COMPONENT MAINTENANCE MANUAL WITH ILLUSTRATED PARTS LIST

MAIN LANDING GEAR UPLOCK ASSEMBLY

PART NUMBER 161A6100–3

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COMPONENT MAINTENANCE MANUAL

Revision No. 13
Jul 01/2009

To: All holders of MAIN LANDING GEAR UPLOCK ASSEMBLY 32-32-34.

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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TEMPORARY REVISION AND SERVICE BULLETIN RECORD

BOEING SERVICE BULLETIN	BOEING TEMPORARY REVISION	OTHER DIRECTIVE	DATE OF INCORPORATION INTO MANUAL
		PRR 38054	NOV 01/02
		737-SL-32-123	JUL 01/08
		737-SL-32-130	JUL 01/08

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

Revision		Filed	
Number	Date	Date	Initials

Revision		Filed	
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Temporary Revision		Inserted		Removed	
Number	Date	Date	Initials	Date	Initials

Temporary Revision		Inserted		Removed	
Date	Initials	Number	Date	Date	Initials

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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.

MAIN LANDING GEAR UPLOCK ASSEMBLY - DESCRIPTION AND OPERATION

1. Description

A. The main landing gear uplock assembly is a mechanism which includes upper and lower links, a hook, spool, a kicker and a hydraulic actuator.

2. Operation

A. The mechanism locks the main landing gear in the retracted position. The actuator turns the hook to release the gear for extension.

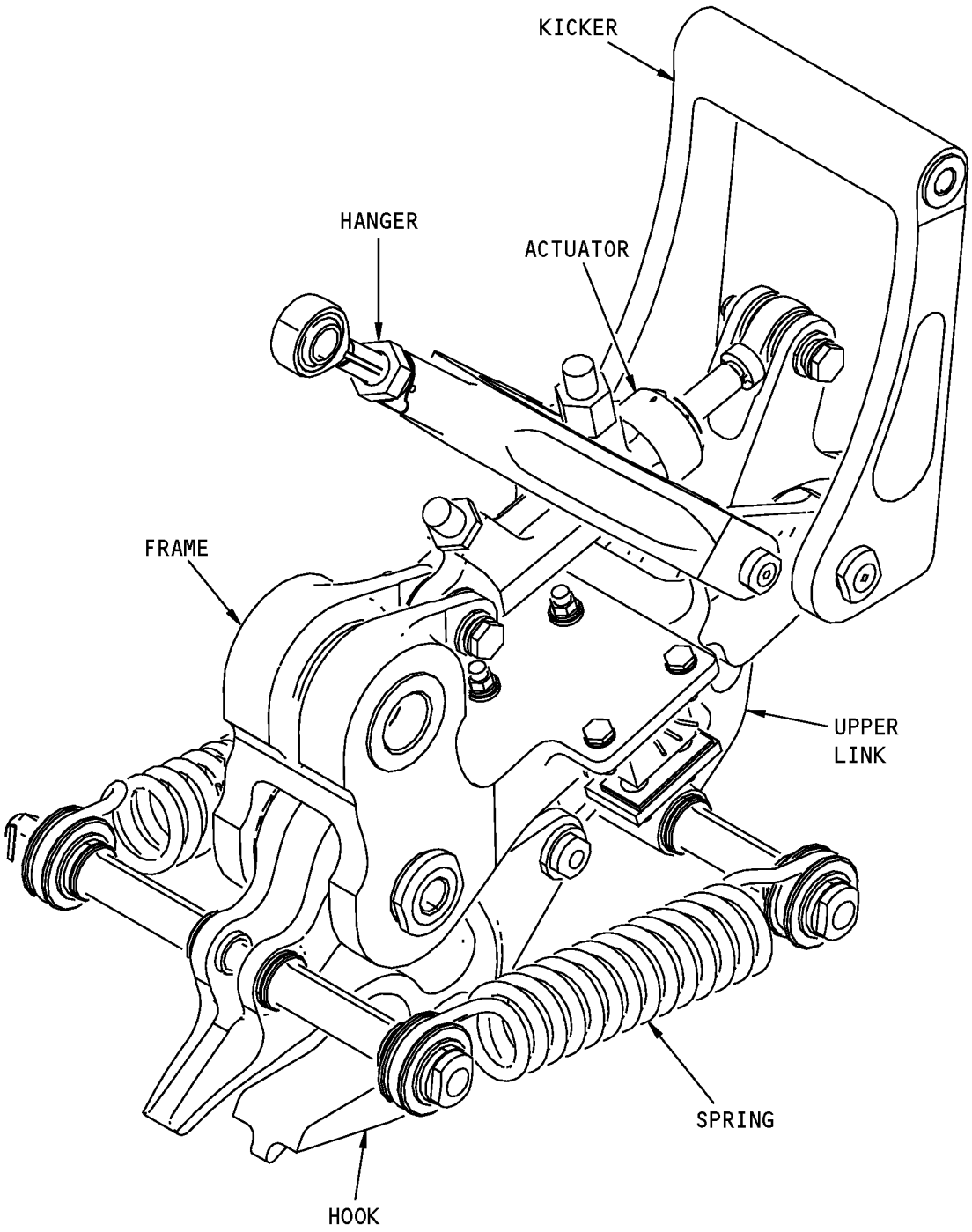
3. Leading Particulars (Approximate)

A. Length – 12 inches

B. Width – 8 inches

C. Height – 12 inches

D. Weight – 19 pounds



Main Landing Gear Uplock Assembly
Figure 1

(NOT APPLICABLE)

DISASSEMBLY

1. General

A. This procedure has the data necessary to disassemble the main landing gear uplock assembly.

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

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

D. Refer to IPL Figure 1 for item numbers.

2. Disassembly

A. References

Reference	Title
CMM 32-32-42	MAIN LANDING GEAR UPLOCK ACTUATOR ASSEMBLY

B. Procedure

(1) Part Replacement

NOTE: These parts are recommended for replacement. Replacement of other parts can be by in-service experience.

(a) Cotter pins (105, 160, 185, 190, 415, 815)

(2) Reference

(a) CMM 32-32-42, Main Gear Uplock Actuator Assembly

(3) Use standard industry procedures and these steps:

(a) Be careful while the links are under spring load. They can move suddenly and strongly.

(b) Refer to CMM 32-32-42 for overhaul of actuator (55).

CLEANING

1. General

A. This procedure has the data necessary to clean the parts of the main landing gear uplock assembly.

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 20-30-03	GENERAL CLEANING PROCEDURES

B. Procedure

(1) Clean the sensor (45) by the vendor's instructions.

(2) Clean the other parts by standard industry procedures and the instructions in SOPM 20-30-03.

CHECK

1. General

A. This procedure tells how 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 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) Examine all parts for defects by standard industry procedures. Refer to 737-SL-32-123 for more details about spring (135A). Refer to 737-SL-32-130 for more details about pin (420).

(2) Do a magnetic particle check (SOPM 20-20-01) of the parts that follow.

(a) Pins (110, 165, 195, 200, 420, 800)

(b) Spool (155)

(c) Sleeves (245, 320, 400, 405)

(d) Hook (250)

(e) Links (285, 300)

(f) Hanger (460)

(3) Do a penetrant check (SOPM 20-20-02) of the parts that follow.

(a) Spring (135A). Be sure to extend the spring to look for defects between its coils. Refer to 737-SL 32-123 for more details about possible spring defects.

(b) Kicker (325)

(4) Do a check of spring (135).

NOTE: Approximate free length is 7.5200 inches. All length dimensions are between the inside surfaces of the hooks.

(a) Extend the spring 8.6200-8.7200 inches. The load must be 32.55-37.45 pounds.

(b) Extend the spring 10.7600-10.8600 inches. The load must be 90-110 pounds.

REPAIR

1. General

A. Instructions for repair, refinish, and replacement are included in each REPAIR when applicable:

Table 601:

PART NUMBER	NAME	REPAIR
—	REFINISH OF OTHER PARTS	1-1
161A6101	FRAME	2-1, 2-2
161A6102	HOOK	3-1, 3-2
161A6104	LINK	4-1, 4-2
161A6108	KICKER	5-1, 5-2
161A6109	PIN	6-1
161A6110	PIN	7-1
161A6111	SPOOL	8-1
161A6118	PIN	9-1
161A6120	PIN	10-1
161A6122	LINK	11-1, 11-2
161A6300	HANGER	12-1, 12-2
161A6301	PIN	13-1
161A6302	PIN	14-1
161A6114	SPRING	15-1

2. Dimensioning Symbols

A. Standard True Position Dimensioning Symbols used in 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 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
◎ | Ø 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
⌖ | 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 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. Use this procedure to refinish the parts which are not in the other repairs.

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. 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

B. References

Reference	Title
SOPM 20-30-02	STRIPPING OF PROTECTIVE FINISHES
SOPM 20-41-01	DECODING TABLE FOR BOEING FINISH CODES
SOPM 20-41-02	APPLICATION OF CHEMICAL AND SOLVENT RESISTANT FINISHES
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 application of chemical and solvent resistant finishes, refer to SOPM 20-41-02. For finishing materials, refer to SOPM 20-60-02.

(1) Instructions for the repair of the parts in REPAIR 1-1, Table 601 are for replacement of the original finish.

Table 601: Refinish Details

IPL FIG. AND ITEM NUMBER	MATERIAL	FINISH
IPL Fig. 1		
Target (50)	HYMU 80 Steel, or Molypermalloy steel	Cadmium plate and apply primer, C00259 (F-16.01).
Washer (80)	301 CRES	Passivate (F-17.25).
Washer (85)	Delrin plastic	No finish.
Spacers (115, 120)	15-5PH CRES, 180-200 ksi	Passivate (F-17.25).
Washers (125, 170, 175, 425, 805)	15-5PH CRES, 150-170 ksi	Cadmium plate (F-15.06).

Table 601: Refinish Details (Continued)

IPL FIG. AND ITEM NUMBER	MATERIAL	FINISH
Washers (205, 210)	15-5PH CRES, 180-200 ksi	Cadmium plate (F-16.06).
Sleeves (245, 320, 400, 405)	15-5PH CRES, 180-200 ksi	Cadmium plate (F-16.06), but plating on the inner diameter is optional.
Fitting (350)	15-5PH CRES, 180-200 ksi	Cadmium plate (F-16.06). Apply primer, C00259 (F-20.02).

FRAME ASSEMBLY - REPAIR 2-1

161A6101–1

1. General

A. This procedure tells how to repair and refinish the frame assembly (355).

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 True Position Dimensioning Symbols used in the repair.

D. Refer to IPL Figure 1 for item numbers.

2. Repair Procedure

A. Consumable Materials

NOTE: Equivalent substitutes may be used.

Reference	Description	Specification
A00247	Sealant - Pressure And Environmental - Chromate Type	BMS 5-95
C00032	Coating - Exterior Protective Enamel, General Use	BMS10-60, Type I

B. References

Reference	Title
SOPM 20-30-02	STRIPPING OF PROTECTIVE FINISHES
SOPM 20-41-01	DECODING TABLE FOR BOEING FINISH CODES
SOPM 20-50-03	BEARING AND BUSHING REPLACEMENT
SOPM 20-50-19	GENERAL SEALING
SOPM 20-60-02	FINISHING MATERIALS
SOPM 20-60-04	MISCELLANEOUS MATERIALS

C. Frame Repair (REPAIR 2-1, Figure 601)

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

(1) Bushing replacement.

(a) Remove the old bushings (SOPM 20-50-03).

(b) If you find defects on the frame, refer to REPAIR 2-2 for repair instructions.

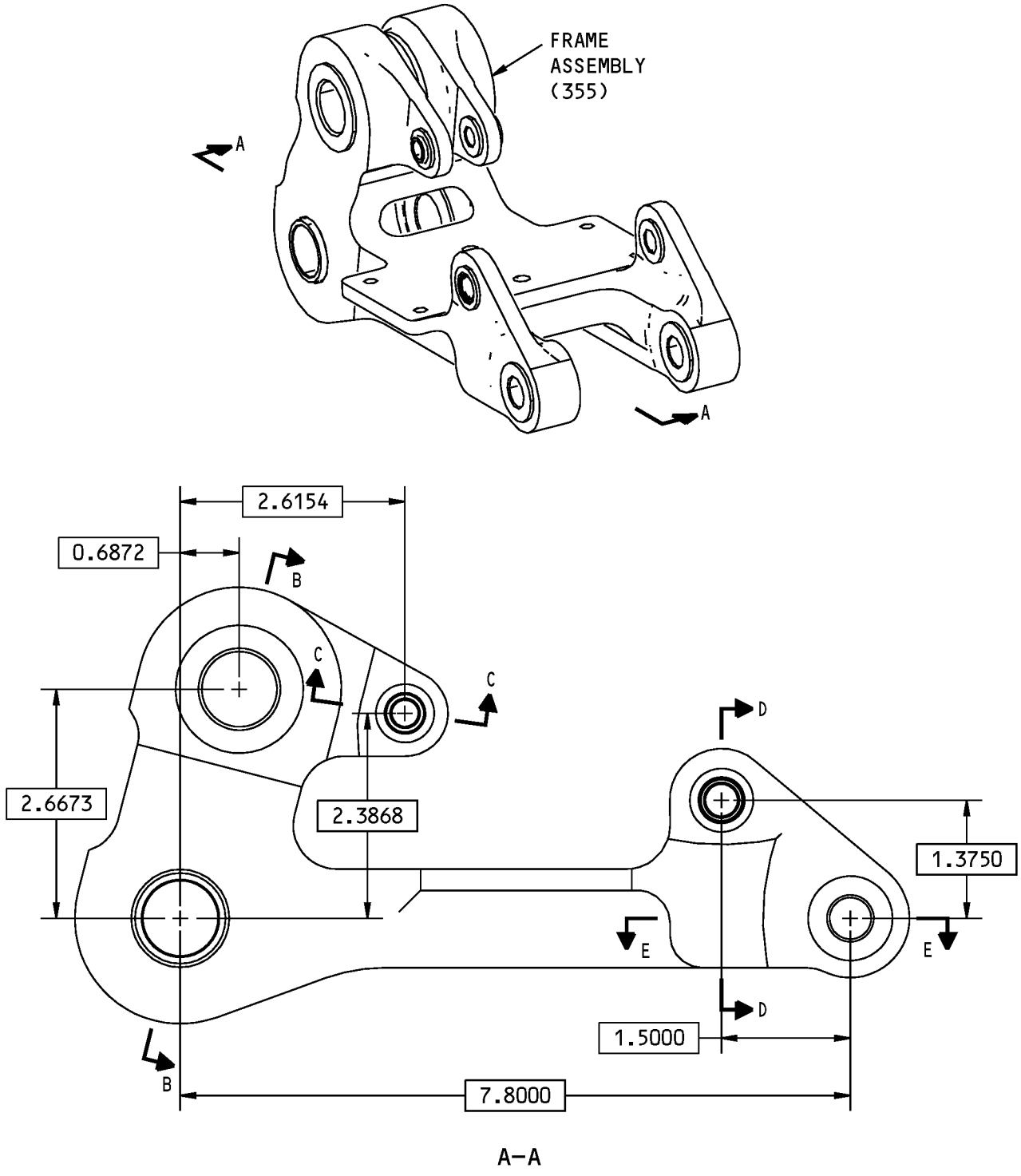
(c) Install the replacement bushings (SOPM 20-50-03) by the shrink-fit method with sealant, A00247 on mating surfaces.

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

(e) Seal the bushing flanges (SOPM 20-50-19).

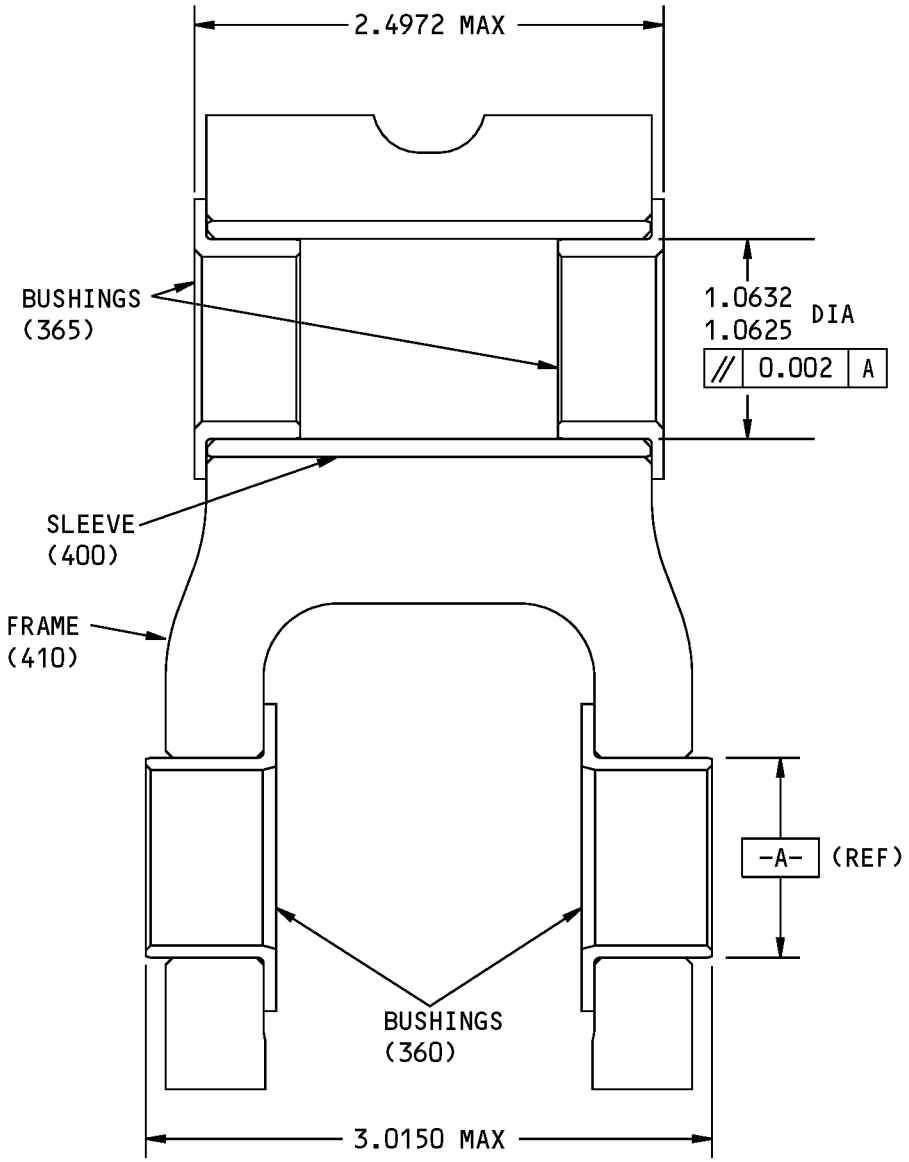
(2) Frame assembly refinish

(a) Apply enamel coating, C00032 (F-14.9813, which replaces SRF-14.9813) but not on bushings.



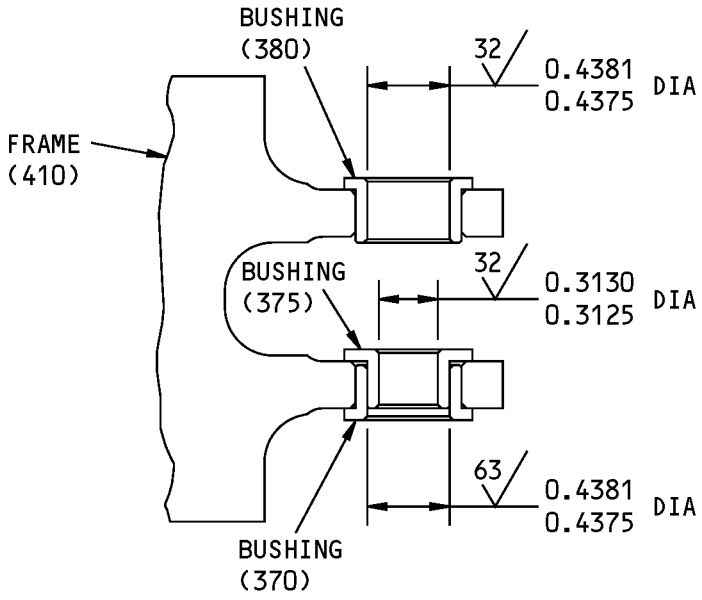
A–A

161A6101-1 Frame Assembly Parts Replacement
Figure 601 (Sheet 1 of 4)

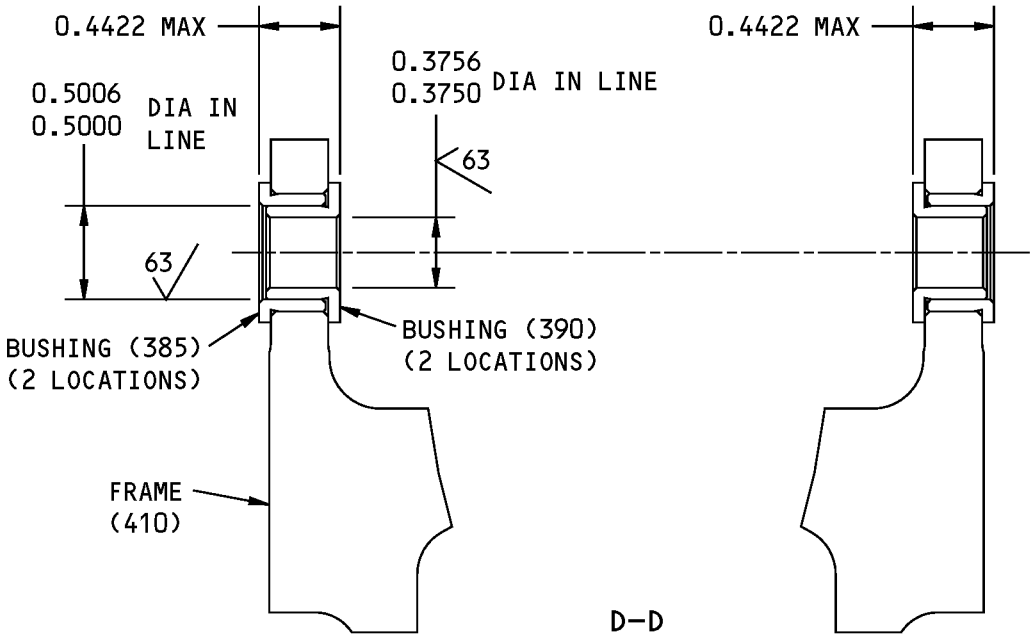


B–B

161A6101-1 Frame Assembly Parts Replacement
Figure 601 (Sheet 2 of 4)

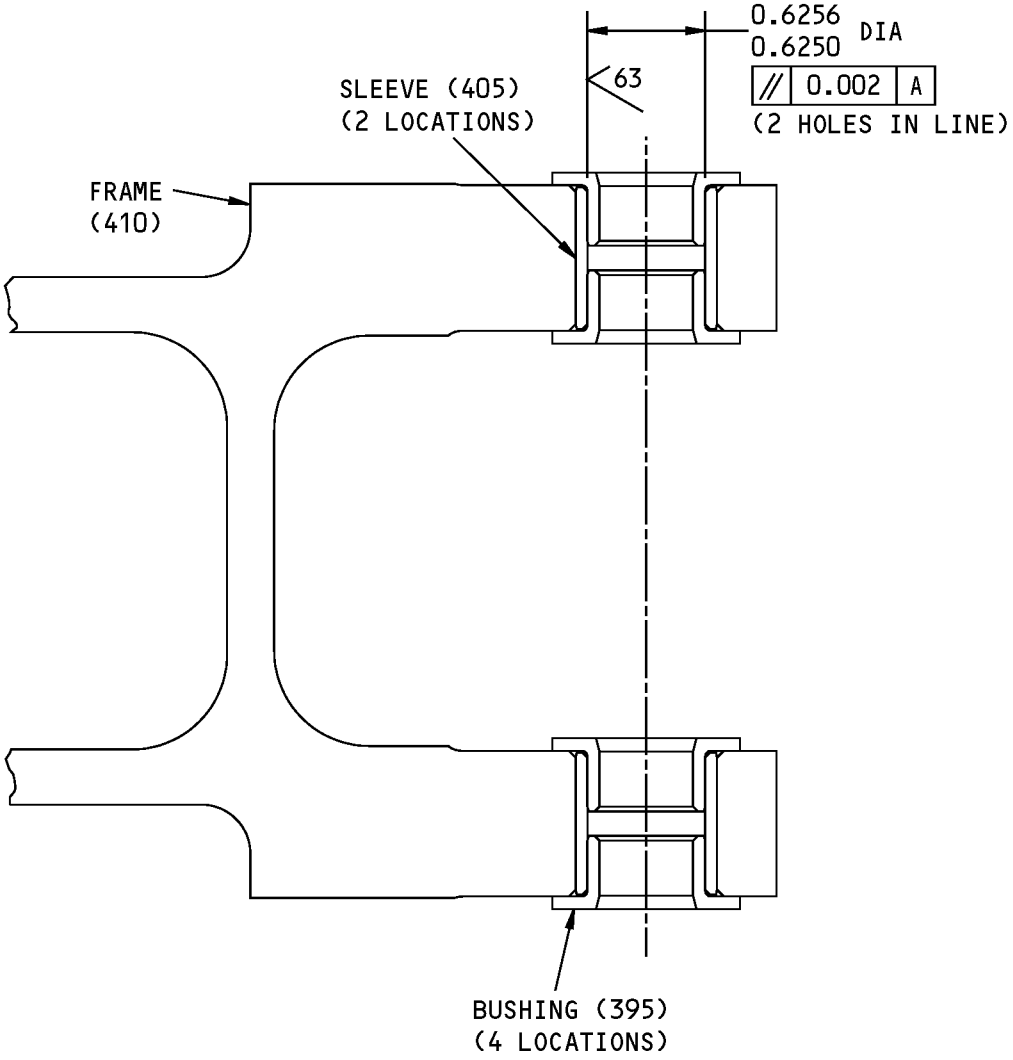


C–C



D–D

161A6101-1 Frame Assembly Parts Replacement
Figure 601 (Sheet 3 of 4)



E-E

ITEM NUMBERS REFER TO IPL FIG. 1

ALL DIMENSIONS ARE IN INCHES

161A6101-1 Frame Assembly Parts Replacement
Figure 601 (Sheet 4 of 4)

FRAME - REPAIR 2-2

161A6101–2

1. General

A. This procedure tells how to repair and refinish the frame (410).

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 True Position Dimensioning Symbols used in the repair figures.

D. Refer to IPL Figure 1 for item numbers.

E. General repair details:

(1) Material: Al alloy

(2) Shot Peen: 0.008-0.013 A2 intensity, Coverage 1.0 automatic, 2.0 manual

2. Repair Procedures

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 20-10-03	SHOT PEENING
SOPM 20-20-02	PENETRANT METHODS OF INSPECTION
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. Lug Faces and Holes (REPAIR 2-2, Figure 601)

NOTE: For shot peening, refer to SOPM 20-10-03. 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) Machine as necessary, within repair limits, to remove defects.

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

(3) Penetrant examine (SOPM 20-20-02).

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

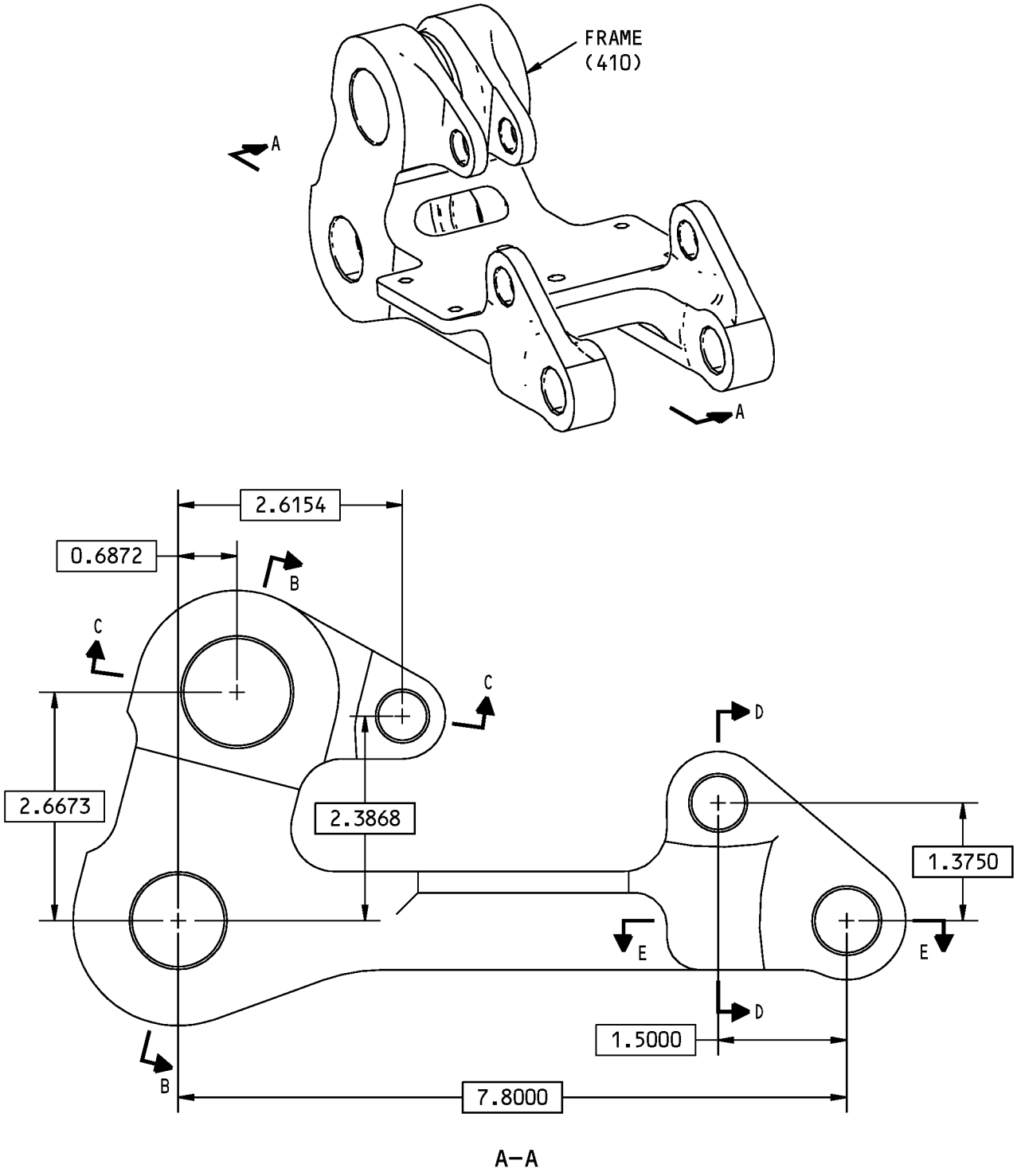
(5) Make oversize sleeves (REPAIR 2-2, Figure 602) to adjust for the material removed.

