COMPONENT MAINTENANCE MANUAL WITH ILLUSTRATED PARTS LIST

NO. 6 AND 7 INBOARD GROUND SPOILER ASSEMBLY

PART NUMBER 113A4600–1, –2, –3, –4

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COMPONENT MAINTENANCE MANUAL

Revision No. 9
Jul 01/2009

To: All holders of NO. 6 AND 7 INBOARD GROUND SPOILER ASSEMBLY 57-56-64.

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.

For printed manuals, changes are indicated on the List of Effective Pages (LEP). The pages which are revised will be identified on the LEP by an R (Revised), A (Added), O (Overflow, i.e. changes to the document structure and/or page layout), or D (Deleted). Each page in the LEP is identified by Chapter-Section-Subject number, page number and page date.

Pages replaced or made obsolete by this revision should be removed and destroyed.

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Location of Change	Description of Change
	NO HIGHLIGHTS

COMPONENT MAINTENANCE MANUAL

A = Added, R = Revised, D = Deleted, O = Overflow

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TEMPORARY REVISION AND SERVICE BULLETIN RECORD

BOEING SERVICE BULLETIN	BOEING TEMPORARY REVISION	OTHER DIRECTIVE	DATE OF INCORPORATION INTO MANUAL
		PRR 38661	March 1, 2007

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	
Number	Date	Date	Initials	Number	Date	Date	Initials

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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	
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INTRODUCTION

1. General

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

B. This manual is divided into different parts:

(1) Title Page

(2) Transmittal Letter

(3) Highlights

(4) List of Effective Pages

(5) Table of Contents

(6) Temporary Revision & Service Bulletin Record

(7) Record of Revisions

(8) Record of Temporary Revisions

(9) Introduction

(10) Procedures & IPL Sections

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

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

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

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

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

NO. 6 AND 7 INBOARD GROUND SPOILER ASSEMBLY - DESCRIPTION AND OPERATION

1. Description

A. There are four flight spoiler assemblies, one outboard ground spoiler assembly, and one inboard ground spoiler assembly on each wing. The outboard ground spoiler assemblies are installed on the left and right wings in pair as No. 1 and 12. The spoiler assemblies are in pairs as No. 2 and 11, No. 3 and 10, No. 4 and 9, No. 5 and 8. The inboard ground spoiler assemblies are in pair as No. 6 and 7.

The ground spoiler assembly has a bonded assembly, two jumper assemblies, two actuator fitting assemblies, and two hinge fittings. The bonded assembly is made from aluminum honeycomb core reinforced between two aluminum alloy panels. The actuator fitting assemblies are made from titanium alloy. The hinge fittings are made from aluminum alloy. The ground spoiler assemblies are attached to the hinges on the rear spar of the wings.

2. Operation

A. The ground spoiler assemblies are used together with the aileron assemblies for lateral control and speed brakes. The flight spoiler assemblies on the left and right wings can be raised alternately for lateral control during flight, or can be raised together as speed brakes during landing. The ground spoiler assemblies are controlled by actuators.

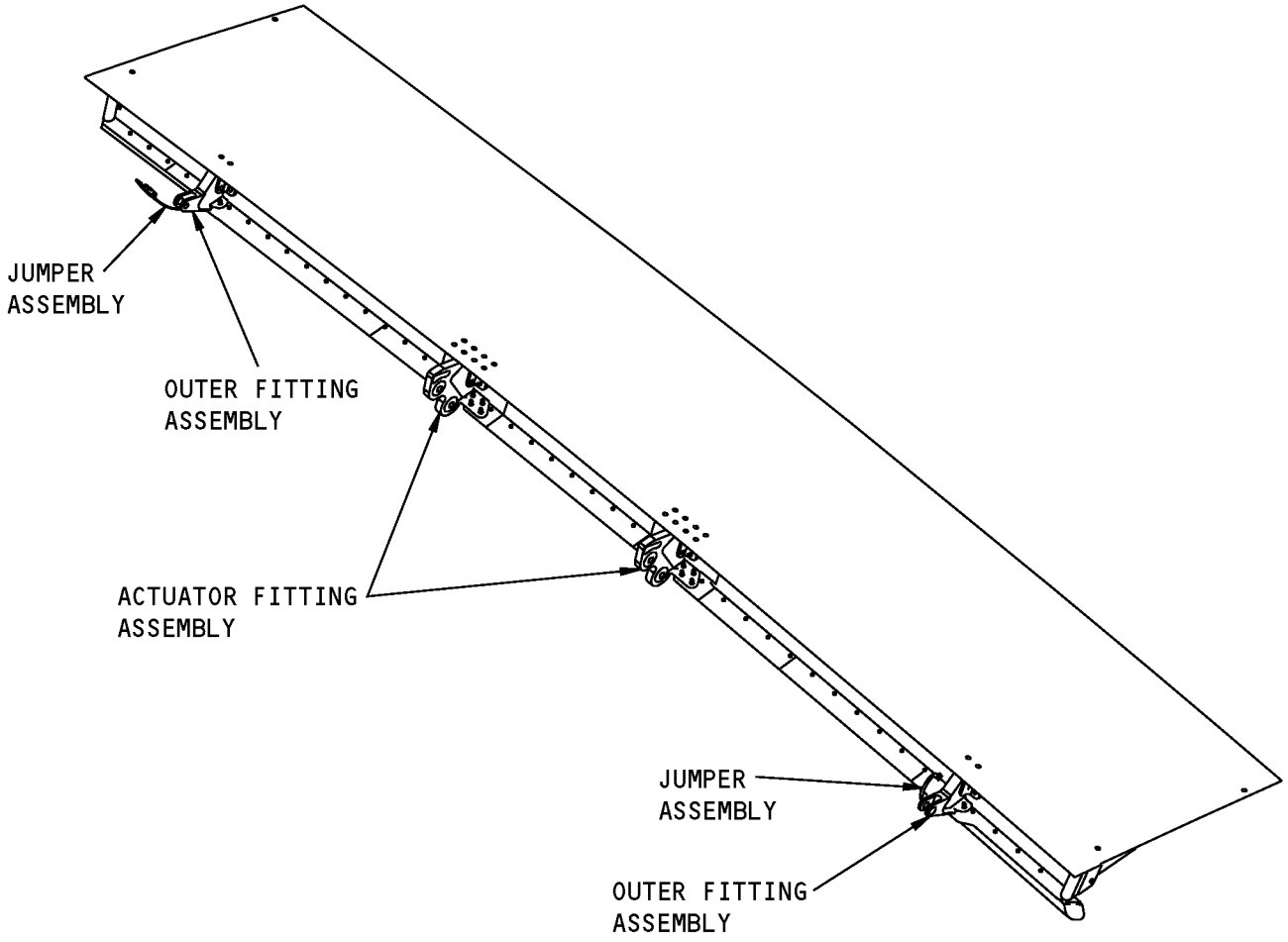
3. Leading Particulars (Approximate)

A. Length – 94 inches

B. Width – 23 inches

C. Height – 5 inches

D. Weight – 28 pounds



113A4600-1 SHOWN

No. 6 and 7 Inboard Ground Spoiler Assemblies
Figure 1

(NOT APPLICABLE)

DISASSEMBLY

1. General

A. This procedure has the data necessary to disassemble the No. 6 and 7 inboard ground spoiler assembly (1A, 1B, 5, 5A).

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

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

D. Refer to IPL Figure 1 for item numbers.

2. Disassembly

A. References

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

B. Procedure

NOTE: For bearing removal, installation and retention, refer to SOPM 20-50-03.

(1) Use standard industry procedures to disassemble this component.

CLEANING

1. General

A. This procedure has the data necessary to clean the No. 6 and 7 inboard ground spoiler assembly (1A, 1B, 5, 5A).

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

C. Refer to IPL Figure 1 for item numbers.

2. Cleaning

A. References

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

B. Procedure

(1) Clean the bearings (140) as specified in SOPM 20-30-01.

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

CHECK

1. General

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

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

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

D. Refer to IPL Figure 1 for item numbers.

2. Check

A. References

Reference	Title
SOPM 20-20-02	PENETRANT METHODS OF INSPECTION
737 NDT Part 1, 51-05-01	Tap Test Inspection of Honeycomb Sandwich Structure
737 NDT Part 4, 51-00-02	Full Depth Honeycomb and Laminate Structure Inspection
737 NDT Part 9, 51-00-01	Non-Destructive Testing

B. Procedure

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

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

(a) Hinge fitting (80, 85, 90, 95, 145, 147, 150, 150A)

(b) End rib (290, 295, 300, 305)

(c) Leading edge channel (310, 315)

(3) Do a check for cracks, corrosion, or missing potting and sealant at the ends of the panel bond assembly.

(4) Do a check of the honeycomb structure and bonded parts for evidence of delamination, internal water, scratches, and contour defects.

(a) If you see delamination or impact damage when you do a visual check, do an ultrasonic inspection or a tap test to find all damage. Refer to the 737 NDT Part 4, 51-00-02.

NOTE: For the tap test, use a small solid metal disk and tap the surface area lightly but firmly. You will hear a sharp sound when you tap on solid bonded areas, and dull sound on void areas. Refer to the 737 NDT Part 1, 51-05-01.

(b) Do a check on areas you suspect of containing water with the radiographic or thermographic method. Refer to the 737 NDT Part 9, 51-00-01.

(c) Do a check on the edges of the panel carefully for cuts and abrasions. Delamination starts very easily from damage to an edgemember of honeycomb panel.

(5) Refer to the applicable 737 Structural Repair Manuals section for allowable damage and repair data.

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
113A4600	NO. 6 AND 7 INBOARD GROUND SPOILER ASSEMBLY	2-1
113A4620	ACTUATOR FITTING ASSEMBLY	3-1, 3-2
113A4630	OUTER FITTING ASSEMBLY	4-1, 4-2

2. Dimensioning Symbols

A. Standard True Position Dimensioning Symbols used in the applicable repair procedures are shown in REPAIR-GENERAL, Figure 601.

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

EXAMPLES

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

True Position Dimensioning Symbols
Figure 601

REFINISH OF OTHER PARTS - REPAIR 1-1

1. General

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

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

C. Refer to IPL Figure 1 for item numbers.

2. Refinish of Other Parts

A. Consumable Materials

NOTE: Equivalent substitutes may be used.

Reference	Description	Specification
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 20-41-01	DECODING TABLE FOR BOEING FINISH CODES
SOPM 20-60-02	FINISHING MATERIALS

C. General

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

D. Procedure

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

(1) Refer to REPAIR 1-1, Table 601 for refinish details.

Table 601: Refinish Details

IPL FIG. & ITEM	MATERIAL	FINISH
IPL Fig. 1		
Seal retainer (185, 225)	Aluminum alloy	Anodize (F-17.31). Apply primer, C00175 (F-19.47).
Clip (210A,215A)	Aluminum alloy	Anodize (F-17.31). Apply primer, C00175 (F-19.47).
Bond assembly (240, 245)		Apply primer, C00175 (F-19.47).

NO. 6 AND 7 INBOARD GROUND SPOILER ASSEMBLY - REPAIR 2-1

113A4600–1, –2, –3, –4

1. General

A. This procedure has the data necessary to repair and refinish the No. 6 and 7 inboard ground spoiler assembly (1A, 1B, 5, 5A).

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

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

D. Refer to IPL Figure 1 for item numbers.

2. Bushing Replacement

A. Procedure

(1) The hinge fitting assemblies (50, 55, 60, 65) should not be removed from the spoiler bonded assembly (240, 245) prior to bushing replacement.

(2) For bushing (70, 75) replacement, refer to the REPAIR 4-1.

(a) All hinge fitting datum, specified in the REPAIR 4-1, can be reasonably accessed in the existing spoiler assembly configuration as shown in this REPAIR 2-1. The datum shown in the REPAIR 4-1 along with its specified design dimension and tolerance will be used to locate the hole for the new bushing and to machine the inner diameter of the new bushing (70, 75); however, make sure that the hinge line remains as shown in the REPAIR 2-1.

3. Bearing Replacement

A. Procedure

(1) The hinge fitting assemblies (50, 55, 60, 65) should not be removed from the spoiler bonded assembly (240, 245) prior to bearing replacement.

(2) For bearing (140) replacement, refer to the REPAIR 3-1.

(a) All hinge fitting datum, specified in the REPAIR 3-1, can be reasonably accessed in the existing spoiler assembly configuration as shown in this REPAIR 2-1. The datum shown in the REPAIR 3-1 along with its specified design dimension and tolerance will be used to locate the hole for the new bearing; however, make sure that the hinge line remains as shown in the REPAIR 2-1.

4. Aluminum Foil Marker Replacement

A. References

Reference	Title
SOPM 20-50-05	APPLICATION OF ALUMINUM FOIL AND OTHER MARKERS

B. Procedure

(1) Remove the damaged aluminum foil marker (330) from the panel bond assembly (240, 245).

(2) Clean the surface.

