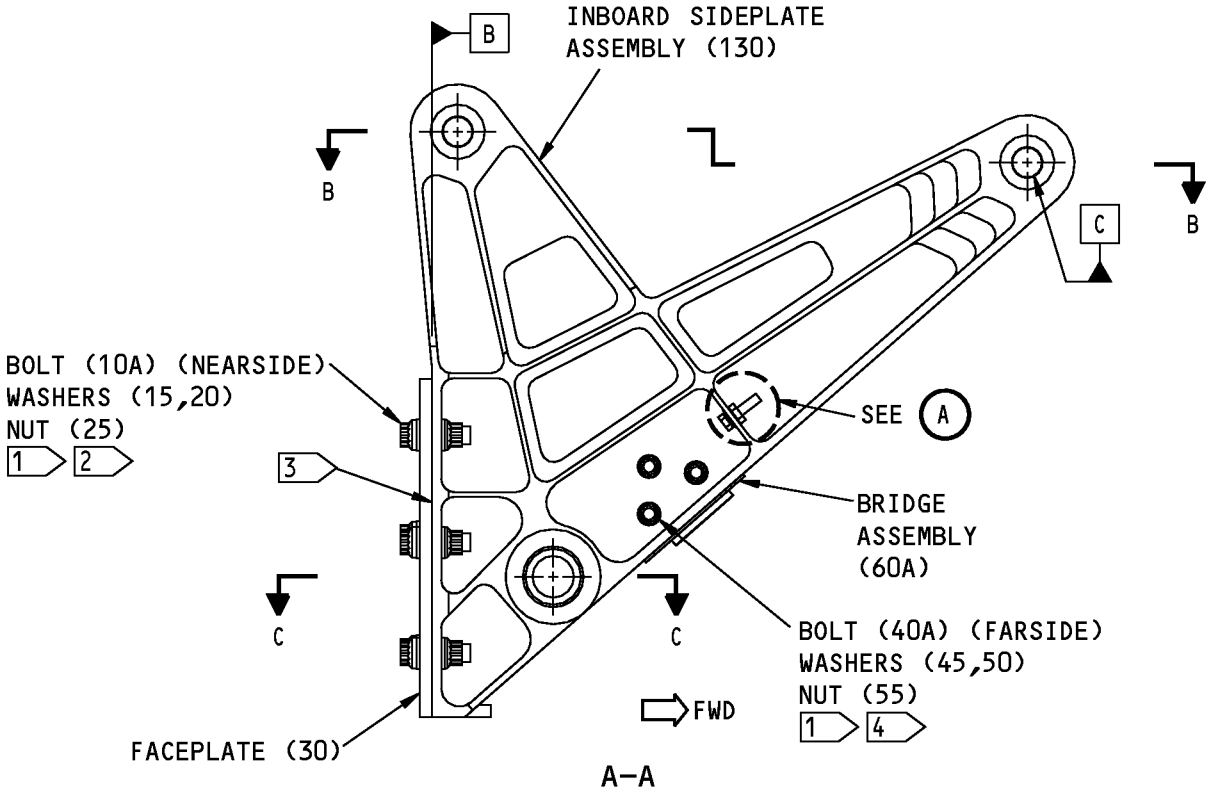
(1) Remove the bushings from the attach fitting (1, 5).

(2) Install the bushings (140, 150, 175, 185) with the wet sealant, A00247 using the shrink-fit method (SOPM 20-50-03).

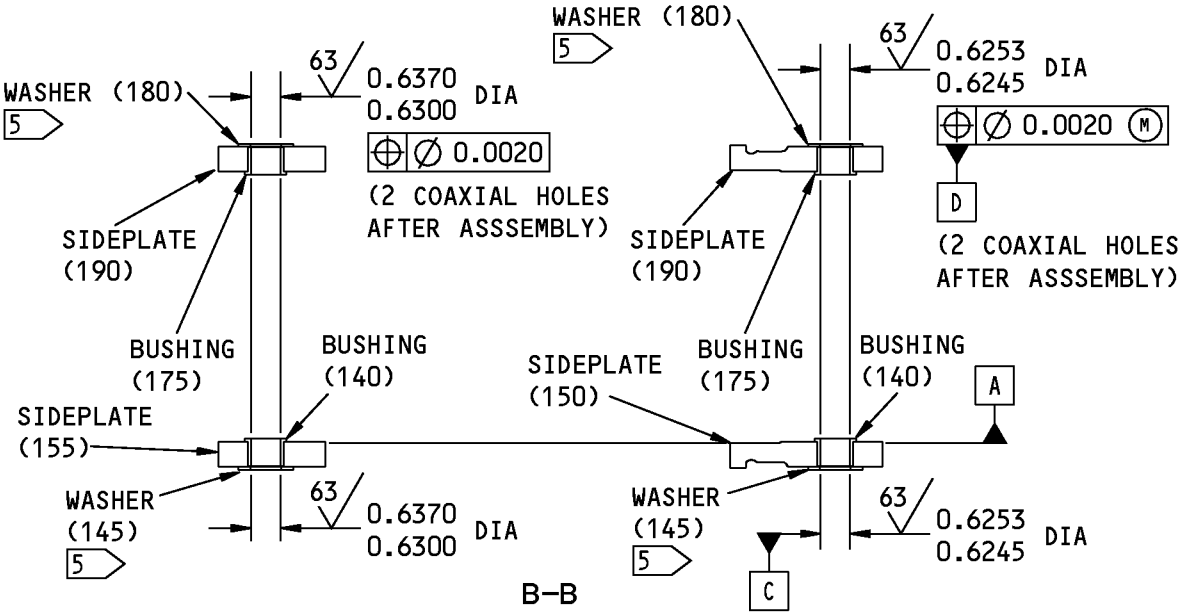
(3) Machine the ID of the bushings (140, 150, 175, 185) to the dimensions shown REPAIR 12-1, Figure 601.

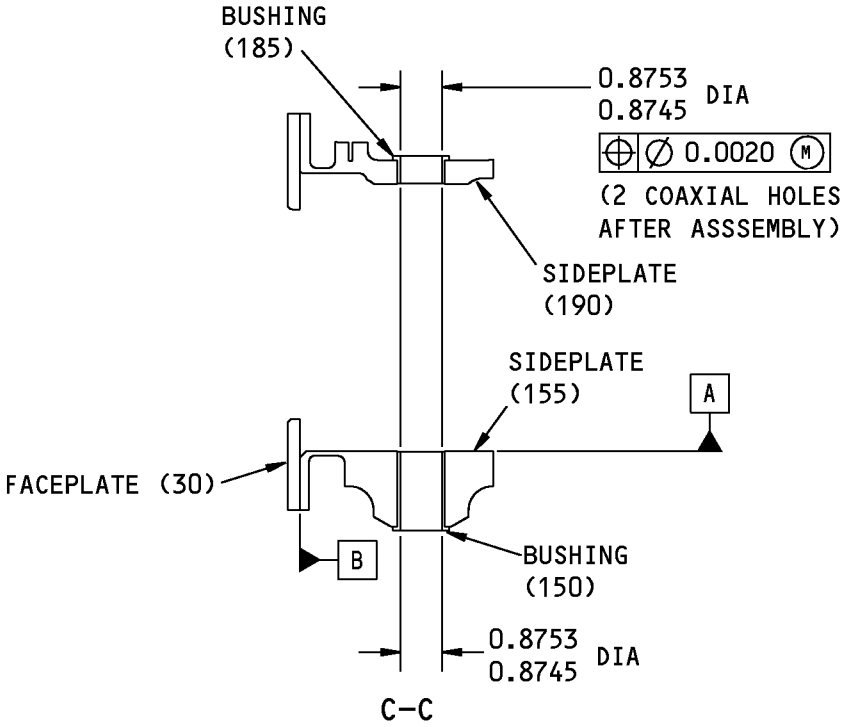


113A1720-11 SHOWN
113A1720-12 OPPOSITE

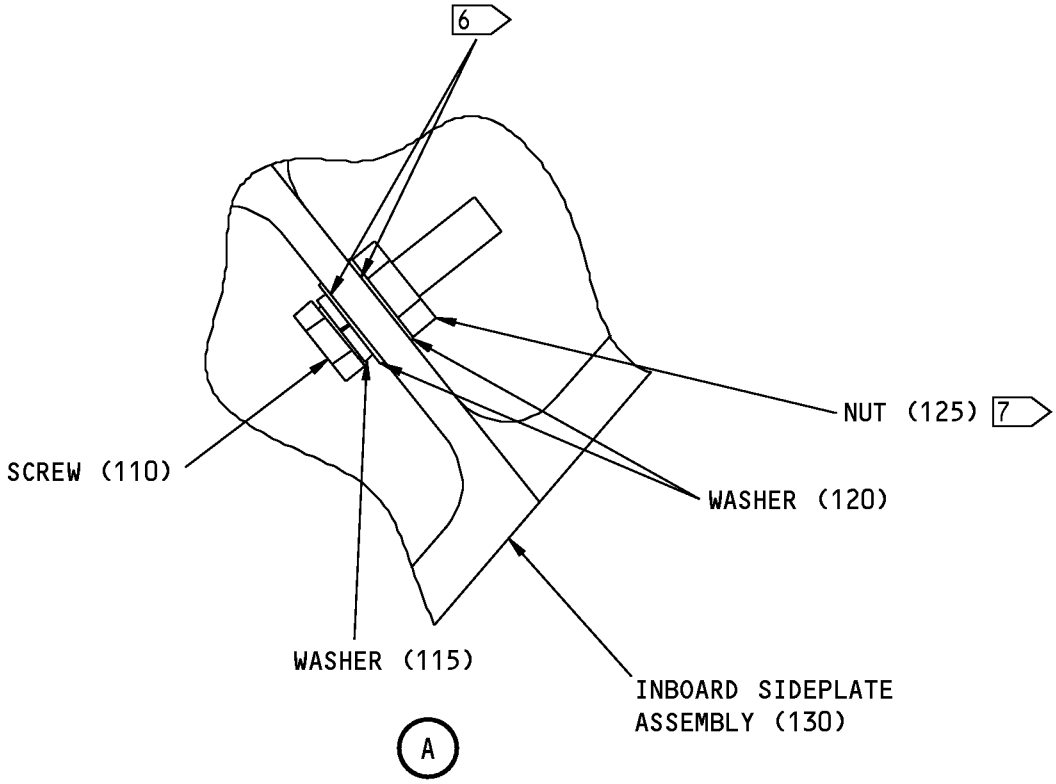


113A1320-1,-2,-11,-12 Transmission Attach Fitting Assembly Parts Replacement
Figure 601 (Sheet 1 of 3)





113A1320-1,-2,-11,-12 Transmission Attach Fitting Assembly Parts Replacement
Figure 601 (Sheet 2 of 3)



1 > INSTALL WITH BMS 5-95 SEALANT (SOPM 20-50-19, METHOD 2)

2 > TIGHTEN NUTS TO 220-410 POUND-INCHES, OR TIGHTEN BOLTHEADS TO 369-451 POUND-INCHES

3 > FAY SURFACE SEAL WITH BMS 5-95 SEALANT (SOPM 20-50-19)

4 > TIGHTEN NUTS TO 65-100 POUND-INCHES, OR TIGHTEN BOLTHEADS TO 90-110 POUND-INCHES

5 > BOND WITH TYPE 70 ADHESIVE. FILL THE GAP WITH ADHESIVE BETWEEN WASHER AND BUSHING

6 > ELECTRICAL BOND (SOPM 20-11-03). CLEAN BY METHOD CM1. CHEMICAL TREAT (F-17.28) BEFORE BONDING

7 > TIGHTEN THE NUT TO 25-30 POUND-INCHES

125 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

ITEM NUMBERS REFER TO IPL FIG. 8

ALL DIMENSIONS ARE IN INCHES

113A1320-1,-2,-11,-12 Transmission Attach Fitting Assembly Parts Replacement
Figure 601 (Sheet 3 of 3)

TRANSMISSION ATTACH FITTING REPAIR 12-2

113A1720–1, –2, –11, –12

1. General

A. This procedure has the data necessary to repair and refinish the attach fitting (1, 5).

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 8 for item numbers.

E. General repair details:

(1) Material: Aluminum alloy

(2) Shot peen: All the surfaces, except in the holes identified in REPAIR 12-2, Figure 601 and REPAIR 12-2, Figure 602.

(a) Intensity 0.006A-0.011A

(b) Coverage 1.0 automatic or 2.0 manual

(c) Overspray is permitted.

2. Sideplate Assembly (130,135,165,170) Repair

A. References

Reference	Title
SOPM 20-10-03	SHOT PEENING
SOPM 20-20-02	PENETRANT METHODS OF INSPECTION

B. Procedure (REPAIR 12-2, Figure 601, REPAIR 12-2, Figure 602)

(1) Machine the holes, for the bushings, in the sideplate fittings (155,160,190,195) to remove defects; to the repair limit as shown in REPAIR 12-2, Figure 601 and REPAIR 12-2, Figure 602.

(2) Do a penetrant check (SOPM 20-20-02).

(3) Shot peen the sideplate fittings (155,160,190,195) (SOPM 20-10-03).

(a) Obey the flagnote in REPAIR 12-2, Figure 601 and REPAIR 12-2, Figure 602.

(4) Manufacture the oversize bushing as shown in REPAIR 12-2, Figure 604 to adjust for the material removed in REPAIR 12-2, Paragraph 2.B.(1). For the holes for bushings (150,185), get an oversize equivalent of the bushing and adjust its OD to get a 0.0007-0.0019 inch interference fit with the oversize hole.

(5) Install the oversize bushing as shown in REPAIR 12-1, Paragraph 2.C.(2) and REPAIR 12-1, Paragraph 2.C.(3).

3. Bridge Assembly Repair (REPAIR 12-2, Figure 603)

A. Consumable Materials

NOTE: Equivalent substitutes may be used.

Reference	Description	Specification
A00247	Sealant - Pressure And Environmental - Chromate Type	BMS 5-95
C00913	Compound - Corrosion Inhibiting Material, Nondrying Resin Mix	BMS 3-27

B. Procedure

(1) Remove rivets and defective nutplates. Install replacement nutplates with new rivets (70) with sealant, A00247.

(2) Remove bolts (85), collars (90) and defective plate (95). Refinish or replace the plate. Apply corrosion preventive compound, C00913 on the faying surface of plate (95). Install the plate with replacement bolts (85) and collars (90) with sealant, A00247 (F-19.48).

4. Component 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
C00700	Coating - Exterior Protective Enamel, Gray Gloss Enamel	BMS10-60, Type I, BAC 707

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. Faceplates (30,35). Material: Titanium alloy

NOTE: For stripping of protective finishes, refer to SOPM 20-30-02. For general cleaning procedures, refer to SOPM 20-30-03. For the decoding table for Boeing finish codes, refer to SOPM 20-41-01. For finishing materials, refer to SOPM 20-60-02.

(1) Phosphate treat (F-14.882).

(2) Apply primer, C00259 (F-20.02) but not in holes.

D. Bridge Assembly (60A,65A) (REPAIR 12-2, Figure 603)

(1) Serrated plate ((95). Material: 15-5PH CRES 180-200 ksi

(a) Cadmium plate (F-15.06)

(b) Apply primer, C00259 (F-20.02) and enamel coating, C00700 (F-14.9813, which replaces SRF-14.9813), but not on serrations or in holes.

(2) Fitting (100). Material: Aluminum alloy

(a) Boric acid-sulfuric acid anodize or chromic acid anodize (F-17.31)

(b) Apply primer, C00259 (F-20.03) but not in holes.

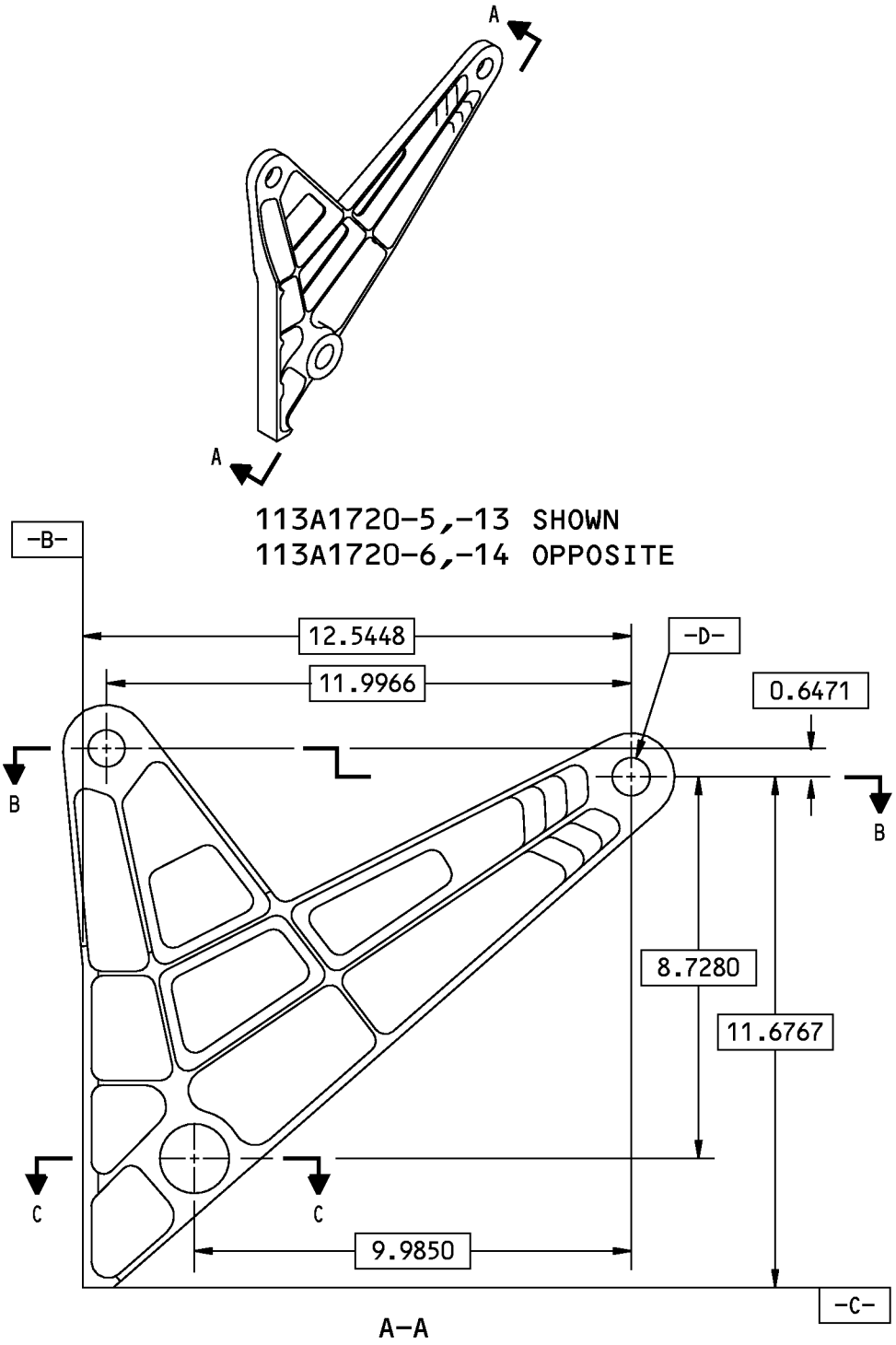
E. Sideplate (155,160,190,195) (REPAIR 12-2, Figure 601, REPAIR 12-2, Figure 602)

(1) Put a finish on the Sideplate (155,160,190,195). Material: Aluminum alloy..

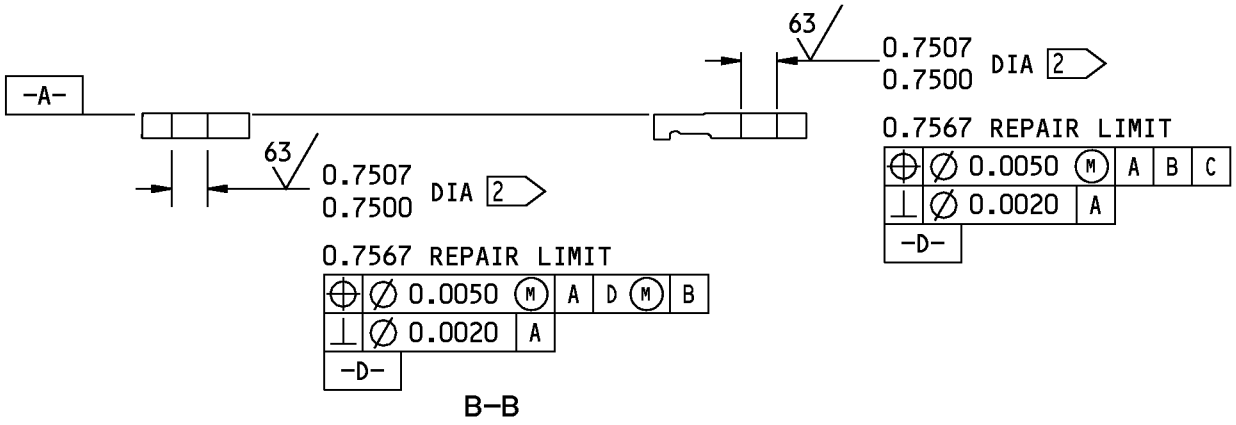
(a) Boric acid/sulfuric acid anodize or chromic acid anodize (F-17.31).

(b) Apply primer, C00259 (F-20.03).

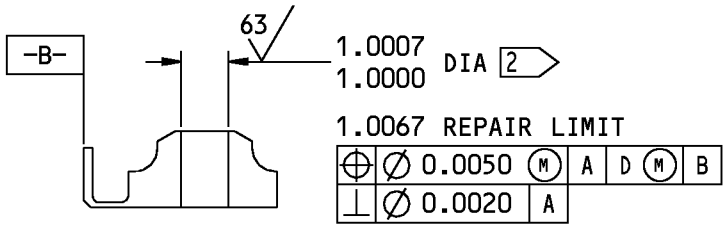
1) Obey the flagnote in REPAIR 12-2, Figure 601 and REPAIR 12-2, Figure 602.



113A1720-5,-6,-13,-14 Inboard Sideplate Repair and Refinish
Figure 601 (Sheet 1 of 2)



B–B



C–C

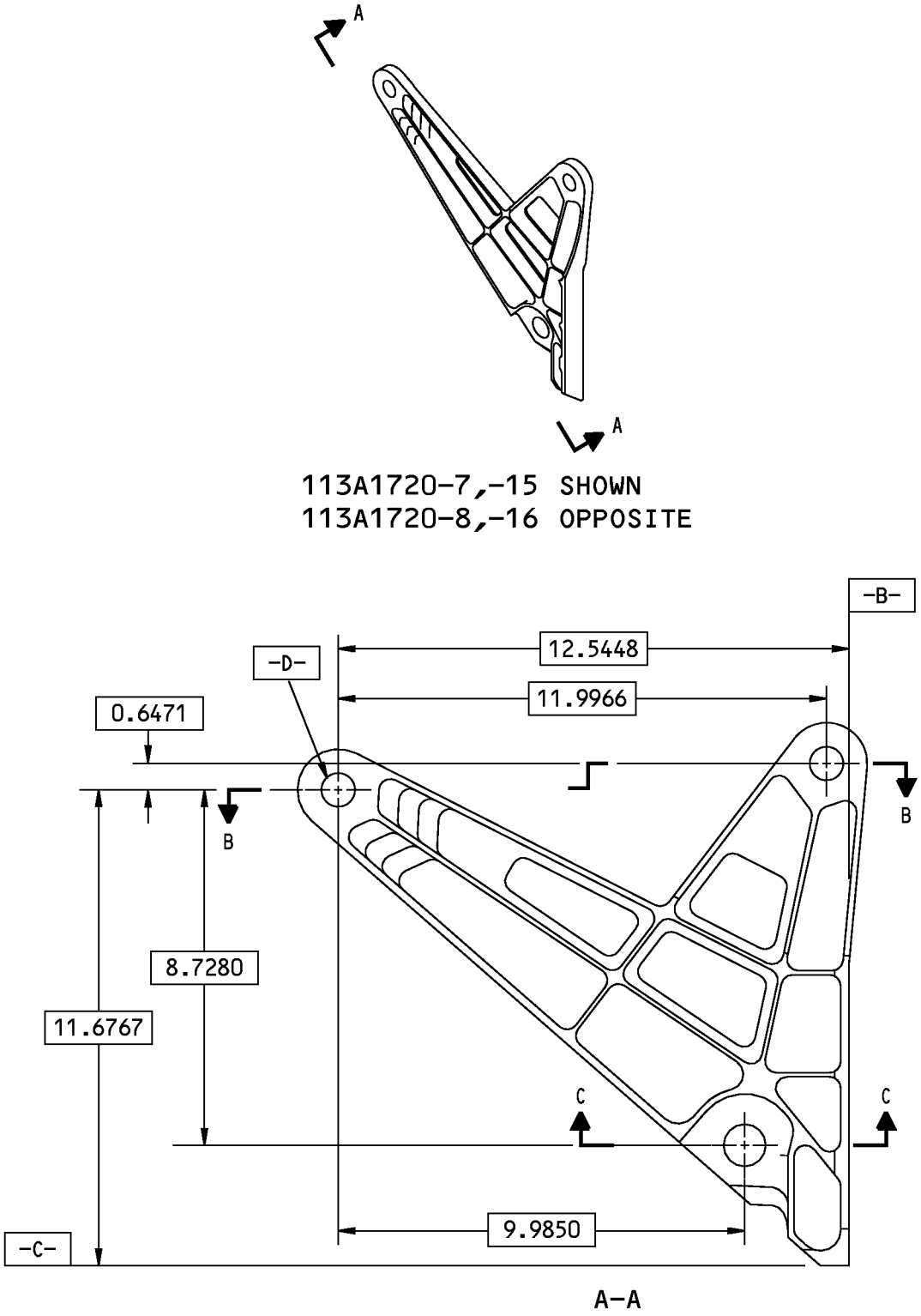
1 LIMIT FOR INSTALLATION OF OVERSIZE BUSHING

2 AFTER REAMING TO FINAL DIAMETER SHOT PEEN. INTENSITY 0.005A–0.12A, COVERAGE 1.0 AUTOMATIC 2.0 MANUAL. CHEMICAL TREAT (F–17.10)

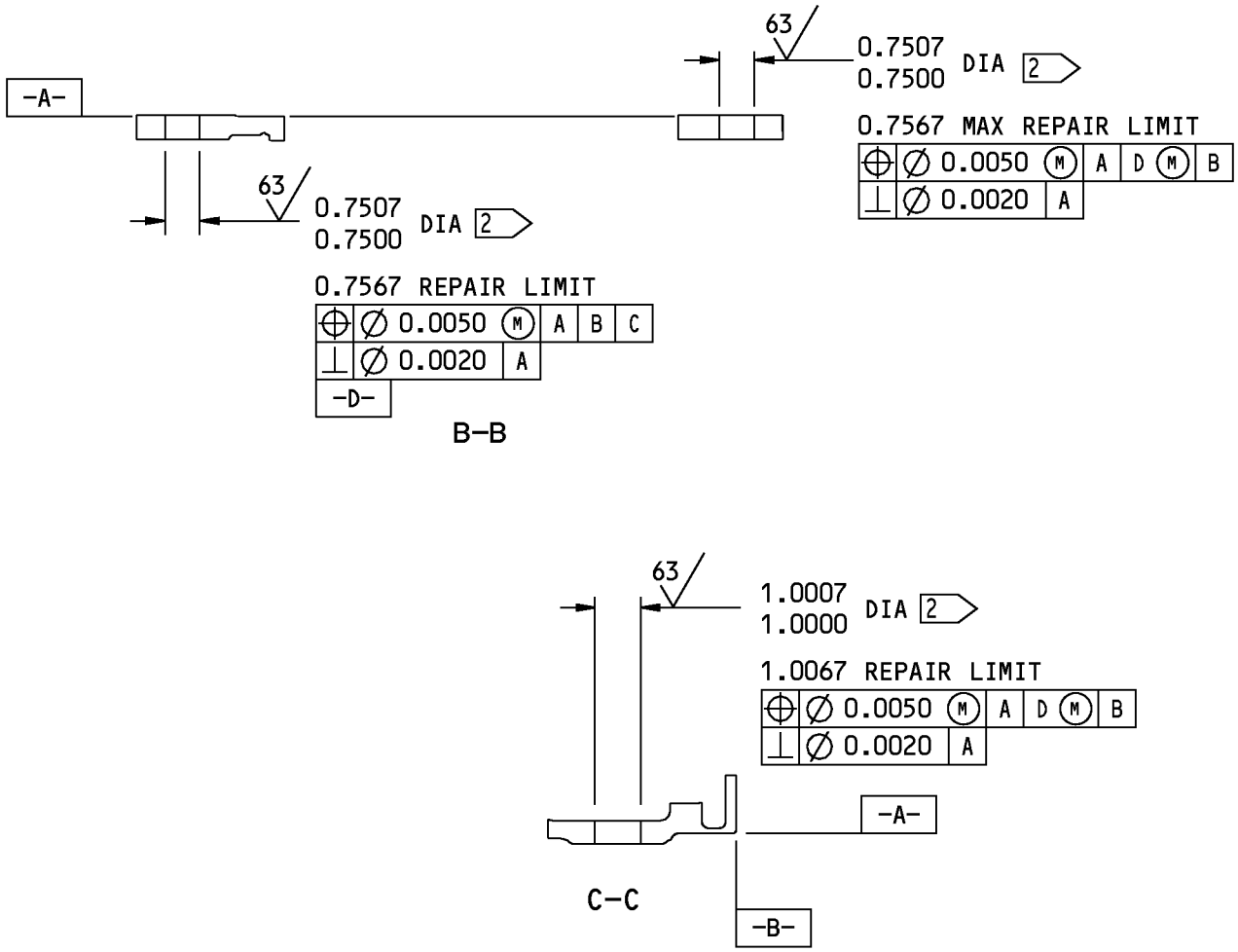
125 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

ALL DIMENSIONS ARE IN INCHES

113A1720-5,-6,-13,-14 Inboard Sideplate Repair and Refinish
Figure 601 (Sheet 2 of 2)



113A1720-7,-8,-13,-14 Outboard Sideplate Repair and Refinish
Figure 602 (Sheet 1 of 2)



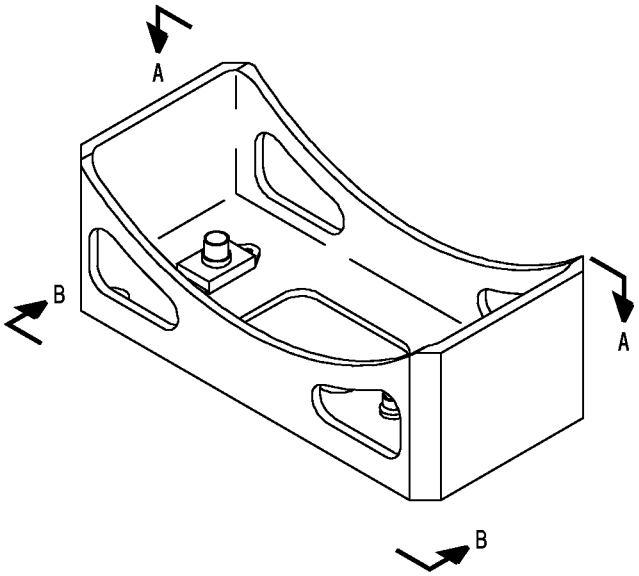
1 LIMIT FOR INSTALLATION OF OVERSIZE BUSHING

2 AFTER REAMING TO FINAL DIAMETER SHOT PEEN. INTENSITY 0.005A-0.12A, COVERAGE 1.0 AUTOMATIC 2.0 MANUAL CHEMICAL TREAT (F-17.10)

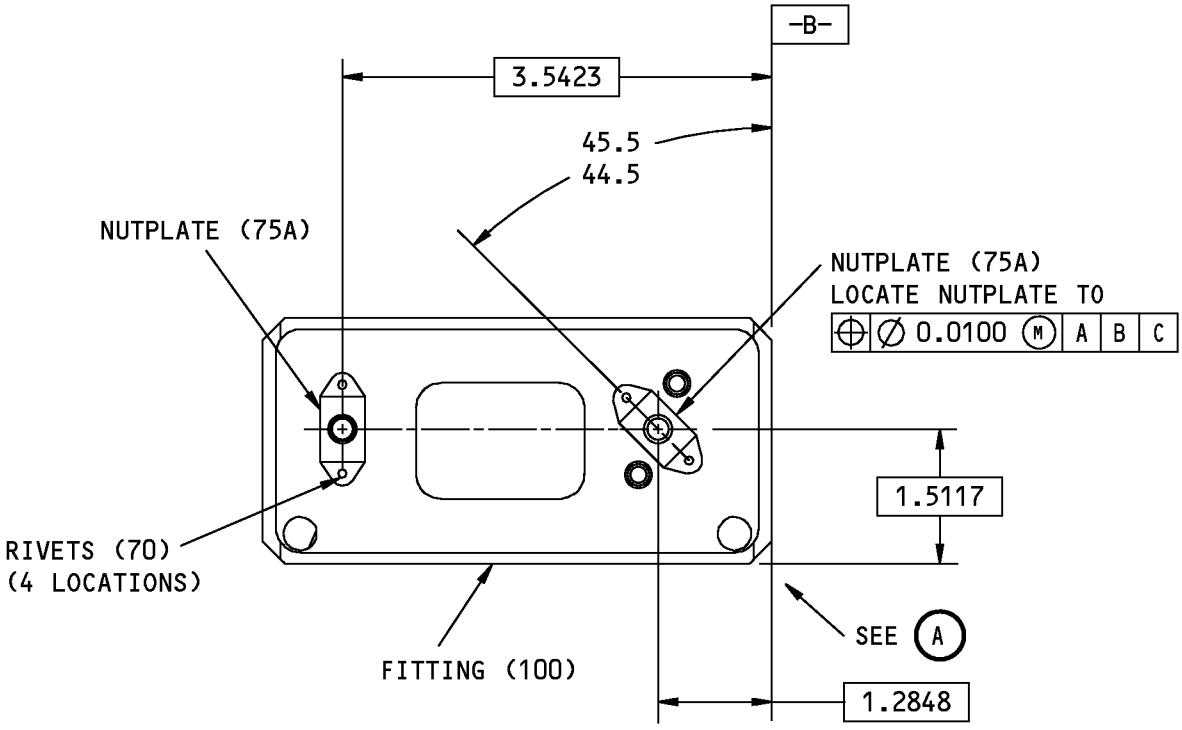
125 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