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

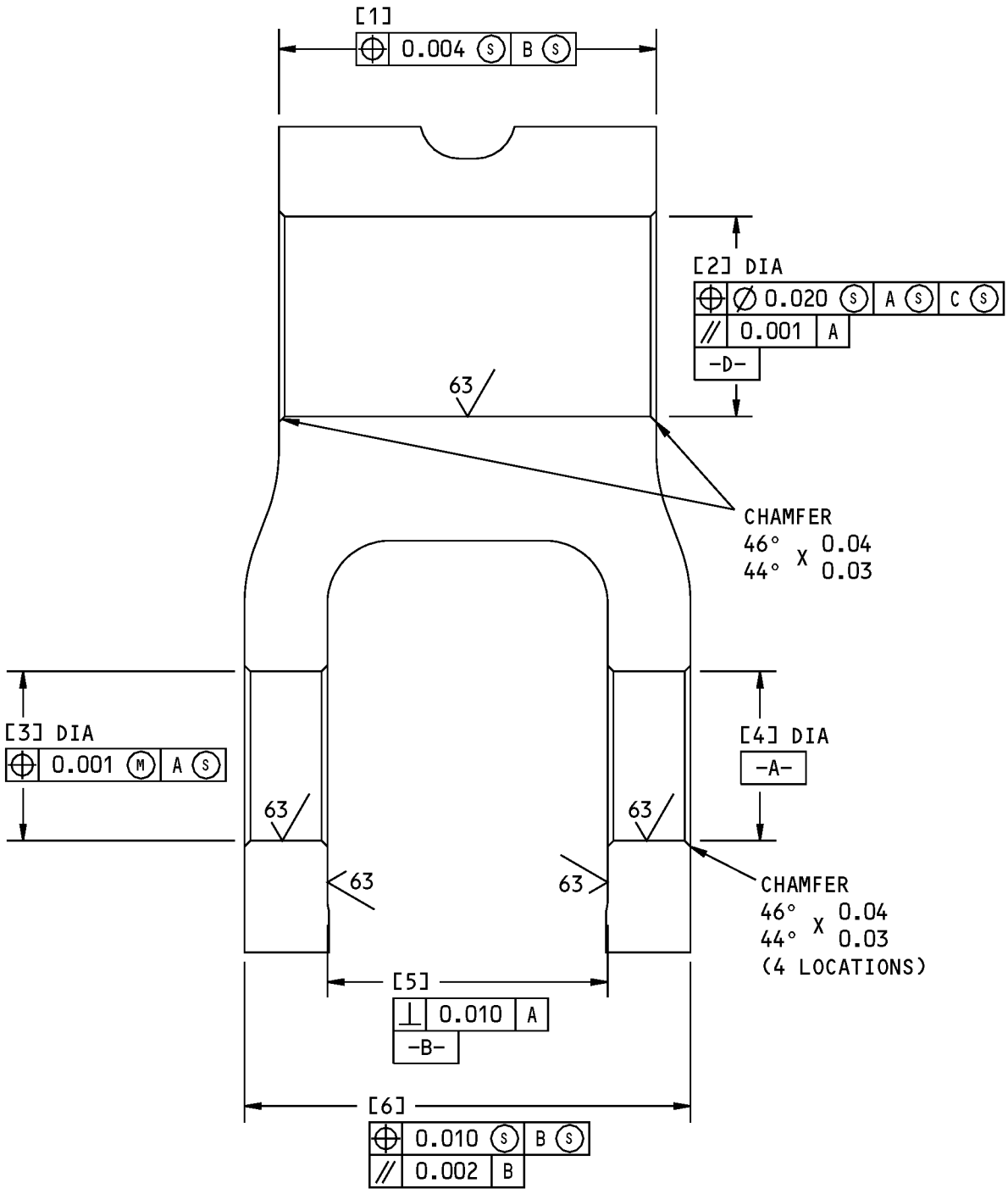
D. Refinish (REPAIR 2-2, Figure 601)

(1) Anodize (F-17.31).

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

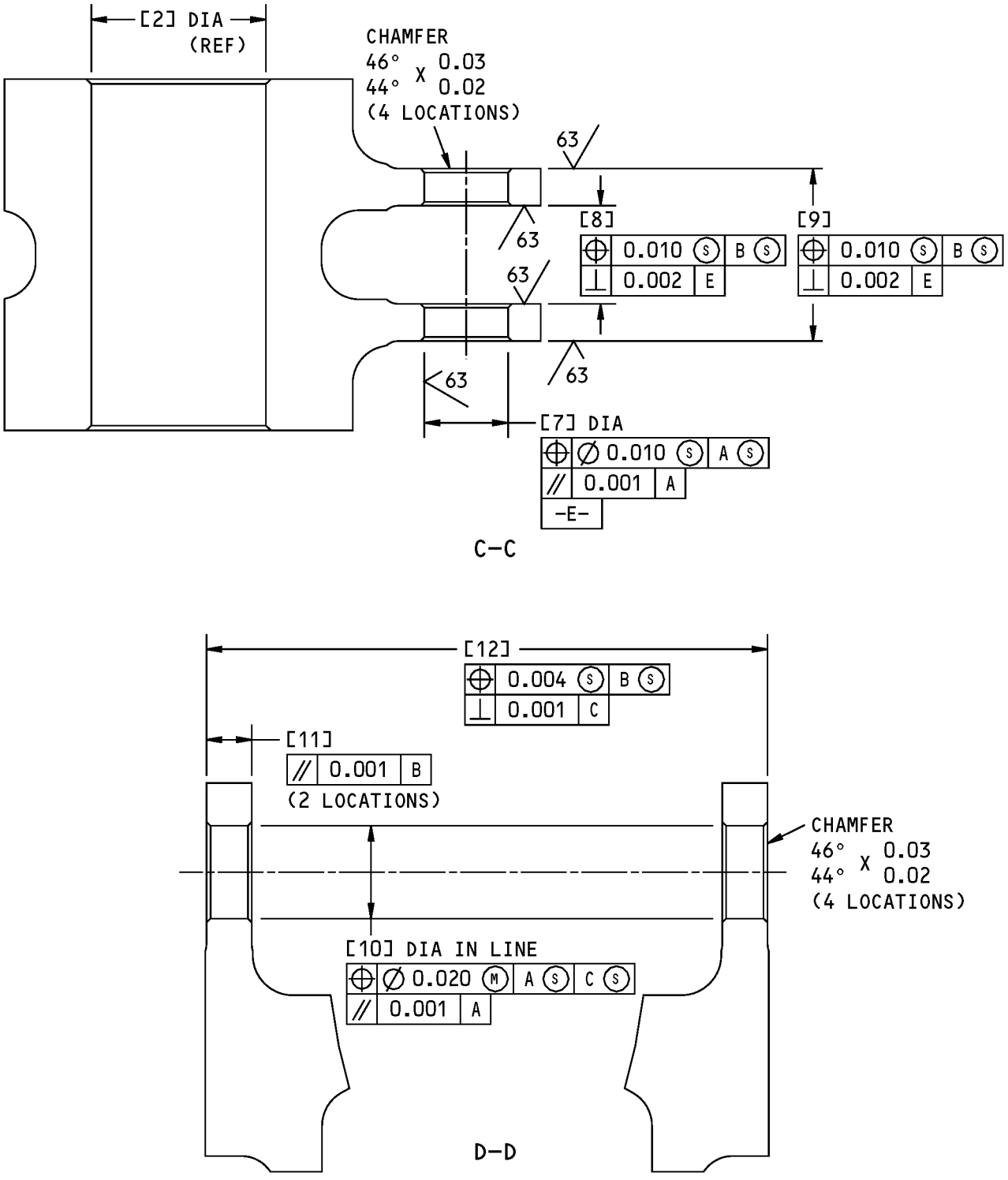


161A6101-2 Frame Repair and Refinish
Figure 601 (Sheet 1 of 4)

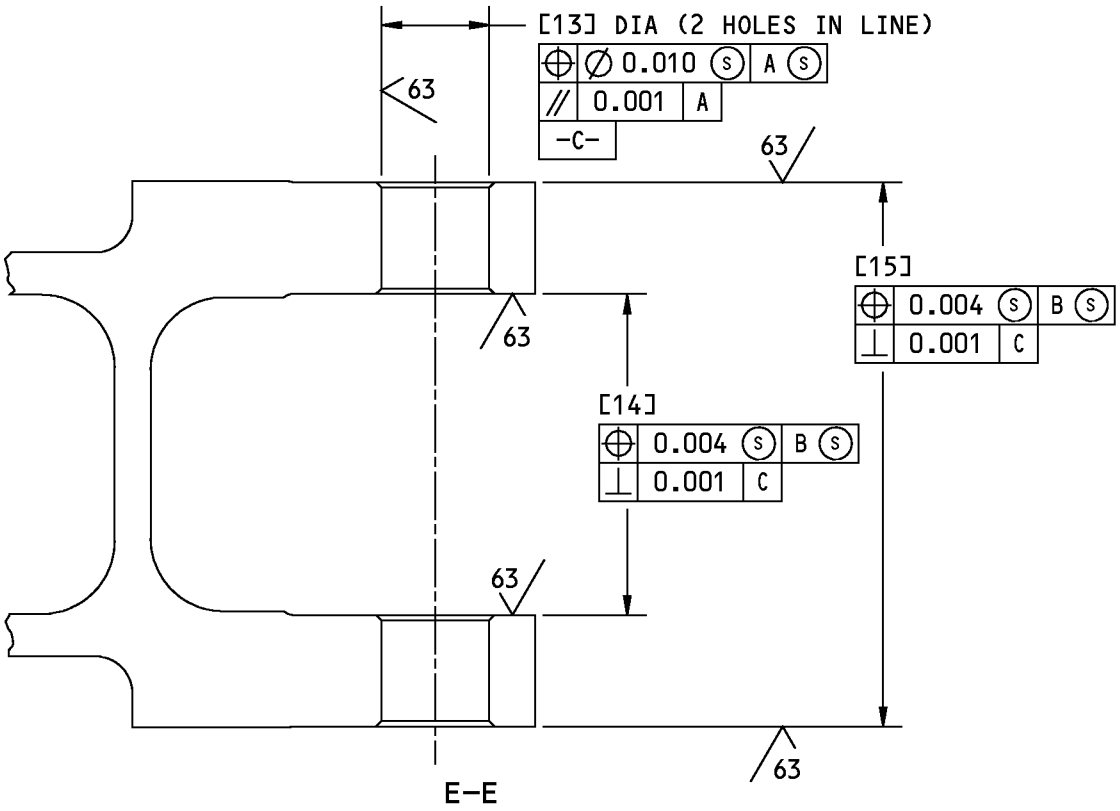


B–B

161A6101-2 Frame Repair and Refinish
Figure 601 (Sheet 2 of 4)



161A6101-2 Frame Repair and Refinish
Figure 601 (Sheet 3 of 4)



REFERENCE NUMBER	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]
DESIGN DIMENSION	2.3660 2.3620	1.2496 1.2489	1.0632 1.0625	1.0632 1.0625	1.7650 1.7600	2.8080 2.7980	0.5631 0.5625	0.6640 0.6590
REPAIR LIMIT	---	1.3096 1	---	---	---	---	---	---

REFERENCE NUMBER	[9]	[10]	[11]	[12]	[13]	[14]	[15]
DESIGN DIMENSION	1.1665 1.1565	0.6256 0.6250	0.3100 0.3000	3.7805 3.7755	0.7524 0.7517	2.2365 2.2315	3.7805 3.7755
REPAIR LIMIT	---	---	---	---	0.8124 1	---	---

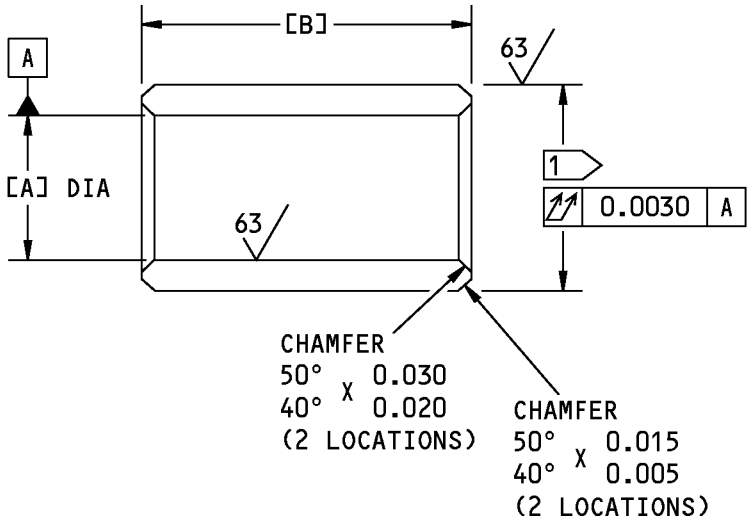
125 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

ITEM NUMBERS REFER TO IPL FIG. 1

ALL DIMENSIONS ARE IN INCHES

1 LIMIT FOR INSTALLATION OF OVERSIZE SLEEVE

161A6101-2 Frame Repair and Refinish
Figure 601 (Sheet 4 of 4)



HOLE LOCATION (FIG. 601)	REPLACES BUSHING	[A]	[B]	INTERFERENCE
[2]	(400) 161A6127-2	1.0634 1.0629	2.3600 2.3500	0.0023 0.0013
[13]	(405) 161A6127-3	0.6257 0.6252	0.7600 0.7500	0.0020 0.0008

125 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

BREAK ALL SHARP EDGES

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

FINISH: CADMIUM PLATE (F-16.06), OPTIONAL IN ID

ITEM NUMBERS REFER TO IPL FIG. 1

ALL DIMENSIONS ARE IN INCHES

1 REPAIR DIAMETER OF THE LUG HOLE PLUS INTERFERENCE

Oversize Sleeve Details
Figure 602

BOEING®

COMPONENT MAINTENANCE MANUAL

HOOK ASSEMBLY - REPAIR 3-1

161A6102–1

1. General

A. This procedure tells how to repair and refinish the hook assembly (225).

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 True Position Dimensioning Symbols used in the repair.

D. Refer to IPL Figure 1 for item numbers.

2. Repair Procedures

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 20-50-03	BEARING AND BUSHING REPLACEMENT
SOPM 20-60-02	FINISHING MATERIALS

C. Hook Repair (REPAIR 3-1, Figure 601)

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

(1) Remove the old bushings (SOPM 20-50-03).

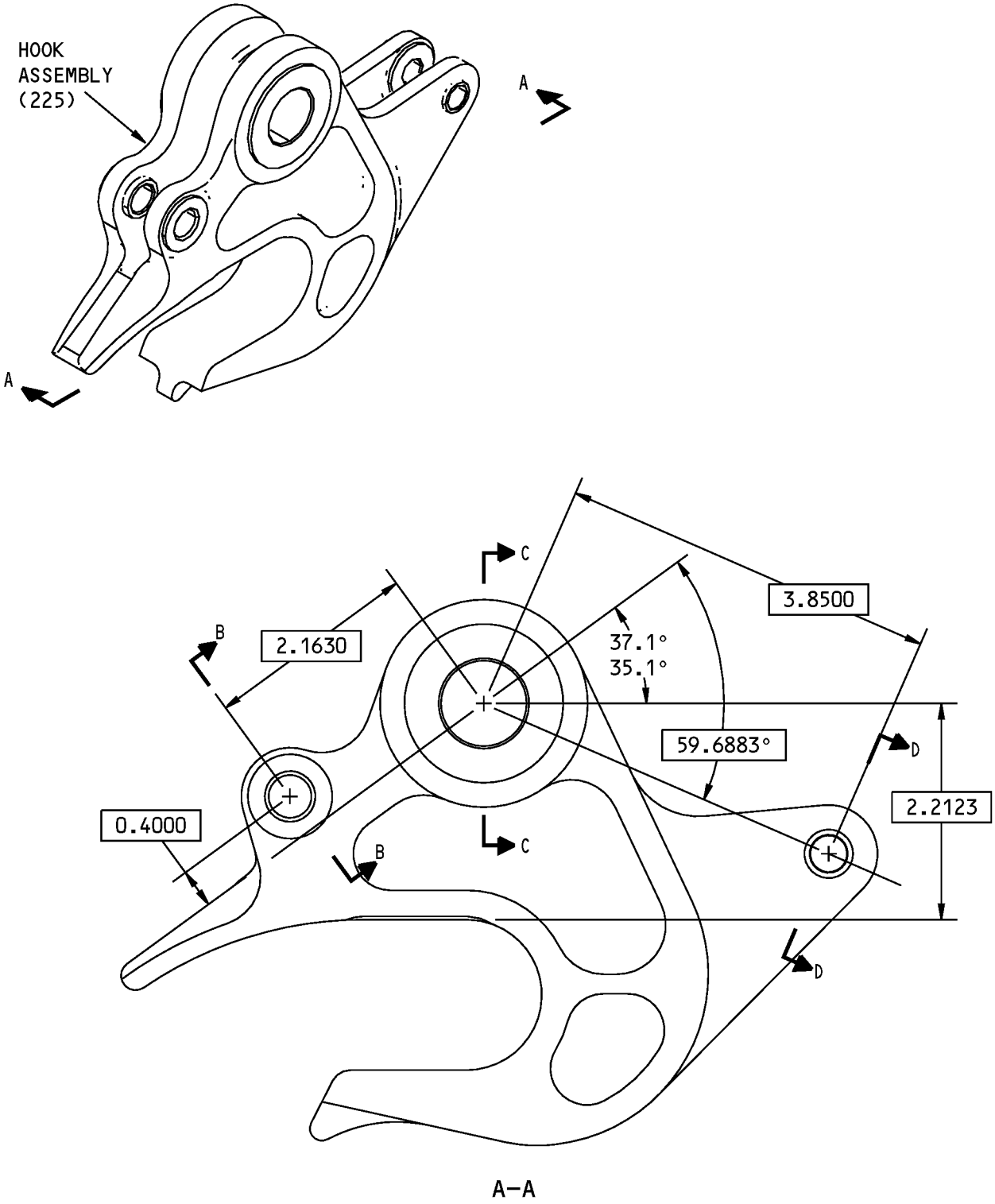
(2) If you find defects on the hook, refer to REPAIR 3-2 for repair instructions.

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

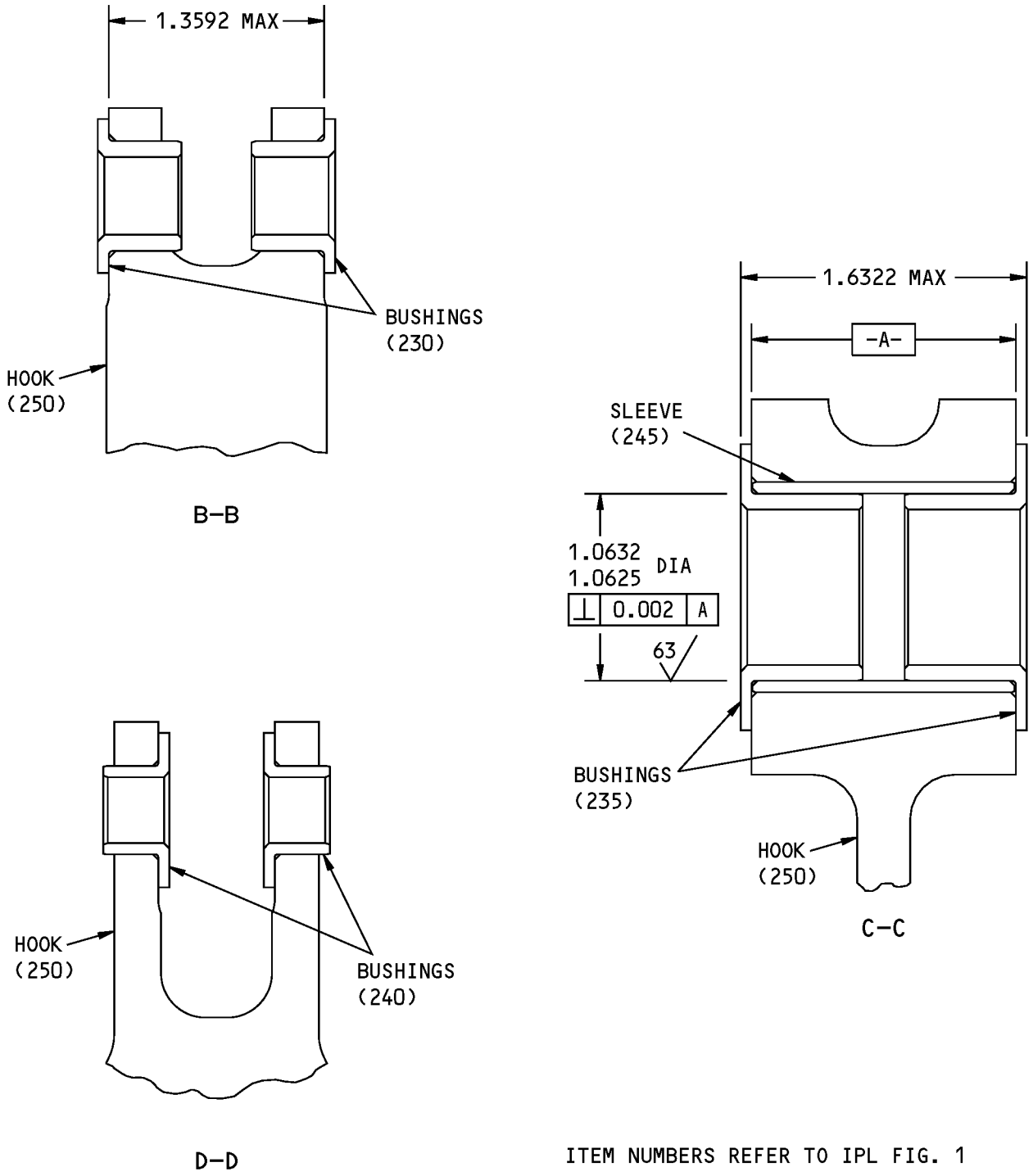
(4) Machine the bushings to design dimensions and finish.

D. Hook Refinish

(1) Apply enamel coating, C00033 (F-19.39-707) but not on bushings.



161A6102-1 Hook Assembly Parts Replacement
Figure 601 (Sheet 1 of 2)



161A6102-1 Hook Assembly Parts Replacement
Figure 601 (Sheet 2 of 2)

HOOK - REPAIR 3-2

161A6102–2

1. General

A. This procedure tells how to repair and refinish the hook (250).

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 True Position Dimensioning Symbols used in the repair.

D. Refer to IPL Figure 1 for item numbers.

E. General repair details:

(1) Material: 4340M steel, HT TR: 275-300 ksi.

(2) Shot Peen: Rc 55-65 Shot Heat Treat, 0.016 - 0.033 Shot Size, 0.014 - 0.018 A2 Intensity.

2. Repair Procedures

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
D00113	Lubricant - Liquid Dispersed Solid Film Lubricant	BMS3-8, BAC 5811, TYPE VIII

B. 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 20-10-04	GRINDING OF CHROME PLATED PARTS
SOPM 20-20-02	PENETRANT METHODS OF INSPECTION
SOPM 20-30-02	STRIPPING OF PROTECTIVE FINISHES
SOPM 20-41-01	DECODING TABLE FOR BOEING FINISH CODES
SOPM 20-60-02	FINISHING MATERIALS
SOPM 20-60-03	LUBRICANTS

C. Lug Faces and Holes (REPAIR 3-2, Figure 601)

NOTE: For shot peening, refer to SOPM 20-10-03. For grinding of chrome plated parts, refer to SOPM 20-10-04. For stripping of protective finishes, refer to SOPM 20-30-02. For the decoding table for Boeing finish codes, refer to SOPM 20-41-01. For finishing materials, refer to SOPM 20-60-02. For lubricants, refer to SOPM 20-60-03.

(1) Machine as necessary, within repair limits, to remove defects (SOPM 20-10-01, SOPM 20-10-02, CMM 32-00-05).

(2) Penetrant examine (SOPM 20-20-02).

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

(4) Refinish as indicated.

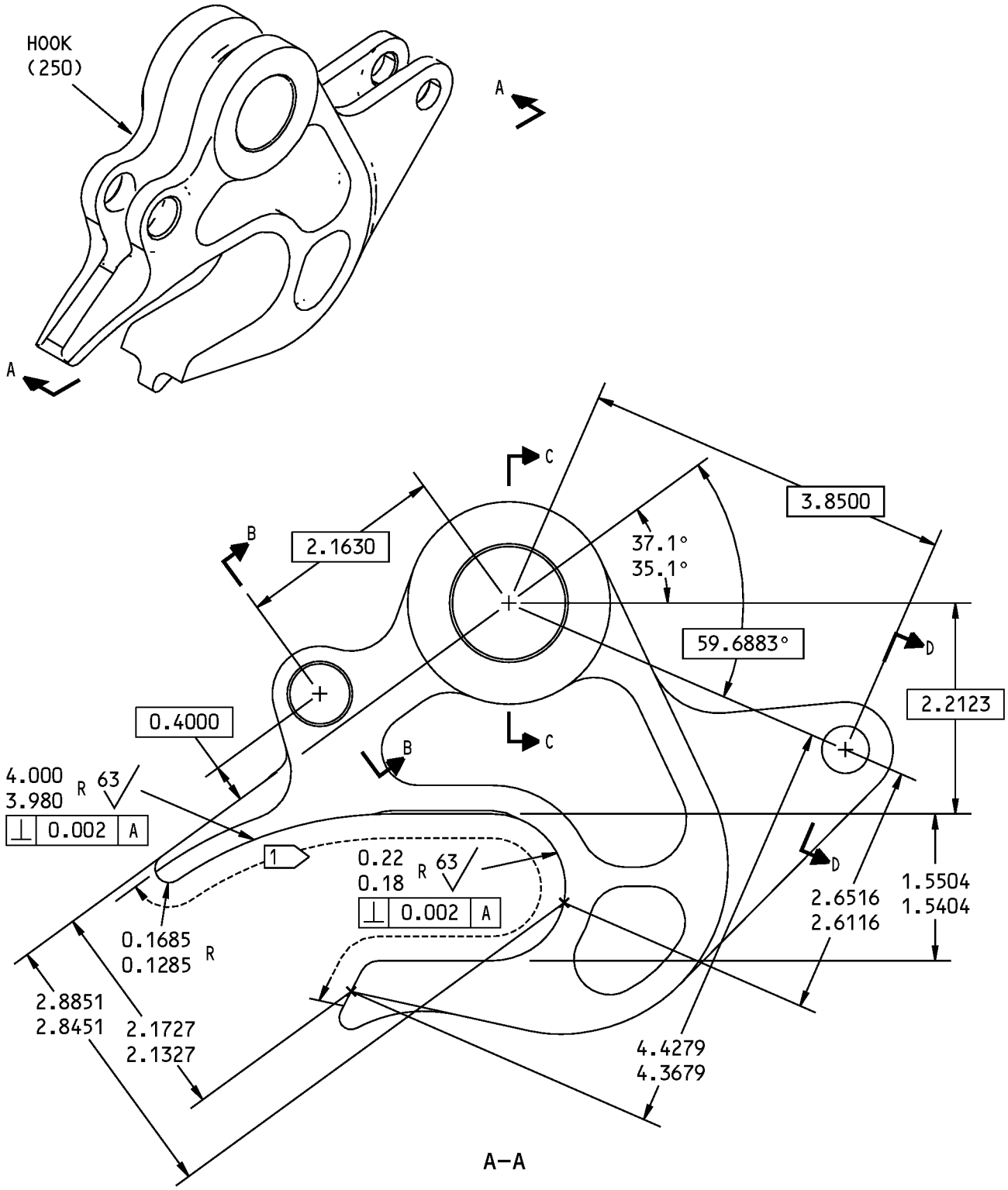
(5) Make an oversize sleeve (REPAIR 3-2, Figure 602) to adjust for the material removed.

(6) Install the oversize sleeve as shown in REPAIR 3-1.

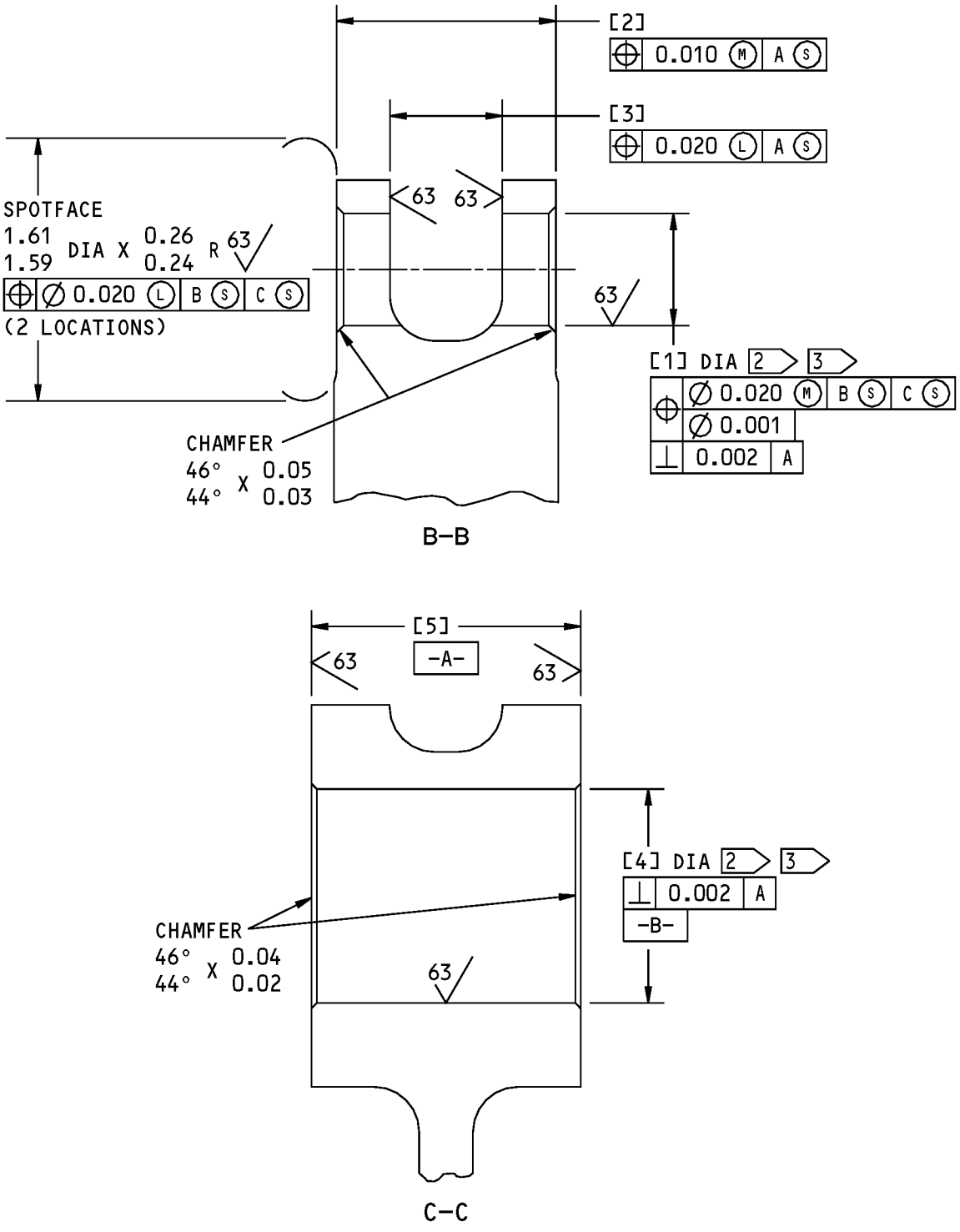
D. Refinish

(1) Chrome plate and apply lubricant, D00113 as indicated.