(3) Install the new aluminum foil marker (330) on the panel bond assembly (240, 245). See REPAIR 2-1, Figure 602 and SOPM 20-50-05.

5. No. 6 and 7 Inboard Ground Spoiler Assembly Refinish

A. Consumable Materials

NOTE: Equivalent substitutes may be used.

Reference	Description	Specification
C00033	Coating - Exterior Protective Enamel, Flexibility Use	BMS10-60, Type II

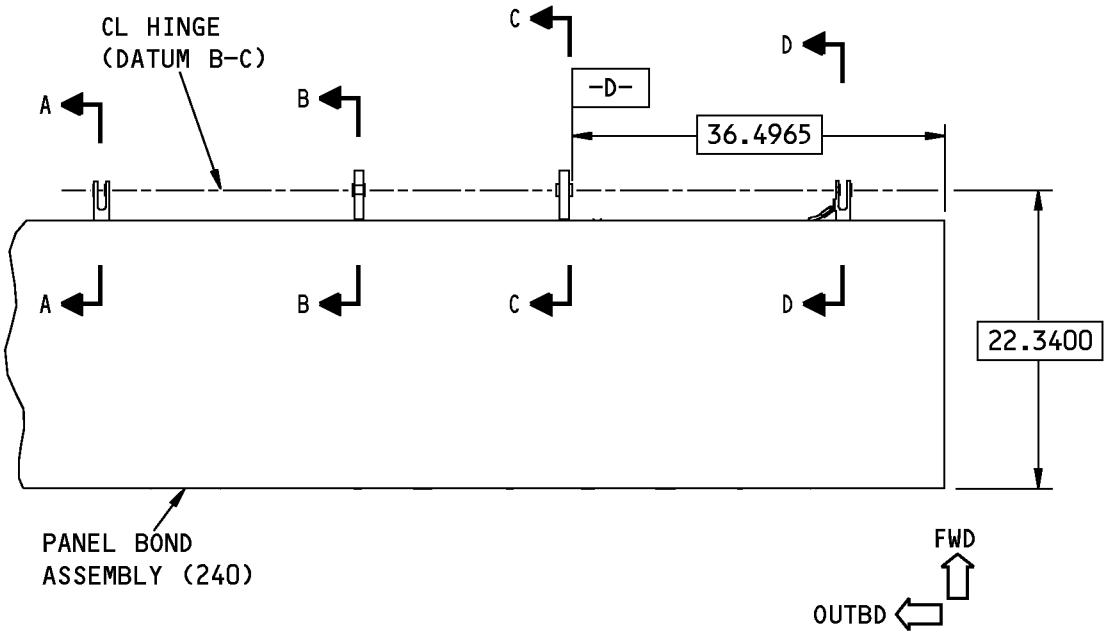
B. References

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

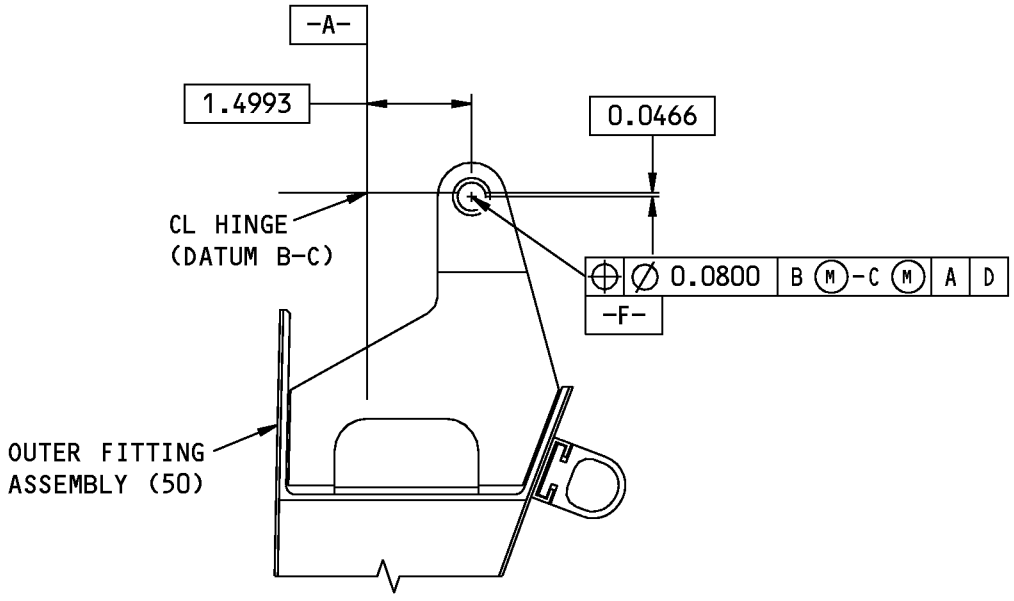
C. Procedure

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

(1) Apply enamel coating, C00033 (F-19.39-707). No finish on bearings (140), bushings (70, 75), seals (165, 167, 190, 195), seal retainers (185, 225, 230).

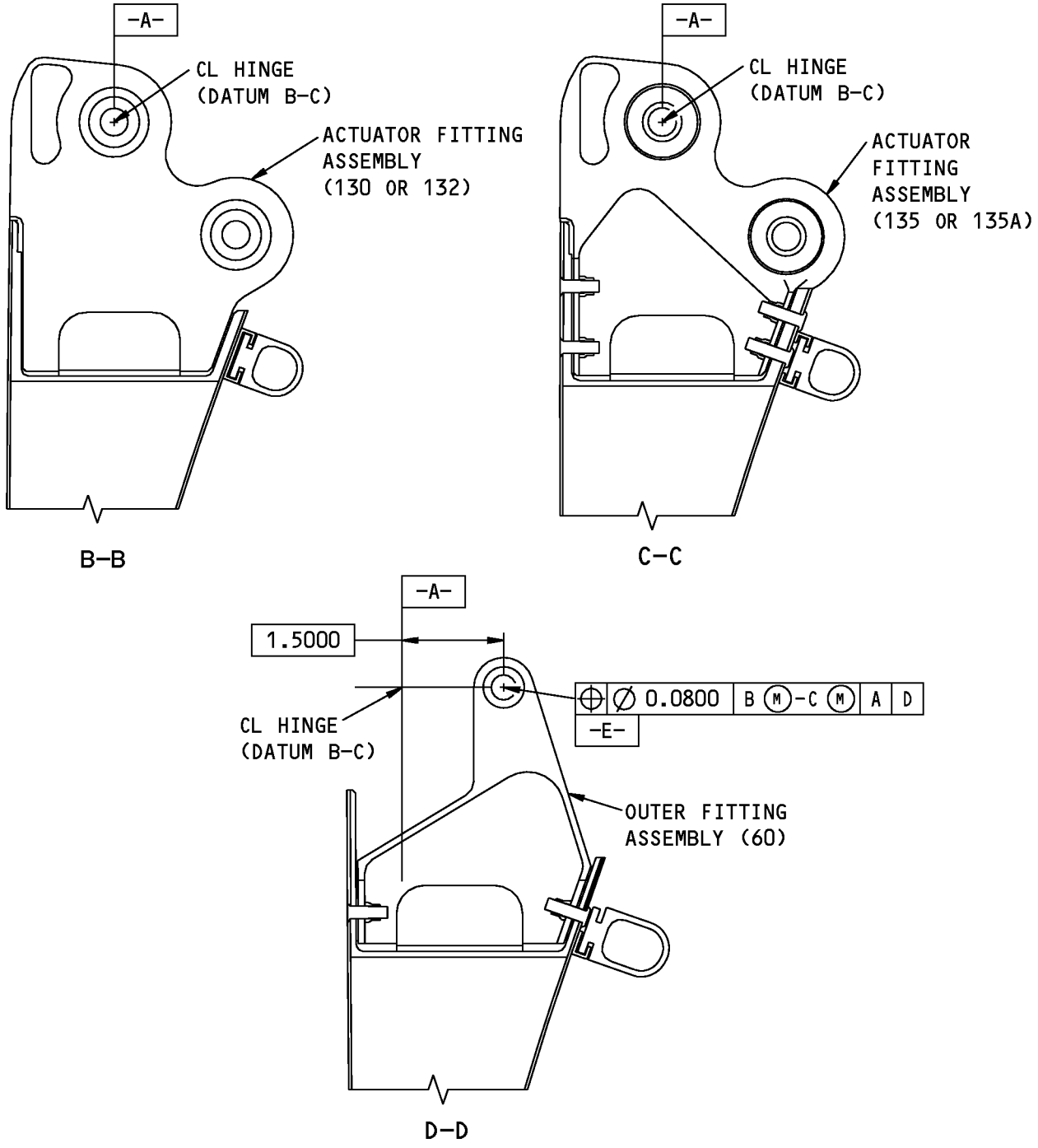


113A4600-1,-3 SHOWN
113A4600-2,-4 OPPOSITE



A-A

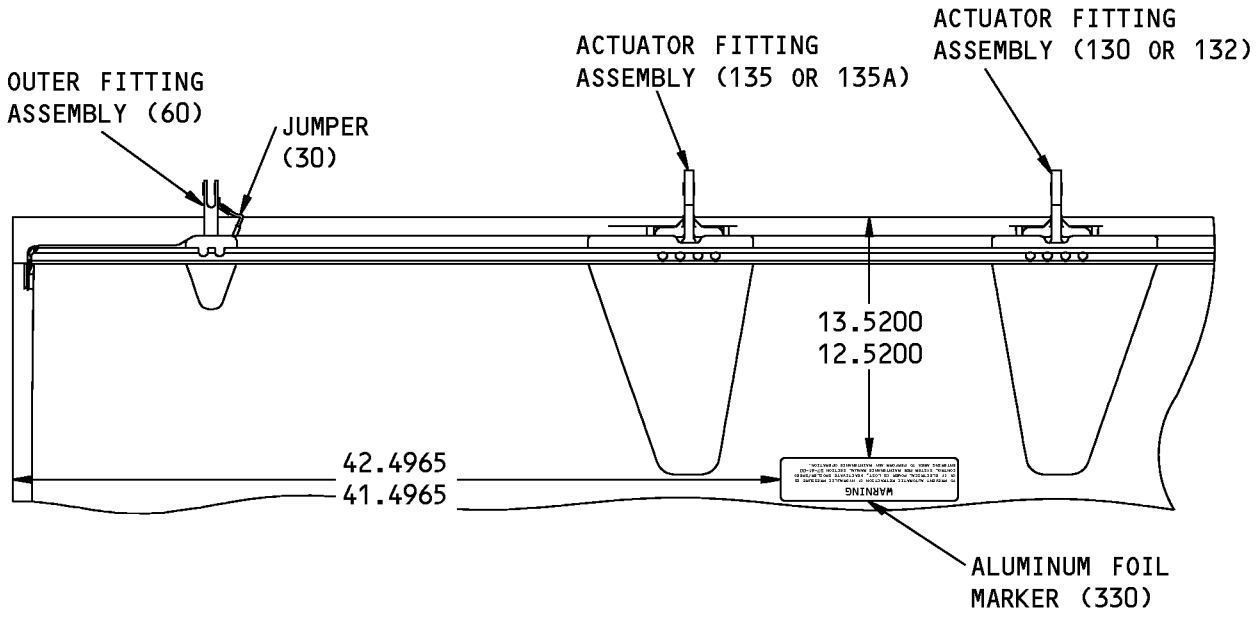
113A4600-1,-2,-3,-4 No. 6 and 7 Inboard Ground Spoiler Assembly Repair
Figure 601 (Sheet 1 of 2)



ITEM NUMBERS REFER TO IPL FIG. 1

ALL DIMENSIONS ARE IN INCHES

113A4600-1,-2,-3,-4 No. 6 and 7 Inboard Ground Spoiler Assembly Repair
Figure 601 (Sheet 2 of 2)



125 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

BREAK ALL SHARP EDGES

ITEM NUMBERS REFER TO IPL FIG. 1

ALL DIMENSIONS ARE IN INCHES

Aluminum Foil Marker Replacement
Figure 602

ACTUATOR FITTING ASSEMBLY - REPAIR 3-1

113A4620–1, –3, –9, –11

1. General

A. This procedure has the data necessary to repair and refinish the actuator fitting assembly (130, 132, 135, 135A).

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

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

D. Refer to IPL Figure 1 for item numbers.

2. Bearing Replacement

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
SOPM 20-60-04	MISCELLANEOUS MATERIALS

C. Procedure

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

(1) Remove the bearing (140) from the hinge fitting (145, 147, 150, 150A).

(2) Install the new bearing (140) on the hinge fitting (145, 150) with grease, D00015 and roller swage (SOPM 20-50-03).

(3) Install new bearing (140) on the hinge fitting (147, 150A) with grease, D00633 and roller swage (SOPM 20-50-03).

