



COMPONENT MAINTENANCE MANUAL WITH ILLUSTRATED PARTS LIST

OUTBOARD FLAP CARRIAGE ASSEMBLY

PART NUMBER

**65-46481-101, -102, -103, -104, -105, -106, -107,
-108, -109, -110, -111, -112, -113, -114, -115, -116,
-117, -118, -119, -120, -121, -122, -123, -124, -133,
-134, -135, -136, -143, -144, -145, -146, -147, -148,**

BOEING PROPRIETARY, CONFIDENTIAL, AND/OR TRADE SECRET

Copyright © 1995 The Boeing Company
Unpublished Work - All Rights Reserved

Boeing claims copyright in each page of this document only to the extent that the page contains copyrightable subject matter. Boeing also claims copyright in this document as a compilation and/or collective work.

This document includes proprietary information owned by The Boeing Company and/or one or more third parties. Treatment of the document and the information it contains is governed by contract with Boeing. For more information, contact The Boeing Company, P.O. Box 3707, Seattle, Washington 98124.

Boeing, the Boeing signature, the Boeing symbol, 707, 717, 727, 737, 747, 757, 767, 777, 787, Dreamliner, BBJ, DC-8, DC-9, DC-10, KC-10, KDC-10, MD-10, MD-11, MD-80, MD-88, MD-90, P-8A, Poseidon and the Boeing livery are all trademarks owned by The Boeing Company; and no trademark license is granted in connection with this document unless provided in writing by Boeing.

PUBLISHED BY BOEING COMMERCIAL AIRPLANES GROUP, SEATTLE, WASHINGTON, USA
A DIVISION OF THE BOEING COMPANY
PAGE DATE: Jul 01/2009

57-53-36

Page 1
Jul 01/2009



COMPONENT MAINTENANCE MANUAL

PART NUMBER (Cont.)

65-46481-149, -150, -87, -88, -89, -90, -91, -92, -93, -94, -97, -98,
65C34483-5, -6, -7, -8

57-53-36

Page 2
Jul 01/2009



COMPONENT MAINTENANCE MANUAL

Revision No. 44
Jul 01/2009

To: All holders of OUTBOARD FLAP CARRIAGE ASSEMBLY 57-53-36.

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.

ATTENTION

IF YOU RECEIVE PRINTED REVISIONS, PLEASE VERIFY THAT YOU HAVE RECEIVED AND FILED THE PREVIOUS REVISION. BOEING MUST BE NOTIFIED WITHIN 30 DAYS IF YOU HAVE NOT RECEIVED THE PREVIOUS REVISION. REQUESTS FOR REVISIONS OTHER THAN THE PREVIOUS REVISION WILL REQUIRE A COMPLETE MANUAL REPRINT SUBJECT TO REPRINT CHARGES SHOWN IN THE DATA AND SERVICES CATALOG.

57-53-36

TRANSMITTAL LETTER

Page 1

Jul 01/2009



COMPONENT MAINTENANCE MANUAL

Location of Change

57-53-36

FITS AND CLEARANCES

Description of Change

Added changes based on latest drawing release.

57-53-36

HIGHLIGHTS

Page 1

Jul 01/2009



COMPONENT MAINTENANCE MANUAL

Subject/Page	Date	Subject/Page	Date	Subject/Page	Date
TITLE PAGE		57-53-36 CLEANING (cont)		57-53-36 REPAIR 2-1 (cont)	
O 1	Jul 01/2009	402	BLANK	625	Mar 01/2008
O 2	Jul 01/2009	57-53-36 CHECK		626	Mar 01/2008
57-53-36 TRANSMITTAL LETTER		501	Nov 01/2008	627	Mar 01/2008
O 1	Jul 01/2009	502	BLANK	628	Nov 01/2008
2	BLANK	57-53-36 REPAIR - GENERAL		629	Mar 01/2007
57-53-36 HIGHLIGHTS		601	Mar 01/2006	630	Mar 01/2007
O 1	Jul 01/2009	602	Mar 01/2006	57-53-36 REPAIR 2-2	
2	BLANK	57-53-36 REPAIR 1-1		601	Nov 01/2008
57-53-36 EFFECTIVE PAGES		601	Mar 01/2008	602	Nov 01/2008
1 thru 2	Jul 01/2009	602	Mar 01/2006	603	Nov 01/2008
57-53-36 CONTENTS		603	Mar 01/2008	604	Nov 01/2008
1	Mar 01/2006	604	Mar 01/2006	605	Nov 01/2008
2	BLANK	605	Mar 01/2006	606	Nov 01/2008
57-53-36 TR AND SB RECORD		606	BLANK	607	Nov 01/2008
1	Nov 01/2008	57-53-36 REPAIR 2-1		608	Nov 01/2008
2	BLANK	601	Jul 01/2008	609	Nov 01/2008
57-53-36 REVISION RECORD		602	Mar 01/2008	610	Nov 01/2008
1	Mar 01/2006	603	Mar 01/2008	611	Nov 01/2008
2	Mar 01/2006	604	Mar 01/2008	612	Nov 01/2008
57-53-36 RECORD OF TEMPORARY REVISIONS		605	Nov 01/2008	613	Nov 01/2008
1	Mar 01/2006	606	Nov 01/2008	614	Nov 01/2008
2	Mar 01/2006	607	Nov 01/2008	615	Nov 01/2008
57-53-36 INTRODUCTION		608	Mar 01/2007	616	Nov 01/2008
1	Mar 01/2009	609	Mar 01/2007	617	Nov 01/2008
2	BLANK	610	Mar 01/2007	618	Nov 01/2008
57-53-36 DESCRIPTION AND OPERATION		611	Mar 01/2007	619	Nov 01/2008
1	Mar 01/2006	612	Mar 01/2007	620	BLANK
2	BLANK	613	Mar 01/2007	57-53-36 REPAIR 3-1	
57-53-36 TESTING AND FAULT ISOLATION		614	Mar 01/2007	601	Nov 01/2008
101	Mar 01/2006	615	Mar 01/2007	602	Nov 01/2008
102	BLANK	616	Mar 01/2007	57-53-36 ASSEMBLY	
57-53-36 DISASSEMBLY		617	Mar 01/2007	701	Jul 01/2008
301	Nov 01/2008	618	Nov 01/2008	702	Nov 01/2008
302	BLANK	619	Mar 01/2008	703	Nov 01/2008
57-53-36 CLEANING		620	Mar 01/2008	704	Nov 01/2008
401	Mar 01/2006	621	Nov 01/2008	705	Mar 01/2009
		622	Mar 01/2008	706	Mar 01/2009
		623	Mar 01/2007	707	Jul 01/2007
		624	Mar 01/2008	708	Jul 01/2007

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

57-53-36

EFFECTIVE PAGES

Page 1

Jul 01/2009



COMPONENT MAINTENANCE MANUAL

Subject/Page	Date	Subject/Page	Date	Subject/Page	Date
57-53-36 ASSEMBLY (cont)		57-53-36 ILLUSTRATED PARTS LIST (cont)		57-53-36 ILLUSTRATED PARTS LIST (cont)	
709	Jul 01/2007	1018	Jul 01/2007	1056	Jul 01/2007
710	Jul 01/2007	1019	Jul 01/2007	1057	Jul 01/2007
711	Jul 01/2007	1020	Jul 01/2007	1058	BLANK
712	BLANK	1021	Jul 01/2007		
57-53-36 FITS AND CLEARANCES		1022	Jul 01/2007		
801	Jul 01/2006	1023	Jul 01/2007		
802	Mar 01/2006	1024	Jul 01/2007		
803	Jul 01/2008	1025	Jul 01/2007		
804	Mar 01/2006	1026	Jul 01/2007		
805	Nov 01/2008	1027	Jul 01/2007		
806	Mar 01/2006	1028	Jul 01/2007		
807	Jul 01/2007	1029	Mar 01/2008		
808	Jul 01/2007	1030	Mar 01/2008		
809	Mar 01/2009	1031	Jul 01/2007		
R 810	Jul 01/2009	1032	Jul 01/2007		
811	Mar 01/2009	1033	Jul 01/2007		
812	Jul 01/2007	1034	Jul 01/2007		
57-53-36 SPECIAL TOOLS, FIXTURES, AND EQUIPMENT		1035	Jul 01/2007		
901	Mar 01/2006	1036	Jul 01/2007		
902	BLANK	1037	Jul 01/2007		
57-53-36 ILLUSTRATED PARTS LIST		1038	Jul 01/2007		
1001	Nov 01/2008	1039	Jul 01/2007		
1002	Jul 01/2007	1040	Jul 01/2007		
1003	Jul 01/2007	1041	Jul 01/2007		
1004	Jul 01/2007	1042	Jul 01/2007		
1005	Jul 01/2007	1043	Jul 01/2007		
1006	Jul 01/2007	1044	Jul 01/2007		
1007	Jul 01/2007	1045	Jul 01/2007		
1008	Jul 01/2007	1046	Jul 01/2007		
1009	Jul 01/2007	1047	Jul 01/2008		
1010	Jul 01/2007	1048	Nov 01/2007		
1011	Jul 01/2007	1049	Nov 01/2007		
1012	Mar 01/2008	1050	Nov 01/2007		
1013	Mar 01/2008	1051	Nov 01/2007		
1014	Mar 01/2008	1052	Jul 01/2007		
1015	Mar 01/2008	1053	Jul 01/2007		
1016	Mar 01/2008	1054	Jul 01/2007		
1017	Jul 01/2008	1055	Jul 01/2007		

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

57-53-36

EFFECTIVE PAGES

Page 2

Jul 01/2009

**COMPONENT MAINTENANCE MANUAL****TABLE OF CONTENTS**

<u>Paragraph Title</u>		<u>Page</u>
OUTBOARD FLAP CARRIAGE ASSEMBLY - DESCRIPTION AND OPERATION		1
TESTING AND FAULT ISOLATION	(Not Applicable)	
DISASSEMBLY		301
CLEANING		401
CHECK		501
REPAIR		601
ASSEMBLY		701
FITS AND CLEARANCES		801
SPECIAL TOOLS, FIXTURES, AND EQUIPMENT	(Not Applicable)	
ILLUSTRATED PARTS LIST		1001

57-53-36

CONTENTS

Page 1

Mar 01/2006



COMPONENT MAINTENANCE MANUAL

TEMPORARY REVISION AND SERVICE BULLETIN RECORD

BOEING SERVICE BULLETIN	BOEING TEMPORARY REVISION	OTHER DIRECTIVE	DATE OF INCORPORATION INTO MANUAL
		PRR 32496-19	SEP 05/84
		PRR 32523	SEP 05/84
		PRR 32689	SEP 05/84
		PRR 33125	SEP 05/84
		PRR 33498	SEP 05/84
		PRR 33890-49	SEP 05/89
		PRR 33890-52	SEP 05/89
57-1181			SEP 05/89
		PRR 35014	DEC 05/92
57-1181R5			MAR 05/93
57-1218			JUN 01/94
57-1227			SEP 01/95
	57-30		MAR 01/00
57-1227R1			JUL 01/03
	57-36		JUL 01/06
	57-42		MAR 01/07
	57-44		JUL 01/07
	57-45		MAR 01/08
57-1227R2			MAR 01/08
	57-49		NOV 01/08

57-53-36

TR AND SB RECORD

Page 1

Nov 01/2008



COMPONENT MAINTENANCE MANUAL

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

Revision		Filed	
Number	Date	Date	Initials

Revision		Filed	
Number	Date	Date	Initials



COMPONENT MAINTENANCE MANUAL

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

When the temporary revision is incorporated or cancelled, and the pages are removed, enter the date the pages are removed and the initials of the person who removed the temporary revision.

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

57-53-36

BOEING PROPRIETARY - Copyright © Unpublished Work - See title page for details



COMPONENT MAINTENANCE MANUAL

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.

57-53-36

INTRODUCTION

Page 1

Mar 01/2009



COMPONENT MAINTENANCE MANUAL

OUTBOARD FLAP CARRIAGE ASSEMBLY - DESCRIPTION AND OPERATION

1. Description

- A. The outboard flap carriage assembly consists of four bolt assemblies, two strut assemblies, two forward track roller bearings, two aft track roller bearings, two forward side roller assemblies, and two aft side roller assemblies mounted on a carriage assembly.

2. Operation

- A. Four rollers on the carriage assembly support the flap on the flap track. Two side rollers provide lateral carriage alignment on the flap track. A detent on each side of the carriage retains a toggle switch which aids in flap extension.

3. Leading Particulars (approximate)

- A. Length – 7 inches
- B. Width – 21 inches
- C. Thickness – 9 inches
- D. Weight – 27 pounds

57-53-36

DESCRIPTION AND OPERATION

Page 1

Mar 01/2006



COMPONENT MAINTENANCE MANUAL

TESTING AND FAULT ISOLATION

(NOT APPLICABLE)

57-53-36

TESTING AND FAULT ISOLATION

Page 101

Mar 01/2006



COMPONENT MAINTENANCE MANUAL

DISASSEMBLY

1. General

- A. This repair gives the data that is necessary to disassemble the out board flap carriage assembly.
- B. Disassemble this component only as necessary to complete fault isolation, determine the serviceability of parts, perform required repairs, and restore the unit to serviceable condition.

2. Disassembly

A. Procedure

- (1) Use standard industry practices and these special steps.
- (2) Make a note of the thickness of shims (IPL Figure 1; 85, 135, IPL Figure 2; 95, 140), washer shim (IPL Figure 1; 175 IPL Figure 2; 190) for help during assembly.
- (3) Remove the bearing (IPL Figure 1; 100, 150, IPL Figure 2; 105, 150) from the side roller bracket (IPL Figure 1; 105, 110, 155, 160, IPL Figure 2; 110, 115, 155, 160):
 - (a) Drill out the deformed end of the bolt (IPL Figure 1; 95A, 145A, IPL Figure 2; 100, 145). Do not use a drill bit larger than the hole diameter (0.3765 inch) of the bracket.

NOTE: Refer to illustration in the Assembly Section, ASSEMBLY, Figure 703 and 704.

- (b) Remove the bolt (IPL Figure 1; 95A, 145A, IPL Figure 2; 100, 145) and the bearing (IPL Figure 1; 100, 150, IPL Figure 2; 105, 150) from the side roller bracket (105, 110, 155, 160, IPL Figure 2; 110, 115, 155, 160).

57-53-36

DISASSEMBLY

Page 301

Nov 01/2008



COMPONENT MAINTENANCE MANUAL

CLEANING

1. General

- A. This procedure gives the data that is necessary to clean the out board flap carriage assembly.
- B. Refer to the Standard Overhaul Practices Manual (SOPM) for the standard practices shown in the repair.

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 all parts but the bushings, bearings, and rollers, by standard industry practices and the instructions in SOPM 20-30-03.
- (2) Clean the bushings, bearings, and rollers per SOPM 20-30-01.

57-53-36

CLEANING

Page 401

Mar 01/2006



COMPONENT MAINTENANCE MANUAL

CHECK

1. General

- A. This procedure has the data necessary to clean the outboard flap carriage assembly.
- B. Refer to the Standard Overhaul Practices Manual (SOPM) for the SOPM subject identified in this procedure

2. Check

A. References

Reference	Title
SOPM 20-20-01	MAGNETIC PARTICLE INSPECTION

B. Procedure

- (1) Examine all parts for defects with standard industry practices. Refer to FITS AND CLEARANCES for design dimensions and wear limits.
- (2) Magnetic particle inspect as shown in SOPM 20-20-01, Class A critical.
 - (a) Carriage (IPL Figure 1; 410, IPL Figure 2; 425)
- (3) Magnetic particle inspect as shown in SOPM 20-20-01, Class A
 - (a) Bolt (IPL Figure 1; 96, 146, 173, 174, 204, IPL Figure 2; 100, 145, 180, 220, 225)
 - (b) Coupling (IPL Figure 1; 255, IPL Figure 2; 285)
- (4) Magnetic particle inspect as shown in SOPM 20-20-01, Class B.
 - (a) Bolt (IPL Figure 1; 40, 95, 145, IPL Figure 2; 50, 100, 145)
 - (b) Bracket (IPL Figure 1; 105, 110, 155, 160, IPL Figure 2; 110, 115, 155, 160)
 - (c) Nut (IPL Figure 1; 30, IPL Figure 2; 45)
 - (d) Nut (IPL Figure 1; 190, IPL Figure 2; 205) (except Class C at the 1.50 inch diameter)
 - (e) Rod ends (IPL Figure 1; 245, 280, IPL Figure 2; 275, 365)
 - (f) Washer (IPL Figure 1; 350, 355, IPL Figure 2; 375, 380)
- (5) Magnetic particle inspect as shown in SOPM 20-20-01, Class C.
 - (a) Bolt (IPL Figure 1; 15, IPL Figure 2; 10, 25)
 - (b) Bracket (IPL Figure 1; 105A, 105B, 110A, 110B, 155A, 155B, 160A, 160B, IPL Figure 2; 110, 115, 155, 160)
 - (c) Coupling (IPL Figure 1; 310, IPL Figure 2; 340)
 - (d) Rod ends (IPL Figure 1; 300, 335, IPL Figure 2; 330, 365)

57-53-36

CHECK
Page 501
Nov 01/2008



COMPONENT MAINTENANCE MANUAL

REPAIR

1. Contents

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

Table 601:

P/N	NAME	REPAIR
69-54956 69-54957 69-59870 69-59871	ROD END ASSEMBLY	1-1
65C27409	CARRIAGE SUB-ASSEMBLY	2-1
- - -	MISCELLANEOUS PARTS REFINISH	3-1

2. Standard Practices

- A. Refer to the following standard practices, as applicable, for details of procedures in individual repairs.
- SOPM 20-10-01 Repair and Refinishing of High Strength Steel Parts
 - SOPM 20-10-02 Maching of Alloy Steel
 - SOPM 20-30-02 Stripping of Protective Finishes
 - SOPM 20-30-03 General Cleaning Procedures
 - SOPM 20-41-01 Decoding Table for Boeing Finish Codes
 - SOPM 20-41-02 Application of Chemical and Solvent Resistant Finishes
 - SOPM 20-42-02 Low Hydrogen Embrittlement Cadmium - Titanium Alloy Plating
 - SOPM 20-42-05 Bright Cadmium Plating
 - SOPM 20-42-10 Low Hydrogen Embrittlement Stylus Cadmuim Plating
 - SOPM 20-50-03 Bearing and Bushing Replacement
 - SOPM 20-60-02 Finishing Materials
 - SOPM 20-60-04 Miscellaneous Materials

3. Materials

NOTE: Equivalent substitutes can be used.

- A. Enamel – coating, C00260 BMS 10-11, Type 2,
 B. Primer – primer, C00259 BMS 10-11, Type 1
 C. Sealant – sealant, A00247 BMS 5-95

4. Dimensioning Symbols

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

57-53-36

REPAIR - GENERAL

Page 601

Mar 01/2006



COMPONENT MAINTENANCE MANUAL

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

EXAMPLES

$\boxed{-0.002}$	STRAIGHT WITHIN 0.002	$\boxed{\text{◎} \text{∅} 0.0005 \text{ C}}$	CONCENTRIC TO C WITHIN 0.0005 DIAMETER
$\boxed{\perp 0.002 \text{ B}}$	PERPENDICULAR TO B WITHIN 0.002	$\boxed{\equiv 0.010 \text{ A}}$	SYMMETRICAL WITH A WITHIN 0.010
$\boxed{\parallel 0.002 \text{ A}}$	PARALLEL TO A WITHIN 0.002	$\boxed{\angle 0.005 \text{ A}}$	ANGULAR TOLERANCE 0.005 WITH A
$\boxed{\bigcirc 0.002}$	ROUND WITHIN 0.002	$\boxed{\oplus \text{∅} 0.002 \text{ Ⓢ} \text{ B}}$	LOCATED AT TRUE POSITION WITHIN 0.002 DIA RELATIVE TO DATUM B, REGARDLESS OF FEATURE SIZE
$\boxed{\text{⊙} 0.010}$	CYLINDRICAL SURFACE MUST LIE BETWEEN TWO CONCENTRIC CYLINDERS, ONE OF WHICH HAS A RADIUS 0.010 INCH GREATER THAN THE OTHER	$\boxed{\perp \text{∅} 0.010 \text{ Ⓜ} \text{ A}}$ $\boxed{0.510 \text{ Ⓟ}}$	AXIS IS TOTALLY WITHIN A CYLINDER OF 0.010-INCH DIAMETER, PERPENDICULAR TO, AND EXTENDING 0.510-INCH ABOVE, DATUM A, MAXIMUM MATERIAL CONDITION
$\boxed{\frown 0.006 \text{ A}}$	EACH LINE ELEMENT OF THE SURFACE AT ANY CROSS SECTION MUST LIE BETWEEN TWO PROFILE BOUNDARIES 0.006 INCH APART RELATIVE TO DATUM PLANE A	$\boxed{2.000}$	THEORETICALLY EXACT DIMENSION IS 2.000
$\boxed{\triangle 0.020 \text{ A}}$	SURFACES MUST LIE WITHIN PARALLEL BOUNDARIES 0.02 INCH APART AND EQUALLY DISPOSED ABOUT TRUE PROFILE	OR 2.000 BSC	
NOTE: DATUM MAY APPEAR AT EITHER SIDE OF TOLERANCE FRAME		$\boxed{0.020 \text{ A}}$ $\boxed{\text{A} 0.020}$	

True Position Dimensioning Symbols
Figure 601

57-53-36

REPAIR - GENERAL

Page 602

Mar 01/2006



COMPONENT MAINTENANCE MANUAL

ROD END ASSEMBLY - REPAIR 1-1

69-54956-1, 69-54957-1, -3, -501, 69-59870-1, 69-59871-1

1. General

- A. This procedure has the data necessary to repair the rod assembly.
- B. Refer to REPAIR-GENERAL, Paragraph 2. for the Standard Overhaul Practices Manual (SOPM) subjects identified in this procedure.
- C. Refer to REPAIR-GENERAL, Paragraph 3. for the description of the consumable codes identified in this procedure
- D. Refer to IPL Figure 1 and IPL Figure 2 for the item numbers.

2. Bushing (240, 275A, 295, 330; IPL Fig. 1, 270, 305, 325, 360; IPL Fig. 2) Replacement

- A. Remove the old bushings as shown in REPAIR 1-1, Figure 601 thru REPAIR 1-1, Figure 604.
- B. Install replacement bushings by the shrink-fit method per SOPM 20-50-03, with wet sealant, A00247 as shown in REPAIR 1-1, Figure 601 thru REPAIR 1-1, Figure 604.
- C. Machine the ID of the installed bushing (240; IPL Figure 1, 270; IPL Figure 2) only, to 0.3750 - 0.3765 inch diameter as shown in REPAIR 1-1, Figure 602.

3. Refinish

- A. Rod End (245, 280, 300, 335; IPL Figure 1, 275, 310, 330, 365; IPL Figure 2) – Passivate (F-17.09).
 - (1) Material: 17-4 PH heat treat 180-200 ksi.

57-53-36

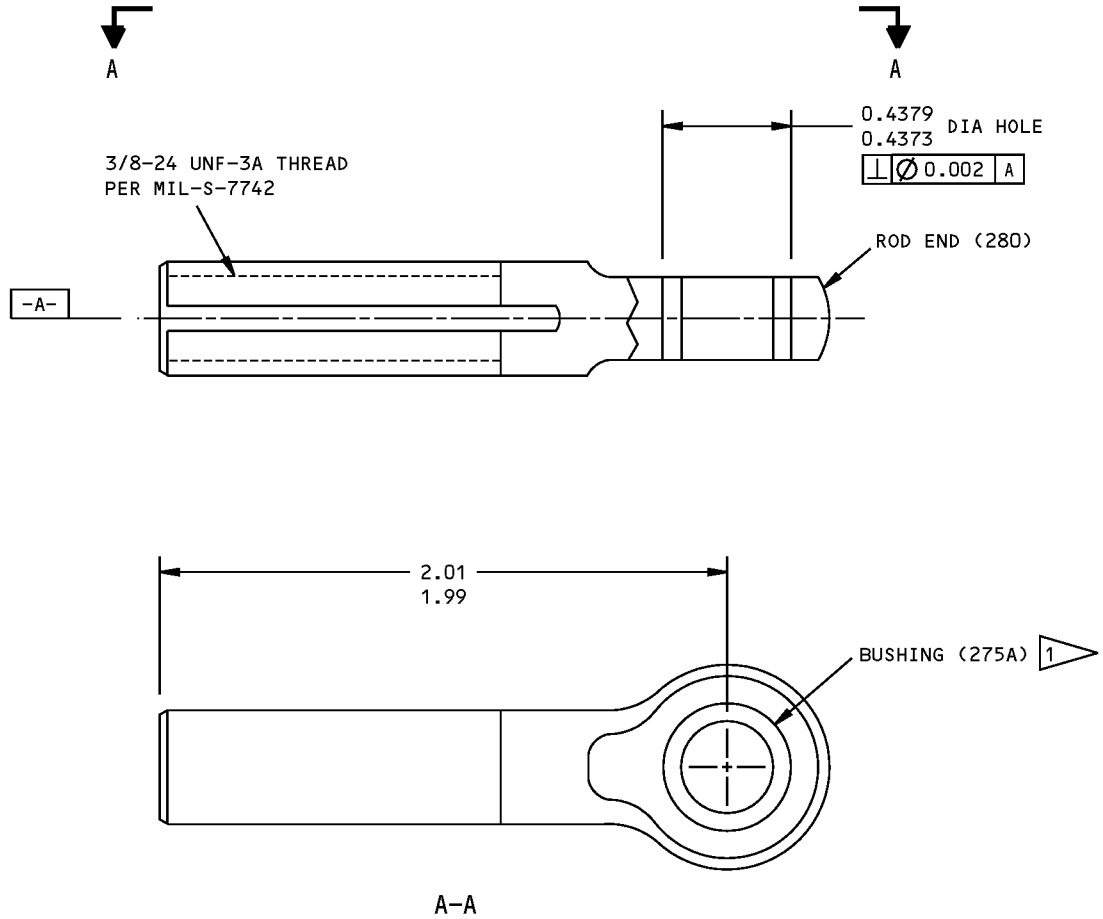
REPAIR 1-1

Page 601

Mar 01/2008



COMPONENT MAINTENANCE MANUAL



1 INSTALL BUSHING WITH BMS 5-95 SEALANT AS SHOWN IN SOPM 20-50-03

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

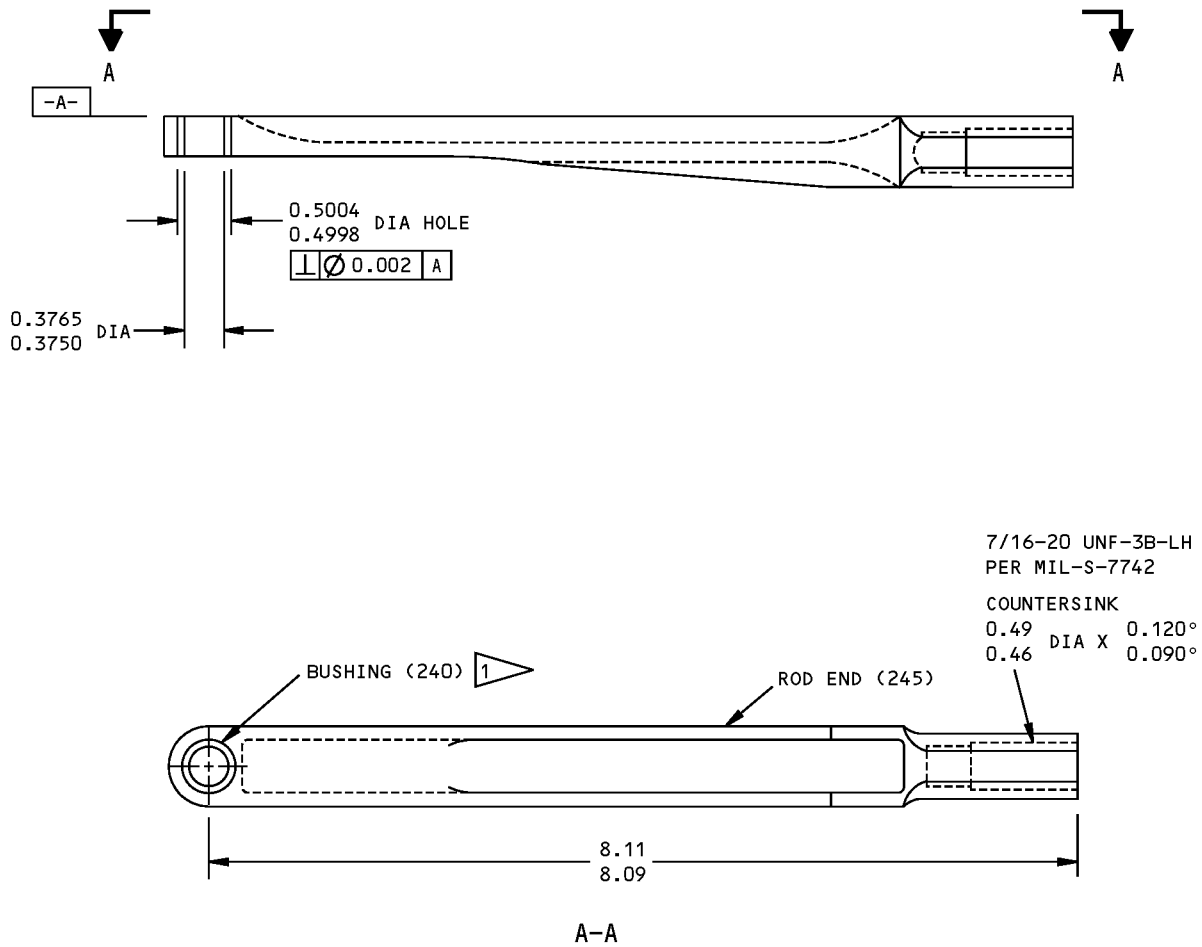
69-54956-1 Bushing Replacement
Figure 601

57-53-36

REPAIR 1-1
Page 602
Mar 01/2006



COMPONENT MAINTENANCE MANUAL



1 INSTALL BUSHING WITH BMS 5-95 SEALANT AS SHOWN IN SOPM 20-50-03

125 ✓ ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

ITEM NUMBERS REFER TO IPL FIG. 1

ALL DIMENSIONS ARE IN INCHES

69-54957-1, -3, -501 Bushing Replacement
Figure 602

57-53-36

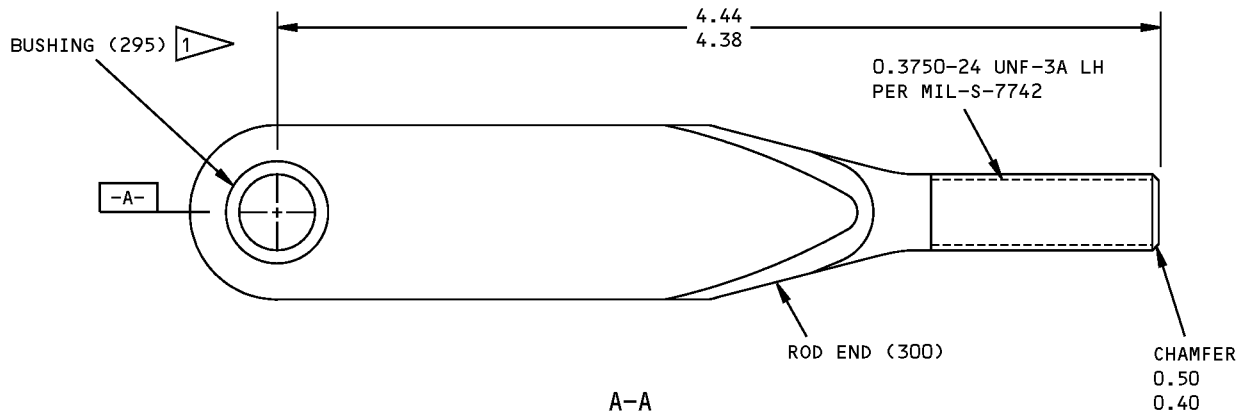
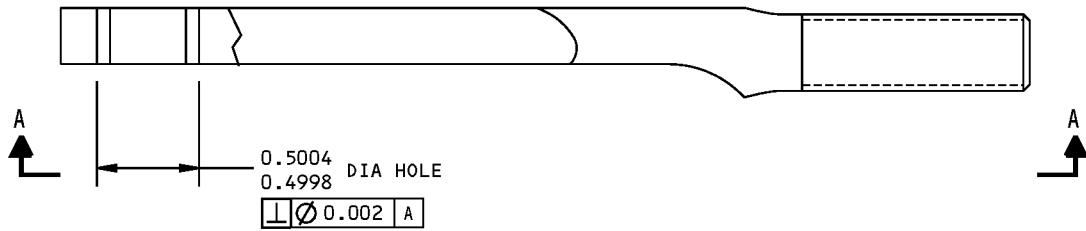
REPAIR 1-1

Page 603

Mar 01/2008



COMPONENT MAINTENANCE MANUAL



1 INSTALL BUSHING WITH BMS 5-95 SEALANT AS SHOWN IN SOPM 20-50-03

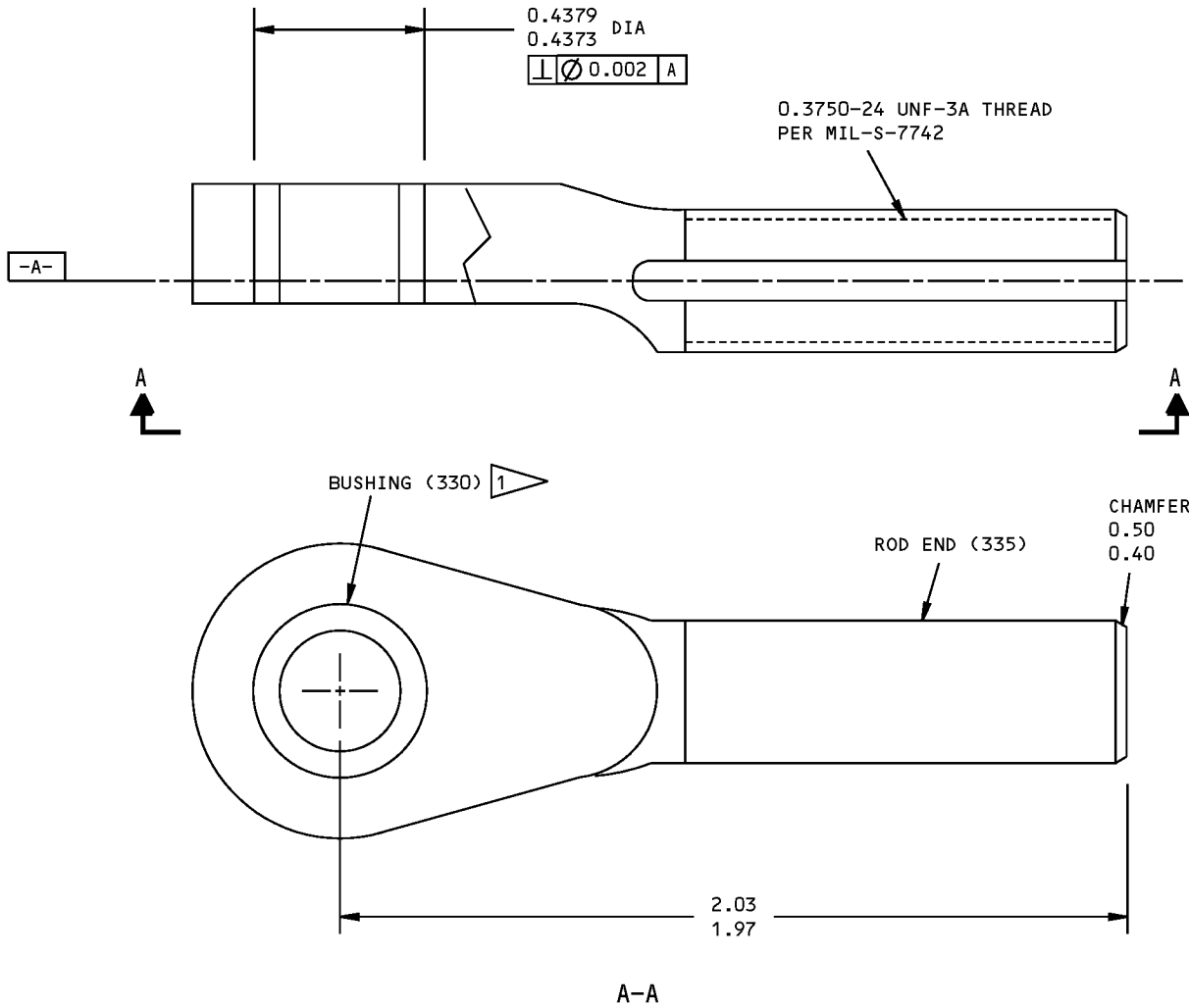
ALL DIMENSIONS ARE IN INCHES
ITEM NUMBERS REFER TO IPL FIG. 1

69-59870-1 Bushing Replacement
Figure 603

57-53-36

REPAIR 1-1
Page 604
Mar 01/2006

COMPONENT MAINTENANCE MANUAL



1 INSTALL BUSHING WITH BMS 5-95 SEALANT AS SHOWN IN SOPM 20-50-03

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

69-59871-1 Bushing Replacement
Figure 604

57-53-36

REPAIR 1-1
Page 605
Mar 01/2006



COMPONENT MAINTENANCE MANUAL

CARRIAGE SUBASSEMBLY - REPAIR 2-1

65C27409-5, -6, -9, -10, -13, -17, -18, -21, -23, -25, -27

1. General

- A. This procedure has the data necessary to repair the carriage assembly.
- B. Refer to REPAIR-GENERAL, Paragraph 2. for the Standard Overhaul Practices Manual (SOPM) subjects identified in this procedure.
- C. Refer to REPAIR-GENERAL, Paragraph 3. for the description of the consumable codes identified in this procedure
- D. Refer to IPL Figure 1 for the item numbers.