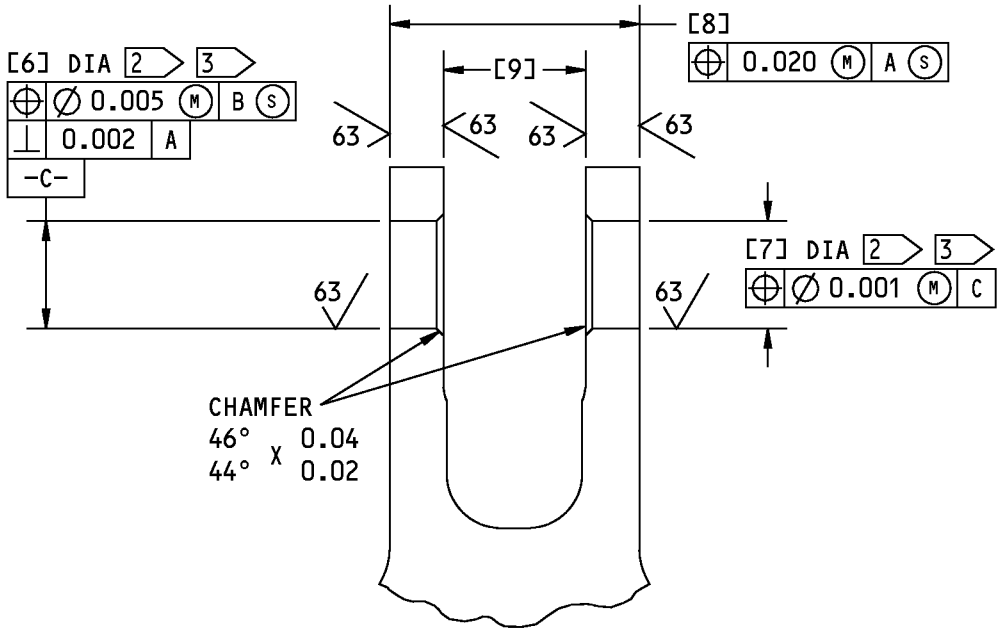
(2) On other surfaces, cadmium-titanium plate (F-15.32) and apply primer, C00175 (F-19.47).



161A6102-2 Hook Repair and Refinish
Figure 601 (Sheet 1 of 3)



161A6102-2 Hook Repair and Refinish
Figure 601 (Sheet 2 of 3)



D–D

REFERENCE NUMBER	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]
DESIGN DIMENSION	0.6256 0.6250	1.2300 1.2200	0.6495 0.6095	1.1896 1.1889	1.5030 1.4980	0.5006 0.5000	0.5006 0.5000	1.1795 1.1395	0.6620 0.6570
REPAIR LIMIT	---	---	---	1.2496 4	---	---	---	---	---

1 CHROME PLATE (F-15.03). APPLY TYPE 8 SOLID FILM LUBRICANT (F-19.10)

2 SHOT PEEN NOT NECESSARY. OVERSPRAY IS PERMITTED

3 CADMIUM - TITANIUM PLATE (F-15.32). APPLY BMS 10-79 TYPE 3 PRIMER (F-19.47)

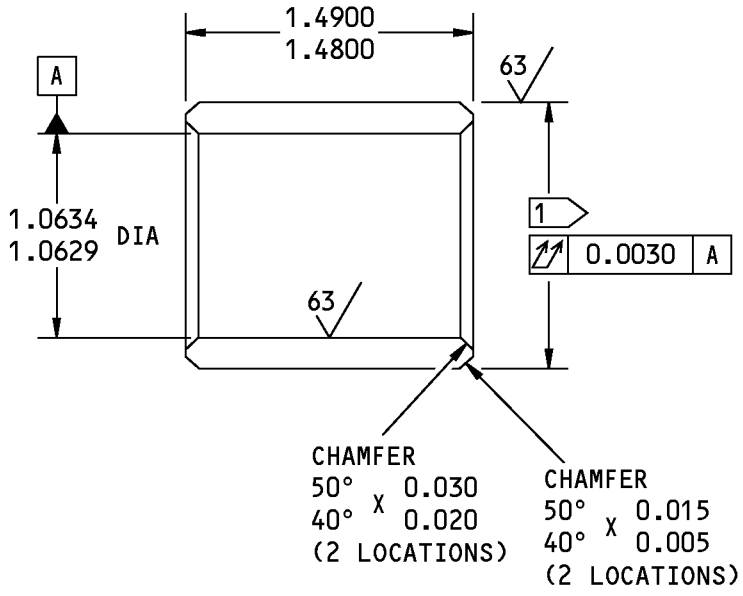
4 LIMIT FOR INSTALLATION OF OVERSIZE SLEEVE

125 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

ITEM NUMBERS REFER TO IPL FIG. 1

ALL DIMENSIONS ARE IN INCHES

161A6102-2 Hook Repair and Refinish
Figure 601 (Sheet 3 of 3)



125 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

BREAK ALL SHARP EDGES

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

FINISH: CADMIUM PLATE (F-16.06), OPTIONAL IN ID

ITEM NUMBERS REFER TO IPL FIG. 1

ALL DIMENSIONS ARE IN INCHES

1 REPAIR DIAMETER OF THE LUG HOLE PLUS 0.0011-0.0023 INTERFERENCE

HOLE LOCATION [4] FIG. 601 - REPLACES SLEEVE (245)
161A6127-1

Oversize Sleeve Details
Figure 602

LINK ASSEMBLY - REPAIR 4-1

161A6104–3

1. General

A. This procedure has the data necessary to repair and refinish the link assembly (300).

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.

D. General repair details:

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

2. Repair Procedures

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. Link Repair

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

(1) Bushing replacement.

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

(b) Install replacement bushings by the shrink fit method (SOPM 20-50-03), with grease, D00633 or grease, D00015 on mating surfaces.

LINK - REPAIR 4-2

161A6104–4

1. General

A. This procedure has the data necessary to repair and refinish the link (300).

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 True Position Dimensioning Symbols used in the repair.

D. Refer to IPL Figure 1 for item numbers.

E. General repair details:

(1) Material: 15-5PH CRES, HT TR: 180-200 ksi

2. Repair Procedures

A. References

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

B. Link Repair (REPAIR 4-2, Figure 601)

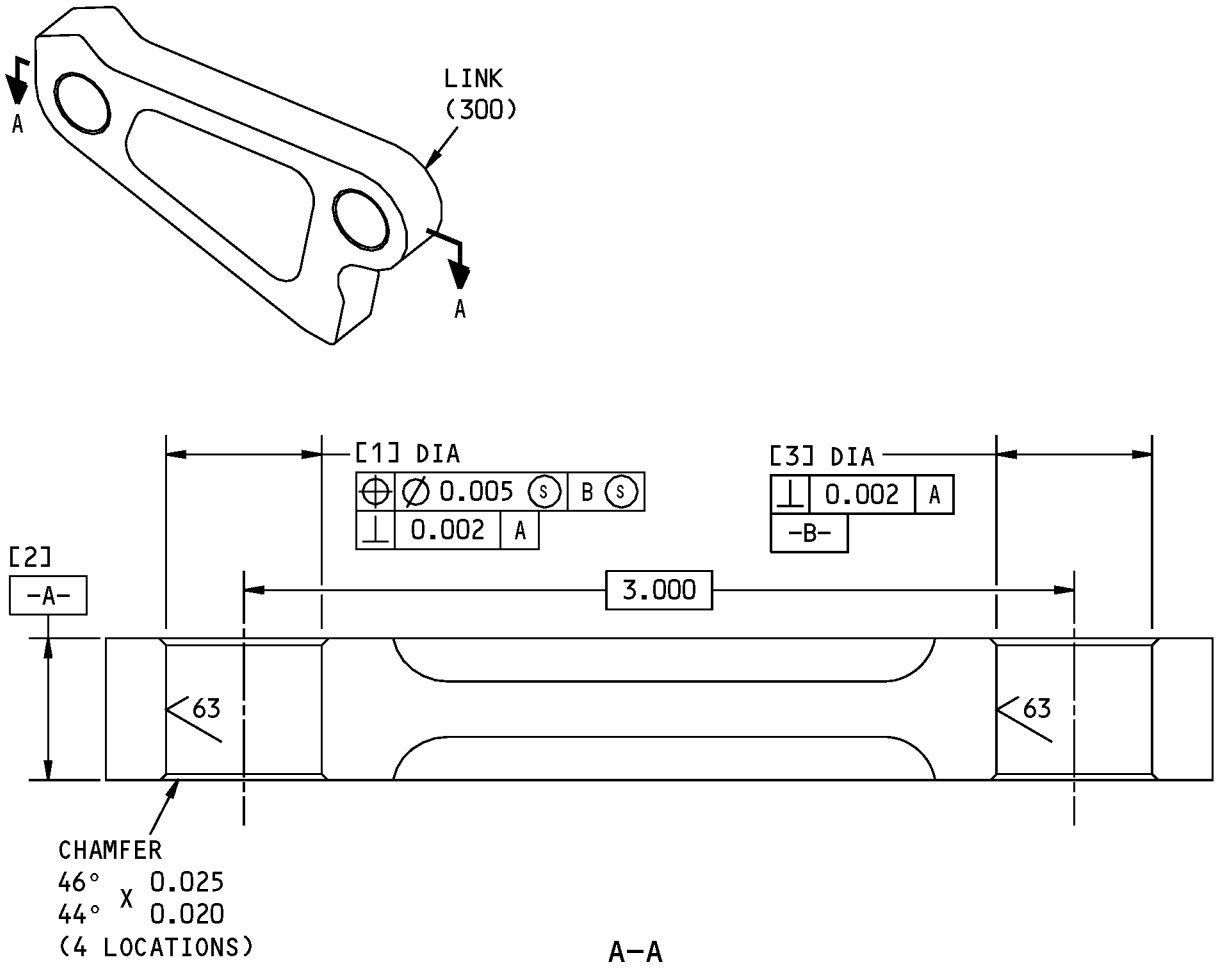
NOTE: For stripping of protective finishes, refer to SOPM 20-30-02. For decoding table for Boeing finish codes, refer to SOPM 20-41-01.

(1) Repair

(a) Repair is only replacement of the original finish. Refer to REPAIR 4-2, Paragraph 2.B.(2) for details.

(2) Refinish

(a) Passivate (F-17.25).



REFERENCE NUMBER	[1]	[2]	[3]
DESIGN DIMENSION	0.5632 0.5627	0.5150 0.5100	0.5632 0.5627
REPAIR LIMIT	---	---	---

125 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

ITEM NUMBERS REFER TO IPL FIG. 1

ALL DIMENSIONS ARE IN INCHES

161A6104-4 Link Repair and Refinish
Figure 601

KICKER ASSEMBLY - REPAIR 5-1

161A6108–3

1. General

A. This procedure tells how to repair and refinish the kicker assembly (305).

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 True Position Dimensioning Symbols used in the repair.

D. Refer to IPL Figure 1 for item numbers.

2. Kicker Repair

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

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

NOTE: For stripping of protective finishes, refer to SOPM 20-30-02. For miscellaneous materials, refer to SOPM 20-60-04.

(1) Bushing and sleeve replacement.

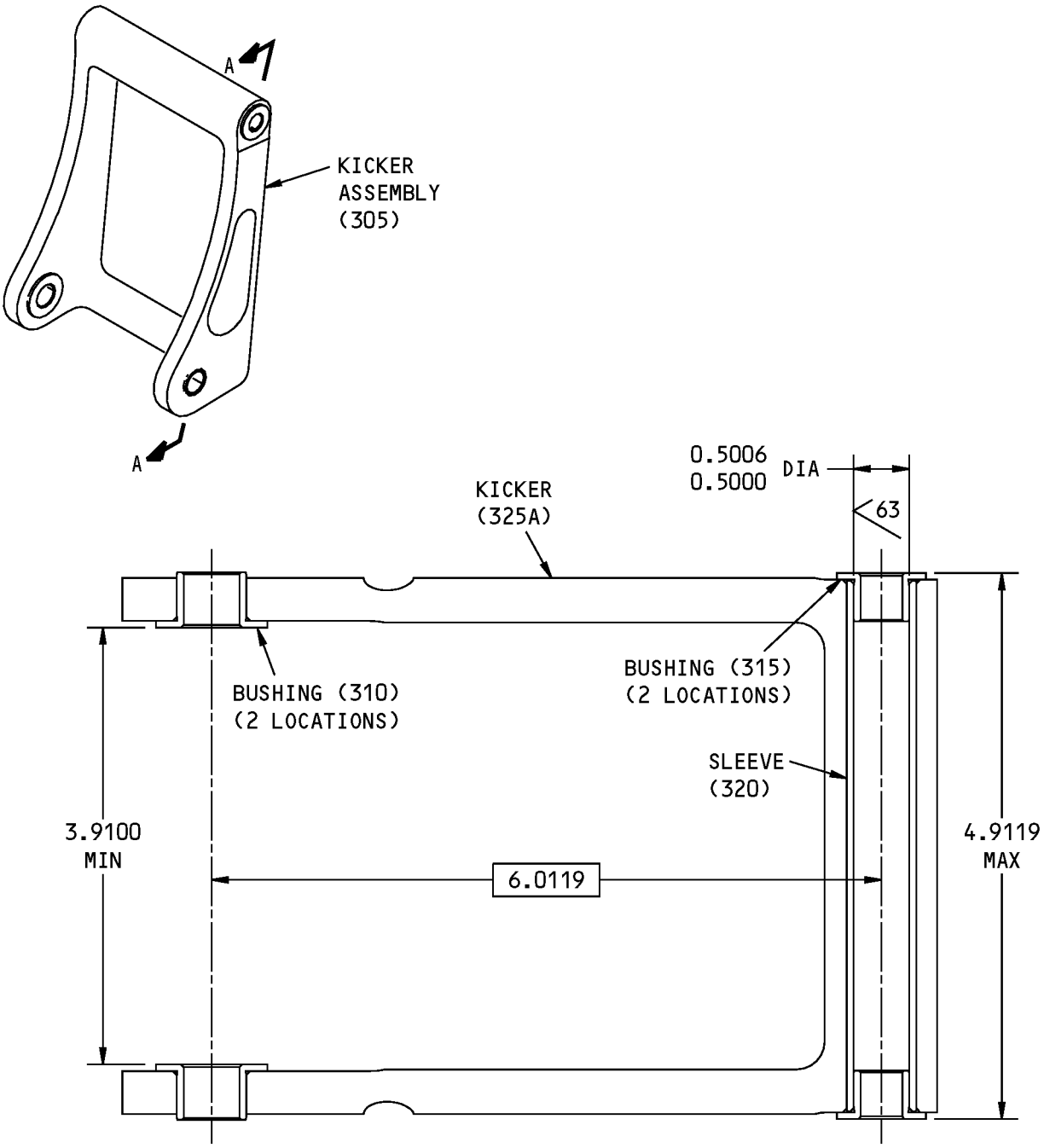
(a) Remove the old bushings (SOPM 20-50-03) and sleeve.

(b) If you find defects on the kicker, refer to REPAIR 5-2 for repair instructions.

(c) Install the replacement sleeve by the shrink-fit method, with sealant, A00247 on mating surfaces.

(d) Machine the sleeve to design dimensions and finish.

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



ITEM NUMBERS REFER TO IPL FIG. 1

ALL DIMENSIONS ARE IN INCHES

161A6108-3 Kicker Assembly Parts Replacement
Figure 601

KICKER - REPAIR 5-2

161A6108–4

1. General

A. This procedure tells how to repair and refinish the kicker (325).

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 True Position Dimensioning Symbols used in the repair.

D. Refer to IPL Figure 1 for item numbers.

E. General repair details:

(1) Material: Al alloy

(2) Shot Peen: 0.008-0.013 A2 intensity, Coverage 1.0 automatic, 2.0 manual

2. Repair Procedures

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 20-10-03	SHOT PEENING
SOPM 20-20-02	PENETRANT METHODS OF INSPECTION
SOPM 20-30-02	STRIPPING OF PROTECTIVE FINISHES
SOPM 20-41-01	DECODING TABLE FOR BOEING FINISH CODES
SOPM 20-41-02	APPLICATION OF CHEMICAL AND SOLVENT RESISTANT FINISHES
SOPM 20-60-02	FINISHING MATERIALS

C. Lug Faces and Holes (REPAIR 5-2, Figure 601)

NOTE: For shot peening, refer to SOPM 20-10-03. 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 application of chemical and solvent resistant finishes, refer to SOPM 20-41-02. For finishing materials, refer to SOPM 20-60-02.

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

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

(3) Penetrant examine (SOPM 20-20-02).

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

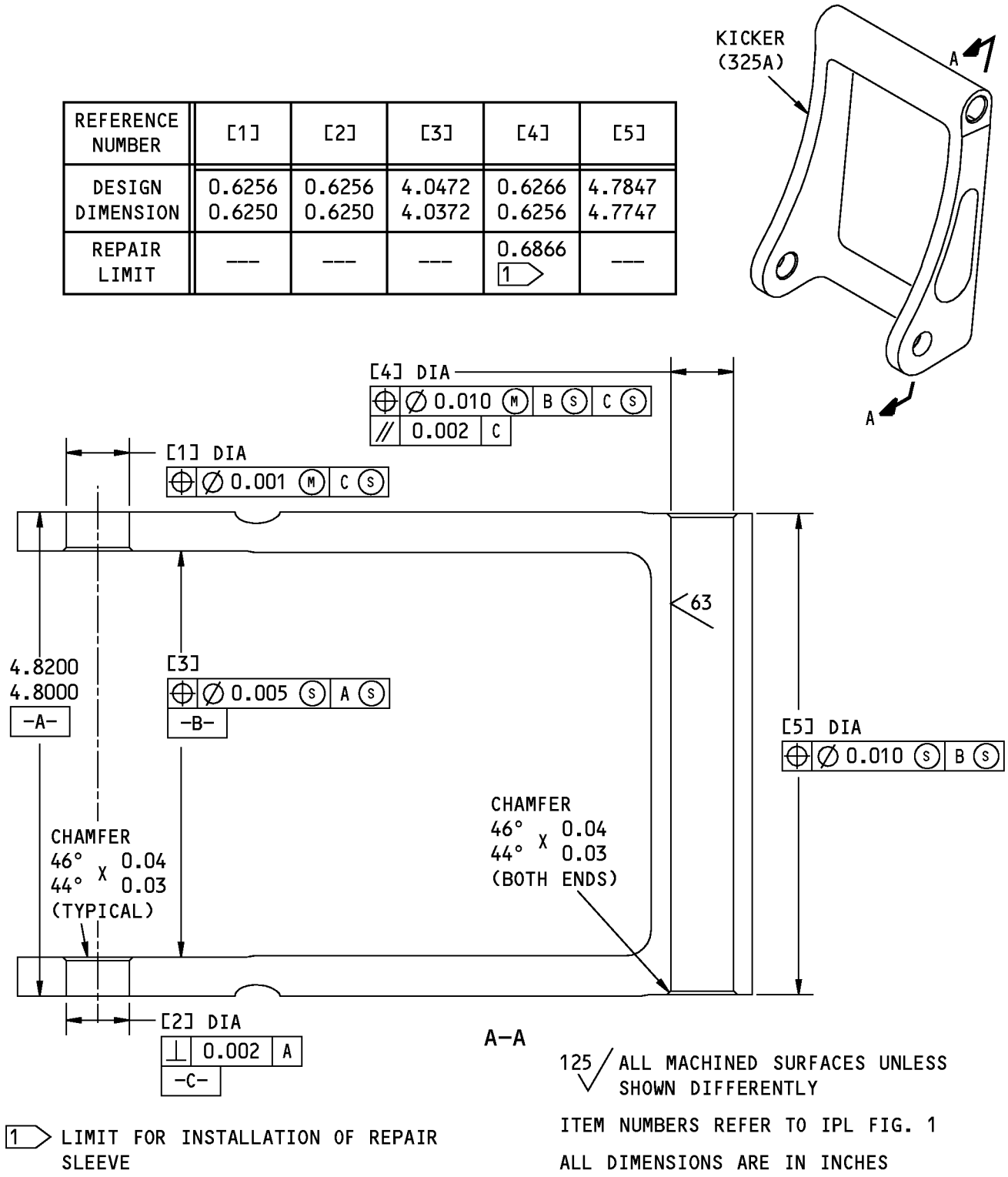
(5) Make an oversize sleeve (REPAIR 5-2, Figure 602) to adjust for the material removed.

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

D. Refinish

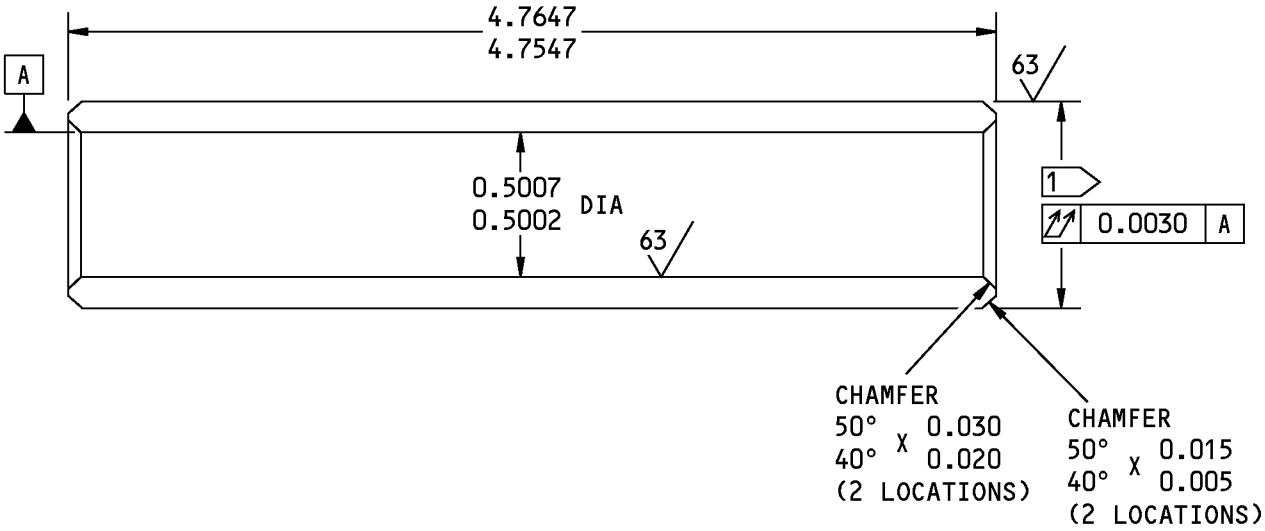
(1) Anodize (F-17.31).

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



REFERENCE NUMBER	[1]	[2]	[3]	[4]	[5]
DESIGN DIMENSION	0.6256 0.6250	0.6256 0.6250	4.0472 4.0372	0.6266 0.6256	4.7847 4.7747
REPAIR LIMIT	---	---	---	0.6866 1	---

161A6108-4 Kicker Repair and Refinish
Figure 601



125 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

BREAK ALL SHARP EDGES

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

FINISH: CADMIUM PLATE (F-16.06), OPTIONAL IN ID

ITEM NUMBERS REFER TO IPL FIG. 1

ALL DIMENSIONS ARE IN INCHES

1 REPAIR DIAMETER OF THE LUG HOLE PLUS 0.0005-0.0011 INTERFERENCE

HOLE LOCATION [4] FIG. 601 - REPLACES SLEEVE (320)
161A6127-4

Oversize Sleeve Details
Figure 602

PIN - REPAIR 6-1

161A6109–1

1. General

A. This procedure has the data necessary to repair and refinish the pin (195).

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 True Position Dimensioning Symbols used in the repair.

D. Refer to IPL Figure 1 for item numbers.

E. General repair details:

(1) Material: 4340M Steel, HT TR: 275-300 ks

(2) Shot Peen: Rc 55-65 Shot Heat Treat, 0.016-0.033 Shot Size, 0.014-0.018 A2 Intensity

2. Repair Procedures

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
C50001	Compound - Corrosion Preventive, Petroleum Hot Application (Hard Film)	MIL-C-11796, Class I

B. References

Reference	Title
32-00-05	Repair of High Strength Steel Landing Gear Parts
SOPM 20-10-03	SHOT PEENING
SOPM 20-10-04	GRINDING OF CHROME PLATED PARTS
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. Pin Repair (REPAIR 6-1, Figure 601)

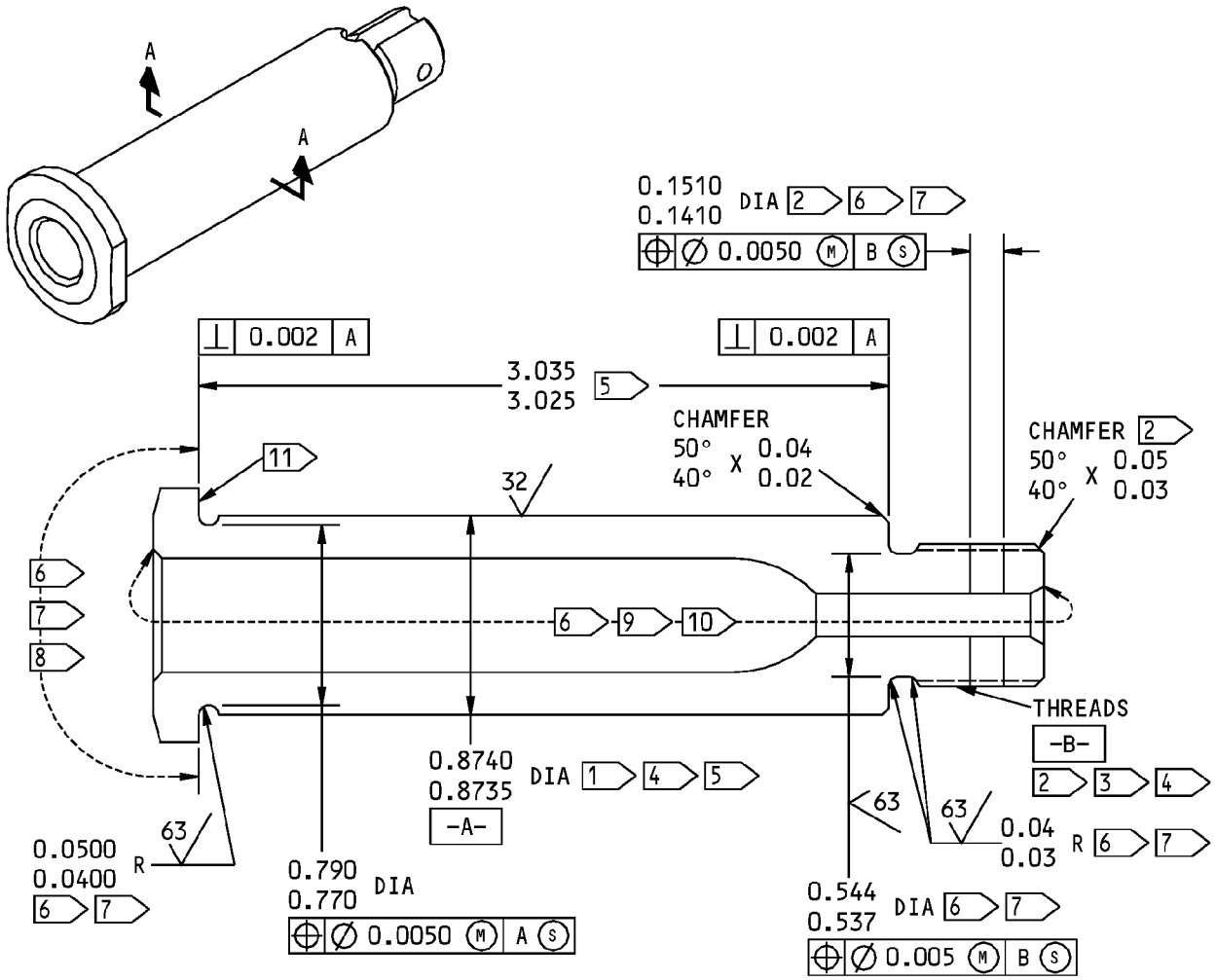
NOTE: For shotpeening, refer to SOPM 20-10-03. For grinding of chrome plated parts, refer to SOPM 20-10-04. For stripping of protective finishes, refer to SOPM 20-30-02. For decoding table for Boeing finish codes, refer to SOPM 20-41-01. For finishing materials, refer to SOPM 20-60-02.

(1) Repair

(a) Repair (32-00-05) is only replacement of the original finish. Refer to REPAIR 6-1, Paragraph 2.C.(2) for details.

(2) Refinish

(a) Chrome plate as indicated. Cadmium-titanium plate as indicated. Apply primer, C00175, enamel coating, C00033, and compound, C50001 as indicated.



A–A

1 CHROME PLATE (F-15.34), 0.003 MIN THICK

2 DO NOT SHOT PEEN

3 CADMIUM-TITANIUM PLATE (F-15.32)

4 WIPE WITH PRIMER (F-19.451)

5 DIMENSIONS AFTER PLATING

6 CADMIUM-TITANIUM PLATE (F-15.01)

7 APPLY BMS 10-79 TYPE 3 PRIMER (F-19.47)

8 APPLY BMS 10-60 TYPE 2 ENAMEL (F-19.39-707)

9 APPLY BMS 10-79 TYPE 3 PRIMER (F-19.66)

10 APPLY MIL-C-11796 CLASS 1 CORROSION PREVENTIVE COMPOUND (F-19.03)

11 CHROME PLATE (F-15.34), 0.0003-0.0005 THICK. DO NOT GRIND

ALL DIMENSIONS ARE IN INCHES

161A6109-1 Pin Repair and Refinish
Figure 601

PIN - REPAIR 7-1

161A6110–1

1. General

A. This procedure has the data necessary to repair and refinish the pin (200).

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.