ALL DIMENSIONS ARE IN INCHES

113A1720-7,-8,-13,-14 Outboard Sideplate Repair and Refinish
Figure 602 (Sheet 2 of 2)

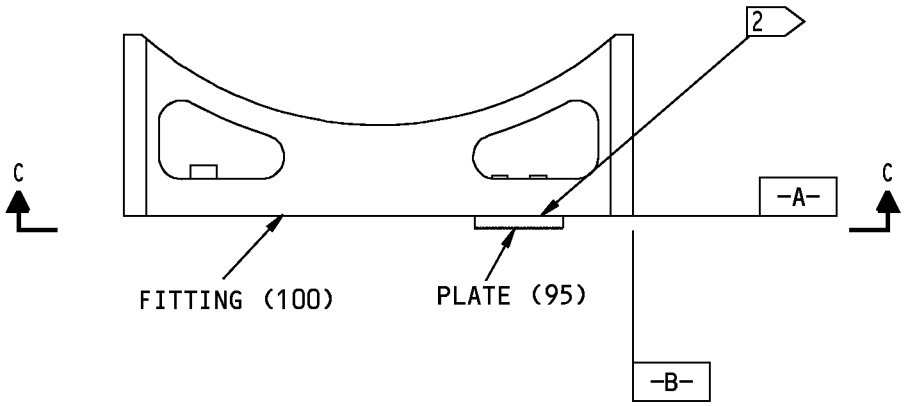


113A1720-9 SHOWN
113A1720-10 OPPOSITE

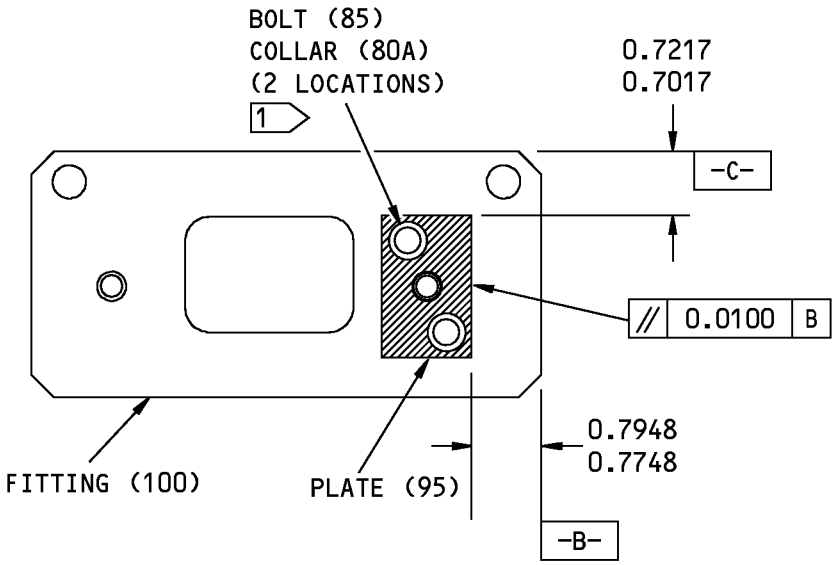


A-A

113A1720-9,-10 Bridge Assembly Parts Replacement
Figure 603 (Sheet 1 of 3)

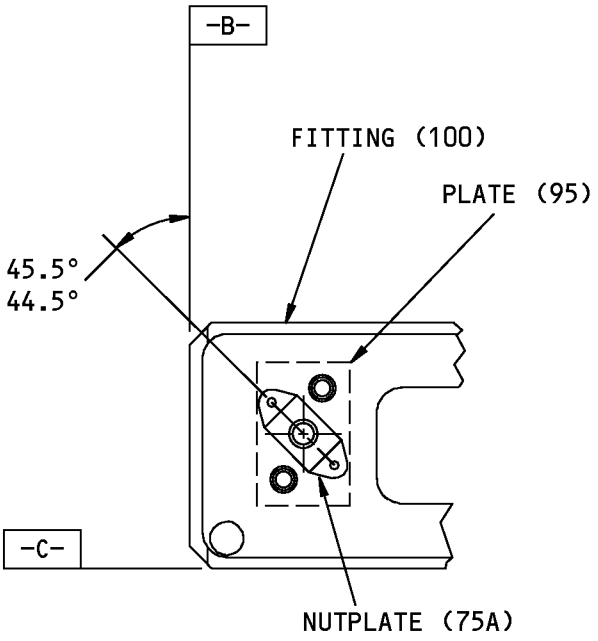


B–B



C–C

113A1720-9,-10 Bridge Assembly Parts Replacement
Figure 603 (Sheet 2 of 3)



113A1720-10 ONLY

(A)

1 INSTALL FASTENERS WITH BMS 5-95 SEALANT (SOPM 20-50-19 METHOD 2)

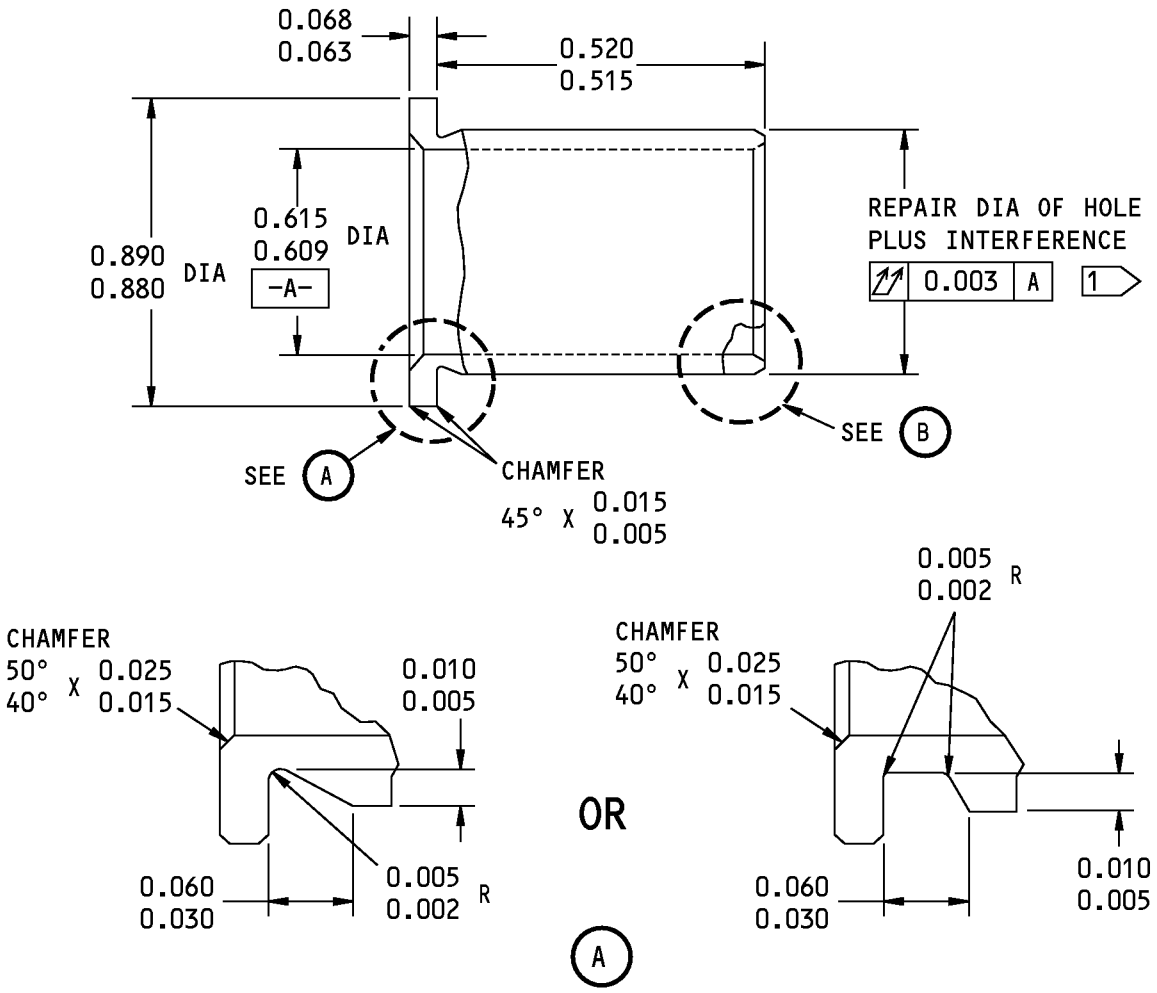
2 APPLY A THIN LAYER OF BMS 3-27 CORRISION PREVENTIVE COMPOUND TO THESE MATING SURFACES

125 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

ITEM NUMBERS REFER TO IPL FIG. 8

ALL DIMENSIONS ARE IN INCHES

113A1720-9,-10 Bridge Assembly Parts Replacement
Figure 603 (Sheet 3 of 3)



63 ALL MACHINED SURFACES

BREAK ALL SHARP EDGES

FINISH: PASSIVATE

MATERIAL: 15-5PH OR 17-4PH
CRES Rz 32-37

ITEM NUMBERS REFER TO IPL FIG. 8

ALL DIMENSIONS ARE IN INCHES

1 INTERFERENE 0.0007-0.0019 INCH

REPLACES BUSHING (IPL FIG. 8; 140,173) BACB28AT10D052C

Oversize Bushing Details
Figure 604

BOEING®

COMPONENT MAINTENANCE MANUAL

ATTACH FITTING ASSEMBLY - REPAIR 13-1

113A1750–7, –8, –105, –106, –201, –202

1. General

A. This procedure has the data necessary to replace the bushings on the attach fitting assembly (50).

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 9 for item numbers.

2. Disassembly

A. Remove nut (25), washers (20), and bolt (15).

B. Separate fitting assembly (30A) from fitting assembly (55,60).

3. Fitting Assembly (30A)

A. References

Reference	Title
SOPM 20-50-03	BEARING AND BUSHING REPLACEMENT

B. Bushing Replacement (REPAIR 13-1, Figure 601, REPAIR 13-1, Figure 602

(1) Remove the bushings from the attach fitting (50).

(2) If you find surfaces defects in fitting (50), refer to REPAIR 13-3.

(3) Install the bushings (40A, 45) using the shrink-fit method (SOPM 20-50-03).

(4) Machine the ID of the bushings (40A, 45) to the dimensions shown in REPAIR 13-1, Figure 601 or REPAIR 13-1, Figure 602.

4. Fitting Assembly (55,60)

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. Bushing Replacement (REPAIR 13-1, Figure 603)

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

(1) Press out the old bushing (75).

(2) If you find surfaces defects in fitting (80,85), refer to REPAIR 13-2.

(3) Install a replacement bushing (75) by the press-fit method (SOPM 20-50-03) with sealant sealant, A00247.

D. Nutplates (70)

(1) Remove rivets (65) and the bad nutplate.

(2) Install a replacement nutplate (70) with rivets (65).

5. Assemble the attach fitting assembly (1A, 5A).

A. Consumable Materials

NOTE: Equivalent substitutes may be used.

Reference	Description	Specification
D00015	Grease - Aircraft Bearing (Use BMS 3-24 until existing stocks are depleted, BMS 3-33 supersedes BMS 3-24)	BMS3-24 (Superseded by BMS 3-33)
D00633	Grease - Aircraft General Purpose	BMS3-33

B. References

Reference	Title
SOPM 20-60-03	LUBRICANTS

C. Procedure

NOTE: For lubricants, refer to SOPM 20-60-03.

(1) For fitting assemblies (1A,1B,5A,5B), apply a layer of grease, D00015 on the bolt (15) outside diameter and in the hole of the bushings (45). For fitting assemblies (1C,5C), apply a layer of grease, D00633 on the bolt (15) outside diameter and in the hole of the bushings (45).

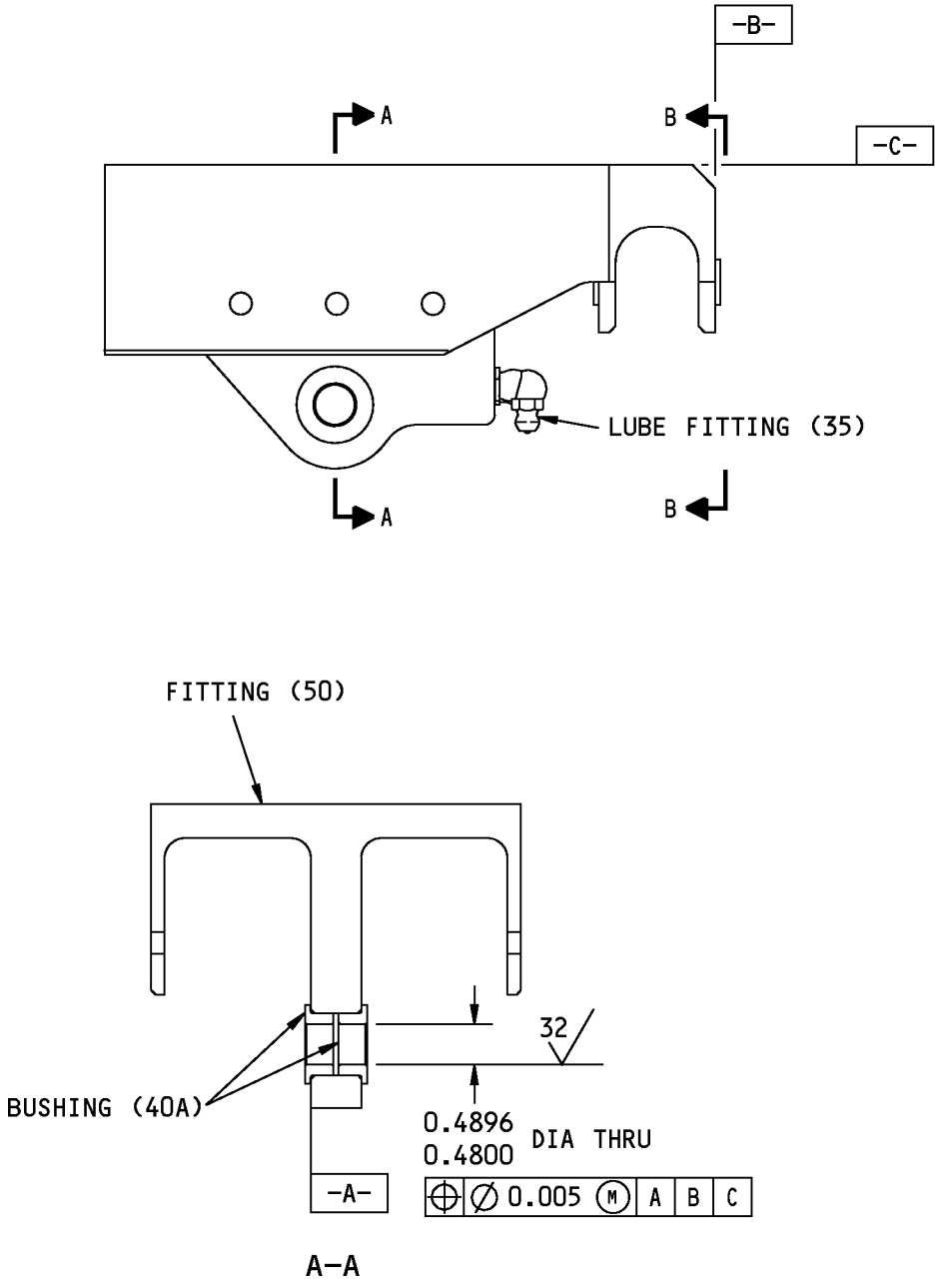
(2) Install the fitting assembly (30A) on the fitting assembly (55,60) with the bolt (15) and the washers (20).

(3) Wipe the excess grease from the threads of the bolt (15).

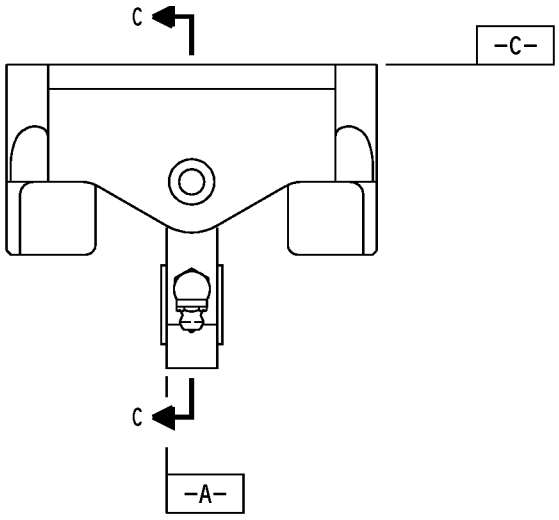
(4) Check that the run-on torque value of the nut (25) is between 6.5 and 60 pound-inches.

(5) Torque the nut (25) to a value that is 10 to 20 pound-inches higher than the run-on torque value.

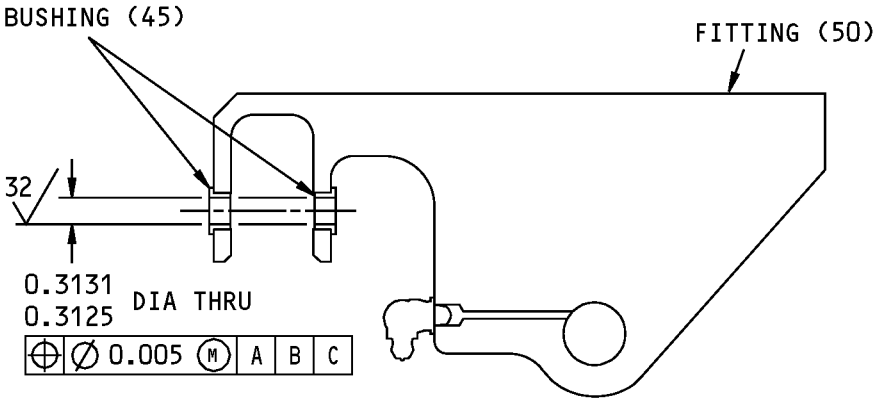
(6) Install the cotter pin (10) through the nut (25) and the bolt (15).



113A1750-9,-107 Forward Fitting Assembly Bushing Replacement
Figure 601 (Sheet 1 of 2)



B–B



C–C

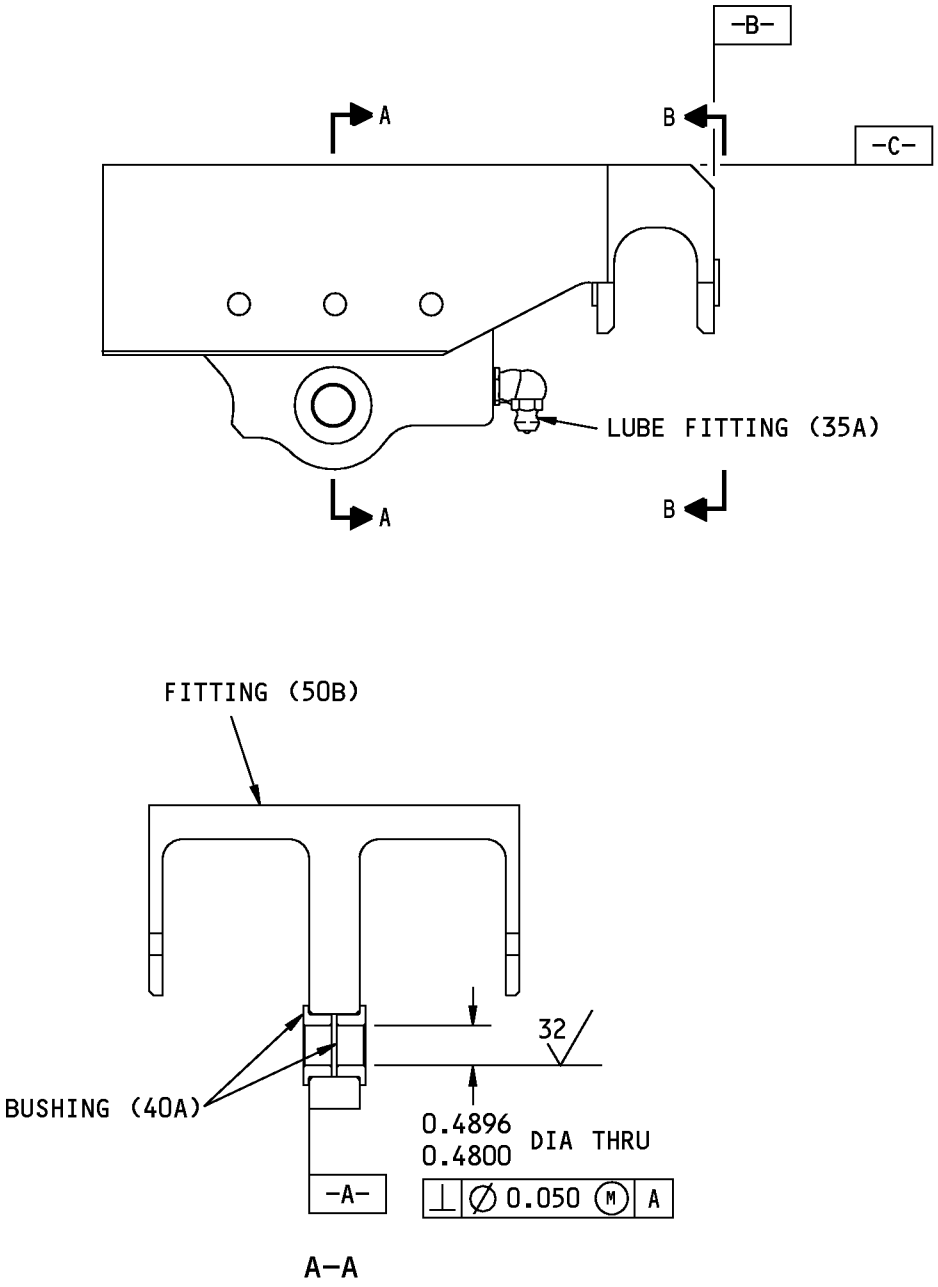
125 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

BREAK ALL SHARP EDGES

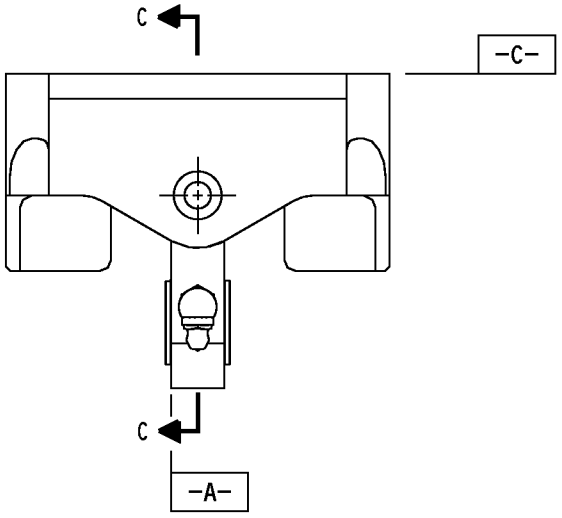
ITEM NUMBERS REFER TO IPL FIG. 9

ALL DIMENSIONS ARE IN INCHES

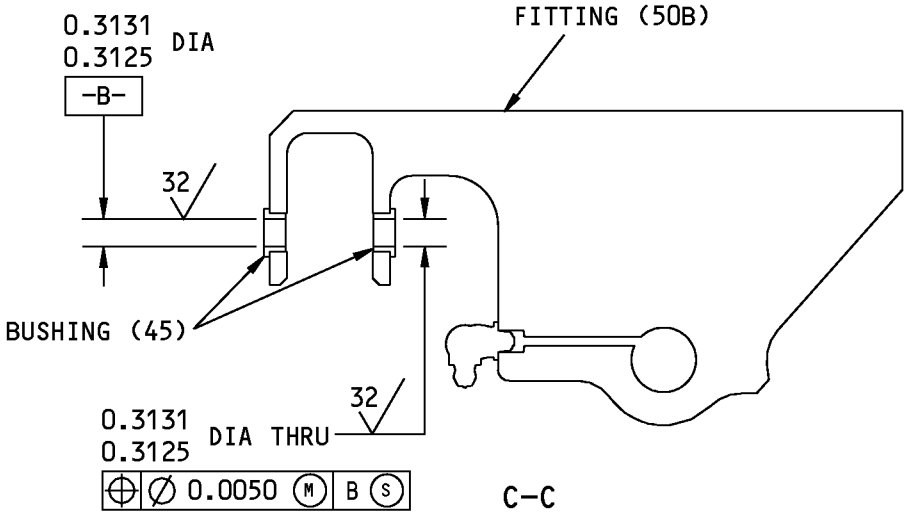
113A1750-9,-107 Forward Fitting Assembly Bushing Replacement
Figure 601 (Sheet 2 of 2)



113A1750-203 Forward Fitting Assembly Bushing Replacement
Figure 602 (Sheet 1 of 2)



B–B



C–C

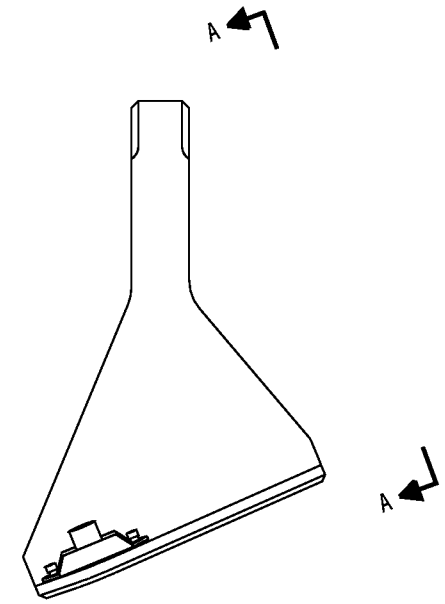
125 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

BREAK ALL SHARP EDGES

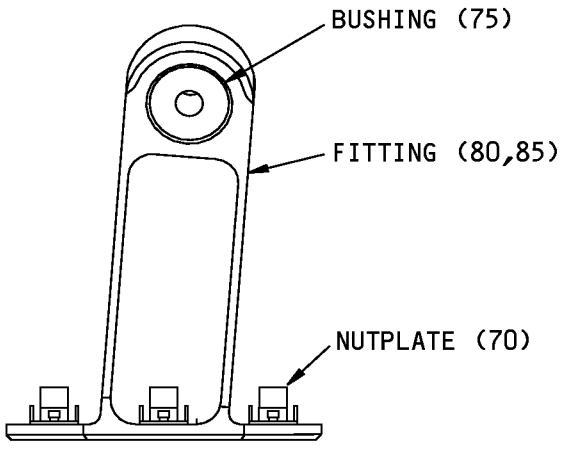
ITEM NUMBERS REFER TO IPL FIG. 9

ALL DIMENSIONS ARE IN INCHES

113A1750-203 Forward Fitting Assembly Bushing Replacement
Figure 602 (Sheet 2 of 2)



113A1750-3 SHOWN
113A1750-4 OPPOSITE



A-A

ITEM NUMBERS REFER TO IPL FIG. 9

113A1750-3,-4 Fitting Assembly Parts Replacement
Figure 603

FITTING REFINISH - REPAIR 13-2

113A1752–1, –2

1. General

A. This procedure has the data necessary to repair and refinish the fitting (80, 85).

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 9 for item numbers.

E. General repair details:

(1) Material: Titanium alloy

(2) Shot peen: All the surfaces, except in the holes identified in REPAIR 13-2, Figure 601.

(a) Intensity 0.006A-0.011A

(b) Coverage 1.0 automatic or 2.0 manual

(c) Overspray is permitted.

2. Attach Fitting Repair

A. References

Reference	Title
SOPM 20-10-03	SHOT PEENING
SOPM 20-10-07	MACHINING OF TITANIUM
SOPM 20-20-02	PENETRANT METHODS OF INSPECTION

B. Procedure (REPAIR 13-2, Figure 601)

(1) Machine the holes, for the bushings, in the fitting (80, 85) to remove defects; to the repair limit as shown in REPAIR 13-2, Figure 601 (SOPM 20-10-07).

(2) Do a penetrant check (SOPM 20-20-02).

(3) Shot peen the fitting (80, 85) (SOPM 20-10-03).

(a) Obey the flagnote in REPAIR 13-2, Figure 601.

3. Attach Fitting 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

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. Procedure (REPAIR 13-2, Figure 601)

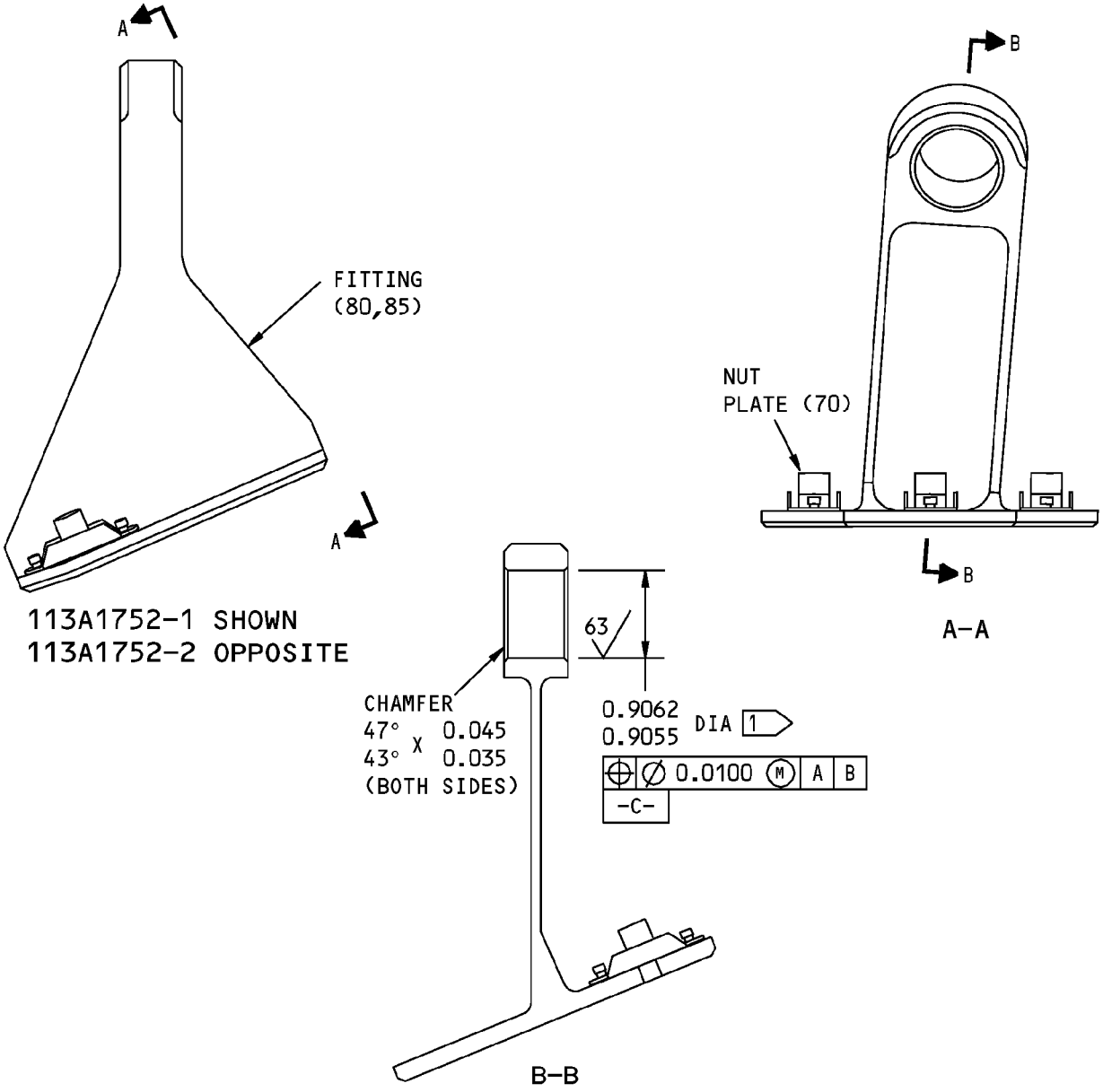
NOTE: For stripping of protective finishes, refer to SOPM 20-30-02. For general cleaning procedures, refer to SOPM 20-30-03. For the decoding table for Boeing finish codes, refer to SOPM 20-41-01. For finishing materials, refer to SOPM 20-60-02.

(1) Put a finish on the fitting (80, 85).

(a) Boric acid/sulfuric acid anodize or chromic acid anodize (F-17.31).

(b) Apply primer, C00259 (F-20.02).

1) Obey the flagnote in REPAIR 13-2, Figure 601.



125 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

BREAK ALL SHARP EDGES

ITEM NUMBERS REFER TO IPL FIG. 9

ALL DIMENSIONS ARE IN INCHES

1 DO NOT SHOT PEEN OR APPLY THE PRIMER.

113A1752-1,-2 Fitting Refinish
Figure 601

ATTACH FITTING - REPAIR 13-3

113A1753–1, –101

1. General

A. This procedure has the data necessary to repair and refinish the attach fitting.

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 9 for item numbers.

E. General repair details:

(1) Material: Aluminum alloy

(2) Shot peen: All the surfaces, except in the holes identified in REPAIR 13-3, Figure 601 or REPAIR 13-3, Figure 602.