HINGE FITTING - REPAIR 3-2

113A4620–5, –7, –13, –15

1. General

A. This procedure has the data necessary to repair and refinish the hinge fitting (145, 147, 150, 150A).

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

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

D. Refer to IPL Figure 1 for item numbers.

E. General repair details:

(1) Material: TI-6AL- 4V

(2) Shot peen: All surfaces, except in holes (SOPM 20-10-03)

(a) Intensity 0.004A - 0.007A

(b) Coverage 2.0

2. Hinge Fitting Refinish (REPAIR 3-2, Figure 601)

A. Consumable Materials

NOTE: Equivalent substitutes may be used.

Reference	Description	Specification
C00175	Primer - Urethane Compatible, Corrosion Resistant (Less Than 1% Aromatic Amines)	BMS10-79, Type III

B. References

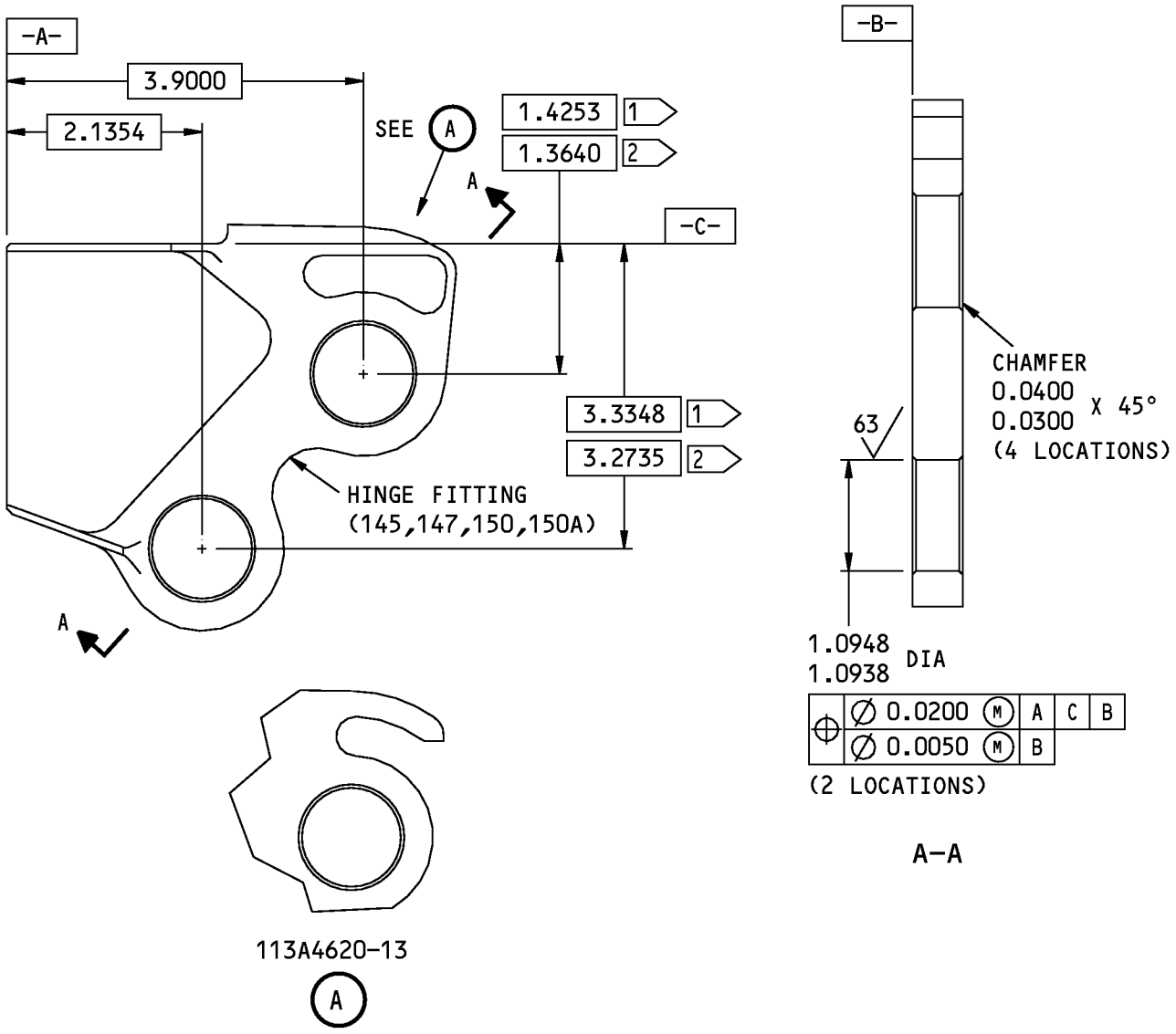
Reference	Title
SOPM 20-10-07	MACHINING OF TITANIUM
SOPM 20-30-02	STRIPPING OF PROTECTIVE FINISHES
SOPM 20-41-01	DECODING TABLE FOR BOEING FINISH CODES
SOPM 20-60-02	FINISHING MATERIALS

C. Procedure

NOTE: For machining of titanium, refer to SOPM 20-10-07. For stripping of protective finishes, refer to SOPM 20-30-02. For the decoding table for Boeing finish codes, refer to SOPM 20-41-01. For finishing materials, refer to SOPM 20-60-02.

(1) Abrasive clean (F-14.882) the hinge fitting (145, 147, 150, 150A) but not in the bearing bores. Do the next step no more than four hours after you complete this step.

(2) Apply one coat of primer, C00175 (F-19.47).



1 FOR 113A4620-5,-13

2 FOR 113A4620-7,-15

125 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

BREAK ALL SHARP EDGES 0.010-0.035

ITEM NUMBERS REFER TO IPL FIG. 1

ALL DIMENSIONS ARE IN INCHES

113A4620-5,-7,-13,-15 Hinge Fitting Repair
Figure 601

OUTER FITTING ASSEMBLY - REPAIR 4-1

113A4630–1, –2, –3, –4

1. General

A. This procedure has the data necessary to repair and refinish the outer fitting assembly (50, 55, 60, 65).

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

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

D. Refer to IPL Figure 1 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 20-30-02	STRIPPING OF PROTECTIVE FINISHES
SOPM 20-41-01	DECODING TABLE FOR BOEING FINISH CODES
SOPM 20-50-03	BEARING AND BUSHING REPLACEMENT
SOPM 20-60-02	FINISHING MATERIALS

C. Procedure

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

(1) Remove the bushing (70, 75) from the hinge fitting (80, 85, 90, 95).

(2) Install the new bushing (70, 75) on the hinge fitting (80 , 85, 90, 95) with sealant, A00247. Use the shrink fit method (SOPM 20-50-03).

(3) Machine the inside diameter of bushing (70, 75) to the dimensions shown on REPAIR 4-1, Figure 601 and REPAIR 4-1, Figure 602. Also see REPAIR 2-1, Figure 601 of REPAIR 2-1 for hinge center line.

(4) Break all sharp edges.

3. Hinge 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

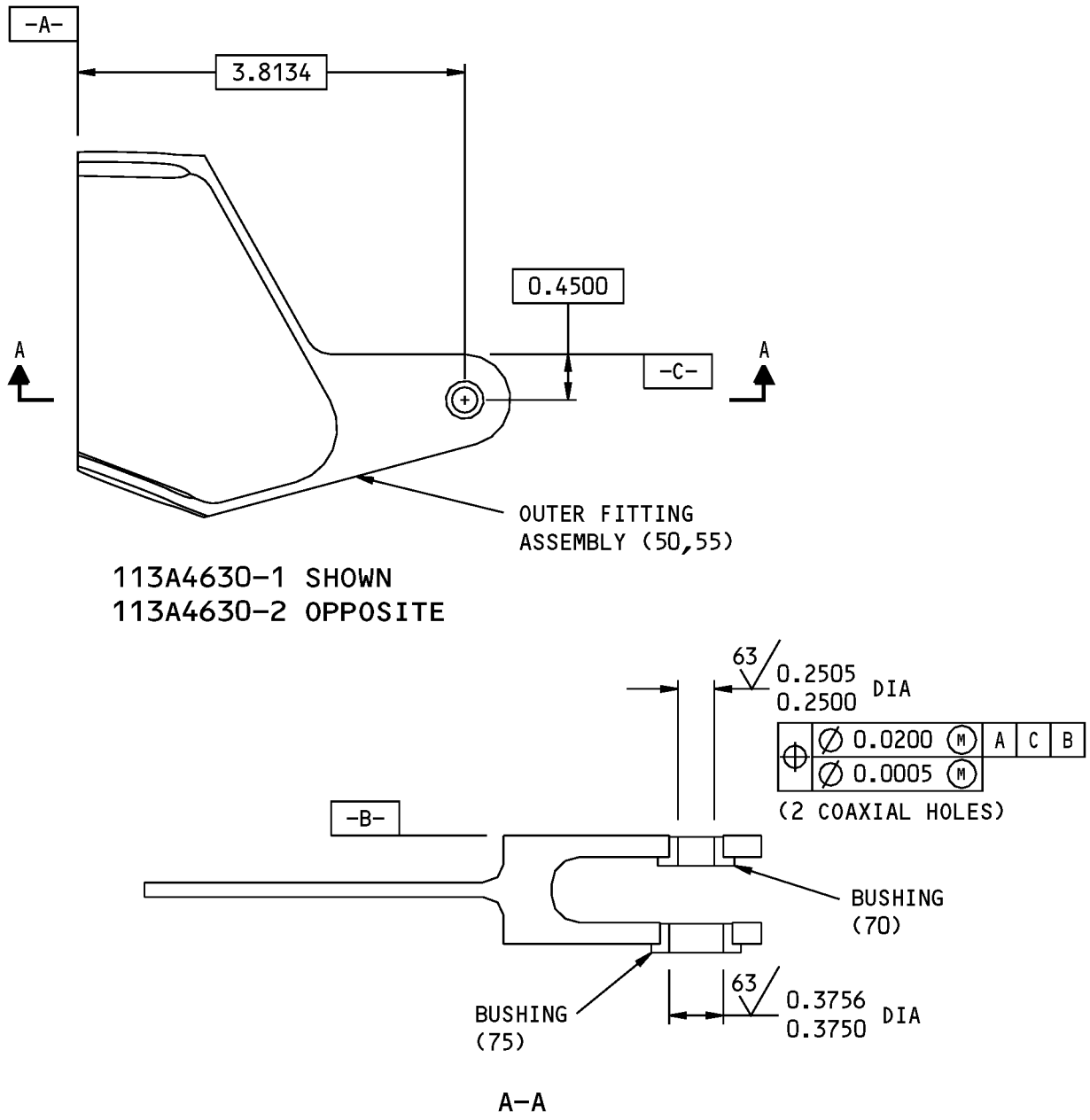
Reference	Title
SOPM 20-30-02	STRIPPING OF PROTECTIVE FINISHES
SOPM 20-41-01	DECODING TABLE FOR BOEING FINISH CODES
SOPM 20-43-01	CHROMIC ACID ANODIZING
SOPM 20-60-02	FINISHING MATERIALS

C. Procedure (Fig. 601)

NOTE: For stripping of protective finishes, refer to SOPM 20-30-02. For the decoding table for Boeing finish codes, refer to SOPM 20-41-01. For chromic acid anodizing, refer to SOPM 20-43-01. For finishing materials, refer to SOPM 20-60-02.

(1) Boric acid - sulfuric acid anodize or chromic acid anodize (F-17.31) all over the hinge fitting (80, 85, 90, 95).

(2) Apply one coat of primer, C00259 BMS 10-11, type 1 primer (F-20.02) on the hinge fitting (80, 85, 90, 95) but not in bushing holes.