D. General repair details:

(1) Material: 4340M Steel, HT TR: 275-300 ksi

(2) Shot Peen: Rc 55-65 Shot Heat Treat, 0.016-0.033 Shot Size, 0.014-0.018 A2 Intensity

2. Repair Procedures

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
32-00-05	Repair of High Strength Steel Landing Gear Parts
SOPM 20-10-03	SHOT PEENING
SOPM 20-10-04	GRINDING OF CHROME PLATED PARTS
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. Pin Repair (REPAIR 7-1, Figure 601)

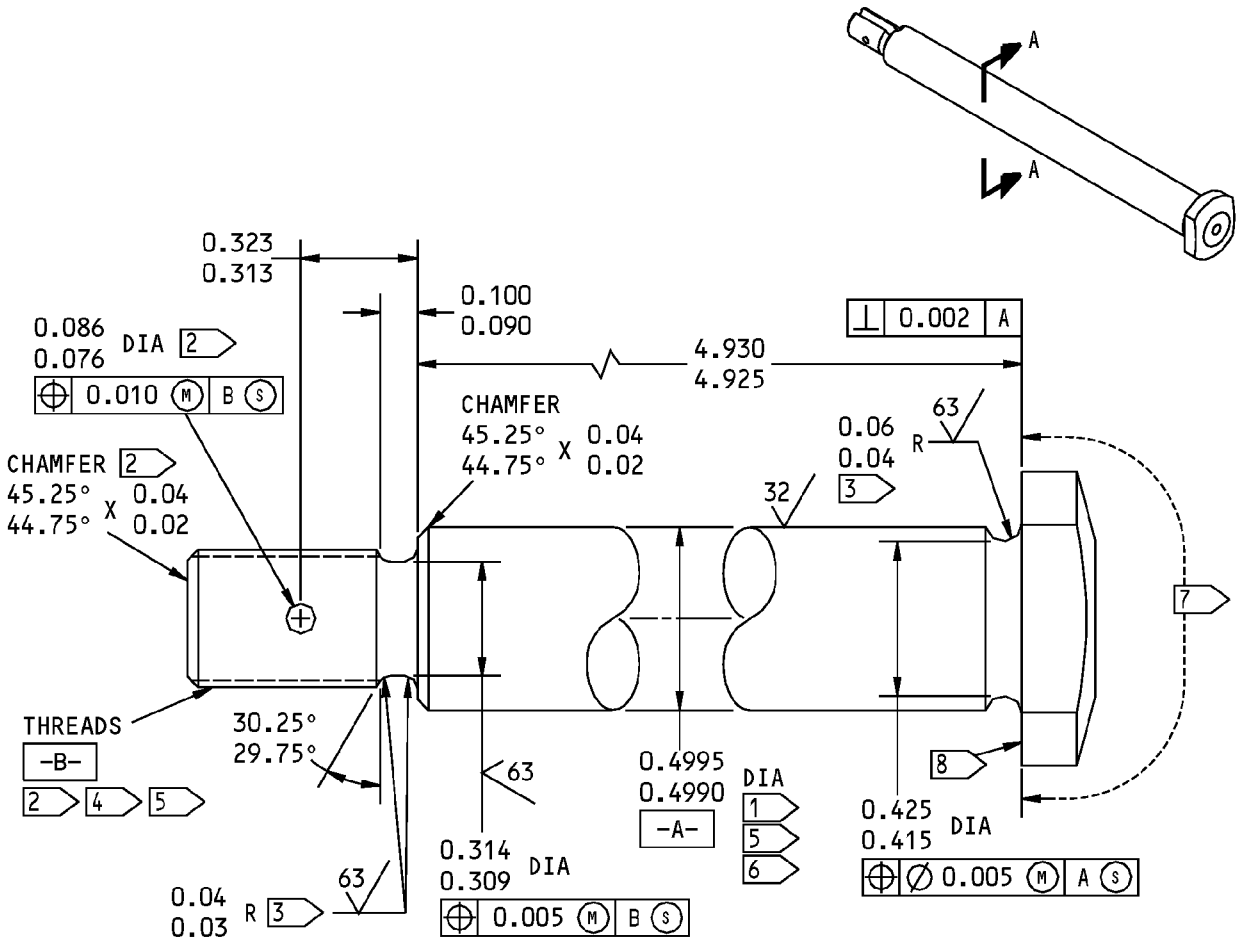
NOTE: For shotpeening, refer to SOPM 20-10-03. For grinding of chrome plated parts, refer to SOPM 20-10-04. For stripping of protective finishes, refer to SOPM 20-30-02. For decoding table for Boeing finish codes, refer to SOPM 20-41-01. For finishing materials, refer to SOPM 20-60-02.

(1) Repair

(a) Repair is only replacement of the original finish (32-00-05). Refer to REPAIR 7-1, Paragraph 2.C.(2) for details.

(2) Refinish

(a) Chrome plate as indicated. Cadmium-titanium plate as indicated. Apply primer, C00175 and enamel coating, C00033as indicated.



A–A

1. CHROME PLATE (F-15.34), 0.003 MIN THICK
2. DO NOT SHOT PEEN
3. SHOT PEEN OVERSPRAY PERMITTED ONLY IN THIS RADIUS
4. CADMIUM-TITANIUM PLATE (F-15.32)
5. WIPE WITH PRIMER (F-19.451)
6. DIMENSIONS AFTER PLATING
7. CADMIUM-TITANIUM PLATE (F-15.01) APPLY BMS 10-79 TYPE 3 PRIMER (F-19.47), AND BMS 10-60 TYPE 2 ENAMEL (F-19.39-707)
8. CHROME PLATE (F-15.34), 0.0003-0.0005 THICK. DO NOT GRIND

ALL DIMENSIONS ARE IN INCHES

161A6110-1 Pin Repair and Refinish
Figure 601

SPOOL ASSEMBLY - REPAIR 8-1

161A6111–1

1. General

A. This procedure has the data necessary to repair and refinish the spool assembly (145).

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 True Position Dimensioning Symbols used in the repair.

D. Refer to IPL Figure 1 for item numbers.

E. General repair details:

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

2. Repair Procedures

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 20-30-02	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. Spool Repair (REPAIR 8-1, Figure 601)

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

(1) Bushing (150) replacement.

(a) Remove the old bushings (SOPM 20-50-03).

(b) If you find defects on the hole surfaces, refer to step (2) for repair instructions.

(c) Install replacement bushings by the shrink-fit method (SOPM 20-50-03) with grease, D00633 or grease, D00015 on mating surfaces.

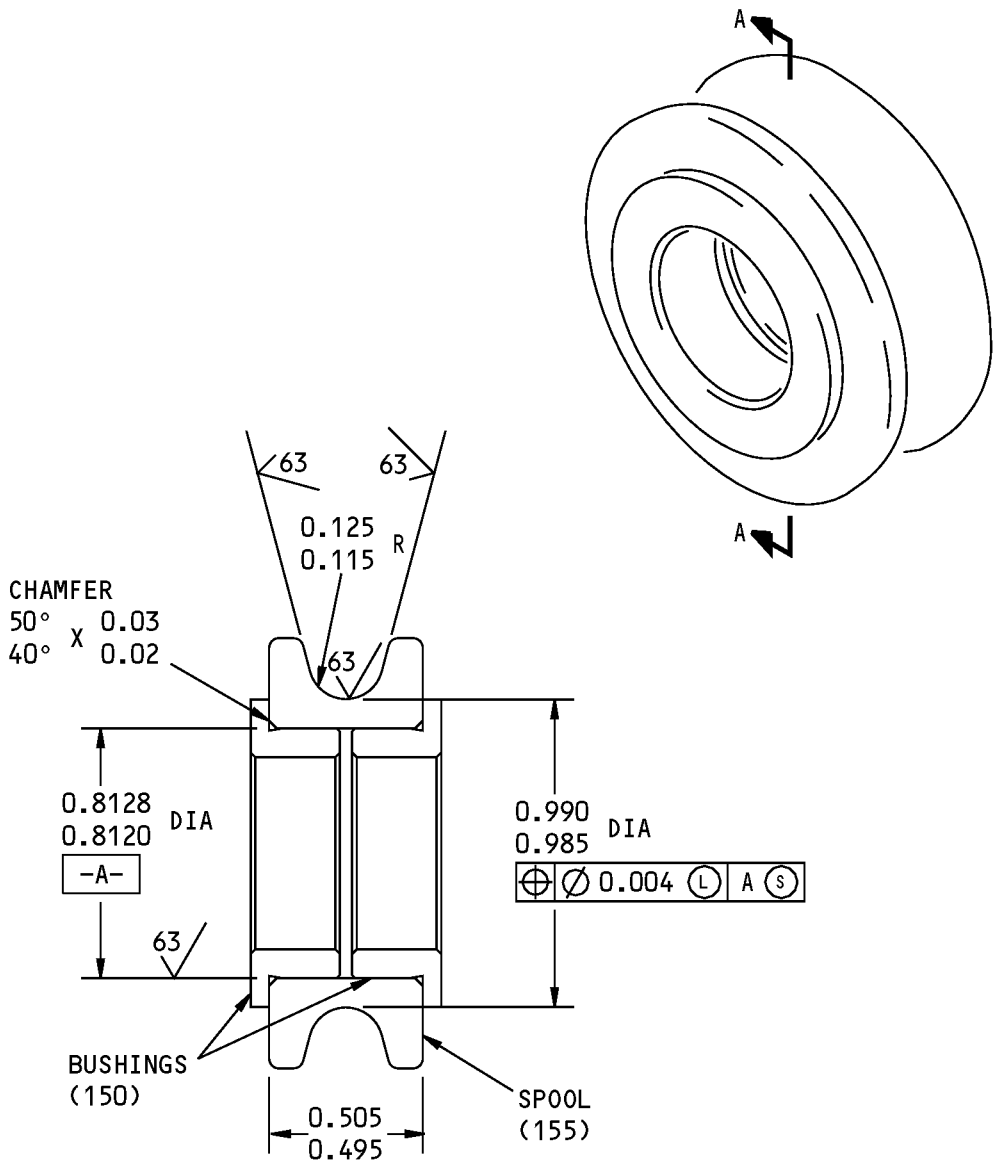
(d) Machine as necessary to design dimensions and finish.

(2) Spool Repair

(a) Repair is only replacement of the original finish. See REPAIR 8-1, Paragraph 2.C.(3) for details.

(3) Refinish

(a) Passivate (F-17.25).



A–A

ITEM NUMBERS REFER TO IPL FIG. 1

ALL DIMENSIONS ARE IN INCHES

161A6111-1 Spool Assembly Repair and Refinish
Figure 601

PIN - REPAIR 9-1

161A6118–1

1. General

A. This procedure has the data necessary to repair and refinish the pin (165).

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 True Position Dimensioning Symbols used in the repair.

D. Refer to IPL Figure 1 for item numbers

E. General repair details:

(1) Material: 4340M Steel, HT TR: 275-300 ksi

(2) Shot Peen: Rc 55-65 Shot Heat Treat, 0.016-0.033 Shot Size, 0.014-0.018 A2 Intensity

2. Repair Procedure

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
32-00-05	Repair of High Strength Steel Landing Gear Parts
SOPM 20-10-03	SHOT PEENING
SOPM 20-10-04	GRINDING OF CHROME PLATED PARTS
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. Pin Repair (REPAIR 9-1, Figure 601)

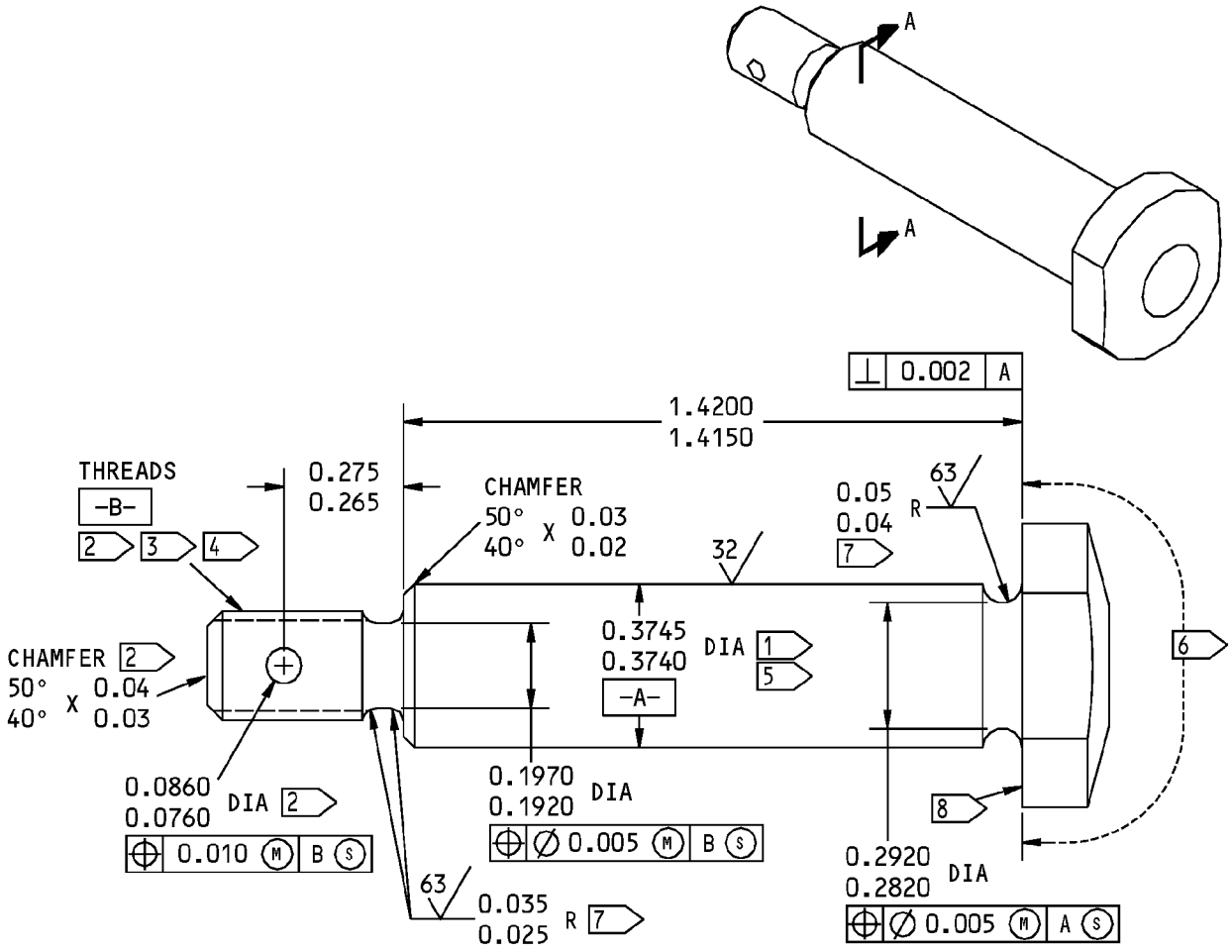
NOTE: For shotpeening, refer to SOPM 20-10-03. For grinding of chrome plated parts, refer to SOPM 20-10-04. For stripping of protective finishes, refer to SOPM 20-30-02. For decoding table for Boeing finish codes, refer to SOPM 20-41-01. For finishing materials, refer to SOPM 20-60-02.

(1) Repair

(a) Repair is only replacement of the original finish (32-00-05). Refer to REPAIR 9-1, Paragraph 2.C.(2) for details.

(2) Refinish

(a) Chrome plate as indicated. Cadmium-titanium plate and apply primer, C00175 as indicated.



A–A

1. CHROME PLATE (F-15.34), 0.003 MIN THICK
2. DO NOT SHOT PEEN
3. CADMIUM-TITANIUM PLATE (F-15.32)
4. WIPE WITH PRIMER (F-19.451)
5. DIMENSIONS AFTER PLATING
6. CADMIUM-TITANIUM PLATE (F-15.01) APPLY BMS 10-79 TYPE 3 PRIMER (F-19.47), AND BMS 10-60 TYPE 2 ENAMEL (F-19.39-707)
7. SHOT PEEN OVERSPRAY PERMITTED ONLY IN THIS RADIUS
8. CHROME PLATE (F-15.34), 0.0003-0.0005 THICK. DO NOT GRIND

ALL DIMENSIONS ARE IN INCHES

161A6118-1 Pin Repair and Refinish
Figure 601

PIN - REPAIR 10-1

161A6120–1

1. General

A. This procedure has the data necessary to repair and refinish the pin (110).

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 True Position Dimensioning Symbols used in the repair.

D. Refer to IPL Figure 1 for item numbers

E. General repair details:

(1) Material: 15-5PH CRES, HT TR: 180-200 ksi

2. Repair Procedure

A. References

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

B. Pin Repair (REPAIR 10-1, Figure 601)

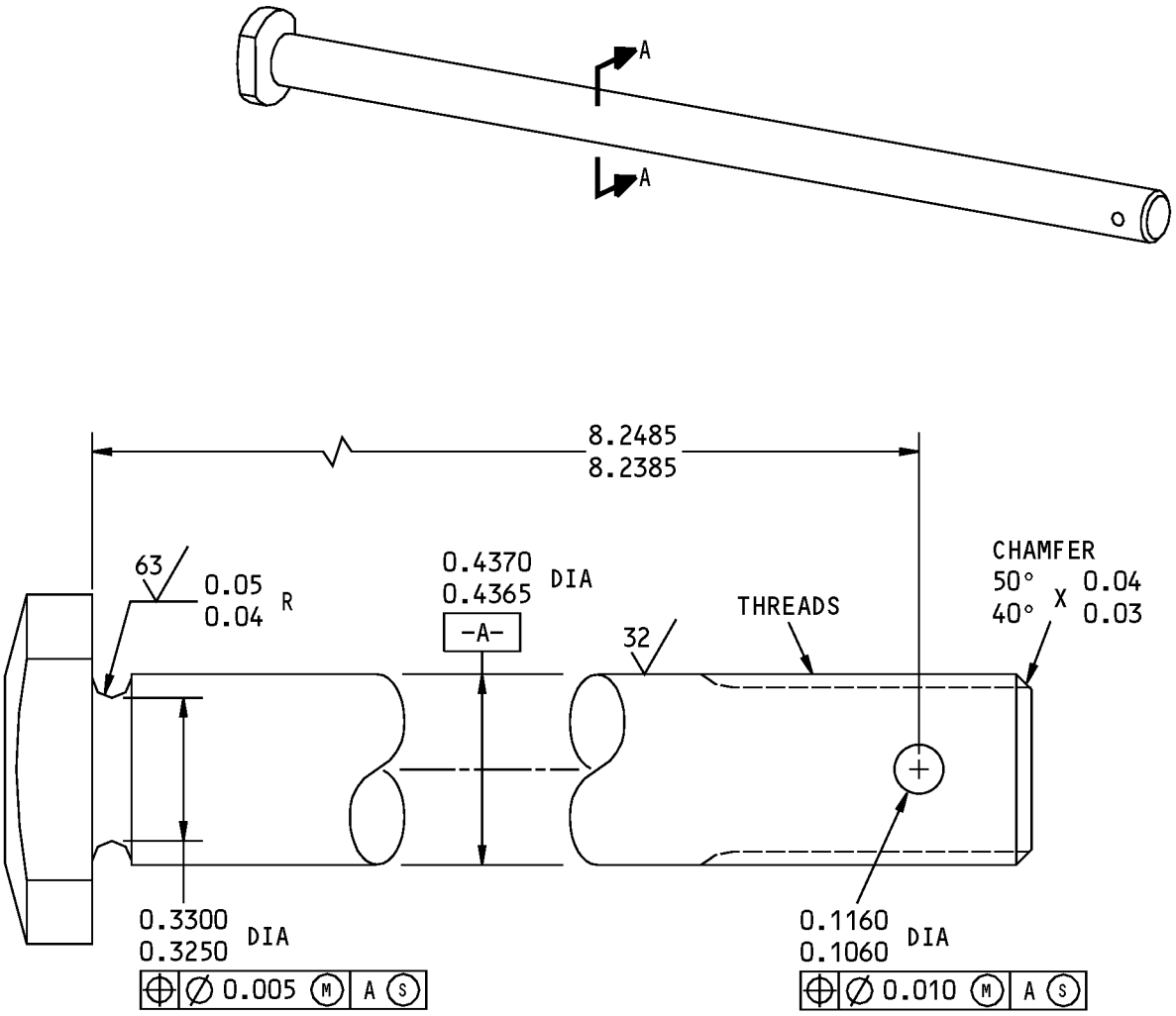
NOTE: For stripping of protective finishes, refer to SOPM 20-30-02. For decoding table for Boeing finish codes, refer to SOPM 20-41-01.

(1) Repair

(a) Repair is only replacement of the original finish. Refer to REPAIR 10-1, Paragraph 2.B.(2) for details.

(2) Refinish

(a) Passivate (F-17.25).



A–A

ALL DIMENSIONS ARE IN INCHES

161A6120-1 Pin Repair and Refinish
Figure 601

LINK ASSEMBLY - REPAIR 11-1

161A6122–3

1. General

A. This procedure tells how to repair and refinish the link assembly (255).

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 True Position Dimensioning Symbols used in the repair.

D. Refer to IPL Figure 1 for item numbers.

E. General repair details:

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

2. Repair Procedure

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 20-30-02	STRIPPING OF PROTECTIVE FINISHES
SOPM 20-50-03	BEARING AND BUSHING REPLACEMENT
SOPM 20-60-03	LUBRICANTS

C. Link Repair (REPAIR 11-1, Figure 601)

NOTE: For stripping of protective finishes, refer to SOPM 20-30-02. For lubricants, refer to SOPM 20-60-03.

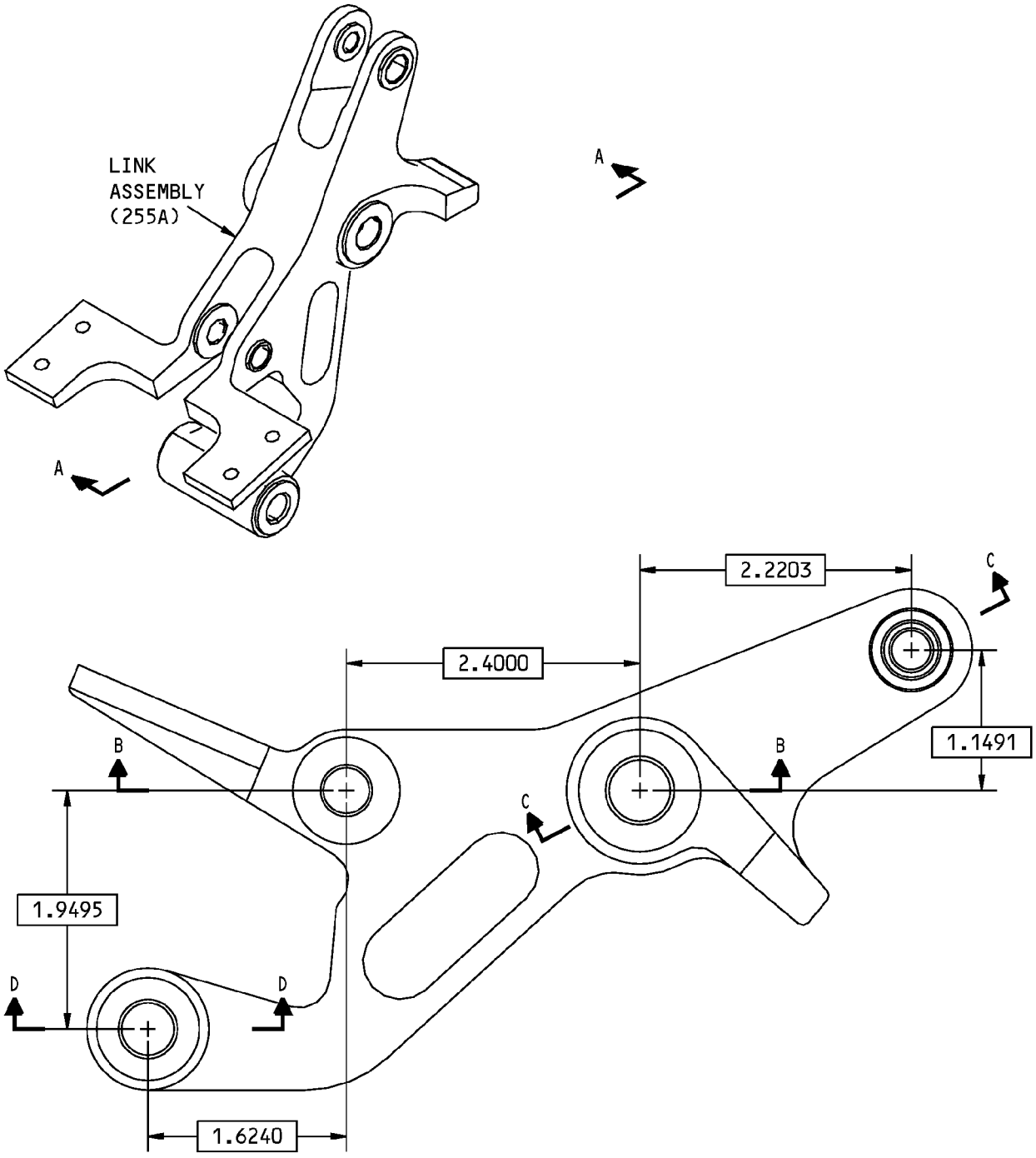
(1) Bushing replacement.

(a) Remove the old bushings (SOPM 20-50-03).

(b) If you find defects on the link, refer to REPAIR 11-2 for repair instructions.

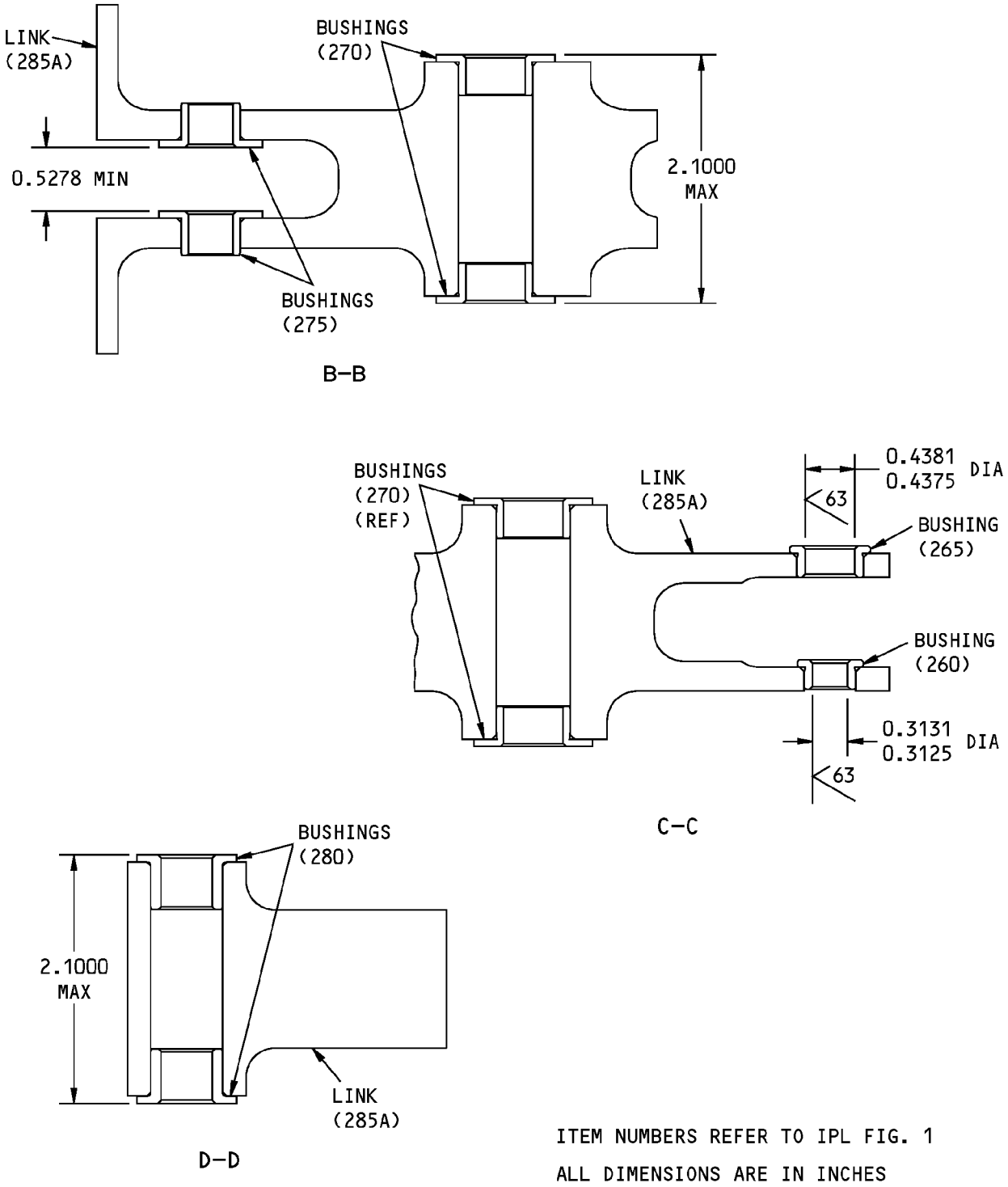
(c) Install replacement bushings by the shrink-fit method (SOPM 20-50-03) with grease, D00633 or grease, D00015 on mating surfaces.

(d) Make a check of the dimensions and machine them as necessary to design dimensions and finish.



A–A

161A6122-3 Link Assembly Parts Replacement
Figure 601 (Sheet 1 of 2)



161A6122-3 Link Assembly Parts Replacement
Figure 601 (Sheet 2 of 2)

BOEING®

COMPONENT MAINTENANCE MANUAL

LINK - REPAIR 11-2

161A6122–4, –6

1. General

A. Use this procedure to repair and refinish link (285).

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 True Position Dimensioning Symbols used in the repair figures.

D. Refer to IPL Figure 1 for item numbers.

E. General repair details:

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

(2) Shot peen: Not necessary

2. Repair Procedures

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 20-20-02	PENETRANT METHODS OF INSPECTION
SOPM 20-30-02	STRIPPING OF PROTECTIVE FINISHES
SOPM 20-41-01	DECODING TABLE FOR BOEING FINISH CODES

B. Lug Faces and Holes (REPAIR 11-2, Figure 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.

(1) Machine as necessary, within repair limits, to remove defects (SOPM 20-10-01, SOPM 20-10-02, CMM 32-00-05).

(2) Penetrant examine (SOPM 20-20-02).