(a) Intensity 0.006A-0.011A

(b) Coverage 1.0 automatic or 2.0 manual

(c) Overspray is permitted.

2. Attach Fitting Repair

A. Procedure (REPAIR 13-3, Figure 601, REPAIR 13-3, Figure 602)

(1) Machine the holes, for the bushings, in the attach (50) to remove defects to the repair limit as shown in REPAIR 13-3, Figure 601 and REPAIR 13-3, Figure 602.

(2) Do a penetrant check (SOPM 20-20-02).

(3) Shot peen the fitting (50) (SOPM 20-10-03).

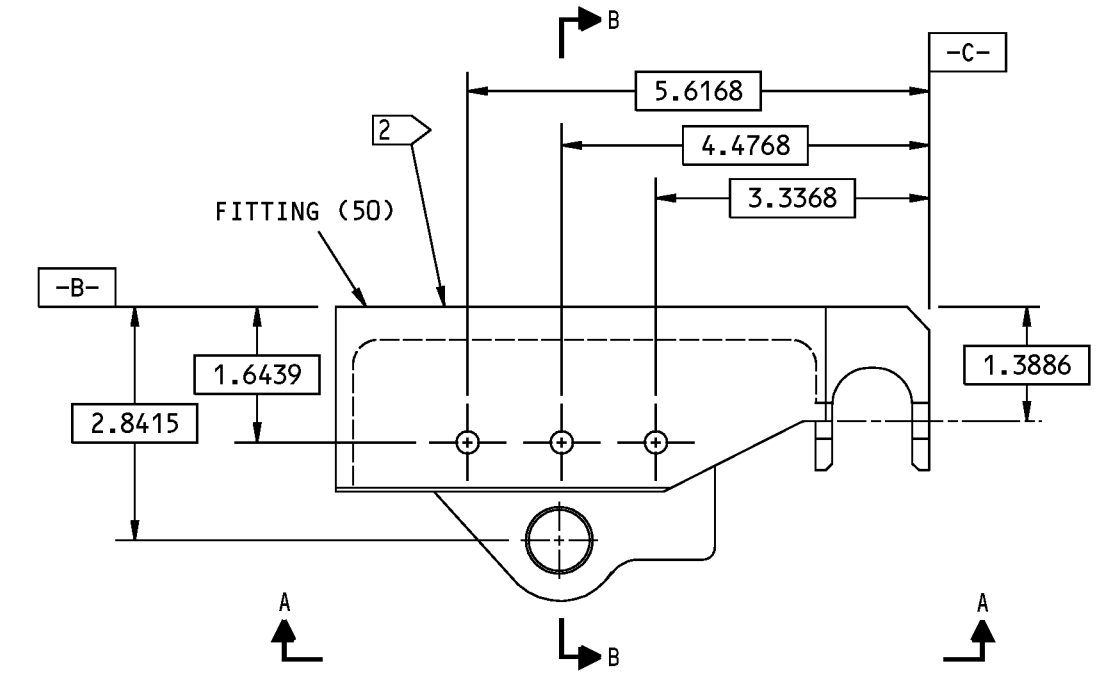
(a) Obey the flagnote in REPAIR 13-3, Figure 601.

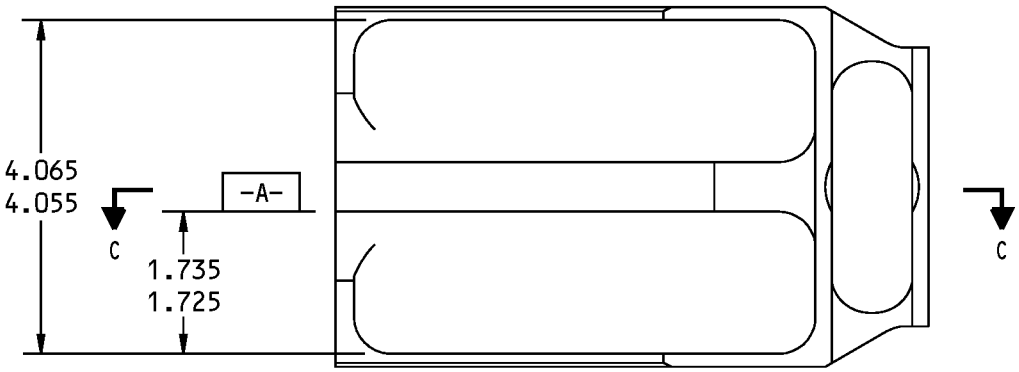
3. Manufacture of Oversize Bushing

A. Procedure

(1) Manufacture the oversize bushing as shown in REPAIR 13-3, Figure 603 or REPAIR 13-3, Figure 604 to adjust for the material removed in REPAIR 13-3, Paragraph 2.A.(1).

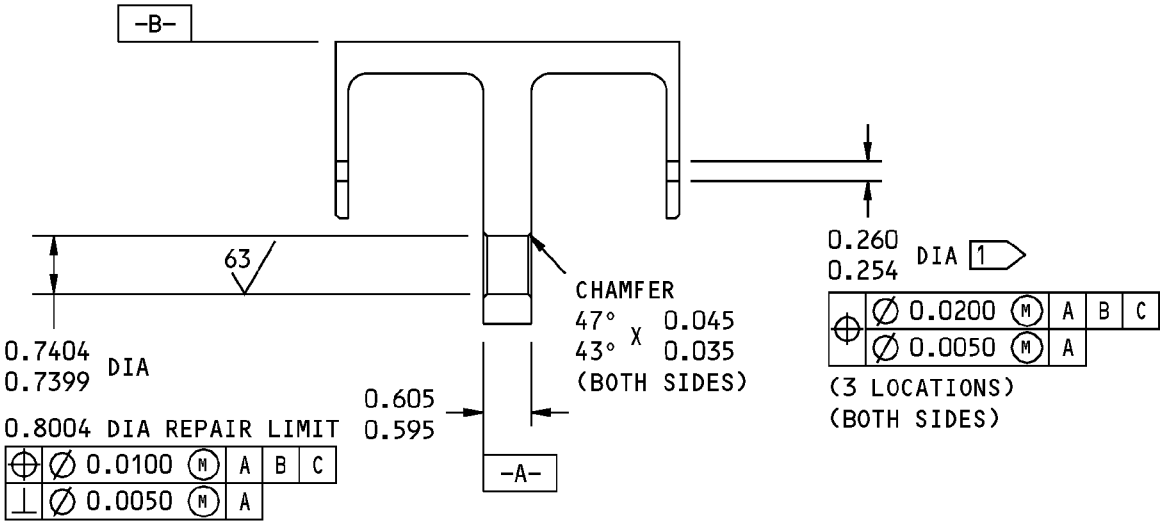
(2) Install the oversize bushing as shown in REPAIR 13-1, Paragraph 4.C..



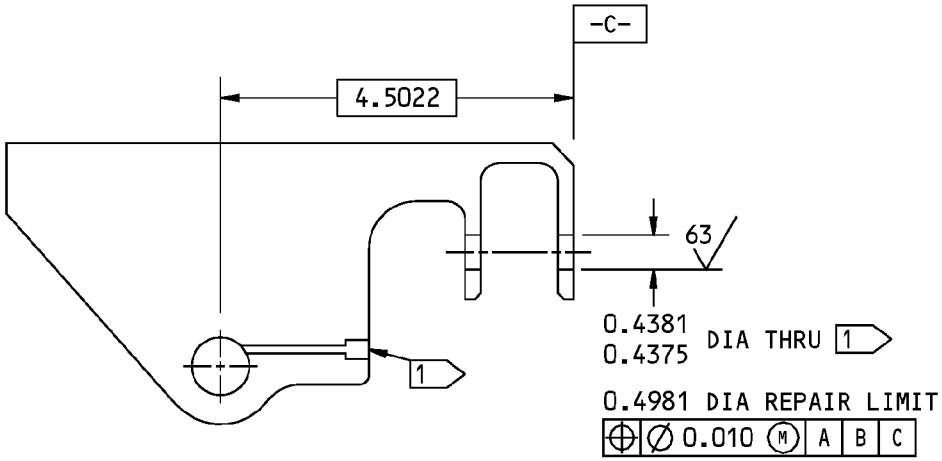


A–A

113A1753-1,-101 Fitting Repair
Figure 601 (Sheet 1 of 2)



B–B



1 DO NOT SHOT PEEN THESE HOLES

2 CLEAN THIS SURFACE BY THE ABRASIVE BLAST METHOD AND THEN APPLY THE PRIMER.

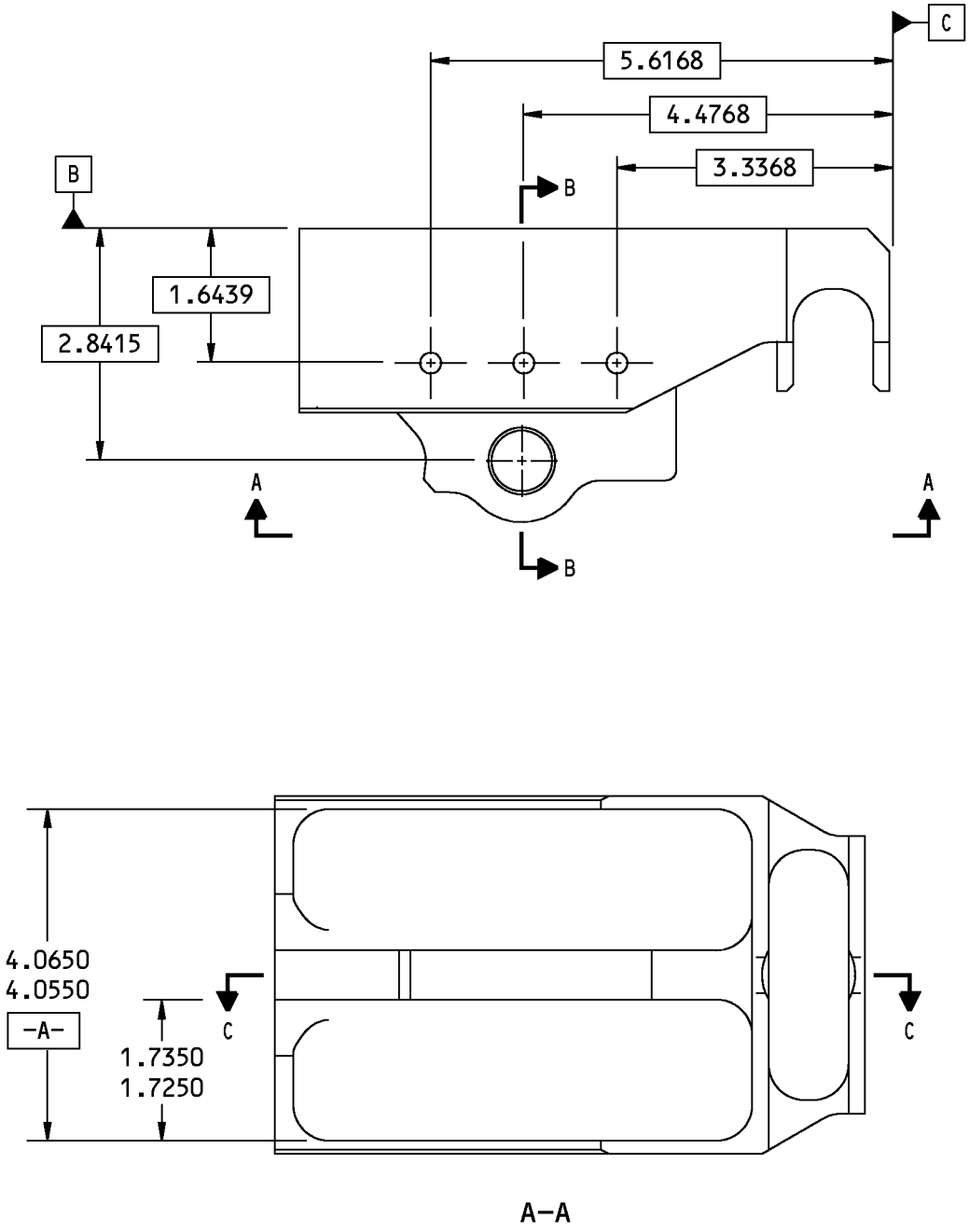
125 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

BREAK ALL SHARP EDGES

ITEM NUMBERS REFER TO IPL FIG. 9

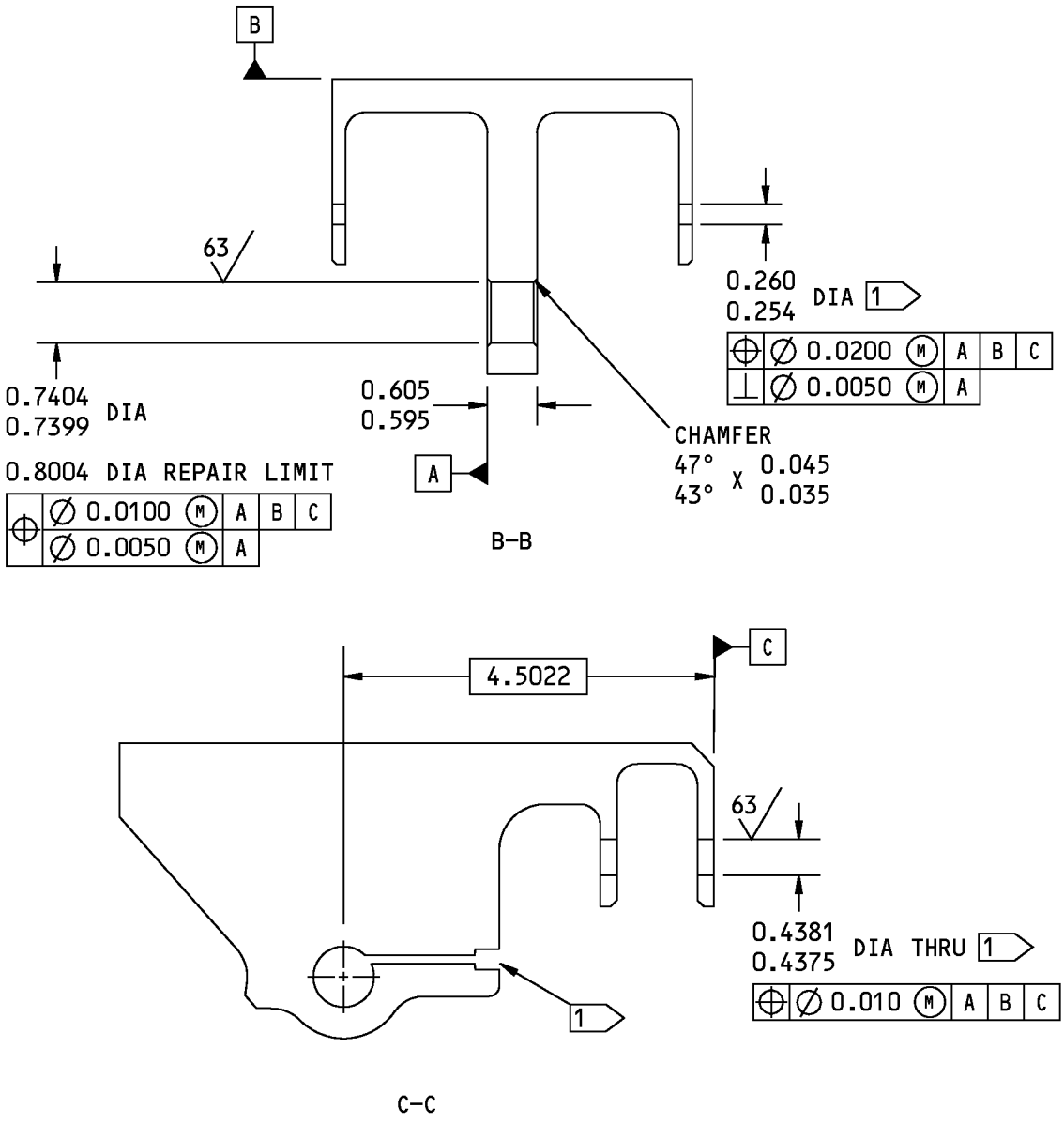
ALL DIMENSIONS ARE IN INCHES

113A1753-1,-101 Fitting Repair
Figure 601 (Sheet 2 of 2)



A–A

113A1753-201 Fitting Repair
Figure 602 (Sheet 1 of 2)



1 DO NOT SHOT PEEN THESE HOLES

2 CLEAN THIS SURFACE BY THE ABRASIVE BLAST METHOD AND THEN APPLY THE PRIMER

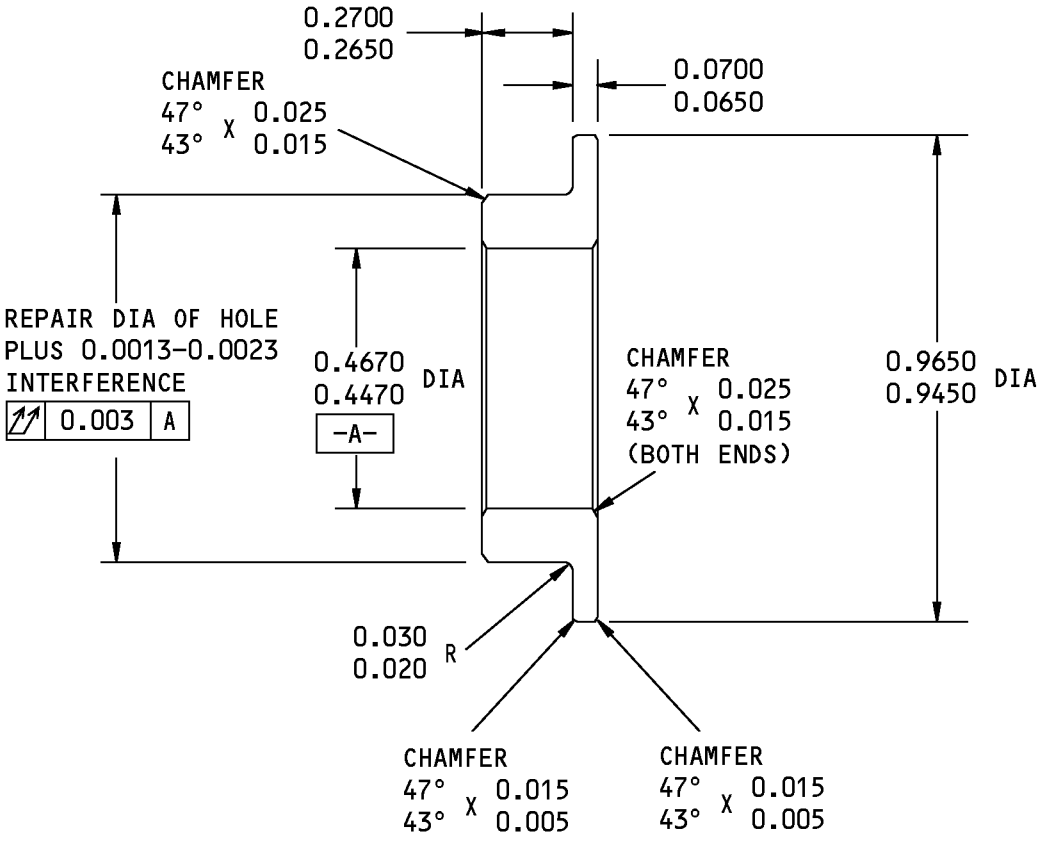
125 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

BREAK ALL SHARP EDGES

ITEM NUMBERS REFER TO IPL FIG. 9

ALL DIMENSIONS ARE IN INCHES

113A1753-201 Fitting Repair
Figure 602 (Sheet 2 of 2)



63 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

BREAK ALL SHARP EDGES

FINISH: NO FINISH

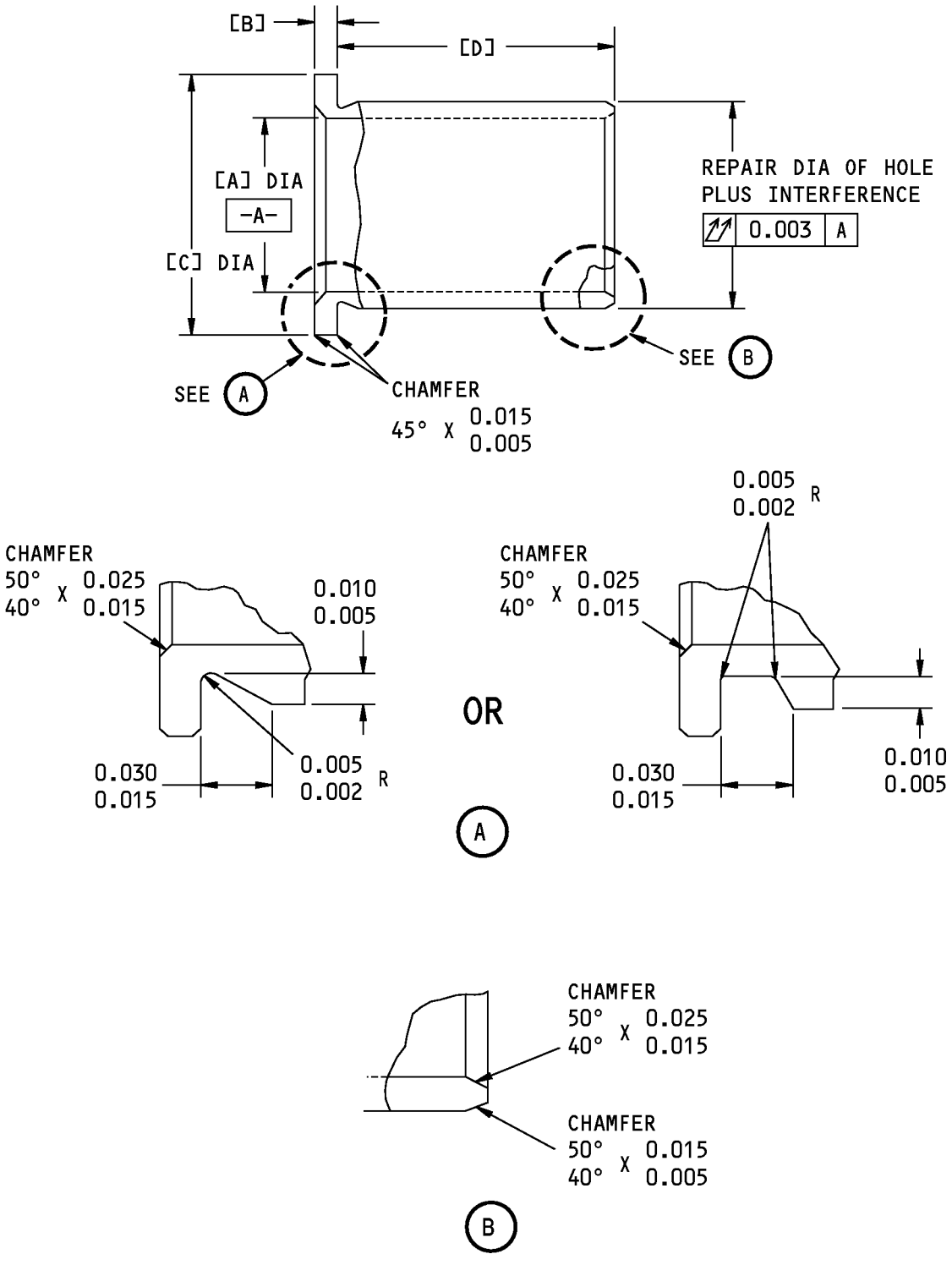
MATERIAL: CU-BE (AMS 4535 OR AMS 4533 OR AMS 4650) (HEAT TREAT AMS 4650 TO "AT" TEMPER, CONDITION TF00, Rc 36 MINIMUM)

ITEM NUMBERS REFER TO IPL FIG. 9

ALL DIMENSIONS ARE IN INCHES

REPLACES BUSHING (IPL FIG. 9; 40A) 113A1240-10

Oversize Bushing Replacement
Figure 603



REPLACES BUSHING (IPL FIG. 9; 45) BACB28AT05B019A

Oversize Bushing Details
Figure 604 (Sheet 1 of 2)

[A]	[B]	[C]	[D]	INTERFERENCE
0.303 0.297	0.065 0.060	0.560 0.550	0.190 0.185	0.0014 0.0003

63 ALL MACHINED SURFACES

BREAK ALL SHARP EDGES

FINISH: CADMIUM PLATE (F-15.06) OR ZINC-NICKEL PLATE (F-15.40) (OPT IN ID) PLATING CAN RUN OUT IN THE BORE

MATERIAL: ALUMINUM-BRONZE (AMS 4640)

ALL DIMENSIONS APPLY AFTER PLATING, BUT THE BORE IS NOT PLATED

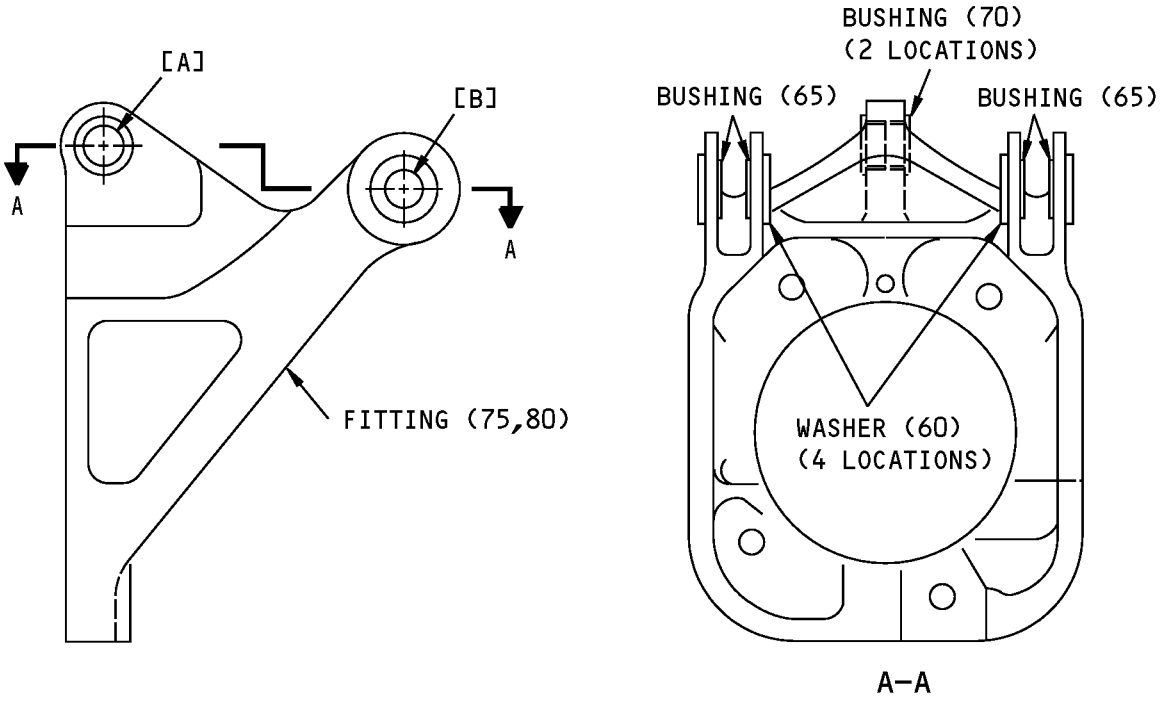
ITEM NUMBERS REFER TO IPL FIG. 1

ALL DIMENSIONS ARE IN INCHES

REPLACES BUSHING (IPL FIG. 9; 45) BACB28AT05B019A

Oversize Bushing Details
Figure 604 (Sheet 2 of 2)

(NOT APPLICABLE)



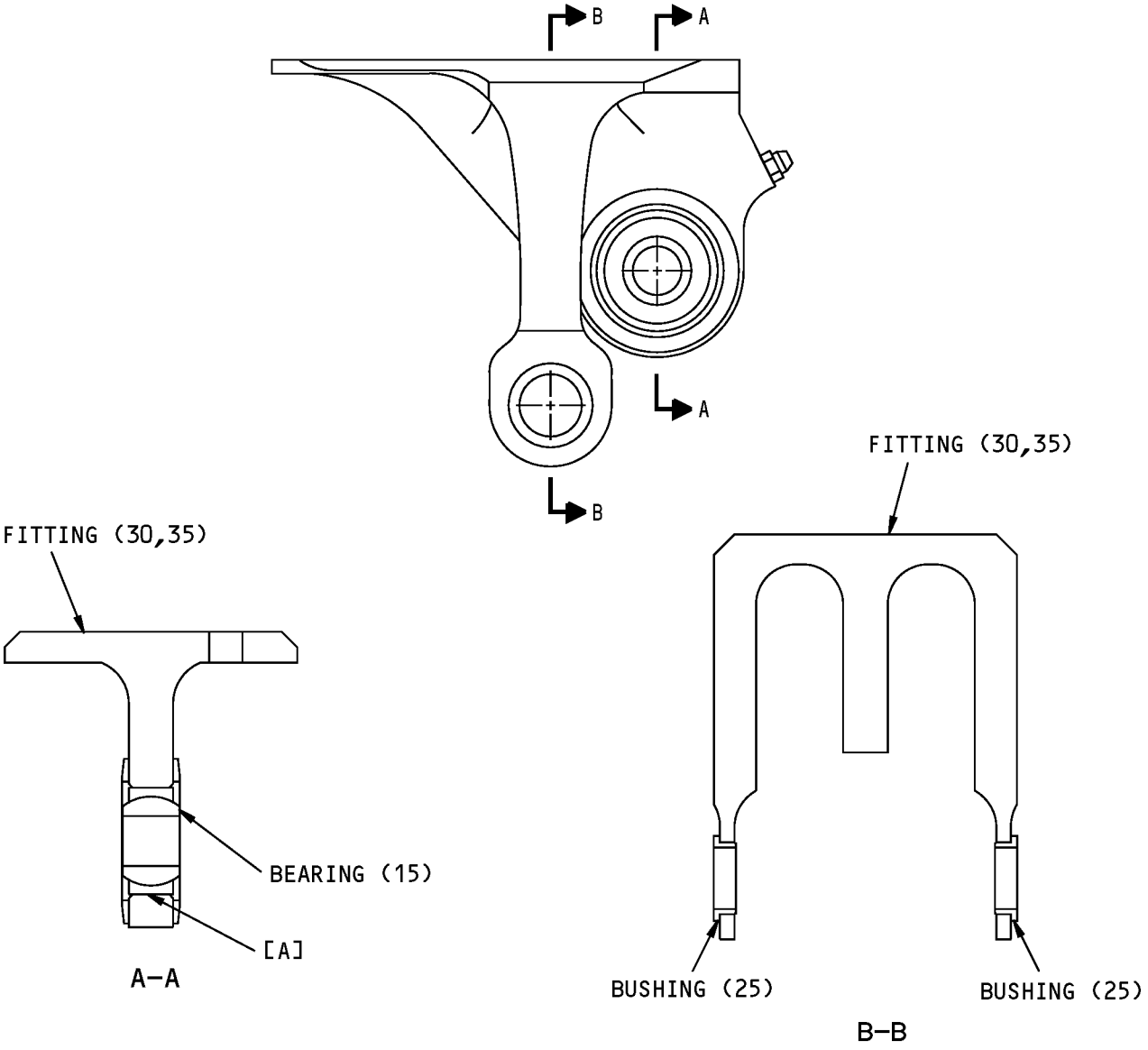
Fits and Clearances
Figure 801 (Sheet 1 of 2)

REF LETTER	REF IPL	DESIGN DIMENSION*				SERVICE WEAR LIMIT*		
	FIG. 1, MATING ITEM NO.	DIMENSION		ASSEMBLY CLEARANCE		DIMENSION		MAXIMUM CLEARANCE
		MIN	MAX	MIN	MAX	MIN	MAX	
[A]	ID 70	0.7586	0.7676	0.0096	0.0196			
	OD 1	0.7480	0.7490					
[B]	ID 65	0.7500	0.7507	0.0010	0.0027			
	OD 1	0.7480	0.7490					

* ALL DIMENSIONS ARE IN INCHES

1 INSTALLATION BOLT BACB30PW12CD25

Fits and Clearances
Figure 801 (Sheet 2 of 2)

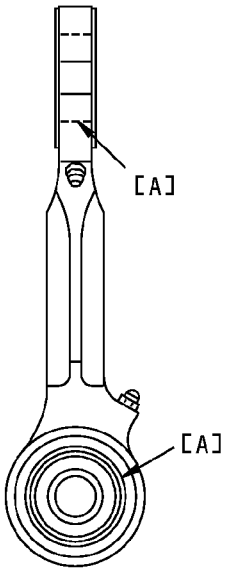


Fits and Clearances
Figure 802 (Sheet 1 of 2)

REF LETTER	REF IPL	DESIGN DIMENSION*				SERVICE WEAR LIMIT*		
	FIG. 2, MATING ITEM NO.	DIMENSION		ASSEMBLY CLEARANCE		DIMENSION		MAXIMUM CLEARANCE
		MIN	MAX	MIN	MAX	MIN	MAX	
[A]	ID 30,35	1.3125	1.3135	0.0006	0.0010			
	OD 15	1.3119	1.3125					