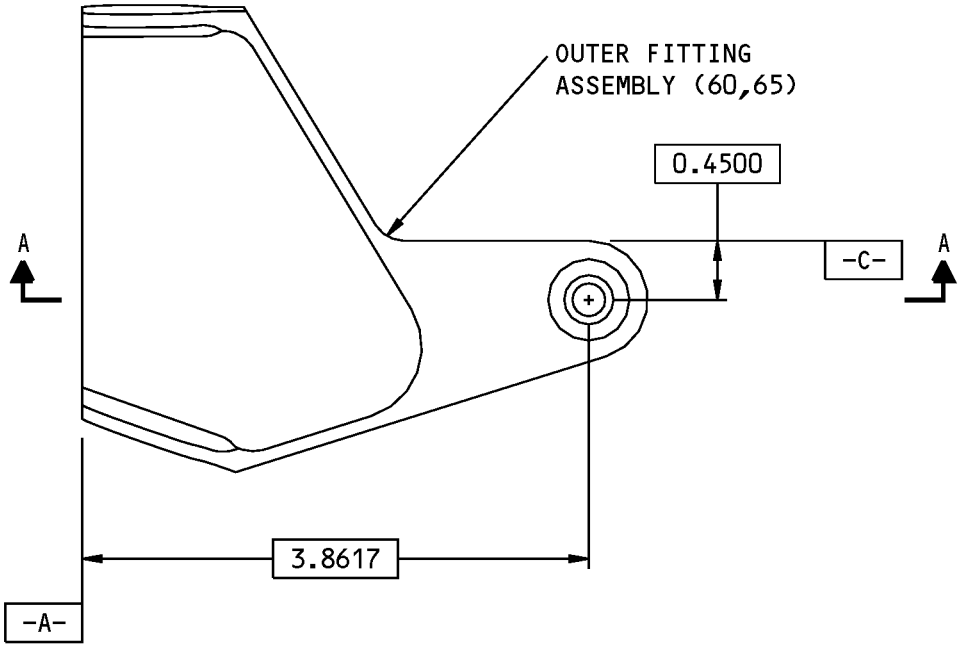
125 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

BREAK ALL SHARP EDGES

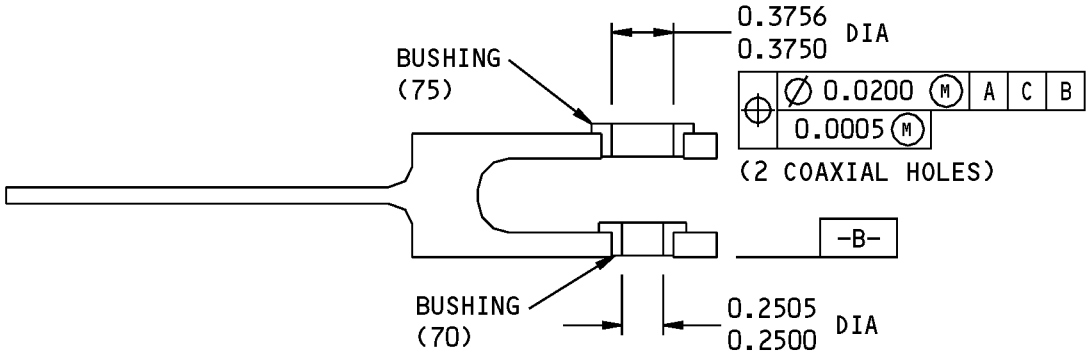
ITEM NUMBERS REFER TO IPL FIG. 1

ALL DIMENSIONS ARE IN INCHES

113A4630-1,-2 Outer Fitting Assembly Repair
Figure 601



113A4630-3 SHOWN
113A4630-4 OPPOSITE



A-A

125 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

BREAK ALL SHARP EDGES

ITEM NUMBERS REFER TO IPL FIG. 1

ALL DIMENSIONS ARE IN INCHES

113A4630-3,-4 Outer Fitting Assembly Repair
Figure 602

HINGE FITTING - REPAIR 4-2

113A4630–5, –6, –7, –8

1. General

A. This procedure has the data necessary to repair the hinge fitting (80, 85, 90, 95).

B. Refer to the Standard Overhaul Practice 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 1 for item numbers.

E. General repair details:

(1) Material: Aluminum alloy

(2) Shot peen: Intensity 0.005A-0.010A, Coverage 1.0 (automated), 2.0 (manual)

2. Fitting Repair

A. References

(1) SOPM 20-10-03, Shot Peening

(2) SOPM 20-30-02, Stripping of Protective Finishes

(3) SOPM 20-41-01, Decoding Table For Boeing Finish Codes

B. Procedure

(1) Machine the holes for the bushing (70, 75) to remove defects, cracks and/or corrosion up to the limit shown in REPAIR 4-2, Figure 601 and REPAIR 4-2, Figure 602. Make sure to refer to REPAIR 2-1 for hinge center line.

(2) Break all the sharp edges of the machined hole 0.020-0.030 inch.

(3) Do a penetrant check (SOPM 20-20-02) on the areas you reamed.

(4) Shot peen the machined hole as shown in the SOPM 20-10-03. Refer to the General section of this repair for shot peen information.

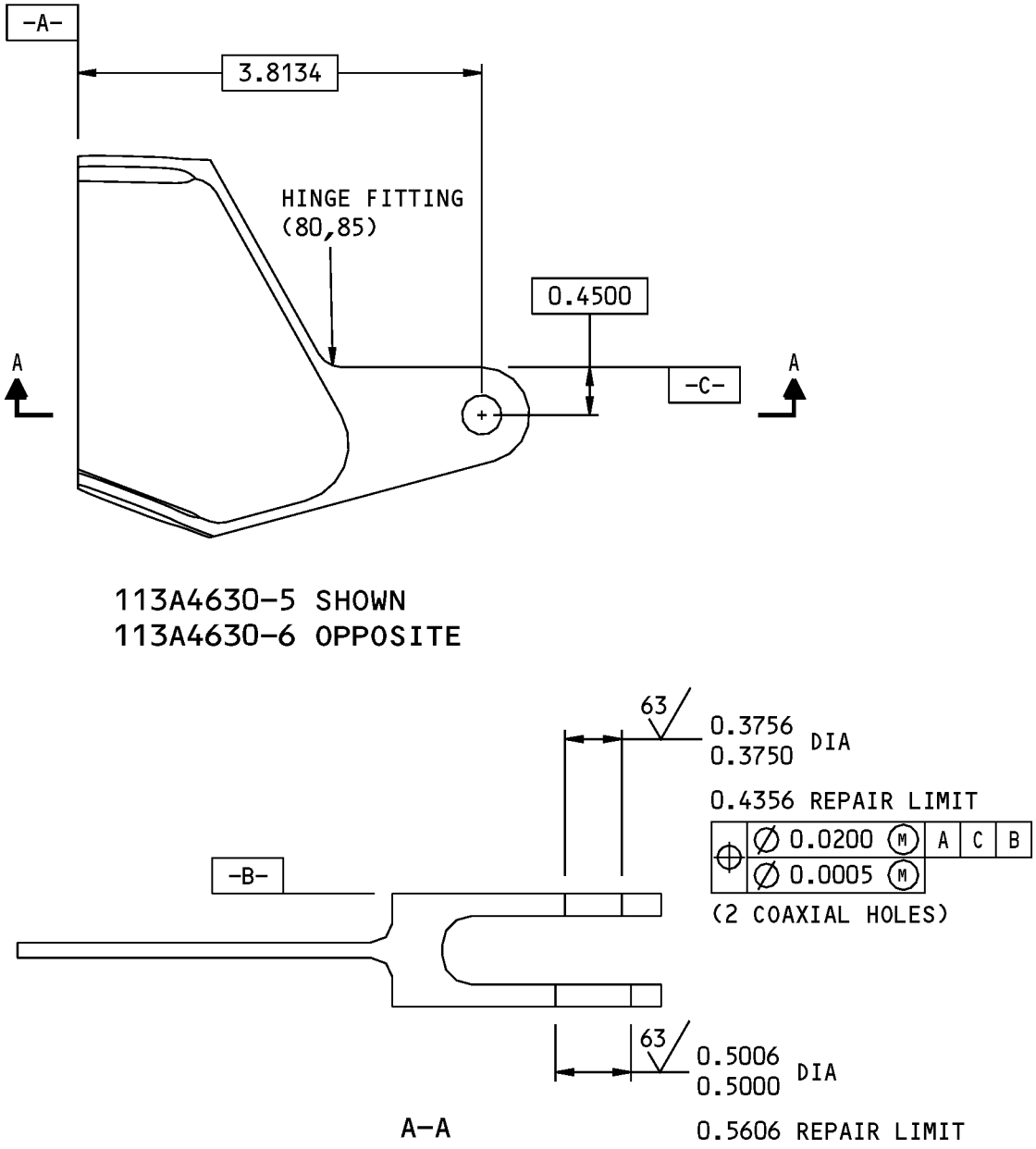
(5) Make the oversize bushing as shown in REPAIR 4-2, Figure 603 and the steps shown below.

(a) Bushing (70) material: 15-5PH per AMS 5659 (180-200 ksi); or 17-4PH per AMS 5643 (180-200 ksi).

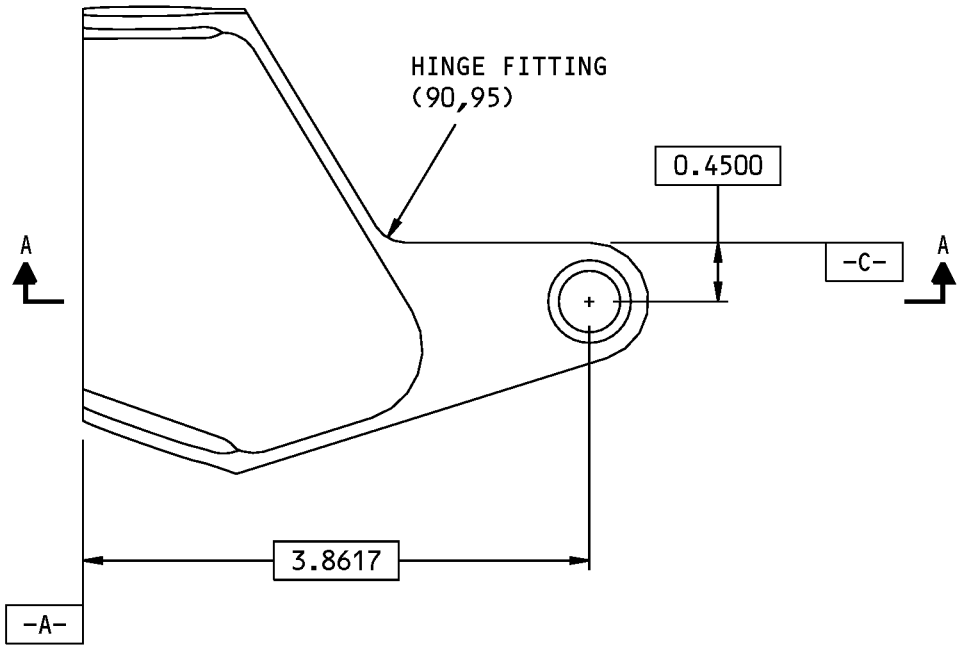
(b) Bushing (75) material: Aluminum-nickel-bronze per AMS 4640 (HR50 or TQ50).

(c) Bushing (70, 75) finish: Cadmium or zinc-nickel plate (F-15.40) 0.0003-0.0007 inch thick; or cadmium plate (F-15.06) as shown in SOPM 20-41-01.

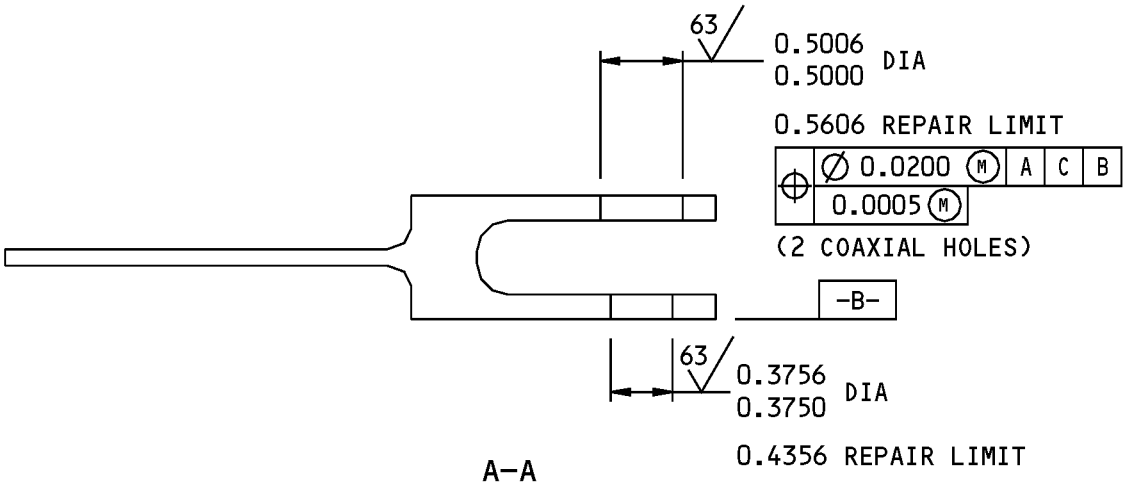
(6) Install the oversize bushings as shown in REPAIR 4-1.