2. Repair

- A. Consumable Materials

NOTE: Equivalent substitutes may be used.

Reference	Description	Specification
A00247	Sealant - Pressure And Environmental - Chromate Type	BMS 5-95
C00259	Primer - Chemical And Solvent Resistant Finish, Epoxy Resin	BMS10-11, Type I

- B. References

Reference	Title
SOPM 20-10-02	MACHINING OF ALLOY STEEL
SOPM 20-10-03	SHOT PEENING
SOPM 20-30-03	GENERAL CLEANING PROCEDURES
SOPM 20-41-01	DECODING TABLE FOR BOEING FINISH CODES
SOPM 20-42-09	ELECTRODEPOSITED NICKEL PLATING
SOPM 20-42-10	LOW HYDROGEN EMBRITTLEMENT STYLUS CADMIUM PLATING
SOPM 20-50-03	BEARING AND BUSHING REPLACEMENT
SOPM 20-60-02	FINISHING MATERIALS
SOPM 20-60-04	MISCELLANEOUS MATERIALS

- C. Bushing (205, 395, 400) Replacement (IPL Figure 1)

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

- (1) Remove the old bushings.
- (2) Install replacement bushings by the shrink- fit method per SOPM 20-50-03 with wet sealant, A00247. Make sure the ends of bushing (395, 400) are at or no more than 0.02 inch below the surface of the carriage spindle.
- (3) Fillet seal the ends of bushing (395, 400) with sealant, A00247.

57-53-36

REPAIR 2-1

Page 601

Jul 01/2008



COMPONENT MAINTENANCE MANUAL

D. Sleeve (405) and Repair Sleeve Replacement (REPAIR 2-1, Figure 602)

NOTE: Because corrosion can occur on the spindle under these sleeves, we recommend you remove the sleeve from the spindle and in its place do the sulfamate nickel plate repair of REPAIR 2-1, Paragraph 2.E.(2) below.

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

- (1) Remove the old sleeve, if one is installed.
- (2) Install a replacement or new sleeve with sealant, A00247. The sleeve can be heated to 325°F maximum to help with installation.
- (3) Machine the OD of the sleeve to the diameter shown in REPAIR 2-1, Figure 602. Keep a 63 Ra finish and concentricity with the spindle within 0.001 inch total indicator reading.
- (4) Refinish the area with primer, C00259 (F-20.02) if the primer was damaged during sleeve installation.
- (5) Fillet seal each end of the sleeve with sealant, A00247.

E. Spindle Repair (REPAIR 2-1, Figure 602)

NOTE: Carriage spindles with defects can be repaired by machining and plating and as described in the following instructions. Diameter 1 and 2 can be repaired by sulfamate nickel plate, or sulfamate nickel plate plus a repair sleeve. Diameter 3 can be repaired by sulfamate nickel plate, or cadmium-titanium plate and installing an undersize equivalent of bearing (360 [KJB193715V bearing 0.010 undersize], [KJB193815V bearing 0.020 undersize]).

NOTE: The -26 and -28 carriages will not have a sleeve unless a previous repair has installed one. All other dash numbers were manufactured with a sleeve. Undersize sleeves and bearings can be ordered from Boeing.

- (1) If installed, remove any bearing, bushing or sleeve.
- (2) Mount the carriage between the centers in a suitable fixture. Use the special mounting bore shown in REPAIR 2-1, Figure 601, flagnote 4, to help you hold the carriage spindle.
- (3) Concentrically machine the outer diameters of the carriage spindle, as shown in SOPM 20-10-02, as necessary to remove defects, to the dimensions and finish shown in REPAIR 2-1, Figure 602. Keep a 63 Ra minimum finish.
- (4) After the area is machined, stress relieve per SOPM 20-10-02.
- (5) Shot peen per SOPM 20-10-03.
- (6) Repair the machined area for Diameter 1 as shown in REPAIR 2-1, Figure 602 and as follows:

NOTE: If the design after plate outer Diameter 1 can be restored by sulfamate nickel plate (0.030 in maximum thickness), then a repair sleeve can not be used.

NOTE: For general cleaning procedures, refer to SOPM 20-30-03.

- (a) Sulfamate nickel plate the machined area, per SOPM 20-42-09, to 0.003-0.030 inch thickness. After initial application of the plating current and during the plating process, the rate of plating deposit must not exceed a maximum of 0.002 inch per hour.
- (b) After plating, finish the repair area to 63 Ra and record the outer diameter for use in creating the interference with the repair sleeve in the following step.
- (c) Make a repair sleeve for Diameter 1 area as shown in REPAIR 2-1, Figure 603 or REPAIR 2-1, Figure 604, as applicable, and as follows:

57-53-36

REPAIR 2-1

Page 602

Mar 01/2008



COMPONENT MAINTENANCE MANUAL

- 1) Repair sleeve material AISI 304 annealed cres bar per AMS 5639.
 - 2) Min sleeve wall thickness 0.032 inch.
 - 3) Machine inner diameter to create an interference fit of 0.0020-0.0040 inch upon installation.
 - 4) Finish all machine surfaces 63 Ra.
 - 5) Passivate (F-17.25) any non-cad plated surface, plus apply cadmium plate (F-15.02) to the inner diameter.
- (d) Install the sleeve as shown in Repair Step 2.
- (e) Machine the repair sleeve outer diameter to the dimensions and finish shown in REPAIR 2-1, Figure 602.
- (7) Repair the machined area for Diameter 2 as shown in REPAIR 2-1, Figure 602 and as follows:
- NOTE:** If the design after plate outer diameter of Diameter 2 can be restored by sulfamate nickel plate (0.030 in maximum thickness), then a repair sleeve can not be used.
- NOTE:** For general cleaning procedures, refer to SOPM 20-30-03.
- (a) Sulfamate nickel plate the machined area, per SOPM 20-42-09, to 0.003-0.030 inch thickness. After initial application of the plating current and during the plating process, the rate of plating deposit must not exceed a maximum of 0.002 inch per hour.
 - (b) After plating, if the design after plate outer diameter of Diameter 2 can be totally restored by sulfamate nickel plate, then machine the repair area to the design dimensions and finish as shown in REPAIR 2-1, Figure 602.
 - (c) After plating, if the design after plate outer diameter of Diameter 2 can NOT be totally restored by sulfamate nickel plate, then finish the outer diameter to 63 Ra and record the outer diameter for use in creating the interference with the repair sleeve in the following step.
 - (d) If necessary, make a repair sleeve for Diameter 2 area as shown in REPAIR 2-1, Figure 605 or REPAIR 2-1, Figure 606 and as follows:
 - 1) Repair sleeve material AISI 304 annealed cres bar per AMS 5639.
 - 2) Min sleeve wall thickness 0.032 inch.
 - 3) Machine inner diameter to create an interference fit of 0.0020-0.0040 inch upon installation.
 - 4) Finish all machine surfaces 63 Ra.
 - 5) Passivate (F-17.25) any non-cad plated surface, plus apply cadmium plate (F-15.02) to the inner diameter.
 - (e) Install the sleeve as shown in Repair Step 2.
 - (f) Machine the repair sleeve outer diameter to the dimensions and finish as shown in REPAIR 2-1, Figure 602).
- (8) Repair the machined area for Diameter 3, per SOPM 20-10-02, as shown in REPAIR 2-1, Figure 602 and as follows:
- (a) Sulfamate nickel plate the machined area, per SOPM 20-42-09, to 0.003-0.030 inch thickness. After initial application of the plating current and during the plating process, the rate of plating deposit must not exceed a maximum of 0.002 inch per hour.

57-53-36

REPAIR 2-1

Page 603

Mar 01/2008



COMPONENT MAINTENANCE MANUAL

- (b) After plating, machine the repaired area to the dimensions and finish as shown in REPAIR 2-1, Figure 602.
- (c) An alternative to sulfamate nickel repair, for Diameter 3, is as follows:

NOTE: Some Diameter 3 repair limits will not allow the use of some undersize bearings.

NOTE: For finishing materials, refer to SOPM 20-60-02.

- 1) Machine Diameter 3, using Repair Steps 3A thru 3E, to accommodate an undersize equivalent of bearing (360) (KJB193715V bearing 0.010 undersize, KJB193815V bearing 0.020 undersize).
- 2) Apply cadmium-titanium plate (F-15.01), then apply primer, C00259 (F-20.02) to the machined area.
- 3) Install the undersize equivalent of bearing (360) as shown in the ASSEMBLY section of this manual.

F. Holes Diameters 1, 3, 5, 7, 8, 10 (REPAIR 2-1, Figure 601)

NOTE: For finishing materials, refer to SOPM 20-60-02. For miscellaneous materials, refer to SOPM 20-60-04.

- (1) Machine the holes oversize, within repair limits, to remove defects. Chamfer the outside edge of the holes 0.01-0.03 inch at 45 degrees.
- (2) Make a repair bushing or sleeve, as applicable (REPAIR 2-1, Figure 608, REPAIR 2-1, Figure 609).
- (3) Stylus cadmium plate the holes per SOPM 20-42-10, apply one coat primer, C00259 to the holes and let it dry. Install the bushing wet with sealant, A00247 by the shrink-fit method of SOPM 20-50-03.
- (4) Machine the ID of the installed bushings to the indicated hole design diameters.
- (5) Restore the bushing chamfers as necessary.
- (6) If you did a spotface repair at hole diameter 1 or 3, make a washer to fill each spotface. Make the washer of cadmium plated 15-5PH per AMS 5659 (180-200 ksi), or 17-4PH per AMS 5643 (180-200 ksi). Install the washer with sealant, A00247.
- (7) If you installed a repair bushing with a flange in hole diameter 8, and the larger unit uses AN960-416 washers between the carriage and the fairing arm, include a note with the carriage to replace the AN960-416 washer (which is 0.063-inch-thick) with a 0.032-inch-thick NAS1149F0432P (or equivalent) washer at this location between the carriage and the fairing support arm. If the larger unit does not use washers between the carriage and the fairing support arm, include a note to install a 0.032-inch-thick NAS1149F0432P (or equivalent) washer at the other hole diameter 8 location.

G. Holes Diameter 6 (REPAIR 2-1, Figure 601)

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

- (1) Remove bushing (205) from the carriage assembly.
- (2) Machine the hole oversize, within repair limits, to remove defects. Chamfer the outside edge of the holes 0.01-0.03 inch at 45 degrees.
- (3) Stylus cadmium plate the machined surface per SOPM 20-42-10, apply one coat of primer, C00259 and let dry.

57-53-36

REPAIR 2-1

Page 604

Mar 01/2008



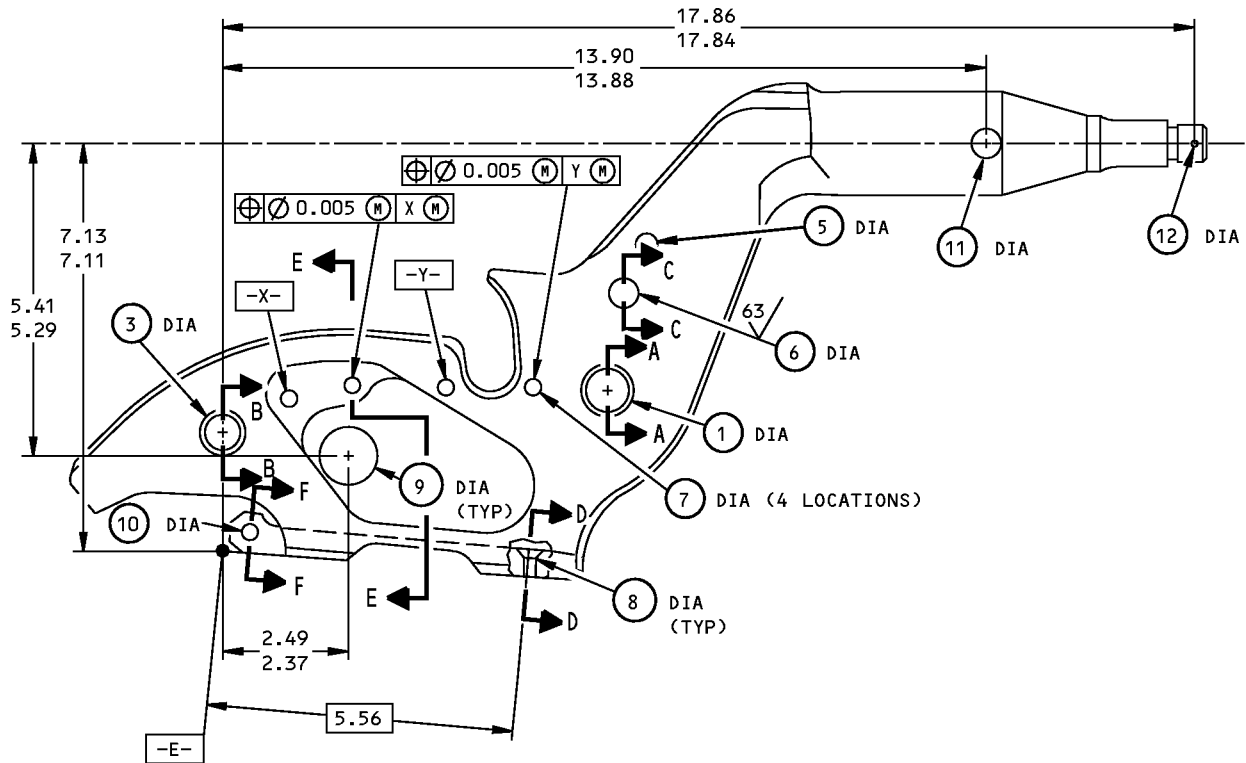
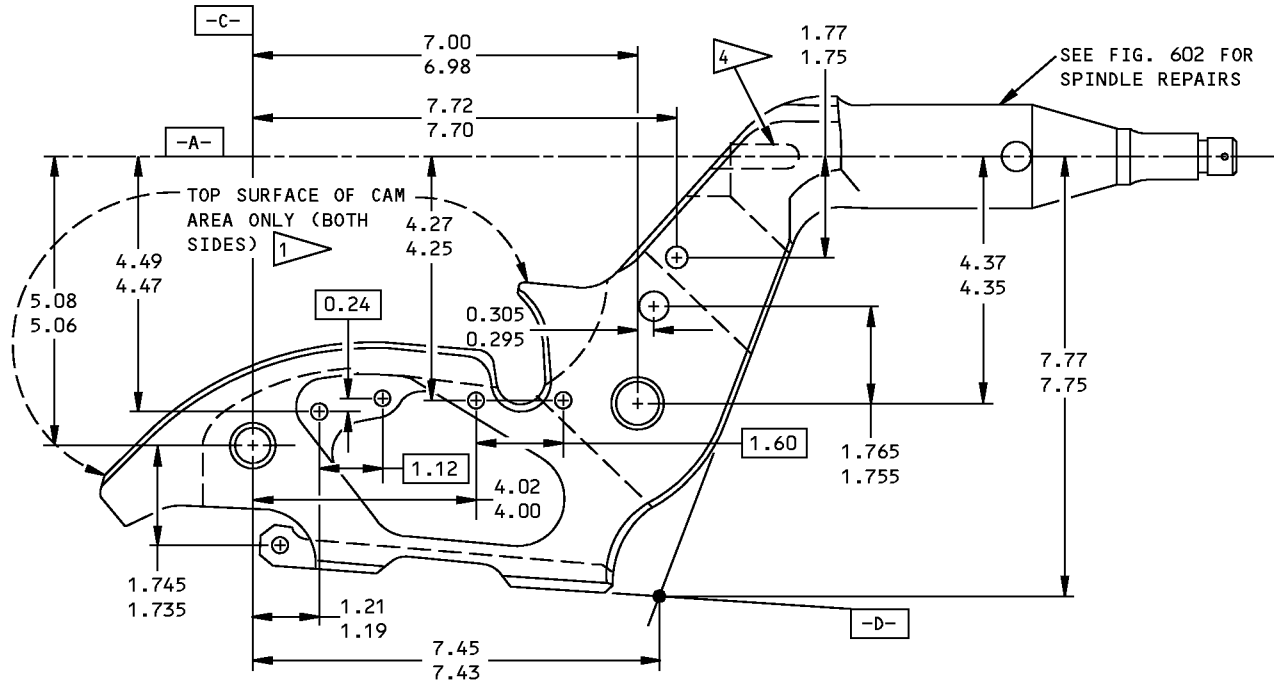
COMPONENT MAINTENANCE MANUAL

- (4) Make a repair bushing (REPAIR 2-1, Figure 607).
 - (5) Install the repair bushing wet with sealant, A00247 by the shrink-fit method of SOPM 20-50-03.
 - (6) Machine the bore of the installed bushing to the original ID of bushing (205): 0.3750-0.3765 inch.
 - (7) Restore the bushing bore chamfers as necessary.
 - (8) If you did a spotface repair at hole diameter 6, make a washer to fill the spotface on the inner carriage surface. Make the washer of cadmium plated 15-5PH per AMS 5659 (180-200 ksi), or 17-4PH per AMS 5643 (180-200 ksi). Install the washer with sealant, A00247.
- H. Hole Diameter 11 for Crossbolt (365) (REPAIR 2-1, Figure 601)
- NOTE:** 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) Remove bushing (395, 400) from the carriage assembly.
 - (2) Machine the hole as required, within repair limits, to remove defects. Chamfer the outside edge of the hole 0.01-0.03 inch at 45 degrees.
 - (3) Cadmium-titanium plate (F-15.01) the machined hole surfaces.
 - (4) Apply one coat primer, C00259 (F-20.02) to the hole and let it dry.
 - (5) Make a repair bushing (REPAIR 2-1, Figure 609).
 - (6) Install the repair bushing by the shrink-fit method with wet sealant, A00247. Make sure the bushing ends are at or 0.02 inch maximum below the surfaces. Remove unwanted sealant, A00247.
 - (7) Fillet seal the end of the repair bushing with sealant, A00247.
 - (8) Machine the bushing ID to 0.3750-0.3756 inch design diameter.
- I. Toggle Flange (REPAIR 2-1, Figure 601)
- (1) Machine the surfaces flat as required, within repair limits, to remove defects.
 - (2) Refinish as indicated.

57-53-36

REPAIR 2-1
Page 605
Nov 01/2008

COMPONENT MAINTENANCE MANUAL



65C27409-7,-11,-15,-19,-26

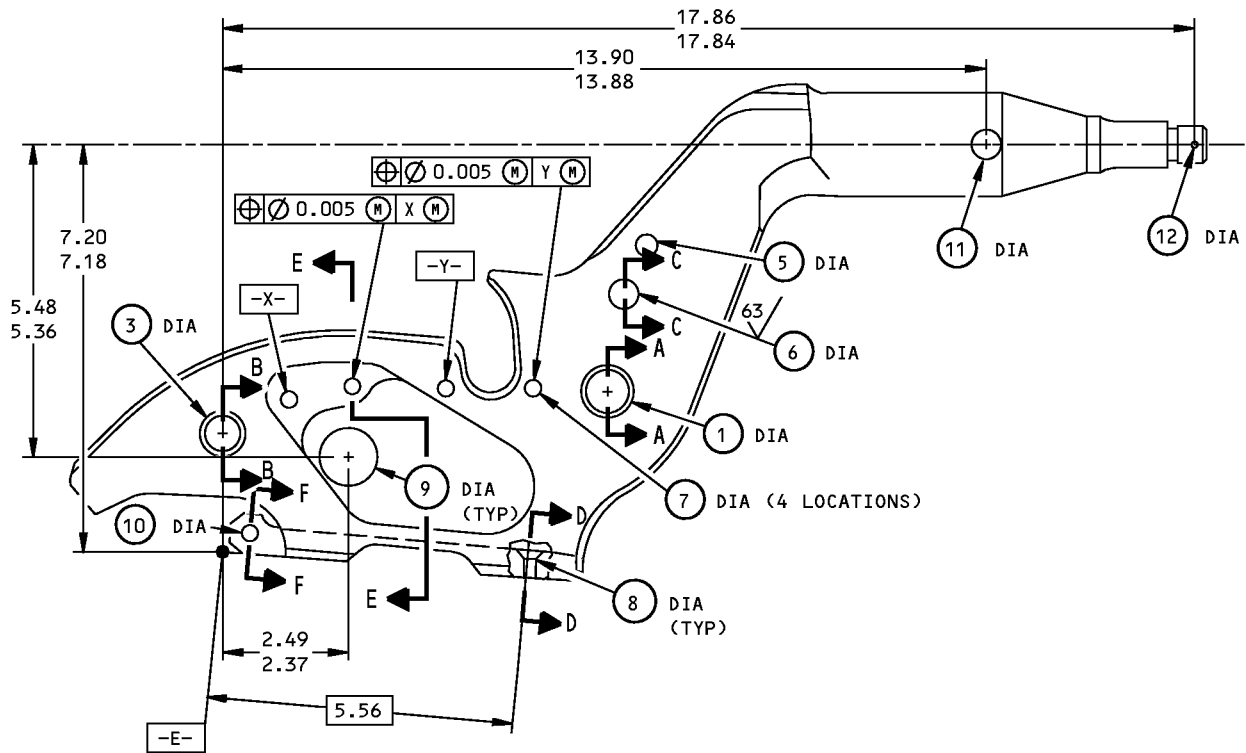
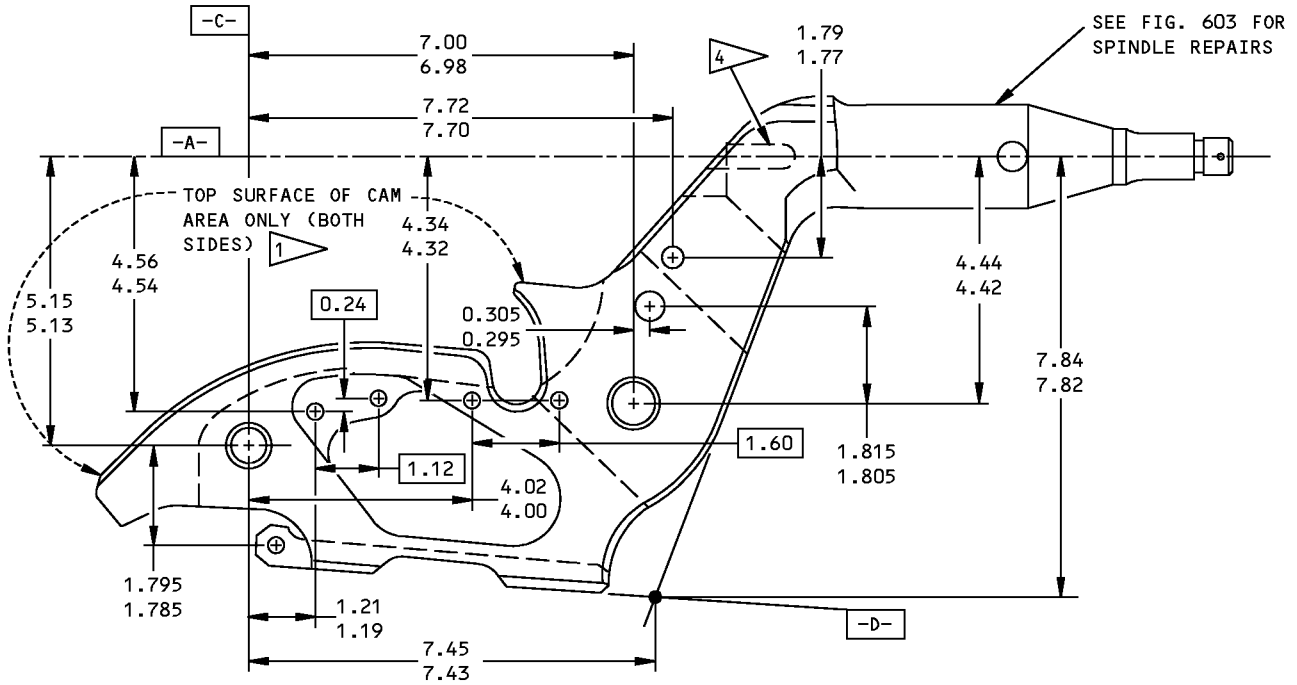
F68032 S00041006946_V4

Carriage Repair and Refinish
Figure 601 (Sheet 1 of 8)

57-53-36

REPAIR 2-1
Page 606
Nov 01/2008

COMPONENT MAINTENANCE MANUAL



65C27409-8,-12,-20,-22,-24,-28

F68266 S00041006947_V3

Carriage Repair and Refinish
Figure 601 (Sheet 2 of 8)

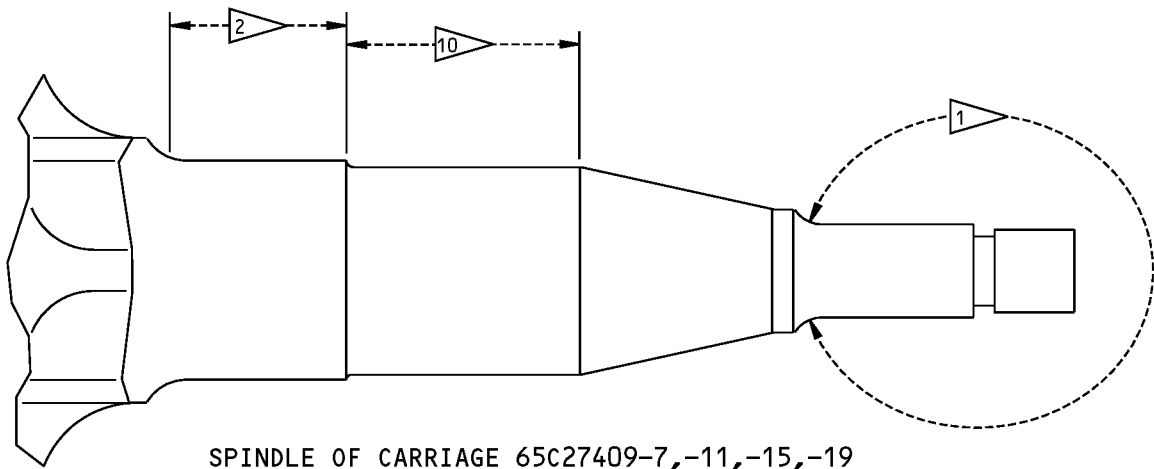
57-53-36

REPAIR 2-1

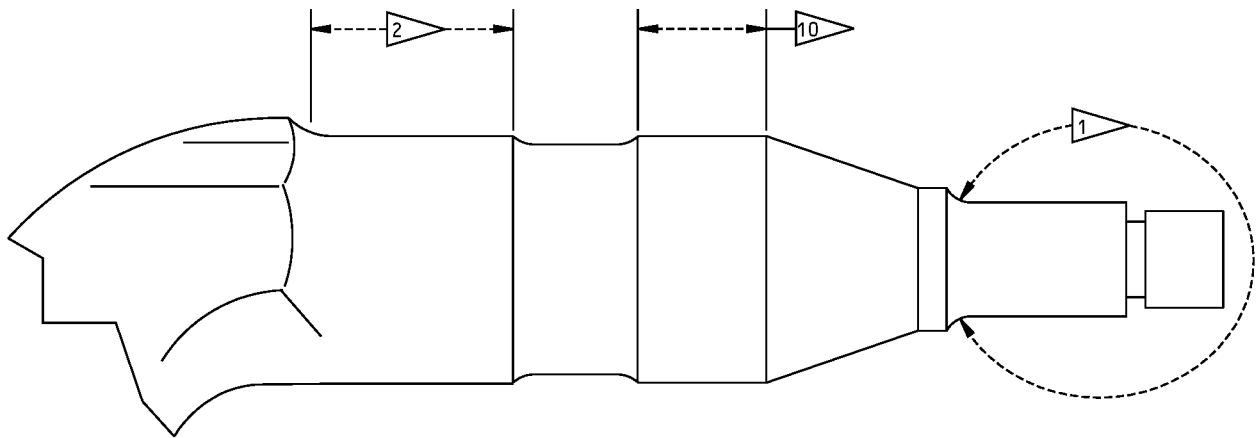
Page 607

Nov 01/2008

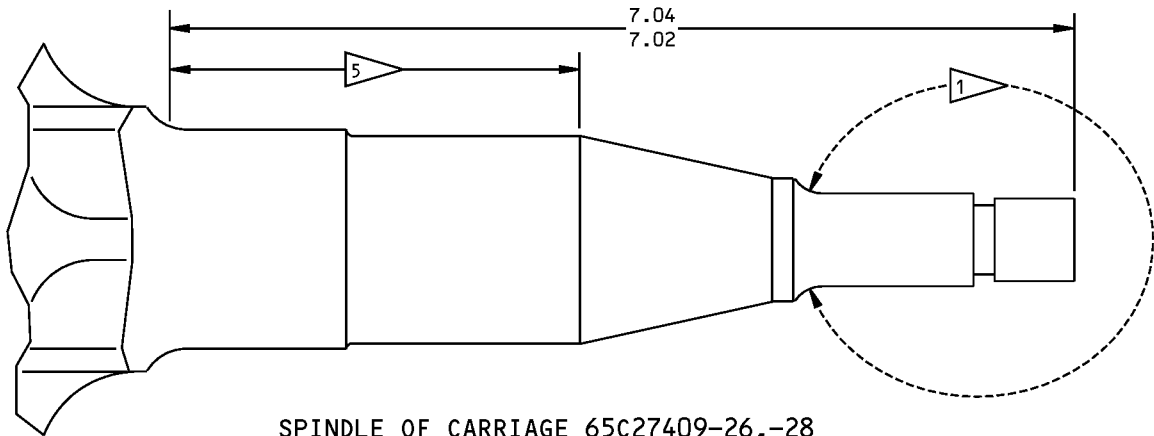
COMPONENT MAINTENANCE MANUAL



SPINDLE OF CARRIAGE 65C27409-7,-11,-15,-19



SPINDLE OF CARRIAGE 65C27409-8,-12,-20,-22,-24



SPINDLE OF CARRIAGE 65C27409-26,-28

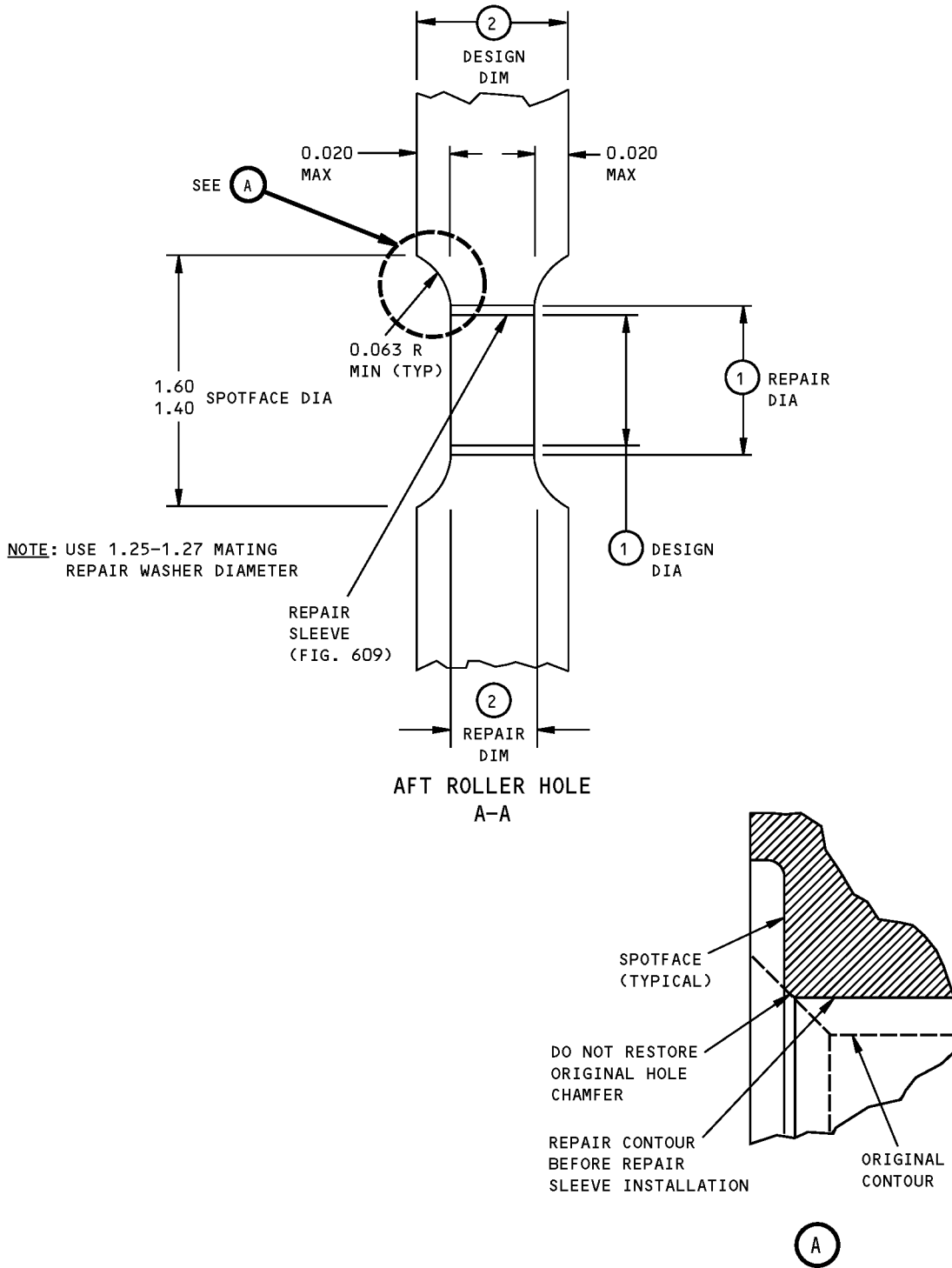
65C27409 SERIES

Carriage Repair and Refinish
Figure 601 (Sheet 3 of 8)