* ALL DIMENSIONS ARE IN INCHES

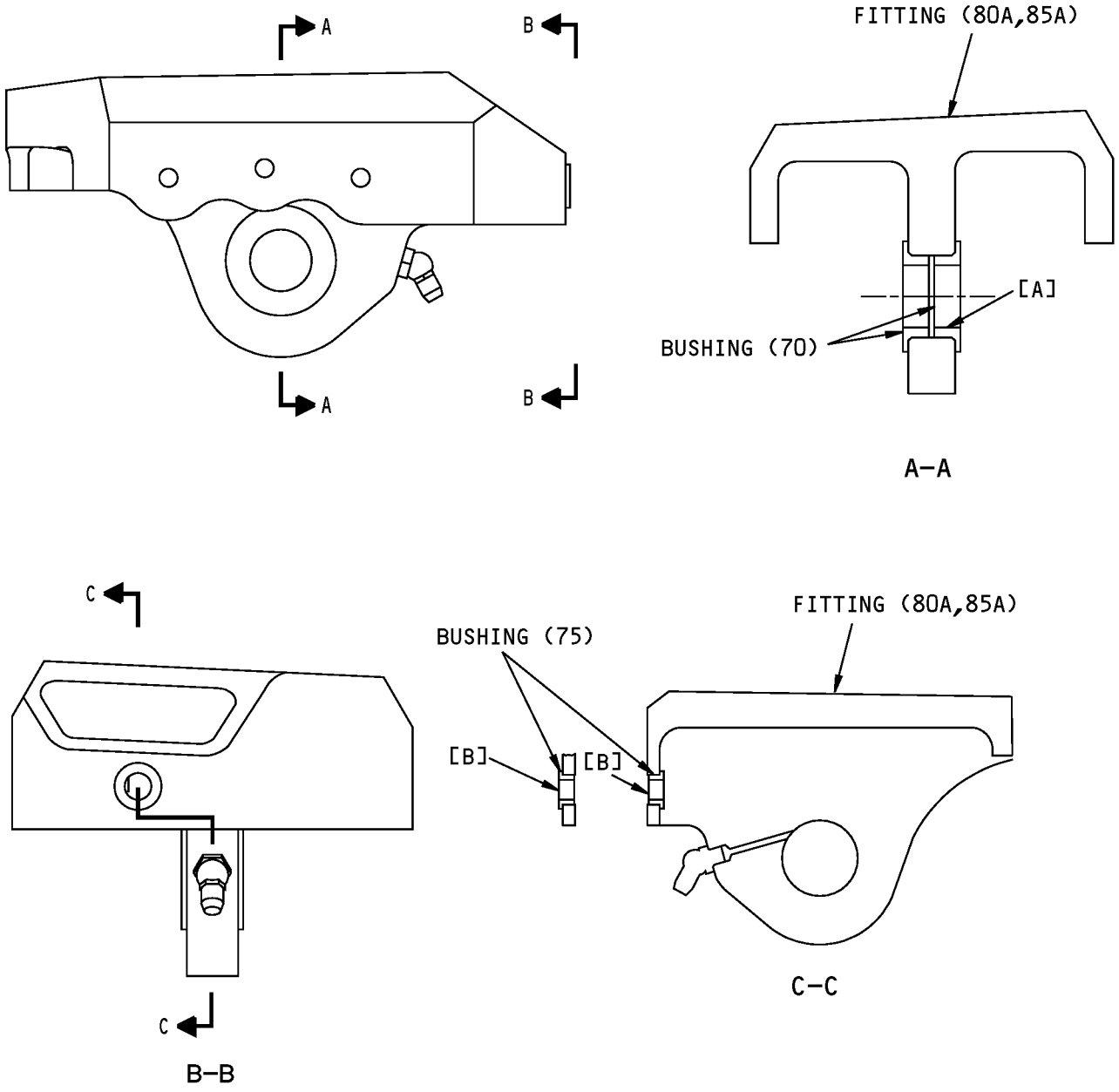
Fits and Clearances
Figure 802 (Sheet 2 of 2)



REF LETTER	REF IPL FIG. 3, MATING ITEM NO.	DESIGN DIMENSION*				SERVICE WEAR LIMIT*		
		DIMENSION		ASSEMBLY CLEARANCE		DIMENSION		MAXIMUM CLEARANCE
		MIN	MAX	MIN	MAX	MIN	MAX	
[A]	ID 25	1.5630	1.5640	0.0005	0.0021			
	OD 15	1.5619	1.5625					

* ALL DIMENSIONS ARE IN INCHES

Fits and Clearances
Figure 803

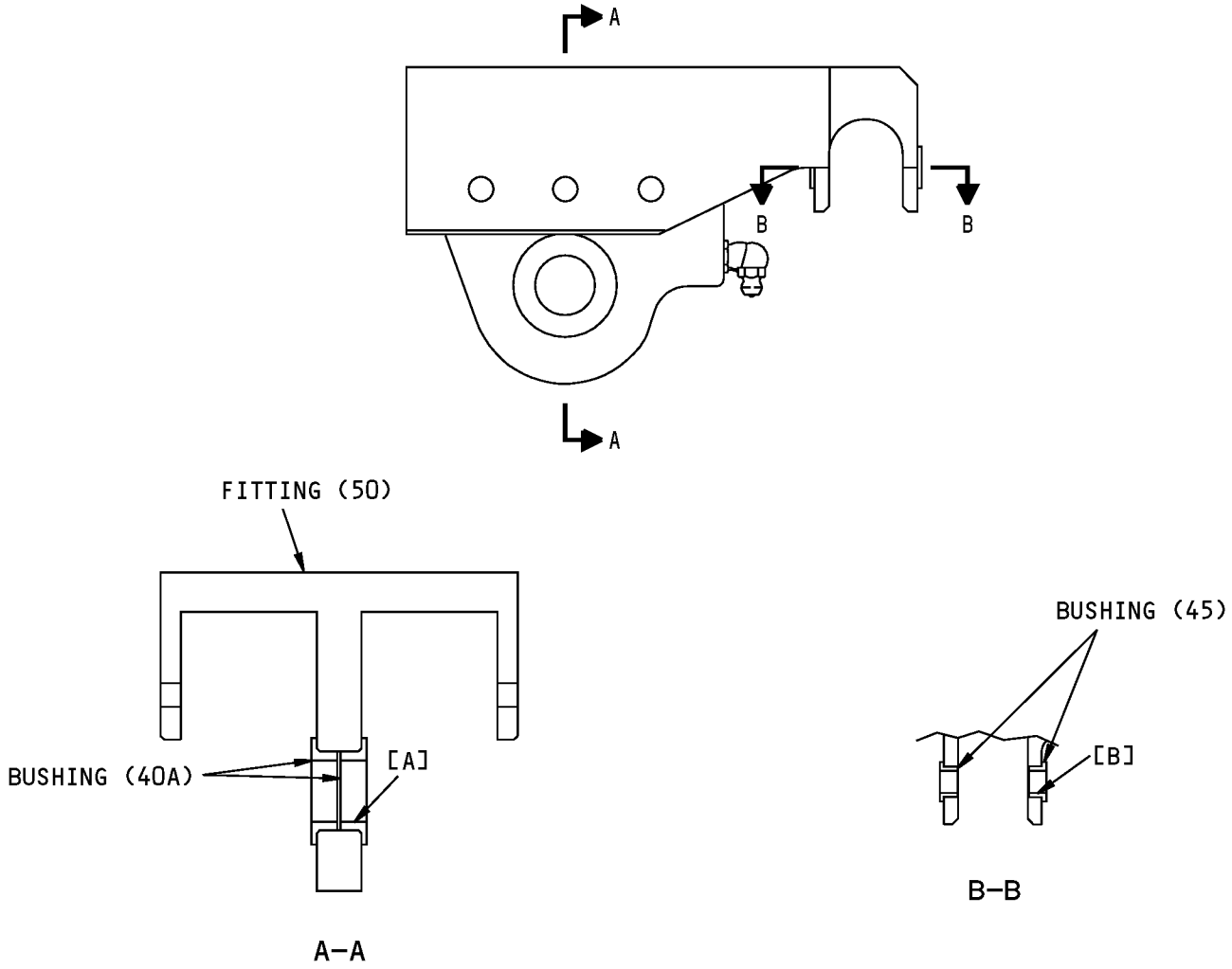


Fits and Clearances
Figure 804 (Sheet 1 of 2)

REF LETTER	REF IPL FIG. 5, MATING ITEM NO.	DESIGN DIMENSION*				SERVICE WEAR LIMIT*		
		DIMENSION		ASSEMBLY CLEARANCE		DIMENSION		MAXIMUM CLEARANCE
		MIN	MAX	MIN	MAX	MIN	MAX	
[A]	ID 70A	0.8080	0.8175					
[B]	ID 75	0.3125	0.3131					

* ALL DIMENSIONS ARE IN INCHES

Fits and Clearances
Figure 804 (Sheet 2 of 2)



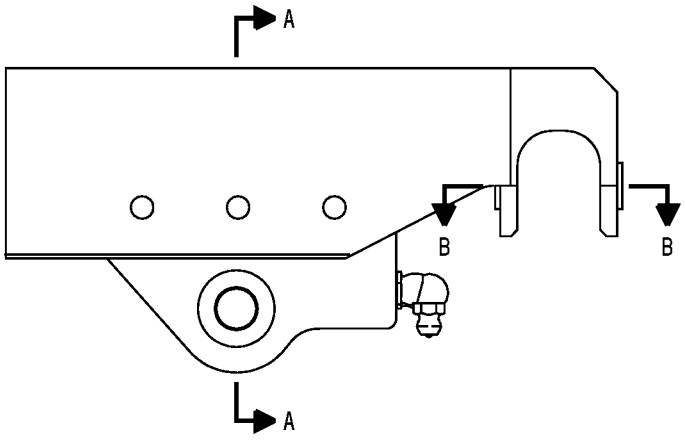
Fits and Clearances
Figure 805 (Sheet 1 of 2)

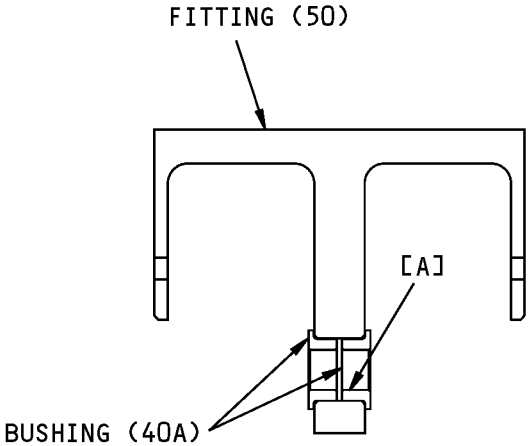
REF LETTER	REF IPL FIG. 7, MATING ITEM NO.	DESIGN DIMENSION* DIMENSION MIN	DESIGN DIMENSION* DIMENSION MAX	DESIGN DIMENSION* ASSEMBLY CLEARANCE MIN	DESIGN DIMENSION* ASSEMBLY CLEARANCE MAX	SERVICE WEAR LIMIT* DIMENSION MIN	SERVICE WEAR LIMIT* DIMENSION MAX	SERVICE WEAR LIMIT* MAXIMUM CLEARANCE
[A]	ID 50	0.7980	0.8075	0.0095	0.0195			
	OD 1	0.7880	0.7885					
[B]	ID 45	0.3125	0.3131	0.0005	0.0021			
	OD 15	0.3110	0.3120					

* ALL DIMENSIONS ARE IN INCHES

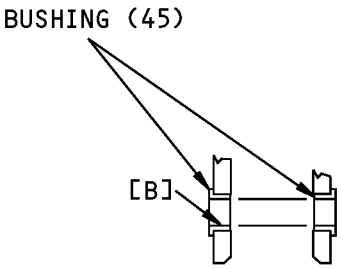
1 INSTALLATION BOLT 113A1315-1

Fits and Clearances
Figure 805 (Sheet 2 of 2)





A–A



B–B

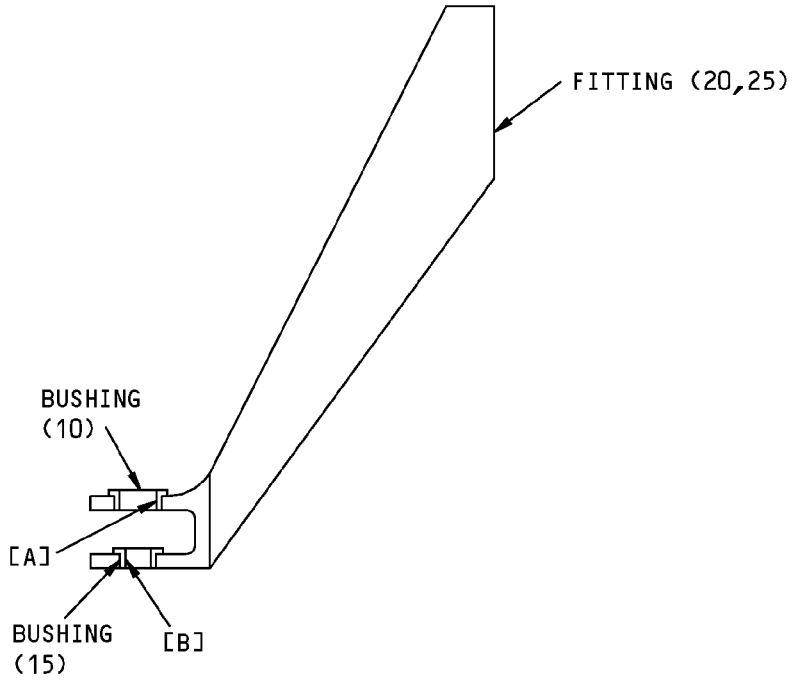
Fits and Clearances
Figure 806 (Sheet 1 of 2)

REF LETTER	REF IPL	DESIGN DIMENSION*				SERVICE WEAR LIMIT*		
	FIG. 9, MATING ITEM NO.	DIMENSION		ASSEMBLY CLEARANCE		DIMENSION		MAXIMUM CLEARANCE
		MIN	MAX	MIN	MAX	MIN	MAX	
[A]	ID 40A	0.4700	0.4796	0.0094	0.0196			
	OD 2	0.4600	0.4606					
[B]	ID 45	0.3125	0.3131	0.0005	0.0021			
	OD 15	0.3110	0.3120					

* ALL DIMENSIONS ARE IN INCHES

1 INSTALLATION BOLT 113A1315-2

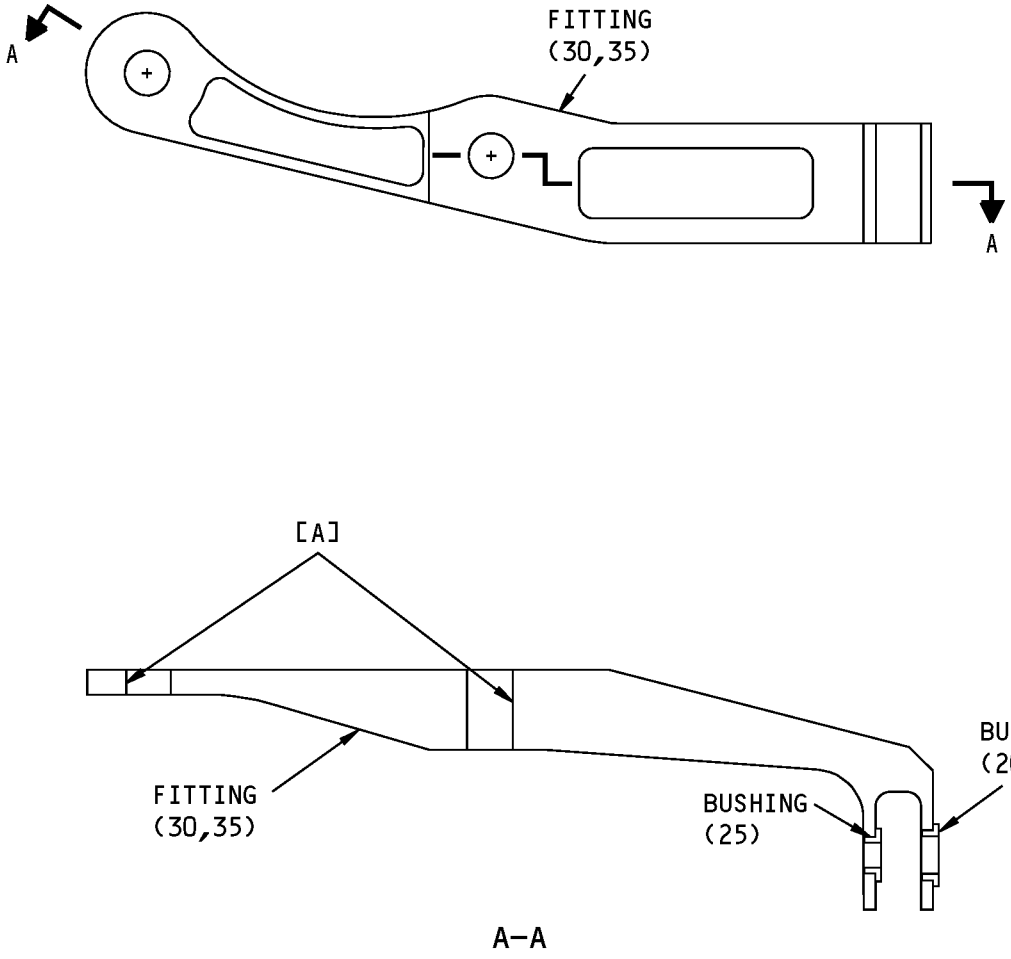
Fits and Clearances
Figure 806 (Sheet 2 of 2)



REF LETTER	REF IPL FIG. 13, MATING ITEM NO.	DESIGN DIMENSION*				SERVICE WEAR LIMIT*		
		DIMENSION		ASSEMBLY CLEARANCE		DIMENSION		MAXIMUM CLEARANCE
		MIN	MAX	MIN	MAX	MIN	MAX	
[A]	ID 10	0.3750	0.3756					
[B]	ID 15	0.2500	0.2505					

* ALL DIMENSIONS ARE IN INCHES

Fits and Clearances
Figure 807



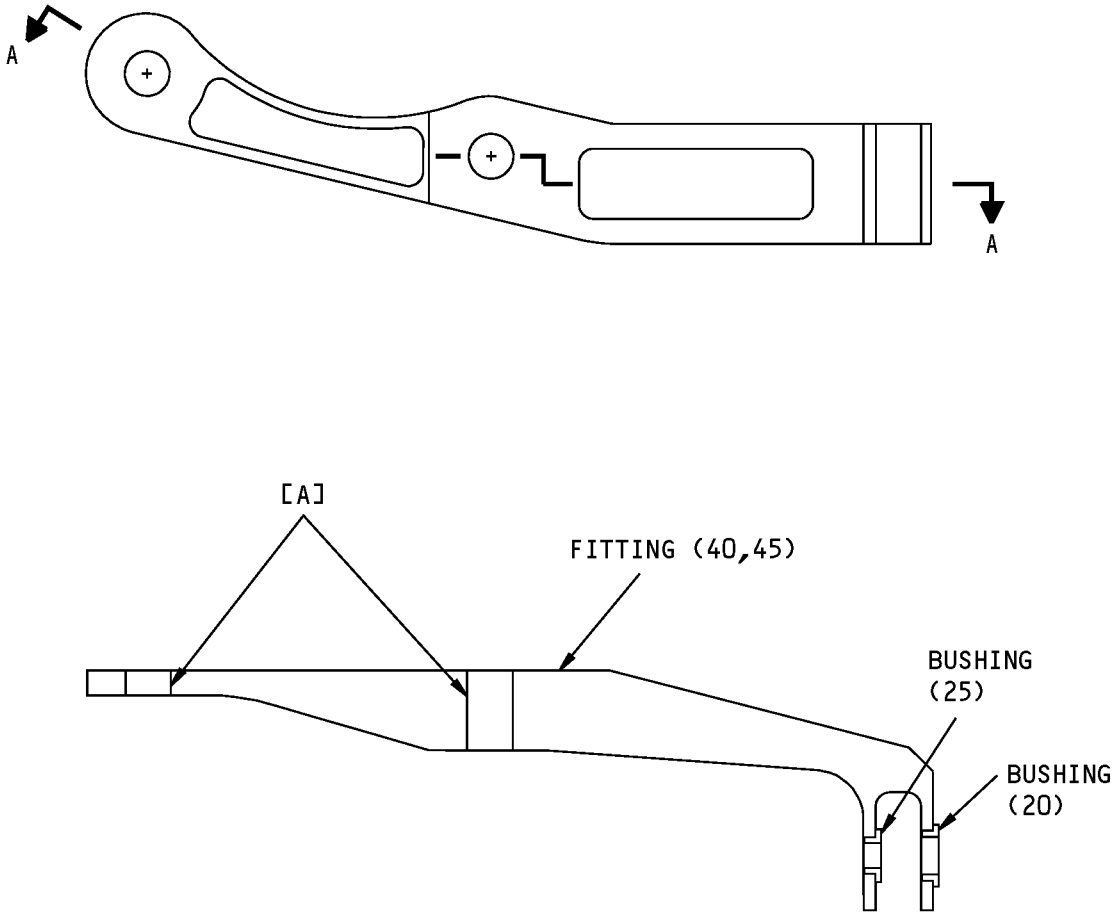
Fits and Clearances
Figure 808 (Sheet 1 of 2)

REF LETTER	REF IPL	DESIGN DIMENSION*				SERVICE WEAR LIMIT*		
	FIG. 14, MATING ITEM NO.	DIMENSION		ASSEMBLY CLEARANCE		DIMENSION		MAXIMUM CLEARANCE
		MIN	MAX	MIN	MAX	MIN	MAX	
[A]	ID 1A,5	0.4420	0.4570	0.0050	0.0205		0.4882	0.0205
	OD 1	0.4365	0.4370					

* ALL DIMENSIONS ARE IN INCHES

1 INSTALLATION BOLT BACB30LE7K114

Fits and Clearances
Figure 808 (Sheet 2 of 2)



A–A

Fits and Clearances
Figure 809 (Sheet 1 of 2)

REF LETTER	REF IPL	DESIGN DIMENSION*				SERVICE WEAR LIMIT*		
	FIG. 14, MATING ITEM NO.	DIMENSION		ASSEMBLY CLEARANCE		DIMENSION		MAXIMUM CLEARANCE
		MIN	MAX	MIN	MAX	MIN	MAX	
[A]	ID 40,45	0.4420	0.4570	0.0050	0.0205		0.4882	0.0205
	OD 1	0.4365	0.4370					

* ALL DIMENSIONS ARE IN INCHES

1 INSTALLATION BOLT BACB30LE7K114

Fits and Clearances
Figure 809 (Sheet 2 of 2)

(NOT APPLICABLE)

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
06725	AIR INDUSTRIES CORPORATION 12570 KNOTT STREET GARDEN GROVE, CALIFORNIA 92641-3932 FORMERLY AIR INDUSTRIES OF CALIF IN GARDENA, CALIF.
0PTK6	SPS TECHNOLOGIES INC AEROSPACE PRODUCTS DIV 5195 W 4700 SALT LAKE CITY, UTAH 94118 SEE V56878 SPS TECHNOLOGIES INC
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
16746	SPECLINE INCORPORATED 2230 MOUTON DR CARSON CITY, NV 89706 FORMERLY IN SUN VALLEY, CAIFORNIA
52825	HOFFMAN CAMERA CORP 19 GRAND AVENUE FARMINGTON, NEW YORK 11735-6315
52828	REPUBLIC FASTENER MFG CORP 1300 RANCHO CONEJO BLVD NEWBURY PARK, CALIFORNIA 91320-1405 FORMERLY IN SYLMAR, CALIFORNIA

Code	Name
56644	AURORA BEARING CO 970 SOUTH LAKE STREET AURORA, ILLINOIS 60506-5929
56878	SPS TECHNOLOGIES INC AEROSPACE AND INDUSTRIAL PRODUCTS DIV 301 HIGHLAND AVE JENKINTOWN, PENNSYLVANIA 19046 FORMERLY STANDARD PRESSED STEEL FORMERLY IN SALT LAKE, UTAH
5M902	ALCOA GLOBAL FASTENERS INC, DIV OF VOI-SHAN PRODUCTS 3000 W LOMITA BLVD TORRANCE, CALIFORNIA 90505-5103 FORMERLY FAIRCHILD INC INC FAIRCHILD AEROSPACE FASTENERS DIV
60516	WEST COAST AEROSPACE INC 812 MIRAFLORES STREET SAN PEDRO, CALIFORNIA 90731-1439
71985	DOW-ELCO INCORPORATED 1313 W OLYMPIC BOULEVARD, PO BOX 669 MONTEBELLO, CALIFORNIA 90641-5010
72962	HARVARD INDUSTRIES INC 3 WERNER WAY SUITE 210 LEBANON, NEW JERSEY 08833 FORMERLY ESNA V7A079 FORMERLY ELASTIC STOP NUT IN UNION, NJ
73134	ROLLER BEARING COMPANYOF AMER DBA HEIM BEARINGS DIV 60 ROUND HILL RD FAIRFIELD, CONNECTICUT 06430-0000 FORMERLY INCOM INTL HEIM DIV; HEIM UNIVERSAL CORP INCOM; FORMERLY HEIM DIV INCOM INTL; IMO IND HEIM BEARINGS DIV
73197	HI-SHEAR TECHNOLOGY CORP 2600 SKYPARK DRIVE TORRANCE, CALIFORNIA 90509

Code	Name
80539	SPS TECHNOLOGIES INC DIV AERPSOACE - SANTA ANA 2701 SOUTH HARBOR BOULEVARD SANTA ANA, CALIFORNIA 92704-5803 FORMERLY NUTT-SHEL DIV OF SPC WESTERN CO V80539 AND STANDARD PRESSED STEEL WESTERN DIV V17279
92215	FAIRCHILD IND INC FAIRCHILD AEROSPACE FASTENER DIV 3010 W LOMITA BLVD TORRANCE, CALIFORNIA 90505-5102 FORMERLY VOI-SHAN IN CULVER CITY, CALIF
95272	STILLMAN SEL CORP 6020 AVENIDA ENCINAS CARLSBAD, CALIFORNIA 92009-1001 FORMERLY SARGENT IND

NUMERICAL INDEX

PART NUMBER	AIRLINE PART NUMBER	FIGURE	ITEM	UNITS PER ASSEMBLY
		1		1
102A9212-4		4	80A	1
		6	80A	1
		8	80A	1
102A9213-4-4		6	75A	1
		8	75A	1
102A9213-5-4		4	75A	1
102A9219-4-4		6	75A	1
		8	75A	1
102A9219-5-4		4	75A	1
113A1120-1		1	1A	RF
113A1120-2		1	3	RF
113A1120-3		1	75	1
113A1120-4		1	80	1
113A1150-1		1	6	RF
		2	1	RF
113A1150-101		1	6A	RF
		2	1A	RF
113A1150-102		1	9A	RF
		2	5A	RF
113A1150-2		1	9	RF
		2	5	RF
113A1150-201		1	6B	RF
		2	1B	RF
113A1150-202		1	9B	RF
		2	5B	RF
113A1151-1		2	30	1
113A1151-101		2	30B	1
113A1151-102		2	35A	1
113A1151-2		2	35	1
113A1151-201		2	30C	1
113A1151-202		2	35B	1
113A1220-1		1	12	RF
		3	1	RF

PART NUMBER	AIRLINE PART NUMBER	FIGURE	ITEM	UNITS PER ASSEMBLY
113A1220-3		3	25	1
113A1240-10		9	40A	2
113A1240-8		5	70A	2
		7	40B	2
113A1242-1		2	20	2
113A1242-5		3	20A	4
113A1317-1		1	53	RF
		13	1A	RF
113A1317-2		1	53L	RF
		13	5	RF
113A1317-3		13	20	1
113A1317-4		13	25	1
113A1320-1		1	18	RF
		4	1	RF
113A1320-10		1	21A	RF
		4	5A	RF
113A1320-11		4	130A	1
113A1320-12		4	135A	1
113A1320-13		4	175A	1
113A1320-14		4	180A	1
113A1320-2		1	21	RF
		4	5	RF
113A1320-3		4	60	1
113A1320-4		4	65	1
113A1320-5		4	130	1
113A1320-6		4	135	1
113A1320-7		4	175	1
113A1320-8		4	180	1
113A1320-9		1	18A	RF
		4	1A	RF
113A1321-1		4	165	1
113A1321-2		4	170	1
113A1321-3		4	210	1
113A1321-4		4	215	1
113A1322-1		4	30	1

PART NUMBER	AIRLINE PART NUMBER	FIGURE	ITEM	UNITS PER ASSEMBLY
113A1322-2		4	35	1
113A1323-1		4	100	1
113A1324-1		4	95	1
		6	102	1
		8	95	1
113A1350-10		5	60A	1
113A1350-105		1	24B	RF
		5	1B	RF
113A1350-106		1	27B	RF
		5	5B	RF
113A1350-107		5	55B	1
113A1350-108		5	60B	1
113A1350-109		1	24D	RF
		5	1D	RF
113A1350-11		1	24C	RF
		5	1C	RF
113A1350-110		1	27D	RF
		5	5D	RF
113A1350-111		5	55D	1
113A1350-112		5	60D	1
113A1350-12		1	27C	RF
		5	5C	RF
113A1350-13		5	55C	1
113A1350-14		5	60C	1
113A1350-201		1	24E	RF
		5	1E	RF
113A1350-202		1	27E	RF
		5	5E	RF
113A1350-203		5	55E	1
113A1350-204		5	60E	1
113A1350-3		5	30	1
113A1350-7		1	24A	RF
		5	1A	RF
113A1350-8		1	27A	RF
		5	5A	RF

PART NUMBER	AIRLINE PART NUMBER	FIGURE	ITEM	UNITS PER ASSEMBLY
113A1350-9		5	55A	1
113A1352-1		5	50	1
113A1353-103		5	80B	1
113A1353-104		5	85B	1
113A1353-105		5	80D	1
113A1353-106		5	85D	1
113A1353-201		5	80E	1
113A1353-202		5	85E	1
113A1353-3		5	80A	1
113A1353-4		5	85A	1
113A1353-5		5	80C	1
113A1353-6		5	85C	1
113A1517-1		1	55	RF
		14	1A	RF
113A1517-2		1	55A	RF
		14	5	RF
113A1517-3		14	30	1
113A1517-4		14	35	1
113A1520-1		1	30	RF
		6	1	RF
113A1520-2		1	33	RF
		6	5	RF
113A1520-3		6	60	1
113A1520-4		6	65	1
113A1520-5		6	125	1
113A1520-6		6	130	1
113A1520-7		6	160	1
113A1520-8		6	165	1
113A1521-1		6	150	1
113A1521-2		6	155	1
113A1521-3		6	185A	1
113A1521-4		6	190A	1
113A1522-1		6	30	1
113A1522-2		6	35	1
113A1523-1		6	100	1

PART NUMBER	AIRLINE PART NUMBER	FIGURE	ITEM	UNITS PER ASSEMBLY
113A1550-109		1	36D	RF
		7	1D	RF
113A1550-11		1	36C	RF
		7	1C	RF
113A1550-110		1	39D	RF
		7	5D	RF
113A1550-111		7	30D	1
113A1550-12		1	39C	RF
		7	5C	RF
113A1550-13		7	30C	1
113A1550-201		1	36E	RF
		7	1E	RF
113A1550-202		1	39E	RF
		7	5E	RF
113A1550-203		7	30E	1
113A1550-3		7	55	1
113A1550-4		7	60	1
113A1552-1		7	80	1
113A1552-2		7	85	1
113A1553-103		7	50C	1
113A1553-3		7	50B	1
113A1717-1		1	56	RF
		14	10	RF
113A1717-2		1	56L	RF
		14	15	RF
113A1717-3		14	40	1
113A1717-4		14	45	1
113A1720-1		1	42	RF
		8	1	RF
113A1720-10		8	65A	1
113A1720-11		1	42A	RF
		8	1A	RF
113A1720-12		1	45A	RF
		8	5A	RF
113A1720-13		8	130A	1

PART NUMBER	AIRLINE PART NUMBER	FIGURE	ITEM	UNITS PER ASSEMBLY
113A1720-14		8	135A	1
113A1720-15		8	165A	1
113A1720-16		8	170A	1
113A1720-2		1	45	RF
		8	5	RF
113A1720-5		8	130	1
113A1720-6		8	135	1
113A1720-7		8	165	1
113A1720-8		8	170	1
113A1720-9		8	60A	1
113A1721-1		8	155	1
113A1721-2		8	160	1
113A1721-3		8	190	1
113A1721-4		8	195	1
113A1722-1		8	30	1
113A1722-2		8	35	1
113A1723-1		8	100	1
113A1723-2		8	105	1
113A1750-105		1	48B	RF
		9	1B	RF
113A1750-106		1	51B	RF
		9	5B	RF
113A1750-107		9	30B	1
113A1750-201		1	48C	RF
		9	1C	RF
113A1750-202		1	51C	RF
		9	5C	RF
113A1750-203		9	30C	1
113A1750-3		9	55	1
113A1750-4		9	60	1
113A1750-7		1	48A	RF
		9	1A	RF
113A1750-8		1	51A	RF
		9	5A	RF
113A1750-9		9	30A	1

PART NUMBER	AIRLINE PART NUMBER	FIGURE	ITEM	UNITS PER ASSEMBLY
113A1752-1		9	80	1
113A1752-2		9	85	1
113A1753-1		9	50	1
113A1753-101		9	50A	1
AS15004-2		5	65A	1
		7	35A	1
AS15004-3		9	35A	1
BACB10GB10G		2	15	1
BACB10GB12GC		3	15	2
BACB28AP04-011		14	25	1
BACB28AP04P014		13	15	1
BACB28AT05B019A		5	75	2
		7	45	2
		9	45	2
BACB28AT06B011A		14	20	1
BACB28AT06B014C		13	10	1
BACB28AT10C052C		4	140	1
BACB28AT10D052C		4	195	1
		8	140	2
		8	175	2
BACB28AT12B019A		2	25	2
BACB28AT12B023C		1	65	4
BACB28AT12B028C		1	70	2
BACB28AT12D037B		6	135	2
		6	170	2
BACB28AT12D054C		4	150A	1
		4	185	1
BACB28AZ11A049C		4	205	1
BACB28AZ11A184C		4	160	1
BACB28AZ14A047B		6	180	1
BACB28AZ14A049C		8	185	1
BACB28AZ14A149B		6	145	1
BACB28AZ14A158C		8	150	1
BACB30LJ5DSU26		5	15	1
		7	15	1