113A4630-5,-6 Hinge Fitting Repair
Figure 601



113A4630-7 SHOWN
113A4630-8 OPPOSITE



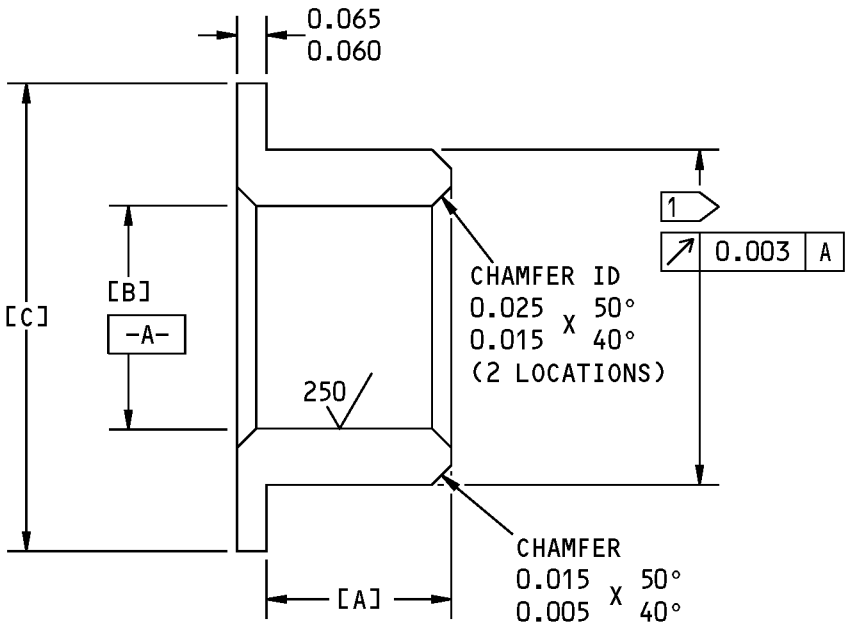
125 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

BREAK ALL SHARP EDGES

ITEM NUMBERS REFER TO IPL FIG. 1

ALL DIMENSIONS ARE IN INCHES

113A4630-7,-8 Hinge Fitting Repair
Figure 602



OVERSIZE BUSHING REPLACEMENT
FOR BUSHINGS (70,75)

BUSHING TO BE REPLACED (IPL FIG. 1)	[A]	[B]	[C]	INTERFERENCE
70	0.140 0.135	0.3756 0.3750	0.540 0.530	0.0014 0.0003
75	0.140 0.135	0.2505 0.2500	0.630 0.620	0.0015 0.0004

63 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

BREAK ALL SHARP EDGES

ITEM NUMBERS REFER TO IPL FIG. 1

ALL DIMENSIONS ARE IN INCHES

1 THE OUTSIDE DIAMETER OF THE BUSHING AFTER PLATING IS EQUAL TO THE INSIDE DIAMETER OF THE LUG HOLE PLUS THE INTERFERENCE.

Oversize Bushing Details
Figure 603

ASSEMBLY

1. General

A. This procedure has the data necessary to assemble the No. 6 and 7 inboard ground spoiler assembly (1A, 1B, 5, 5A).

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

C. Refer to IPL Figure 1 for item numbers.

2. Assembly

A. Consumable Materials

NOTE: Equivalent substitutes may be used.

Reference	Description	Specification
A00247	Sealant - Pressure And Environmental - Chromate Type	BMS 5-95
C00862	Coating - Chemical Conversion - Alodine 600	

B. References

Reference	Title
SOPM 20-11-03	REPAIR OF ELECTRICAL TERMINATIONS AND ELECTRICAL BONDING AREAS
SOPM 20-30-02	STRIPPING OF PROTECTIVE FINISHES
SOPM 20-41-01	DECODING TABLE FOR BOEING FINISH CODES
SOPM 20-43-03	CHEMICAL CONVERSION COATINGS FOR ALUMINUM
SOPM 20-50-01	BOLT AND NUT INSTALLATION
SOPM 20-60-02	FINISHING MATERIALS
SOPM 20-60-03	LUBRICANTS
SOPM 20-60-04	MISCELLANEOUS MATERIALS

C. Consumable Materials

NOTE: Equivalent material can be used.

(1) C00432 Primer – BMS 10-11, type 1

(2) G00508 Compound – MIL-C-11796, class 3, corrosion preventive

D. References

(1) SOPM 20-41-02, Application of Chemical and Solvent Resistant Finishes

(2) SOPM 20-43-03, Chemical Conversion Coatings For Aluminum

(3) SOPM 20-44-04, Application of Urethane Compatible Primer

(4) SOPM 20-50-02, Installation of Safetying Devices

E. Procedure

NOTE: For stripping of protective finishes, refer to SOPM 20-30-02. For the decoding table for Boeing finish codes, refer to SOPM 20-41-01. For bolt and nut installation, refer to SOPM 20-50-01. For finishing materials, refer to SOPM 20-60-02. For lubricants, refer to SOPM 20-60-03. For miscellaneous materials , refer to SOPM 20-60-04.

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

(2) Install the jumper assemblies (25, 30) on the panel bond assembly (240, 245) (SOPM 20-11-03).

(a) Remove the finish, if necessary, in areas where you will install the jumper assemblies (25, 30).

(b) Apply Alodine 600 coating, C00862 (SOPM 20-43-03) by hand, by brush, swab, or spray application in areas you just removed the finish.

(c) Install the jumper assemblies (25, 30) on the panel bond assembly (240, 245) with bolts (10), washers (15), and nut (20) (SOPM 20-11-03). Use three washers for installation, one washer (15) under the bolt head, and one on each side of the jumper assemblies (25, 30).

(d) Fillet seal the ends of the jumper assemblies (25, 30) with sealant, A00247.

BOEING®

COMPONENT MAINTENANCE MANUAL

FITS AND CLEARANCES

(NOT APPLICABLE)

(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
15860	NEW HAMPSHIRE BALL BEARINGS, INC ASTRO DIVISION 155 LEXINGTON AVENUE LACONIA, NEW HAMPSHIRE 03246-2937 FORMERLY ASTRO BEARING CORP, LOS ANGELES, CALIF.
1FF12	CIRCUIT SYSTEMS CO 2621 COLORADO CIR PO BOX 171322 ARLINGTON, TEXAS 76017
1GK47	R AND B ELECTRONICS INC 2374 NW DALLAS STREET GRAND PRAIRIE, TEXAS 75050

Code	Name
50632	KAMATICS CORP SUB OF KAMAN CORP 1335 BLUE HILLS ROAD BLOOMFIELD, CONNECTICUT 06002-1304
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
62554	SIMMONDS MECAERO FASTENERS INC 1734 SEQUOIA AVENUE ORANGE, CALIFORNIA 92668
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
81376	SMITH ACQUISITION COMPANY 2240 BUENA VISTA BALDWIN PARK, CALIFORNIA 91706
91812	ESTERLINE MASON 13955 BALVOA ROAD SYLMAR, CALIFORNIA 91342 FORMERLY JANCO CORPORATION

Code	Name
92215	FAIRCHILD IND INC FAIRCHILD AEROSPACE FASTENER DIV 3010 W LOMITA BLVD TORRANCE, CALIFORNIA 90505-5102 FORMERLY VOI-SHAN IN CULVER CITY, CALIF
97613	SARGENT CONTROLS & AEROSPACE/KAHR BEARING DIV 5675 W BURLINGAME RD TUCSON, ARIZONA 85743 FORMERLY AETNA STEEL PROD KAHR BEARING DIV V96579 FORMERLY SARGENT IND KAHR BEARING DIV, BURBANK, CALIFORNIA
S0352	NIPPON MINIATURE BEARING CO LTD TOKYO, JAPAN

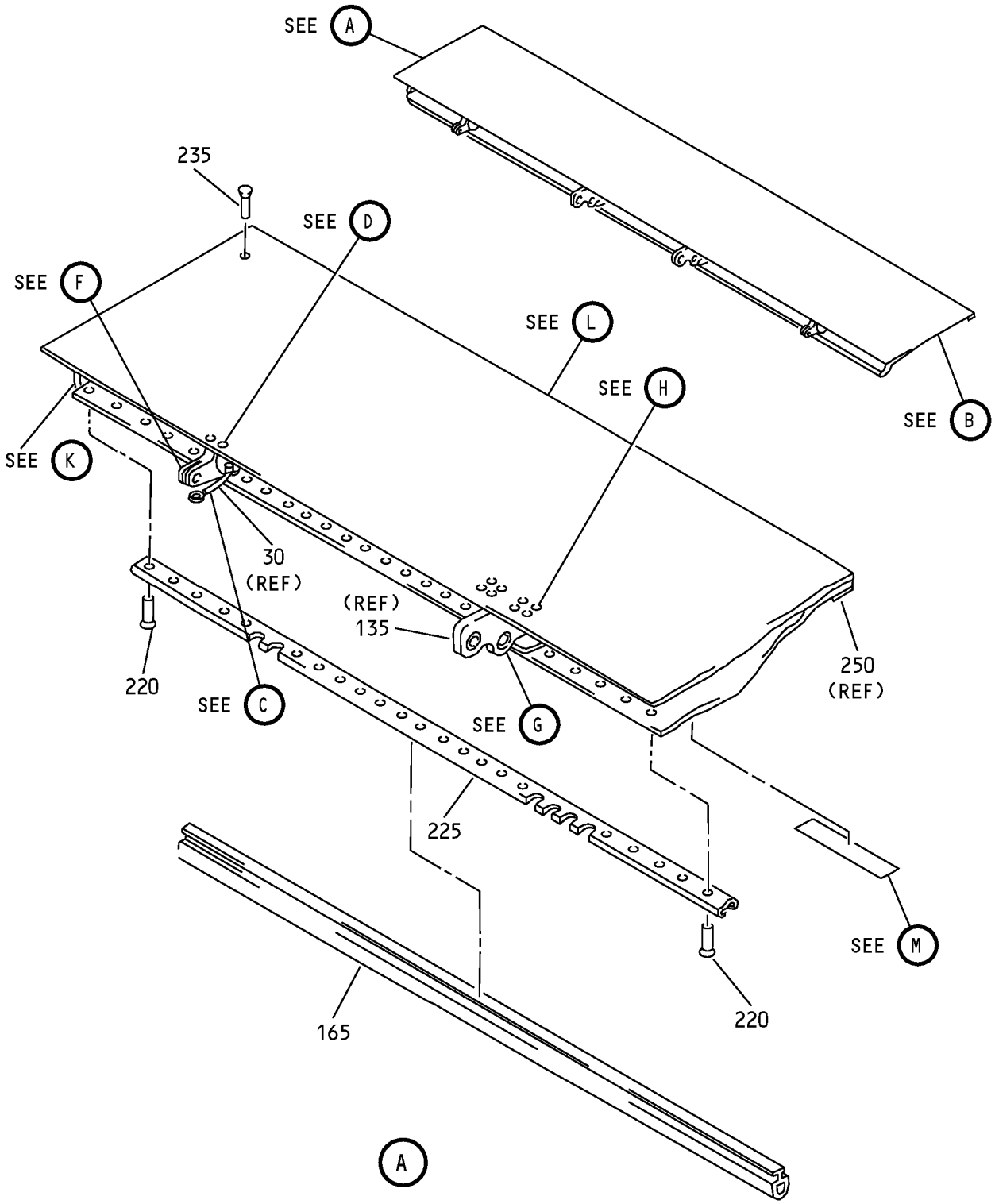
NUMERICAL INDEX

PART NUMBER	AIRLINE PART NUMBER	FIGURE	ITEM	UNITS PER ASSEMBLY
100220-10		1	25	1
100220-7		1	30	1
113A4112-21		1	290	1
113A4112-22		1	295	1
113A4112-23		1	300	1
113A4112-24		1	305	1
113A4114-7		1	250	1
113A4150-1		1	165	1
113A4150-13		1	190	1
113A4150-14		1	195	1
113A4150-2		1	167	1
113A4160-5		1	185	2
113A4160-7		1	225	1
113A4160-8		1	230	1
113A4170-3		1	210A	1
113A4170-4		1	215A	1
113A4600-1		1	1A	RF
113A4600-2		1	5	RF
113A4600-3		1	1B	RF
113A4600-4		1	5A	RF
113A4610-1		1	240	1
113A4610-2		1	245	1
113A4610-3		1	255	1
113A4610-4		1	260	1
113A4611-1		1	310	1
113A4611-2		1	315	1
113A4613-1		1	280	8
113A4620-1		1	130	1
113A4620-11		1	135A	1
113A4620-13		1	147	1
113A4620-15		1	150A	1
113A4620-3		1	135	1
113A4620-5		1	145	1
113A4620-7		1	150	1