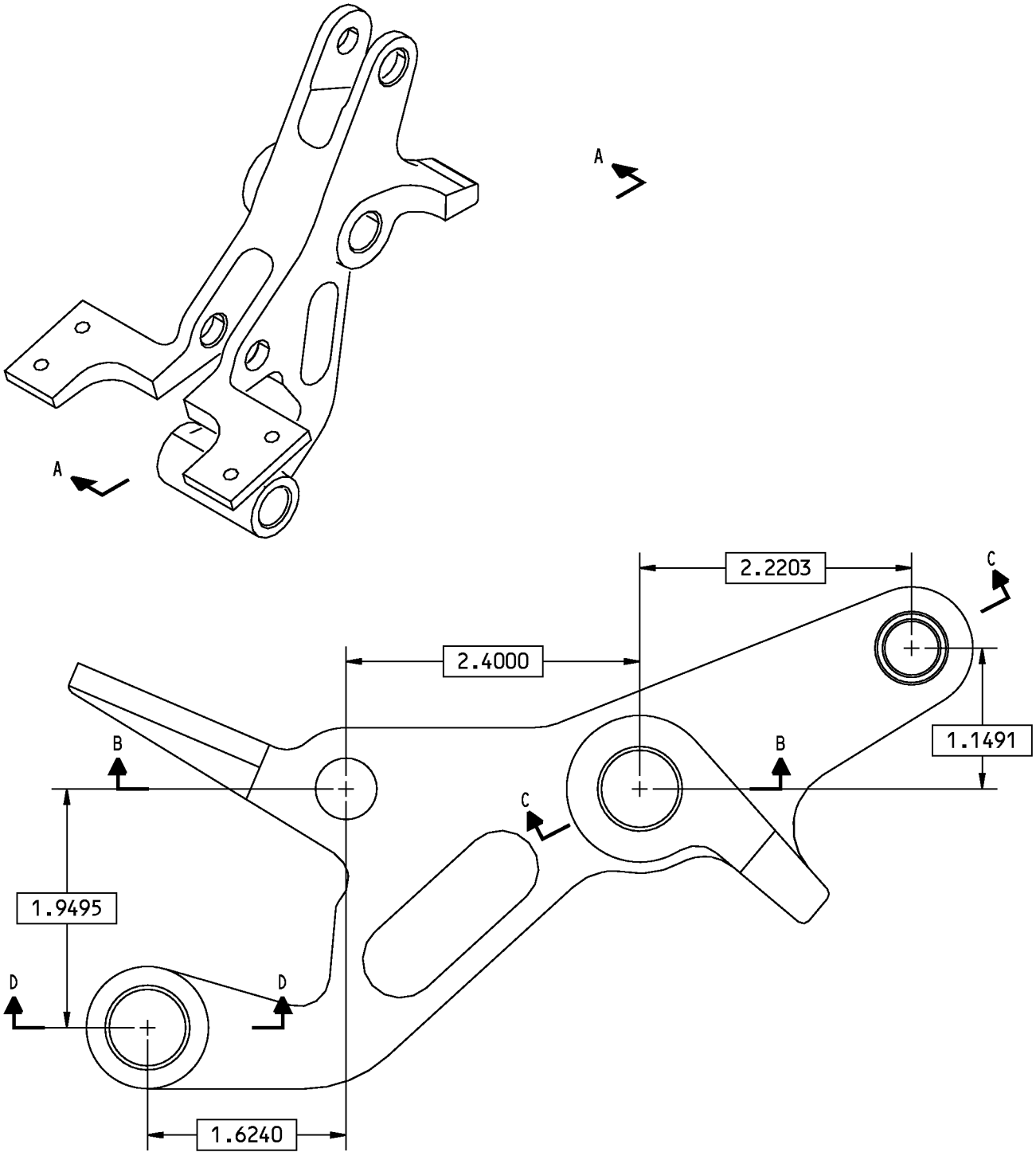
(3) Refinish as indicated.

(4) Make oversize bushings (REPAIR 11-2, Figure 602) to adjust for the material removed.

(5) Install the bushings as shown in REPAIR 11-1.

C. Refinish

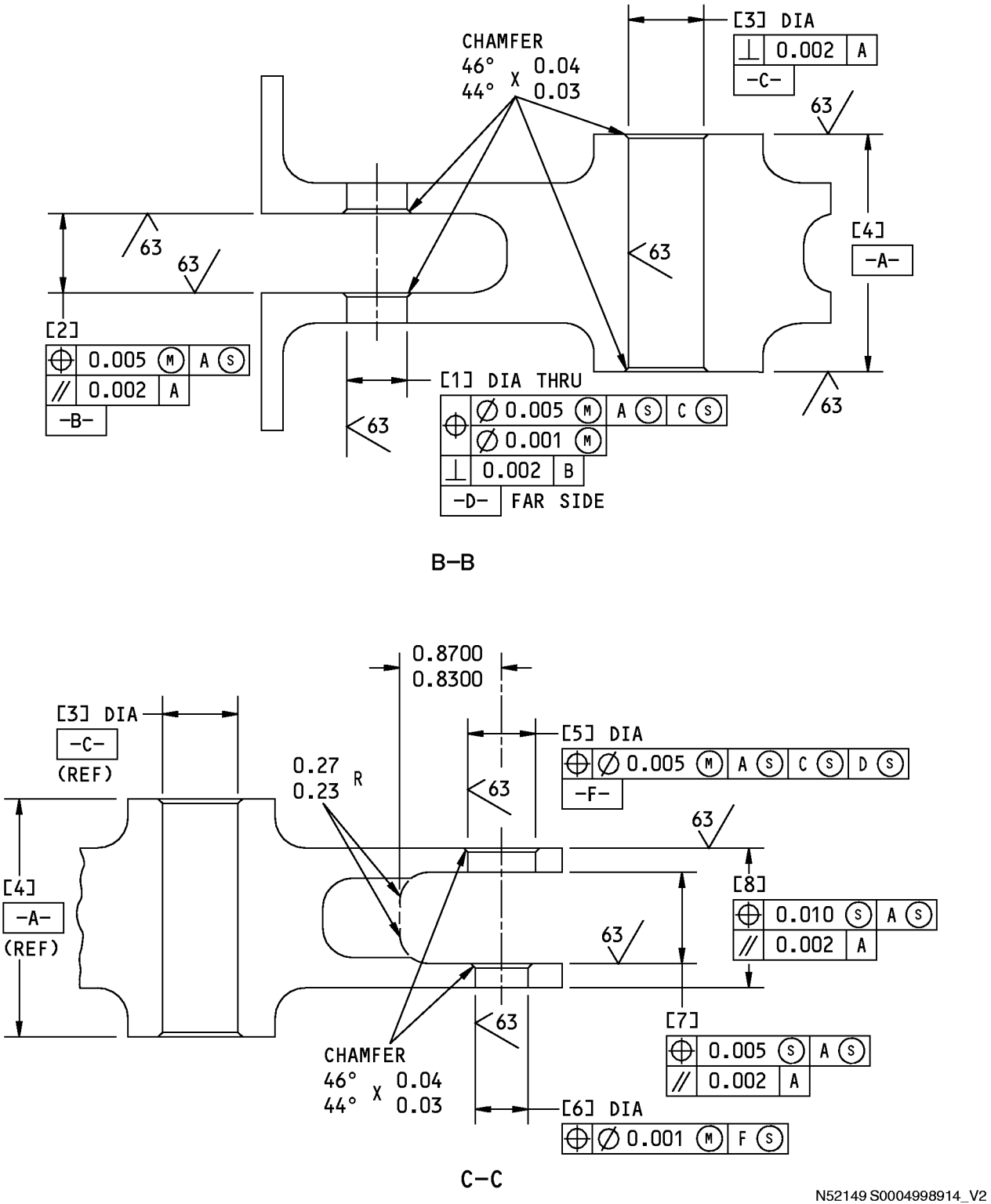
(1) Passivate (F-17.25).



A–A

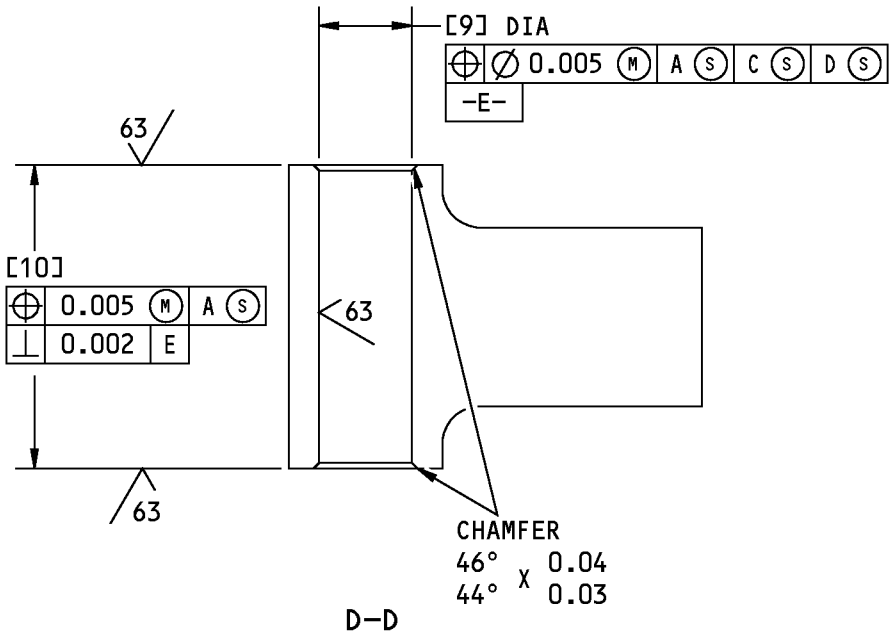
N52148 S0004998913_V2

161A6122-4, -6 Link Repair and Refinish
Figure 601 (Sheet 1 of 3)



N52149 S0004998914_V2

161A6122-4, -6 Link Repair and Refinish
Figure 601 (Sheet 2 of 3)



REFERENCE NUMBER	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]
DESIGN DIMENSION	0.5006 0.5000	0.6620 0.6570	0.6256 0.6250	1.9750 1.9700	0.5631 0.5625	0.4381 0.4375	0.7640 0.7590	1.1665 1.1565
REPAIR LIMIT	---	---	---	---	0.6231 1	0.4981 1	---	---

REFERENCE NUMBER	[9]	[10]
DESIGN DIMENSION	0.6256 0.6250	1.9750 1.9700
REPAIR LIMIT	---	---

1 LIMIT FOR INSTALLATION OF OVERSIZE SLEEVE

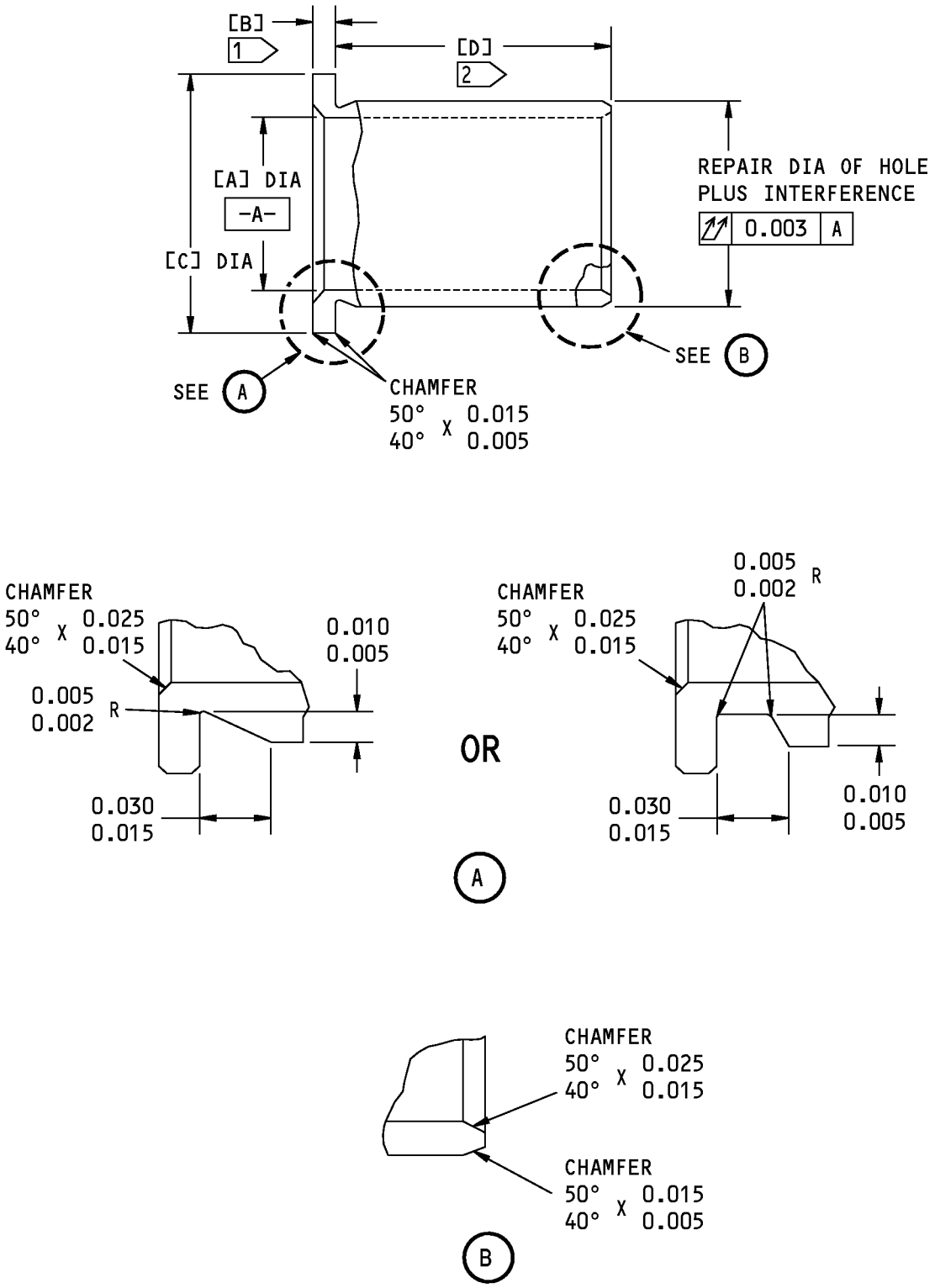
125 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

ITEM NUMBERS REFER TO IPL FIG. 1

ALL DIMENSIONS ARE IN INCHES

N52150 S0004998915_V3

161A6122-4, -6 Link Repair and Refinish
Figure 601 (Sheet 3 of 3)



Oversize Bushing Details
Figure 602 (Sheet 1 of 2)

HOLE LOCATION (FIG. 601)	REPLACES BUSHING (IPL FIG. 1)	[A]	[B]	[C]	[D]	INTER-FERENCE	MATERIAL	FINISH
[5]	(265) BACB28AT07B020A	0.428 0.422	0.065 0.060	0.690 0.680	0.200 0.195	0.0016 0.0005	3	6
[6]	(260) BACB28AP05-018	0.303 0.297	0.065 0.060	0.610 0.600	0.180 0.175	0.0014 0.0003	4	5

1 PLUS AMOUNT REMOVED FROM LUG FACE

2 MINUS AMOUNT REMOVED FROM LUG FACE

3 ALUMINUM-BRONZE (AMS 4640)

4 15-5PH CRES (AMS 5659) OR 17-4PH CRES (AMS 5643), 180-200 KSI

5 PASSIVATE (F-17.25)

6 NO FINISH

63 ALL MACHINED SURFACES

BREAK ALL SHARP EDGES

MATERIAL: AS SHOWN

FINISH: AS SHOWN

ITEM NUMBERS REFER TO IPL FIG. 1

ALL DIMENSIONS ARE IN INCHES

Oversize Bushing Details
Figure 602 (Sheet 2 of 2)

HANGER ASSEMBLY - REPAIR 12-1

161A6300–1

1. General

A. This procedure tells how to repair hanger assembly (435).

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 True Position Dimensioning Symbols used in the repair figures.

D. Refer to IPL Figure 1 for item numbers.

E. General repair details:

(1) Material: 15-5PH CRES

(2) Heat treat: 180-200 ksi

2. Repair

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 20-30-02	STRIPPING OF PROTECTIVE FINISHES
SOPM 20-50-03	BEARING AND BUSHING REPLACEMENT
SOPM 20-60-03	LUBRICANTS

C. Hanger Repair (REPAIR 12-1, Figure 601)

NOTE: For stripping of protective finishes, refer to SOPM 20-30-02. For lubricants, refer to SOPM 20-60-03.

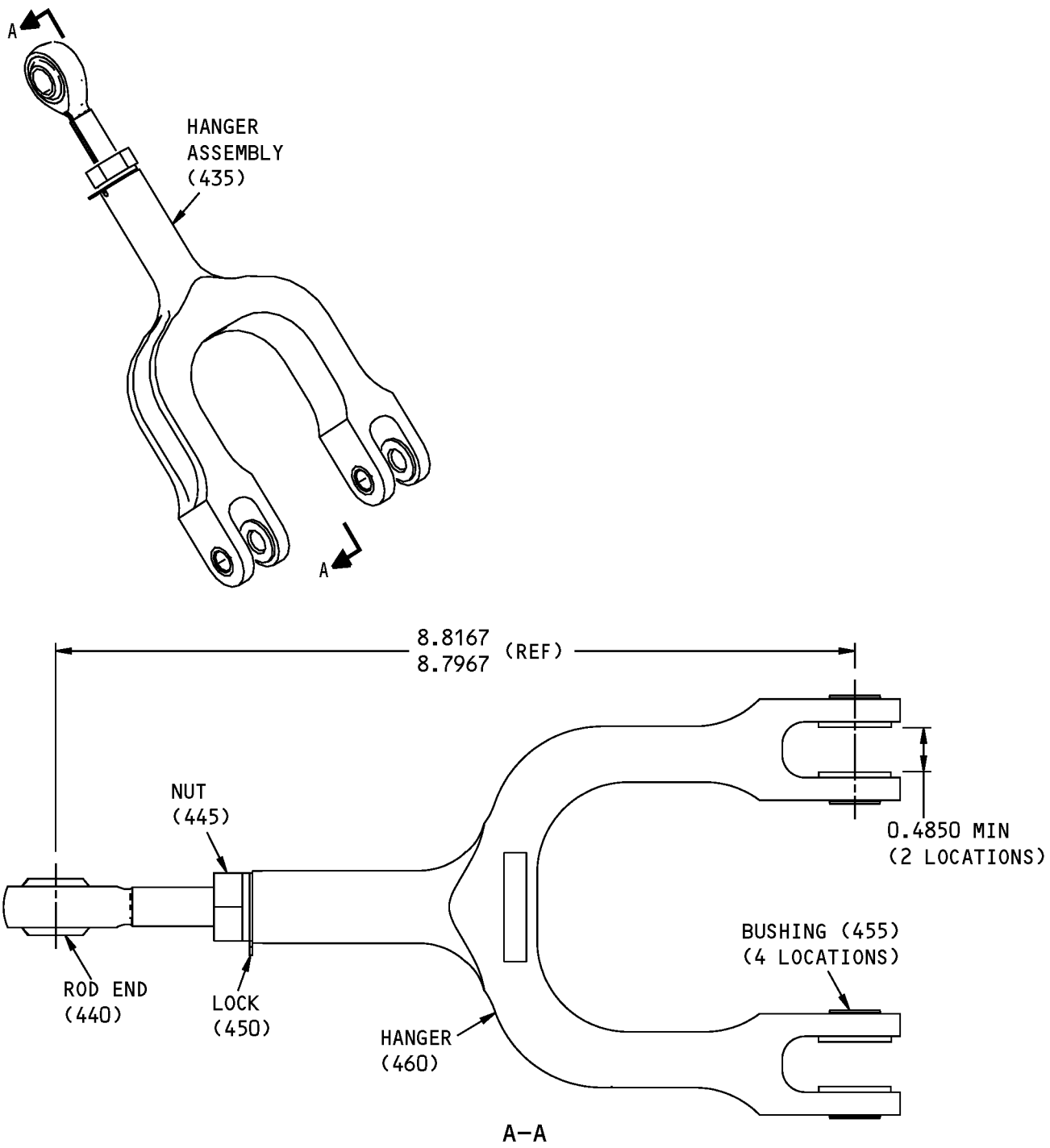
(1) Bushing replacement.

(a) Remove the old bushings (SOPM 20-50-03)

(b) If you find defects on the hanger, refer to REPAIR 12-2 for repair instructions.

(c) Install replacement bushings by the shrink-fit method (SOPM 20-50-03) with grease, D00633 or grease, D00015 on mating surfaces.

(d) Make a check of the dimensions and machine them as necessary to design dimensions and finish.



161A6300-1 Hanger Assembly Parts Replacement
Figure 601

HANGER - REPAIR 12-2

161A6300–2

1. General

A. This procedure has the data necessary to repair and refinish the hanger (460).

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 True Position Dimensioning Symbols used in the repair.

D. Refer to IPL Figure 1 for item numbers

E. General repair details:

(1) Material: 15-5PH CRES, HT TR: 180-200 ksi

2. Repair Procedures

A. References

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

B. Hanger Repair (REPAIR 12-2, Figure 601)

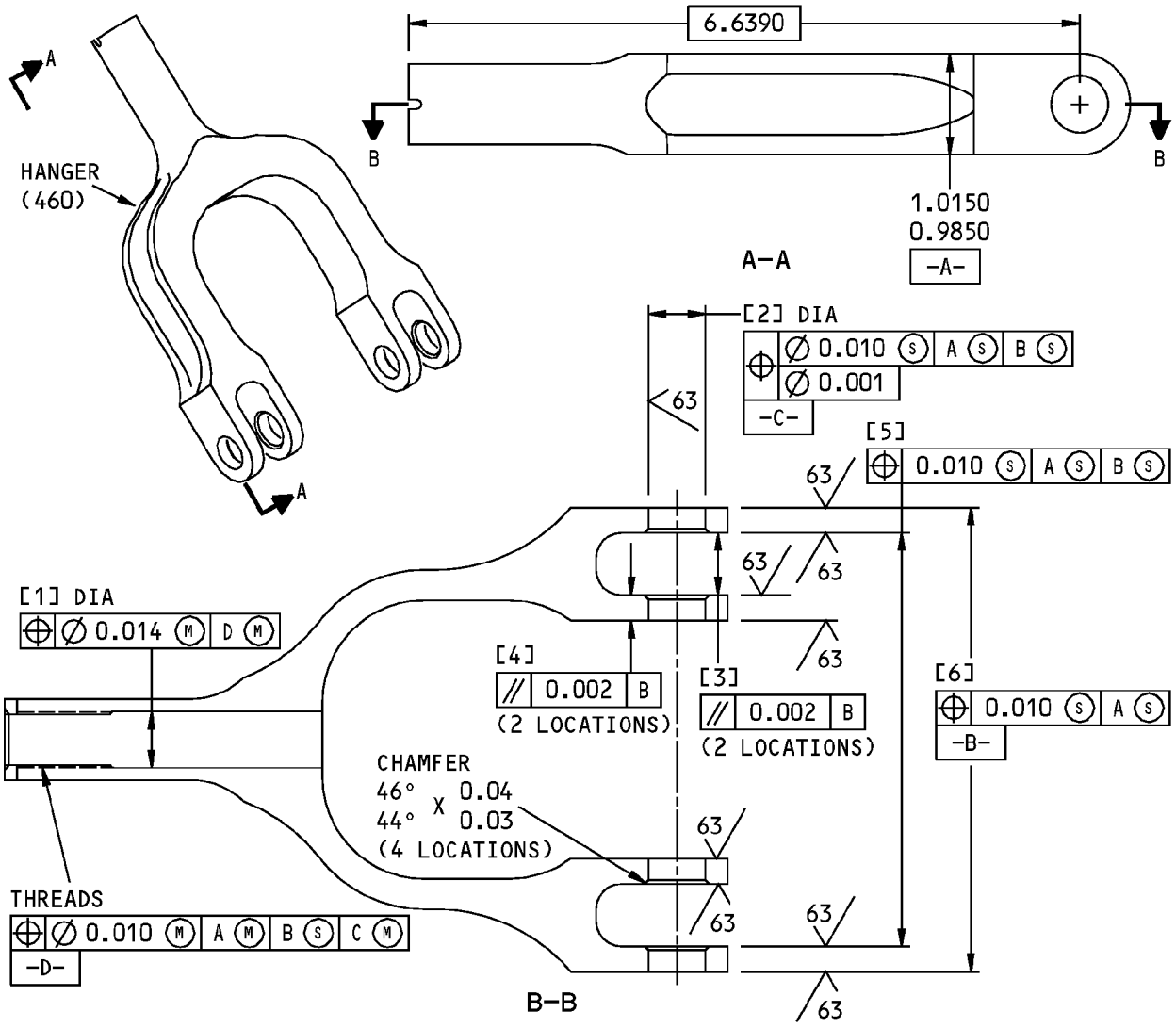
NOTE: For stripping of protective finishes, refer to SOPM 20-30-02. For decoding table for Boeing finish codes, refer to SOPM 20-41-01.

(1) Repair

(a) Repair is only replacement of the original finish. Refer to REPAIR 12-2, Paragraph 2.B.(2) for details.

(2) Refinish

(a) Passivate (F-17.25).



REFERENCE NUMBER	[1]	[2]	[3]	[4]	[5]	[6]
DESIGN DIMENSION	0.5650 0.5550	0.5631 0.5625	0.6200 0.6100	0.2600 0.2400	4.0880 4.0780	4.5880 4.5780
REPAIR LIMIT	---	---	---	---	---	---

125 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

ITEM NUMBERS REFER TO IPL FIG. 1

ALL DIMENSIONS ARE IN INCHES

161A6300-2 Hanger Repair and Refinish
Figure 601

PIN - REPAIR 13-1

161A6301–1

1. General

A. This procedure tells how to repair and refinish pin (420).

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 True Position Dimensioning Symbols used in the repair figures.

D. Refer to IPL Figure 1 for item numbers.

E. General repair details:

(1) Material: 4340M steel, HT TR: 275-300 ksi.

(2) Shot Peen: Rc 55-65 Shot Heat Treat, 0.016-0.033 Shot Size, 0.014-0.018 A2 Intensity.

2. Repair Procedures

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
32-00-05	Repair of High Strength Steel Landing Gear Parts
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 20-10-04	GRINDING OF CHROME PLATED PARTS
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. Pin Repair (REPAIR 13-1, Figure 601)

NOTE: For repair and refinish of high strength steel parts, refer to SOPM 20-10-01, SOPM 20-10-02, and 32-00-05. For shot peening, refer to SOPM 20-10-03. For grinding of chrome plated parts, refer to SOPM 20-10-04. 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.

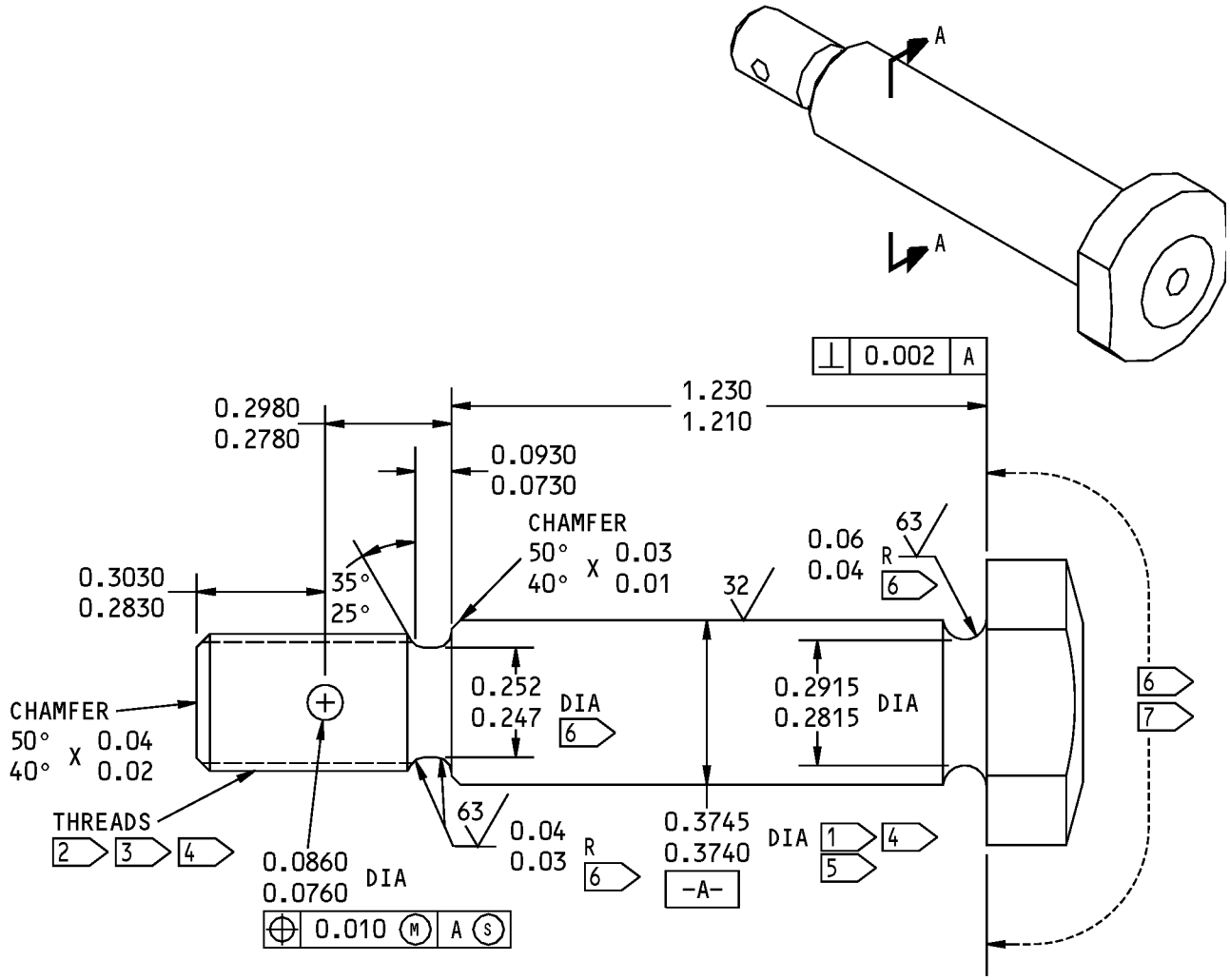
(1) Repair

(a) Repair is only replacement of the original finish. Refer to REPAIR 13-1, Paragraph 2.C.(2) for details.

(b) Refer to 737-SL-32-130 for possible replacement of this pin.

(2) Refinish

(a) Chrome plate as indicated. Cadmium-titanium plate as indicated. Apply primer, C00175 and enamel coating, C00033 as indicated.



A–A

1. CHROME PLATE (F-15.34), 0.003 MIN THICK
2. DO NOT SHOT PEEN
3. CADMIUM-TITANIUM PLATE (F-15.32)
4. WIPE WITH PRIMER (F-19.451)
5. DIMENSIONS AFTER PLATING
6. CADMIUM-TITANIUM PLATE (F-15.01) APPLY BMS 10-79 TYPE 3 PRIMER (F-19.47)
7. APPLY BMS 10-60 TYPE 2 ENAMEL (F-19.39-707)

ALL DIMENSIONS ARE IN INCHES

161A6301-1 Pin Repair and Refinish
Figure 601

PIN - REPAIR 14-1

161A6302–1

1. General

A. This procedure has the data necessary to repair and refinish the pin (800).

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 True Position Dimensioning Symbols used in the repair.

D. Refer to IPL Figure 1 for item numbers.

E. General repair details:

(1) Material: 4340M Steel, HT TR: 275-300 ksi.

(2) Shot Peen: Rc 55-65 Shot Heat Treat, 0.016-0.033 Shot Size, 0.014-0.018 A2 Intensity.