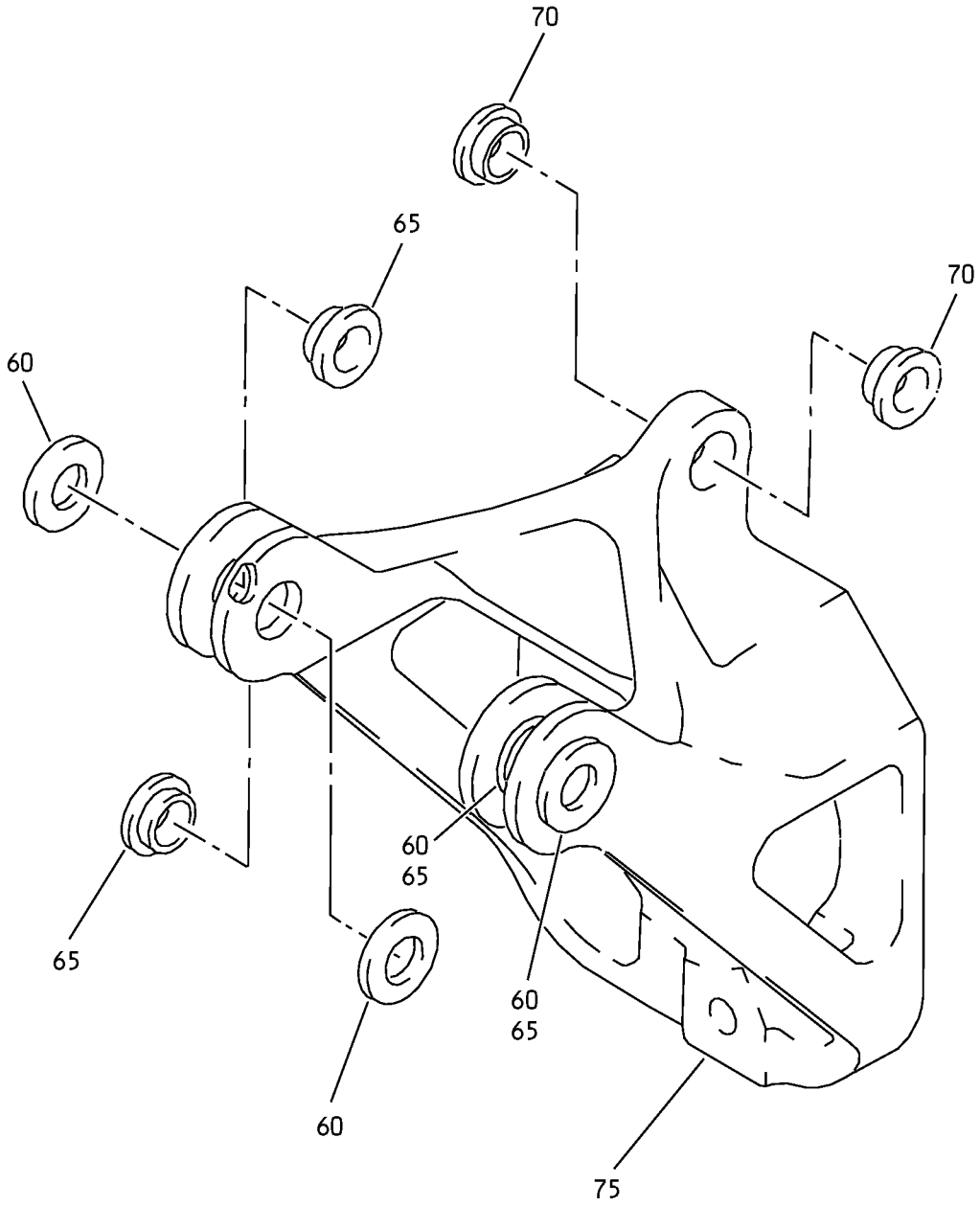
PART NUMBER	AIRLINE PART NUMBER	FIGURE	ITEM	UNITS PER ASSEMBLY
		9	15	1
BACB30MR4K4		4	40A	6
		6	40A	6
		8	40A	6
BACB30MR6K8		4	10A	6
		8	10A	6
BACB30MR6K9		6	10	6
BACB30VU6K4		4	85	2
		8	85	2
BACB30YP6K4		6	85A	2
BACC30BL6		4	90	2
		6	90	2
		8	90	2
BACN10KE4ACD		4	80A	1
		6	80A	1
		8	80A	1
BACN10KE4B4CD		6	75A	1
		8	75A	1
BACN10KE4B5CD		4	75A	1
BACN11G4A3CD		7	70	3
		9	70	3
BACN11G4B1CD		5	40	3
BACN11N5CD		5	25B	1
		7	25A	1
		9	25A	1
BACP18BC02A06P		5	10	1
		7	10	1
		9	10	1
BACR15BA3AD5C		4	70	4
		6	70	4
		8	70	4
BACR15BA3AD6C		5	35	6
		7	65	6
		9	65	6
BACS12GU3K13		4	105	2

PART NUMBER	AIRLINE PART NUMBER	FIGURE	ITEM	UNITS PER ASSEMBLY
		6	105A	2
		8	110	2
BACW10BP3APU		6	115	4
BACW10BP4APU		6	50A	6
BACW10BP4CD		4	45	6
		6	45	6
		8	45	6
BACW10BP4DP		4	50	6
		8	50	6
BACW10BP5ACU		5	20	2
		7	20	2
		9	20	2
BACW10BP6ACU		4	15	6
		6	15A	6
		8	15	6
BACW10BP6APU		6	20A	6
BACW10BP6DP		4	20	6
		8	20	6
BACW10EC3S		8	115A	2
BACW10P139L		4	145A	1
		4	200A	1
		8	145A	2
BACW10P158L		4	145	1
		4	200	1
		8	145	2
		8	180	2
BACW10P194L		4	155	1
		4	190	1
BACW10P374L		1	60	4
		6	140	2
		6	175	2
BACW10P394L		4	155A	1
		4	190A	1
BNG10H118		2	15	1
BNG12H118C		3	15	2

PART NUMBER	AIRLINE PART NUMBER	FIGURE	ITEM	UNITS PER ASSEMBLY
BRFR220C4-10		4	80A	1
		6	80A	1
		8	80A	1
BRFR220C4-4D		6	75A	1
		8	75A	1
DE903		5	45	1
		7	75	1
		9	75	1
F51747-4-1CD		4	80A	1
		6	80A	1
		8	80A	1
F51747-4-4CD		6	75A	1
		8	75A	1
F51747-4-5CD		4	75A	1
HST11AG6-4		4	85	2
		4	85	2
		4	85	2
		4	85	2
		8	85	2
		8	85	2
		8	85	2
		8	85	2
HST79-6		4	90	2
		4	90	2
		4	90	2
		6	90	2
		6	90	2
		6	90	2
		8	90	2
		8	90	2
		8	90	2
HST79CY6		4	90	2
		6	90	2
		8	90	2
LHSS10EMG		2	15	1

PART NUMBER	AIRLINE PART NUMBER	FIGURE	ITEM	UNITS PER ASSEMBLY
MS14144L5		5	25	1
		7	25	1
		9	25	1
MS15001-1		3	10	2
MS15004-1		2	10	1
MS15004-2		5	65	1
		5	65B	1
MS15004-3		7	35	1
		7	35B	1
		9	35	1
		9	35B	1
MS35338-138		6	110	2
MS35338-43		4	110	2
		8	115	2
MS35650-304		6	120	2
MS35650-305T		4	120	2
		8	125	2
NAS1149D0316H		4	115	4
		8	120	4
NAS1805-4		6	55A	6
NAS1805-4L		4	55	6
		8	55	6
NAS1805-6		6	25A	6
NAS1805-6L		4	25	6
		8	25	6
NC10G10		2	15	1
NC12G10C		3	15	2
NS202493-048-1		4	80A	1
		6	80A	1
		8	80A	1
NS202493-048-4		6	75A	1
		8	75A	1
NS202493-048-5		4	75A	1
S113N106-1		5	45	1
		7	75	1

PART NUMBER	AIRLINE PART NUMBER	FIGURE	ITEM	UNITS PER ASSEMBLY
S113NB106-1		9	75	1
SY10670		5	45	1
		7	75	1
		9	75	1
WC331K6-4		6	85A	2



Inboard Flap Inboard Transmission Attach Fitting Assembly
IPL Figure 1

FIG/ ITEM	PART NUMBER	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USAGE CODE	UNITS PER ASSY
1–			TE FLAP COMPONENTS		
–1A	113A1120-1		FITTING ASSY-ATTACH XMSN INBD TRACK INBD FLAP	A	RF
–3	113A1120-2		FITTING ASSY-ATTACH XMSN INBD TRACK INBD FLAP	B	RF
–6	113A1150-1		FITTING ASSY-FWD INBD TRACK INBD FLAP (FOR DETAILS SEE FIG 2)	C	RF
–6A	113A1150-101		FITTING ASSY-FWD INBD TRACK INBD FLAP (FOR DETAILS SEE FIG. 2)	X	RF
–6B	113A1150-201		FITTING ASSY-FWD INBD TRACK INBD FLAP (FOR DETAILS SEE FIG 2)	AT	RF
–9	113A1150-2		FITTING ASSY-FWD INBD TRACK INBD FLAP (FOR DETAILS SEE FIG 2)	D	RF
–9A	113A1150-102		FITTING ASSY-FWD INBD TRACK INBD FLAP (FOR DETAILS SEE FIG. 2)	Y	RF
–9B	113A1150-202		FITTING ASSY-FWD INBD TRACK INBD FLAP (FOR DETAILS SEE FIG. 2)	AU	RF
–12	113A1220-1		LINK ASSY-INBD TRACK SUPT INBD FLAP (FOR DETAILS SEE FIG 3)	E	RF
–15	113A1220-2		DELETED		
–18	113A1320-1		FITTING ASSY-ATTACH XMSN OUTBD TRACK INBD FLAP (FOR DETAILS SEE FIG 4)	G	RF
–18A	113A1320-9		FITTING ASSY-ATTACH XMSN OUTBD TRACK INBD FLAP (FOR DETAILS SEE FIG 4)	AV	RF
–21	113A1320-2		FITTING ASSY-ATTACH XMSN OUTBD TRACK INBD FLAP (FOR DETAILS SEE FIG 4)	H	RF
–21A	113A1320-10		FITTING ASSY-ATTACH XMSN OUTBD TRACK INBD FLAP (FOR DETAILS SEE FIG 4)	AW	RF

–Item not Illustrated

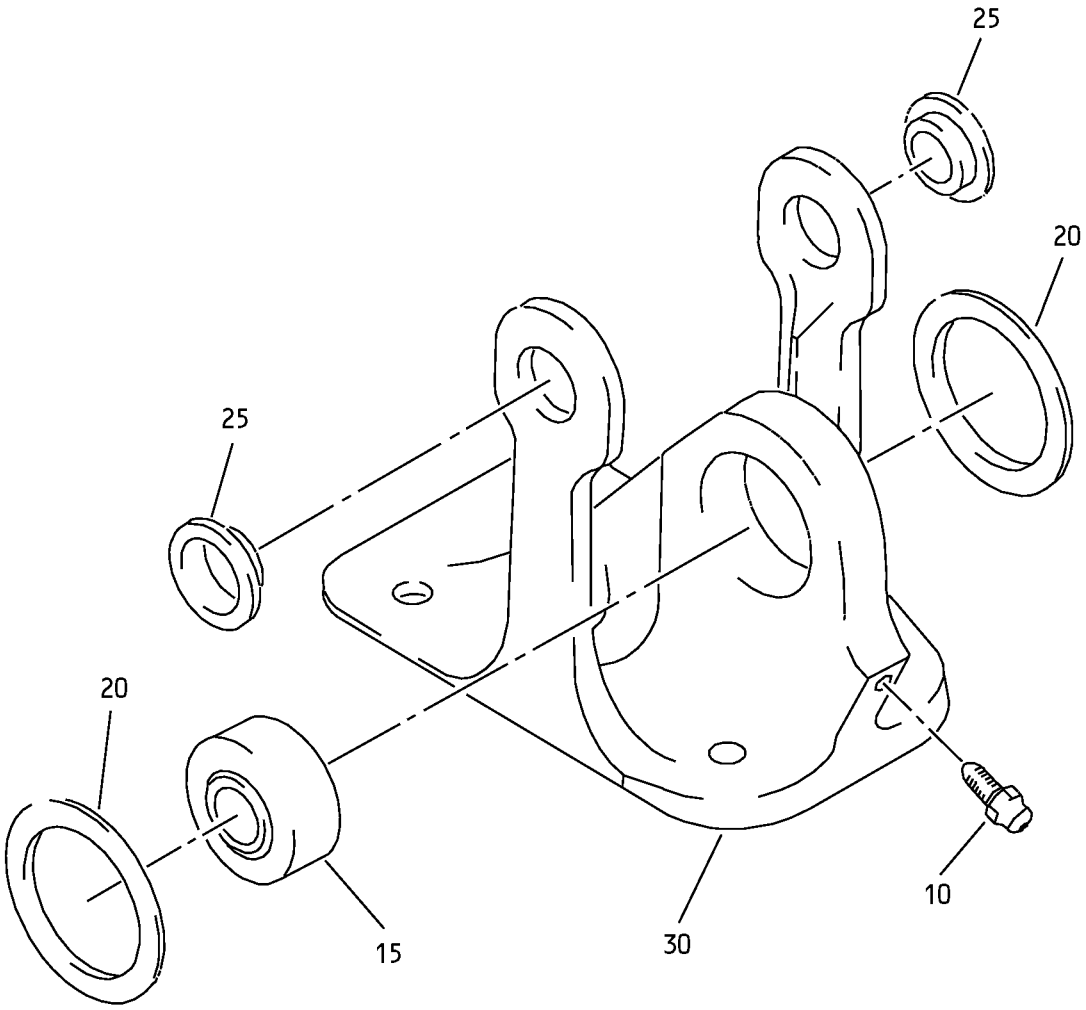
FIG/ ITEM	PART NUMBER	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USAGE CODE	UNITS PER ASSY
1–					
–24	113A1350-1		DELETED		
–24A	113A1350-7		FITTING ASSY-FWD OUTBD TRACK INBD FLAP (FOR DETAILS SEE FIG. 5)	F	RF
–24B	113A1350-105		FITTING ASSY-FWD OUTBD TRACK INBD FLAP (FOR DETAILS SEE FIG. 5)	U	RF
–24C	113A1350-11		FITTING ASSY-FWD OUTBD TRACK INBD FLAP (FOR DETAILS SEE FIG. 5)	V	RF
–24D	113A1350-109		FITTING ASSY-FWD OUTBD TRACK INBD FLAP (FOR DETAILS SEE FIG. 5)	W	RF
–24E	113A1350-201		FITTING ASSY-FWD OUTBD TRACK INBD FLAP (FOR DETAILS SEE FIG. 5)	N	RF
–27	113A1350-2		DELETED		
–27A	113A1350-8		FITTING ASSY-FWD OUTBD TRACK INBD FLAP (FOR DETAILS SEE FIG. 5)	AF	RF
–27B	113A1350-106		FITTING ASSY-FWD OUTBD TRACK INBD FLAP (FOR DETAILS SEE FIG. 5)	AG	RF
–27C	113A1350-12		FITTING ASSY-FWD OUTBD TRACK INBD FLAP (FOR DETAILS SEE FIG. 5)	AH	RF
–27D	113A1350-110		FITTING ASSY-FWD OUTBD TRACK INBD FLAP (FOR DETAILS SEE FIG. 5)	AJ	RF
–27E	113A1350-202		FITTING ASSY-FWD OUTBD TRACK INBD FLAP (FOR DETAILS SEE FIG. 5)	P	RF
–30	113A1520-1		FITTING ASSY-ATTACH XMSN OUTBD FLAP (FOR DETAILS SEE FIG. 6)	L	RF
–33	113A1520-2		FITTING ASSY-ATTACH XMSN OUTBD FLAP (FOR DETAILS SEE FIG. 6)	M	RF
–36	113A1550-1		DELETED		
–36A	113A1550-7		DELETED		

–Item not Illustrated

FIG/ ITEM	PART NUMBER	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USAGE CODE	UNITS PER ASSY
1–					
–36B	113A1550-105		DELETED		
–36C	113A1550-11		FITTING ASSY-FWD OUTBD FLAP (FOR DETAILS SEE FIG. 7)	J	RF
–36D	113A1550-109		FITTING ASSY-FWD OUTBD FLAP (FOR DETAILS SEE FIG. 7)	K	RF
–36E	113A1550-201		FITTING ASSY-FWD OUTBD FLAP (FOR DETAILS SEE FIG. 7)	AK	RF
–39	113A1550-2		DELETED		
–39A	113A1550-8		DELETED		
–39B	113A1550-106		DELETED		
–39C	113A1550-12		FITTING ASSY-FWD OUTBD FLAP (FOR DETAILS SEE FIG. 7)	S	RF
–39D	113A1550-110		FITTING ASSY-FWD OUTBD FLAP (FOR DETAILS SEE FIG. 7)	T	RF
–39E	113A1550-202		FITTING ASSY-FWD OUTBD FLAP (FOR DETAILS SEE FIG. 7)	AL	RF
–42	113A1720-1		FITTING ASSY-ATTACH XMSN (FOR DETAILS SEE FIG. 8)	Q	RF
–42A	113A1720-11		FITTING ASSY-ATTACH XMSN (FOR DETAILS SEE FIG. 8)	AX	RF
–45	113A1720-2		FITTING ASSY-ATTACH XMSN (FOR DETAILS SEE FIG. 8)	R	RF
–45A	113A1720-12		FITTING ASSY-ATTACH XMSN (FOR DETAILS SEE FIG. 8)	AY	RF
–48	113A1750-1		DELETED		
–48A	113A1750-7		FITTING ASSY-FWD OUTBD FLAP (FOR DETAILS SEE FIG. 9)	AP	RF
–48B	113A1750-105		FITTING ASSY-FWD OUTBD FLAP (FOR DETAILS SEE FIG. 9)	AQ	RF
–48C	113A1750-201		FITTING ASSY-FWD OUTBD FLAP (FOR DETAILS SEE FIG. 9)	AM	RF
–51	113A1750-2		DELETED		
–51A	113A1750-8		FITTING ASSY-FWD OUTBD FLAP (FOR DETAILS SEE FIG. 9)	AR	RF
–51B	113A1750-106		FITTING ASSY-FWD OUTBD FLAP (FOR DETAILS SEE FIG. 9)	AS	RF

–Item not Illustrated

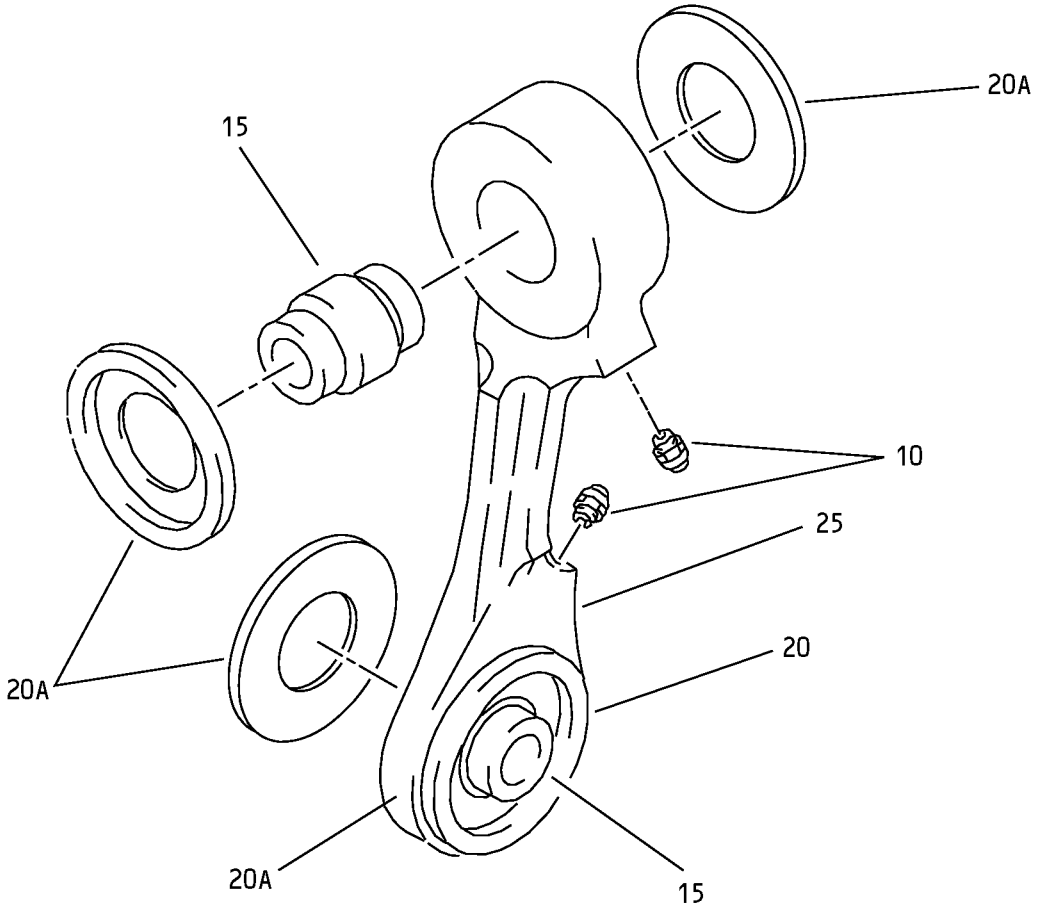
FIG/ ITEM	PART NUMBER	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USAGE CODE	UNITS PER ASSY
1–					
–51C	113A1750-202		FITTING ASSY-FWD OUTBD FLAP (FOR DETAILS SEE FIG. 9)	AN	RF
–53	113A1317-1		FITTING ASSY-AFT FLAP DRIVE, INBD FLAP (FOR DETAILS SEE FIG. 13)	Z	RF
–53L	113A1317-2		FITTING ASSY-AFT FLAP DRIVE, INBD FLAP (FOR DETAILS SEE FIG. 13)	AA	RF
–54	113A1319		DELETED		
–55	113A1517-1		FITTING ASSY-AFT FLAP DRIVE, WBL 254 (FOR DETAILS SEE FIG. 14)	AB	RF
–55A	113A1517-2		FITTING ASSY-AFT FLAP DRIVE, WBL 254 (FOR DETAILS SEE FIG. 14)	AC	RF
–56	113A1717-1		FITTING ASSY-AFT FLAP DRIVE, WBL 357.7 (FOR DETAILS SEE FIG. 14)	AD	RF
–56L	113A1717-2		FITTING ASSY-AFT FLAP DRIVE, WBL 357.7 (FOR DETAILS SEE FIG. 14)	AE	RF
–57	113A1519		DELETED		
–58	113A1719		DELETED		
60	BACW10P374L		. WASHER	A, B	4
65	BACB28AT12B023C		. BUSHING	A, B	4
70	BACB28AT12B028C		. BUSHING	A, B	2
75	113A1120-3		. FITTING	A	1
–80	113A1120-4		. FITTING	B	1



Inboard Flap Inboard Forward Fitting Assembly
IPL Figure 2

FIG/ ITEM	PART NUMBER	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USAGE CODE	UNITS PER ASSY
2–					
–1	113A1150-1		FITTING ASSY-FWD INBD TRACK INBD FLAP	C	RF
–1A	113A1150-101		FITTING ASSY-FWD INBD TRACK INBD FLAP	X	RF
–1B	113A1150-201		FITTING ASSY-FWD INBD TRACK INBD FLAP	AT	RF
–5	113A1150-2		FITTING ASSY-FWD INBD TRACK INBD FLAP	D	RF
–5A	113A1150-102		FITTING ASSY-FWD INBD TRACK INBD FLAP	Y	RF
–5B	113A1150-202		FITTING ASSY-FWD INBD TRACK INBD FLAP	AU	RF
10	MS15004-1		. FITTING-LUBE	C, D, X, Y, AT, AU	1
15	NC10G10		. BEARING (V56644) (SPEC BACB10GB10G) (OPT BNG10H118 (V16746)) (OPT LHSS10EMG (V73134))	C, D, X, Y, AT, AU	1
20	113A1242-1		. WASHER-PHENOLIC	C, D, X, Y, AT, AU	2
25	BACB28AT12B019A		. BUSHING	C, D, X, Y, AT, AU	2
30	113A1151-1		. FITTING	C	1
–30A	113A1151-102		DELETED		
–30B	113A1151-101		. FITTING	X	1
–30C	113A1151-201		. FITTING	AT	1
–35	113A1151-2		. FITTING	D	1
–35A	113A1151-102		. FITTING	Y	1
–35B	113A1151-202		. FITTING	AU	1

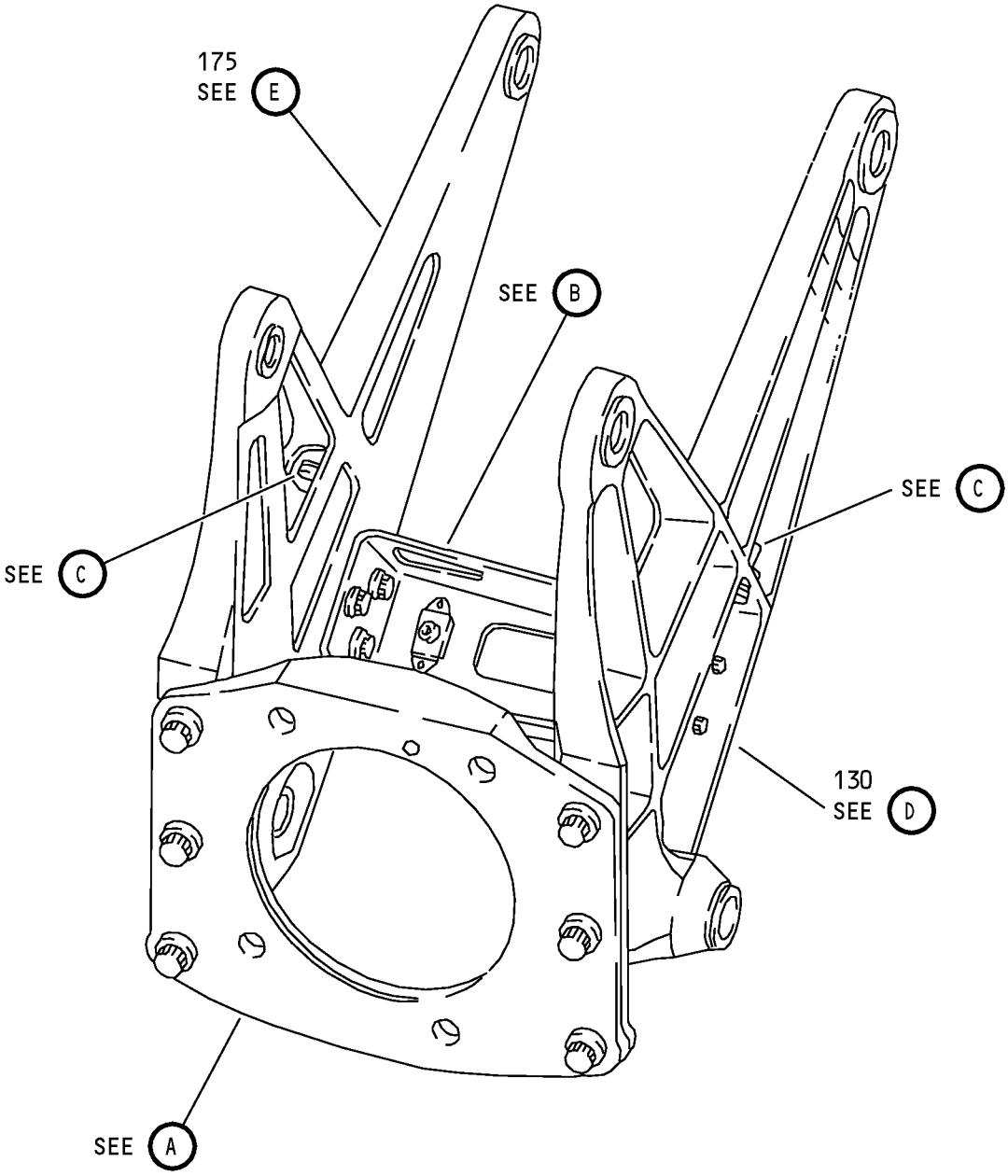
–Item not Illustrated



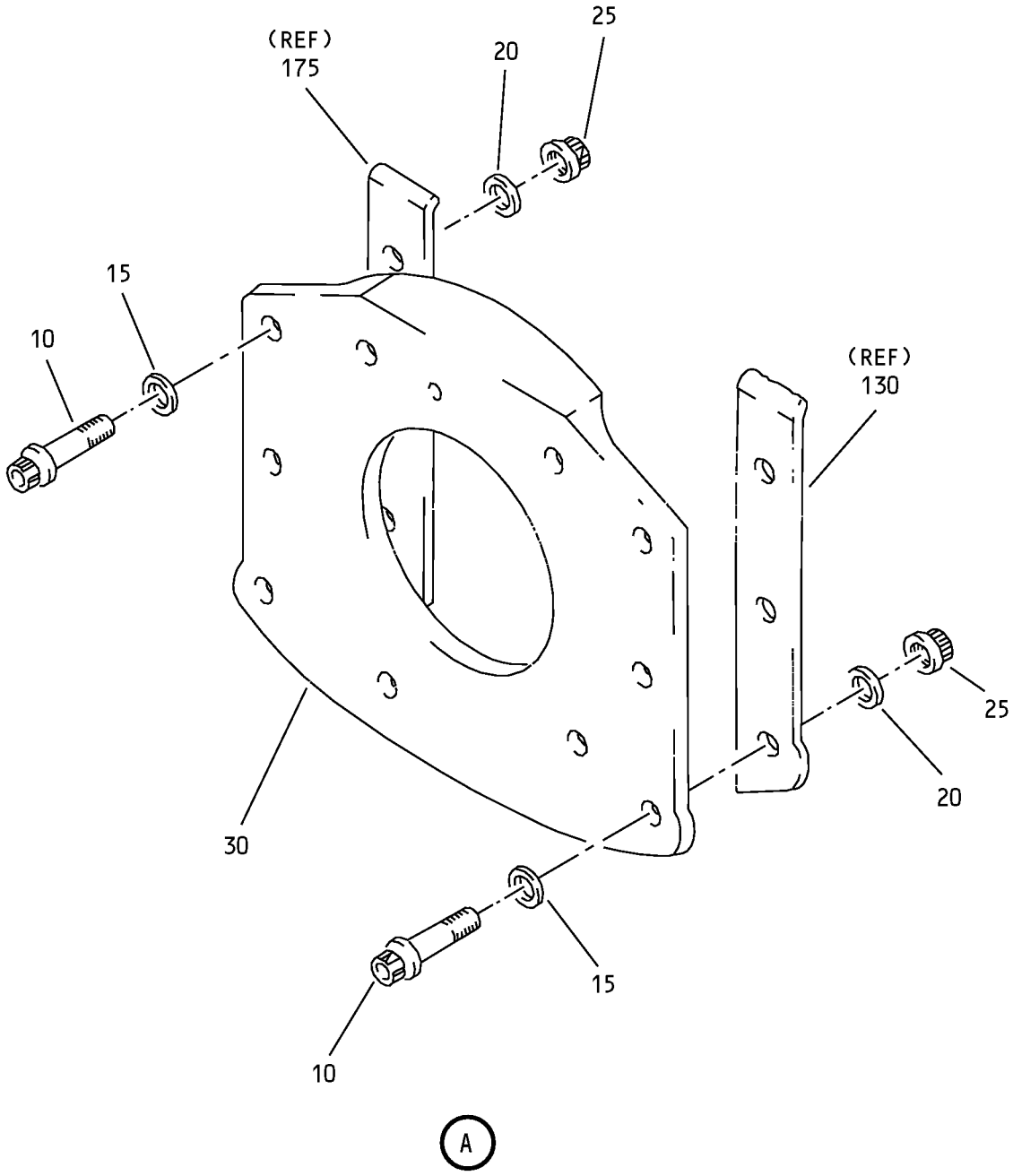
Inboard Flap Inboard Support Link Assembly
IPL Figure 3

FIG/ ITEM	PART NUMBER	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USAGE CODE	UNITS PER ASSY
3–					
–1	113A1220-1		LINK ASSY-INBD TRACK SUPT INBD FLAP	E	RF
–5	113A1220-2		DELETED		
10	MS15001-1		. FITTING-LUBE	E	2
15	NC12G10C		. BEARING (V56644) (SPEC BACB10GB12GC) (OPT BNG12H118C (V16746))	E	2
20	113A1242-2		DELETED		
20A	113A1242-5		. WASHER	E	4
25	113A1220-3		. LINK	E	1
–30	113A1220-4		DELETED		