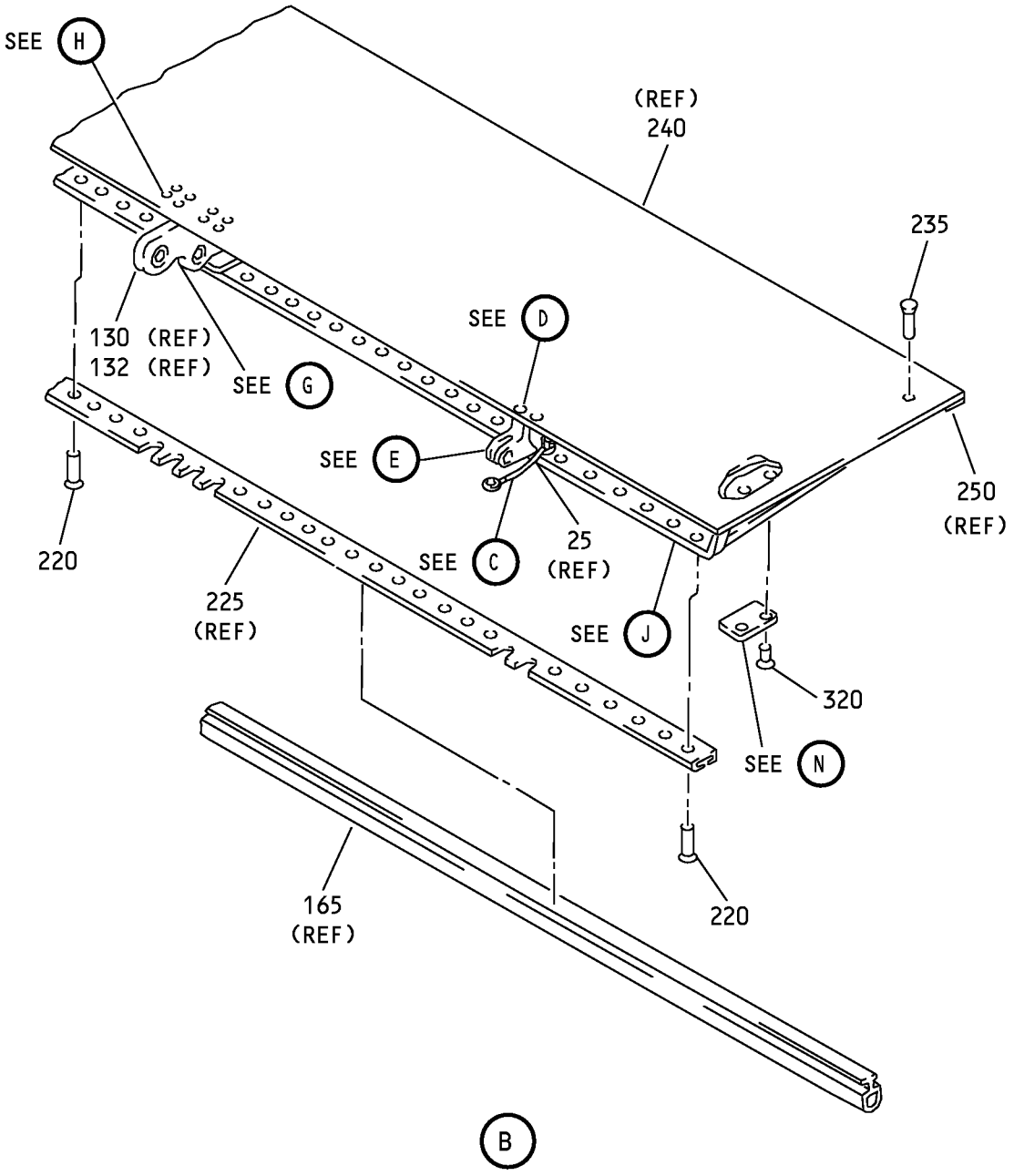
PART NUMBER	AIRLINE PART NUMBER	FIGURE	ITEM	UNITS PER ASSEMBLY
113A4620-9		1	132	1
113A4630-1		1	50	1
113A4630-2		1	55	1
113A4630-3		1	60	1
113A4630-4		1	65	1
113A4630-5		1	80	1
113A4630-6		1	85	1
113A4630-7		1	90	1
113A4630-8		1	95	1
113A4640-1		1	160	2
940CW20-10		1	25	1
940CW20-7		1	30	1
ADW07V301NZ07G		1	140	2
BAC27NCT0217		1	330	1
BACB10FA07G		1	140	2
BACB28AP04P014		1	70	1
BACB28AT06B014C		1	75	1
BACB30VT6K		1	40	4
		1	110	16
		1	120	4
		1	270	8
BACB30VT6K5		1	42	4
BACB30VU6K		1	35	4
		1	105	16
BACC30BL6		1	45	8
		1	125	4
		1	275	8
BACC30BS6S		1	47	4
		1	115	32
BACJ40AB20-10		1	25	1
BACJ40AB20-7		1	30	1
BACN10JC08CD		1	180	4
BACN10YR3CD		1	20	2
BACR15BB3D		1	320	2
BACR15BB3D4C		1	320A	2

PART NUMBER	AIRLINE PART NUMBER	FIGURE	ITEM	UNITS PER ASSEMBLY
BACR15CE5D		1	200	2
		1	220	44
		1	235	2
BACR15FT5D		1	205	4
BACR15FT5D5C		1	205A	4
BACR15FT6D		1	265	8
		1	285	4
BACS12GU08K8		1	170	4
BACS12GU3K8		1	10	2
BACS40R009B018		1	100	4
BACS40R009B018F		1	100A	4
BACS40R018B038		1	155	2
BACS40R018B038F		1	155A	2
H52732-3CD		1	20	2
HST1094DU6		1	47	4
		1	115	32
HST10AG6-5		1	42	4
		1	42	4
		1	42	4
		1	42	4
HST79-6		1	45	8
		1	45	8
		1	45	8
		1	125	4
		1	125	4
		1	125	4
		1	275	8
		1	275	8
		1	275	8
HST79CY6		1	45	8
		1	125	4
		1	275	8
KSC152200BZ07G		1	140	2
KWDB07-33		1	140	2
MS27253-1		1	325	1

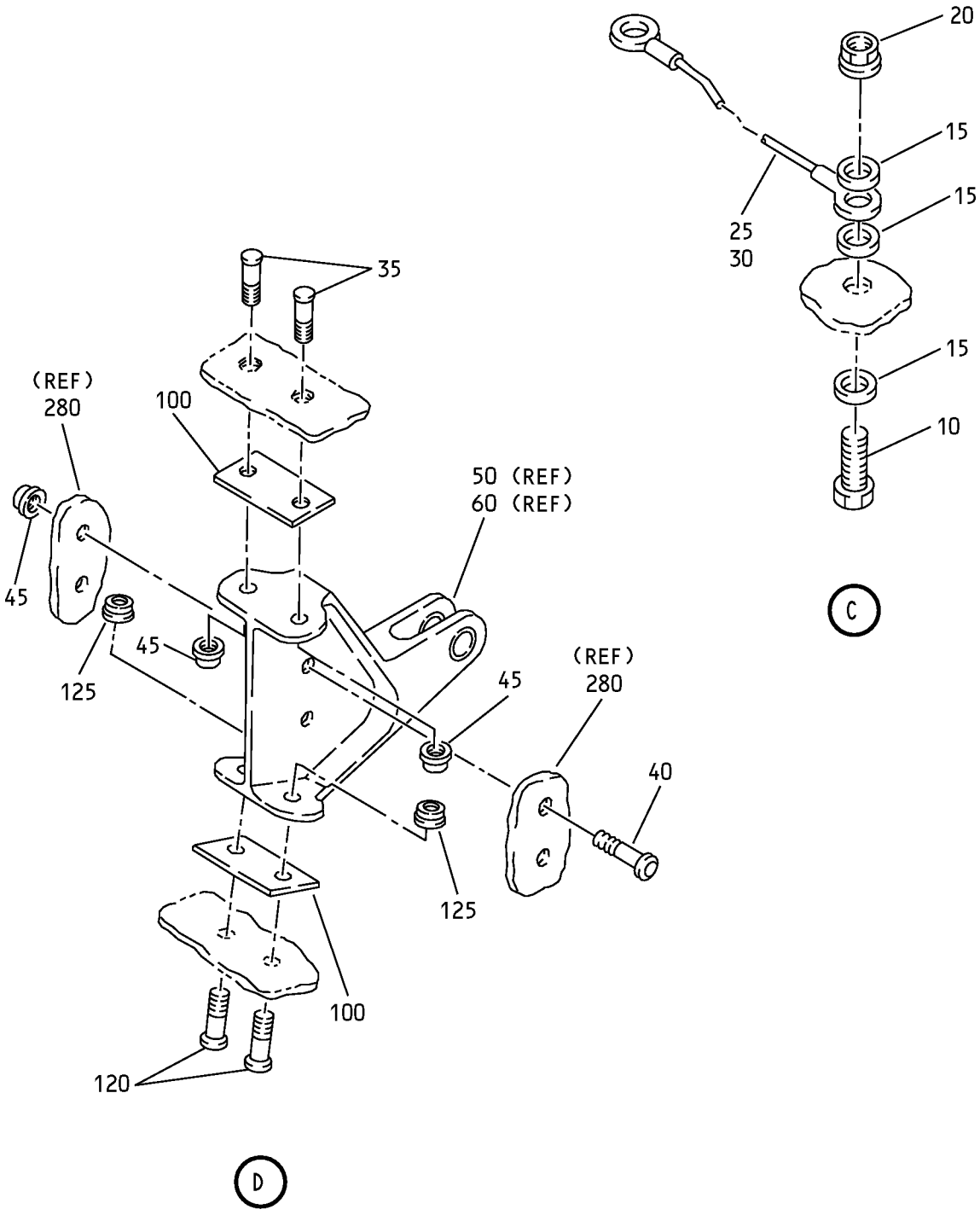
PART NUMBER	AIRLINE PART NUMBER	FIGURE	ITEM	UNITS PER ASSEMBLY
NAS1149D0316J		1	15	6
NAS1149DN832J		1	175	8
NAS1149E0316P		1	43	4
PLH53CD		1	20	2
RBEJ40AB20-10		1	25	1
RBEJ40AB20-7		1	30	1
SWKRS07-350S		1	140	2
WES07FAG		1	140	2
WHTFA07V		1	140	2



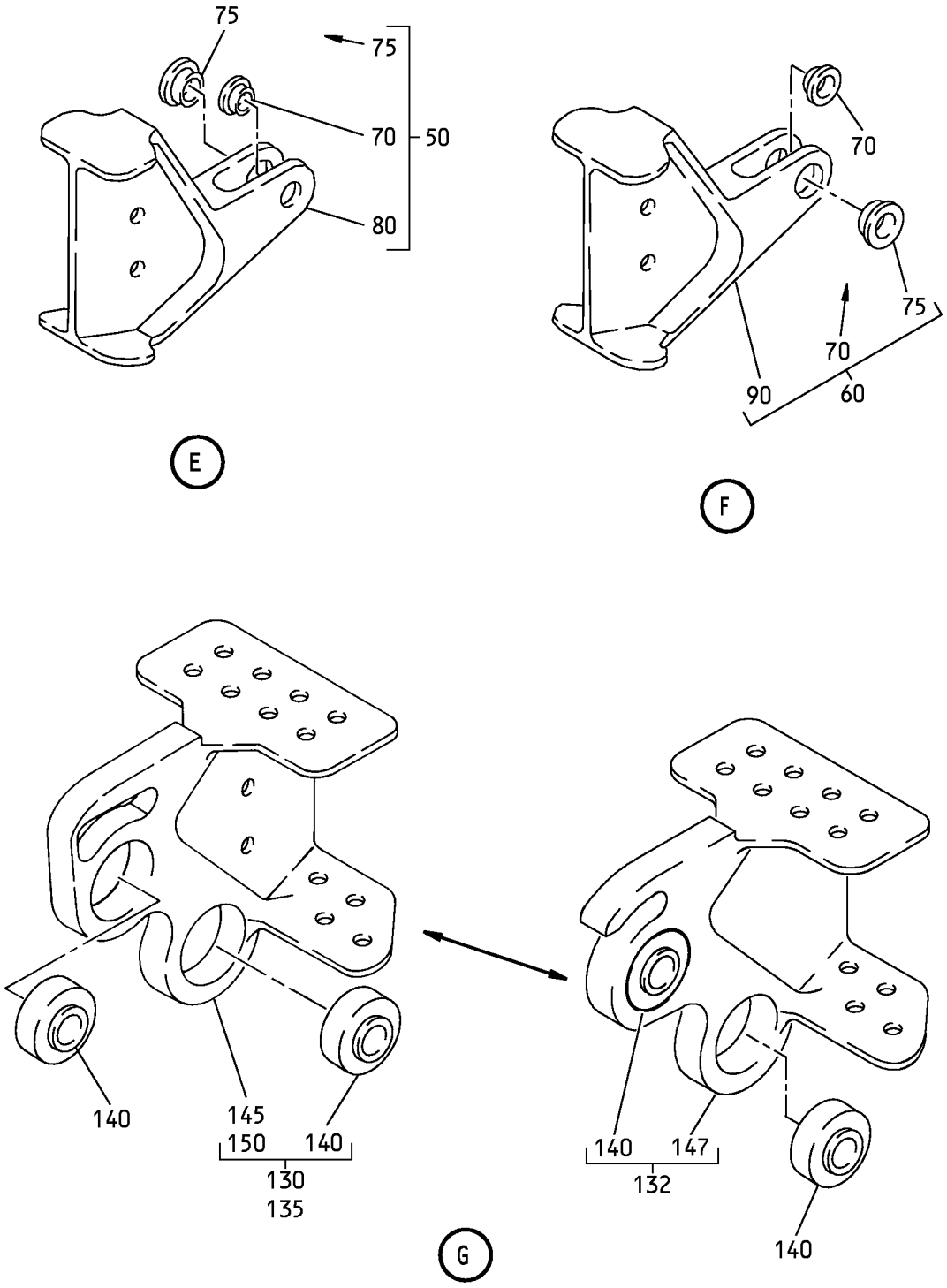
No. 6 and 7 Inboard Ground Spoiler Assemblies
IPL Figure 1 (Sheet 1 of 9)