2. Repair Procedures

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
32-00-05	Repair of High Strength Steel Landing Gear Parts
SOPM 20-10-03	SHOT PEENING
SOPM 20-10-04	GRINDING OF CHROME PLATED PARTS
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. Pin Repair (REPAIR 14-1, Figure 601)

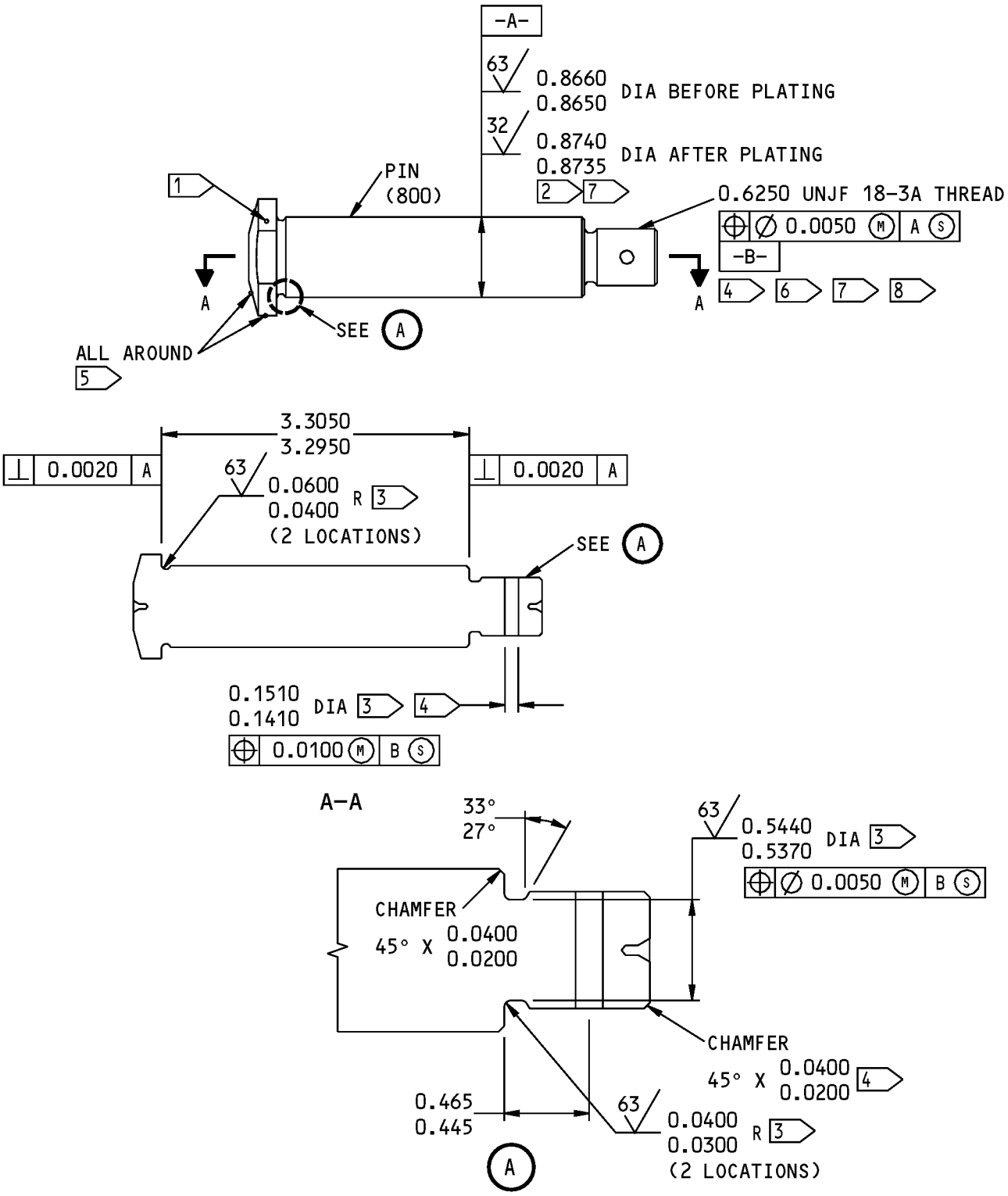
NOTE: For shotpeening, refer to SOPM 20-10-03. For grinding of chrome plated parts, refer to SOPM 20-10-04. For stripping of protective finishes, refer to SOPM 20-30-02. For decoding table for Boeing finish codes, refer to SOPM 20-41-01. For finishing materials, refer to SOPM 20-60-02.

(1) Repair

(a) Repair is only replacement of the original finish (32-00-05). Refer to REPAIR 14-1, Paragraph 2.C.(2) for details.

(2) Refinish

(a) Chrome plate as indicated. Cadmium-titanium plate as indicated. Apply primer, C00175 and enamel coating, C00033 as indicated.



161A6302-1 Uplock Attach Pin Repair
Figure 601 (Sheet 1 of 2)

1 PART NUMBER LOCATION

2 CHROME PLATE (F-15.34), 0.003 MINIMUM THICK

3 CADMIUM-TITANIUM PLATE (F-15.01). APPLY BMS 10-79, TYPE 3 PRIMER (F-19.47)

4 DO NOT SHOT PEEN THIS AREA

5 CADMIUM-TITANIUM PLATE (F-15.01). APPLY BMS 10-79, TYPE 3 PRIMER (F-19.47) AND BMS 10-60, TYPE 2 GLOSS ENAMEL (F-19.39-707)

6 CADMIUM-TITANIUM PLATE (F-15.32)

7 WIPE PLATING WITH PRIMER (F-19.451)

8 DIMENSION AFTER PLATING

125 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

BREAK ALL SHARP EDGES

ITEM NUMBERS REFER TO IPL FIG. 1

ALL DIMENSIONS ARE IN INCHES

161A6302-1 Uplock Attach Pin Repair
Figure 601 (Sheet 2 of 2)

SPRING - REPAIR 15-1

1. General

A. This procedure tells how to repair and refinish spring (135A).

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.

D. General details

(1) Material: Ti-3Al-8V-6Cr-4Mo-4Zr alloy (BMS 7-320 Type 2) titanium alloy.

(2) Shot Peen: 0.014-0.016A2 intensity, Coverage 2.0. Extend the spring as necessary for good coverage.

2. Spring Repair

A. Consumable Materials

NOTE: Equivalent substitutes may be used.

Reference	Description	Specification
C00033	Coating - Exterior Protective Enamel, Flexibility Use	BMS10-60, Type II
C00259	Primer - Chemical And Solvent Resistant Finish, Epoxy Resin	BMS10-11, Type I

B. References

Reference	Title
SOPM 20-10-03	SHOT PEENING
SOPM 20-20-02	PENETRANT METHODS OF INSPECTION
SOPM 20-30-03	GENERAL CLEANING PROCEDURES

C. Procedure (REPAIR 15-1, Figure 601)

NOTE: If the damage is between the coils, then extend the spring until the spaces between the coils are a sufficient width to let you do the repairs.

(1) Coating defects without bare metal.

(a) Sand the area with 280 grit or finer abrasive paper. Make all edges of this area smooth with adjacent areas.

(b) Solvent clean (SOPM 20-30-03) the area.

(c) Dry abrasive blast clean (SOPM 20-30-03) the surface. If necessary, use compressed air to remove the abrasive dust from the spring.

(d) Refinish the spring as shown in REPAIR 15-1, Paragraph 3. below. Optional: touch up with primer, C00259 and enamel coating, C00033. Keep overspray to a minimum.

(2) Coating defects with bare metal.

(a) Sand the area with 280 grit or finer abrasive paper to expose the bare metal. Make all edges of the coating smooth.

(b) Solvent clean (SOPM 20-30-03) the area.

(c) Penetrant examine (SOPM 20-20-02) the bare metal areas.

(d) If the penetrant check finds crack indications, remove the spring from service.

(e) If there are no crack indications, lightly sand the bare metal to remove small scratches, but do not go deeper than 5% of the wire diameter.

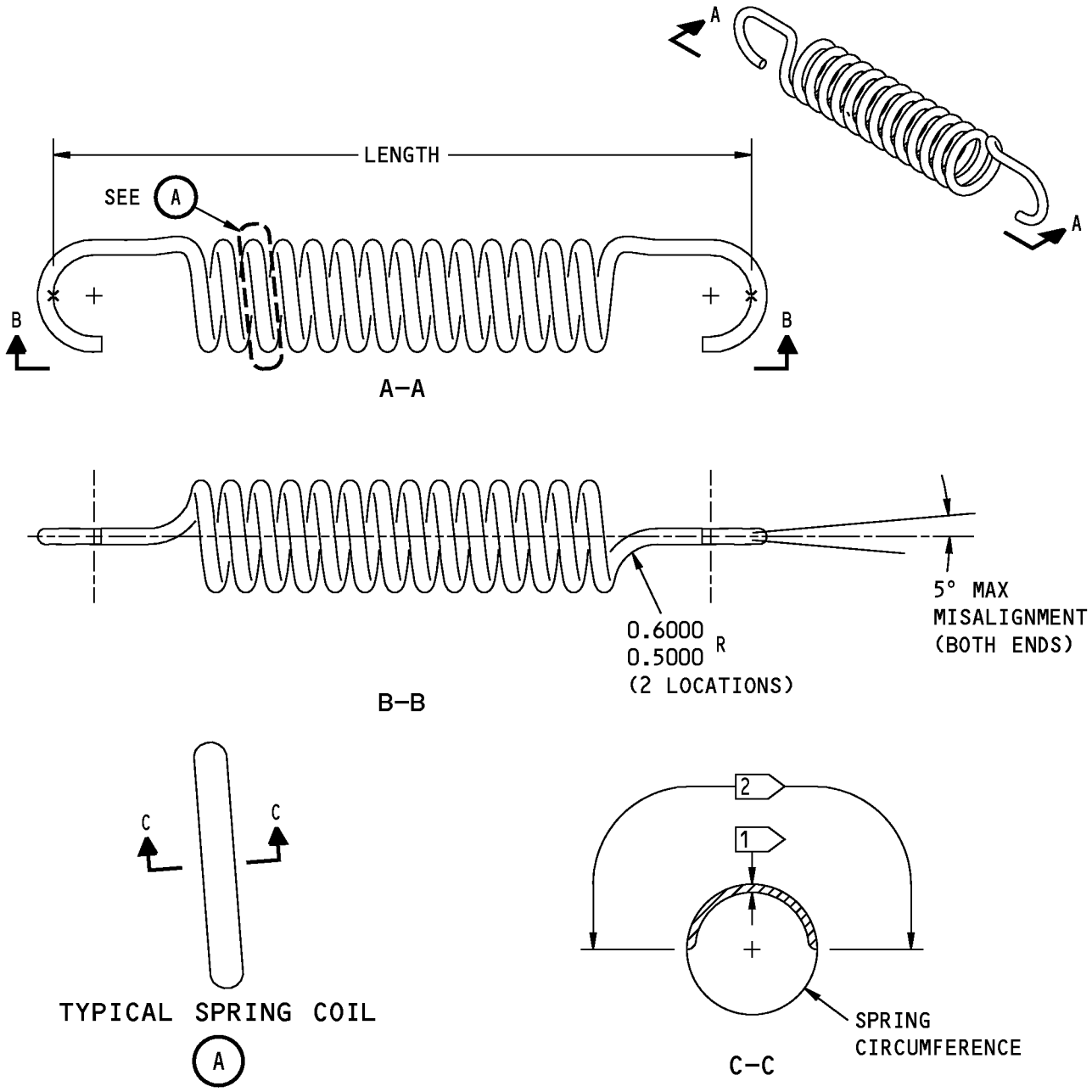
(f) Shot peen (SOPM 20-10-03) the blended area.

(g) Refinish the spring as shown in REPAIR 15-1, Paragraph 3. below. Optional: touch up with primer, C00259 and enamel coating, C00033. Keep overspray to a minimum.

3. Spring Refinish

NOTE: For stripping of protective finish, 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.

A. Apply gray coating, C00802 (F-21.14). Apply the coating with the spring held extended in a fixture, with the spaces between the coils equal to the wire diameter.



1 THE MAXIMUM DEPTH OF THE BLEND-OUT MUST BE LESS THAN 0.010 INCH

2 THE TOTAL LENGTH OF ALL OF THE DAMAGED AREAS MUST BE LESS THAN HALF OF THE CIRCUMFERENCE OF THE SPRING

ALL DIMENSIONS ARE IN INCHES

161A6114-3 Spring Repair and Refinish
Figure 601

ASSEMBLY

1. General

A. This procedure has the data necessary to assemble the main landing gear uplock assembly.

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
C00913	Compound - Corrosion Inhibiting Material, Nondrying Resin Mix	BMS 3-27
D00013	Grease - Aircraft And Instrument Grease	MIL-PRF-23827 (NATO G-354) (Supersedes MIL-G-23827)
D00633	Grease - Aircraft General Purpose	BMS3-33

B. References

Reference	Title
SOPM 20-41-01	DECODING TABLE FOR BOEING FINISH CODES
SOPM 20-50-01	BOLT AND NUT INSTALLATION
SOPM 20-50-02	INSTALLATION OF SAFETYING DEVICES
SOPM 20-50-19	GENERAL SEALING
SOPM 20-60-02	FINISHING MATERIALS
SOPM 20-60-03	LUBRICANTS
SOPM 20-60-04	MISCELLANEOUS MATERIALS

C. Procedure

NOTE: For decoding table for Boeing finish codes, refer to SOPM 20-41-01. For bolt and nut installation, refer to SOPM 20-50-01. For general sealing, refer to SOPM 20-50-19. 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 assembly this component.

(2) Lubricate the shanks (not the threads) of bolts and pins with grease, D00633 or grease, D00013.

(3) Apply compound, C00913 to threads, thread reliefs, washer faces, and cotter pins.

(4) Lubricate chrome plated surfaces of sleeves with grease, D00633 before you install fasteners in them.

(5) Install bolts and nuts with head direction as shown.

(6) If you have them, temporarily install pin (800), washer (805), nut (810) and cotter pin (815) (SOPM 20-50-02) in the frame. These parts will be used when the unit is installed on the airplane.

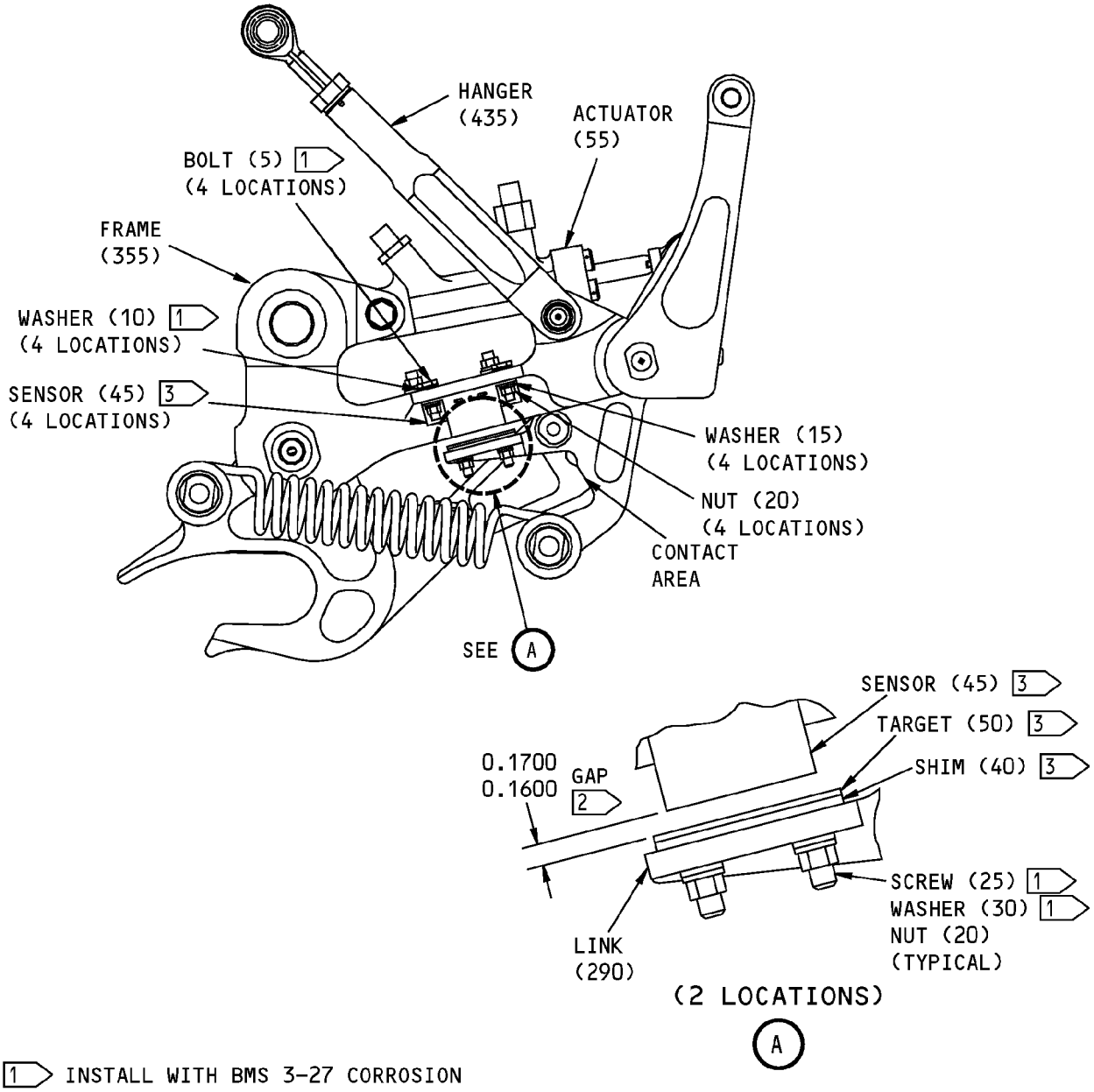
(7) Tighten nuts (130, 180, 215, 220, 430) to the torques shown in FITS AND CLEARANCES, Figure 802.

(8) Before you install the springs (135), make sure the spools (145) can turn easily.

(9) Adjust the gap between sensor (45) and target (50) as shown in ASSEMBLY, Figure 701.

CAUTION: BE CAREFUL WHILE THE LINKS ARE UNDER SPRING LOAD. THEY CAN MOVE SUDDENLY AND STRONGLY. THE KICKER CAN KICK YOU.

(10) Move the linkage of the assembled unit between the two positions shown in ASSEMBLY, Figure 702. Make sure the parts move freely.