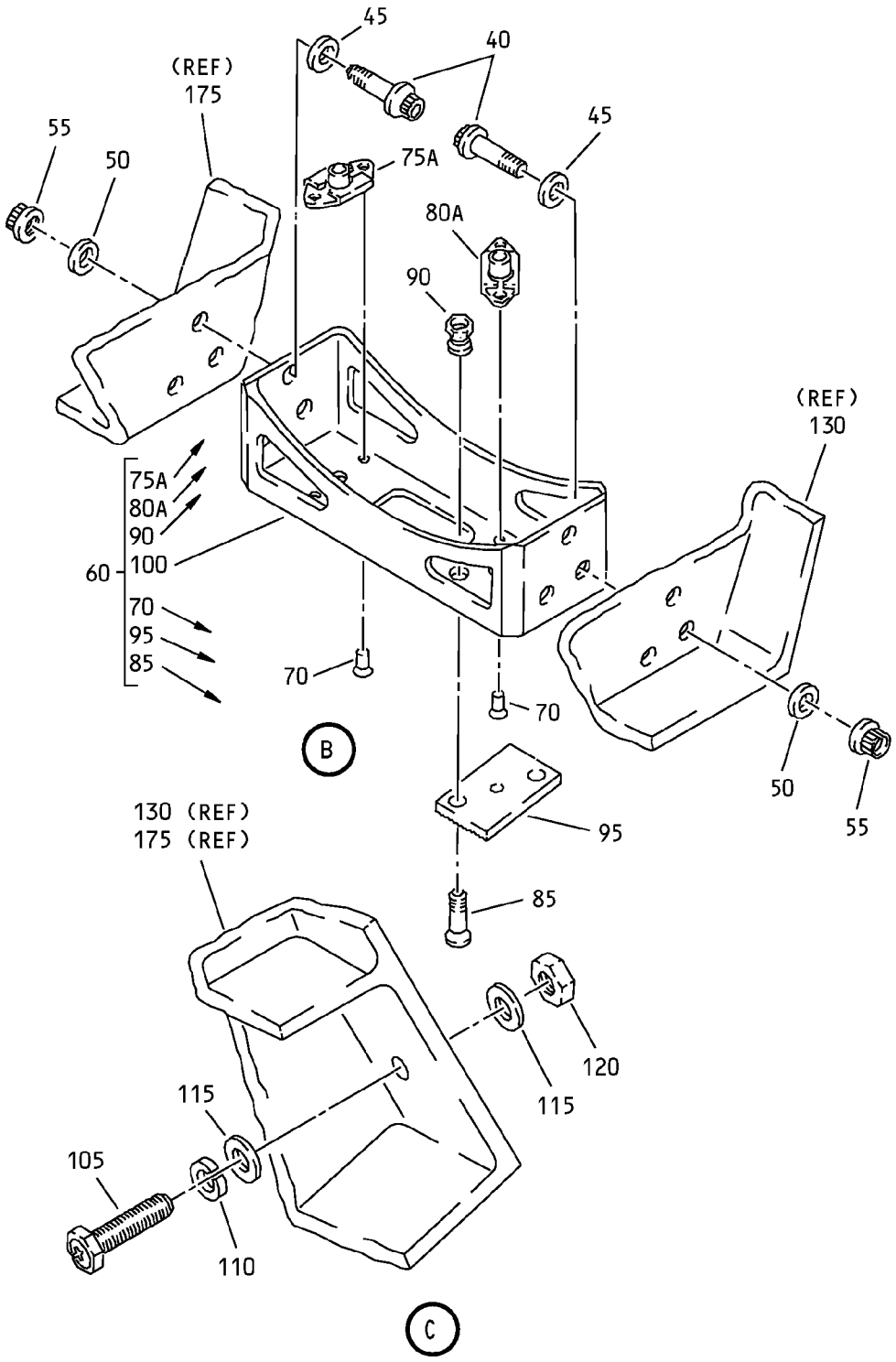
–Item not Illustrated



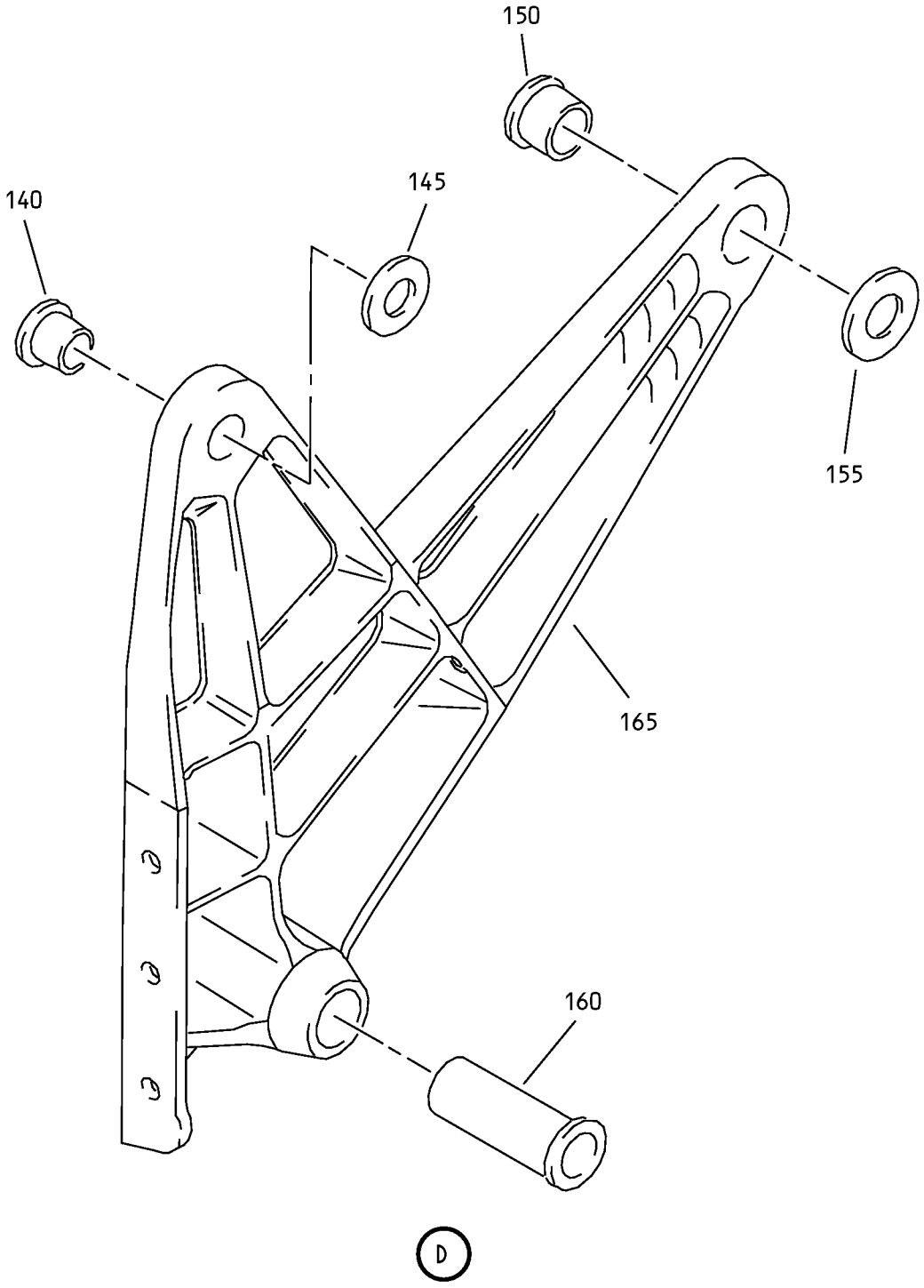
Inboard Flap Outboard Transmission Attach Fitting Assembly
IPL Figure 4 (Sheet 1 of 5)



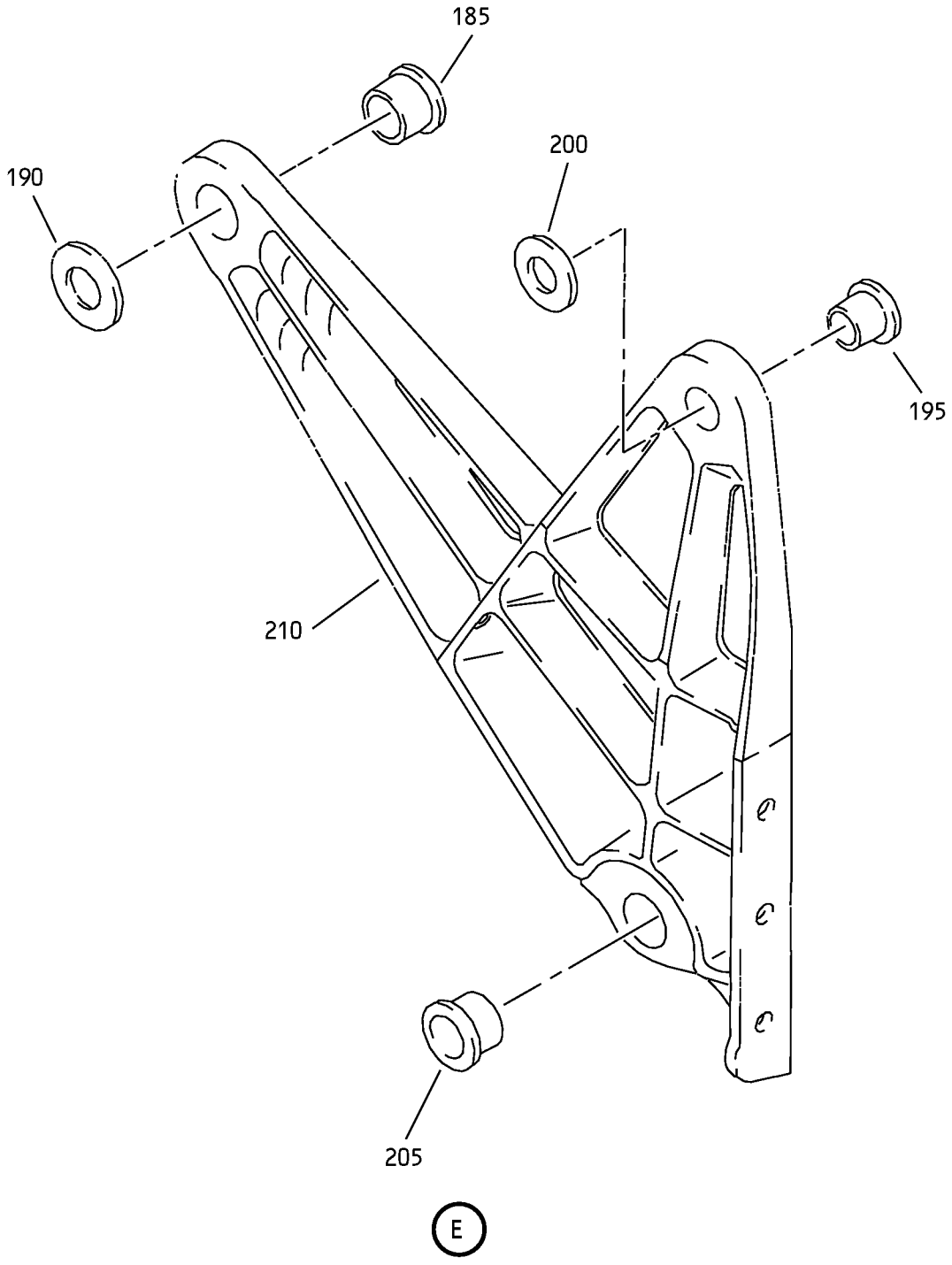
Inboard Flap Outboard Transmission Attach Fitting Assembly
IPL Figure 4 (Sheet 2 of 5)



Inboard Flap Outboard Transmission Attach Fitting Assembly
IPL Figure 4 (Sheet 3 of 5)



Inboard Flap Outboard Transmission Attach Fitting Assembly
IPL Figure 4 (Sheet 4 of 5)



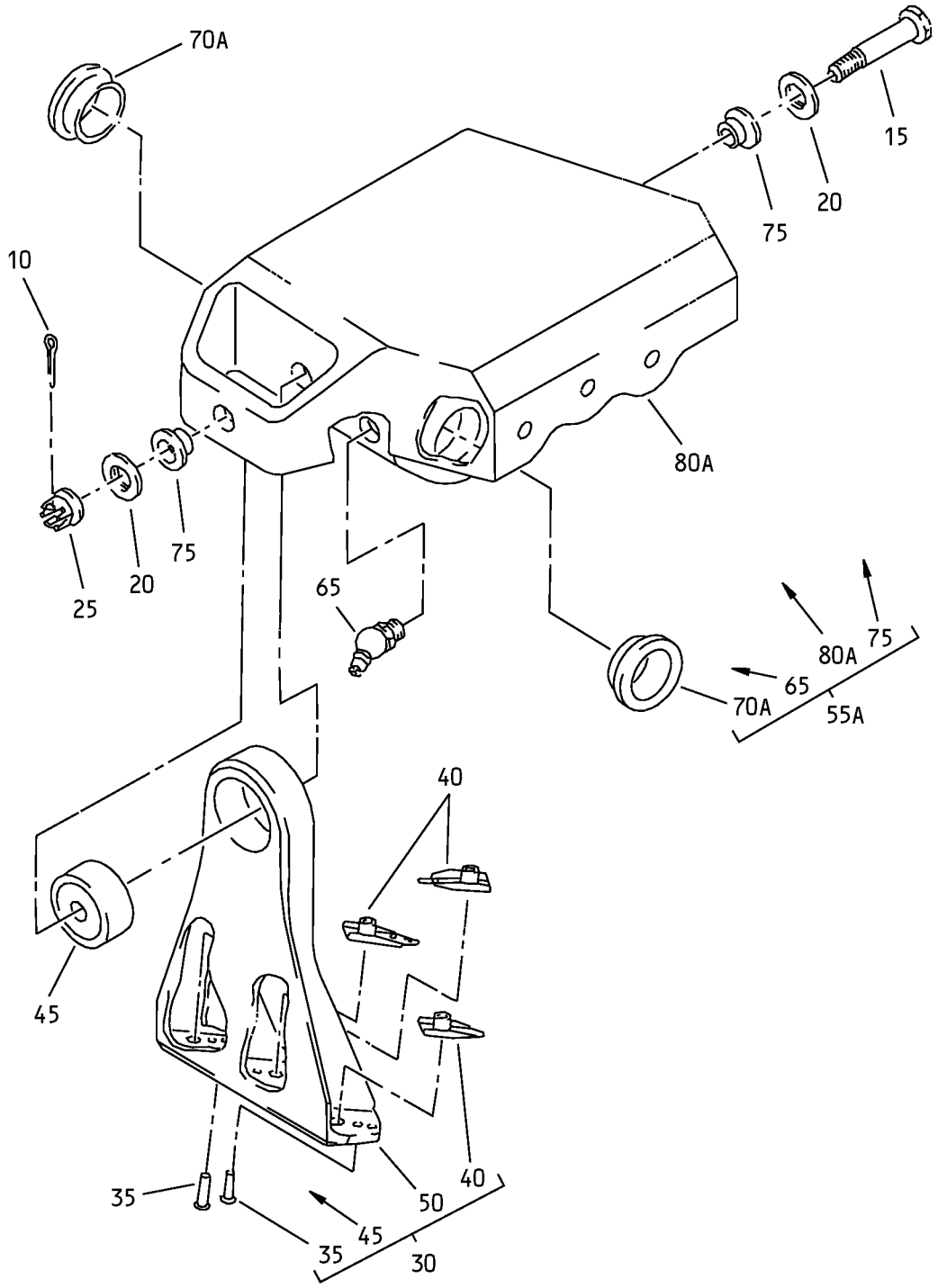
Inboard Flap Outboard Transmission Attach Fitting Assembly
IPL Figure 4 (Sheet 5 of 5)

FIG/ ITEM	PART NUMBER	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USAGE CODE	UNITS PER ASSY
4–					
–1	113A1320-1		FITTING ASSY-ATTACH XMSN OUTBD TRACK INBD FLAP	G	RF
–1A	113A1320-9		FITTING ASSY-ATTACH XMSN OUTBD TRACK INBD FLAP	AV	RF
–5	113A1320-2		FITTING ASSY-ATTACH XMSN OUTBD TRACK INBD FLAP	H	RF
–5A	113A1320-10		FITTING ASSY-ATTACH XMSN OUTBD TRACK INBD FLAP	AW	RF
10	BACB30MR6K9		DELETED		
10A	BACB30MR6K8		. BOLT	G, H, AV, AW	6
15	BACW10BP6ACU		. WASHER	G, H, AV, AW	6
20	BACW10BP6DP		. WASHER	G, H, AV, AW	6
25	NAS1805-6L		. NUT	G, H, AV, AW	6
30	113A1322-1		. FACEPLATE	G, AV	1
–35	113A1322-2		. FACEPLATE	H, AW	1
40	BACB30MR4K5		DELETED		
40A	BACB30MR4K4		. BOLT	G, H, AV, AW	6
45	BACW10BP4CD		. WASHER	G, H, AV, AW	6
50	BACW10BP4DP		. WASHER	G, H, AV, AW	6
55	NAS1805-4L		. NUT	G, H, AV, AW	6
60	113A1320-3		. BRIDGE ASSY	G, AV	1
–65	113A1320-4		. BRIDGE ASSY	H, AW	1
70	BACR15BA3AD5C		. . RIVET	G, H, AV, AW	4
75	NS202493-048-1		DELETED		

–Item not Illustrated

FIG/ ITEM	PART NUMBER	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USAGE CODE	UNITS PER ASSY
4–					
75A	NS202493-048-5		. . NUTPLATE (V80539) (SPEC BACN10KE4B5CD) (OPT 102A9219-5-4 (V72962)) (OPT F51747-4-5CD (V15653)) (OPT 102A9213-5-4 (V72962))	G, H, AV, AW	1
80	NS202493-048-3		DELETED		
80A	NS202493-048-1		. . NUTPLATE (V80539) (SPEC BACN10KE4ACD) (OPT 102A9212-4 (V72962)) (OPT F51747-4-1CD (V15653)) (OPT BRFR220C4-10 (V52828))	G, H, AV, AW	1
85	HST11AG6-4		. . BOLT (V06725) (SPEC BACB30VU6K4) (OPT HST11AG6-4 (V73197)) (OPT HST11AG6-4 (V56878)) (OPT HST11AG6-4 (V0PTK6))	G, H, AV, AW	2
90	HST79CY6		. . COLLAR (V73197) (SPEC BACC30BL6) (OPT HST79-6 (V56878)) (OPT HST79-6 (V92215)) (OPT HST79-6 (V5M902))	G, H, AV, AW	2
95	113A1324-1		. . PLATE-SERRATED	G, H, AV, AW	1
100	113A1323-1		. . FITTING	G, H, AV, AW	1
105	BACS12GU3K13		. SCREW	G, H, AV, AW	2
110	MS35338-43		. WASHER	G, H, AV, AW	2
115	NAS1149D0316H		. WASHER	G, H, AV, AW	4
120	MS35650-305T		. NUT	G, H, AV, AW	2
130	113A1320-5		. SIDEPLATE ASSY-INBD	G	1
–130A	113A1320-11		. SIDEPLATE ASSY-INBD	AV	1
–135	113A1320-6		. SIDEPLATE ASSY-INBD	H	1

FIG/ ITEM	PART NUMBER	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USAGE CODE	UNITS PER ASSY
4–					
–135A	113A1320-12		. SIDEPLATE ASSY-INBD	AW	1
140	BACB28AT10C052C		. . BUSHING	G, H, AV, AW	1
145	BACW10P158L		. . WASHER	G, H	1
–145A	BACW10P139L		. . WASHER	AV, AW	1
150	BACB28AT12C054C		DELETED		
150A	BACB28AT12D054C		. . BUSHING	G, H, AV, AW	1
155	BACW10P194L		. . WASHER	G, H	1
–155A	BACW10P394L		. . WASHER	AV, AW	1
160	BACB28AZ11A184C		. . BUSHING	G, H, AV, AW	1
165	113A1321-1		. . SIDEPLATE	G, AV	1
–170	113A1321-2		. . SIDEPLATE	H, AW	1
175	113A1320-7		. SIDEPLATE ASSY-OUTBD	G	1
–175A	113A1320-13		. SIDEPLATE ASSY-OUTBD	AV	1
–180	113A1320-8		. SIDEPLATE ASSY-OUTBD	H	1
–180A	113A1320-14		. SIDEPLATE ASSY-OUTBD	AW	1
185	BACB28AT12D054C		. . BUSHING	G, H, AV, AW	1
190	BACW10P194L		. . WASHER	G, H	1
–190A	BACW10P394L		. . WASHER	AV, AW	1
195	BACB28AT10D052C		. . BUSHING	G, H, AV, AW	1
200	BACW10P158L		. . WASHER	G, H	1
–200A	BACW10P139L		. . WASHER	AV, AW	1
205	BACB28AZ11A049C		. . BUSHING	G, H, AV, AW	1
210	113A1321-3		. . SIDEPLATE	G, AV	1
–215	113A1321-4		. . SIDEPLATE	H, AW	1



Inboard Flap Outboard Forward Fitting Assembly
IPL Figure 5

FIG/ ITEM	PART NUMBER	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USAGE CODE	UNITS PER ASSY
5–					
–1	113A1350-1		DELETED		
–1A	113A1350-7		FITTING ASSY-FWD OUTBD TRACK INBD FLAP	F	RF
–1B	113A1350-105		FITTING ASSY-FWD OUTBD TRACK INBD FLAP	U	RF
–1C	113A1350-11		FITTING ASSY-FWD OUTBD TRACK INBD FLAP	V	RF
–1D	113A1350-109		FITTING ASSY-FWD OUTBD TRACK INBD FLAP	W	RF
–1E	113A1350-201		FITTING ASSY-FWD OUTBD TRACK INBD FLAP	N	RF
–5	113A1350-2		DELETED		
–5A	113A1350-8		FITTING ASSY-FWD OUTBD TRACK INBD FLAP	AF	RF
–5B	113A1350-106		FITTING ASSY-FWD OUTBD TRACK INBD FLAP	AG	RF
–5C	113A1350-12		FITTING ASSY-FWD OUTBD TRACK INBD FLAP	AH	RF
–5D	113A1350-110		FITTING ASSY-FWD OUTBD TRACK INBD FLAP	AJ	RF
–5E	113A1350-202		FITTING ASSY-FWD OUTBD TRACK INBD FLAP	P	RF
10	BACP18BC02A06P		. PIN-COTTER	F, N, P, U-W, AF-AJ	1
15	BACB30LJ5DSU26		. BOLT	F, N, P, U-W, AF-AJ	1
20	BACW10BP5ACU		. WASHER	F, N, P, U-W, AF-AJ	2
25	MS14144L5		. NUT	F, U-W, AF-AJ	1
–25B	BACN11N5CD		. NUT	N, P	1
30	113A1350-3		. FITTING ASSY	F, N, P, U-W, AF-AJ	1

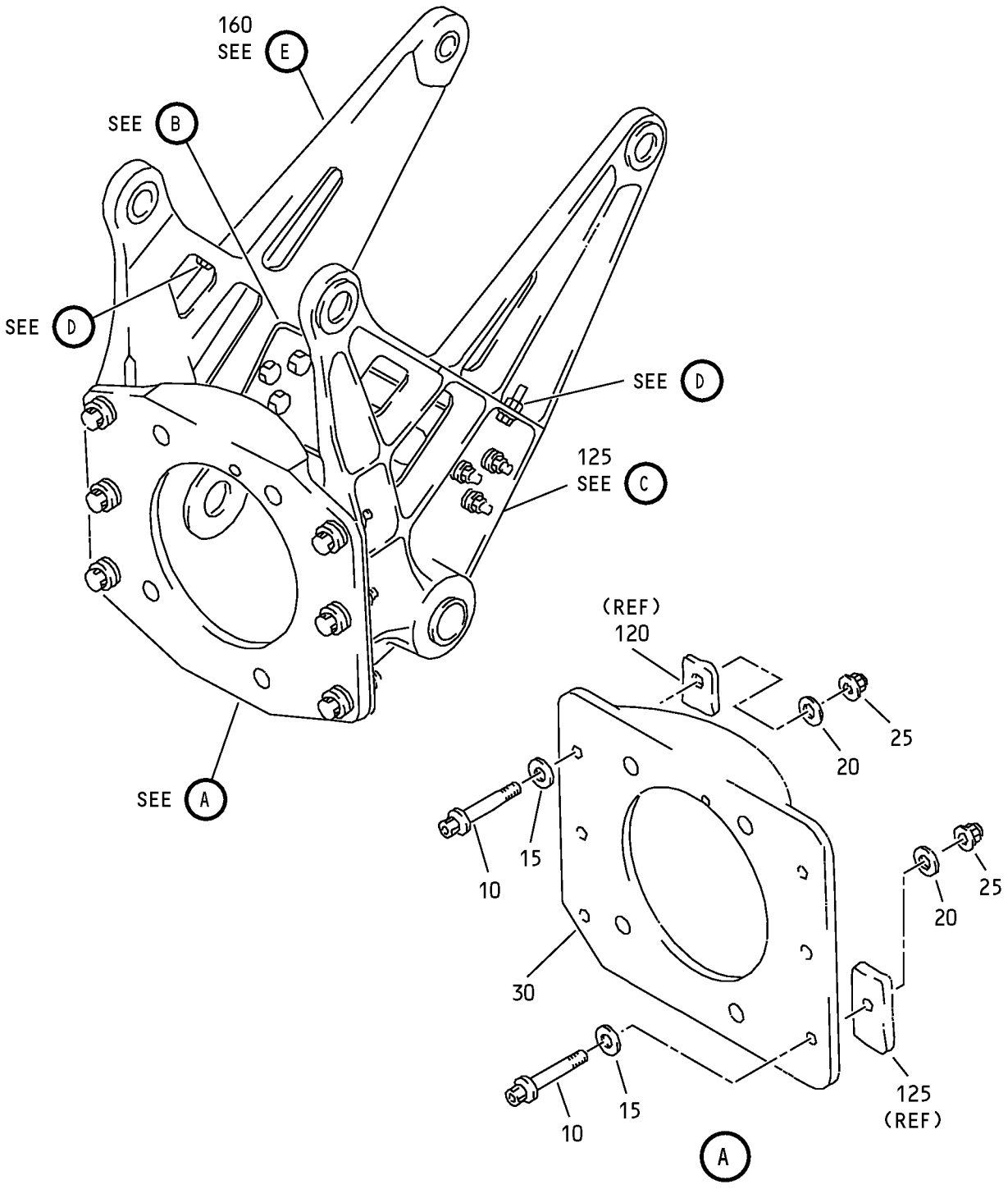
–Item not Illustrated

FIG/ ITEM	PART NUMBER	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USAGE CODE	UNITS PER ASSY
5–					
35	BACR15BA3AD6C		. . RIVET	F, N, P, U-W, AF-AJ	6
40	BACN11G4B1CD		. . NUTPLATE	F, N, P, U-W, AF-AJ	3
45	SY10670		. . BUSHING-ELASTOMERIC (V95272) (SPEC S113N106-1) (OPT DE903 (V71985))	F, N, P, U-W, AF-AJ	1
50	113A1352-1		. . FITTING-FAIRING SUPT	F, N, P, U-W, AF-AJ	1
55	113A1350-5		DELETED		
55A	113A1350-9		. FITTING ASSY	F	1
–55B	113A1350-107		. FITTING ASSY	U	1
–55C	113A1350-13		. FITTING ASSY	V	1
–55D	113A1350-111		. FITTING ASSY	W	1
–55E	113A1350-203		. FITTING ASSY	N	1
–60	113A1350-6		DELETED		
–60A	113A1350-10		. FITTING ASSY	AF	1
–60B	113A1350-108		. FITTING ASSY	AG	1
–60C	113A1350-14		. FITTING ASSY	AH	1
–60D	113A1350-112		. FITTING ASSY	AJ	1
–60E	113A1350-204		. FITTING ASSY	P	1
65	MS15004-2		. . FITTING-LUBE	F, U-W, AF-AJ	1
–65A	AS15004-2		. . FITTING-LUBE (OPT ITEM 65B)	N, P	1
–65B	MS15004-2		. . FITTING-LUBE (OPT ITEM 65A)	N, P	1
70	113A1240-1		DELETED		
70A	113A1240-8		. . BUSHING-SPECIAL	F, N, P, U-W, AF-AJ	2

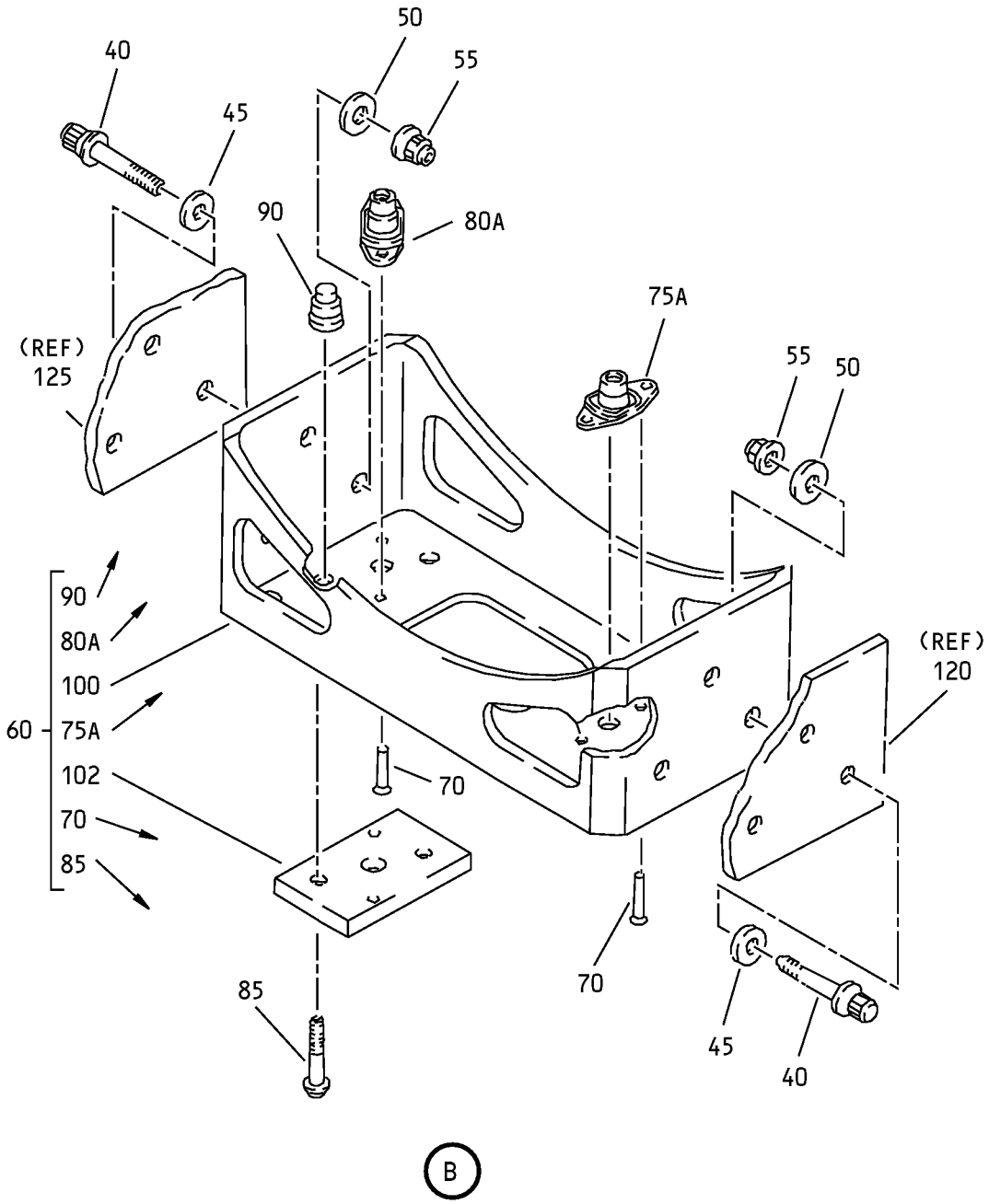
–Item not Illustrated

FIG/ ITEM	PART NUMBER	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USAGE CODE	UNITS PER ASSY
5–					
75	BACB28AT05B019A		. . BUSHING	F, N, P, U-W, AF-AJ	2
80	113A1353-1		DELETED		
80A	113A1353-3		. . FITTING	F	1
–80B	113A1353-103		. . FITTING	U	1
–80C	113A1353-5		. . FITTING	V	1
–80D	113A1353-105		. . FITTING	W	1
–80E	113A1353-201		. . FITTING	N	1
–85	113A1353-2		DELETED		
–85A	113A1353-4		. . FITTING	AF	1
–85B	113A1353-104		. . FITTING	AG	1
–85C	113A1353-6		. . FITTING	AH	1
–85D	113A1353-106		. . FITTING	AJ	1
–85E	113A1353-202		. . FITTING	P	1