57-53-36

REPAIR 2-1
Page 608
Mar 01/2007

COMPONENT MAINTENANCE MANUAL



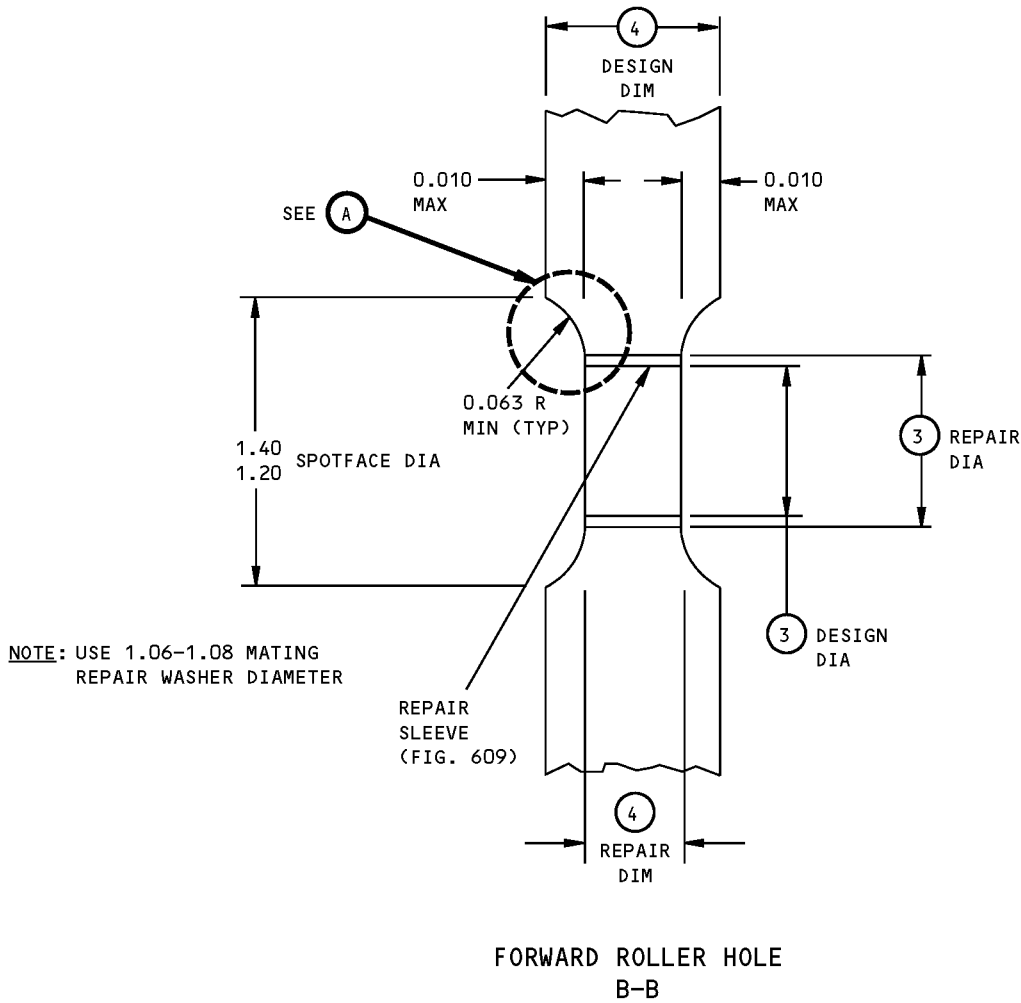
65C27409-SERIES

Carriage Repair and Refinish
Figure 601 (Sheet 4 of 8)

57-53-36

REPAIR 2-1
Page 609
Mar 01/2007

COMPONENT MAINTENANCE MANUAL



65C27409-SERIES

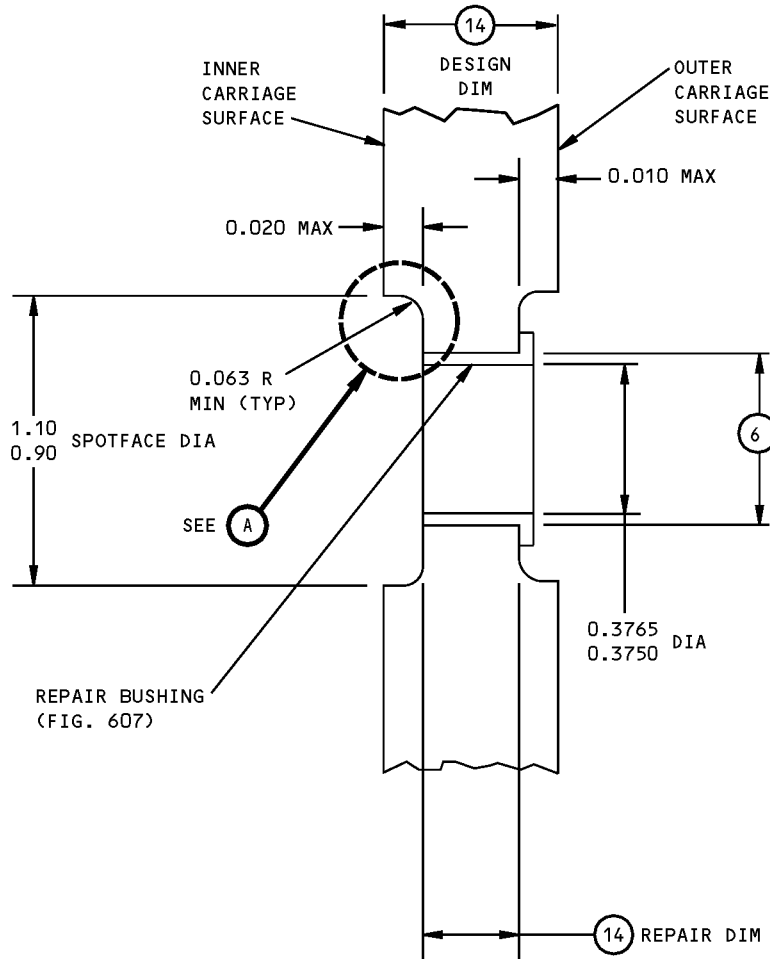
Carriage Repair and Refinish
Figure 601 (Sheet 5 of 8)

57-53-36

REPAIR 2-1
Page 610
Mar 01/2007



COMPONENT MAINTENANCE MANUAL



NOTE: USE 0.74-0.76 MATING REPAIR WASHER DIAMETER

INBOARD STRUT ATTACH HOLE
C-C

65C27409-SERIES

Carriage Repair and Refinish
Figure 601 (Sheet 6 of 8)

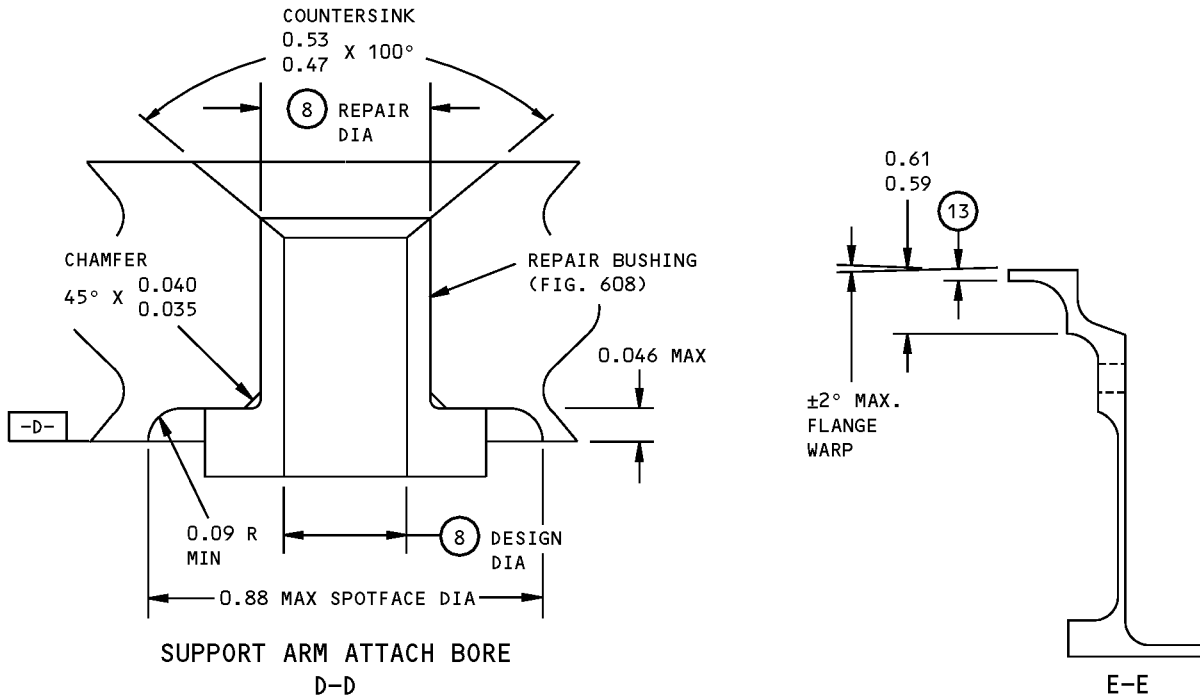
57-53-36

REPAIR 2-1

Page 611

Mar 01/2007

COMPONENT MAINTENANCE MANUAL



	①	②	③	④	⑤	⑥	⑦
DESIGN DIMENSION	0.8781 0.8745	0.57 0.55	0.7531 0.7495	0.57 0.55	0.4420 0.4370	0.5004 0.4998	0.2610 0.2550
REPAIR LIMIT ③	1.000 0.940	0.52	0.830 0.812	0.54	0.5045	0.5629	0.3235

	⑧	⑨	⑩	⑪	⑫	⑬	⑭	⑮
DESIGN DIMENSION	0.254 0.250	1.03 0.97	0.254 0.250	0.5006 0.4998	0.151 0.141	0.11 0.09	0.57 0.55	0.135 0.115
REPAIR LIMIT ③	0.320	---	0.3350 0.3165	0.5600 0.6800	⑥ ⑦	⑧	0.52	0.110

65C27409-SERIES

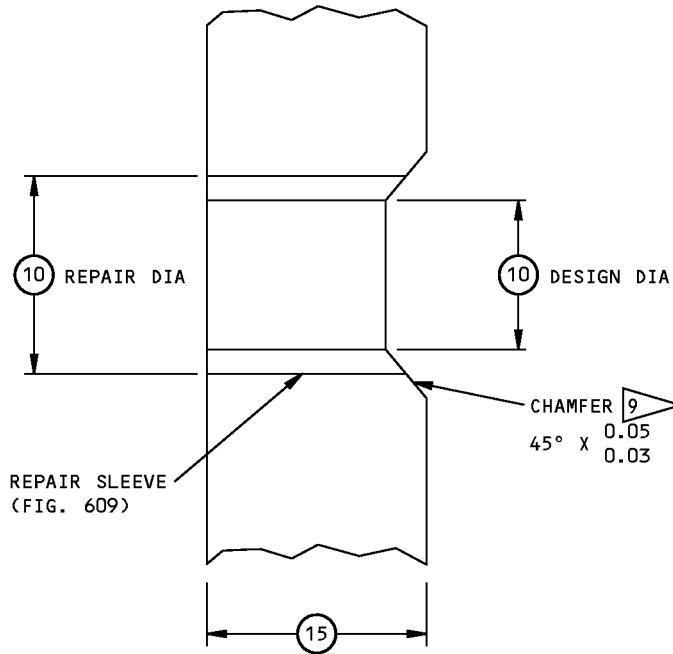
Carriage Repair and Refinish
Figure 601 (Sheet 7 of 8)

57-53-36

REPAIR 2-1
Page 612
Mar 01/2007



COMPONENT MAINTENANCE MANUAL



FORWARD DEADWEIGHT ROLLER HOLE
F-F

REFINISH

ON CARRIAGES 65C27409-26,-28, NICKEL PLATE PER 5 THE SPINDLE DIAMETERS SHOWN.

CADMIUM-TITANIUM PLATE (F-15.01) ON OTHER AREAS, AND ALL OVER ON OTHER CARRIAGES. APPLY BMS 10-11, TYPE 1 PRIMER (F-20.02) AND BMS 10-11, TYPE 2 ENAMEL (F-21.02) UNLESS SHOWN BY 1 2 10

- 1 NO PRIMER OR ENAMEL IN HOLES OR ON THESE SURFACES
- 2 CADMIUM-TITANIUM PLATE (F-15.01) 0.0005-0.0007 THICK. ONE LAYER OF BMS 10-11 TYPE 1 PRIMER (F-20.02) THICK. OMIT ENAMEL THIS SURFACE
- 3 RANGE OR LIMIT FOR INSTALLATION OF REPAIR BUSHING OR SLEEVE (FIG. 604,605,606)
- 4 TO HELP YOU MACHINE THE SPINDLE, MAKE THIS SPECIAL MOUNTING BORE, 0.375-0.500 DIA, 0.375 DEEP, ALIGNED WITH THE SPINDLE AS SHOWN, WITH 0.06 MIN RADIUS ALL AROUND AT THE BOTTOM

REPAIR

REF 3 4 8 9

63/ MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

MATERIAL: 4340M STEEL, 270-300 KSI
ALL DIMENSIONS ARE IN INCHES

- 5 NICKEL PLATE (F-15.33) TO A MAXIMUM THICKNESS OF 0.030 INCH AFTER MACHINING. AT EDGES, HOLES AND RELIEFS, RUNOUT MINIMUM EQUALS PLATING THICKNESS (BUT NOT LESS THAN 0.010 INCHES) RUNOUT MAXIMUM EQUAL 0.080 INCH
- 6 65C27409-7,-11,-15,-19,-26
- 7 65C27409-8,-12,-20,-22,-24,-28
- 8 RESTORATION TO DESIGN DIMENSIONS NOT REQUIRED
- 9 RESTORE AFTER SLEEVE INSTALLATION
- 10 CADMIUM-TITANIUM PLATE (F-15.01). WIPE SURFACE WITH BMS 10-11 TYPE 1 PRIMER (F-19.45). OMIT ENAMEL THIS SURFACE

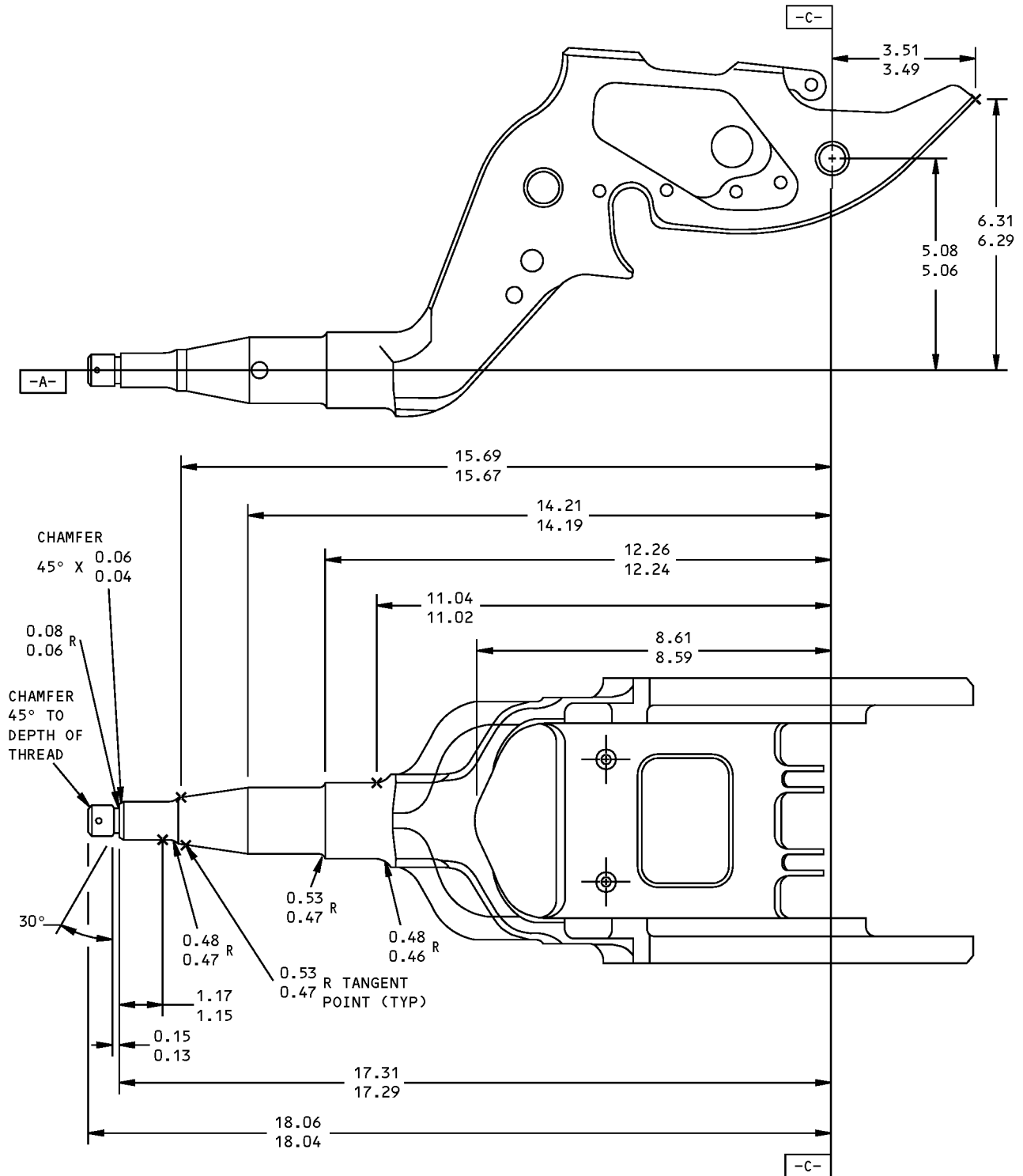
65C27409-SERIES

Carriage Repair and Refinish
Figure 601 (Sheet 8 of 8)

57-53-36

REPAIR 2-1
Page 613
Mar 01/2007

COMPONENT MAINTENANCE MANUAL



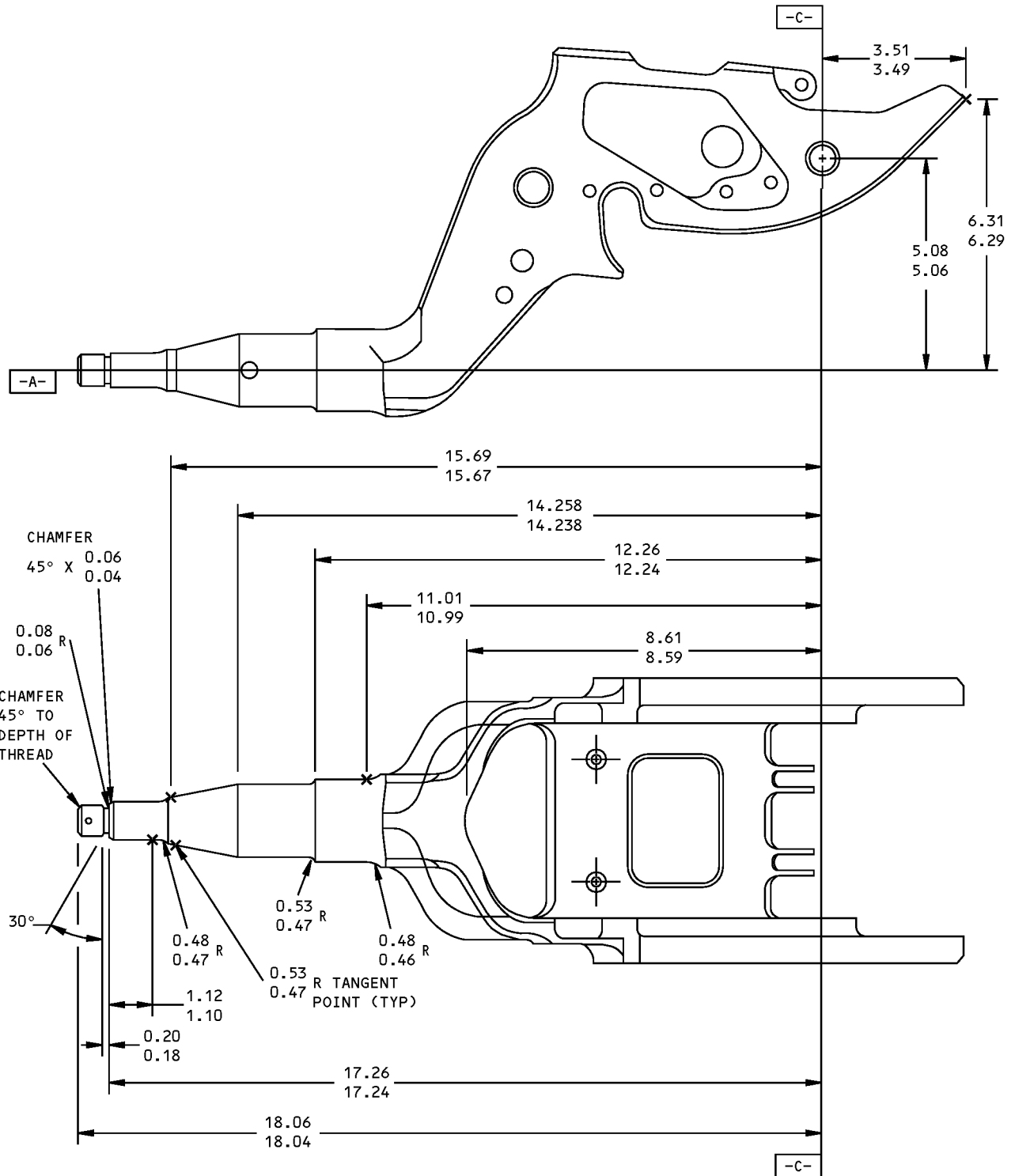
65C27409-7,-11,-15,-19 CARRIAGES

Carriage Spindle Repair
Figure 602 (Sheet 1 of 10)

57-53-36

REPAIR 2-1
Page 614
Mar 01/2007

COMPONENT MAINTENANCE MANUAL



65C27409-26 CARRIAGE

Carriage Spindle Repair
Figure 602 (Sheet 2 of 10)

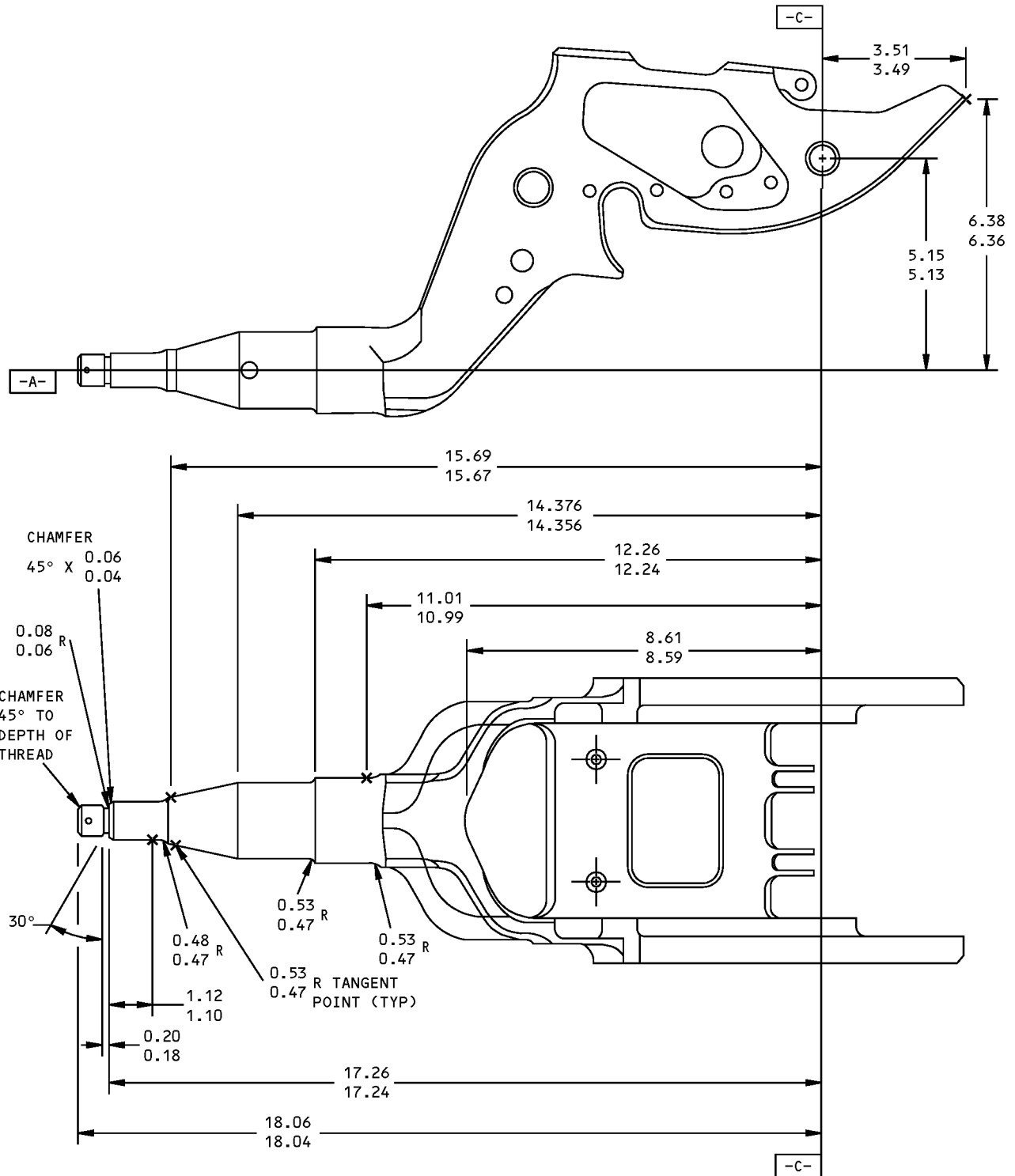
57-53-36

REPAIR 2-1

Page 615

Mar 01/2007

COMPONENT MAINTENANCE MANUAL



65C27409-28 CARRIAGE

Carriage Spindle Repair
Figure 602 (Sheet 3 of 10)

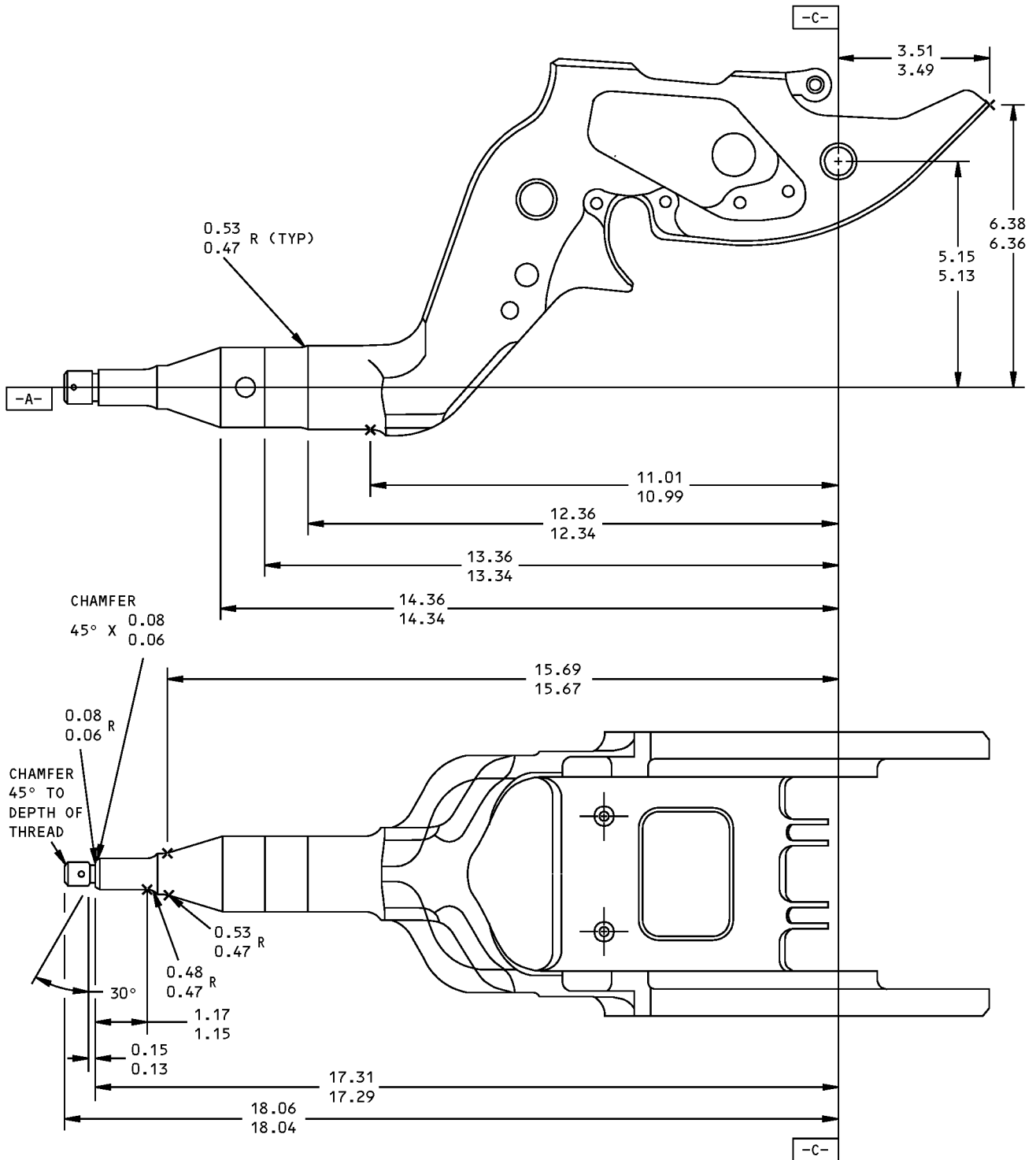
57-53-36

REPAIR 2-1

Page 616

Mar 01/2007

COMPONENT MAINTENANCE MANUAL



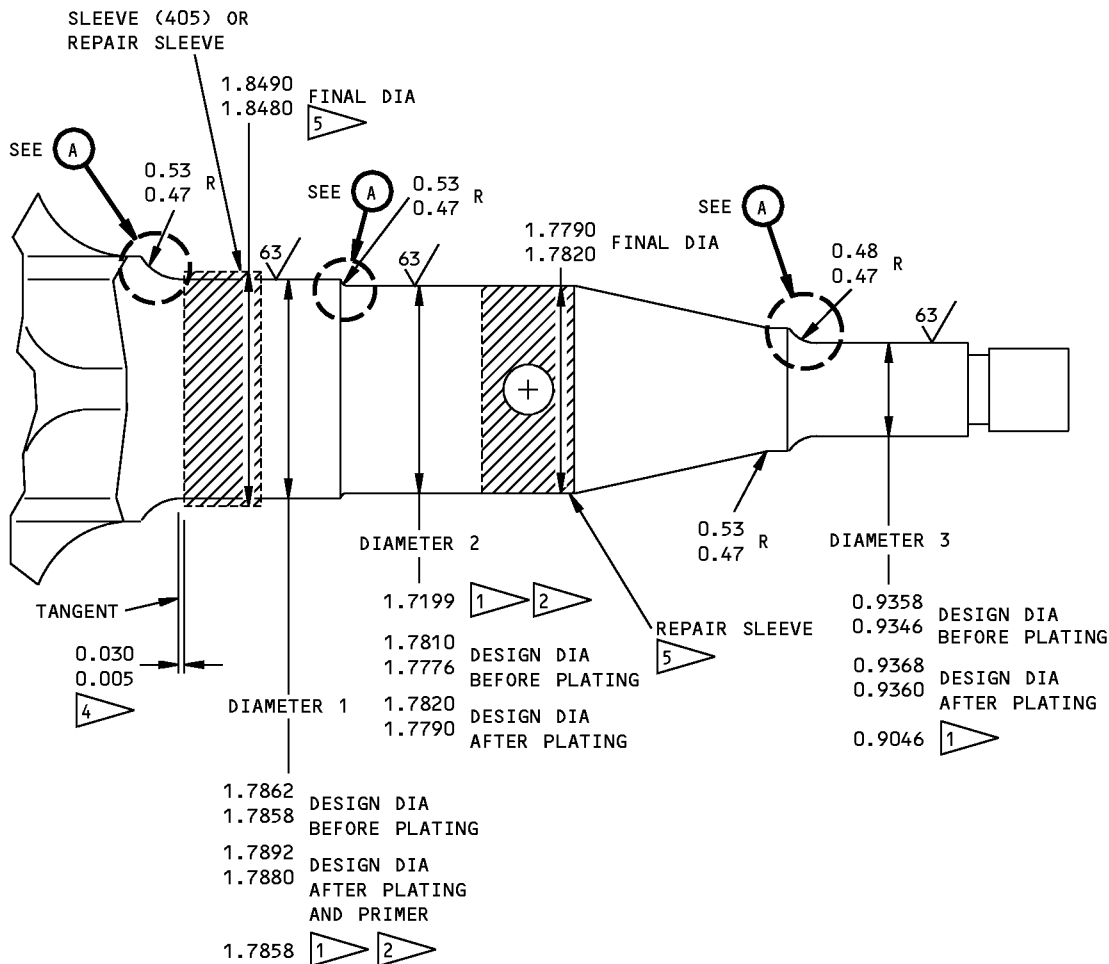
65C27409-8,-12,-20,-22,-24 CARRIAGES

Carriage Spindle Repair
Figure 602 (Sheet 4 of 10)

57-53-36

REPAIR 2-1
Page 617
Mar 01/2007

COMPONENT MAINTENANCE MANUAL



SPINDLE OF CARRIAGE 65C27409-7,-11,-15,-19

F68569 S00041006959_V6

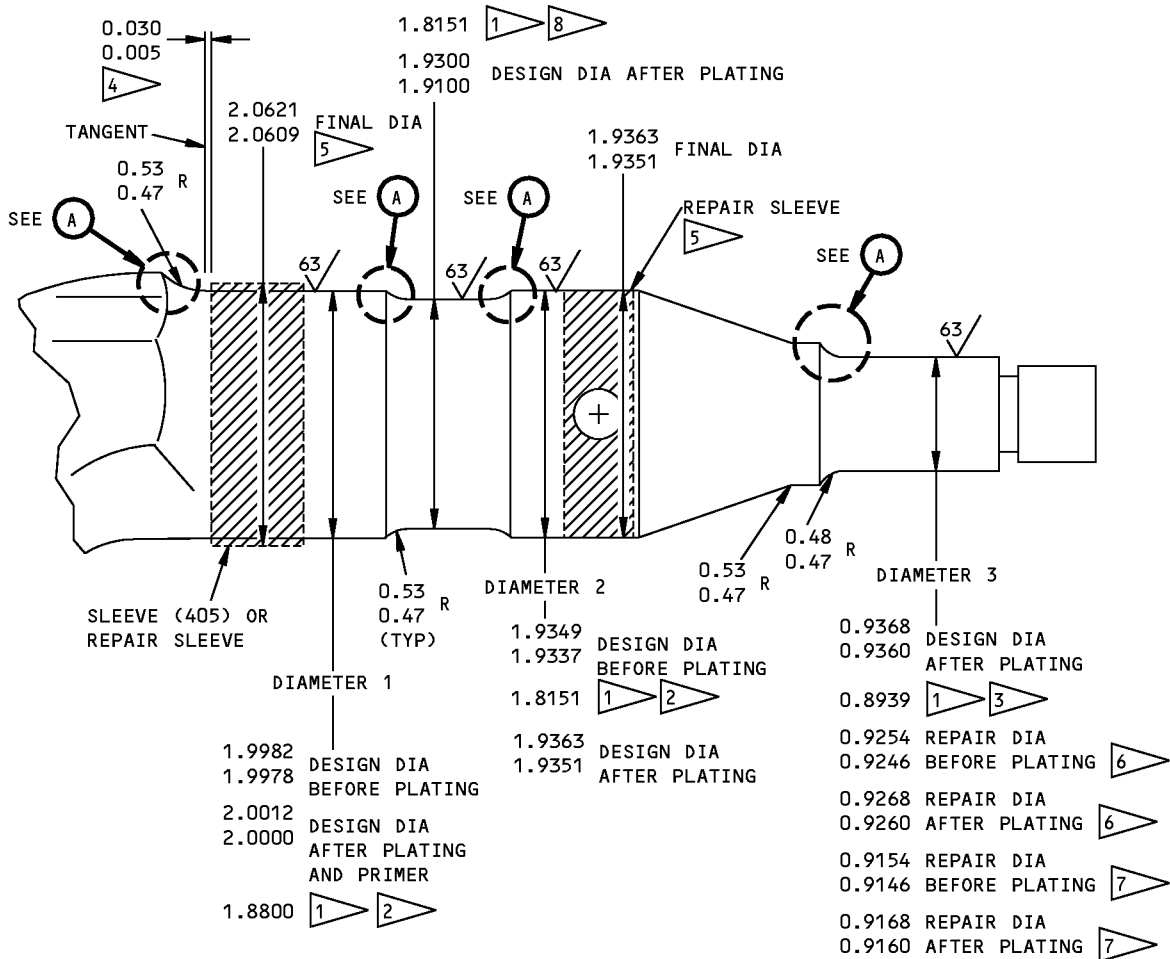
Carriage Spindle Repair
Figure 602 (Sheet 5 of 10)

57-53-36

REPAIR 2-1
Page 618
Nov 01/2008



COMPONENT MAINTENANCE MANUAL



SPINDLE OF CARRIAGE 65C27409-8,-12,-20,-22

701849 S00041006960_V5

Carriage Spindle Repair
Figure 602 (Sheet 6 of 10)