1 INSTALL WITH BMS 3-27 CORROSION PREVENTIVE COMPOUND

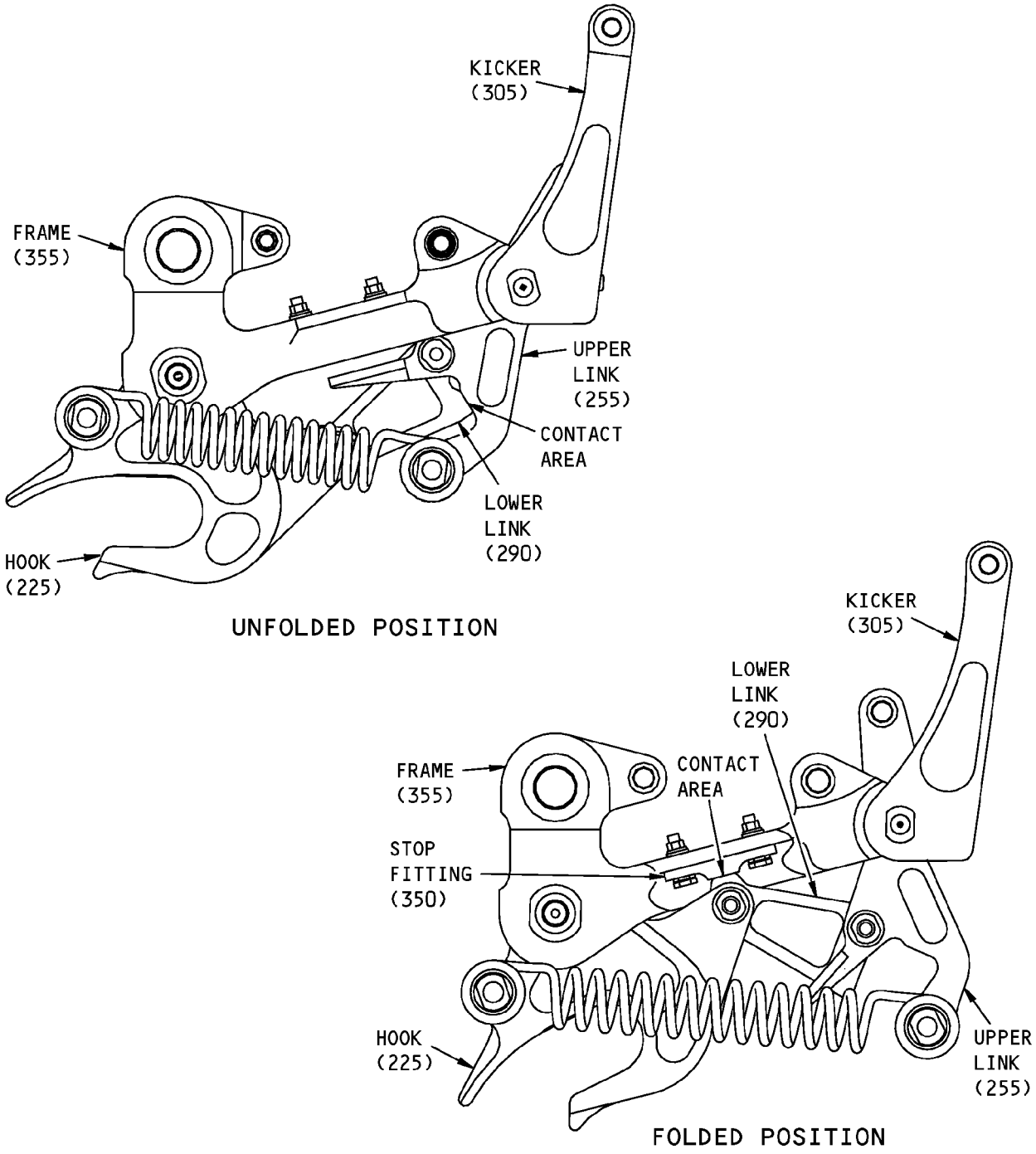
2 TO ADJUST THE GAP, REMOVE LAMINATIONS FROM SHIM (40) AS NECESSARY

3 FAY SEAL SURFACES WITH BMS 5-95 SEALANT AS SHOWN IN SOPM 20-50-19

ITEM NUMBERS REFER TO IPL FIG. 1

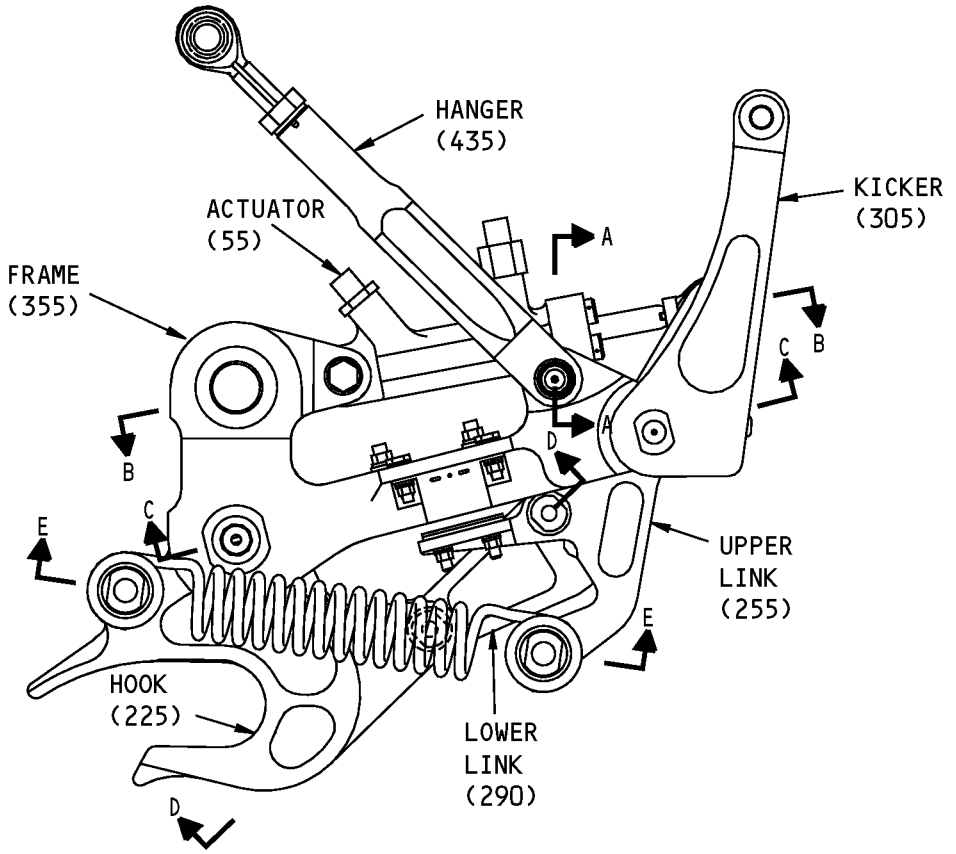
ALL DIMENSIONS ARE IN INCHES

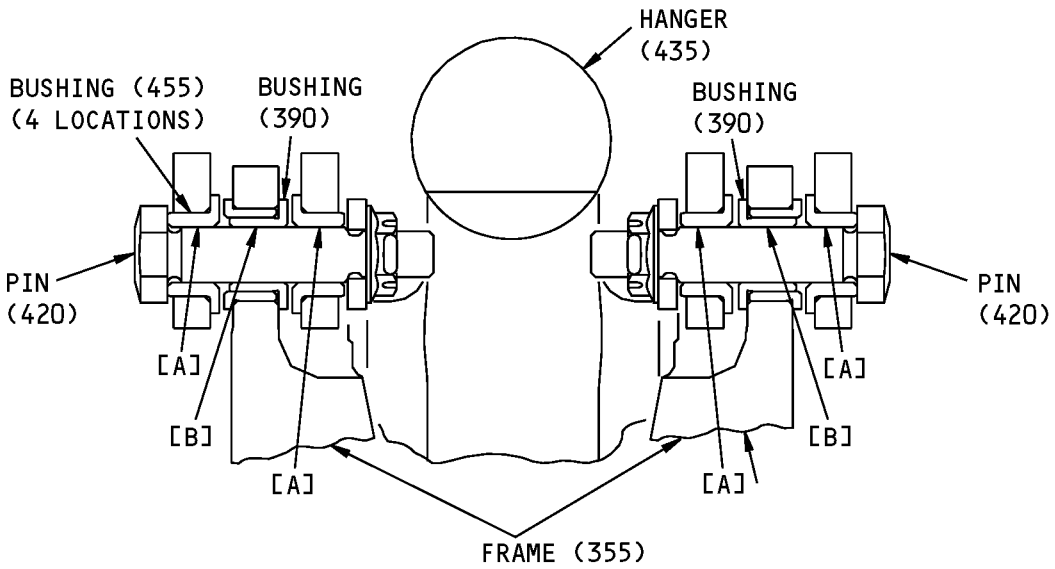
Sensor Gap Adjustment
Figure 701



Functional Check Positions
Figure 702

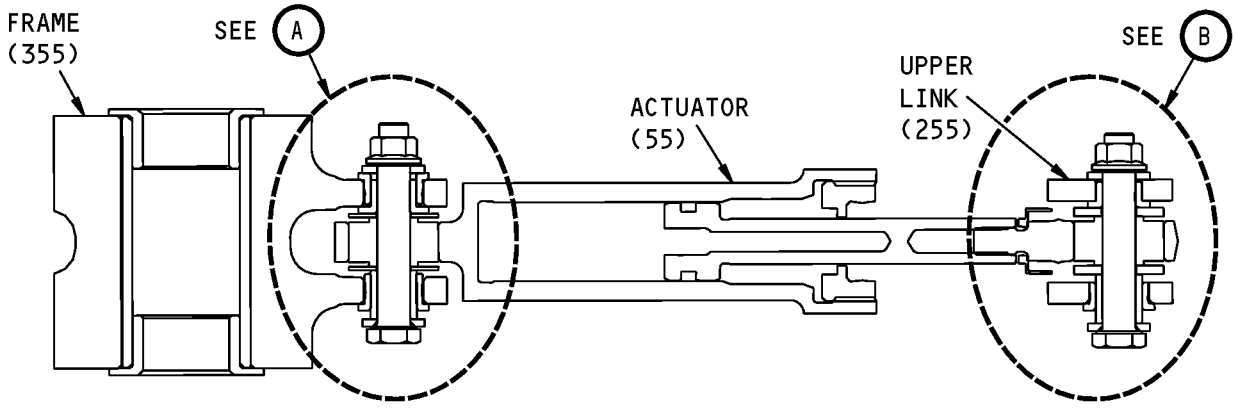
FITS AND CLEARANCES



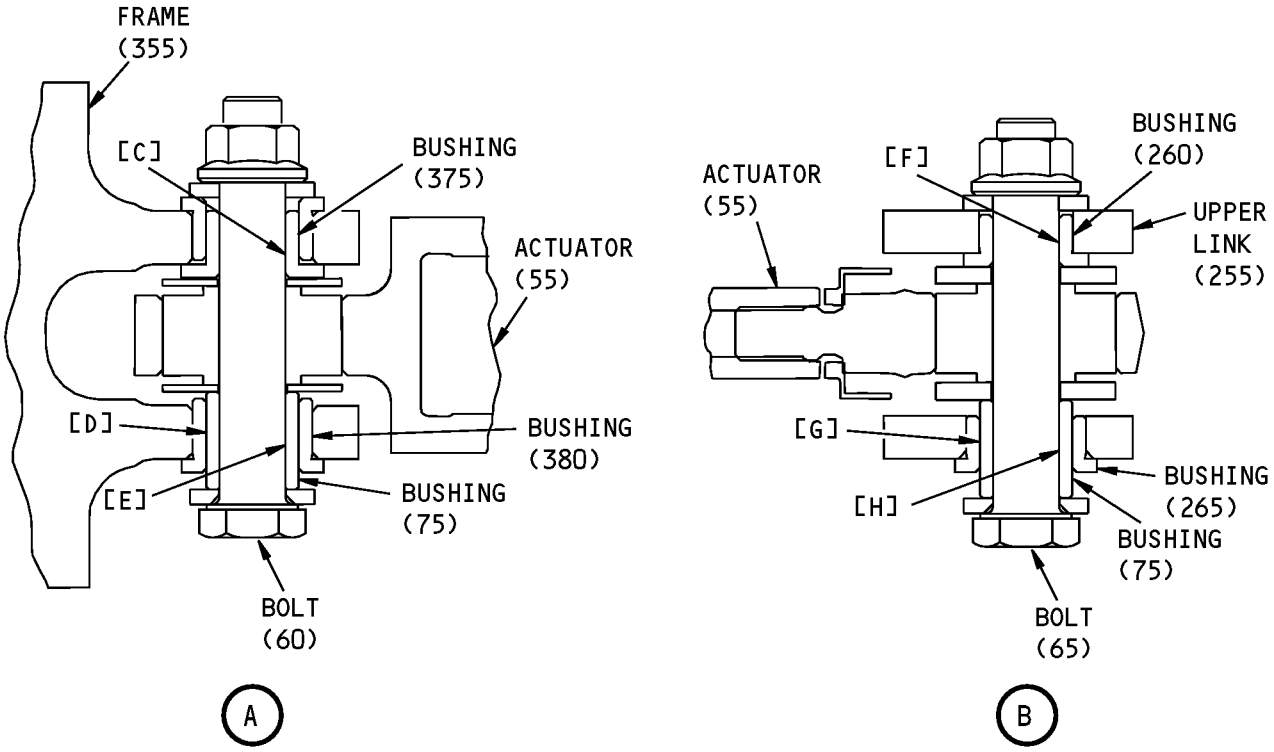


A–A

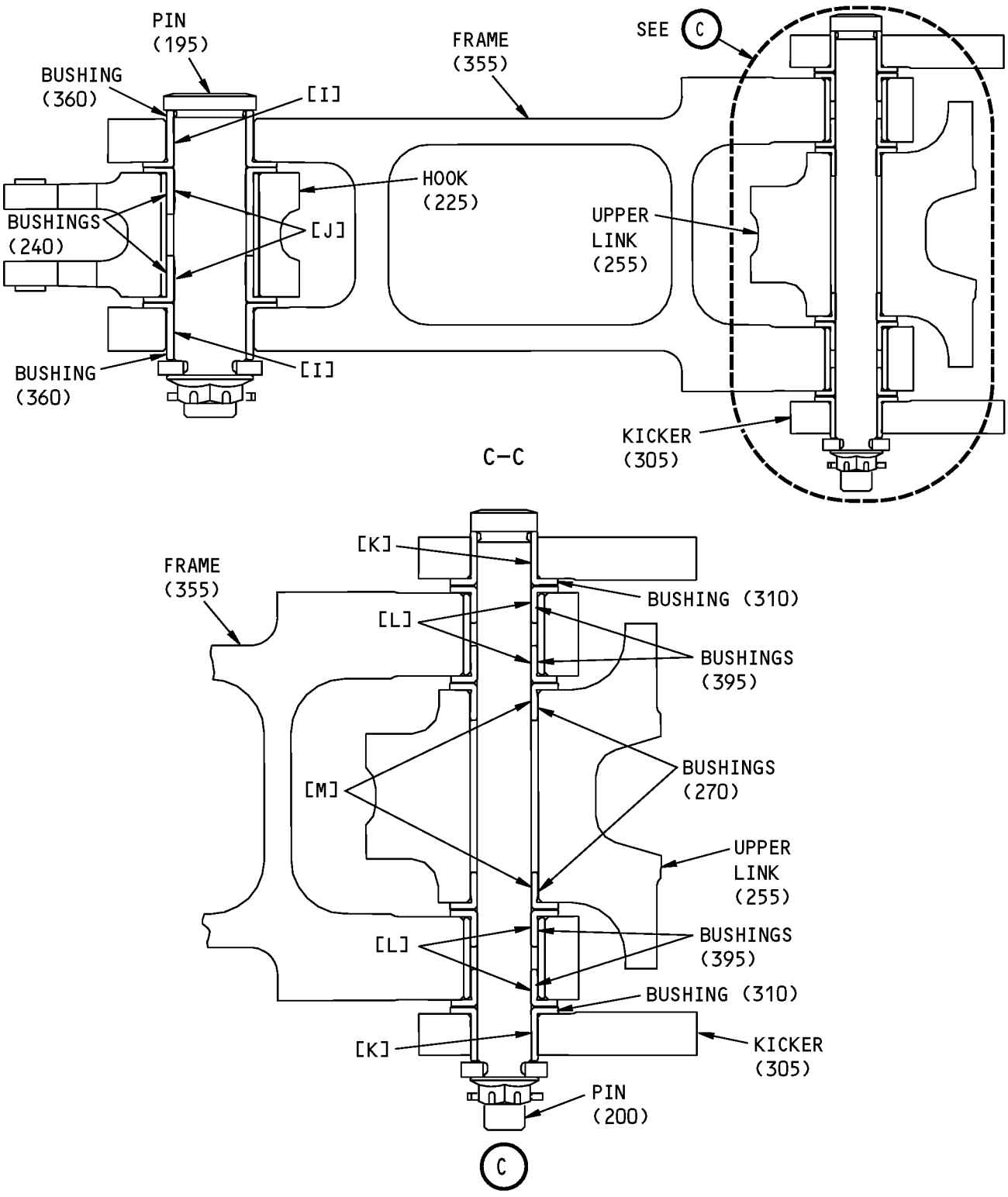
Fits and Clearances
Figure 801 (Sheet 1 of 7)



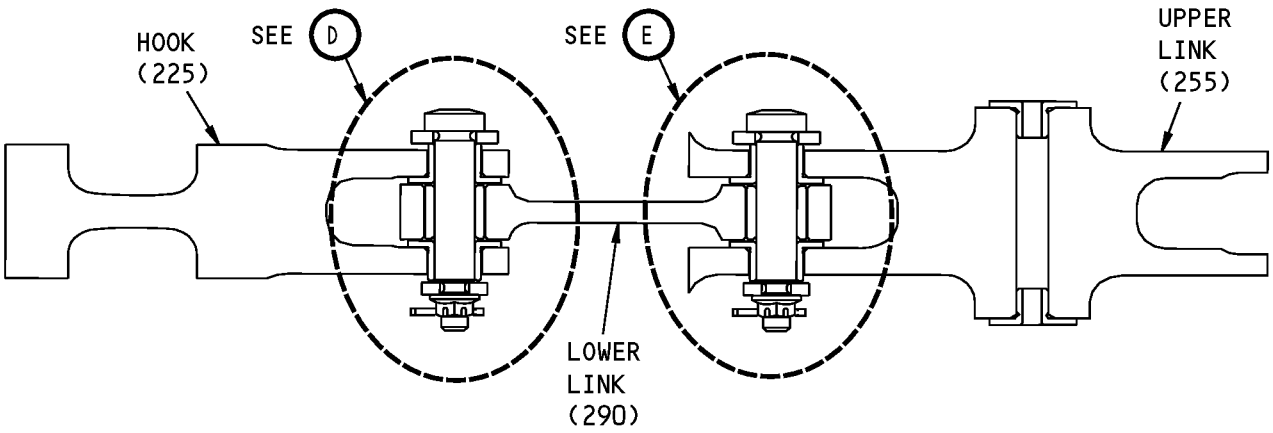
B–B



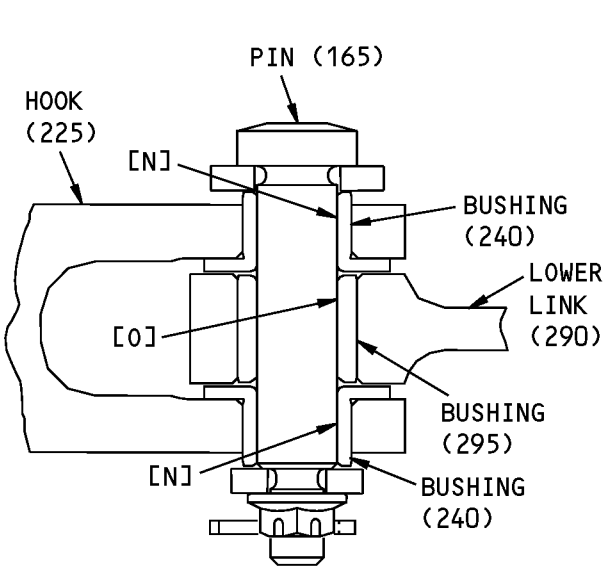
Fits and Clearances
Figure 801 (Sheet 2 of 7)



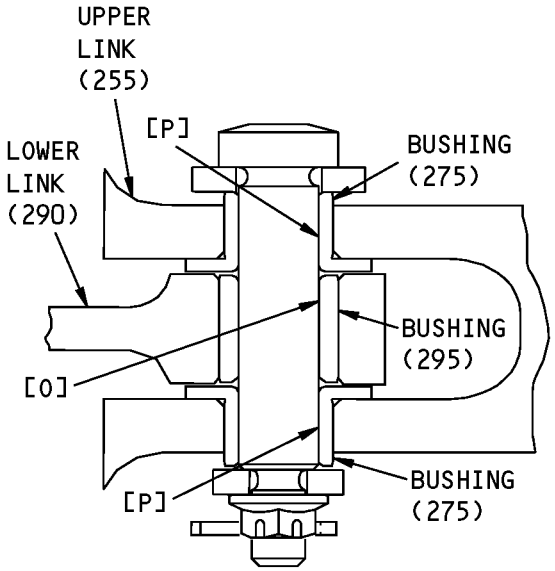
Fits and Clearances
Figure 801 (Sheet 3 of 7)



D–D

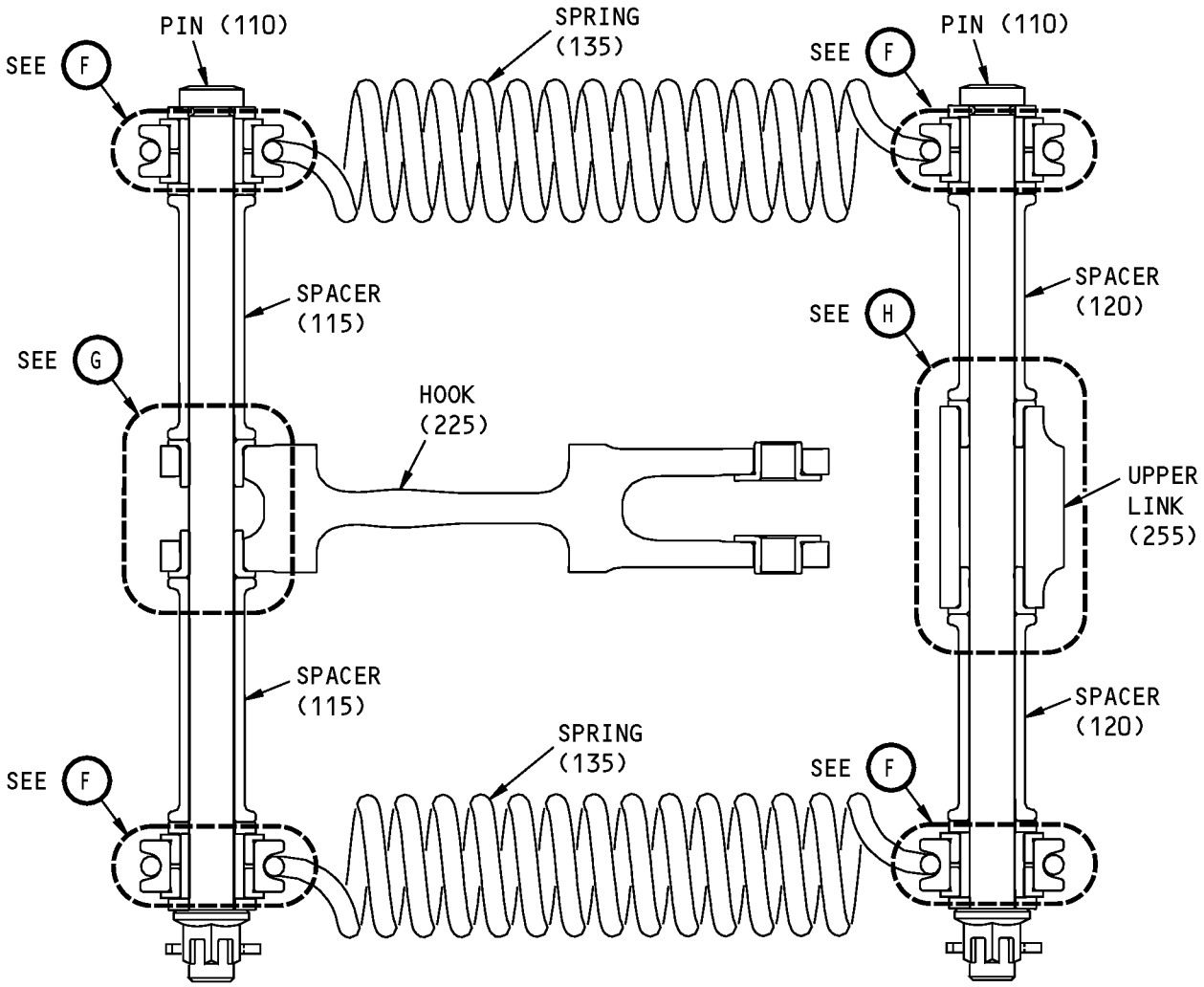


D

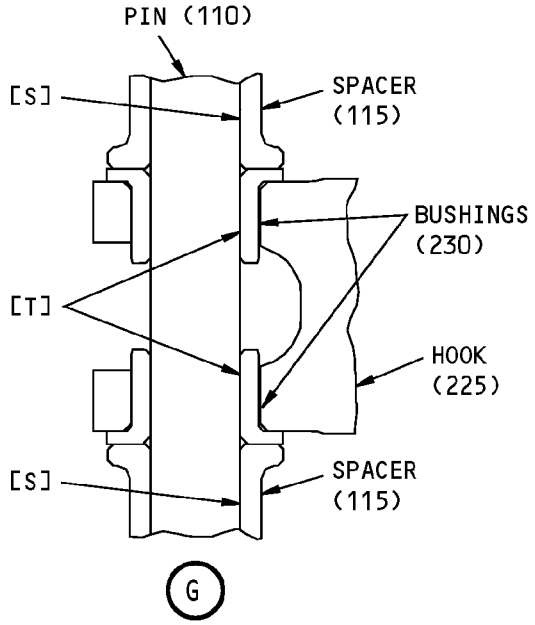


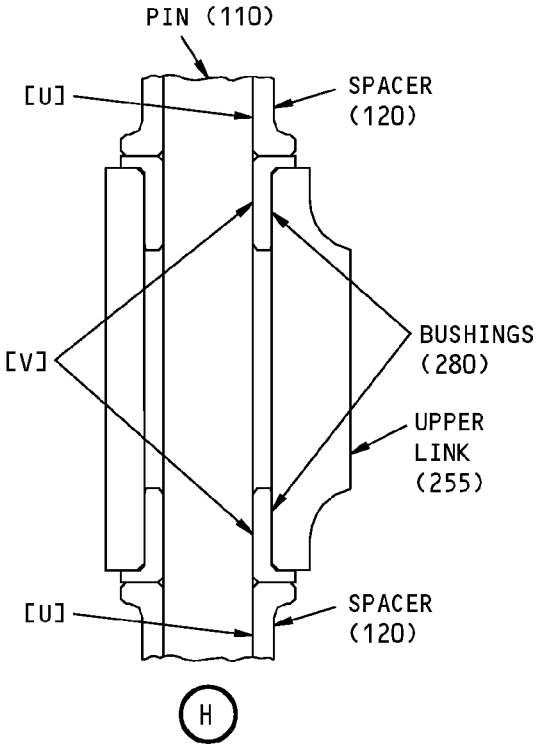
E

Fits and Clearances
Figure 801 (Sheet 4 of 7)



Fits and Clearances
Figure 801 (Sheet 5 of 7)





ITEM NUMBERS REFER TO IPL FIG. 1

REF LETTER	REF IPL FIG. 1, 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 455 OD 420	TBD 0.3740	TBD 0.3745					
[B]	ID 390 OD 420	0.3750 0.3740	0.3756 0.3745	0.0005	0.0016	0.3726	0.3773	0.0028
[C]	ID 375 OD 60	0.3125 0.3115	0.3130 0.3120	0.0005	0.0015	0.3104	0.3146	0.0026
[D]	ID 380 OD 75	0.4375 0.4365	0.4381 0.4370	0.0005	0.0016	0.4352	0.4399	0.0029
[E]	ID 75 OD 60	0.3125 0.3115	0.3130 0.3120	0.0005	0.0015	0.3104	0.3146	0.0026
[F]	ID 260 OD 65	0.3125 0.3115	0.3131 0.3120	0.0005	0.0016	0.3104	0.3147	0.0027

Fits and Clearances
Figure 801 (Sheet 6 of 7)

REF LETTER	REF IPL FIG. 1, MATING ITEM NO.	DESIGN DIMENSION*				SERVICE WEAR LIMIT*		
		DIMENSION		ASSEMBLY CLEARANCE		DIMENSION		MAXIMUM CLEARANCE
		MIN	MAX	MIN	MAX	MIN	MAX	
[G]	ID 265 OD 75	0.4375 0.4365	0.4382 0.4370	0.0005	0.0017	0.4352	0.4400	0.0030
[H]	ID 75 OD 65	0.3125 0.3115	0.3130 0.3120	0.0005	0.0015	0.3104	0.3146	0.0026
[I]	ID 360 OD 195	TBD 0.8735	TBD 0.8740					
[J]	ID 240 OD 195	TBD 0.8735	TBD 0.8740					
[K]	ID 310 OD 200	TBD 0.4990	TBD 0.4995					
[L]	ID 395 OD 200	TBD 0.4990	TBD 0.4995					
[M]	ID 270 OD 200	TBD 0.4990	TBD 0.4995					
[N]	ID 240 OD 165	TBD 0.3745	TBD 0.3750					
[O]	ID 295 OD 165	TBD 0.3745	TBD 0.3750					
[P]	ID 275 OD 165	TBD 0.3745	TBD 0.3750					
[Q]	ID 150 OD 140	0.6250 0.6235	0.6265 0.6240	0.0010	0.0030	0.6219	0.6286	0.0046
[R]	ID 140 OD 110	0.4375 0.4365	0.4380 0.4370	0.0005	0.0015	0.4352	0.4398	0.0028
[S]	ID 115 OD 110	0.4380 0.4365	0.4390 0.4370	0.0010	0.0025	0.4352	0.4408	0.0038
[T]	ID 230 OD 110	TBD 0.4365	TBD 0.4370					
[U]	ID 120 OD 110	0.4380 0.4365	0.4390 0.4370	0.0010	0.0025	0.4352	0.4408	0.0038
[V]	ID 280 OD 110	TBD 0.4365	TBD 0.4370					

* ALL DIMENSIONS ARE IN INCHES

Fits and Clearances
Figure 801 (Sheet 7 of 7)

REF IPL		NAME	TORQUE*	
FIG. NO.	ITEM NO.		POUND-INCHES 1	POUND-FEET
1	130	NUT	25-50	
1	180	NUT	20-24	
1	215	NUT	160-190	
1	220	NUT	20-24	
1	430	NUT	20-24	

* REFER TO SOPM 20-50-01 FOR TORQUE VALUES OF STANDARD FASTENERS.

1 ABOVE DRIVE TORQUE (SOPM 20-50-01). BACK OFF TO NEAREST CASTELLATION TO INSTALL COTTER PIN

Torque Table
Figure 802

(NOT APPLICABLE)

BOEING®

COMPONENT MAINTENANCE MANUAL

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
08748	CRANE ELDEC CORP 16700 13TH AVE WEST LYNNWOOD, WASHINGTON 98036 FORMERLY VB0043; FORMERLY ELECTRO DEVELOPMENT CORP; FORMERLY ELDEC CORP.
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
50632	KAMATICS CORP SUB OF KAMAN CORP 1335 BLUE HILLS ROAD BLOOMFIELD, CONNECTICUT 06002-1304
62554	SIMMONDS MECAERO FASTENERS INC 1734 SEQUOIA AVENUE ORANGE, CALIFORNIA 92668

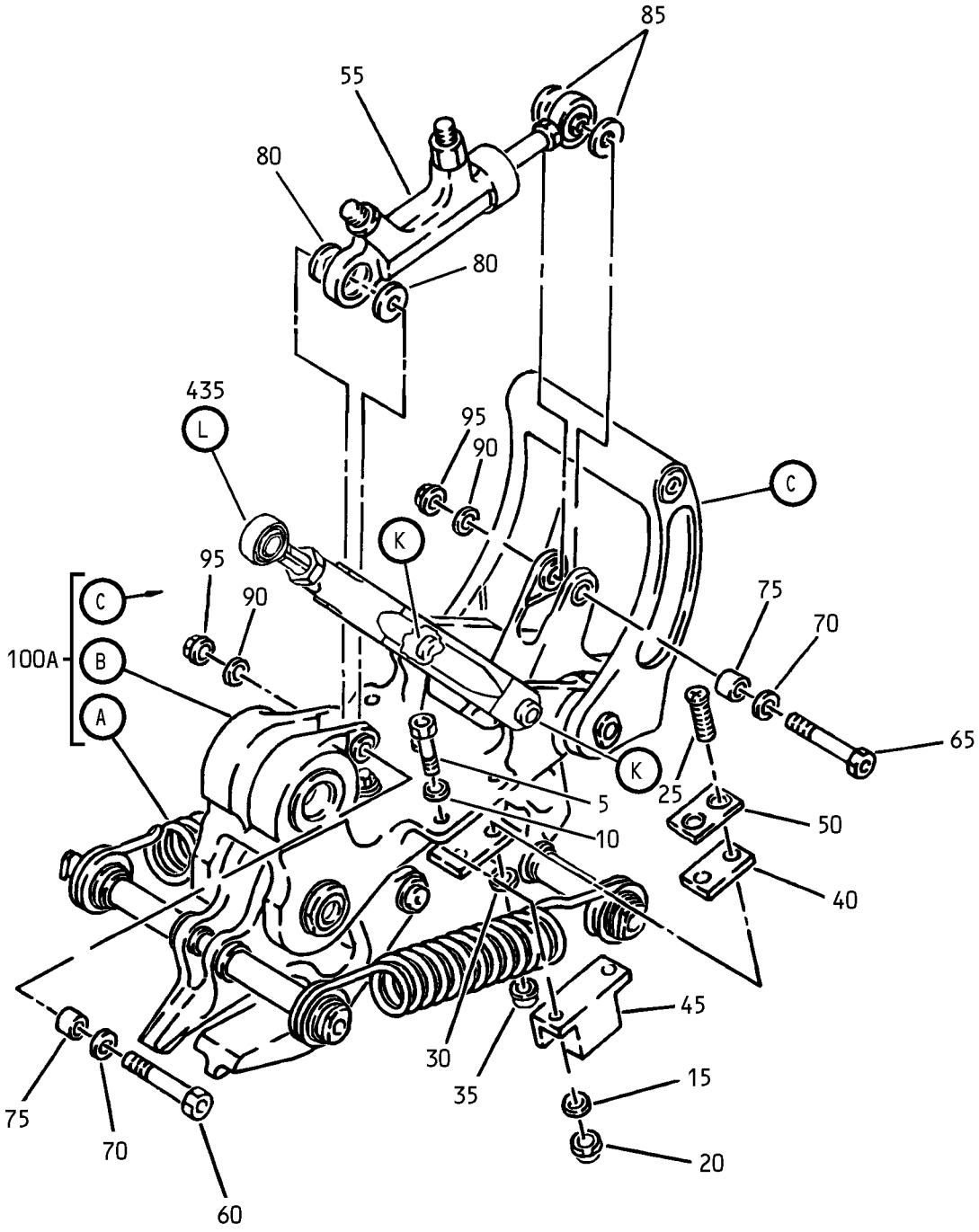
NUMERICAL INDEX

PART NUMBER	AIRLINE PART NUMBER	FIGURE	ITEM	UNITS PER ASSEMBLY
1-899-29		1	45	2
10-61226-29		1	45	2
161A6100-3		1	1B	RF
161A6100-4		1	100A	1
161A6101-1		1	355	1
161A6101-2		1	410	1
161A6102-1		1	225	1
161A6102-2		1	250	1
161A6104-3		1	290A	1
161A6104-4		1	300A	1
161A6107-1		1	170	2
161A6107-2		1	175	2
161A6107-3		1	125	8
161A6108-3		1	305A	1
161A6108-4		1	325A	1
161A6109-1		1	195	1
161A6110-1		1	200	1
161A6111-1		1	145	4
161A6111-2		1	155	1
161A6112-1		1	205	1
161A6112-2		1	210	1
161A6114-3		1	135A	2
161A6115-1		1	115	2
161A6115-2		1	120	2
161A6118-1		1	165	2
161A6119-1		1	350	1
161A6120-1		1	110	2
161A6122-3		1	255A	1
161A6122-4		1	285A	1
161A6122-6		1	285B	1
161A6126-1		1	365	2
161A6127-1		1	245	1
161A6127-2		1	400	1
161A6127-3		1	405	2

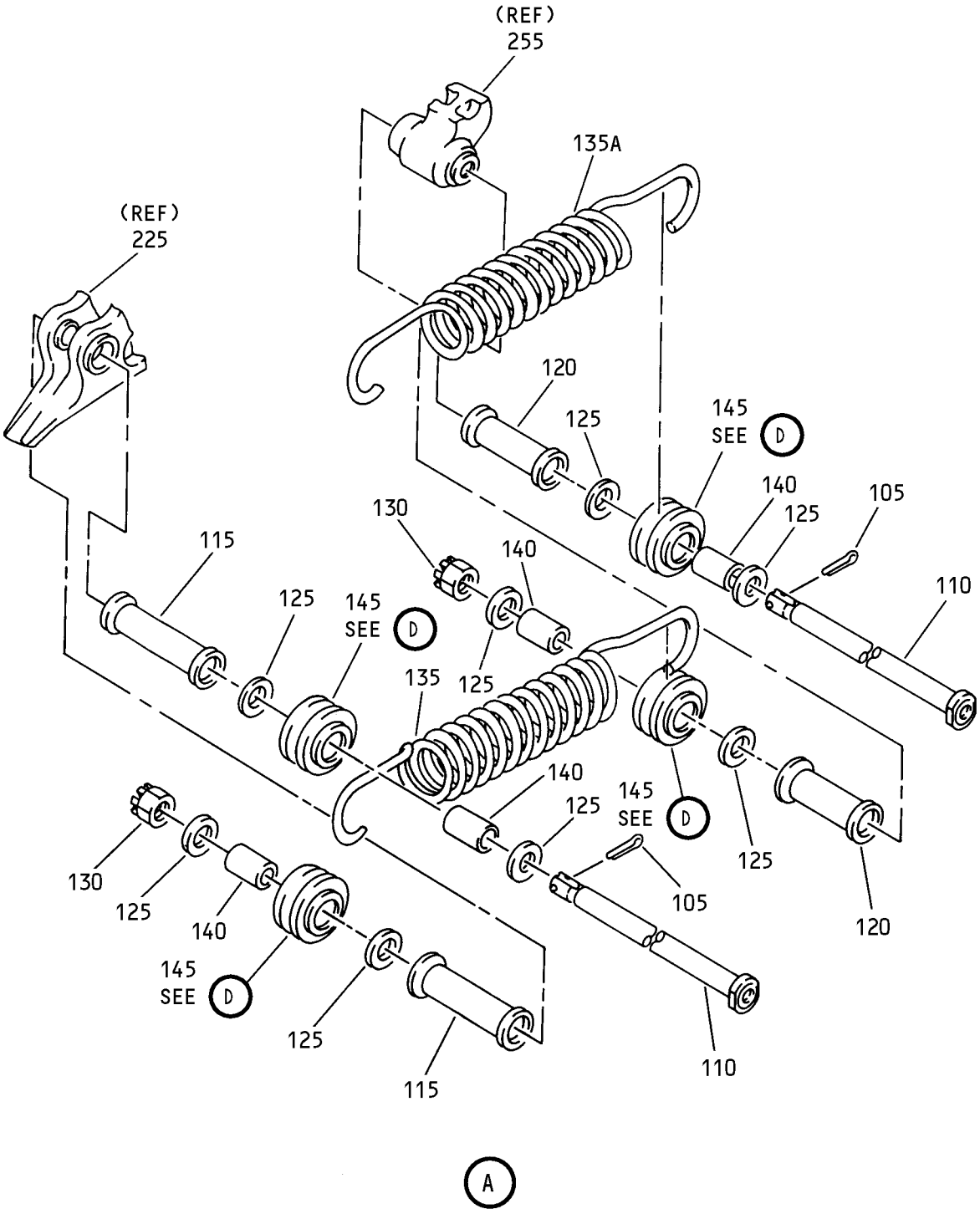
PART NUMBER	AIRLINE PART NUMBER	FIGURE	ITEM	UNITS PER ASSEMBLY
161A6127-4		1	320	1
161A6300-1		1	435	1
161A6300-2		1	460	1
161A6301-1		1	420	2
161A6302-1		1	800	1
161A6303-1		1	425	2
161A6303-2		1	805	1
273A2501-1		1	55	1
273A2509-1		1	80	2
273A2510-1		1	85	2
284A3303-1		1	50	2
284A3303-2		1	40	2
BACB28AK05-046		1	75	2
BACB28AK07-064		1	140	4
BACB28AP05-018		1	260	1
BACB28AT07B020A		1	265	1
BACB28AT07B028C		1	380	1
BACB28AT07D023C		1	370	1
BACB28AT08D029C		1	385	2
BACB28AU05D025C		1	375	1
BACB28AU06B033A		1	390	2
BACB28X10M023		1	150	2
BACB30LJ4-10		1	330	2
BACN10YR3CD		1	35	4
BACN10YR3CM		1	20	4
BACN10YR4CD		1	345	2
BACN10YR5CM		1	95	2
BACN11N104CD		1	180	2
BACN11N105CD		1	430	2
BACN11N106CD		1	220	1
BACN11N110CD		1	215	1
		1	810	1
BACN11N7CS		1	130	2
BACP18BC02A04P		1	415	2
BACP18BC02A06P		1	160A	2

PART NUMBER	AIRLINE PART NUMBER	FIGURE	ITEM	UNITS PER ASSEMBLY
		1	190A	1
BACP18BC03A06H		1	105	2
BACP18BC03A10P		1	185A	1
BACP18BC04A10P		1	815	1
BACW10BP4CD		1	335	2
BACW10BP4DP		1	340	2
BACW10BP5ACU		1	70	2
BACW10BP5APU		1	90	2
BCREF10585		1	455	4
BCREF12308		1	230	2
		1	280	2
H52732-3CD		1	35	4
H52732-3CM		1	20	4
H52732-4CD		1	345	2
H52732-5CM		1	95	2
KJB164500B06050		1	295	2
KJB165000B06-029		1	455	4
KJB165000B07-040		1	230	2
		1	280	2
KRJ14UDSB020		1	235	2
		1	360	2
KRJ6UDSB010		1	240A	2
		1	275	2
KRJ6UDSB012		1	315	2
KRJ8UDSB009		1	270	2
		1	395	4
KRJ8UDSB014		1	310	2
MS14144L7		1	130A	2
MS14145L10		1	215A	1
MS14145L4		1	180A	2
MS14145L6		1	220A	1
MS35338-138		1	15	4
		1	30	4
NAS1149E0332P		1	10	4
NAS1193K8CP		1	450	1