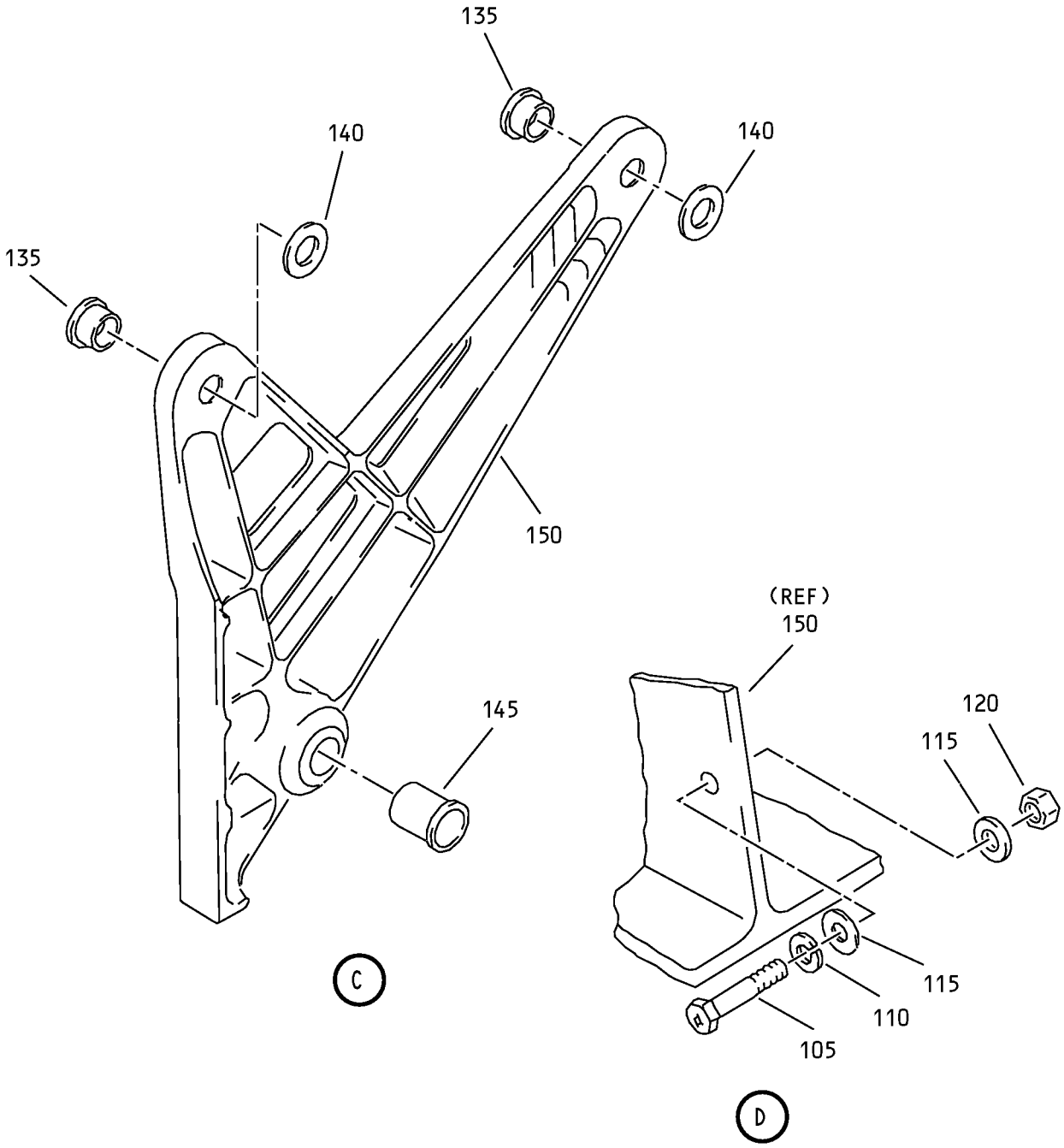
–Item not Illustrated



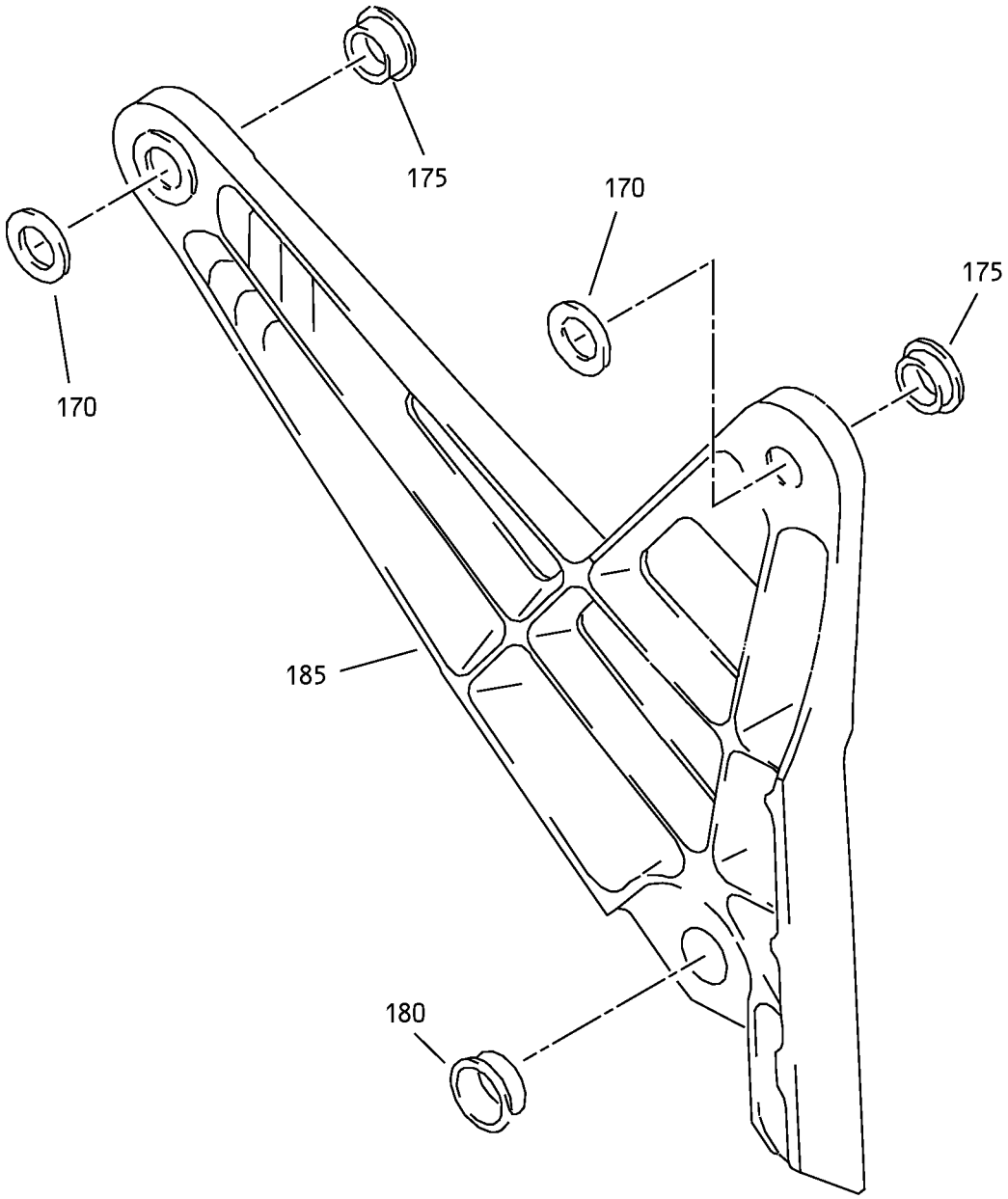
Outboard Flap Inboard Transmission Attach Fitting Assembly
IPL Figure 6 (Sheet 1 of 4)



Outboard Flap Inboard Transmission Attach Fitting Assembly
IPL Figure 6 (Sheet 2 of 4)



Outboard Flap Inboard Transmission Attach Fitting Assembly
IPL Figure 6 (Sheet 3 of 4)



Outboard Flap Inboard Transmission Attach Fitting Assembly
IPL Figure 6 (Sheet 4 of 4)

FIG/ ITEM	PART NUMBER	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USAGE CODE	UNITS PER ASSY
6–					
–1	113A1520-1		FITTING ASSY-ATTACH XMSN OUTBD FLAP	L	RF
–5	113A1520-2		FITTING ASSY-ATTACH XMSN OUTBD FLAP	M	RF
10	BACB30MR6K9		. BOLT	L, M	6
15	BACW10BP6CD		DELETED		
15A	BACW10BP6ACU		. WASHER	L, M	6
20	BACW10BP6DP		DELETED		
20A	BACW10BP6APU		. WASHER	L, M	6
25	NAS1805-6L		DELETED		
25A	NAS1805-6		. NUT	L, M	6
30	113A1522-1		. FACEPLATE	L	1
–35	113A1522-2		. FACEPLATE	M	1
40	BACB30MR4K5		DELETED		
40A	BACB30MR4K4		. BOLT	L, M	6
45	BACW10BP4CD		. WASHER	L, M	6
50	BACW10BP4DP		DELETED		
50A	BACW10BP4APU		. WASHER	L, M	6
55	NAS1805-4L		DELETED		
55A	NAS1805-4		. NUT	L, M	6
60	113A1520-3		. BRIDGE ASSY	L	1
–65	113A1520-4		. BRIDGE ASSY	M	1
70	BACR15BA3AD5C		. . RIVET	L, M	4
75	NS202493-048-1		DELETED		
75A	NS202493-048-4		. . NUTPLATE (V80539) (SPEC BACN10KE4B4CD) (OPT 102A9219-4-4 (V72962)) (OPT F51747-4-4CD (V15653)) (OPT 102A9213-4-4 (V72962)) (OPT BRFR220C4-4D (V52825))	L, M	1
80	NS202493-048-3		DELETED		

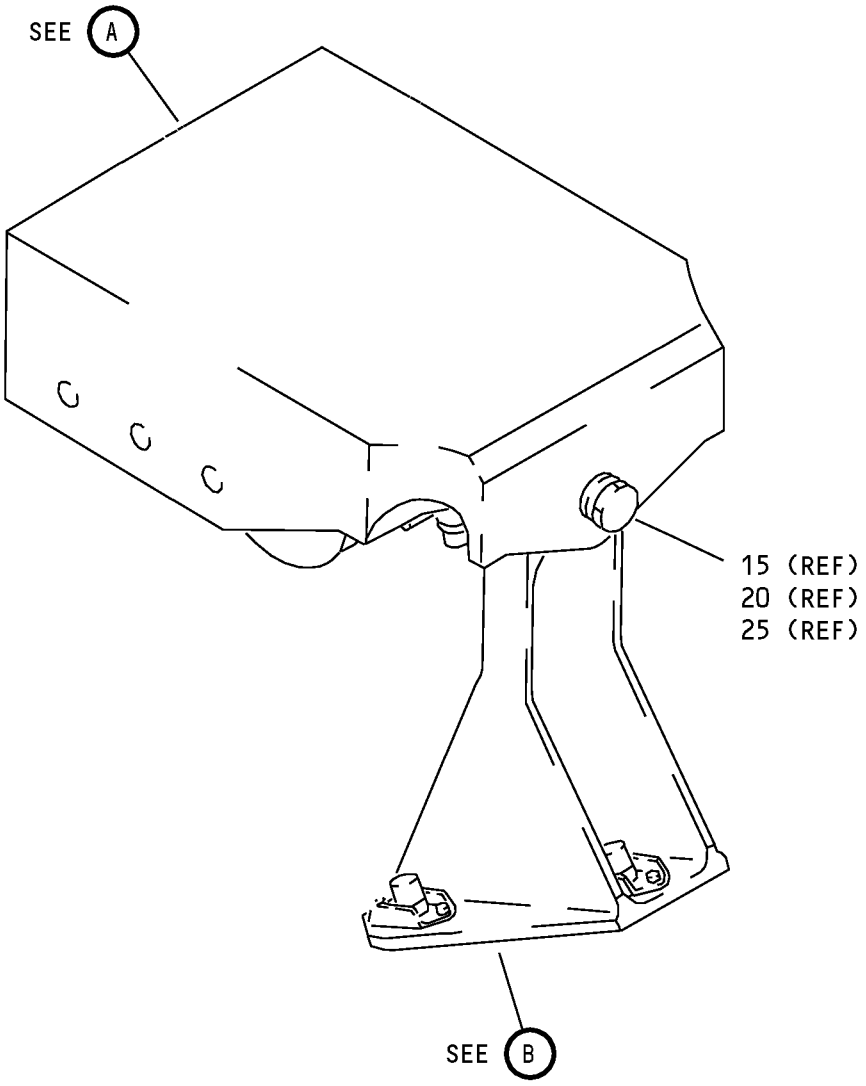
–Item not Illustrated

FIG/ ITEM	PART NUMBER	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USAGE CODE	UNITS PER ASSY
6–					
80A	NS202493-048-1		. . NUTPLATE (V80539) (SPEC BACN10KE4ACD) (OPT 102A9212-4 (V72962)) (OPT F51747-4-1CD (V15653)) (OPT BRFR220C4-10 (V52828))	L, M	1
85	HST11AG6-4		DELETED		
85A	WC331K6-4		. . BOLT (V60516) (SPEC BACB30YP6K4)	L, M	2
90	HST79CY6		. . COLLAR (V73197) (SPEC BACC30BL6) (OPT HST79-6 (V56878)) (OPT HST79-6 (V92215)) (OPT HST79-6 (V5M902))	L, M	2
100	113A1523-1		. . FITTING	L, M	1
102	113A1324-1		. . PLATE-SERRATED	L, M	1
105	NAS1802-3-13		DELETED		
105A	BACS12GU3K13		. SCREW	L, M	2
110	MS35338-138		. WASHER	L, M	2
115	BACW10BP3APU		. WASHER	L, M	4
120	MS35650-304		. NUT	L, M	2
125	113A1520-5		. SIDEPLATE ASSY-INBD	L	1
–130	113A1520-6		. SIDEPLATE ASSY-INBD	M	1
135	BACB28AT12D037B		. . BUSHING	L, M	2
140	BACW10P374L		. . WASHER	L, M	2
145	BACB28AZ14A149B		. . BUSHING	L, M	1
150	113A1521-1		. . SIDEPLATE	L	1
–155	113A1521-2		. . SIDEPLATE	M	1
160	113A1520-7		. SIDEPLATE ASSY-OUTBD	L	1
–165	113A1520-8		. SIDEPLATE ASSY-OUTBD	M	1
170	BACB28AT12D037B		. . BUSHING	L, M	2
175	BACW10P374L		. . WASHER	L, M	2
180	BACB28AZ14A047B		. . BUSHING	L, M	1

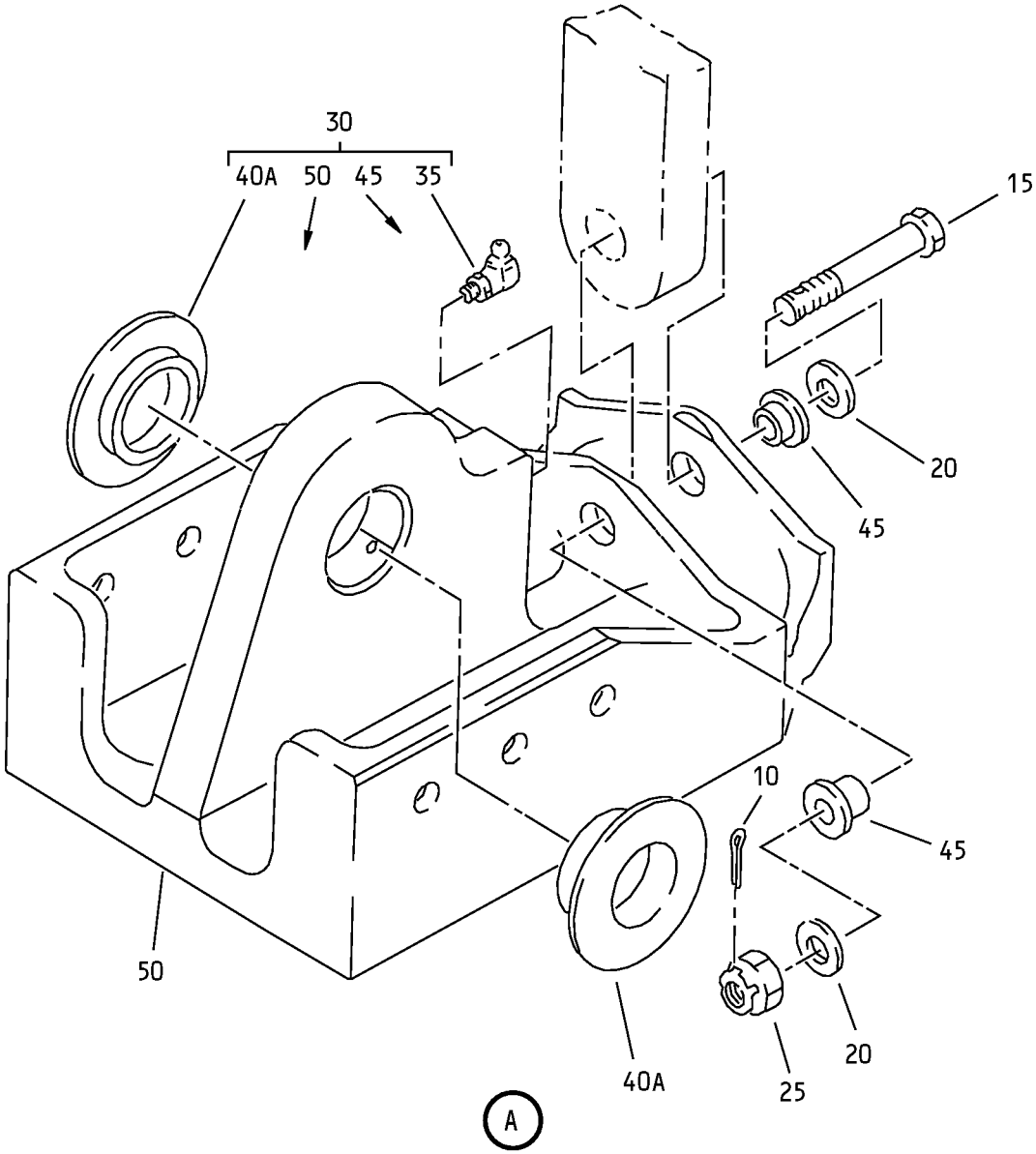
–Item not Illustrated

FIG/ ITEM	PART NUMBER	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USAGE CODE	UNITS PER ASSY
6–					
185	113A1520-3		DELETED		
185A	113A1521-3		. . SIDEPLATE	L	1
–190	113A1520-4		DELETED		
–190A	113A1521-4		. . SIDEPLATE	M	1

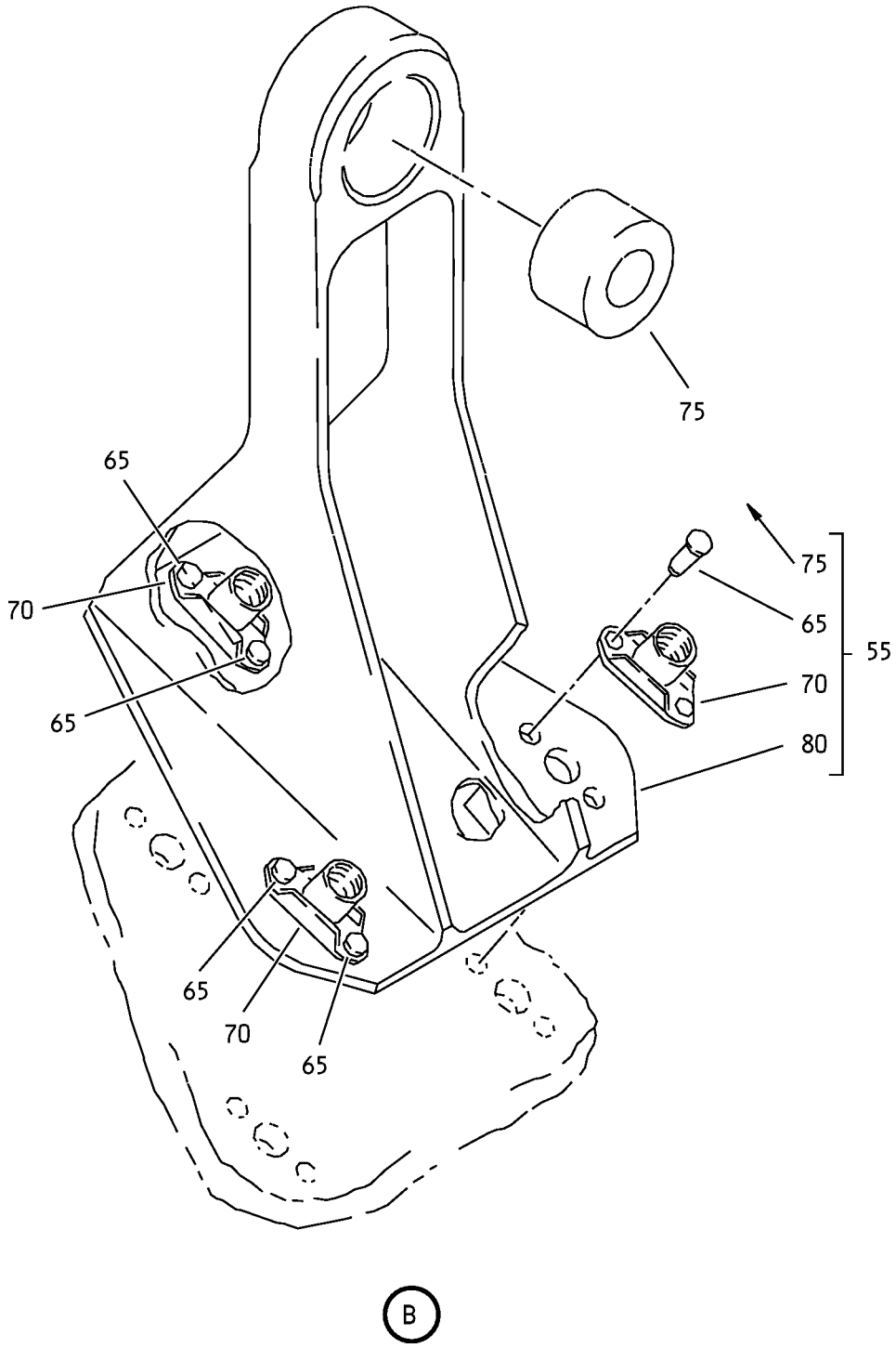
–Item not Illustrated



Inboard Flap Inboard Forward Fitting Assembly
IPL Figure 7 (Sheet 1 of 3)



Inboard Flap Inboard Forward Fitting Assembly
IPL Figure 7 (Sheet 2 of 3)

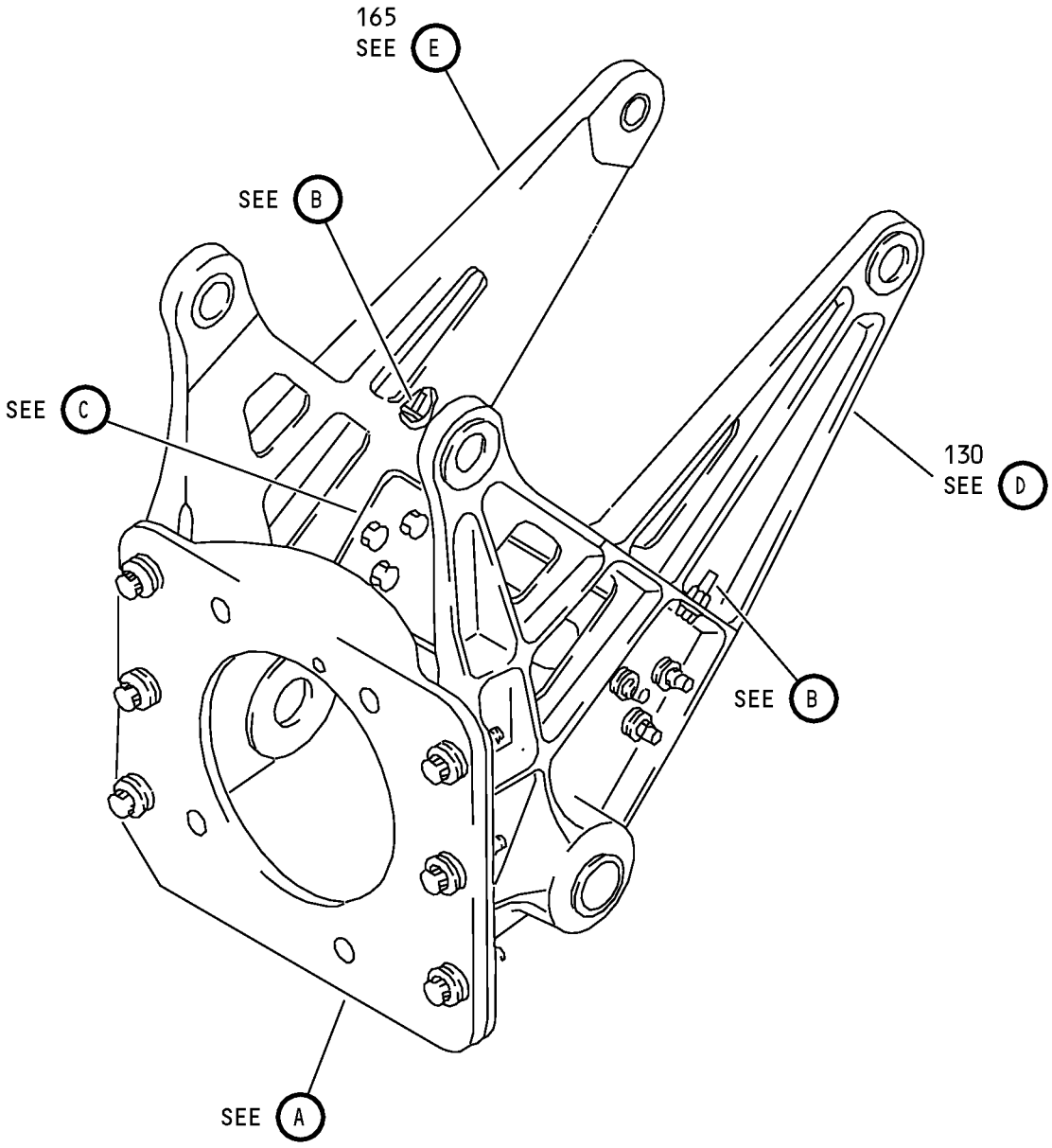


Inboard Flap Inboard Forward Fitting Assembly
IPL Figure 7 (Sheet 3 of 3)

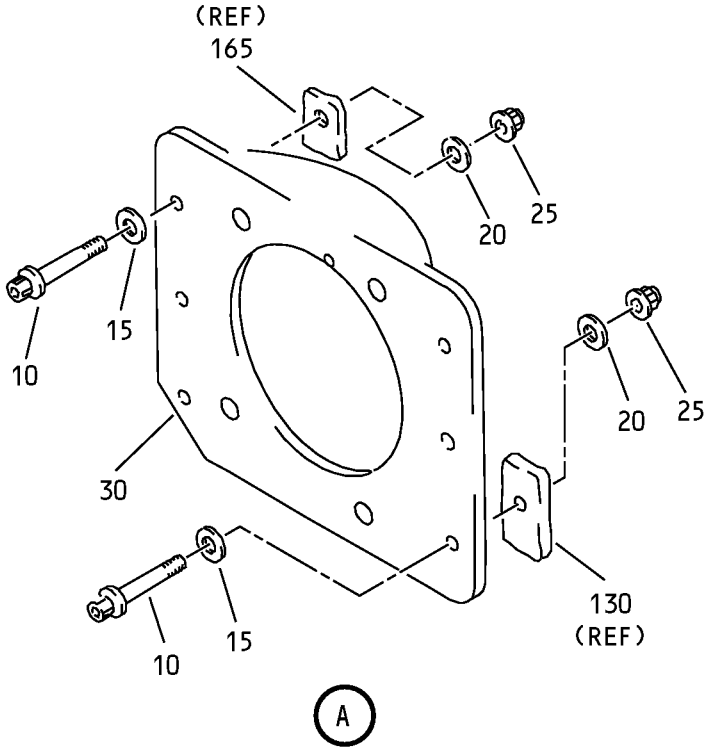
FIG/ ITEM	PART NUMBER	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USAGE CODE	UNITS PER ASSY
7–					
–1	113A1550-1		DELETED		
–1A	113A1550-7		DELETED		
–1B	113A1550-105		DELETED		
–1C	113A1550-11		FITTING ASSY-FWD OUTBD FLAP	J	RF
–1D	113A1550-109		FITTING ASSY-FWD OUTBD FLAP	K	RF
–1E	113A1550-201		FITTING ASSY-FWD OUTBD FLAP	AK	RF
–5	113A1550-2		DELETED		
–5A	113A1550-8		DELETED		
–5B	113A1550-106		DELETED		
–5C	113A1550-12		FITTING ASSY-FWD OUTBD FLAP	S	RF
–5D	113A1550-110		FITTING ASSY-FWD OUTBD FLAP	T	RF
–5E	113A1550-202		FITTING ASSY-FWD OUTBD FLAP	AL	RF
10	BACP18BC02A06P		. PIN-COTTER	J, K, S, T, AK, AL	1
15	BACB30LJ5DSU26		. BOLT	J, K, S, T, AK, AL	1
20	BACW10BP5ACU		. WASHER	J, K, S, T, AK, AL	2
25	MS14144L5		. NUT	J, K, S, T	1
–25A	BACN11N5CD		. NUT	AK, AL	1
30	113A1550-5		DELETED		
–30A	113A1550-9		DELETED		
–30B	113A1550-107		DELETED		
30C	113A1550-13		. FITTING ASSY	J, S	1
–30D	113A1550-111		. FITTING ASSY	K, T	1
–30E	113A1550-203		. FITTING ASSY	AK, AL	1
35	MS15004-3		. . FITTING-LUBE	J, K, S, T	1
–35A	AS15004-2		. . FITTING-LUBE (OPT ITEM 35B)	AK, AL	1
–35B	MS15004-3		. . FITTING-LUBE (OPT ITEM 35A)	AK, AL	1
40	113A1240-1		DELETED		

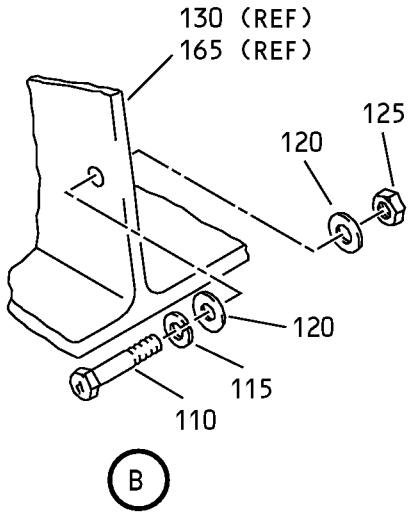
–Item not Illustrated

FIG/ ITEM	PART NUMBER	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USAGE CODE	UNITS PER ASSY
7–					
40A	113A1240-12		DELETED		
40B	113A1240-8		. . BUSHING-SPECIAL	J, K, S, T, AK, AL	2
45	BACB28AT05B019A		. . BUSHING	J, K, S, T, AK, AL	2
50	113A1553-1		DELETED		
–50A	113A1553-101		DELETED		
50B	113A1553-3		. . FITTING	J, S	1
–50C	113A1553-103		. . FITTING	K, T	1
55	113A1550-3		. FITTING ASSY	J, K, AK	1
–60	113A1550-4		. FITTING ASSY	S, T, AL	1
65	BACR15BA3AD6C		. . RIVET	J, K, S, T, AK, AL	6
70	BACN11G4A3CD		. . NUTPLATE	J, K, S, T, AK, AL	3
75	SY10670		. . BUSHING-ELASTOMLERIC (V95272) (SPEC S113N106-1) (OPT DE903 (V71985))	J, K, S, T, AK, AL	1
80	113A1552-1		. . FITTING-FAIRING SUPT	J, K, AK	1
–85	113A1552-2		. . FITTING-FAIRING SUPT	S, T, AL	1

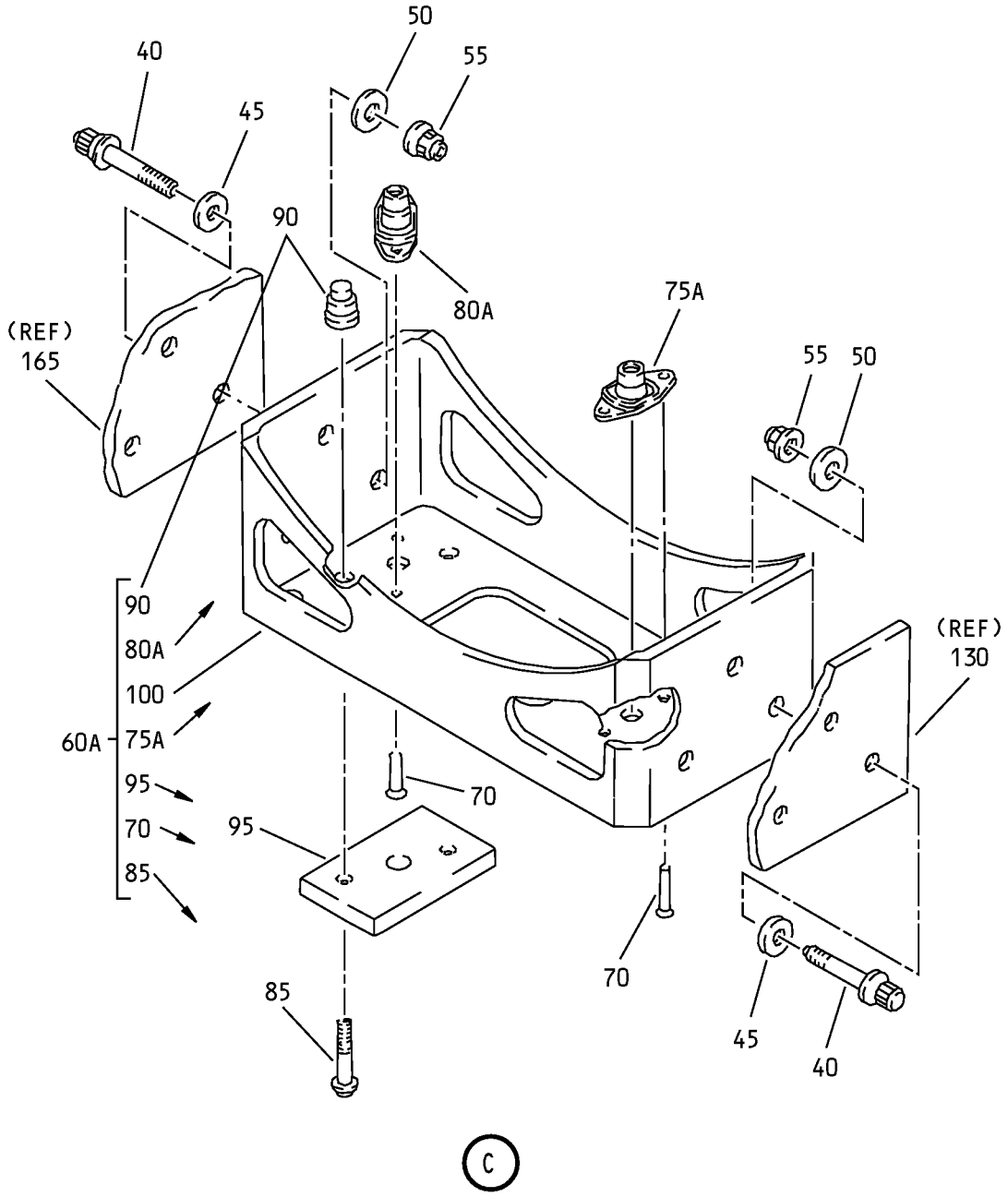


Outboard Flap Outboard Transmission Attach Fitting Assembly
IPL Figure 8 (Sheet 1 of 5)