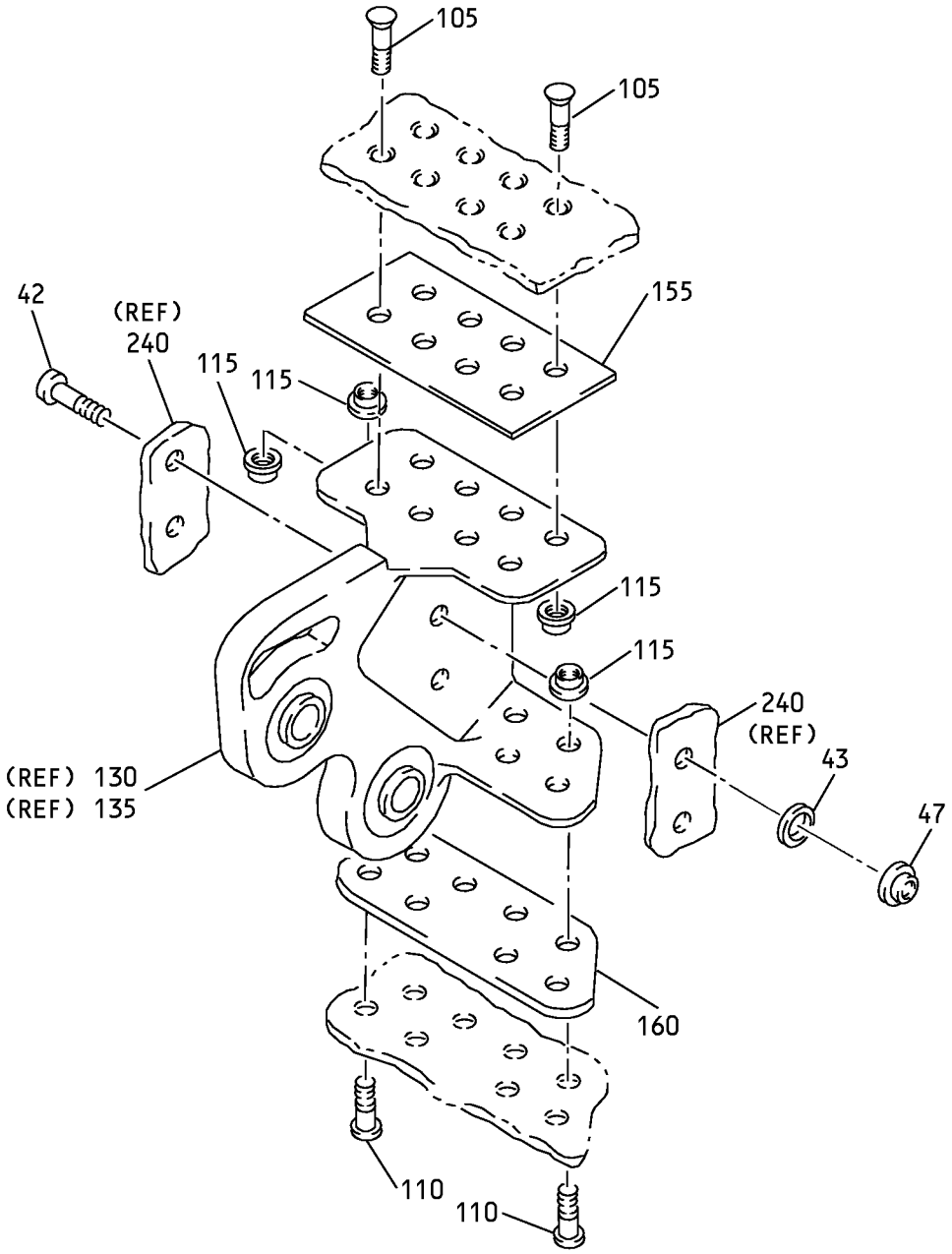
No. 6 and 7 Inboard Ground Spoiler Assemblies
IPL Figure 1 (Sheet 2 of 9)



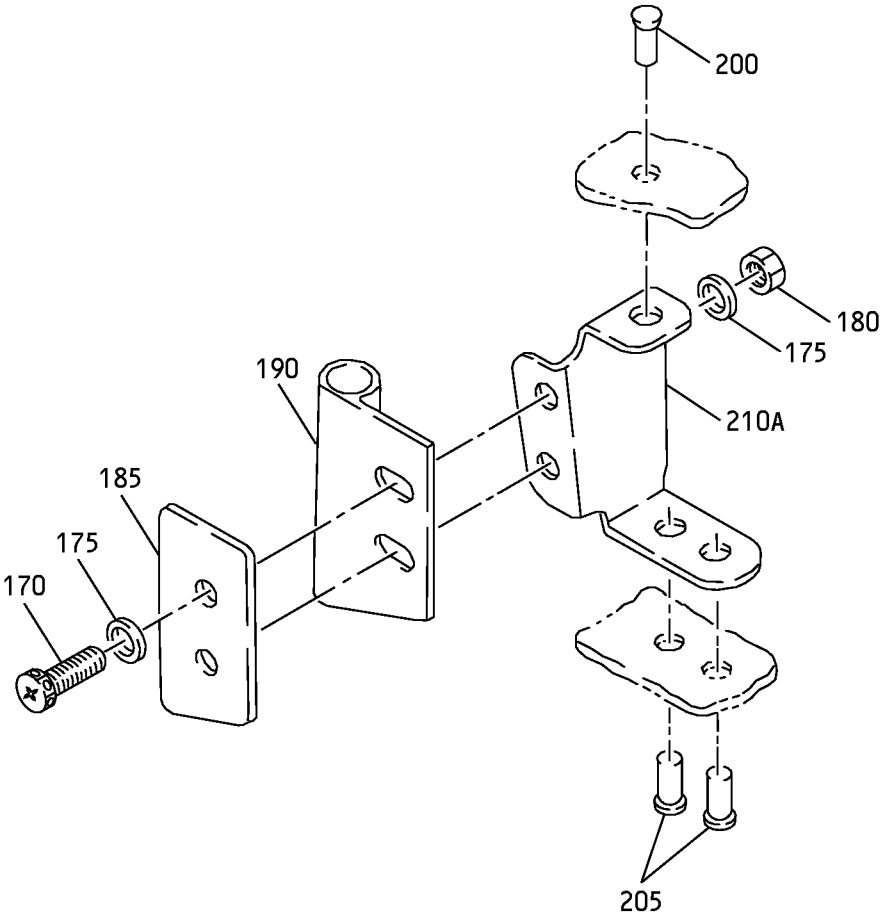
No. 6 and 7 Inboard Ground Spoiler Assemblies
IPL Figure 1 (Sheet 3 of 9)



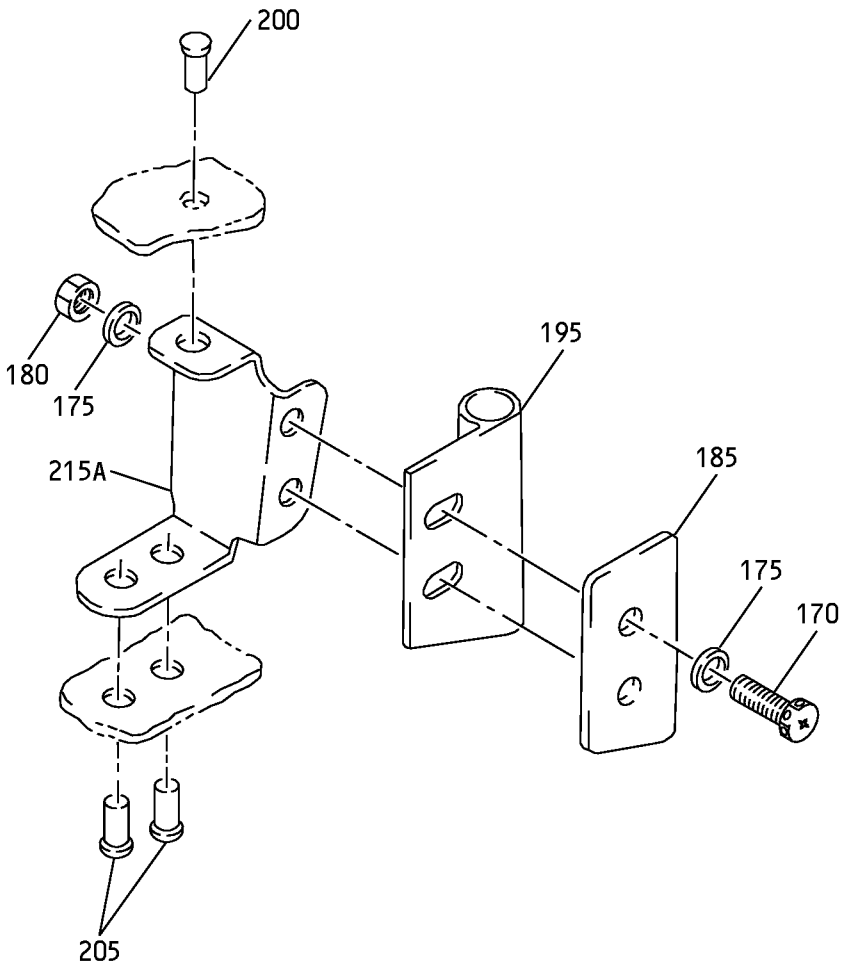
No. 6 and 7 Inboard Ground Spoiler Assemblies
IPL Figure 1 (Sheet 4 of 9)



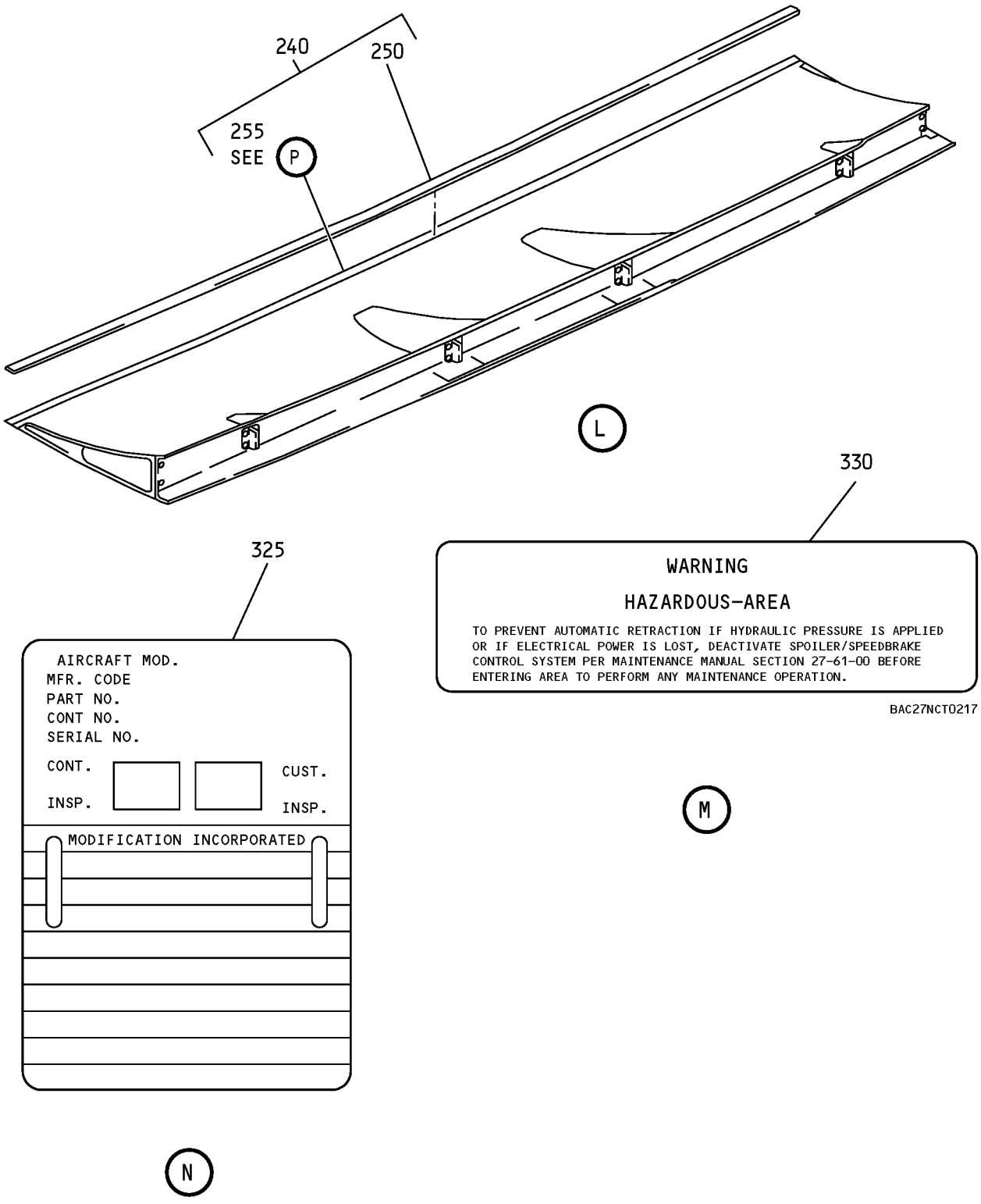
No. 6 and 7 Inboard Ground Spoiler Assemblies
IPL Figure 1 (Sheet 5 of 9)