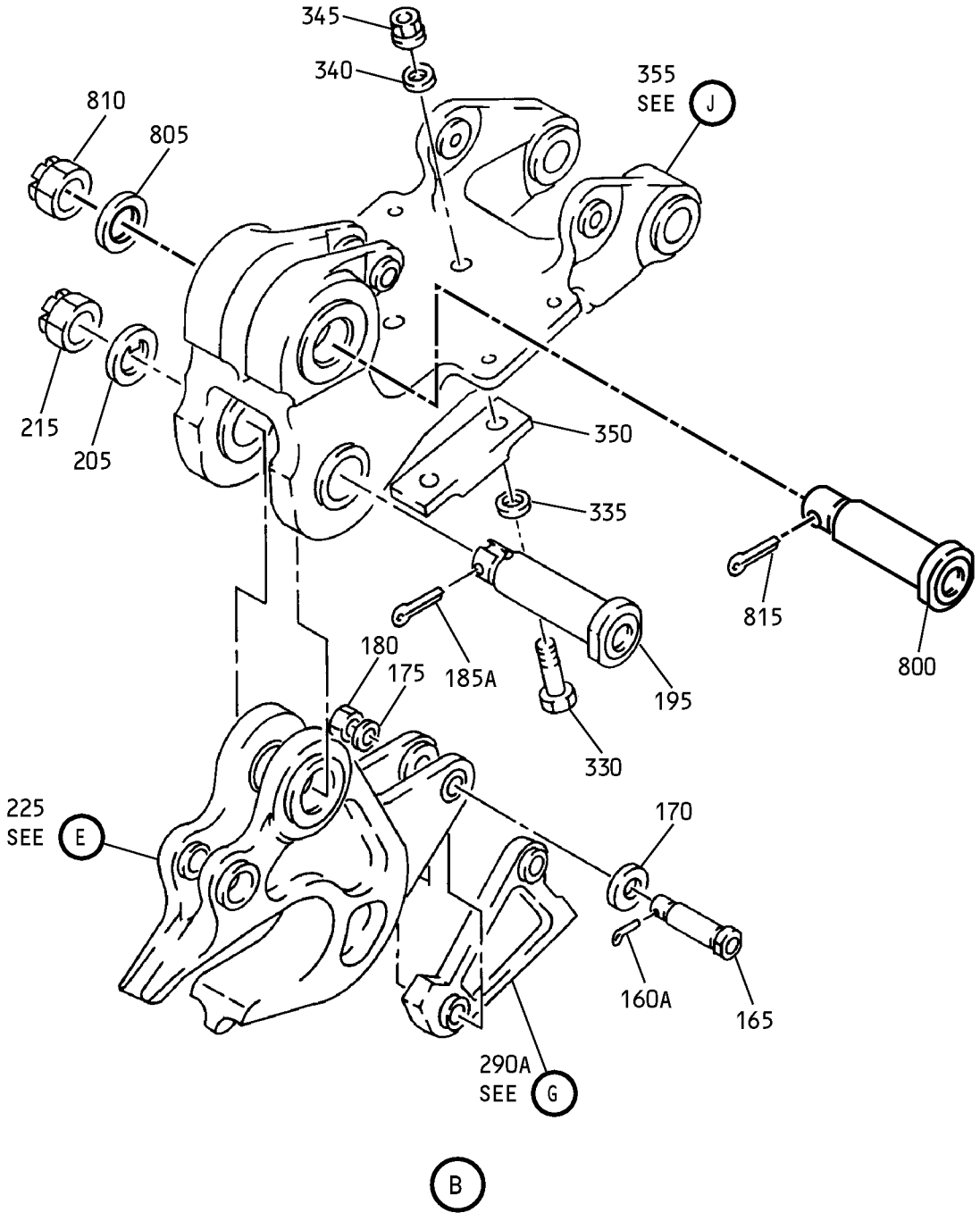
PART NUMBER	AIRLINE PART NUMBER	FIGURE	ITEM	UNITS PER ASSEMBLY
NAS509-8C		1	445	1
NAS514P1032-12		1	25	4
NAS6703-6		1	5	4
NAS6705U22		1	65	1
NAS6705U23		1	60	1
OPT		1	285A	1
PLH53CD		1	35	4
PLH53CM		1	20	4
PLH54CD		1	345	2
PLH55CM		1	95	2
S012T235-17		1	440	1



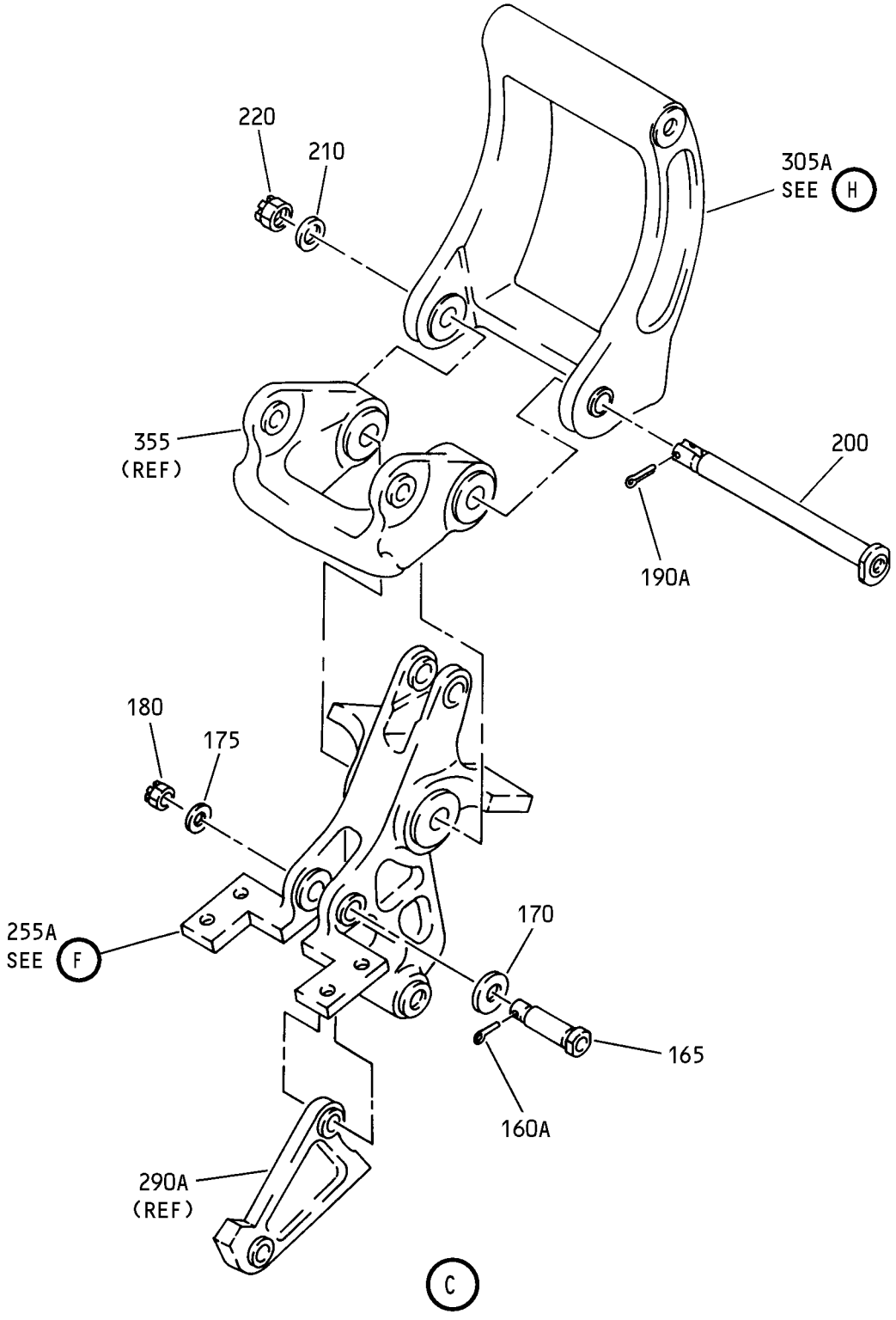
Main Landing Gear Uplock Assembly
IPL Figure 1 (Sheet 1 of 8)



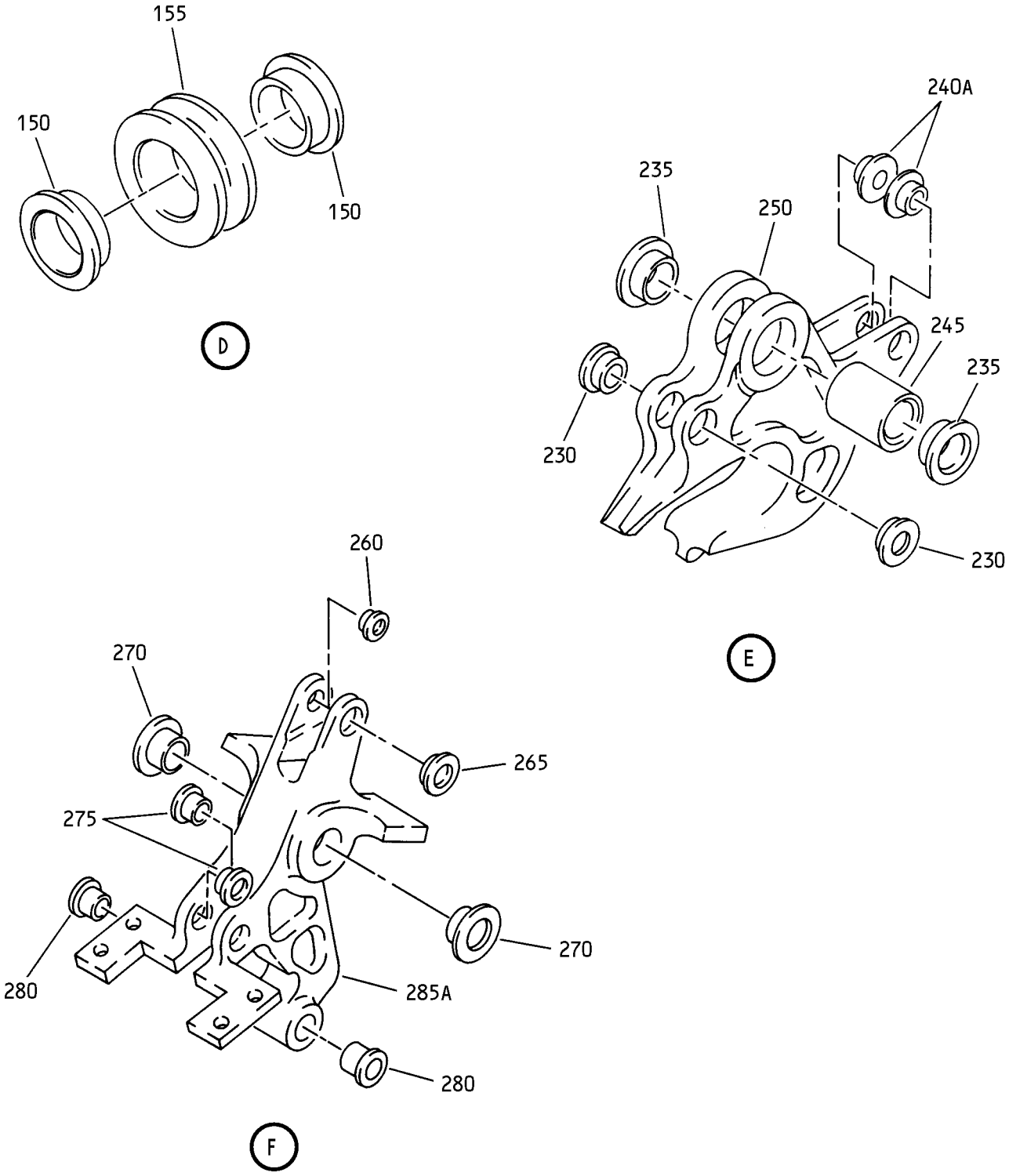
Main Landing Gear Uplock Assembly
IPL Figure 1 (Sheet 2 of 8)



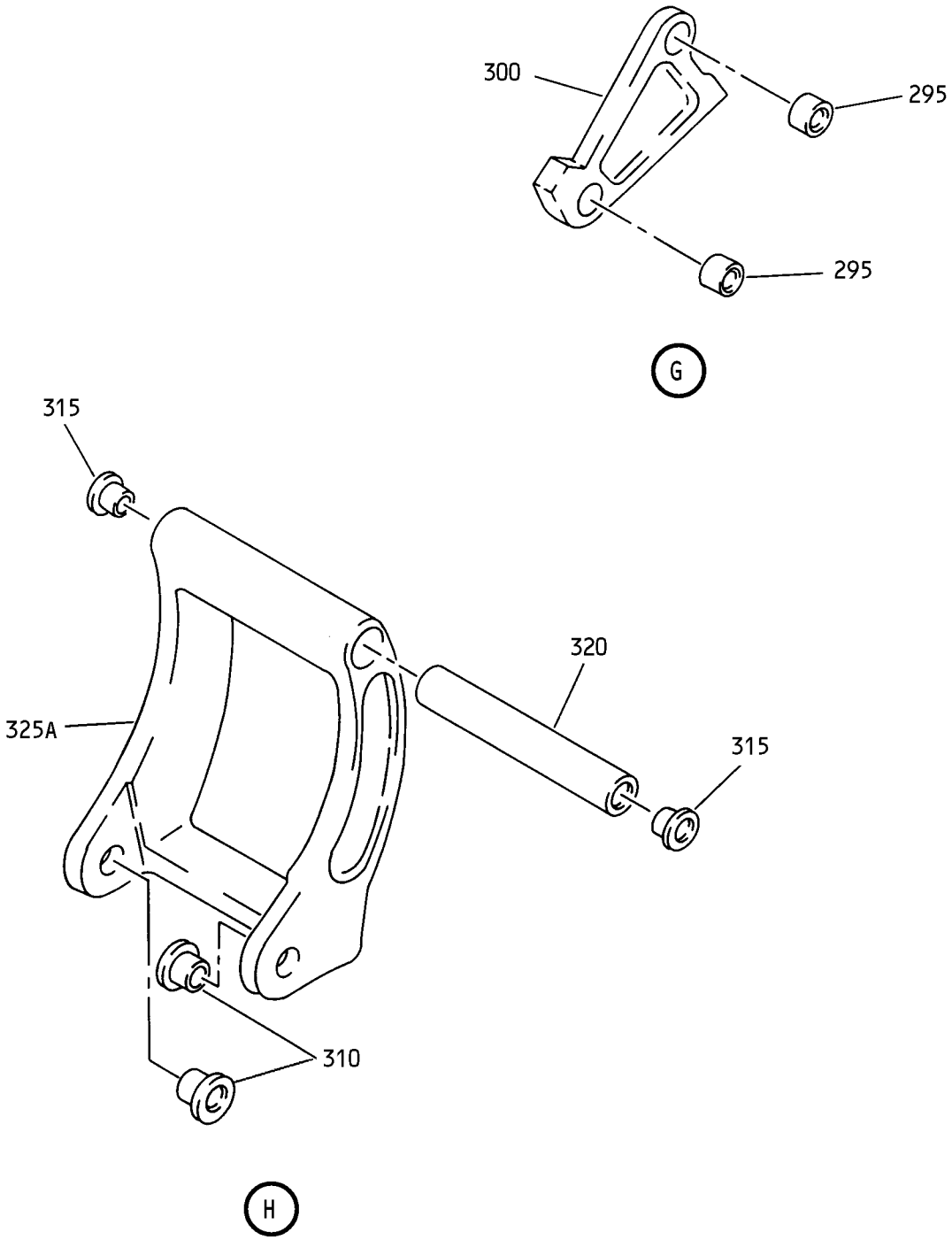
Main Landing Gear Uplock Assembly
IPL Figure 1 (Sheet 3 of 8)



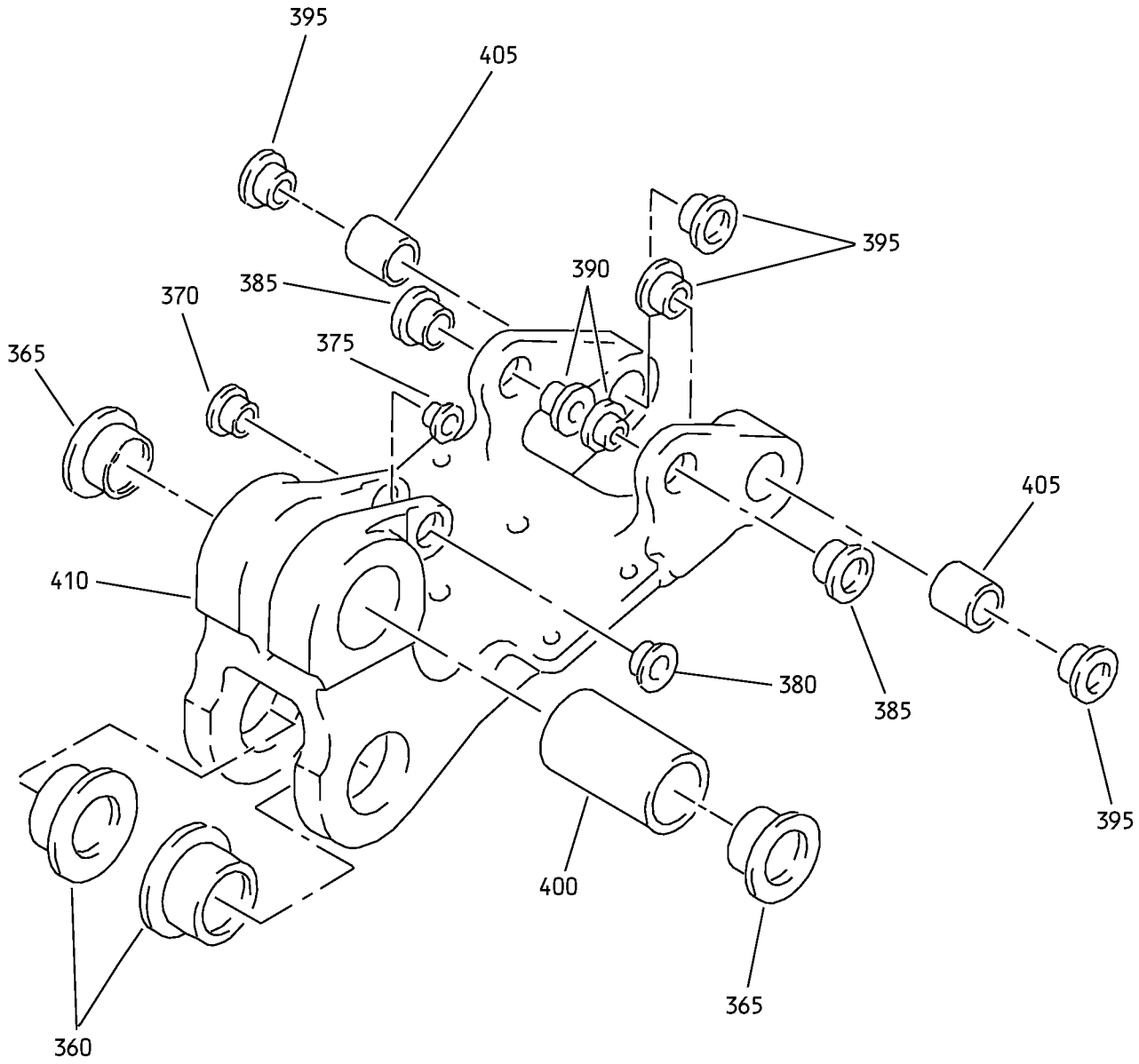
Main Landing Gear Uplock Assembly
IPL Figure 1 (Sheet 4 of 8)



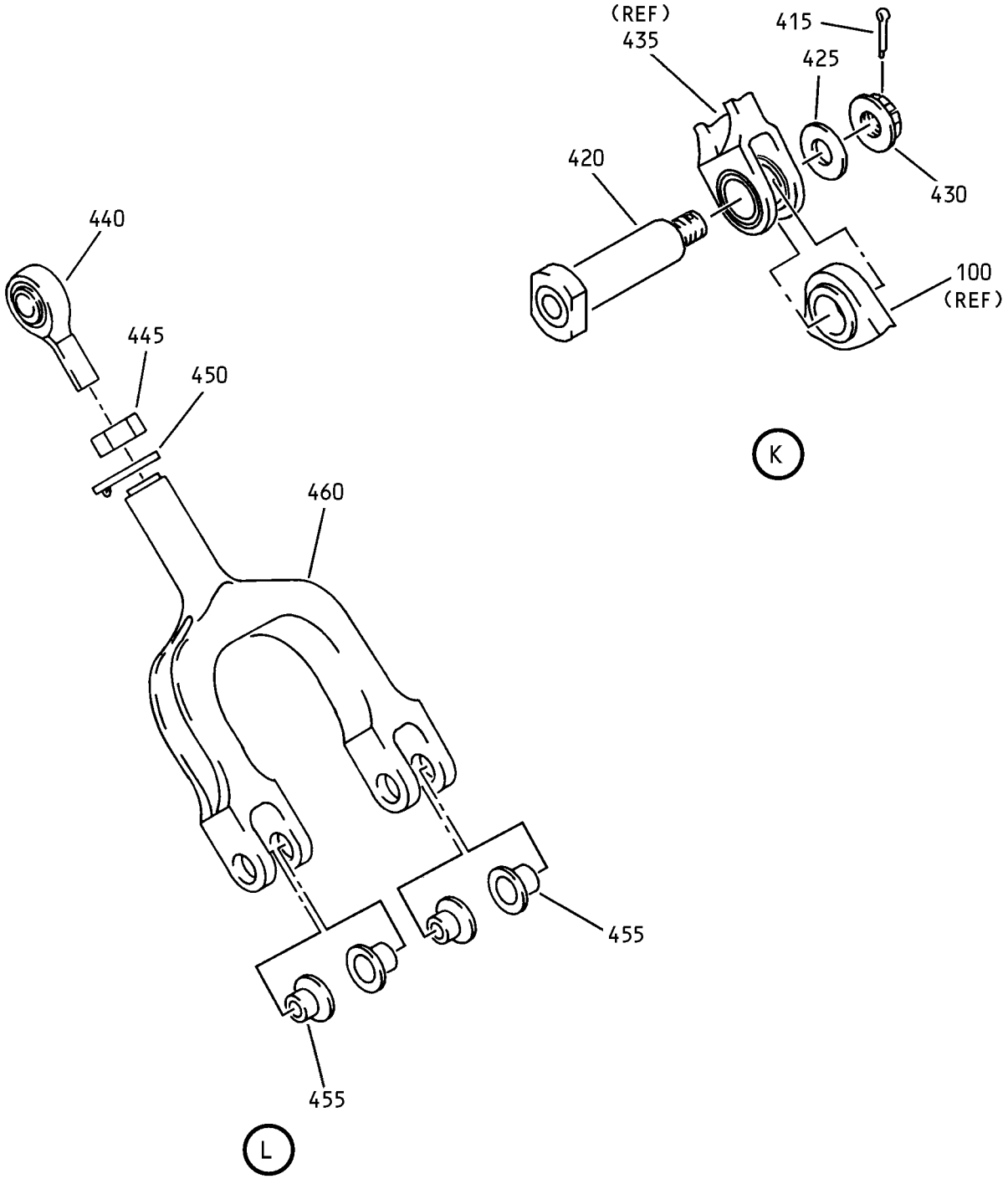
Main Landing Gear Uplock Assembly
IPL Figure 1 (Sheet 5 of 8)



Main Landing Gear Uplock Assembly
IPL Figure 1 (Sheet 6 of 8)



Main Landing Gear Uplock Assembly
IPL Figure 1 (Sheet 7 of 8)



Main Landing Gear Uplock Assembly
IPL Figure 1 (Sheet 8 of 8)

FIG/ ITEM	PART NUMBER	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USAGE CODE	UNITS PER ASSY
1–					
–1A	161A6100-1		DELETED		
–1B	161A6100-3		UPLOCK ASSY-MLG		RF
5	NAS6703-6		. BOLT		4
10	NAS1149E0332P		. WASHER		4
15	MS35338-138		. WASHER		4
20	H52732-3CM		. NUT (V15653) (SPEC BACN10YR3CM) (OPT PLH53CM (V62554))		4
25	NAS514P1032-12		. SCREW		4
30	MS35338-138		. WASHER		4
35	H52732-3CD		. NUT (V15653) (SPEC BACN10YR3CD) (OPT PLH53CD (V62554))		4
40	284A3303-2		. SHIM-TARGET		2
45	1-899-29		. SENSOR (V08748) (SPEC 10-61226-29)		2
50	284A3303-1		. TARGET-PROX SWITCH		2
55	273A2501-1		. ACTUATOR ASSY (REFER TO CMM 32-32-42)		1
			ATTACHING PARTS		
60	NAS6705U23		. BOLT		1
65	NAS6705U22		. BOLT		1
70	BACW10BP5ACU		. WASHER		2
75	BACB28AK05-046		. BUSHING		2
80	273A2509-1		. WASHER		2
85	273A2510-1		. WASHER		2
90	BACW10BP5APU		. WASHER		2
95	H52732-5CM		. NUT (V15653) (SPEC BACN10YR5CM) (OPT PLH55CM (V62554))		2
			- - - - - - - * - - - - - - -		

–Item not Illustrated

FIG/ ITEM	PART NUMBER	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USAGE CODE	UNITS PER ASSY
1–					
–100	161A6100-2		DELETED		
100A	161A6100-4		. UPLOCK ASSY-SUB		1
105	BACP18BC03A06H		. . PIN-COTTER		2
110	161A6120-1		. . PIN-SPR PIVOT		2
115	161A6115-1		. . SPACER-SPR		2
120	161A6115-2		. . SPACER-SPR		2
125	161A6107-3		. . WASHER-PLAIN		8
130	BACN11N7CS		. . NUT (OPT ITEM 130A)		2
–130A	MS14144L7		. . NUT (OPT ITEM 130)		2
135	161A6114-1		DELETED		
135A	161A6114-3		. . SPRING (REFERENCE SL 32-123)		2
140	BACB28AK07-064		. . BUSHING		4
145	161A6111-1		. . SPOOL ASSY		4
150	BACB28X10M023		. . . BUSHING		2
155	161A6111-2		. . . SPOOL		1
160	BACP18BC02A06H		DELETED		
160A	BACP18BC02A06P		. . PIN-COTTER		2
165	161A6118-1		. . PIN-LWR LINK		2
170	161A6107-1		. . WASHER-PLAIN		2
175	161A6107-2		. . WASHER-PLAIN		2
180	BACN11N104CD		. . NUT (OPT ITEM 180A)		2
–180A	MS14145L4		. . NUT (OPT ITEM 180)		2
185	BACP18BC03A10H		DELETED		
185A	BACP18BC03A10P		. . PIN-COTTER		1
190	BACP18BC02A06H		DELETED		
190A	BACP18BC02A06P		. . PIN-COTTER		1
195	161A6109-1		. . PIN-HOOK PIVOT		1
200	161A6110-1		. . PIN-UPR LINK PIVOT		1

–Item not Illustrated

FIG/ ITEM	PART NUMBER	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USAGE CODE	UNITS PER ASSY
1–					
205	161A6112-1		. . WASHER-TANG		1
210	161A6112-2		. . WASHER-TANG		1
215	BACN11N110CD		. . NUT (OPT ITEM 215A)		1
–215A	MS14145L10		. . NUT (OPT ITEM 215)		1
220	BACN11N106CD		. . NUT (OPT ITEM 220A)		1
–220A	MS14145L6		. . NUT (OPT ITEM 220)		1
225	161A6102-1		. . HOOK ASSY		1
230	BCREF12308		. . . BUSHING (V50632) (KJB165000B07-040)		2
235	KRJ14UDSB020		. . . BUSHING (V50632)		2
240	KRJ6USDB010		DELETED		
240A	KRJ6UDSB010		. . . BUSHING (V50632)		2
245	161A6127-1		. . . SLEEVE		1
250	161A6102-2		. . . HOOK		1
255	161A6122-1		DELETED		
255A	161A6122-3		. . LINK ASSY-UPR		1
260	BACB28AP05-018		. . . BUSHING		1
265	BACB28AT07B020A		. . . BUSHING		1
270	KRJ8UDSB009		. . . BUSHING (V50632)		2
275	KRJ6UDSB010		. . . BUSHING (V50632)		2
280	BCREF12308		. . . BUSHING (V50632) (KJB165000B07-040)		2
285	161A6122-2		DELETED		
285A	161A6122-4		. . . LINK (OPT)		1
–285B	161A6122-6		. . . LINK		1

–Item not Illustrated

FIG/ ITEM	PART NUMBER	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USAGE CODE	UNITS PER ASSY
1–					
290	161A6104-1		DELETED		
290A	161A6104-3		. . LINK ASSY-LWR		1
295	KJB164500B06050		. . . BUSHING (V50632)		2
300	161A6104-2		DELETED		
300A	161A6104-4		. . . LINK		1
305	161A6108-1		DELETED		
305A	161A6108-3		. . KICKER ASSY		1
310	KRJ8UDSB014		. . . BUSHING (V50632)		2
315	KRJ6UDSB012		. . . BUSHING (V50632)		2
320	161A6127-4		. . . SLEEVE		1
325	161A6108-2		DELETED		
325A	161A6108-4		. . . KICKER		1
330	BACB30LJ4-10		. . BOLT		2
335	BACW10BP4CD		. . WASHER		2
340	BACW10BP4DP		. . WASHER		2
345	H52732-4CD		. . NUT (V15653) (SPEC BACN10YR4CD) (OPT PLH54CD (V62554))		2
350	161A6119-1		. . FITTING-STOP		1
355	161A6101-1		. . FRAME ASSY		1
360	KRJ14UDSB020		. . . BUSHING (V50632)		2
365	161A6126-1		. . . BUSHING		2
370	BACB28AT07D023C		. . . BUSHING		1
375	BACB28AU05D025C		. . . BUSHING		1
380	BACB28AT07B028C		. . . BUSHING		1
385	BACB28AT08D029C		. . . BUSHING		2
390	BACB28AU06B033A		. . . BUSHING		2
395	KRJ8UDSB009		. . . BUSHING (V50632)		4

FIG/ ITEM	PART NUMBER	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USAGE CODE	UNITS PER ASSY
1–					
400	161A6127-2		. . . SLEEVE		1
405	161A6127-3		. . . SLEEVE		2
410	161A6101-2		. . . FRAME		1
415	BACP18BC02A04P		. PIN-COTTER		2
420	161A6301-1		. PIN (REFERENCE SL 32-130)		2
425	161A6303-1		. WASHER		2
430	BACN11N105CD		. NUT		2
435	161A6300-1		. HANGER ASSY		1
440	S012T235-17		. . ROD END		1
445	NAS509-8C		. . NUT		1
450	NAS1193K8CP		. . LOCK		1
455	BCREF10585		. . BUSHING (V50632) (KJB165000B06-029)		4
460	161A6300-2		. . HANGER		1
			INSTALLATION PARTS		
800	161A6302-1		PIN-UPLOCK ATTACH		1
805	161A6303-2		WASHER		1
810	BACN11N110CD		NUT		1
815	BACP18BC04A10P		PIN-COTTER		1

–Item not Illustrated