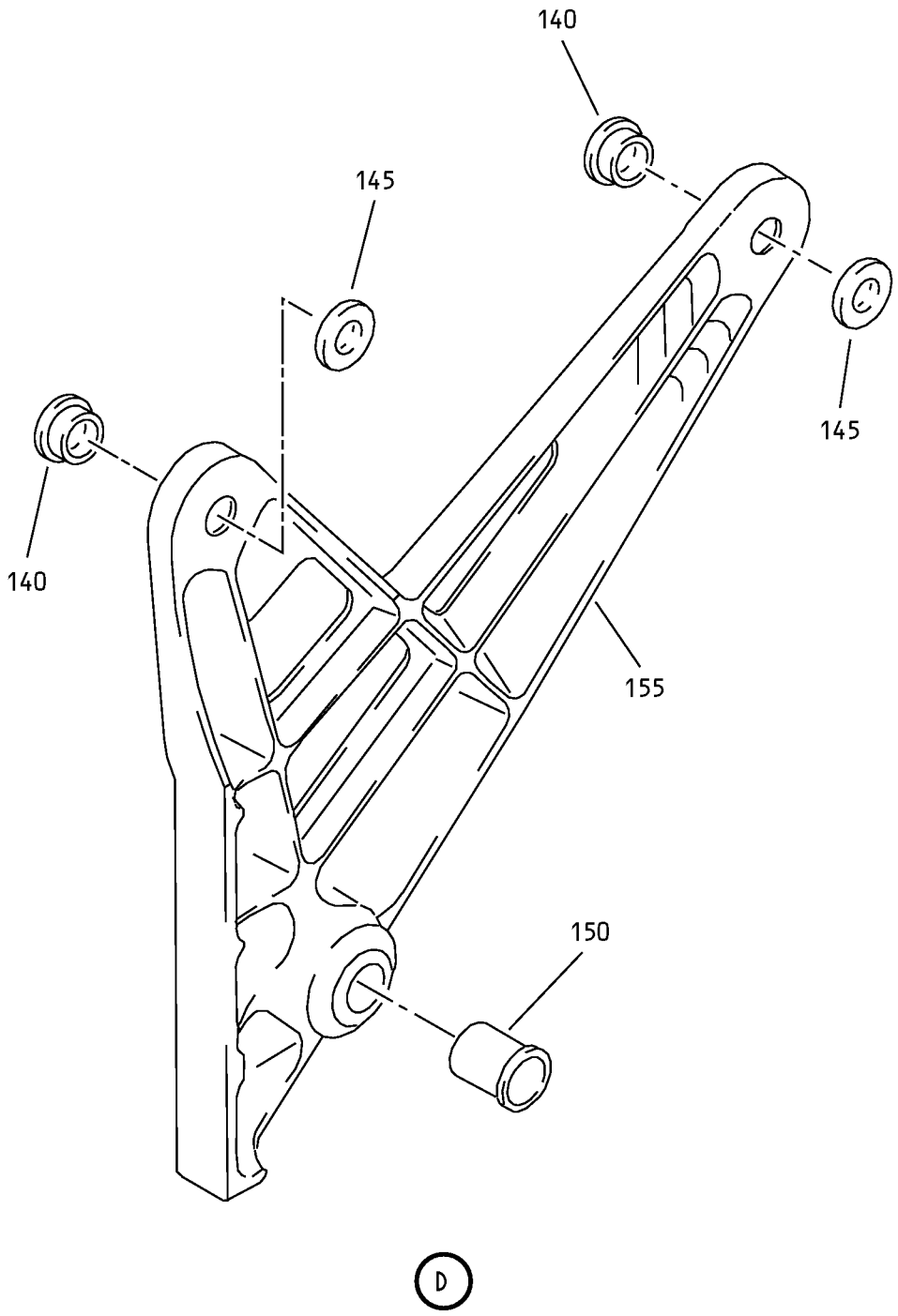




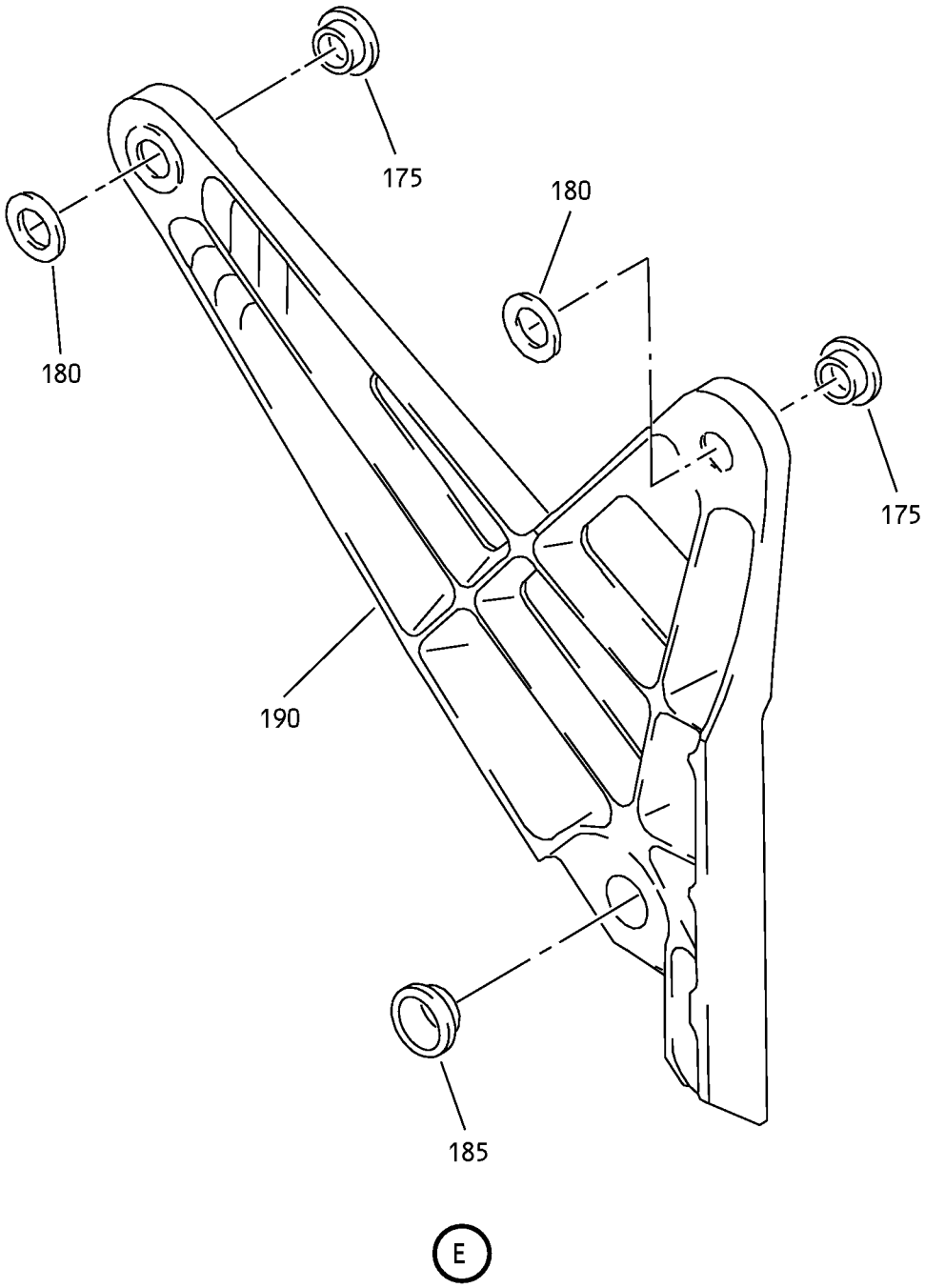
Outboard Flap Outboard Transmission Attach Fitting Assembly
IPL Figure 8 (Sheet 2 of 5)



Outboard Flap Outboard Transmission Attach Fitting Assembly
IPL Figure 8 (Sheet 3 of 5)



Outboard Flap Outboard Transmission Attach Fitting Assembly
IPL Figure 8 (Sheet 4 of 5)



Outboard Flap Outboard Transmission Attach Fitting Assembly
IPL Figure 8 (Sheet 5 of 5)

FIG/ ITEM	PART NUMBER	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USAGE CODE	UNITS PER ASSY
8–					
–1	113A1720-1		FITTING ASSY-ATTACH XMSN	Q	RF
–1A	113A1720-11		FITTING ASSY-ATTACH XMSN	AX	RF
–5	113A1720-2		FITTING ASSY-ATTACH XMSN	R	RF
–5A	113A1720-12		FITTING ASSY-ATTACH XMSN	AY	RF
10	BACB30MR6K9		DELETED		
10A	BACB30MR6K8		. BOLT	Q, R, AX, AY	6
15	BACW10BP6ACU		. WASHER	Q, R, AX, AY	6
20	BACW10BP6DP		. WASHER	Q, R, AX, AY	6
25	NAS1805-6L		. NUT	Q, R, AX, AY	6
30	113A1722-1		. FACEPLATE	Q, AX	1
–35	113A1722-2		. FACEPLATE	R, AY	1
40	BACB30MR4K5		DELETED		
40A	BACB30MR4K4		. BOLT	Q, R, AX, AY	6
45	BACW10BP4CD		. WASHER	Q, R, AX, AY	6
50	BACW10BP4DP		. WASHER	Q, R, AX, AY	6
55	NAS1805-4L		. NUT	Q, R, AX, AY	6
60	113A1720-3		DELETED		
60A	113A1720-9		. BRIDGE ASSY	Q, AX	1
–65	113A1720-4		DELETED		
–65A	113A1720-10		. BRIDGE ASSY	R, AY	1
70	BACR15BA3AD5C		. . RIVET	Q, R, AX, AY	4
75	NS202493-048-1		DELETED		

–Item not Illustrated

FIG/ ITEM	PART NUMBER	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USAGE CODE	UNITS PER ASSY
8–					
75A	NS202493-048-4		. . NUTPLATE (V80539) (SPEC BACN10KE4B4CD) (OPT 102A9219-4-4 (V72962)) (OPT F51747-4-4CD (V15653)) (OPT 102A9213-4-4 (V72962)) (OPT BRFR220C4-4D (V52825))	Q, R, AX, AY	1
80	NS202493-048-3		DELETED		
80A	NS202493-048-1		. . NUTPLATE (V80539) (SPEC BACN10KE4ACD) (OPT 102A9212-4 (V72962)) (OPT F51747-4-1CD (V15653)) (OPT BRFR220C4-10 (V52828))	Q, R, AX, AY	1
85	HST11AG6-4		. . BOLT (V06725) (SPEC BACB30VU6K4) (OPT HST11AG6-4 (V73197)) (OPT HST11AG6-4 (V56878)) (OPT HST11AG6-4 (V0PTK6))	Q, R, AX, AY	2
90	HST79CY6		. . COLLAR (V73197) (SPEC BACC30BL6) (OPT HST79-6 (V56878)) (OPT HST79-6 (V92215)) (OPT HST79-6 (V5M902))	Q, R, AX, AY	2
95	113A1324-1		. . PLATE-SERRATED	Q, R, AX, AY	1
100	113A1723-1		. . FITTING	Q, AX	1
–105	113A1723-2		. . FITTING	R, AY	1
110	BACS12GU3K13		. SCREW	Q, R, AX, AY	2
115	MS35338-43		. WASHER	Q, R	2
–115A	BACW10EC3S		. WASHER	AX, AY	2
120	NAS1149D0316H		. WASHER	Q, R, AX, AY	4
125	MS35650-305T		. NUT	Q, R, AX, AY	2
130	113A1720-5		. SIDEPLATE ASSY-INBD	Q	1
–130A	113A1720-13		. SIDEPLATE ASSY-INBD	AX	1

–Item not Illustrated

FIG/ ITEM	PART NUMBER	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USAGE CODE	UNITS PER ASSY
8–					
–135	113A1720-6		. SIDEPLATE ASSY-INBD	R	1
–135A	113A1720-14		. SIDEPLATE ASSY-INBD	AY	1
140	BACB28AT10D052C		. . BUSHING	Q, R, AX, AY	2
145	BACW10P158L		. . WASHER	Q, R	2
–145A	BACW10P139L		. . WASHER	AX, AY	2
150	BACB28AZ14A158C		. . BUSHING	Q, R, AX, AY	1
155	113A1721-1		. . SIDEPLATE	Q, AX	1
–160	113A1721-2		. . SIDEPLATE	R, AY	1
165	113A1720-7		. SIDEPLATE ASSY-OUTBD	Q	1
–165A	113A1720-15		. SIDEPLATE ASSY-OUTBD	AX	1
–170	113A1720-8		. SIDEPLATE ASSY-OUTBD	R	1
–170A	113A1720-16		. SIDEPLATE ASSY-OUTBD	AY	1
175	BACB28AT10D052C		. . BUSHING	Q, R, AX, AY	2
180	BACW10P158L		. . WASHER	Q, R, AX, AY	2
185	BACB28AZ14A049C		. . BUSHING	Q, R, AX, AY	1
190	113A1721-3		. . SIDEPLATE	Q, AX	1
–195	113A1721-4		. . SIDEPLATE	R, AY	1

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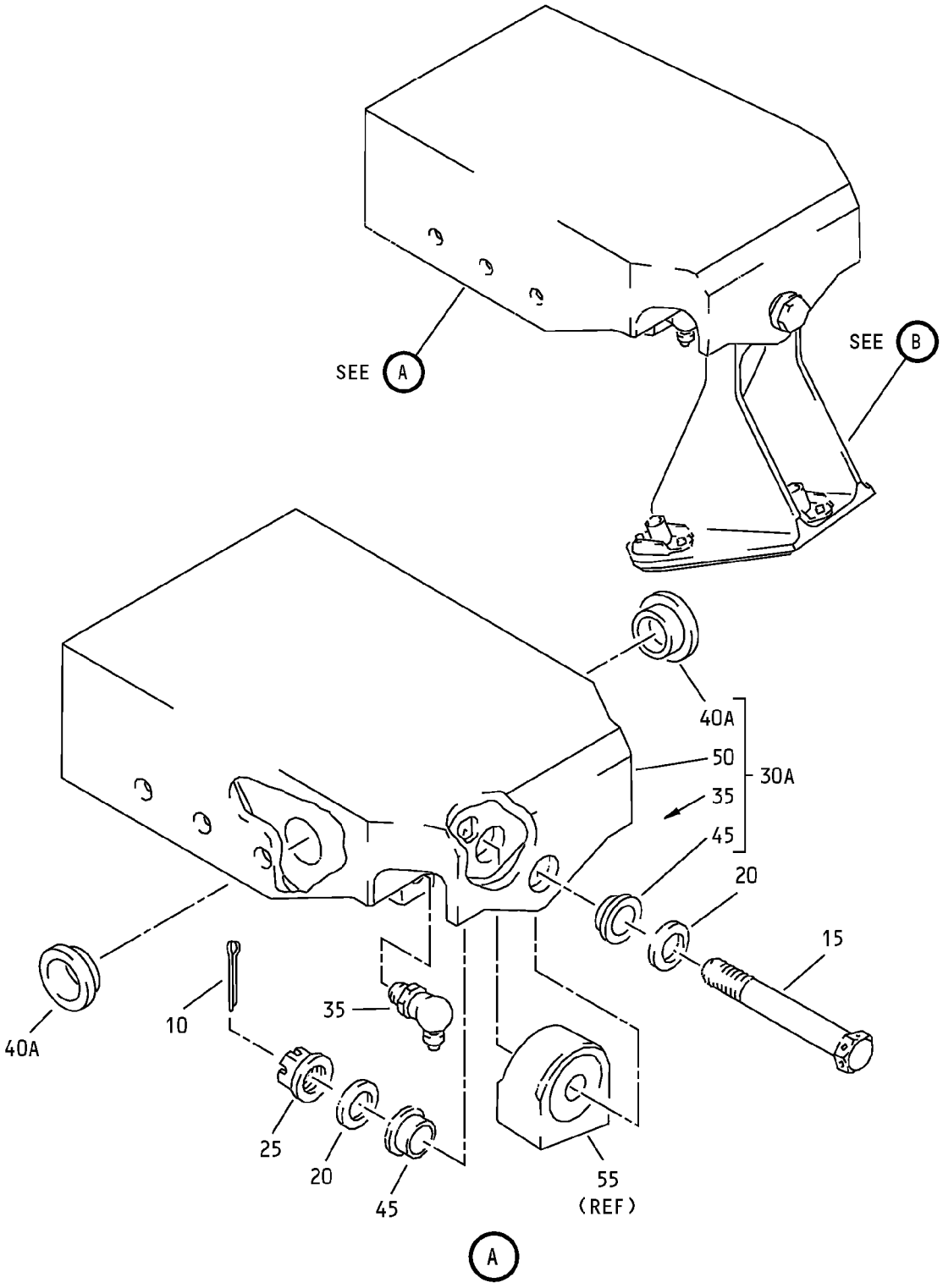
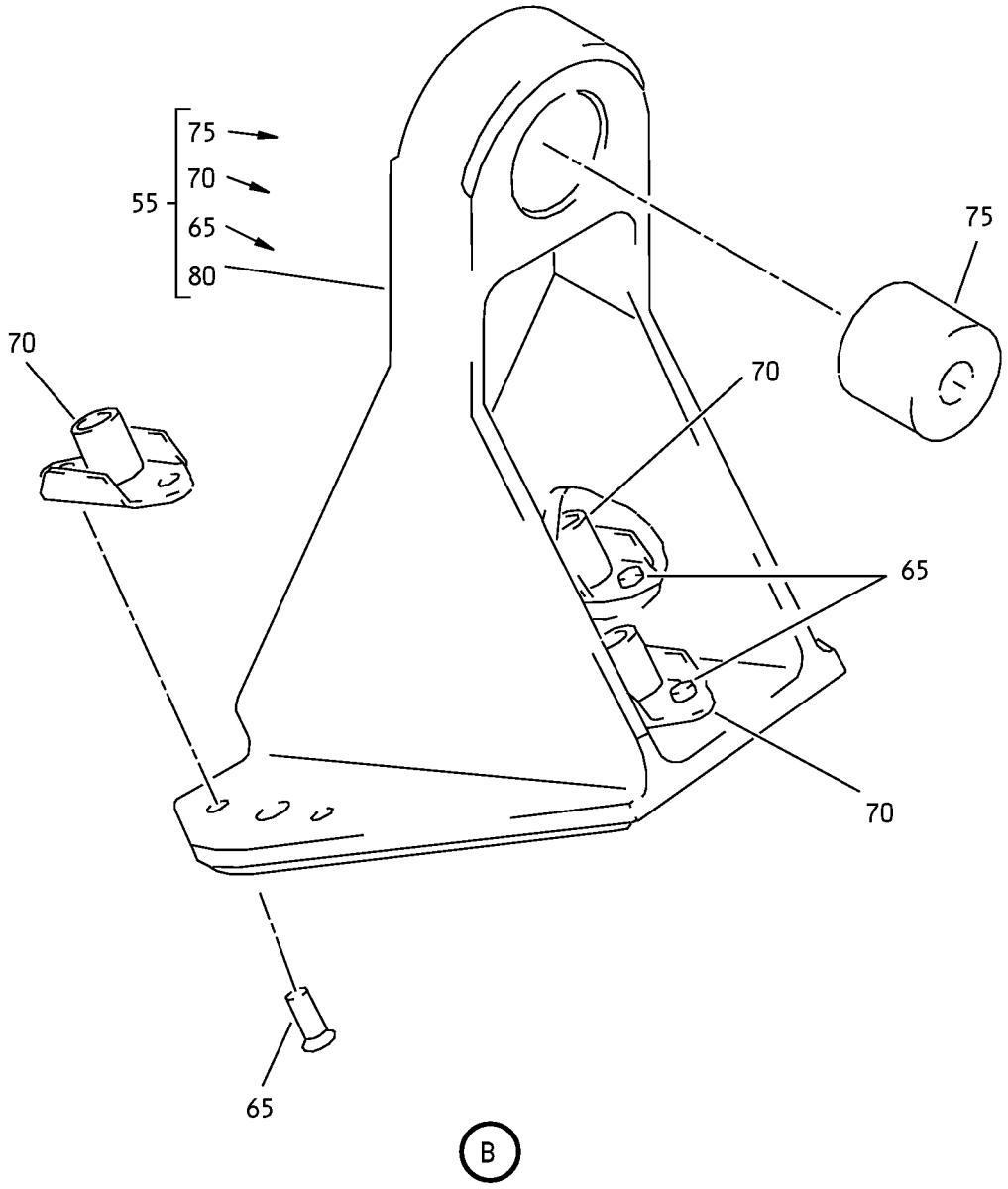


Outboard Flap Outboard Forward Fitting Assembly
IPL Figure 9 (Sheet 1 of 2)



Outboard Flap Outboard Forward Fitting Assembly
IPL Figure 9 (Sheet 2 of 2)

FIG/ ITEM	PART NUMBER	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USAGE CODE	UNITS PER ASSY
9–					
–1	113A1750-1		DELETED		
–1A	113A1750-7		FITTING ASSY-FWD OUTBD FLAP	AP	RF
–1B	113A1750-105		FITTING ASSY-FWD OUTBD FLAP	AQ	RF
–1C	113A1750-201		FITTING ASSY-FWD OUTBD FLAP	AM	RF
–5	113A1750-2		DELETED		
–5A	113A1750-8		FITTING ASSY-FWD OUTBD FLAP	AR	RF
–5B	113A1750-106		FITTING ASSY-FWD OUTBD FLAP	AS	RF
–5C	113A1750-202		FITTING ASSY-FWD OUTBD FLAP	AN	RF
10	BACP18BC02A06P		. PIN-COTTER	AM-AS	1
15	BACB30LJ5DSU26		. BOLT	AM-AS	1
20	BACW10BP5ACU		. WASHER	AM-AS	2
25	MS14144L5		. NUT	AP-AS	1
–25A	BACN11N5CD		. NUT	AM, AN	1
30	113A1750-5		DELETED		
30A	113A1750-9		. FITTING ASSY	AP, AR	1
–30B	113A1750-107		. FITTING ASSY	AQ, AS	1
–30C	113A1750-203		. FITTING ASSY	AM, AN	1
35	MS15004-3		. . FITTING-LUBE	AP-AS	1
–35A	AS15004-3		. . FITTING-LUBE (OPT ITEM 35B)	AM, AN	1
–35B	MS15004-3		. . FITTING-LUBE (OPT ITEM 35A)	AM, AN	1
40	113A1240-3		DELETED		
40A	113A1240-10		. . BUSHING-SPECIAL	AM-AS	2
45	BACB28AT05B019A		. . BUSHING	AM-AS	2
50	113A1753-1		. . FITTING	AP, AR	1
–50A	113A1753-101		. . FITTING	AQ, AS	1
55	113A1750-3		. FITTING ASSY	AM, AP, AQ	1
–60	113A1750-4		. FITTING ASSY	AN, AR, AS	1
65	BACR15BA3AD6C		. . RIVET	AM-AS	6

–Item not Illustrated

FIG/ ITEM	PART NUMBER	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USAGE CODE	UNITS PER ASSY
9–					
70	BACN11G4A3CD		. . NUTPLATE	AM-AS	3
75	SY10670		. . BUSHING-ELASTOMERIC (V95272) (SPEC S113NB106-1) (OPT DE903 (V71985))	AM-AS	1
80	113A1752-1		. . FITTING-FAIRING SUPT	AM, AP, AQ	1
–85	113A1752-2		. . FITTING-FAIRING SUPT	AN, AR, AS	1

–Item not Illustrated

FIGURE DELETED

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IPL Figure 10

FIG/ ITEM	PART NUMBER	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USAGE CODE	UNITS PER ASSY
10–					
–1A	113A1319		DELETED		
5	BACB30LJ5K11		DELETED		
10	BACW10BP5CD		DELETED		
15	NAS1149E0532P		DELETED		
20	H52732-5CD		DELETED		
25	113A1243-1		DELETED		
30	113A1243-2		DELETED		
35	113A1319-1		DELETED		

–Item not Illustrated

FIGURE DELETED

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IPL Figure 11

FIG/ ITEM	PART NUMBER	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USAGE CODE	UNITS PER ASSY
11–					
–1A	113A1519		DELETED		
5	BACB30LJ4K10		DELETED		
10	BACW10BP4ACU		DELETED		
15	NAS1149E0432P		DELETED		
20	H52732-4CD		DELETED		
25	113A1243-3		DELETED		
30	113A1243-4		DELETED		
35	113A1519-1		DELETED		

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FIGURE DELETED

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IPL Figure 12

FIG/ ITEM	PART NUMBER	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USAGE CODE	UNITS PER ASSY
12–					
–1A	113A1719		DELETED		
5	BACB30LJ5K8		DELETED		
10	BACW10BP5CD		DELETED		
15	NAS1149E0532P		DELETED		
20	H52732-5CD		DELETED		
25	113A1243-5		DELETED		
30	113A1243-6		DELETED		
35	113A1719-1		DELETED		

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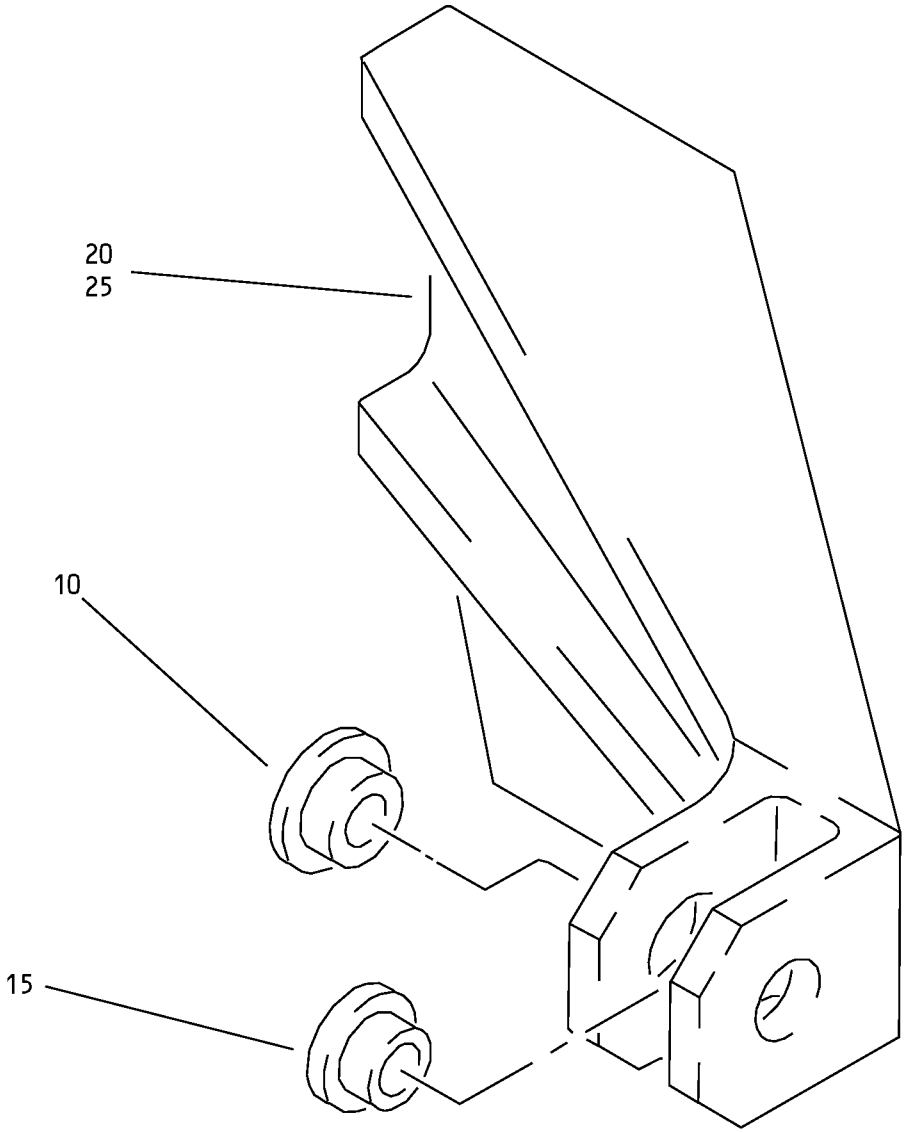
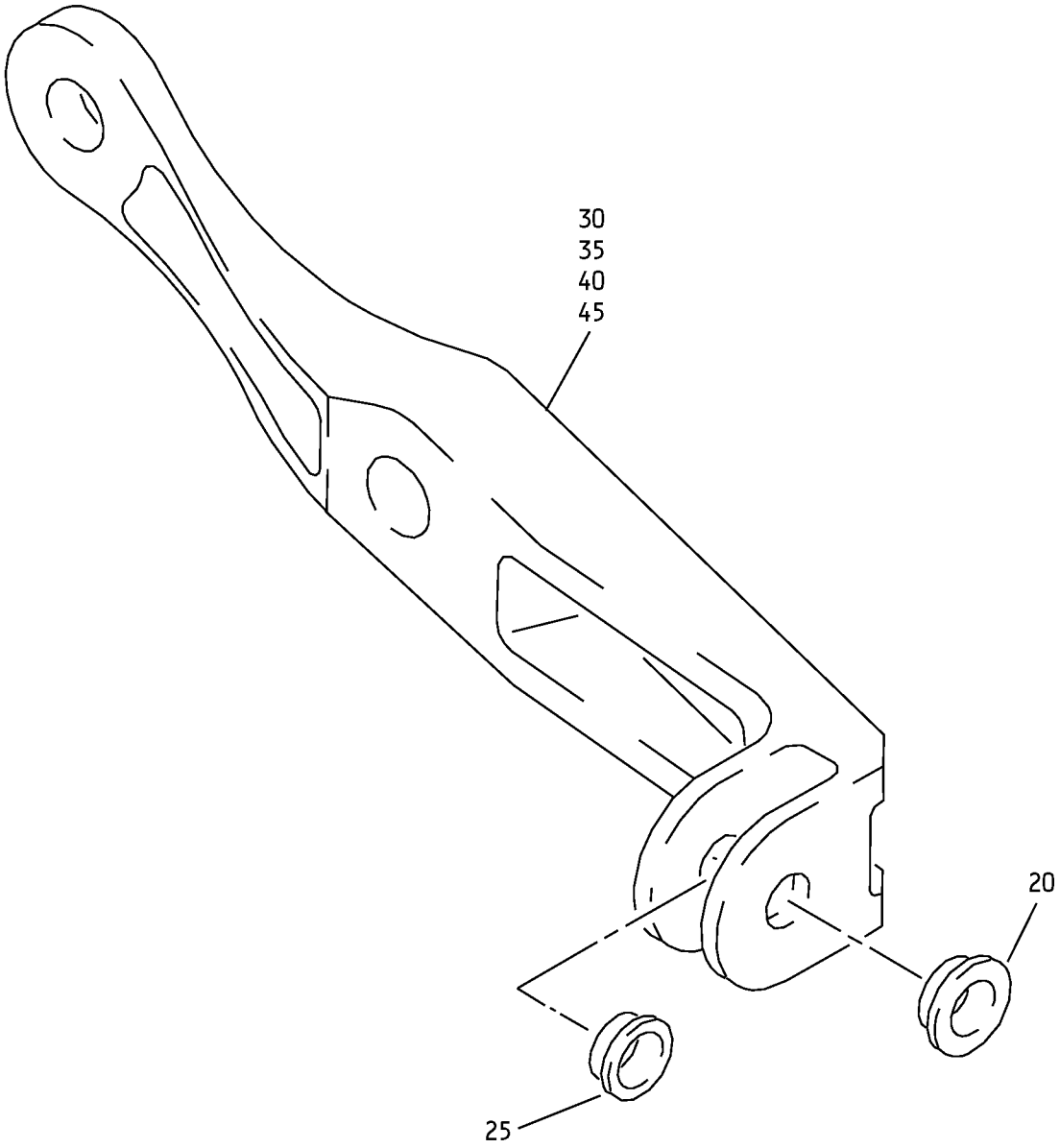


Aft Flap Drive Inboard Flap Attach Fitting Assembly
IPL Figure 13

FIG/ ITEM	PART NUMBER	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USAGE CODE	UNITS PER ASSY
13–					
–1A	113A1317-1		FITTING ASSY-AFT FLAP DRIVE, INBD FLAP	Z	RF
–5	113A1317-2		FITTING ASSY-AFT FLAP DRIVE, INBD FLAP	AA	RF
10	BACB28AT06B014C		. BUSHING	Z, AA	1
15	BACB28AP04P014		. BUSHING	Z, AA	1
20	113A1317-3		. FITTING-ATTACH	Z	1
–25	113A1317-4		. FITTING-ATTACH	AA	1

–Item not Illustrated



Aft Flap Drive Attach Fitting Assembly
IPL Figure 14

FIG/ ITEM	PART NUMBER	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USAGE CODE	UNITS PER ASSY
14–					
–1A	113A1517-1		FITTING ASSY-AFT FLAP DRIVE, WBL 254	AB	RF
–5	113A1517-2		FITTING ASSY-AFT FLAP DRIVE, WBL 254	AC	RF
–10	113A1717-1		FITTING ASSY-AFT FLAP DRIVE, WBL 357.7	AD	RF
–15	113A1717-2		FITTING ASSY-AFT FLAP DRIVE, WBL 357.7	AE	RF
20	BACB28AT06B011A		. BUSHING	AB-AE	1
25	BACB28AP04-011		. BUSHING	AB-AE	1
30	113A1517-3		. FITTING-ATTACH	AB	1
–35	113A1517-4		. FITTING-ATTACH	AC	1
–40	113A1717-3		. FITTING-ATTACH	AD	1
–45	113A1717-4		. FITTING-ATTACH	AE	1

–Item not Illustrated