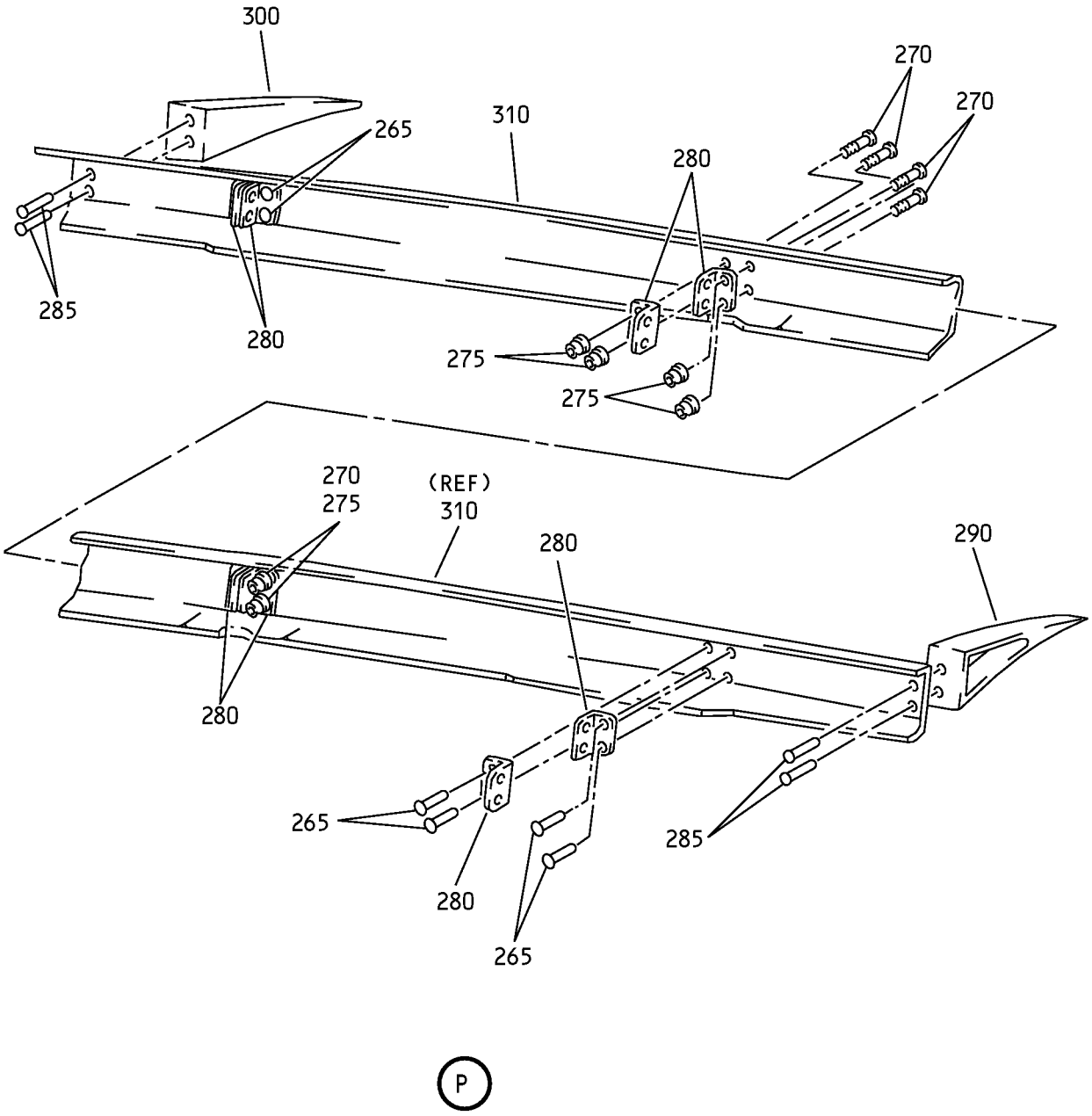
No. 6 and 7 Inboard Ground Spoiler Assemblies
IPL Figure 1 (Sheet 6 of 9)



No. 6 and 7 Inboard Ground Spoiler Assemblies
IPL Figure 1 (Sheet 7 of 9)



No. 6 and 7 Inboard Ground Spoiler Assemblies
IPL Figure 1 (Sheet 8 of 9)



No. 6 and 7 Inboard Ground Spoiler Assemblies
IPL Figure 1 (Sheet 9 of 9)

FIG/ ITEM	PART NUMBER	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USAGE CODE	UNITS PER ASSY
1–					
–1A	113A4600-1		SPOILER ASSY-NO. 6 AND NO. 7, INBD GND	A	RF
–1B	113A4600-3		SPOILER ASSY-NO. 6 AND NO. 7, INBD GND	C	RF
–5	113A4600-2		SPOILER ASSY-NO. 6 AND NO. 7, INBD GND	B	RF
–5A	113A4600-4		SPOILER ASSY-NO. 6 AND NO. 7, INBD GND	D	RF
10	BACS12GU3K8		. SCREW		2
15	NAS1149D0316J		. WASHER		6
20	H52732-3CD		. NUT (V15653) (SPEC BACN10YR3CD) (OPT PLH53CD (V62554))		2
25	940CW20-10		. JUMPER ASSY (V91812) (SPEC BACJ40AB20-10) (OPT 100220-10 (V1FF12)) (OPT RBEJ40AB20-10 (V1GK47))		1
30	940CW20-7		. JUMPER ASSY (V91812) (SPEC BACJ40AB20-7) (OPT 100220-7 (V1FF12)) (OPT RBEJ40AB20-7 (V1GK47))		1
35	BACB30VU6K		. BOLT (SIZE DETERMINED ON INST)		4
40	BACB30VT6K		. BOLT (SIZE DETERMINED ON INST)		4
42	HST10AG6-5		. BOLT (V0PTK6) (SPEC BACB30VT6K5) (OPT HST10AG6-5 (V06725)) (OPT HST10AG6-5 (V56878)) (OPT HST10AG6-5 (V73197))		4
43	NAS1149E0316P		. WASHER		4

–Item not Illustrated

FIG/ ITEM	PART NUMBER	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USAGE CODE	UNITS PER ASSY
1–					
45	HST79CY6		. COLLAR (V73197) (SPEC BACC30BL6) (OPT HST79-6 (V56878)) (OPT HST79-6 (V92215)) (OPT HST79-6 (V5M902))		8
47	HST1094DU6		. COLLAR (V73197) (SPEC BACC30BS6S)		4
50	113A4630-1		. FITTING ASSY-OUTER	A, C	1
–55	113A4630-2		. FITTING ASSY-OUTER	B, D	1
60	113A4630-3		. FITTING ASSY-OUTER	A, C	1
–65	113A4630-4		. FITTING ASSY-OUTER	B, D	1
70	BACB28AP04P014		. . BUSHING		1
75	BACB28AT06B014C		. . BUSHING		1
80	113A4630-5		. . FITTING-HINGE (USED ON ITEM 50)	A, C	1
–85	113A4630-6		. . FITTING-HINGE (USED ON ITEM 55)	B, D	1
90	113A4630-7		. . FITTING-HINGE (USED ON ITEM 60)	A, C	1
–95	113A4630-8		. . FITTING-HINGE (USED ON ITEM 65)	B, D	1
100	BACS40R009B018		. SHIM	A, B	4
–100A	BACS40R009B018F		. SHIM	C, D	4
105	BACB30VU6K		. BOLT (SIZE DETERMINED ON INST)		16
110	BACB30VT6K		. BOLT (SIZE DETERMINED ON INST)		16
115	HST1094DU6		. COLLAR (V73197) (SPEC BACC30BS6S)		32
120	BACB30VT6K		. BOLT (SIZE DETERMINED ON INST)		4
120A	BACB30VT6K5		DELETED		
122	NAS1149E0316P		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–					
125	HST79CY6		. COLLAR (V73197) (SPEC BACC30BL6) (OPT HST79-6 (V56878)) (OPT HST79-6 (V92215)) (OPT HST79-6 (V5M902))		4
125A	BACC30BS6S		DELETED		
130	113A4620-1		. FITTING ASSY-ACTR	A, B	1
132	113A4620-9		. FITTING ASSY-ACTR	C, D	1
135	113A4620-3		. FITTING ASSY-ACTR	A, B	1
–135A	113A4620-11		. FITTING ASSY-ACTR	C, D	1
140	WHTFA07V		. . BEARING (VS0352) (SPEC BACB10FA07G) (OPT WES07FAG (V73134)) (OPT KWDB07-33 (V97613)) (OPT KSC152200BZ07G (V50632)) (OPT ADW07V301NZ07G (V15860)) (OPT SWKRS07-350S (V81376))		2
145	113A4620-5		. . FITTING-HINGE (USED ON ITEM 130)	A, B	1
147	113A4620-13		. . FITTING-HINGE (USED ON ITEM 132)	C, D	1
150	113A4620-7		. . FITTING-HINGE (USED ON ITEM 135)	A, B	1
–150A	113A4620-15		. . FITTING-HINGE (USED ON ITEM 135A)	C, D	1
155	BACS40R018B038		. SHIM	A, B	2
–155A	BACS40R018B038F		. SHIM	C, D	2
160	113A4640-1		. SHIM		2
165	113A4150-1		. SEAL (MAKE FROM SILICONE RUBBER PER BMS1-57 MAKE FROM 113A4150-3 .9 X 1.5 X 95.0)	A, C	1
–167	113A4150-2		. SEAL (MAKE FROM SILICONE RUBBER PER BMS1-57 MAKE FROM 113A4150-3 .9 X 1.5 X 95.0)	B, D	1
170	BACS12GU08K8		. SCREW		4

–Item not Illustrated

FIG/ ITEM	PART NUMBER	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USAGE CODE	UNITS PER ASSY
1–					
175	NAS1149DN832J		. WASHER		8
180	BACN10JC08CD		. NUT		4
185	113A4160-5		. RETAINER-SEAL		2
190	113A4150-13		. SEAL (MAKE FROM EXTR RUBBER 10-60754-481 X 3.4)		1
195	113A4150-14		. SEAL (MAKE FROM EXTR RUBBER 10-60754-481 X 3.4)		1
200	BACR15CE5D		. RIVET (SIZE DETERMINED ON INST)		2
205	BACR15FT5D		. RIVET (SIZE DETERMINED ON INST)	A, B	4
–205A	BACR15FT5D5C		. RIVET	C, D	4
210	113A4170-1		DELETED		
210A	113A4170-3		. CLIP-SEAL SPRT		1
215	113A4170-2		DELETED		
215A	113A4170-4		. CLIP-SEAL SPRT		1
220	BACR15CE5D		. RIVET (SIZE DETERMINED ON INST)		44
225	113A4160-7		. RETAINER-SEAL	A, C	1
–230	113A4160-8		. RETAINER-SEAL	B, D	1
235	BACR15CE5D		. RIVET (SIZE DETERMINED ON INST)		2
240	113A4610-1		. BOND ASSY-PNL	A, C	1
–245	113A4610-2		. BOND ASSY-PNL	B, D	1
250	113A4114-7		. . STRIP-RUB		1
255	113A4610-3		. . FRAME ASSY	A, C	1
–260	113A4610-4		. . FRAME ASSY	B, D	1
265	BACR15FT6D		. . . RIVET (SIZE DETERMINED ON INST)		8
270	BACB30VT6K		. . . BOLT (SIZE DETERMINED ON INST)		8

–Item not Illustrated

FIG/ ITEM	PART NUMBER	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USAGE CODE	UNITS PER ASSY
1–					
275	HST79CY6		. . . COLLAR (V73197) (SPEC BACC30BL6) (OPT HST79-6 (V56878)) (OPT HST79-6 (V92215)) (OPT HST79-6 (V5M902))		8
280	113A4613-1		. . . CLIP		8
285	BACR15FT6D		. . . RIVET (SIZE DETERMINED ON INST)		4
290	113A4112-21		. . . RIB-END	A, C	1
–295	113A4112-22		. . . RIB-END	B, D	1
300	113A4112-23		. . . RIB-END	A, C	1
–305	113A4112-24		. . . RIB-END	B, D	1
310	113A4611-1		. . . CHANNEL-LE	A, C	1
–315	113A4611-2		. . . CHANNEL-LE	B, D	1
320	BACR15BB3D		. RIVET (SIZE DETERMINED ON INST)	A, B	2
–320A	BACR15BB3D4C		. RIVET	C, D	2
325	MS27253-1		. PLATE-IDENT		1
330	BAC27NCT0217		. MARKER-ALUMINUM FOIL		1

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