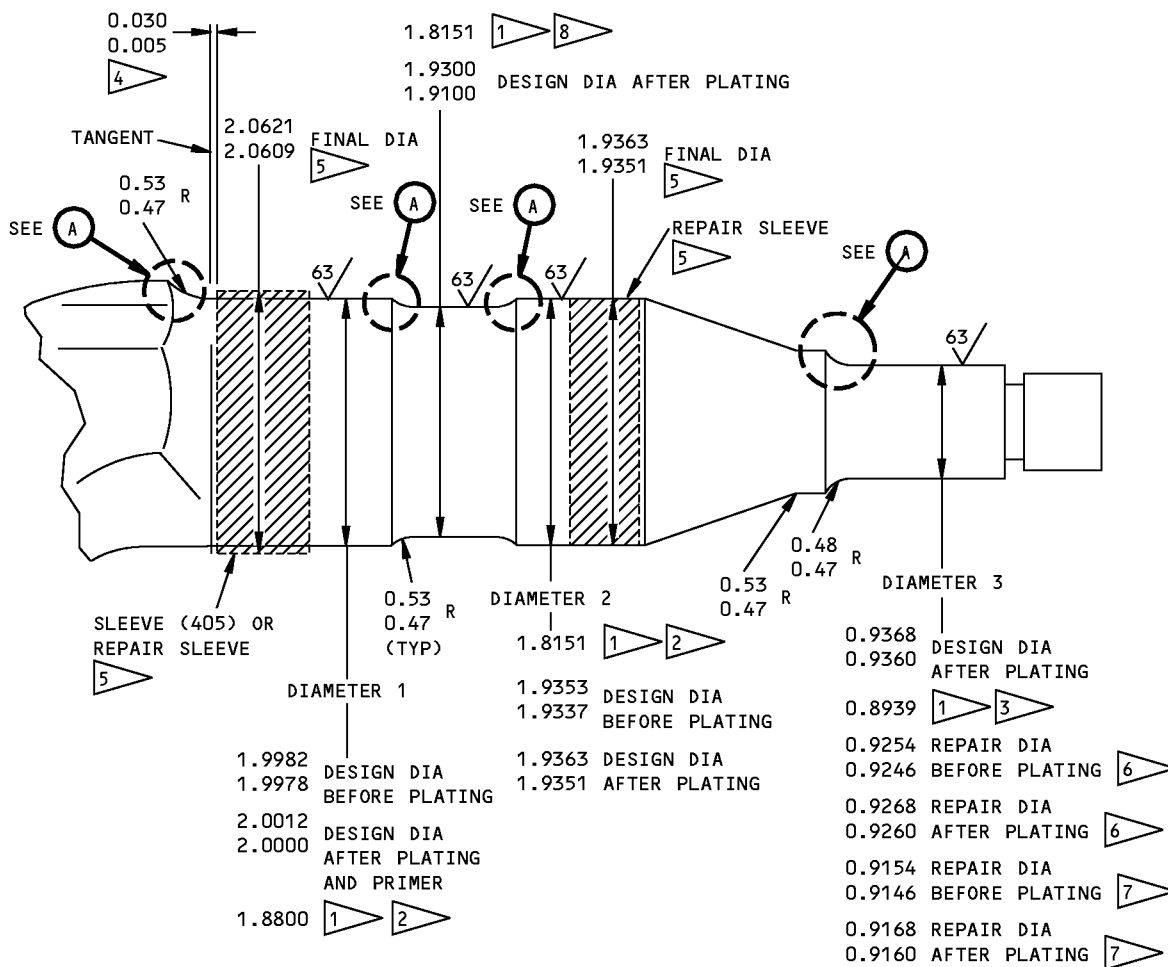
57-53-36

REPAIR 2-1

Page 619

Mar 01/2008

COMPONENT MAINTENANCE MANUAL



SPINDLE OF CARRIAGE 65C27409-24

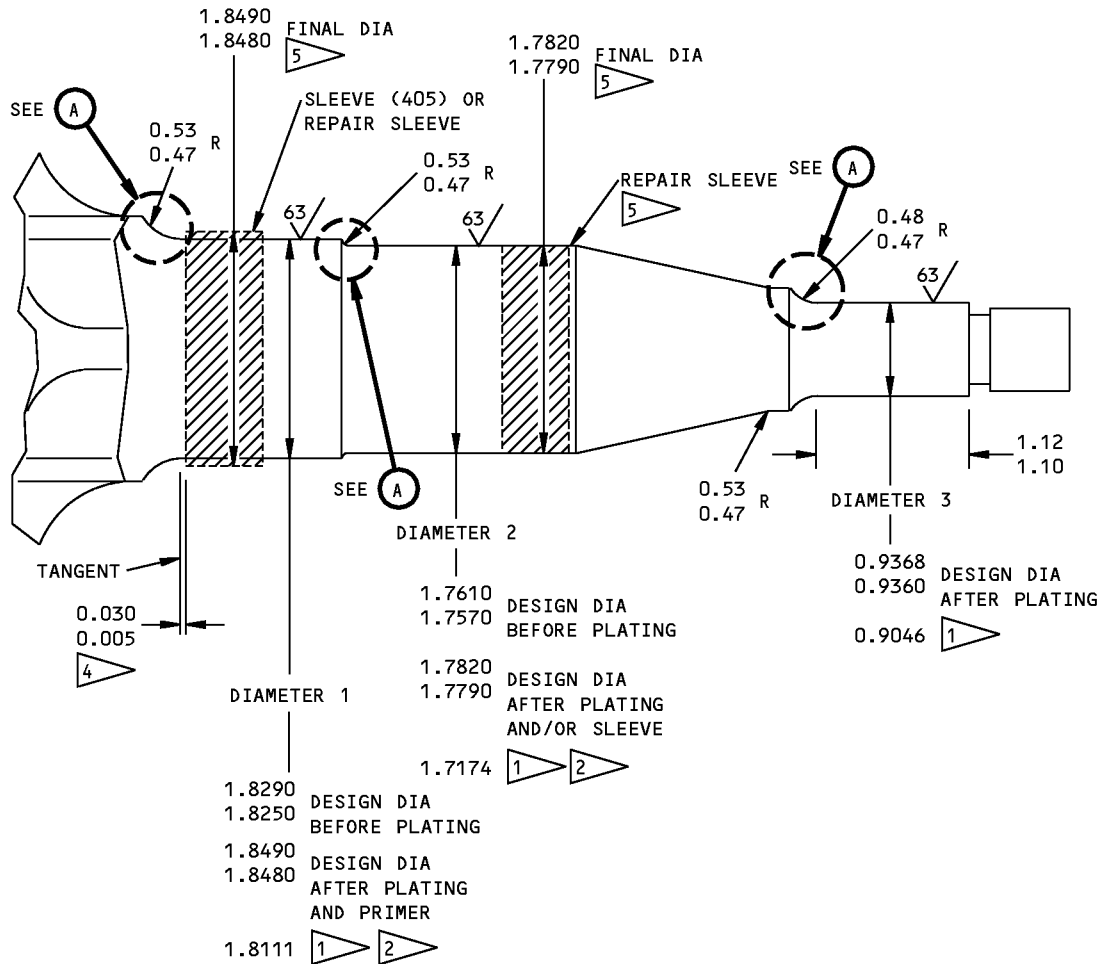
W53590 S00041006961_V5

Carriage Spindle Repair
Figure 602 (Sheet 7 of 10)

57-53-36

REPAIR 2-1
Page 620
Mar 01/2008

COMPONENT MAINTENANCE MANUAL



SPINDLE OF CARRIAGE 65C27409-26

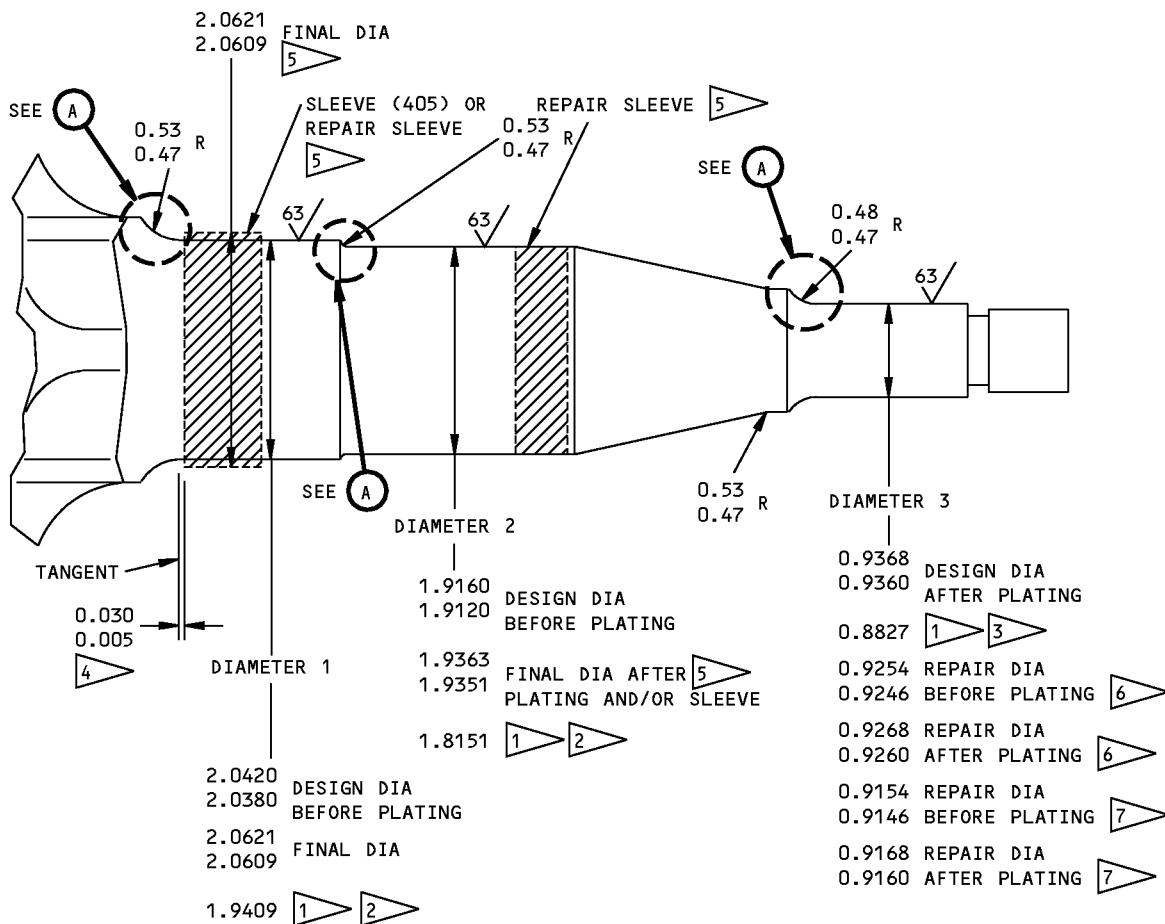
C65891 S00041006962_V7

Carriage Spindle Repair
Figure 602 (Sheet 8 of 10)

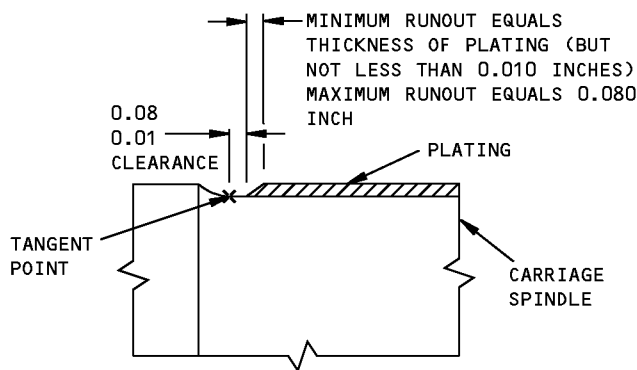
57-53-36

REPAIR 2-1
Page 621
Nov 01/2008

COMPONENT MAINTENANCE MANUAL



SPINDLE OF CARRIAGE 65C27409-28



65C27409 SERIES



L49056 S00041006963_V5

Carriage Spindle Repair
Figure 602 (Sheet 9 of 10)

57-53-36

REPAIR 2-1

Page 622

Mar 01/2008



COMPONENT MAINTENANCE MANUAL

- 1 ▶ ULTIMATE REPAIR LIMIT: IF THE DIAMETERS NUMBER 1, NUMBER 2 OR NUMBER 3 ARE LESS THAN THE REPAIR LIMIT, THEN NO REPAIRS ARE ALLOWED TO THE DIAMETERS AND THE CARRIAGES SHOULD BE REMOVED FROM SERVICE
- 2 ▶ REPAIR DIAMETER 1 OR 2 WITH SULFAMATE NICKEL PLATE (0.003-0.030) INCH, OR SULFAMATE NICKEL PLATE (0.003-0.030) INCH PLUS AN AISI 304 ANNELED CRES REPAIR SLEEVE AND MACHINE OUTER DIAMETER OF REPAIR SLEEVE PER 5 ▶ THRU 7 ▶ AS APPLICABLE. REFER TO REPAIR PROCEDURE
- 3 ▶ REPAIR DIAMETER 3 WITH SULFAMATE NICKEL PLATE (0.003-0.030) INCH. AN ALTERNATIVE TO SULFAMATE NICKEL REPAIR IS TO APPLY CADMIUM-TITANIUM PLATE (F-15.01) (0.0005-0.0007) INCH, PLUS APPLY BMS 10-11 TYPE 1 PRIMER (F-20.02) (0.0006-0.0008) INCH AND INSTALL AN UNDERSIZE EQUIVALENT OF BEARING (360). REFER TO REPAIR PROCEDURE
- 4 ▶ SET BACK DISTANCE BETWEEN RADIUS TANGENT POINT AND SLEEVE MUST BE 0.005-0.030 INCH
- 5 ▶ IF A REPAIR SLEEVES IS USED MAKE SURE TO MACHINE THE SLEEVE TO 63RA
- 6 ▶ SPINDLE DIAMETER FOR (0.010 INCH UNDERSIZE) BEARING P/N KJB193715V. MAINTAIN A 0.0005-0.0015 INCH INTERFERENCE UPON INSTALLATION
- 7 ▶ SPINDLE DIAMETER FOR (0.020 INCH UNDERSIZE) BEARING P/N KJB193815V. MAINTAIN A 0.0005-0.0015 INCH INTERFERENCE UPON INSTALLATION
- 8 ▶ RESTORATION OF THIS DIAMETER IS NOT REQUIRED

REPAIR

63/ ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

SHOT PEEN (SOPM 20-10-03)
SHOT SIZE 0.016-0.039
INTENSITY 0.014A-0.019A
COVERAGE 2.0

MATERIAL: 4340M STEEL
270-300 KSI

ALL DIMENSIONS ARE IN INCHES

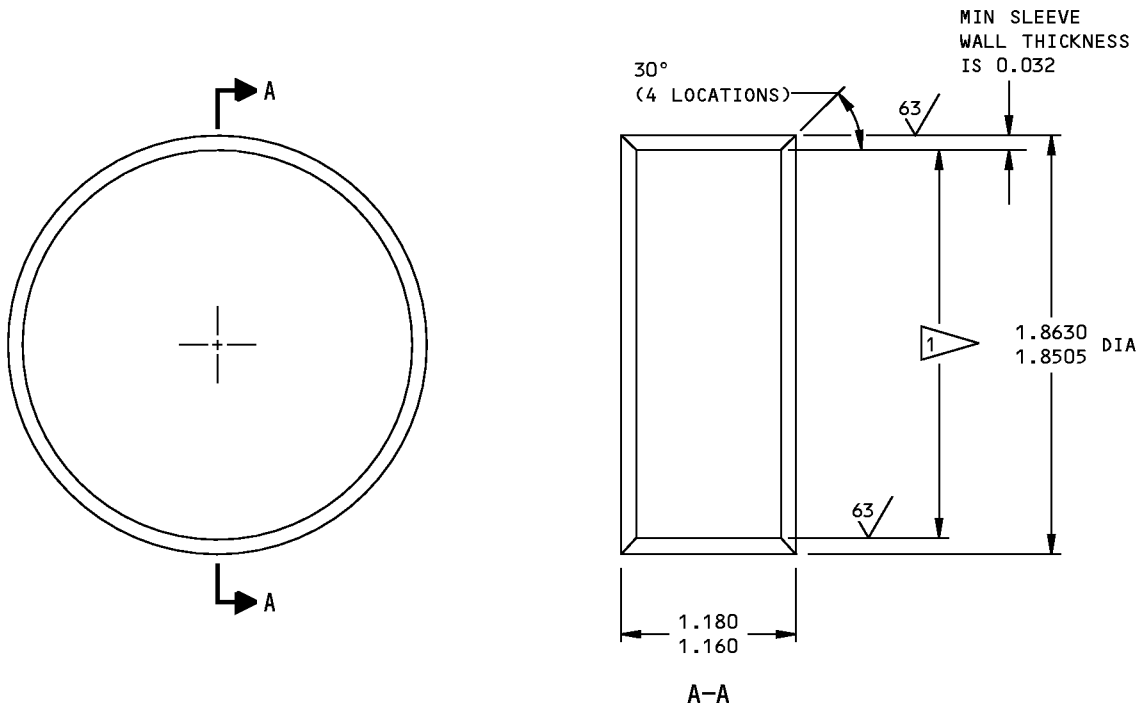
Carriage Spindle Repair
Figure 602 (Sheet 10 of 10)

57-53-36

REPAIR 2-1
Page 623
Mar 01/2007



COMPONENT MAINTENANCE MANUAL



1 THE INNER DIAMETER OF THE REPAIR SLEEVE IS EQUAL TO THE OUTER DIAMETER (DIAMETER 1) OF THE SPINDLE MINUS THE INTERFERENCE OF 0.0020-0.0040

REPAIR

63/ ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

PASSIVATE (F-17.25) ANY NON-CAD PLATED SURFACES, CADMIUM PLATE (F-15.02)

MATERIAL: AISI 304 ANNEALED
CRES BAR PER AMS 5639

ANGLE ± 2°

ALL DIMENSIONS ARE IN INCHES

REPAIR SLEEVE FOR FIG. 602 DIAMETER 1,
SPINDLES
65C27409-7,-11,-15,-19,-26

U59571 S0000208798_V4

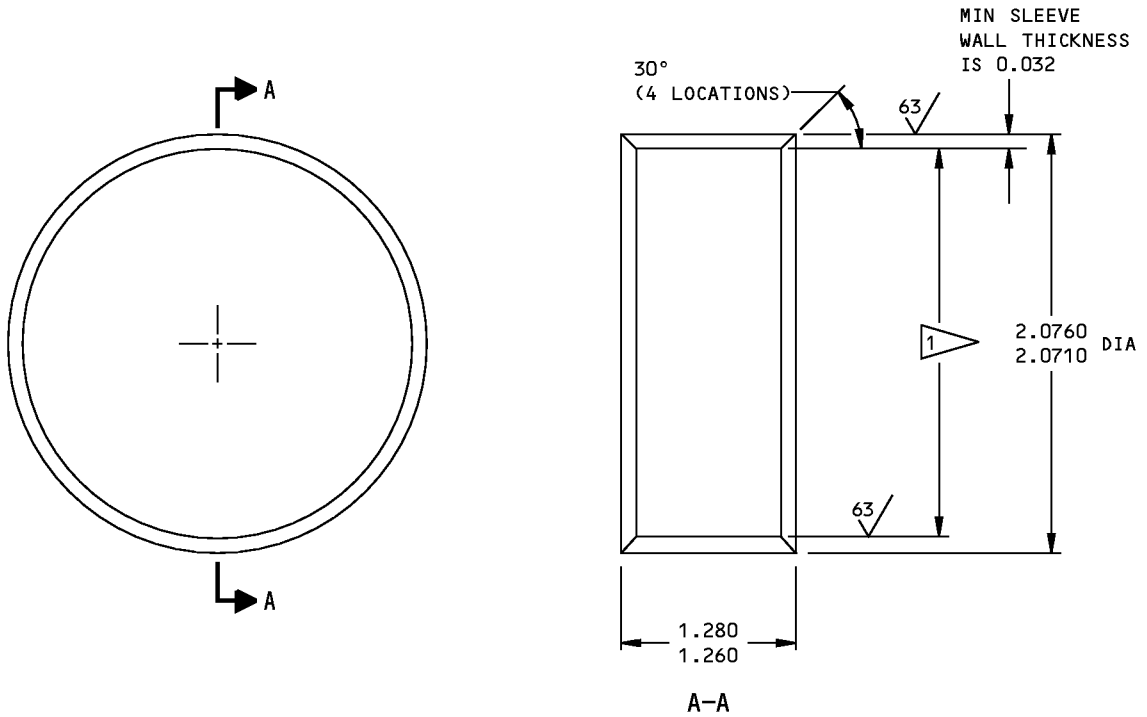
Repair Sleeve Details
Figure 603

57-53-36

REPAIR 2-1
Page 624
Mar 01/2008



COMPONENT MAINTENANCE MANUAL



1 THE INNER DIAMETER OF THE REPAIR SLEEVE IS EQUAL TO THE OUTER DIAMETER (DIAMETER 1) OF THE SPINDLE MINUS THE INTERFERENCE OF 0.0020-0.0040

REPAIR

63 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

PASSIVATE (F-17.25) ANY NON-CAD PLATED SURFACES, CADMIUM PLATE (F-15.02)

MATERIAL: AISI 304 ANNEALED
CRES BAR PER AMS 5639

ANGLE ± 2°

ALL DIMENSIONS ARE IN INCHES

REPAIR SLEEVE FOR FIG. 602 DIAMETER 1,
SPINDLES
65C27409-8,-12,-20,-22,-24,-28

U59582 S0000208799_V3

Repair Sleeve Details
Figure 604

57-53-36

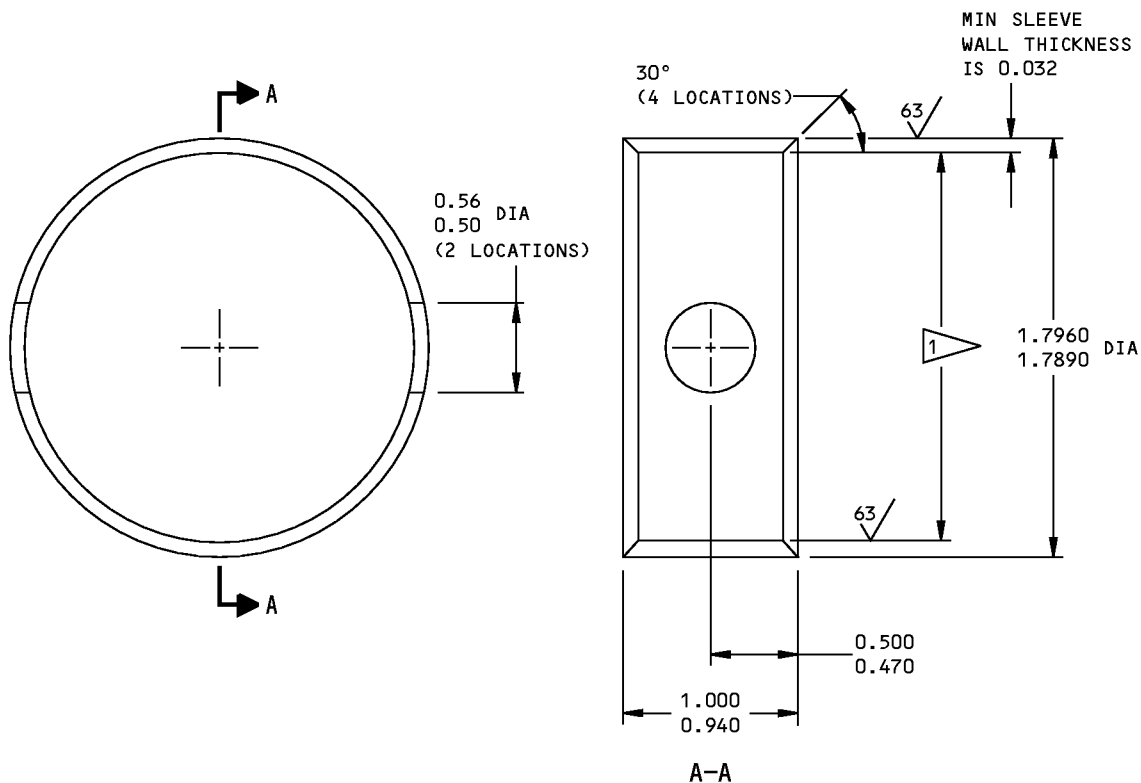
REPAIR 2-1

Page 625

Mar 01/2008



COMPONENT MAINTENANCE MANUAL



1 THE INNER DIAMETER OF THE REPAIR SLEEVE IS EQUAL TO THE OUTER DIAMETER (DIAMETER 2) OF THE SPINDLE MINUS THE INTERFERENCE OF 0.0020-0.0040

REPAIR

63/ ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

PASSIVATE (F-17.25) ANY NON-CAD PLATED SURFACES, CADMIUM PLATE (F-15.02)

MATERIAL: AISI 304 ANNEALED
CRES BAR PER AMS 5639

ANGLE ± 2°

ALL DIMENSIONS ARE IN INCHES

REPAIR SLEEVE FOR FIG. 602 DIAMETER 2,
SPINDLES
65C27409-7,-11,-15,-19,-26

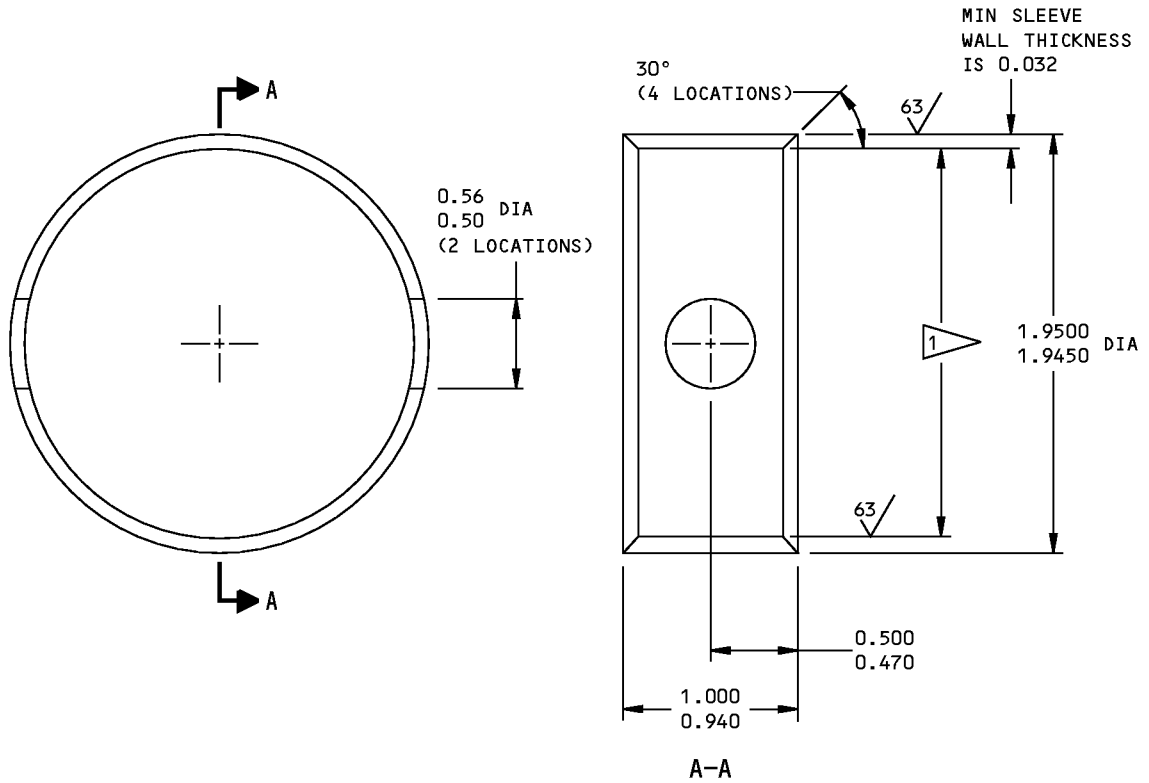
U59583 S0000208801_V4

Repair Sleeve Details
Figure 605

57-53-36

REPAIR 2-1
Page 626
Mar 01/2008

COMPONENT MAINTENANCE MANUAL



1 THE INNER DIAMETER OF THE REPAIR SLEEVE IS EQUAL TO THE OUTER DIAMETER (DIAMETER 2) OF THE SPINDLE MINUS THE INTERFERENCE OF 0.0020-0.0040

REPAIR

63 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

PASSIVATE (F-17.25) ANY NON-CAD PLATED SURFACES, CADMIUM PLATE (F-15.02)

MATERIAL: AISI 304 ANNEALED
CRES BAR PER AMS 5639

ANGLE $\pm 2^\circ$

ALL DIMENSIONS ARE IN INCHES

REPAIR SLEEVE FOR FIG. 602 DIAMETER 2,
SPINDLES
65C27409-8,-12,-20,-22,-24,-28

U59584 S0000208802_V4

Repair Sleeve Details
Figure 606

57-53-36

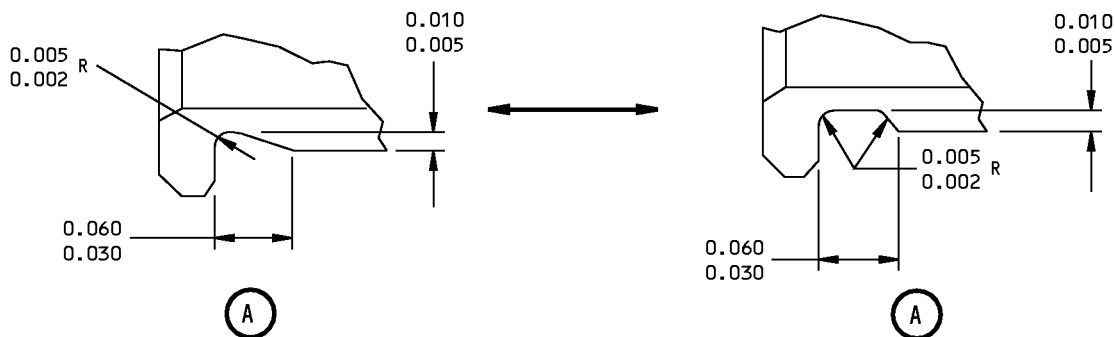
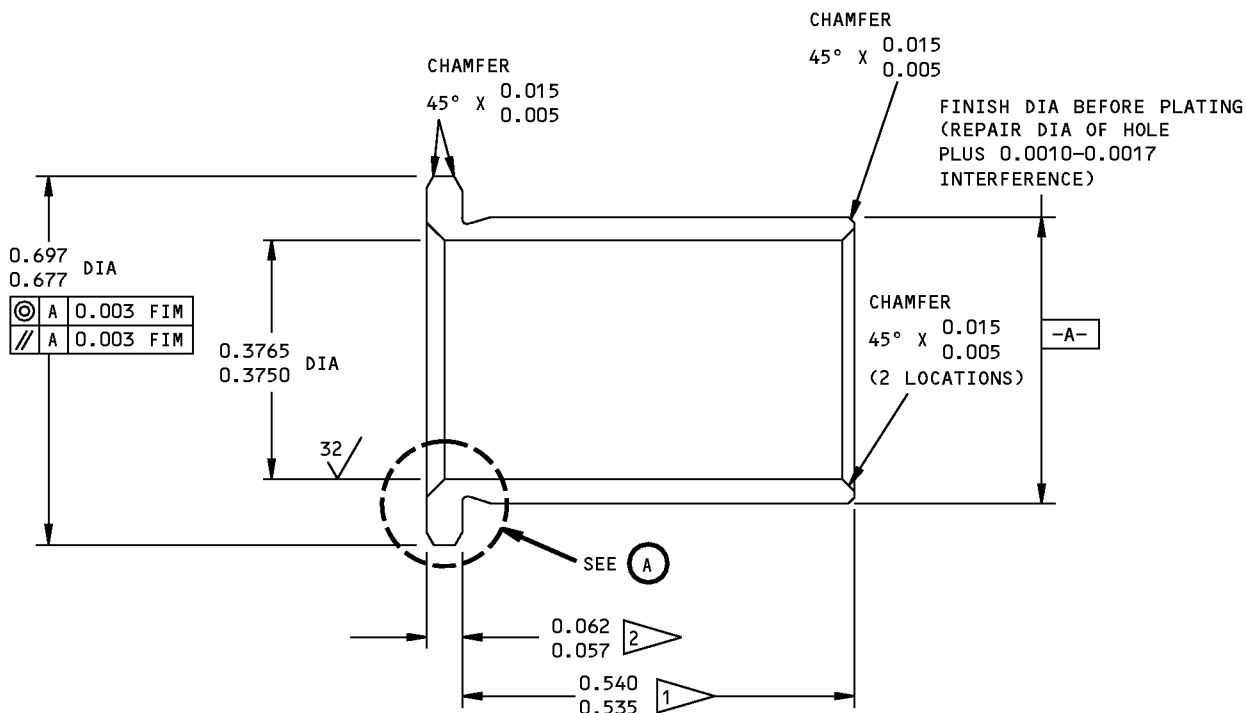
REPAIR 2-1

Page 627

Mar 01/2008



COMPONENT MAINTENANCE MANUAL



- 1 MINUS AMOUNT REMOVED FROM LUG FACE
- 2 PLUS AMOUNT REMOVED FROM LUG FACE

REPAIR

63/ ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

CADMIUM PLATE (F-15.06) (0.0003-0.0005 THICK) (OPTIONAL ON INTERNAL SURFACES). PASSIVATE UNPLATED SURFACES (SOPM 20-42-05)

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

ANGLE ± 2°

ALL DIMENSIONS APPLY BEFORE PLATING

ALL DIMENSIONS ARE IN INCHES

HOLE LOCATION (6) FIG. 601 - REPLACES BUSHING (205) BACB28X6B054

F68584-S00041006966_V4

Oversize Bushing Details
Figure 607

57-53-36

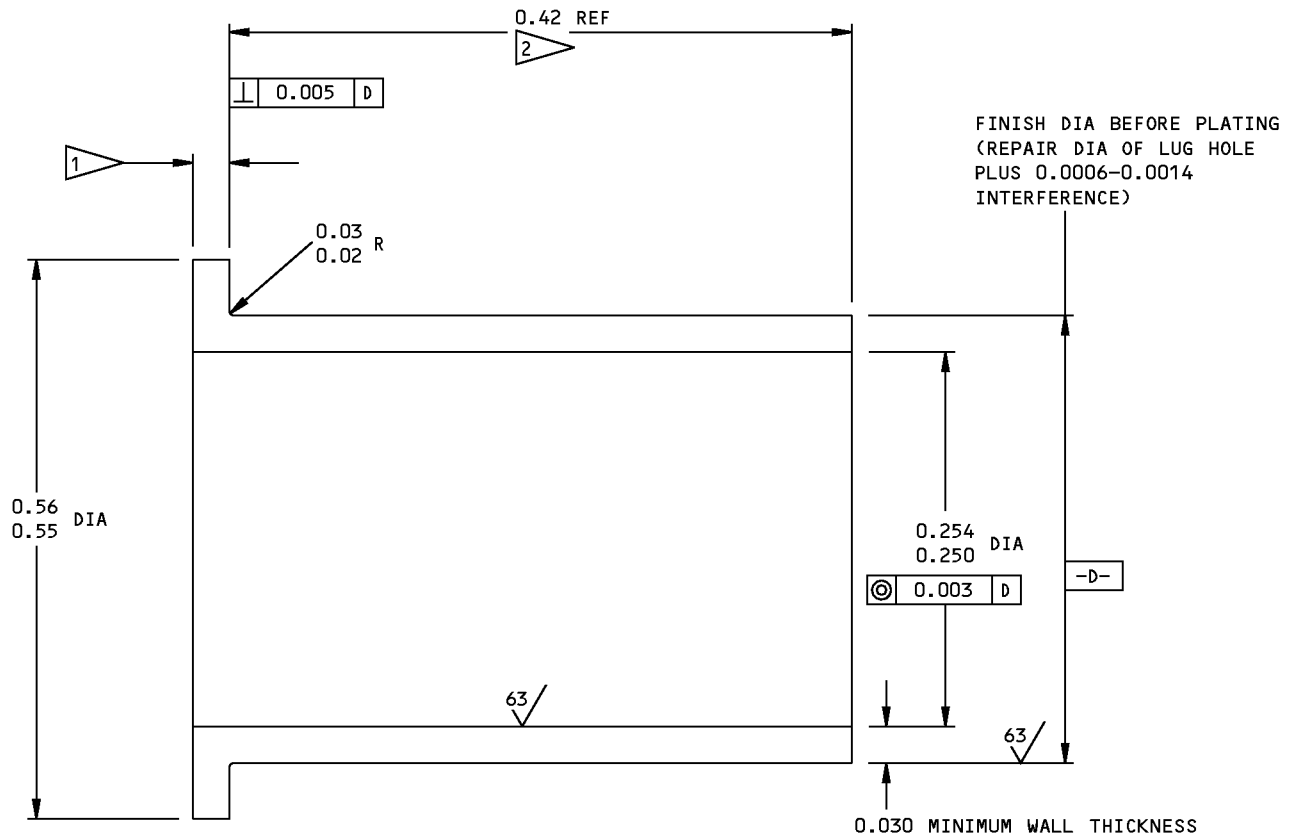
REPAIR 2-1

Page 628

Nov 01/2008



COMPONENT MAINTENANCE MANUAL



- 1 SPOTFACE DEPTH PLUS 0.040 INCH ± 0.010
- 2 LENGTH TO PERMIT THE COUNTERSINK OF FIGURE 601

REPAIR

63/ ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

CADMIUM PLATE (F-15.06)(0.0003-0.0005 INCH THICK). PASSIVATE UNPLATED SURFACES (OPTIONAL ON INTERNAL SURFACES)

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

BREAK SHARP EDGES 0.01-0.02 INCH RADIUS

ALL DIMENSIONS ARE IN INCHES

ALL DIMENSIONS APPLY BEFORE PLATING

HOLE LOCATION (8) FIG. 601

Repair Bushing Details
Figure 608

57-53-36

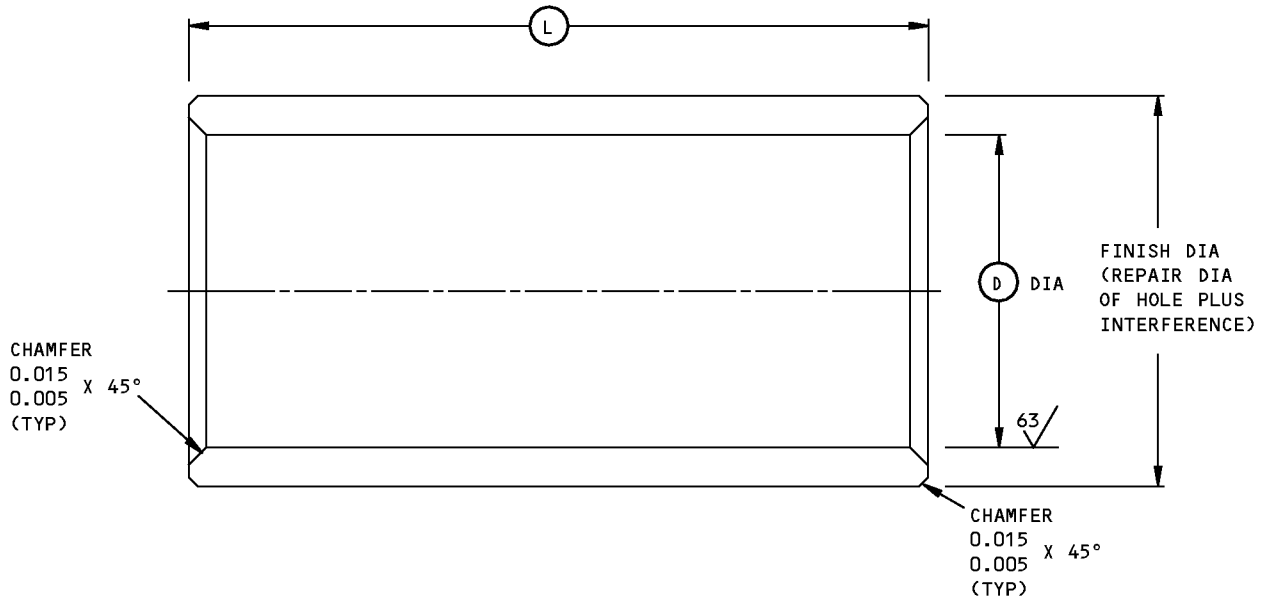
REPAIR 2-1

Page 629

Mar 01/2007



COMPONENT MAINTENANCE MANUAL



HOLE LOCATION	REPAIR FIGURE	D	L	INTERFERENCE FIT	MATERIAL
1	601	0.8781 0.8745	0.53 0.51	3	1 OR 2
3	601	0.7531 0.7495	0.55 0.53	3	1 OR 2
5	601	0.442 0.437	4	0.0017 0.0010	1 OR 2
7	601	0.261 0.255	4	0.0017 0.0010	1 OR 2
10	601	0.254 0.250	3	0.0015 0.0005	1 OR 2
11	601	0.366 0.359	5	0.0017 0.0010	1 OR 2

REFINISH

CADMIUM PLATE (F-15.06)

- 1 15-5PH CRES, 180-200 KSI PER AMS 5659
- 2 17-4PH CRES, 180-200 KSI PER AMS 5643
- 3 EQUAL TO OR 0.002 LESS THAN BORE LENGTH
- 4 BORE LENGTH ±0.002
- 5 SAME AS ORIGINAL BUSHING (395,400)

REPAIR

63 FINISH EXCEPT AS NOTED

MATERIAL: AS NOTED

ANGLE ± 2°

ALL DIMENSIONS APPLY AFTER PLATING

ALL DIMENSIONS ARE IN INCHES

Repair Sleeve Details
Figure 609

57-53-36

REPAIR 2-1

Page 630

Mar 01/2007



COMPONENT MAINTENANCE MANUAL

CARRIAGE SUBASSEMBLY - REPAIR 2-2

65C27409-30, -32

1. General

- A. This procedure has the data necessary to repair the carriage assembly.
- B. Refer to REPAIR-GENERAL, Paragraph 2. for the Standard Overhaul Practices Manual (SOPM) subjects identified in this procedure.
- C. Refer to REPAIR-GENERAL, Paragraph 3. for the description of the consumable codes identified in this procedure
- D. Refer to IPL Figure 1, IPL Figure 2 for the item numbers.

2. Repair

- A. Consumable Materials

NOTE: Equivalent substitutes may be used.

Reference	Description	Specification
A00247	Sealant - Pressure And Environmental - Chromate Type	BMS 5-95
C00259	Primer - Chemical And Solvent Resistant Finish, Epoxy Resin	BMS10-11, Type I
G50026	Coating - Thermal Spray Powder (Tungsten Carbide Cobalt Chrome)	BMS10-67, Type XVII

- B. References

Reference	Title
CMM 32-00-05	REPAIR OF HIGH-STRENGTH STEEL LANDING GEAR PARTS
SOPM 20-10-02	MACHINING OF ALLOY STEEL
SOPM 20-10-03	SHOT PEENING
SOPM 20-10-05	APPLICATION AND FINISHING OF THERMAL SPRAY COATINGS
SOPM 20-20-01	MAGNETIC PARTICLE INSPECTION
SOPM 20-30-03	GENERAL CLEANING PROCEDURES
SOPM 20-41-01	DECODING TABLE FOR BOEING FINISH CODES
SOPM 20-42-10	LOW HYDROGEN EMBRITTLEMENT STYLUS CADMIUM PLATING
SOPM 20-50-03	BEARING AND BUSHING REPLACEMENT
SOPM 20-60-02	FINISHING MATERIALS
SOPM 20-60-04	MISCELLANEOUS MATERIALS

- C. Bushing Replacement (205, 395, 400; IPL Figure 1, 230, 420; IPL Figure 2)

NOTE: For miscellaneous materials, refer to SOPM 20-60-04. For Magnetic Particle Inspection, refer to SOPM 20-20-01.

- (1) Remove the old bushings.

57-53-36

REPAIR 2-2

Page 601

Nov 01/2008



COMPONENT MAINTENANCE MANUAL

- (2) Install replacement bushings by the shrink- fit method per SOPM 20-50-03 with wet sealant, A00247. Make sure the ends of bushing (205, 395, 400; IPL Figure 1, 230, 420; IPL Figure 2) are at or no more than 0.02 inch below the surface of the carriage spindle.
- (3) Fillet seal the ends of bushing (205, 395, 400; IPL Figure 1, 230, 420; IPL Figure 2) with sealant, A00247.

D. Spindle Repair (REPAIR 2-2, Figure 602)

NOTE: Carriage spindles with defects can be repaired by machining and coating and as described in the following instructions. Diameters 1, 2 and 3 can be repaired by thermal coating with coating, G50026 (F-15.386) per SOPM 20-10-05. Coating applicator must be listed in the QPL for BAC5851.

- (1) If installed, remove any bearing, bushing cross bolt or any other fastener.
- (2) Clean, inspect and repair (if necessary) the carriage spindles per CMM 32-00-05. If carriage spindle repair is necessary, proceed as follows:
- (3) Mount the carriage between the centers in a suitable fixture. Use the special mounting bore shown in REPAIR 2-2, Figure 601, Flagnote 2 to help hold the carriage spindle.
- (4) Concentrically machine the outer diameters of the carriage spindle, as shown in SOPM 20-10-02, as necessary to remove defects, to the dimensions and finish shown in REPAIR 2-2, Figure 602. Keep a 63 Ra minimum finish.
- (5) After the area is machined, stress relive per SOPM 20-10-02.
- (6) Shot peen per SOPM 20-10-03.
- (7) Repair the machined area for Diameters 1, 2 and 3 as shown in REPAIR 2-2, Figure 602 as follows:

NOTE: For general cleaning procedures, refer to SOPM 20-30-03.

- (a) Thermal spray coat the machined area per SOPM 20-10-05 , to 0.003-0.010 inch final thickness. Coating may be applied up to 0.015 inches thick to allow for grinding down to final thickness.
- (b) After coating, finish the repair area to 16 RA.

E. Holes Diameters 1, 3, 5, 7, 8, 10 (REPAIR 2-2, Figure 601)

NOTE: For finishing materials, refer to SOPM 20-60-02. For miscellaneous materials, refer to SOPM 20-60-04.

- (1) Machine the holes oversize, within repair limits, to remove defects. Chamfer the outside edge of the holes 0.01-0.03 inch at 45 degrees.
- (2) Make a repair bushing or sleeve, as applicable (REPAIR 2-2, Figure 604, REPAIR 2-2, Figure 605).
- (3) Stylus cadmium plate the holes per SOPM 20-42-10, apply one coat primer, C00259 to the holes and let it dry. Install the bushing wet with sealant, A00247 by the shrink-fit method of SOPM 20-50-03.
- (4) Machine the ID of the installed bushings to the indicated hole design diameters.
- (5) Restore the bushing chamfers as necessary.
- (6) If you did a spotface repair at hole Diameter 1 or 3, make a washer to fill each spotface. Make the washer of cadmium plated 15-5PH per AMS 5659 (180-200 ksi), or 17-4PH per AMS 5643 (180-200 ksi). Install the washer with sealant, A00247.

57-53-36

REPAIR 2-2

Page 602

Nov 01/2008



COMPONENT MAINTENANCE MANUAL

- (7) If you installed a repair bushing with a flange in hole Diameter 8, and the larger unit uses AN960-416 washers between the carriage and the fairing arm, include a note with the carriage to replace the AN960-416 washer (which is 0.063-inch-thick) with a 0.032-inch-thick NAS1149F0432P (or equivalent) washer at this location between the carriage and the fairing support arm. If the larger unit does not use washers between the carriage and the fairing support arm, include a note to install a 0.032-inch-thick NAS1149F0432P (or equivalent) washer at the other hole diameter 8 location.

F. Holes Diameter 6 (REPAIR 2-2, Figure 601)

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

- (1) Remove bushing (205) from the carriage assembly.
- (2) Machine the hole oversize, within repair limits, to remove defects. Chamfer the outside edge of the holes 0.01-0.03 inch at 45 degrees.
- (3) Stylus cadmium plate the machined surface per SOPM 20-42-10, apply one coat of primer, C00259 and let dry.
- (4) Make a repair bushing (REPAIR 2-2, Figure 603).
- (5) Install the repair bushing wet with sealant, A00247 by the shrink-fit method of SOPM 20-50-03.
- (6) Machine the bore of the installed bushing to the original ID of bushing (205): 0.3750-0.3765 inch.
- (7) Restore the bushing bore chamfers as necessary.
- (8) If you did a spotface repair at hole Diameter 6, make a washer to fill the spotface on the inner carriage surface. Make the washer of cadmium plated 15-5PH per AMS 5659 (180-200 ksi), or 17-4PH per AMS 5643 (180-200 ksi). Install the washer with sealant, A00247.

G. Hole Diameter 11 for Crossbolt (365; (REPAIR 2-1, Figure 601, 390, IPL Figure 2); REPAIR 2-2, Figure 601)

NOTE: 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) Remove bushing (395, 400; IPL Figure 1, 420, IPL Figure 2) from the carriage assembly.
- (2) Machine the hole as required, within repair limits, to remove defects. Chamfer the outside edge of the hole 0.01-0.03 inch at 45 degrees.
- (3) Cadmium-titanium plate (F-15.01) the machined hole surfaces.
- (4) Apply one coat primer, C00259 (F-20.02) to the hole and let it dry.
- (5) Make a repair bushing (REPAIR 2-2, Figure 605).
- (6) Install the repair bushing by the shrink-fit method with wet sealant, A00247. Make sure the bushing ends are at or 0.02 inch maximum below the surfaces. Remove unwanted sealant, A00247.
- (7) Fillet seal the end of the repair bushing with sealant, A00247.
- (8) Machine the bushing ID to 0.3750-0.3756 inch design diameter.

H. Toggle Flange (REPAIR 2-1, Figure 601)

- (1) Machine the surfaces flat as required, within repair limits, to remove defects.
- (2) Refinish as indicated.

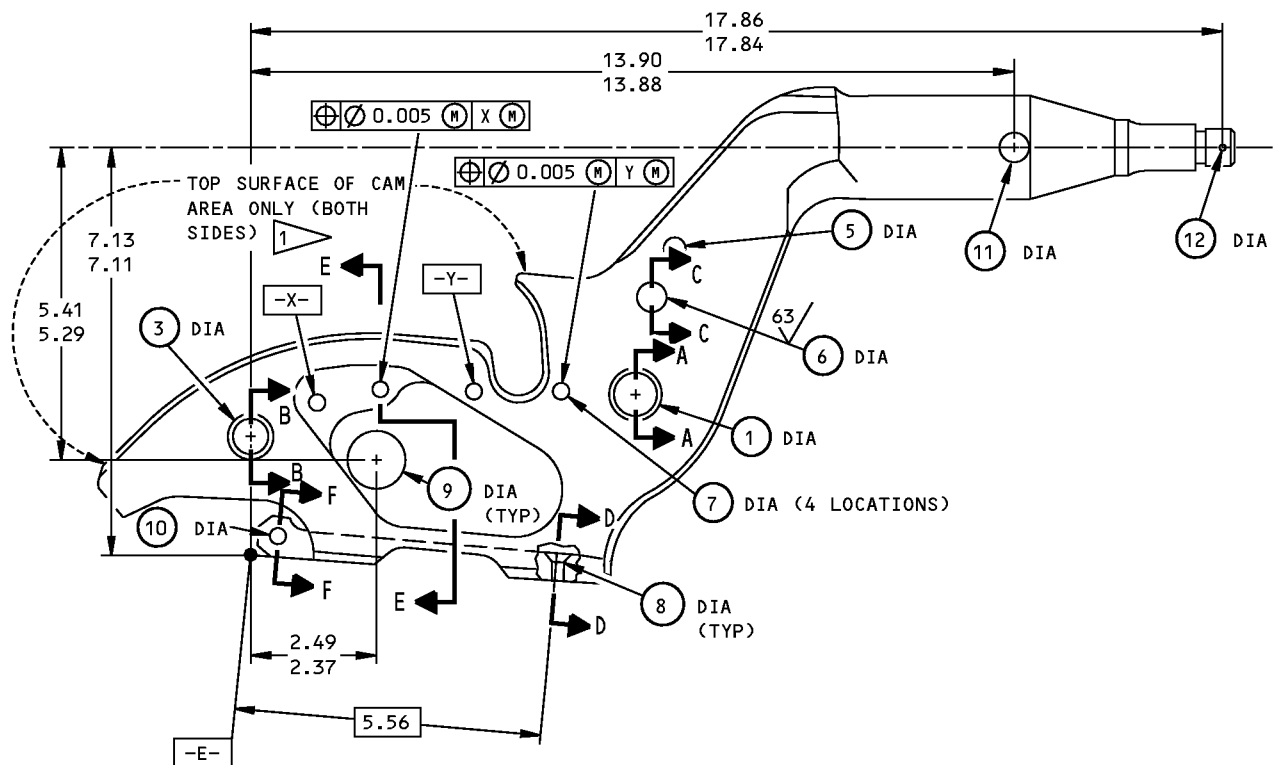
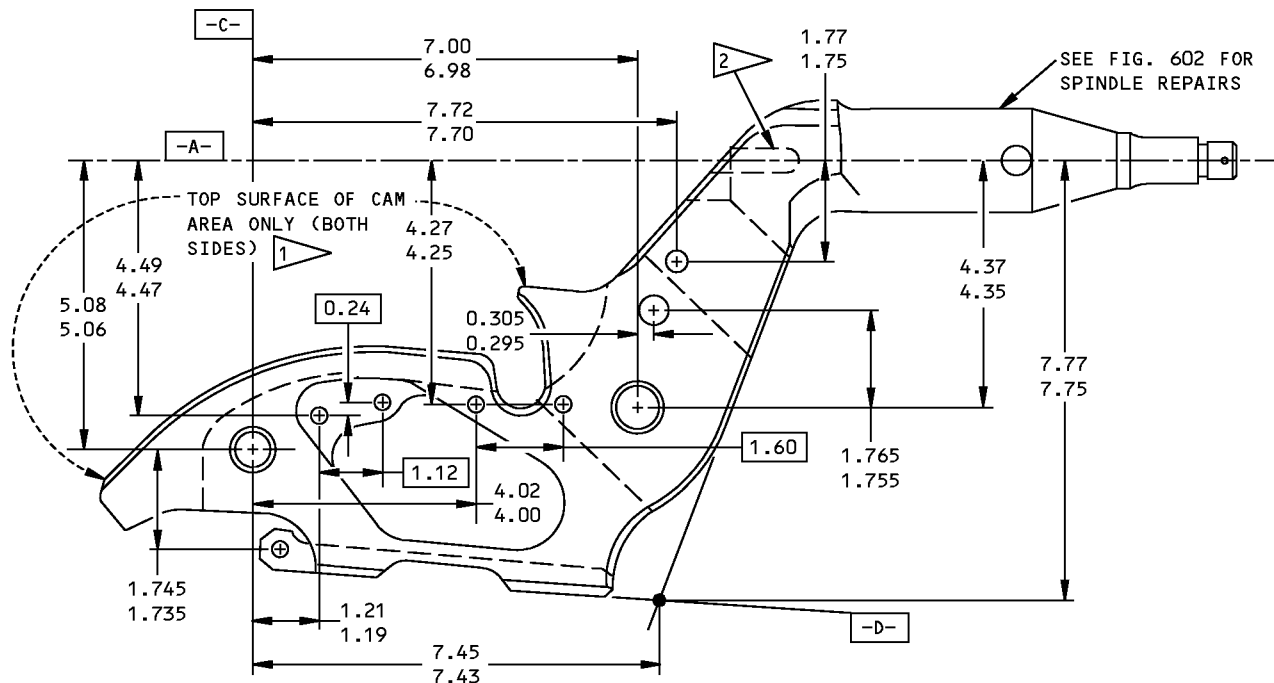
57-53-36

REPAIR 2-2

Page 603

Nov 01/2008

COMPONENT MAINTENANCE MANUAL



65C27409-30

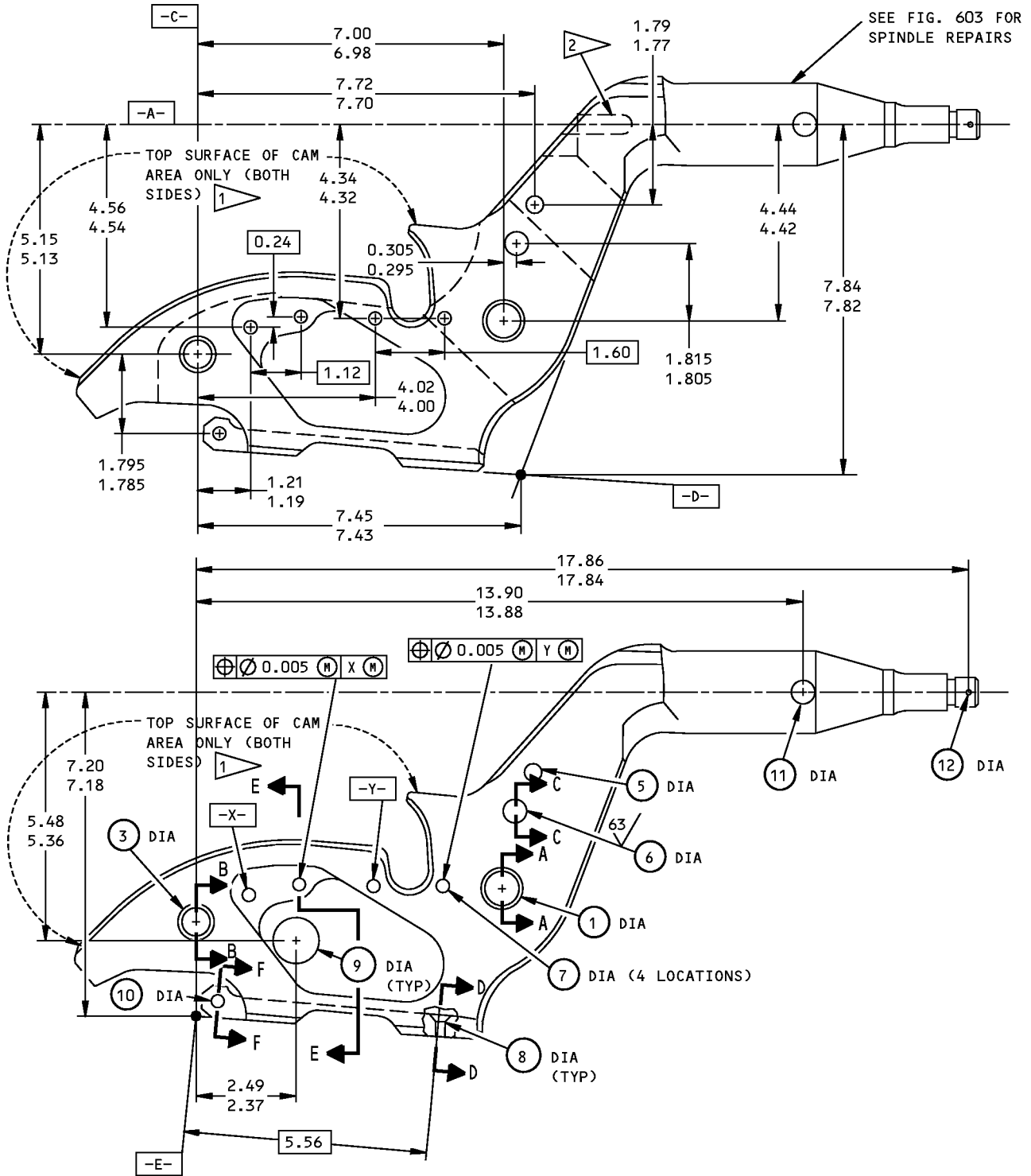
1649714 S0000300755_V1

Carriage Repair and Refinish
Figure 601 (Sheet 1 of 8)

57-53-36

REPAIR 2-2
Page 604
Nov 01/2008

COMPONENT MAINTENANCE MANUAL



65C27409-32

1649739 S0000300756_V1

Carriage Repair and Refinish
Figure 601 (Sheet 2 of 8)

57-53-36

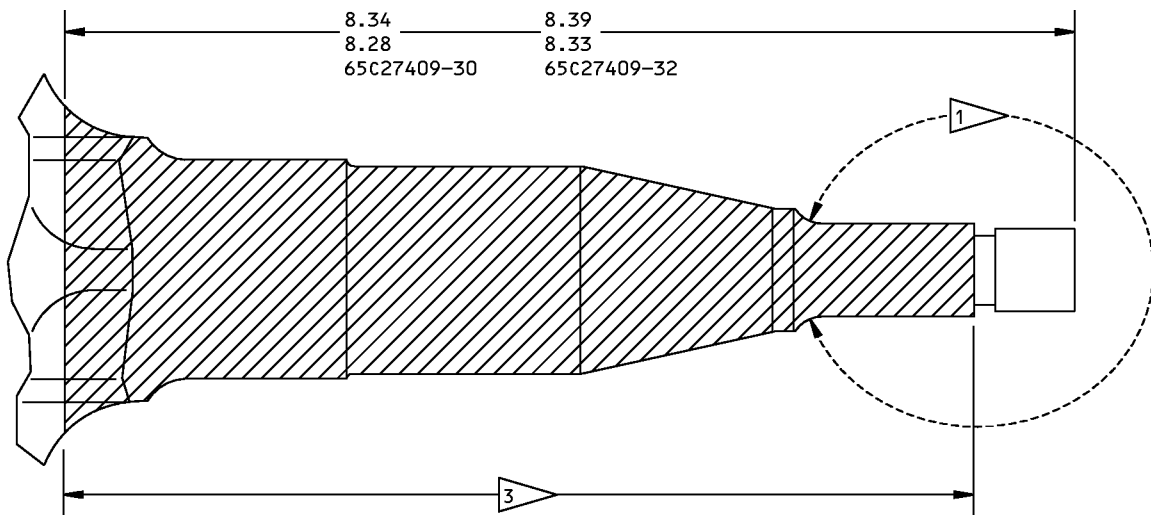
REPAIR 2-2

Page 605

Nov 01/2008



COMPONENT MAINTENANCE MANUAL



SPINDLE OF CARRIAGE 65C27409-30,-32
65C27409 SERIES

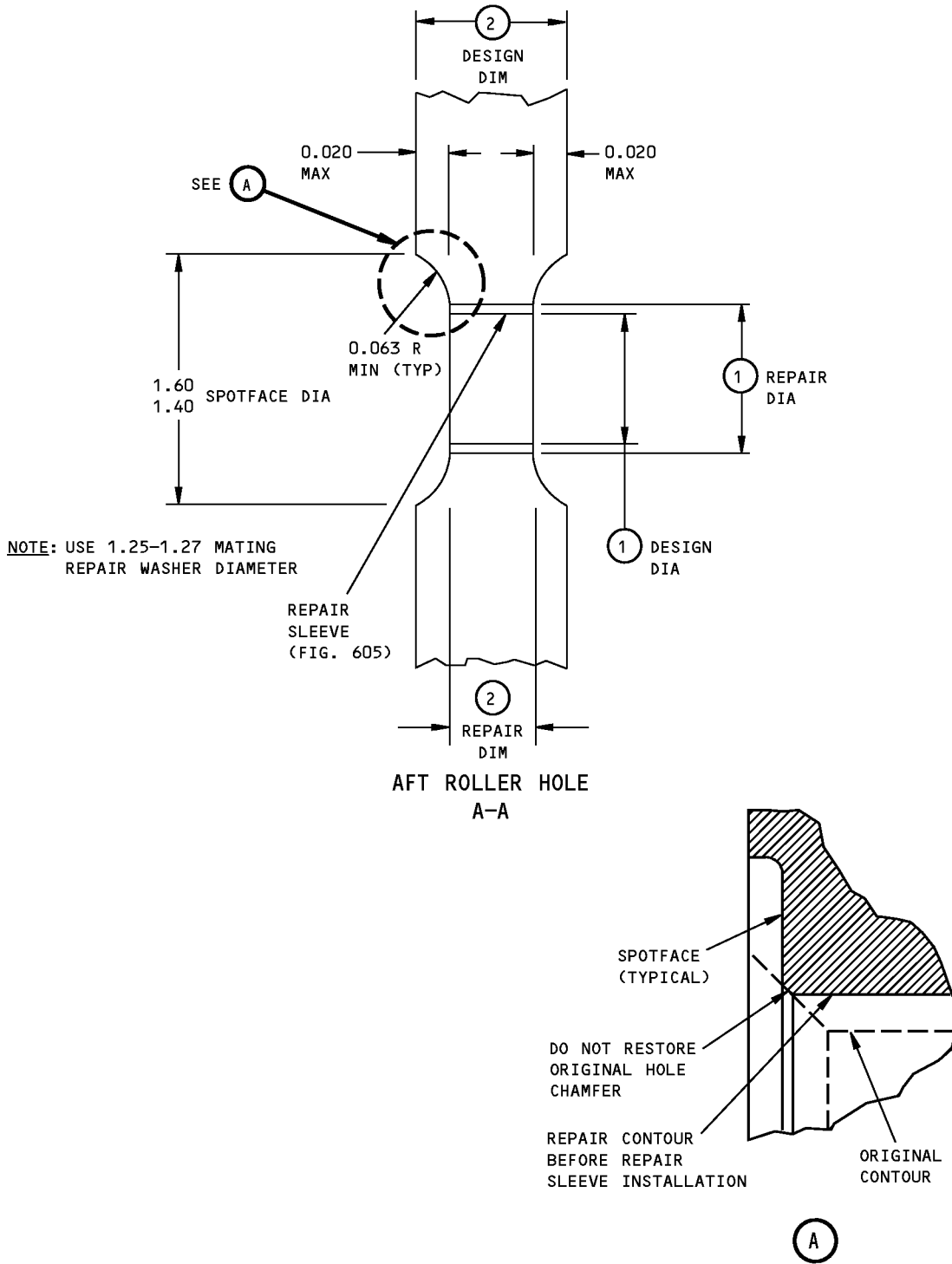
1649744 S0000301517_V1

Carriage Repair and Refinish
Figure 601 (Sheet 3 of 8)

57-53-36

REPAIR 2-2
Page 606
Nov 01/2008

COMPONENT MAINTENANCE MANUAL



65C27409-SERIES

1649745 S0000300757_V1

Carriage Repair and Refinish
Figure 601 (Sheet 4 of 8)

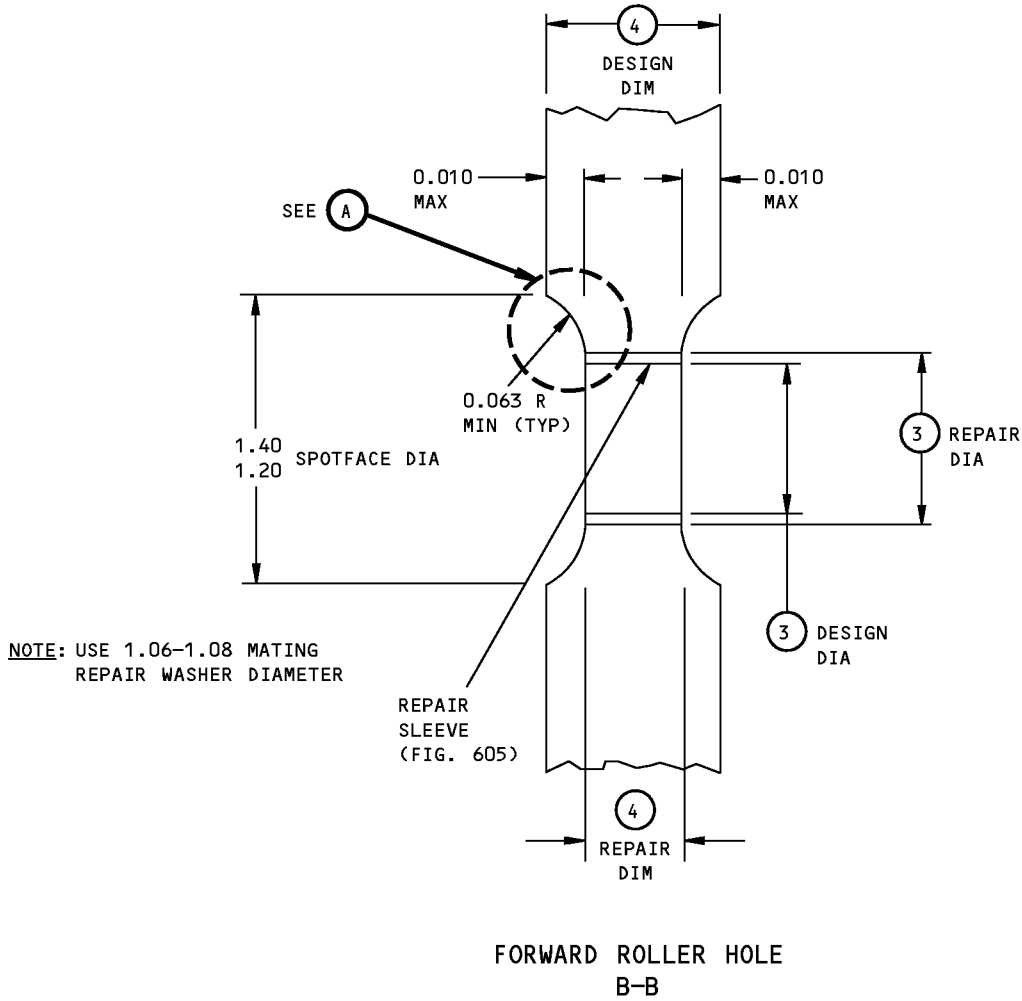
57-53-36

REPAIR 2-2

Page 607

Nov 01/2008

COMPONENT MAINTENANCE MANUAL



65C27409-SERIES

1649747 S0000300758_V1

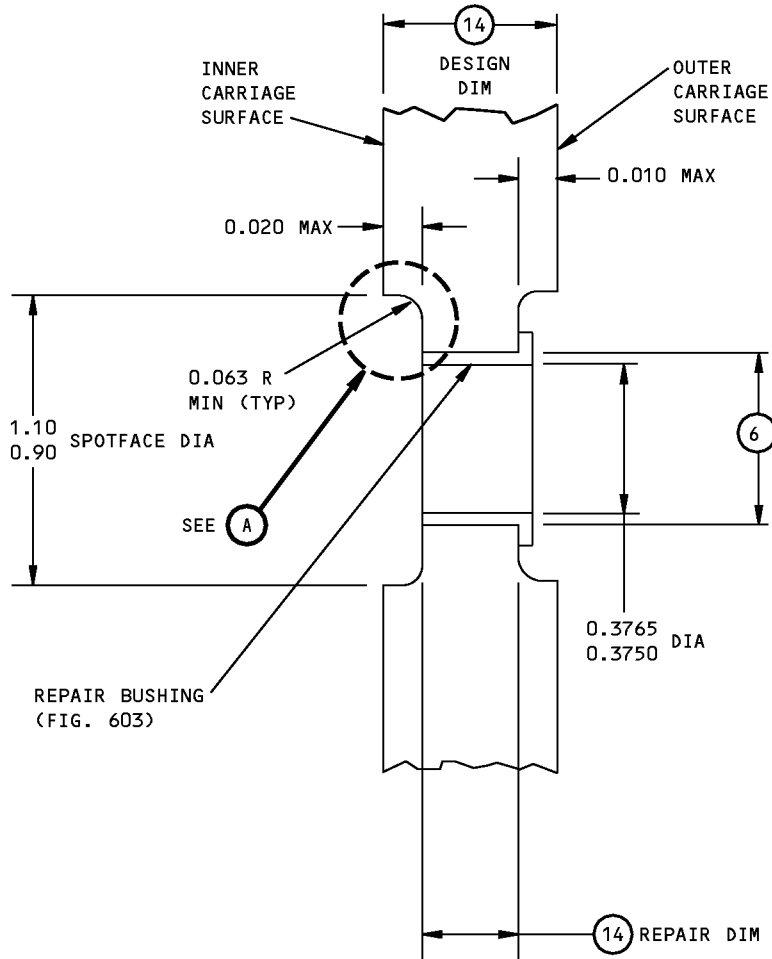
Carriage Repair and Refinish
Figure 601 (Sheet 5 of 8)

57-53-36

REPAIR 2-2
Page 608
Nov 01/2008



COMPONENT MAINTENANCE MANUAL



NOTE: USE 0.74-0.76 MATING REPAIR WASHER DIAMETER

INBOARD STRUT ATTACH HOLE
C-C

65C27409-SERIES

1649784 S0000300759_V1

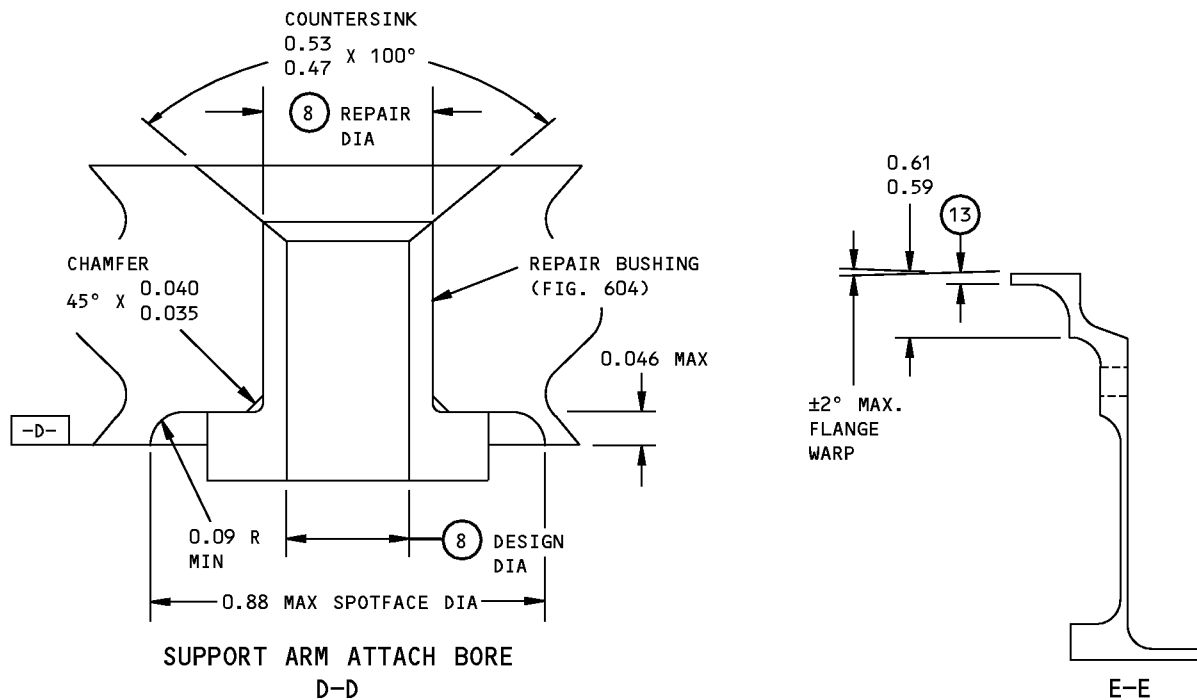
Carriage Repair and Refinish
Figure 601 (Sheet 6 of 8)

57-53-36

REPAIR 2-2
Page 609
Nov 01/2008



COMPONENT MAINTENANCE MANUAL



	1	2	3	4	5	6	7
DESIGN DIMENSION	0.8781 0.8745	0.57 0.55	0.7531 0.7495	0.57 0.55	0.4420 0.4370	0.5004 0.4998	0.2610 0.2550
REPAIR LIMIT	1.000 0.940	0.52	0.830 0.812	0.54	0.5045	0.5629	0.3235

	8	9	10	11	12	13	14	15
DESIGN DIMENSION	0.254 0.250	1.03 0.97	0.254 0.250	0.5006 0.4998	0.151 0.141	0.11 0.09	0.57 0.55	0.135 0.115
REPAIR LIMIT	0.320	---	0.3350 0.3165	0.5600	---	0.08 4	0.52	0.110

65C27409-SERIES

1649785 S0000300760_V1

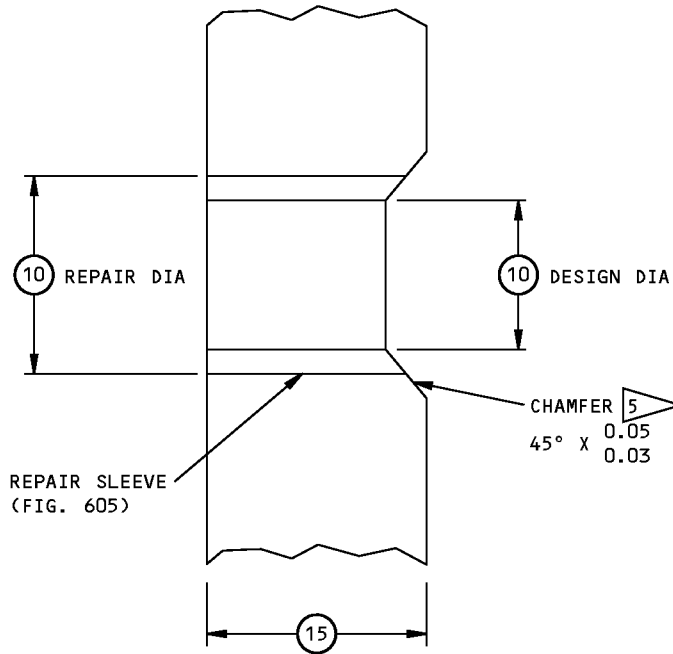
Carriage Repair and Refinish
Figure 601 (Sheet 7 of 8)

57-53-36

REPAIR 2-2
Page 610
Nov 01/2008







COMPONENT MAINTENANCE MANUAL



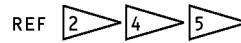
FORWARD DEADWEIGHT ROLLER HOLE
F-F

REFINISH

CADMIUM-TITANIUM PLATE (F-15.01) ON OTHER AREAS, AND ALL OVER ON OTHER CARRIAGES. APPLY BMS 10-11, TYPE 1 PRIMER (F-20.02) AND BMS 10-11, TYPE 2 ENAMEL (F-21.02) UNLESS SHOWN BY 



-  NO PRIMER OR ENAMEL IN HOLES OR ON THESE SURFACES
-  TO HELP YOU MACHINE THE SPINDLE, MAKE THIS SPECIAL MOUNTING BORE, 0.375-0.500 DIA, 0.375 DEEP, ALIGNED WITH THE SPINDLE AS SHOWN, WITH 0.06 MIN RADIUS ALL AROUND AT THE BOTTOM
-  THERMAL COAT (F-15.386) TO A MAXIMUM THICKNESS OF 0.010 INCH. AFTER MACHINING, THERMAL COATING NOT TERMINATE WITH A SQUARE EDGE, BUT SHALL TAPER FROM FULL TO ZERO THICKNESS OVER A MINIMUM LENGTH OF 0.006 INCHES. THE TAPERED EDGE OF THE COATING SHALL BE CONTAINED WITHIN A 0.08 (WIDE) BAND. THIS BAND SHALL START AT THE TANGENT POINT OF A SHOULDER. CHAMFER UNDERCUT HOLE KEYWAY OR SIMILAR, FEATURE OF THE PART BEING COATED. SEE DETAIL A COATING APPLICATOR MUCH BE LISTED IN THE QPL FOR BAC5851

REPAIR



63/  MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

MATERIAL: 4340M STEEL, 270-300 KSI
ALL DIMENSIONS ARE IN INCHES

-  RESTORATION TO DESIGN DIMENSIONS NOT REQUIRED
-  RESTORE AFTER SLEEVE INSTALLATION

65C27409-SERIES

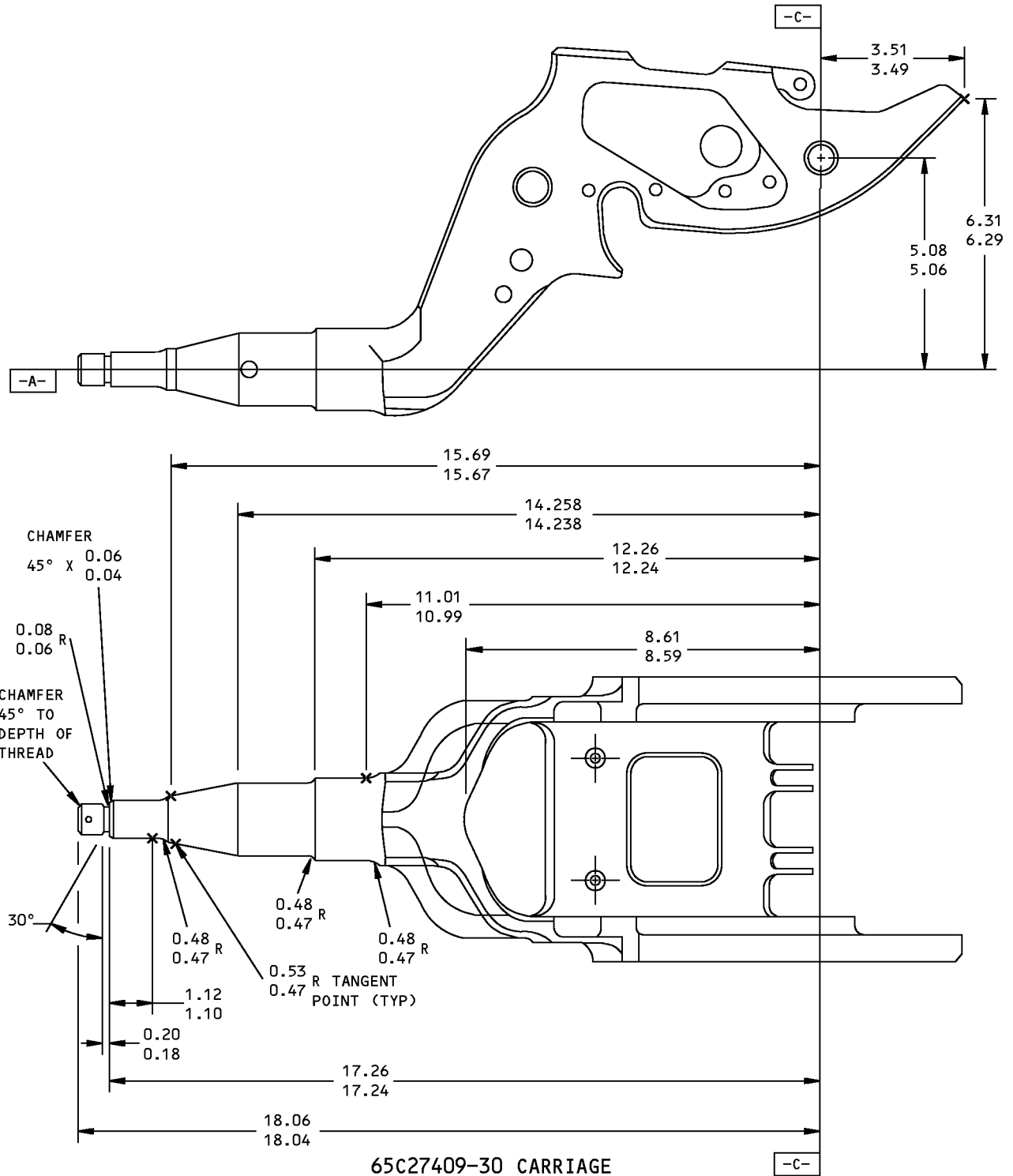
1649792 S0000300761_V1

Carriage Repair and Refinish
Figure 601 (Sheet 8 of 8)

57-53-36

REPAIR 2-2
Page 611
Nov 01/2008

COMPONENT MAINTENANCE MANUAL



1649794 S0000300763_V1

Carriage Spindle Repair
Figure 602 (Sheet 1 of 5)

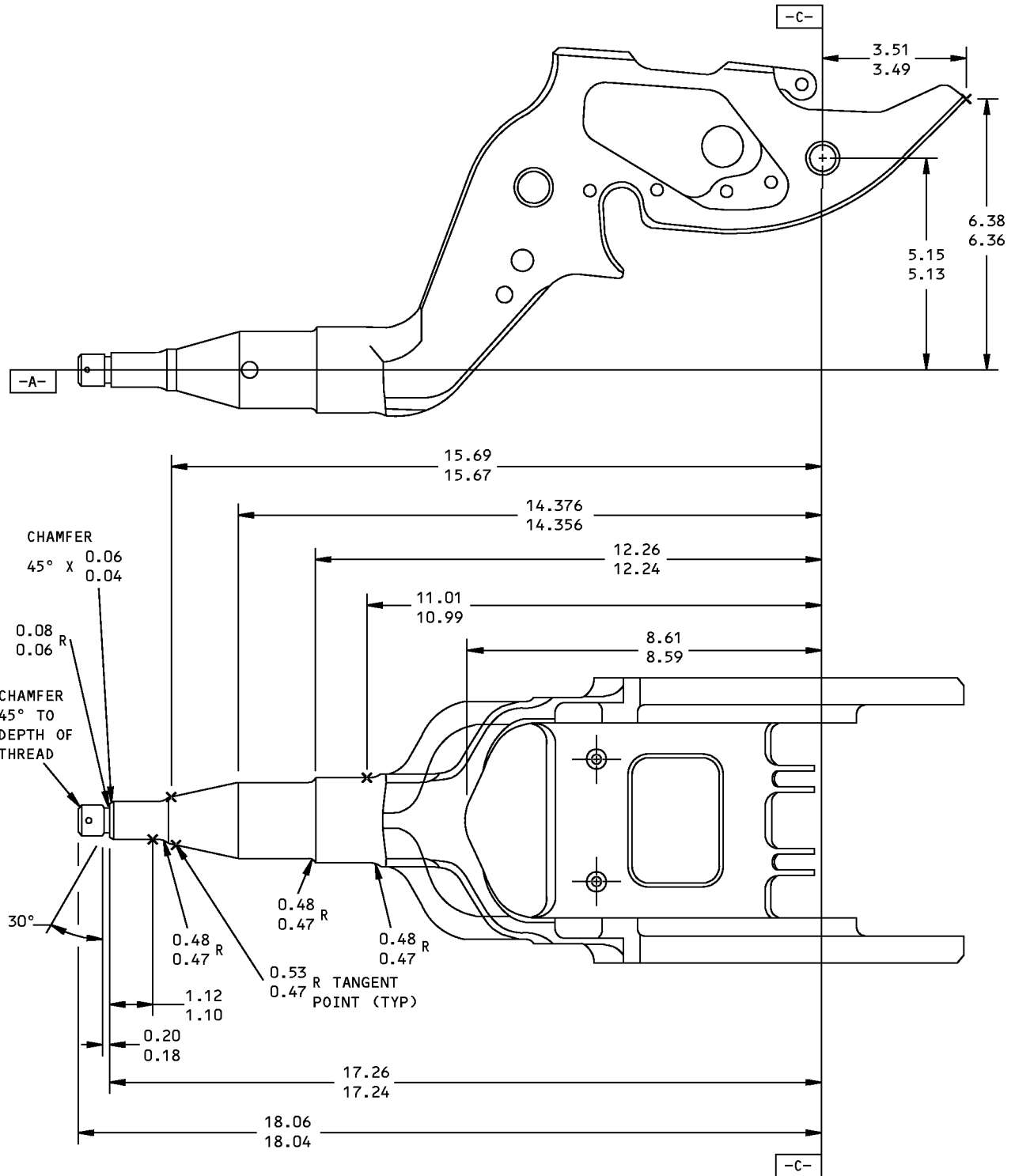
57-53-36

REPAIR 2-2

Page 612

Nov 01/2008

COMPONENT MAINTENANCE MANUAL



65C27409-32 CARRIAGE

1649797 S0000300764_V1

Carriage Spindle Repair
Figure 602 (Sheet 2 of 5)

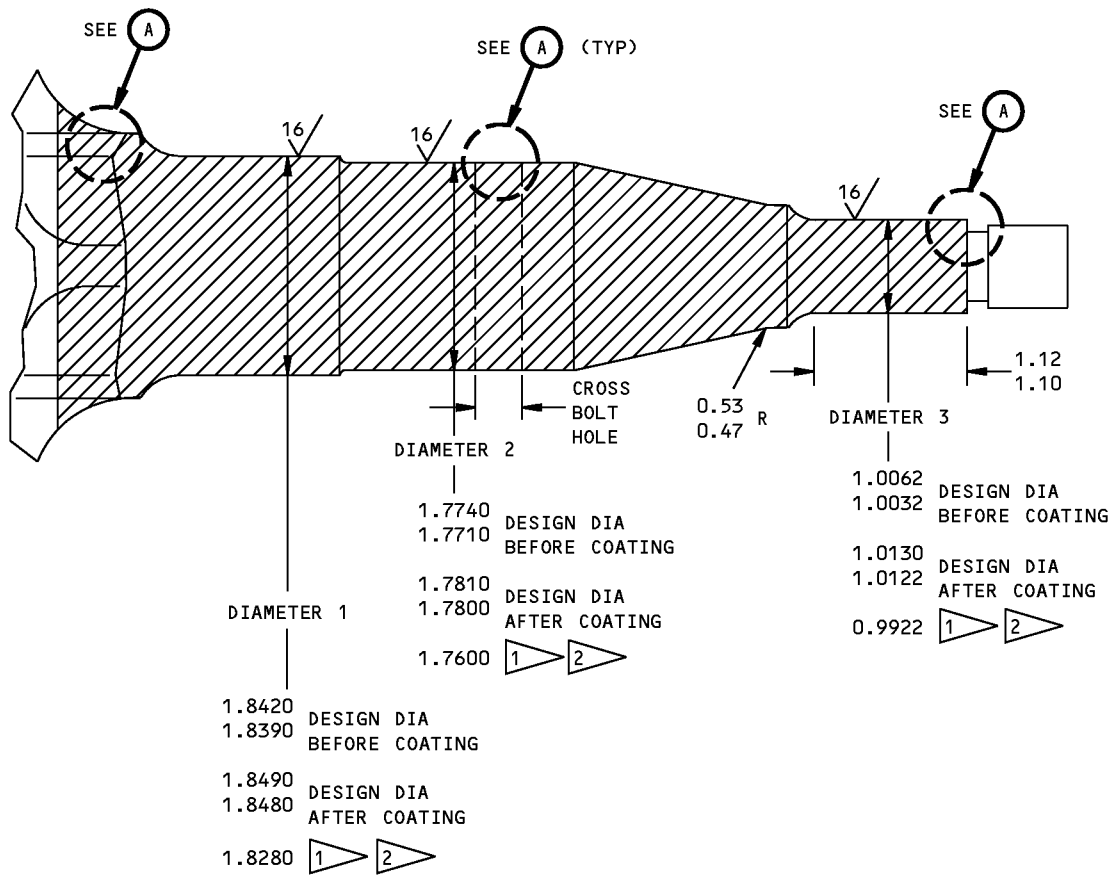
57-53-36

REPAIR 2-2

Page 613

Nov 01/2008

COMPONENT MAINTENANCE MANUAL



SPINDLE OF CARRIAGE 65C27409-30

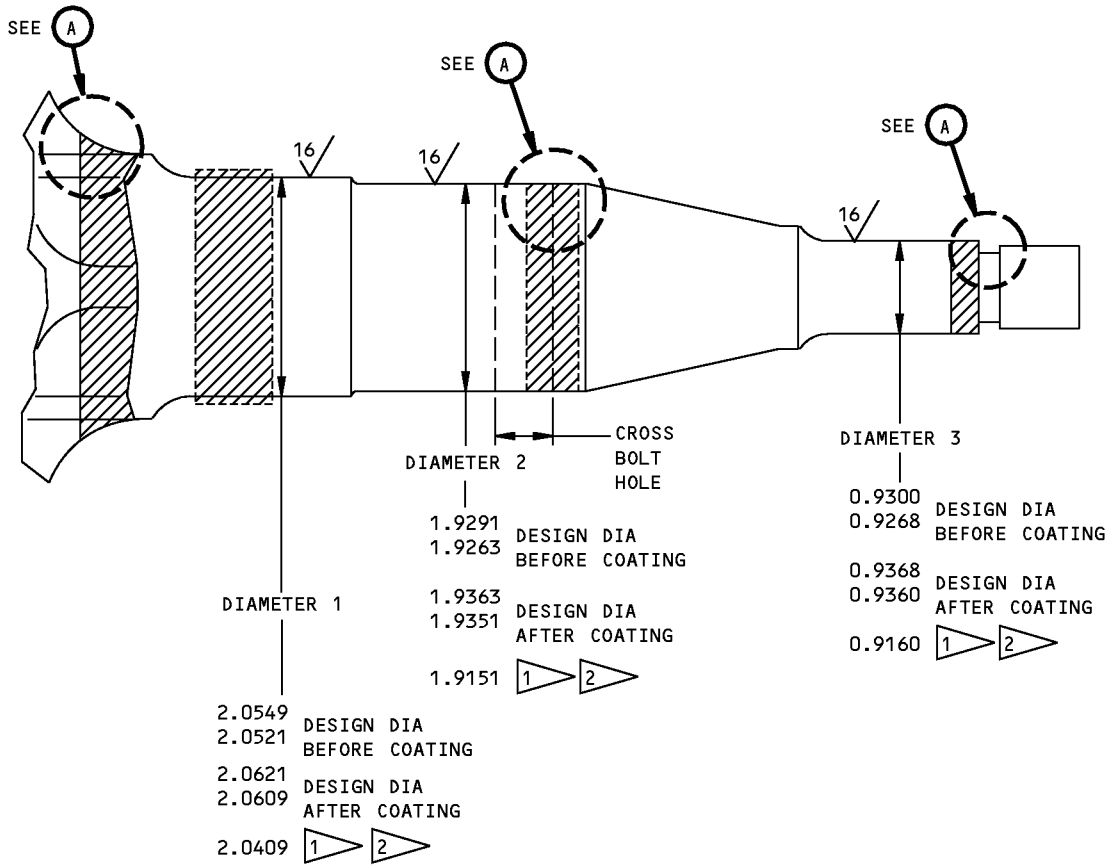
1649805 S0000300765_V1

Carriage Spindle Repair
Figure 602 (Sheet 3 of 5)

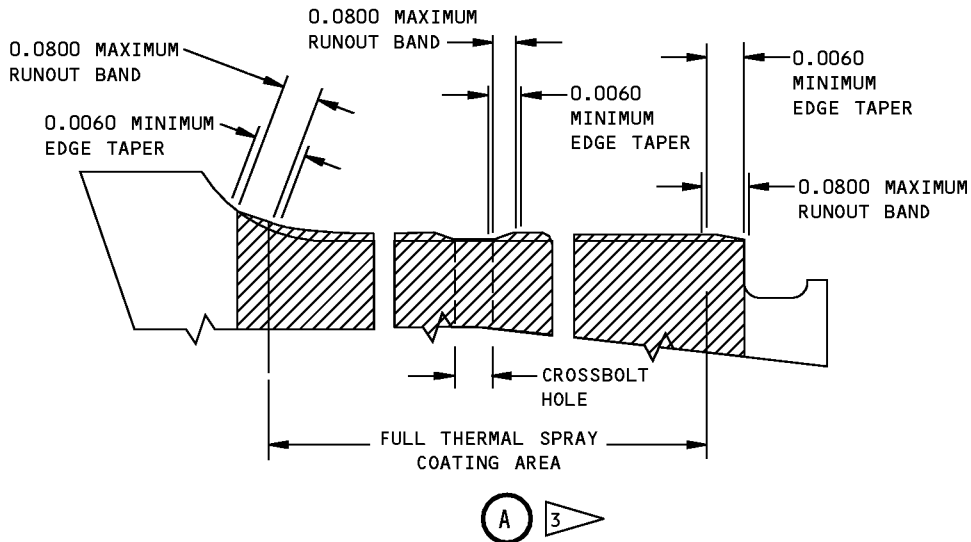
57-53-36

REPAIR 2-2
Page 614
Nov 01/2008

COMPONENT MAINTENANCE MANUAL



SPINDLE OF CARRIAGE 65C27409-32



1650681 S0000300766_V1

Carriage Spindle Repair
Figure 602 (Sheet 4 of 5)

57-53-36

REPAIR 2-2
Page 615
Nov 01/2008



COMPONENT MAINTENANCE MANUAL

- 1 ULTIMATE REPAIR LIMIT: IF THE DIAMETERS NUMBER 1, NUMBER 2 OR NUMBER 3 ARE LESS THAN THE REPAIR LIMIT, THEN NO REPAIRS ARE ALLOWED TO THE DIAMETERS AND THE CARRIAGES SHOULD BE REMOVED FROM SERVICE
- 2 REPAIR DIAMETER 1,2,3 WITH THERMAL COATING (F-15.386) PER BAC 5851, CLASS 2, TYPE XVII, GRADE A 0.003-0.010 INCH COATING APPLICATOR MUST BE LISTED IN THE QPL FOR BAC5851
- 3 UNLESS OTHERWISE STATED ON THE DETAILED DRAWING, THERMAL SPRAY COATING SHALL NOT TERMINATE WITH A SQUARE EDGE, BUT SHALL TAPER FROM FULL TO ZERO THICKNESS OVER A MINIMUM LENGTH OF 0.006 INCHES. THE TAPERED EDGE OF THE COATING SHALL BE CONTAINED WITHIN A 0.08(WIDE) BAND AS SHOWN.

REPAIR

63/ ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

SHOT PEEN (SOPM 20-10-03)
SHOT SIZE 0.016-0.039
INTENSITY 0.014A-0.019A
COVERAGE 2.0

MATERIAL: 4340M STEEL
270-300 KSI

ALL DIMENSIONS ARE IN INCHES

1650011 S0000300767_V1

Carriage Spindle Repair
Figure 602 (Sheet 5 of 5)

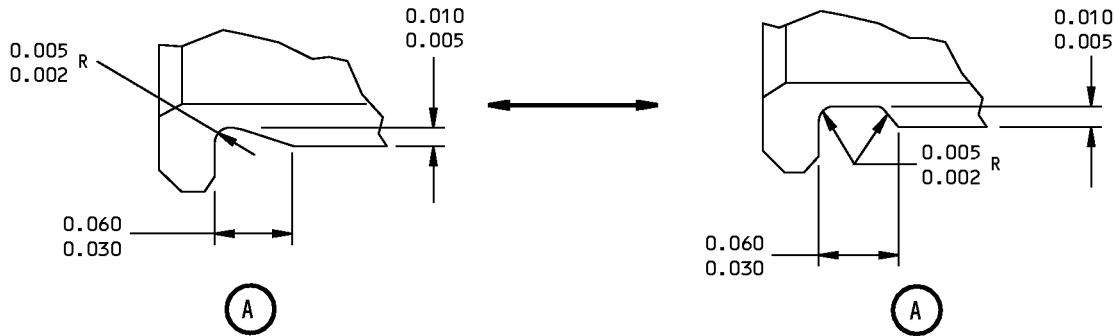
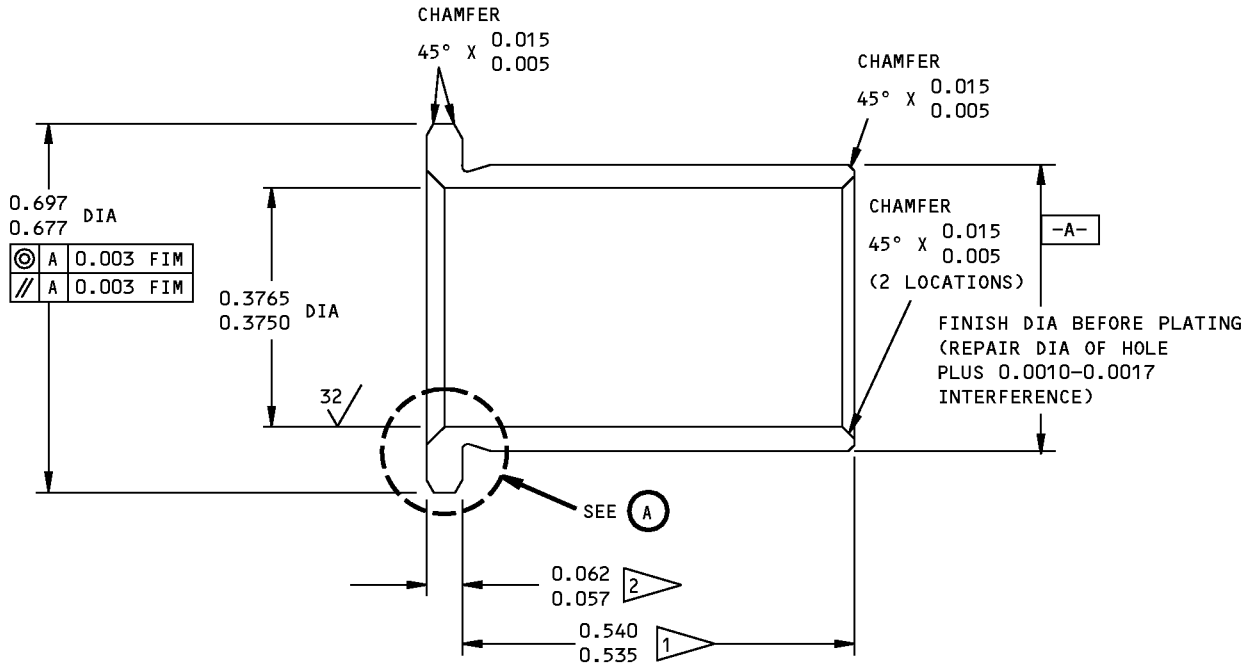
57-53-36

REPAIR 2-2

Page 616

Nov 01/2008

COMPONENT MAINTENANCE MANUAL



- MINUS AMOUNT REMOVED FROM LUG FACE
- PLUS AMOUNT REMOVED FROM LUG FACE

REPAIR

ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

CADMIUM PLATE (F-15.06) (0.0003-0.0005 THICK) (OPTIONAL ON INTERNAL SURFACES). PASSIVATE UNPLATED SURFACES (SOPM 20-42-05)

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

ANGLE ± 2°

ALL DIMENSIONS APPLY BEFORE PLATING

ALL DIMENSIONS ARE IN INCHES

HOLE LOCATION FIG. 601 - REPLACES BUSHING (IPL FIG. 1; 205) BACB28X6B054, (IPL FIG. 2; 230) BACB28X6M054

1650028 S0000300768_V1

Oversize Bushing Details
Figure 603

57-53-36

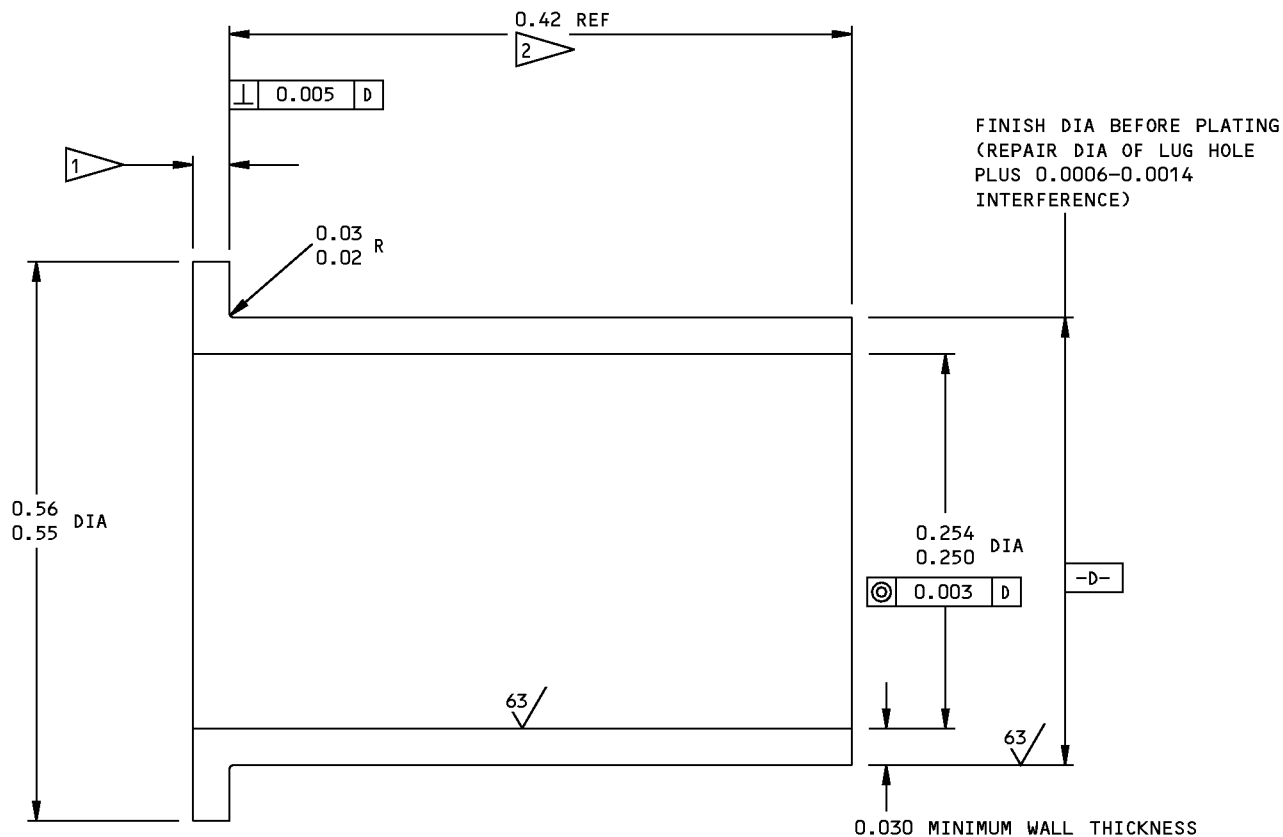
REPAIR 2-2

Page 617

Nov 01/2008



COMPONENT MAINTENANCE MANUAL



- 1 SPOTFACE DEPTH PLUS 0.040 INCH ± 0.010
- 2 LENGTH TO PERMIT THE COUNTERSINK OF FIGURE 601

REPAIR

63/ ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

CADMIUM PLATE (F-15.06)(0.0003-0.0005 INCH THICK). PASSIVATE UNPLATED SURFACES (OPTIONAL ON INTERNAL SURFACES)

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

BREAK SHARP EDGES 0.01-0.02 INCH RADIUS

ALL DIMENSIONS ARE IN INCHES

ALL DIMENSIONS APPLY BEFORE PLATING

HOLE LOCATION 8 FIG. 601

1650029 S0000300769_V1

Repair Bushing Details
Figure 604

57-53-36

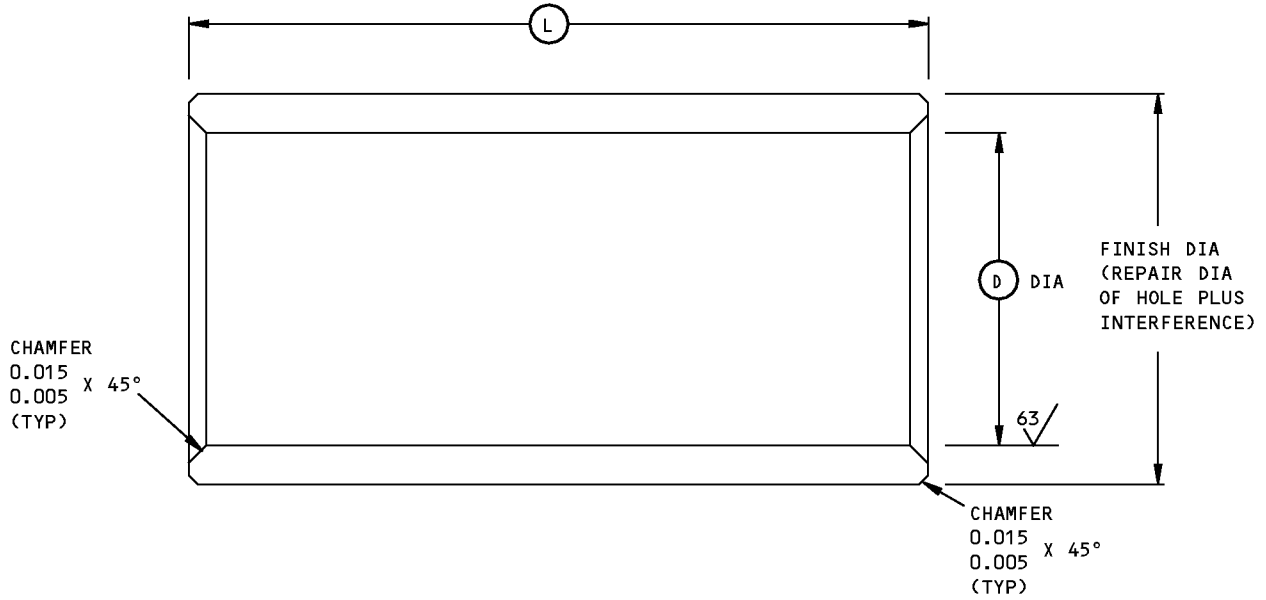
REPAIR 2-2

Page 618

Nov 01/2008



COMPONENT MAINTENANCE MANUAL



HOLE LOCATION	REPAIR FIGURE	D	L	INTERFERENCE FIT	MATERIAL
1	601	0.8781 0.8745	0.53 0.51	3	1 OR 2
3	601	0.7531 0.7495	0.55 0.53	3	1 OR 2
5	601	0.442 0.437	4	0.0017 0.0010	1 OR 2
7	601	0.261 0.255	4	0.0017 0.0010	1 OR 2
10	601	0.254 0.250	3	0.0015 0.0005	1 OR 2
11	601	0.366 0.359	5	0.0017 0.0010	1 OR 2

REFINISH

CADMIUM PLATE (F-15.06)

- 1 15-5PH CRES, 180-200 KSI PER AMS 5659
- 2 17-4PH CRES, 180-200 KSI PER AMS 5643
- 3 EQUAL TO OR 0.002 LESS THAN BORE LENGTH
- 4 BORE LENGTH ±0.002
- 5 SAME AS ORIGINAL BUSHING (IPL FIG. 1; 395,400) (IPL FIG. 2; 420)

REPAIR

63
FINISH EXCEPT AS NOTED
MATERIAL: AS NOTED
ANGLE ± 2°
ALL DIMENSIONS APPLY AFTER PLATING
ALL DIMENSIONS ARE IN INCHES

1650030 S0000300770_V1

Repair Sleeve Details
Figure 605

57-53-36

REPAIR 2-2
Page 619
Nov 01/2008



COMPONENT MAINTENANCE MANUAL

MISCELLANEOUS PARTS REFINISH - REPAIR 3-1

1. General

- A. This procedure has the data necessary to refinish miscellaneous parts.
- B. Refer to REPAIR-GENERAL, Paragraph 2. for the Standard Overhaul Practices Manual (SOPM) subjects identified in this procedure.
- C. Refer to REPAIR-GENERAL, Paragraph 3. for the description of the consumable codes identified in this procedure
- D. Refer to IPL Figure 1 and IPL Figure 2 for the item numbers.

2. Refinish Details

- A. Repair of parts listed in REPAIR 3-1, Table 601 consists of restoration of original finish:

Table 601: Refinish Details

IPL FIG. & ITEM	MATERIAL	FINISH
Fig. 1		
Bolt (15, 173)	4340 Steel Heat treat 180-200 ksi	Cadmium-titanium plate (F-15.01).
Bolt (174)	4030 Steel Heat treat 180-200 ksi	Cadmium-titanium plate (0.0002 inch minimum) (F-15.01).
Nut (30, 190), Bolt (204)	4340 Steel Heat treat 180-200 ksi	Cadmium plate (F-15.02).
Side Roller Bracket (105, 110, 155, 160)	17-4PH CRES	Passivate (F-17.09), then apply primer, C00259 (F-20.02) all over, but not in the holes.
Bolt (96, 146)	4340 Steel Heat treat 125-145 ksi	Cadmium plate (F-15.02).
Bolt (95, 145)	15-5PH CRES Heat treat 180-200 ksi	Passivate (F-17.09).
Filler (137)	Al Alloy	Chemical treat or chromic acid anodize and apply primer, C00259 SRF 2.30).
Coupling (255, 310)	17-4PH CRES Heat treat 180-200 ksi	Passivate (F-17.09).
Washer (350, 355)	15-5PH CRES Heat treat 180-200 ksi	Chromium plate (F-15.03), plate thickness 0.002-0.003 inch. Plating not required in hole or around outside edge.
Bolt (40)	A286 CRES	Cadmium plate (F-15.02)
Fig. 2		
Bolt (10, 180)	4340 Steel Heat treat 180-200 ksi	Cadmium-titanium plate (F-15.01).
Bolt (185)	4030 Steel Heat treat 180-200 ksi	Cadmium-titanium plate (0.0002 inch minimum) (F-15.01).
Nut (45, 205), Bolt (220)	4340 Steel Heat treat 180-200 ksi	Cadmium plate (F-15.02).

57-53-36

REPAIR 3-1

Page 601

Nov 01/2008



COMPONENT MAINTENANCE MANUAL

Table 601: Refinish Details (Continued)

IPL FIG. & ITEM	MATERIAL	FINISH
Side Roller Bracket (110, 115, 155, 160)	17-4PH CRES	Passivate (F-17.09), then apply primer, C00259 (F-20.02) all over, but not in the holes.
Bolt (146)	4340 Steel Heat treat 125-145 ksi	Cadmium plate (F-15.02).
Bolt (100, 145)	15-5PH CRES Heat treat 180-200 ksi	Passivate (F-17.09).
Coupling (285, 340)	17-4PH CRES Heat treat 180-200 ksi	Passivate (F-17.09).
Washer (375, 380)	15-5PH CRES Heat treat 180-200 ksi	Chromium plate (F-15.03), plate thickness 0.002-0.003 inch. Plating not required in hole or around outside edge.
Bolt (50)	A286 CRES	Cadmium plate (F-15.02)

57-53-36

REPAIR 3-1

Page 602

Nov 01/2008



COMPONENT MAINTENANCE MANUAL

ASSEMBLY

1. General

- A. This procedure has the data necessary to assemble the outboard flap carriage assembly.
- B. Refer to the Standard Overhaul Practices Manual (SOPM) for the SOPM subject identified in this procedure
- C. Refer to IPL Figure 1 and IPL Figure 2 for the 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
B50080	Compound - Corrosion Preventive, Solvent Cutback, Cold-Application (Grade 2 - Soft Film)	MIL-PRF-16173, Grade 2 (Supersedes MIL-C-16173, Grade 2)
C00259	Primer - Chemical And Solvent Resistant Finish, Epoxy Resin	BMS10-11, Type I
D00013	Grease - Aircraft And Instrument Grease	MIL-PRF-23827 (NATO G-354) (Supersedes MIL-G-23827)
D00014	Grease - Molybdenum Disulfide, Low & High Temperature	MIL-G-21164 (NATO G-353)
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)
G50347	Lockwire - Nickel-copper, 0.032 inch diameter	NASM20995N~C32
G50589	Lockwire - Corrosion Resistant Steel (0.051 Inch Diameter)	NASM20995~C51

B. References

Reference	Title
SOPM 20-30-02	STRIPPING OF PROTECTIVE FINISHES
SOPM 20-41-01	DECODING TABLE FOR BOEING FINISH CODES
SOPM 20-50-01	BOLT AND NUT INSTALLATION
SOPM 20-50-02	INSTALLATION OF SAFETYING DEVICES
SOPM 20-50-03	BEARING AND BUSHING REPLACEMENT
SOPM 20-50-07	LUBRICATION

57-53-36

ASSEMBLY

Page 701

Jul 01/2008



COMPONENT MAINTENANCE MANUAL

Reference	Title
SOPM 20-60-02	FINISHING MATERIALS
SOPM 20-60-04	MISCELLANEOUS 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 bolt and nut installation, refer to SOPM 20-50-01. For finishing materials, refer to SOPM 20-60-02. For miscellaneous materials, refer to SOPM 20-60-04. For bolt and nut installation, refer to SOPM 20-50-01.

- (1) Use standard industry practices and these special steps.
- (2) Assembly and Installation of Forward Side Roller assemblies (IPL Figure 1; 65A, 65B, 70A, 70B). (IPL Figure 2; 75, 80).
 - (a) Coat bolt assembly (IPL Figure 1; 96, IPL Figure 2; 100), bolt (IPL Figure 1; 95), spring pins (IPL Figure 1; 90), and mating (internal) sides of brackets (IPL Figure 1; 105, 110, IPL Figure 2; 110, 115) with a light film of grease, D00013 as shown in the (SOPM 20-50-07).
 - (b) Install the bearing (IPL Figure 1; 100, IPL Figure 2; 105) on bracket (IPL Figure 1; 105, 110, IPL Figure 2; 110, 115) with bolt assembly IPL Figure 1; 96) or bolt (IPL Figure 1; 95, (IPL Figure 2; 100) by press fitting lightly as shown in the (SOPM 20-50-03).
 - (c) Drill 0.094/0.097 inch diameter hole and install spring pin (IPL Figure 1; 90). Secure pin with lockwire as shown in the (SOPM 20-50-02).
 - (d) Delaminate shims (IPL Figure 1; 85, IPL Figure 2; 95), as necessary, to maintain a dimension of 0.670-0.675 inch from roller surface of bearings (IPL Figure 1; 100, IPL Figure 2; 105) to centerline of carriage as shown in ASSEMBLY, Figure 701. Apply primer, C00259 to delaminated surface of shim (IPL Figure 1; 85), (IPL Figure 2; 95) prior to installation.
 - (e) Install side roller assemblies (IPL Figure 1; 65A, 65B, 70A, 70B, IPL Figure 2; 75, 80) and shim (IPL Figure 1; 85, IPL Figure 2; 95) with bolts (IPL Figure 1; 75, IPL Figure 2; 85) and washers (IPL Figure 1; 80, IPL Figure 2; 90). Coat all surfaces of bolts (IPL Figure 1; 75, IPL Figure 2; 85) with grease, D00015 as shown in the (SOPM 20-50-07) before installation. Tighten bolts as shown in SOPM 20-50-01. Lockwire bolt heads together as shown in the (SOPM 20-50-02).
- (3) Assembly and Installation of the Forward Side Roller Assembly (IPL Figure 1; 65, 70), (IPL Figure 2; 75, 80).
 - (a) Install the bearing (IPL Figure 1; 100, IPL Figure 2; 105) on the side roller bracket (IPL Figure 1; 105, 110, IPL Figure 2; 110, 115):
 - 1) Lightly press fit the bolt (IPL Figure 1; 95A, IPL Figure 2; 100) into the bearing (IPL Figure 1; 100, IPL Figure 2; 105) and the side roller bracket (IPL Figure 1; 105, 110, IPL Figure 2; 110, 115). Optional: You may freeze the bolt (IPL Figure 1; 95A, IPL Figure 2; 100) in liquid nitrogen and install with grease, D00014.
 - 2) Deform the end of the bolt (IPL Figure 1; 95A, IPL Figure 2; 100) to 0.40 inch minimum as shown in ASSEMBLY, Figure 703.
 - 3) Make sure the bearing (IPL Figure 1; 100, IPL Figure 2; 105) turns freely under light finger pressure.

57-53-36

ASSEMBLY

Page 702

Nov 01/2008



COMPONENT MAINTENANCE MANUAL

- (b) Delaminate the shims (IPL Figure 1; 85, IPL Figure 2; 95), as necessary, to maintain a dimension of 0.670-0.675 inch from the roller surface of bearing (IPL Figure 1; 100, IPL Figure 2; 105) to the carriage centerline as shown in ASSEMBLY, Figure 701.
 - (c) Apply primer, C00259 (F-12.415 or F-20.05) to the delaminated surface of the shim (IPL Figure 1; 85, IPL Figure 2; 95).
 - (d) Coat all surfaces of the bolts (IPL Figure 1; 75, IPL Figure 2; 85) with grease, D00013 per SOPM 20-50-07.
 - (e) Install the side roller assembly (IPL Figure 1; 65, 70, IPL Figure 2; 75, 80) on the carriage assembly with bolts (IPL Figure 1; 75, IPL Figure 2; 85) and washers (IPL Figure 1; 80, IPL Figure 2; 90). Tighten bolts as shown in SOPM 20-50-01.
 - (f) Install the lockwire, G50347 on bolt heads (IPL Figure 1; 75, IPL Figure 2; 85) per SOPM 20-50-02.
- (4) Assembly and Installation of Aft Side Roller Assembly (IPL Figure 1; 115A, 115B, 120A, 120B), (IPL Figure 2; 120, 125).
- (a) Coat bolt assembly (IPL Figure 1; 146), (IPL Figure 2; 145), bolt (IPL Figure 1; 145), spring pin (IPL Figure 1; 140) and mating (internal) sides of brackets (IPL Figure 1; 155, 160), (IPL Figure 2; 155, 160) with a light film of grease, D00015 per SOPM 20-50-07.
 - (b) Install bearing (IPL Figure 1; 150, IPL Figure 2; 150) on bracket (IPL Figure 1; 155, 160, (IPL Figure 2; 155, 160) with bolt assembly (IPL Figure 1; 146), (IPL Figure 2; 145) or bolt (IPL Figure 1; 145), by press fitting lightly per SOPM 20-50-03.
 - (c) Drill 0.094/0.097 inch diameter hole and install spring pin (IPL Figure 1; 140). Secure pin with lockwire, G50347 per SOPM 20-50-02.
 - (d) Delaminate shims (IPL Figure 1; 135, IPL Figure 2; 140), as necessary, to maintain a dimension of 0.670-0.675 inch from roller surface of bearings (IPL Figure 1; 150, IPL Figure 2; 150) to centerline of carriage as shown in ASSEMBLY, Figure 701. Apply primer, C00259 to delaminated surface prior to installation.
 - (e) Install side roller assemblies (IPL Figure 1; 115A, 115B, 120A, 120B, IPL Figure 2; 120, 125) and shim (IPL Figure 1; 135, IPL Figure 2; 140), and fillers (IPL Figure 1; 137) with bolts (IPL Figure 1; 125, IPL Figure 2; 130) and washers (IPL Figure 1; 130, IPL Figure 2; 135). Coat all surfaces of bolts (IPL Figure 1; 125, IPL Figure 2; 130) with grease, D00015 per SOPM 20-50-07 before installation. lockwire, G50347 bolt heads together per SOPM 20-50-02.
- (5) Assembly and Installation of the Aft Side Roller Assembly (IPL Figure 1; 115, 120, IPL Figure 2; 120, 125)
- (a) Install the bearing (IPL Figure 1; 150, IPL Figure 2; 150) on the side roller bracket (IPL Figure 1; 155, 160, IPL Figure 2; 155, 160):
 - 1) Lightly press fit the bolt (IPL Figure 1; 145A, IPL Figure 2; 145) into the bearing (IPL Figure 1; 150, IPL Figure 2; 150) and the side roller bracket (IPL Figure 1; 155, 160, IPL Figure 2; 155, 160). Optional: You may freeze the bolt (IPL Figure 1; 145A, IPL Figure 2; 145) in liquid nitrogen and install with grease, D00014.
 - 2) Deform the end of the bolt (IPL Figure 1; 145A, IPL Figure 2; 145) to 0.40 inch minimum as shown in ASSEMBLY, Figure 704.
 - 3) Make sure the bearing (IPL Figure 1; 150, IPL Figure 2; 150) turns freely under light finger pressure.

57-53-36

ASSEMBLY

Page 703

Nov 01/2008



COMPONENT MAINTENANCE MANUAL

- (b) Delaminate the shims (IPL Figure 1; 135, IPL Figure 2; 140), as necessary, to maintain a dimension of 0.670-0.675 inch from the roller surface of bearing (IPL Figure 1; 150, IPL Figure 2; 150) to the carriage centerline as shown in ASSEMBLY, Figure 701.
 - (c) Apply primer, C00259 (F-12.415 or F-20.05) to the delaminated surface of the shim (IPL Figure 1; 135, IPL Figure 2; 140).
 - (d) Coat all surfaces of the bolts (IPL Figure 1; 125) with grease, D00013 per SOPM 20-50-07.
 - (e) Install the side roller assembly (IPL Figure 1; 115, 120, IPL Figure 2; 155, 160) on the carriage assembly with bolts (IPL Figure 1; 125, IPL Figure 2; 130) and washers (IPL Figure 1; 130, IPL Figure 2; 135).
 - (f) Install the lockwire, G50347 on bolt heads (IPL Figure 1; 125, IPL Figure 2; 130) per SOPM 20-50-02.
- (6) Installation of Aft Main Roller Bolt Assembly (IPL Figure 1; 170, 174), (IPL Figure 2; 170) and bearing (IPL Figure 1; 185), (IPL Figure 2; 200).
- (a) Delaminate washer shim (IPL Figure 1; 175), (IPL Figure 2; 190) as required to maintain a minimum distance of 0.75 inch from threaded end of bolt assembly (IPL Figure 1; 170, 174), (IPL Figure 2; 170) to centerline of carriage (410), (IPL Figure 2; 415) as shown in ASSEMBLY, Figure 701. Apply primer, C00259 (SRF-12.206) to delaminated surface prior to installation.
 - (b) Lightly coat bolt assembly (IPL Figure 1; 170, 174), (IPL Figure 2; 170) with grease, D00015 (F-19.16) prior to installation.
 - (c) Install bearing (IPL Figure 1; 185, IPL Figure 2; 200), bolt assembly (IPL Figure 1; 170, 174, IPL Figure 2; 170), washer shim (IPL Figure 1; 175, IPL Figure 2; 190), rub strip (IPL Figure 1; 180, IPL Figure 2; 195), and bearing nut (IPL Figure 1; 190, IPL Figure 2; 205). Align upper hole in rub strip (IPL Figure 1; 180, IPL Figure 2; 195) with hole in carriage prior to tightening. Tighten bolt (IPL Figure 1; 170, 174, IPL Figure 2; 170) to 200-500 pound-inches.
 - (d) Install cotter pin (IPL Figure 1; 165, IPL Figure 2; 165) per SOPM 20-50-02 so that it does not extend beyond end of bolt assembly.
 - (e) Lubricate bearing (IPL Figure 1 ; 185, IPL Figure 2; 200) with grease, D00013 per SOPM 20-50-07.
- (7) Assembly and Installation of Inboard Strut Assembly (IPL Figure 1 ; 230, IPL Figure 2; 260).
- (a) Apply compound, B50080 (F-12.14) on both internal and external surfaces of mating threads of rod end assemblies (IPL Figure 1; 235, 270, IPL Figure 2; 265, 300) and coupling (IPL Figure 1; 255, IPL Figure 2; 285).
 - (b) Install nuts (IPL Figure 1; 250, 260, IPL Figure 2; 280, 290) and lock (IPL Figure 1; 265, IPL Figure 2; 295) on rod end assemblies (IPL Figure 1; 235, 270, IPL Figure 2; 265, 300) and coupling (255, IPL Figure 2; 285).
 - (c) Install rod end assemblies (IPL Figure 1; 235, 270, IPL Figure 2; 265, 300) into coupling (IPL Figure 1; 255, IPL Figure 2; 285) and adjust length to dimension shown in ASSEMBLY, Figure 701.
 - (d) Tighten nut (IPL Figure 1; 260, IPL Figure 2; 290) to 20-40 pound-inches. Secure nut (IPL Figure 1; 260, IPL Figure 2; 290) to lock (IPL Figure 1; 265, IPL Figure 2; 295) with lockwire, G50347 installed per SOPM 20-50-02.
 - (e) Tighten nut (IPL Figure 1; 250, IPL Figure 2; 280) to 30-50 pound-inches.

57-53-36

ASSEMBLY

Page 704

Nov 01/2008



COMPONENT MAINTENANCE MANUAL

- (f) Attach the strut (IPL Figure 1; 230, IPL Figure 2; 260), bearing (IPL Figure 1; 215, IPL Figure 2; 240), washers (IPL Figure 1; 210, 220A, IPL Figure 2; 235, 245) and bushing (IPL Figure 1; 205A, IPL Figure 2; 230) to carriage sub-assembly with bolt assembly (IPL Figure 1; 200, IPL Figure 2; 210, 225) and nut (IPL Figure 1; 225, IPL Figure 2; 250).
 - (g) Tighten the bolt assembly (IPL Figure 1; 200, IPL Figure 2; 210, 225) to 95-160 pound-inches.
 - (h) Install the cotter pin (IPL Figure 1; 195, IPL Figure 2; 207).
- (8) Assembly and Installation of Outboard Strut Assembly (IPL Figure 1; 285, IPL Figure 2; 315).
- (a) Apply compound, B50080 (F-12.14) on both internal and external surfaces of mating threads of rod end assemblies (IPL Figure 1; 290, 325, IPL Figure 2; 320, 355) and coupling (IPL Figure 1; 310, IPL Figure 2; 340).
 - (b) Install nuts (IPL Figure 1; 305, 315, IPL Figure 2; 335, 345) and lock (IPL Figure 1; 320, IPL Figure 2; 350) on rod end assemblies (IPL Figure 1; 290, 325, IPL Figure 2; 320, 355).
 - (c) Install rod end assemblies (IPL Figure 1; 290, 325, IPL Figure 2; 320, 355) into coupling (IPL Figure 1; 310, IPL Figure 2; 340) and adjust length to dimensions shown in ASSEMBLY, Figure 701.
 - (d) Tighten nut (IPL Figure 1; 315, IPL Figure 2; 345) to 20-40 pound-inches. Secure nut (IPL Figure 1; 315, IPL Figure 2; 345) to lock (IPL Figure 1; 320, IPL Figure 2; 350) with lockwire, G50347 installed per SOPM 20-50-02.
 - (e) Attach strut (IPL Figure 1; 285), (IPL Figure 2; 315), bearing (IPL Figure 1; 215, IPL Figure 2; 240), washers (IPL Figure 1; 210, 220A, IPL Figure 2; 235, 245) and bushing (IPL Figure 1; 205A, IPL Figure 2; 230) to the carriage sub-assembly with bolt (IPL Figure 1; 200), (IPL Figure 2; 210, 225) and nut (IPL Figure 1; 225, IPL Figure 2; 250).
 - (f) Tighten the bolt assembly (IPL Figure 1; 200, IPL Figure 2; 210, 225) to 95-160 pound-inches.
 - (g) Install the cotter pin (IPL Figure 1; 195, IPL Figure 2; 207).
- (9) Installation of Bearing Foreflap Bolt Assembly (IPL Figure 1; 40, 44, IPL Figure 2; 50, 62) and Bearing (IPL Figure 1; 50, IPL Figure 2; 70).
- (a) Remove laminations from shim washer (IPL Figure 1; 45, IPL Figure 2; 65) as necessary to adjust the total gap between carriage and roller to be no more than 0.002 inch after installation of shim washers (IPL Figure 1; 45, IPL Figure 2; 65). Coat shim washer (IPL Figure 1; 45, IPL Figure 2; 65) with grease, D00013 grease before installation.
 - (b) Coat bolt assembly (IPL Figure 1; 40, 44, IPL Figure 2; 50, 62) with grease, D00015 on all surfaces before installation.
 - (c) Install bolt (IPL Figure 1; 40, 44, IPL Figure 2; 50, 62), shim washer (IPL Figure 1; 45, IPL Figure 2; 65), bearing (IPL Figure 1; 50, IPL Figure 2; 70), washer (IPL Figure 1; 55, IPL Figure 2; 67), nut (IPL Figure 1; 60, IPL Figure 2; 68). Tighten bolt (IPL Figure 1; 40, 44, IPL Figure 2; 50, 62) to 30-50 pound-inches. Install cotter pin (IPL Figure 1; 35, IPL Figure 2; 61). Apply grease, D00015 to the bolt assembly (IPL Figure 1; 40, 44, IPL Figure 2; 50, 62) before installation.
 - (d) Lubricate bearing (IPL Figure 1; 50, IPL Figure 2; 70) with grease, D00013.
- (10) Installation of Forward Main Roller Bolt Assembly (IPL Figure 1; 15, IPL Figure 2; 10, 25) and Bearing (IPL Figure 1; 25, IPL Figure 2; 40).

57-53-36

ASSEMBLY

Page 705

Mar 01/2009



COMPONENT MAINTENANCE MANUAL

- (a) Apply grease, D00015 to the bolt assembly (IPL Figure 1; 15, IPL Figure 2; 10, 15) before installation.
 - (b) Install bearing (IPL Figure 1; 25, IPL Figure 2; 40), bolt (IPL Figure 1; 15, IPL Figure 2; 10, 25), washer (IPL Figure 1; 20, IPL Figure 2; 35) and nut (IPL Figure 1; 30, IPL Figure 2; 45). Tighten bolt (IPL Figure 1; 15, IPL Figure 2; 10, 25) to 175-425 pound-inches.
 - (c) Install cotter pin (IPL Figure 1; 10, IPL Figure 2; 9) per SOPM 20-50-02. Make sure it does not extend out from the end of the bolt.
 - (d) Lubricate bearing (IPL Figure 1; 25, IPL Figure 2; 40) with grease, D00013.
- (11) Installation of Spindle Bearing (IPL Figure 1; 380, IPL Figure 2; 405B) and Bearing Assembly (IPL Figure 1; 360, IPL Figure 2; 385)
- (a) Assemble bearing (IPL Figure 1; 380, IPL Figure 2; 405B) onto spindle and align bolt hole in spindle.
 - (b) Line-ream 0.3750-0.3756 inch diameter hole through bearing (IPL Figure 1; 380, IPL Figure 2; 405B) and bushings (IPL Figure 1; 395, 400, IPL Figure 2; 420).
 - (c) Temporarily install bolt (IPL Figure 1; 365, IPL Figure 2; 390), washer (IPL Figure 1; 370, 375, IPL Figure 2; 390, 400), and nut (IPL Figure 1; 380, IPL Figure 2; 410) . Do not tighten nut (IPL Figure 1; 385, IPL Figure 2; 410) to final torque at this time, because bolt, washers and nut must be removed to install the carriage assembly onto the mid flap.
 - (d) The bearing sealant, A00247 application will be accomplished at final installation per ASSEMBLY, Figure 702.
 - (e) Apply sealant, A00247 to the inner race of bearing assembly (IPL Figure 1; 360, IPL Figure 2; 385) and install it on the spindle.
 - (f) Install washers (IPL Figure 1; 350, 355, IPL Figure 2; 375, 380) and nut (IPL Figure 1; 345, IPL Figure 2; 370). Tighten nut (IPL Figure 1; 345, IPL Figure 2; 370) to 800-1100 pound-inches and install pins (IPL Figure 1; 338, 340, IPL Figure 2; 367, 368).
- NOTE:** Use any combination of washers (IPL Figure 1; 350, 355, IPL Figure 2; 375, 380) to align the nut (IPL Figure 1; 345, IPL Figure 2; 370) for pin (IPL Figure 1; 340, IPL Figure 2; 367, 368) installation.
- (g) Loose kit assembly (IPL Figure 2; 366) may be installed using lockwire, G50589 in lieu of cotter pin (IPL Figure 2; 367) as shown in Figure 705.

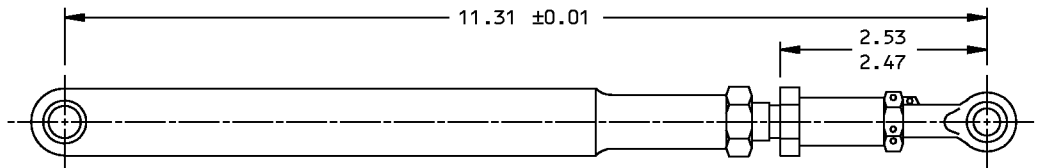
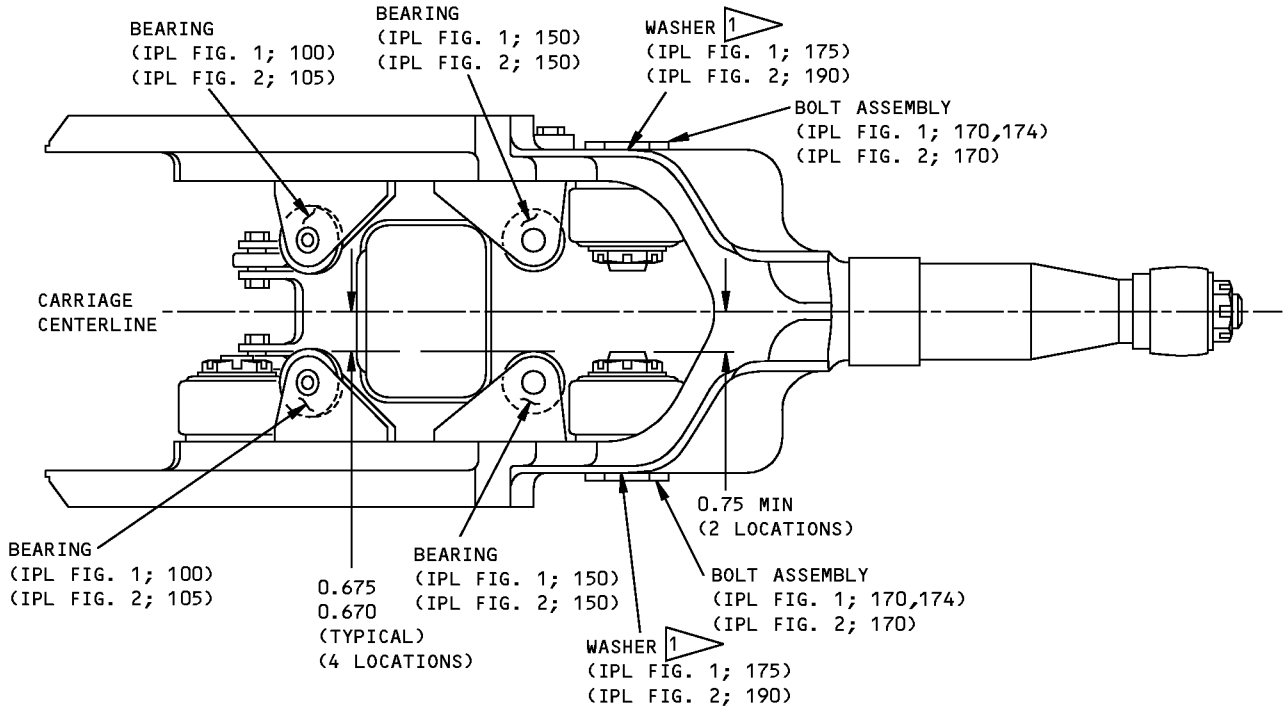
57-53-36

ASSEMBLY

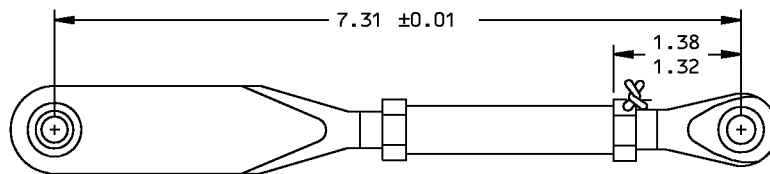
Page 706

Mar 01/2009

COMPONENT MAINTENANCE MANUAL



STRUT ASSEMBLY
(IPL FIG. 1; 230)
(IPL FIG. 2; 260)



STRUT ASSEMBLY
(IPL FIG. 1; 285)
(IPL FIG. 2; 315)

1 REMOVE 0.002 INCH LAMINATIONS TO MAINTAIN 0.75 INCH MINIMUM DIMENSION BETWEEN THE CARRIAGE CENTERLINE AND THE END OF THE BOLT ASSEMBLY INSTALL WASHER SHIMS WITH TWO COATS OF BMS 10-11, TYPE 1 PRIMER AFTER DELAMINATION.

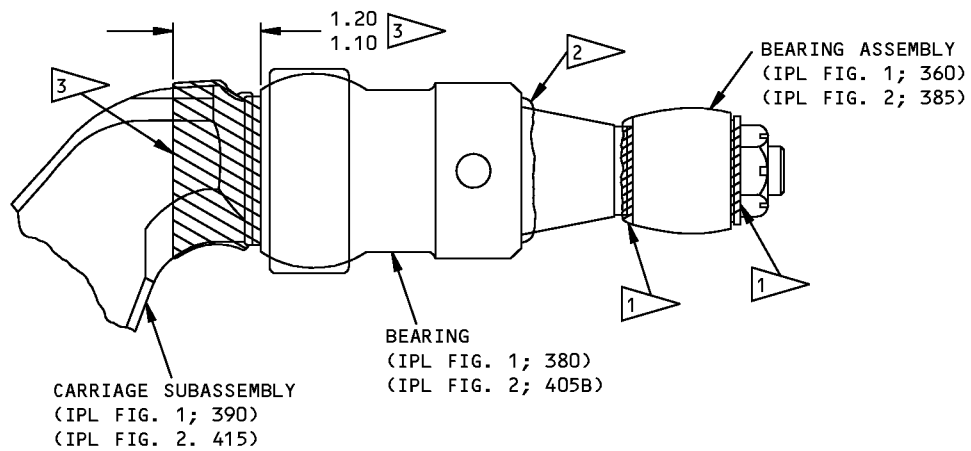
ALL DIMENSIONS ARE IN INCHES

Assembly Details
Figure 701

57-53-36

ASSEMBLY
Page 707
Jul 01/2007

COMPONENT MAINTENANCE MANUAL



- 1 FILLET SEAL WITH BMS 5-95. DO NOT ALLOW SEALANT TO FLOW ONTO BEARING OUTSIDE DIAMETER
- 2 FILLET SEAL WITH BMS 5-95 AT FINAL INSTALLATION
- 3 APPLY ONE COAT BMS 10-11, TYPE 1 PRIMER PLUS ABRASION RESISTANT TEFLON COATING (SRF-14.9625) OVER SEALANT AT FINAL INSTALLATION

ALL DIMENSIONS ARE IN INCHES

Assembly Details
Figure 702

57-53-36

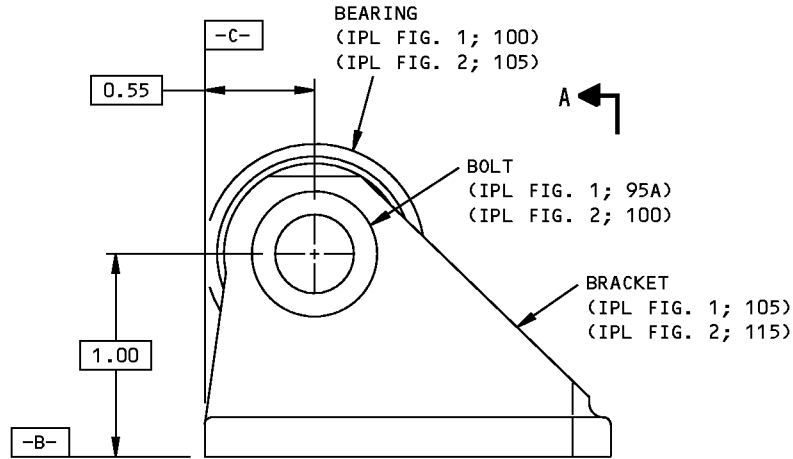
ASSEMBLY

Page 708

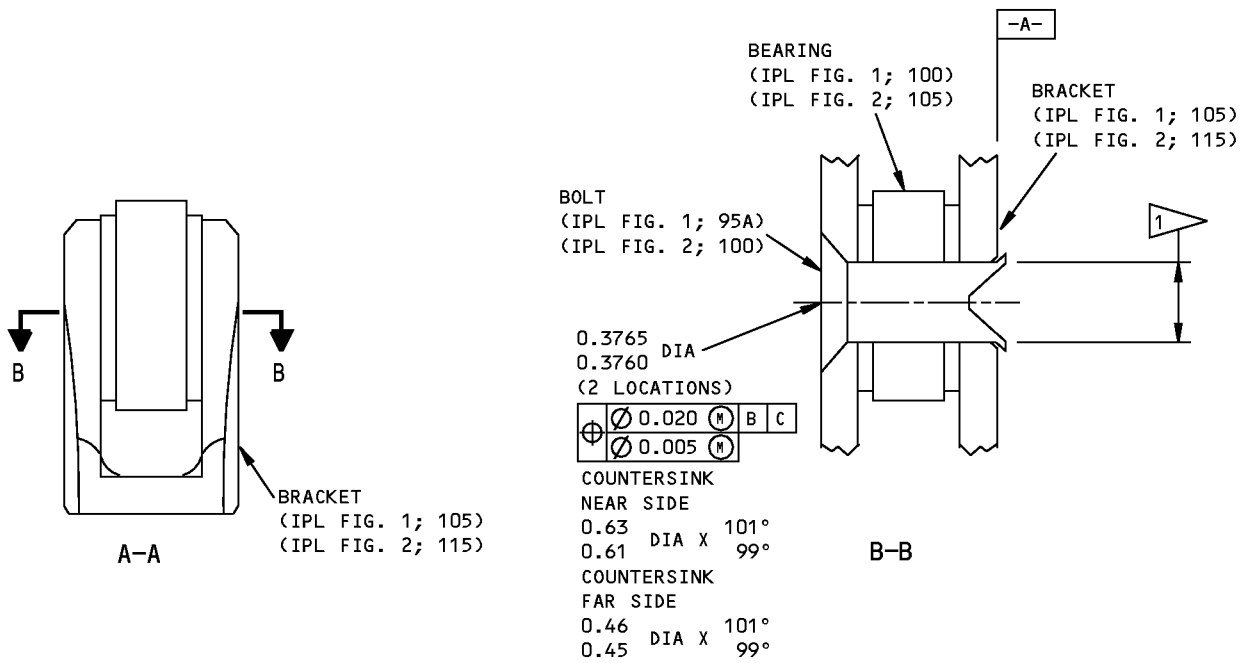
Jul 01/2007



COMPONENT MAINTENANCE MANUAL



65C16950-11 SHOWN
65C16950-12 OPPOSITE



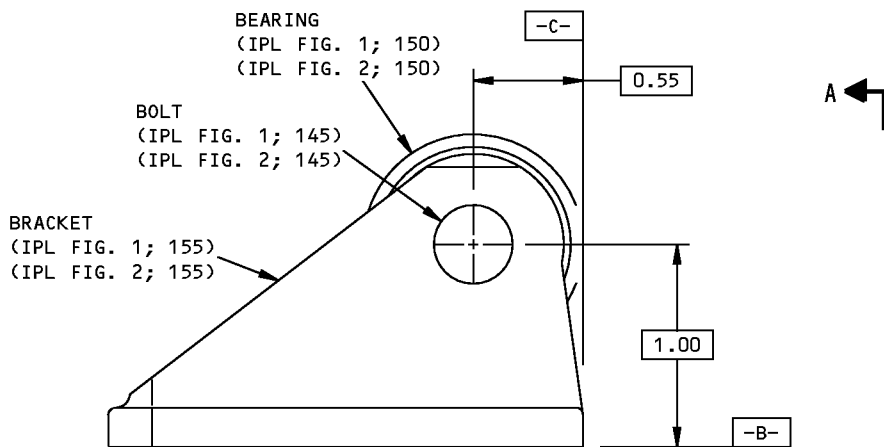
1 DEFORM END OF BOLT TO 0.40 DIAMETER MINIMUM

ITEM NUMBERS REFER TO IPL FIG. 1 AND 2
ALL DIMENSIONS ARE IN INCHES

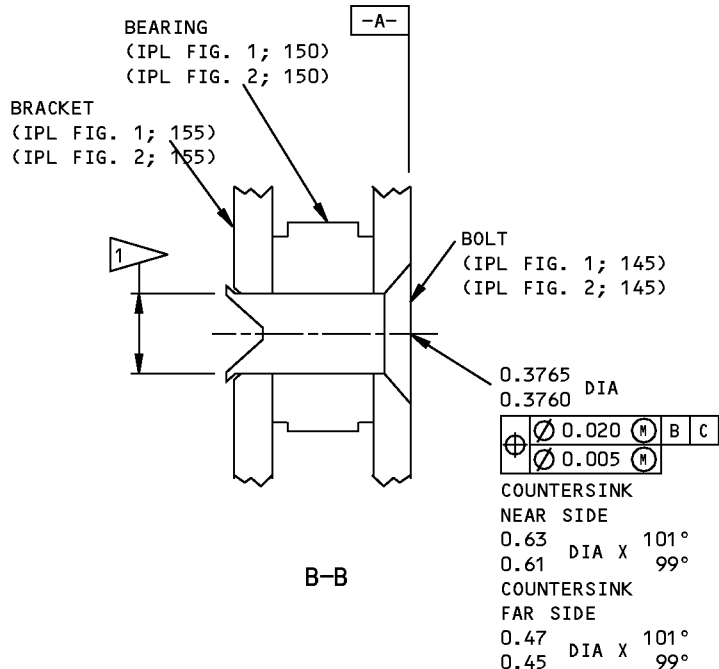
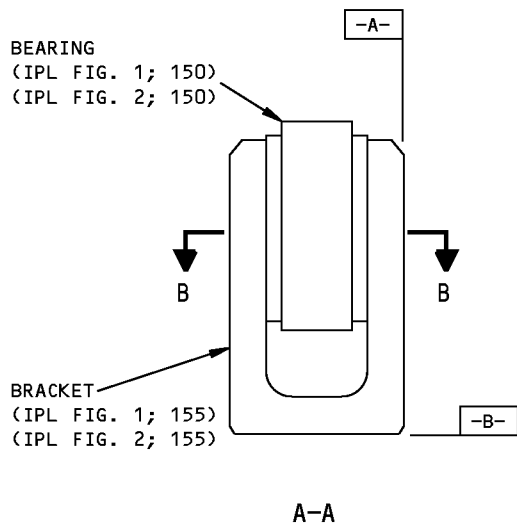
Bolt Installation
Figure 703



COMPONENT MAINTENANCE MANUAL



65C16951-11 SHOWN
65C16951-12 OPPOSITE



1 DEFORM END OF BOLT TO 0.40 DIAMETER MINIMUM

ITEM NUMBERS REFER TO IPL FIG. 1 AND 2
ALL DIMENSIONS ARE IN INCHES

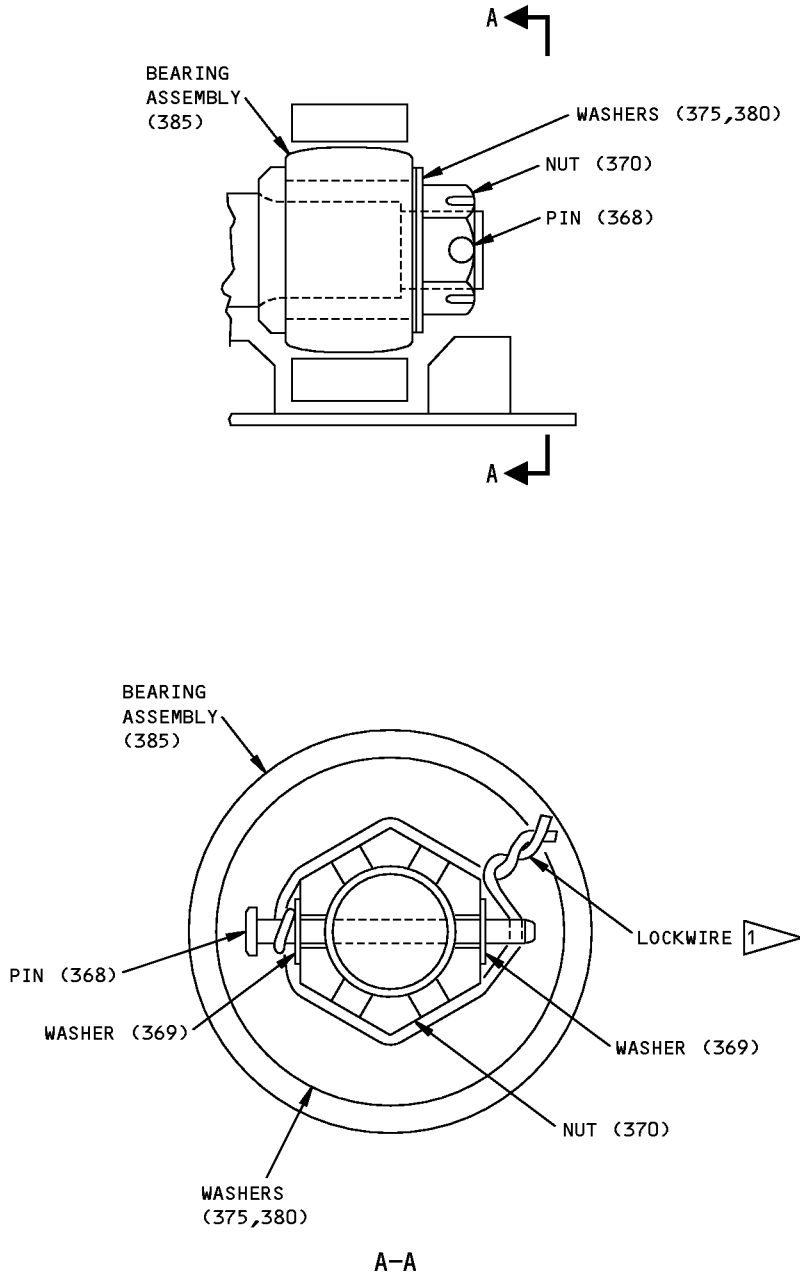
Bolt Installation
Figure 704

57-53-36

ASSEMBLY
Page 710
Jul 01/2007



COMPONENT MAINTENANCE MANUAL



1 INSTALL LOCKWIRE MS20995NC51 THROUGH HOLE IN PIN (368), WRAP AROUND NUT (370), ONE COMPLETE TURN AROUND PIN (368) BETWEEN HEAD OF PIN (368) AND WASHER (369), AND TWIST ENDS PER BAC5018

ITEM NUMBERS REFER TO IPL FIG. 2

Loose Kit Assembly Installation with Lockwire
Figure 705

57-53-36

ASSEMBLY

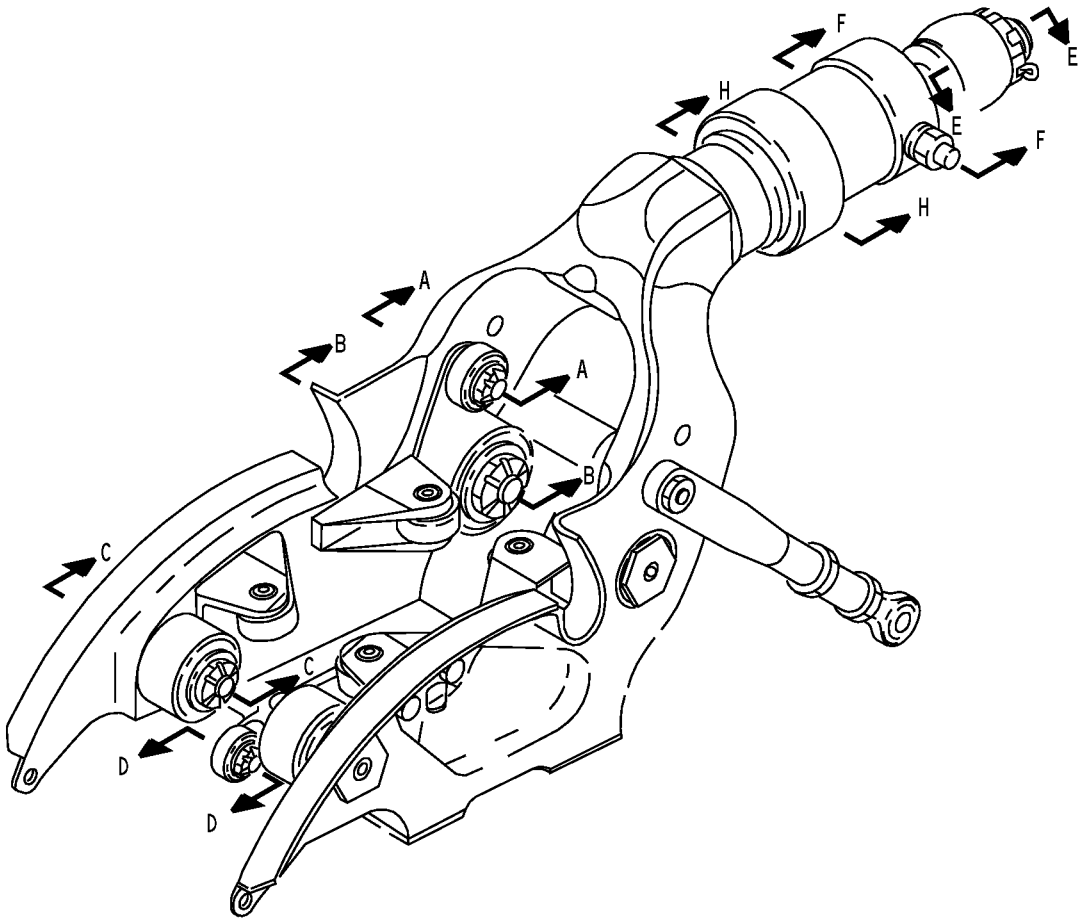
Page 711

Jul 01/2007



COMPONENT MAINTENANCE MANUAL

FITS AND CLEARANCES

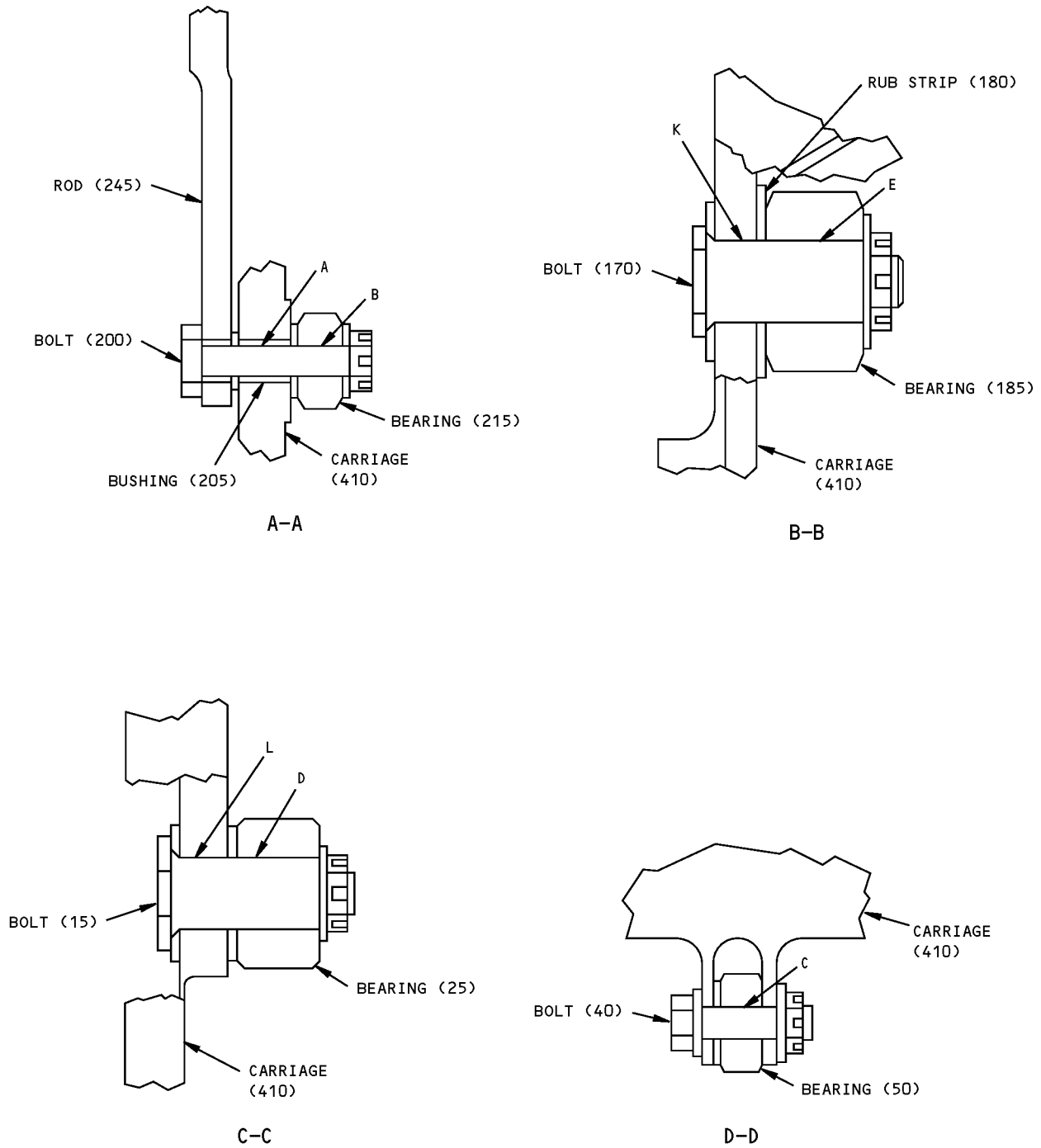


OUTBOARD FLAP CARRIAGE ASSEMBLY

Fits and Clearances
Figure 801 (Sheet 1 of 5)

57-53-36
FITS AND CLEARANCES
Page 801
Jul 01/2006

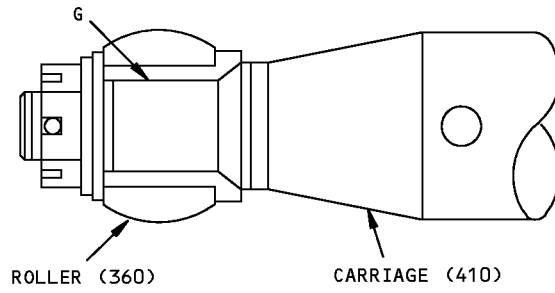
COMPONENT MAINTENANCE MANUAL



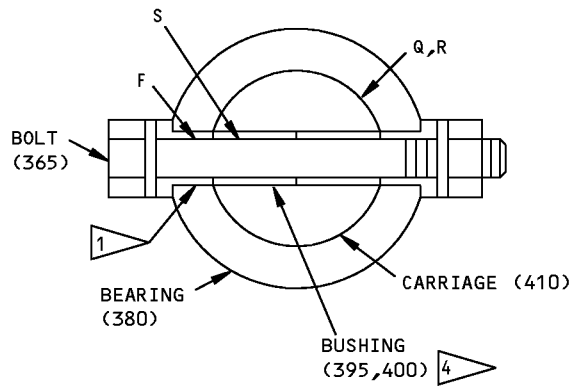
Fits and Clearances
Figure 801 (Sheet 2 of 5)



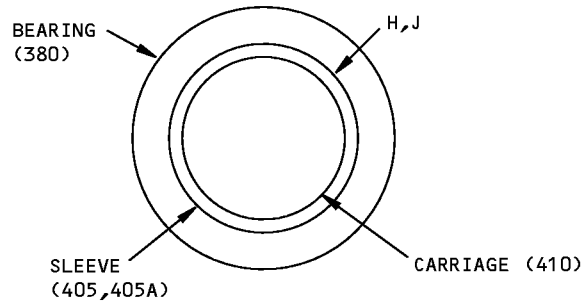
COMPONENT MAINTENANCE MANUAL



E-E



F-F



H-H

216099 S00041006979_V2

Fits and Clearances
Figure 801 (Sheet 3 of 5)



COMPONENT MAINTENANCE MANUAL



Ref Letter Fig.801	Mating Item No. IPL Fig.1	Design Dimensions				Service Wear Limits		
		Dimensions		Assembly Clearance		Dimensions		Maximum Clearance
		Min	Max	Min	Max	Min	Max	
A	ID 205	0.3750	0.3765	0.0005	0.0030	0.3690	0.3805	0.0060
	OD 200	0.3735	0.3745					
B	ID 215	0.3743	0.3750	-0.0002	0.0015	0.3713	0.3775	0.0030
	OD 200	0.3735	0.3745					
C	ID 50	0.2493	0.2500	-0.0002	0.0015	0.2463	0.2525	0.0030
	OD 40	0.2485	0.2495					
D	ID 25	0.7493	0.7500	0.0000	0.0013	0.7467	0.7519	0.0026
	OD 15	0.7487	0.7493					
E	ID 185	0.8743	0.8750	0.0000	0.0013	0.8717	0.8769	0.0026
	OD 170	0.8737	0.8743					
F	ID 1	0.3750	0.3756	0.0005	0.0021	0.3708	0.3787	0.0042
	OD 365	0.3735	0.3745					
G	ID 360	0.9368	0.9375	0.0000	0.0015	0.9338	0.9398	0.0030
	OD 410	0.9360	0.9368					
H	ID 380,380A	2.0625	2.0637	0.0004	0.0028	2.0569	2.0677	0.0056
	OD 405	2.0609	2.0621					
J	ID 380B,380C	1.8495	1.8505	0.0005	0.0025	1.8445	1.8540	0.0050
	OD 405A	1.8480	1.8490					
K	ID 410	0.8745	0.8781	0.0002	0.0044	0.8657	0.8831	0.0088
	OD 170	0.8737	0.8743					
L	ID 410	0.7495	0.7531	0.0002	0.0044	0.7407	0.7581	0.0088
	OD 15	0.7487	0.7493					

Fits and Clearances
Figure 801 (Sheet 4 of 5)

57-53-36
FITS AND CLEARANCES
Page 804
Mar 01/2006







COMPONENT MAINTENANCE MANUAL

Ref Letter Fig.801	Mating Item No. IPL Fig. 1	Design Dimensions				Service Wear Limits		
		Dimensions		Assembly Clearance		Dimensions		Maximum Clearance
		Min	Max	Min	Max	Min	Max	
Q	ID 380B, 380C OD 	1.7886	1.7898	0.0066	0.0108			
R	ID 380, 380A OD 	1.9375	1.9393	0.0012	0.0042			
S	ID 395,400 OD 365	0.3750	0.3756	0.0005	0.0021			

- SIGN DENOTES INTERFERENCE FIT

ALL DIMENSIONS ARE IN INCHES

-  1 VENDOR BUSHING
-  2 CARRIAGE 410B,410C,410E,410H,410K
-  3 CARRIAGE 410,410A,410D,410F,410G,410J
-  4 BUSHING (400) (QTY 2) SHOWN

216061 S00041006981_V3

Fits and Clearances
Figure 801 (Sheet 5 of 5)

57-53-36
FITS AND CLEARANCES
Page 805
Nov 01/2008



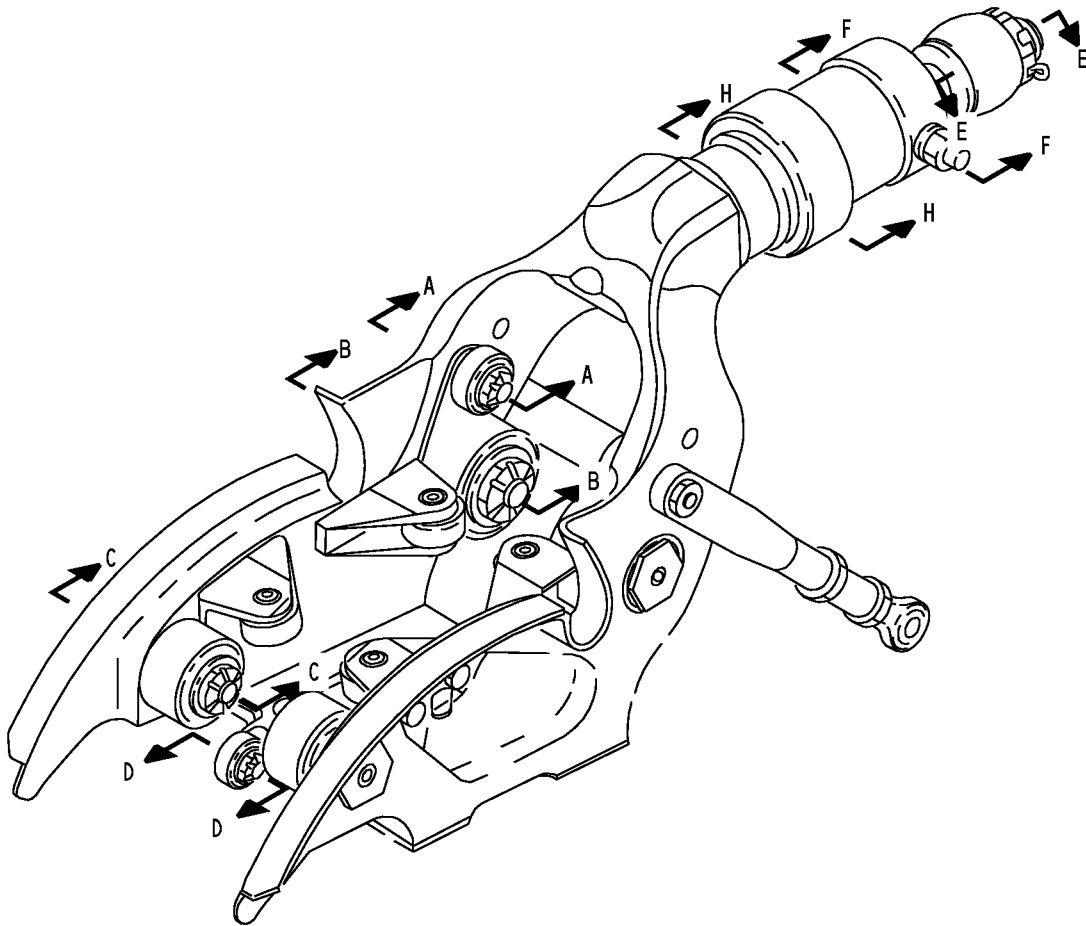
COMPONENT MAINTENANCE MANUAL

REF IPL		NAME	TORQUE*	
FIG. NO.	ITEM NO.		POUND-INCHES	POUND-FEET
1	15	Bolt	175-425	
1	40,44	Bolt	30-50	
1	170,174	Bolt	200-500	
1	200	Bolt	95-160	
1	250	Nut	30-50	
1	260	Nut	20-40	
1	315	Nut	20-40	
1	345	Nut	800-1100	
1	385	Nut	300-500	

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

Torque Table
Figure 802

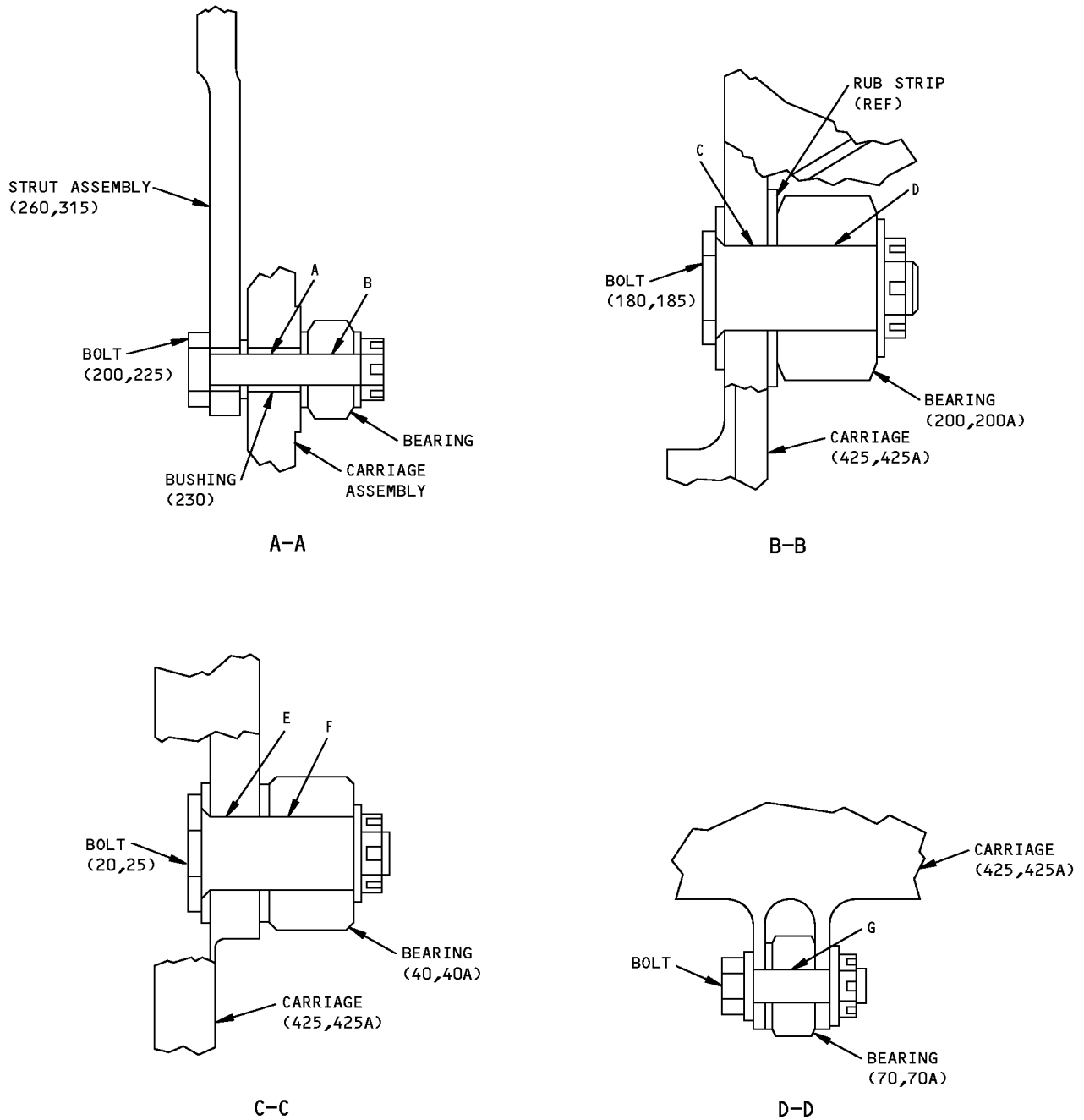
COMPONENT MAINTENANCE MANUAL



OUTBOARD FLAP CARRIAGE ASSEMBLY

Fits and Clearances
Figure 803 (Sheet 1 of 5)

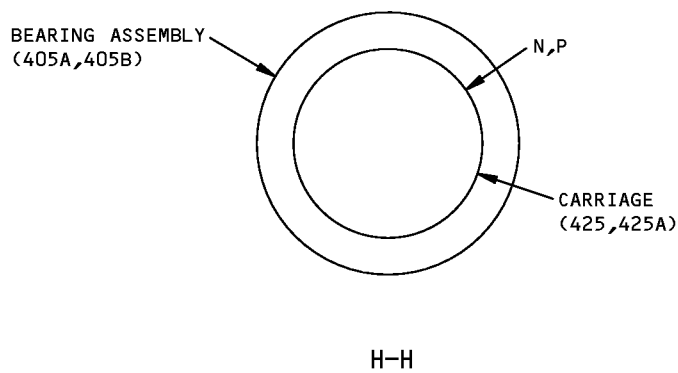
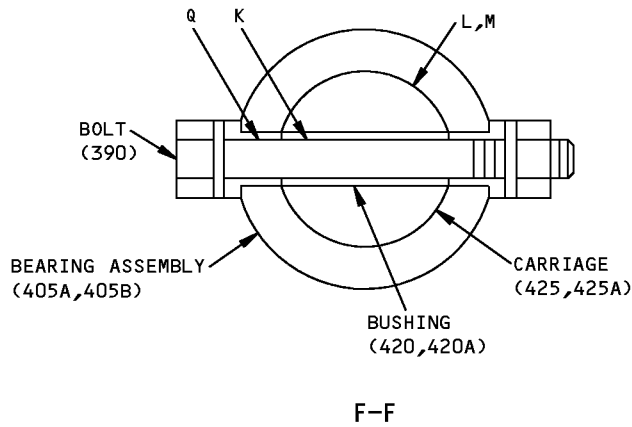
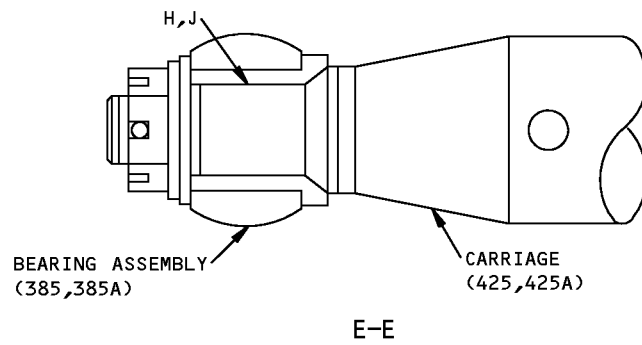
COMPONENT MAINTENANCE MANUAL



Fits and Clearances
Figure 803 (Sheet 2 of 5)



COMPONENT MAINTENANCE MANUAL



1361321 S0000245279_V3

Fits and Clearances
Figure 803 (Sheet 3 of 5)



COMPONENT MAINTENANCE MANUAL

Ref Letter Fig.803	Mating Item No. IPL Fig.2	Design Dimensions				Service Wear Limits		
		Dimensions		Assembly Clearance		Dimensions		Maximum Clearance
		Min	Max	Min	Max	Min	Max	
A	ID 230	0.3750	0.3765	0.0005	0.0030			
	OD 200,225	0.3735	0.3745					
B	ID 240,240A	0.3743	0.3750	-0.0002	0.0015			
	OD 200,225	0.3735	0.3745					
C	ID 425,425A	0.8745	0.8781	0.0002	0.0044			
	OD 180,185	0.8737	0.8743					
D	ID 200,200A	0.8743	0.8750	0.0000	0.0013			
	OD 180,185	0.8737	0.8743					
E	ID 425,425A	0.7495	0.7531	0.0002	0.0044			
	OD 20,25	0.7487	0.7493					
F	ID 40,40A	0.7493	0.7500	0.0000	0.0013			
	OD 20,25	0.7487	0.7493					
G	ID 70,70A	0.2493	0.2500	-0.0002	0.0015			
	OD 60,62	0.2485	0.2495					
H	ID 385	0.9368	0.9375	0.0000	0.0015			
	OD 425	0.9360	0.9368					
J	ID 385A	1.0130	1.0137	0.0000	0.0015			
	OD 425A	1.0122	1.0130					
K	ID 420,420A	0.3750	0.3756	0.0005	0.0021			
	OD 390	0.3735	0.3745					
L	ID 405B	1.9375	1.9393	0.0012	0.0042			
	OD 425	1.9351	1.9363					

1361329 S0000245280_V5

Fits and Clearances
Figure 803 (Sheet 4 of 5)

57-53-36


FITS AND CLEARANCES

Page 810

Jul 01/2009



COMPONENT MAINTENANCE MANUAL

Ref Letter Fig.803	Mating Item No. IPL Fig.2	Design Dimensions				Service Wear Limits		
		Dimensions		Assembly Clearance		Dimensions		Maximum Clearance
		Min	Max	Min	Max	Min	Max	
M	ID 405A	1.7886	1.7898	0.0076	0.0098			
	OD 425A	1.7800	1.7810					
N	ID 40AB	2.0625	2.0637	0.0004	0.0028			
	OD 425	2.0609	2.0621					
P	ID 405A	1.8495	1.8505	0.0005	0.0025			
	OD 425A	1.8480	1.8490					
Q	ID 	0.3750	0.3756	0.0005	0.0021			
	OD 390	0.3735	0.3745					

- SIGN DENOTES INTERFERENCE FIT

ALL DIMENSIONS ARE IN INCHES

 VENDOR BUSHING

1361341 S0000245282_V3

Fits and Clearances
Figure 803 (Sheet 5 of 5)

57-53-36
FITS AND CLEARANCES
Page 811
Mar 01/2009



COMPONENT MAINTENANCE MANUAL

REF IPL		NAME	TORQUE*	
FIG. NO.	ITEM NO.		POUND-INCHES	POUND-FEET
2	10,25	Bolt	175-425	
2	50,62	Bolt	30-50	
2	180,185	Bolt	200-500	
2	210,225	Bolt	95-160	
2	280	Nut	30-50	
2	290	Nut	20-40	
2	345	Nut	20-40	
2	370	Nut	800-1100	
2	410	Nut	300-500	

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

Torque Table
Figure 804



COMPONENT MAINTENANCE MANUAL

SPECIAL TOOLS, FIXTURES, AND EQUIPMENT

(NOT APPLICABLE)

57-53-36

SPECIAL TOOLS, FIXTURES, AND EQUIPMENT

Page 901

Mar 01/2006



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

57-53-36

ILLUSTRATED PARTS LIST

Page 1001

Nov 01/2008



COMPONENT MAINTENANCE MANUAL

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
06710	LAMSON AND SESSIONS CO THE VALLEY-TODECO 12975 BRADLEY AVENUE SYLMAR, CALIFORNIA 91342-3830 FORMERLY VALLEY BOLT CORP VB0097 IN NORTH HOLLYWOOD, CA
07484	ACCURATE BUSHING CO INC 443 NORTH AVENUE GARWOOD, NEW JERSEY 07027-1014 FORMERLY V83132 SMITH BRG DIV OF ACCURATE BUSHING CO
11815	CHERRY AEROSPACE FASTENERS DIV OF TEXTRON 1224 EAST WARNER AVENUE PO BOX 2157 SANTA ANA, CALIFORNIA 92707-0157 FORMERLY IN LOS ANGELES, CALIF , FORMERLY CHERRY FASTENERS TOWNSEND DIV OF TEXTRON INC V71087
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
27238	BRISTOL INDUSTRIES 630 EAST LAMBERT ROAD PO BOX 630 BREA, CALIFORNIA 92621-4119
50632	KAMATICS CORP SUB OF KAMAN CORP 1335 BLUE HILLS ROAD BLOOMFIELD, CONNECTICUT 06002-1304

57-53-36

ILLUSTRATED PARTS LIST

Page 1002

Jul 01/2007



COMPONENT MAINTENANCE MANUAL

Code	Name
56878	SPS TECHNOLOGIES INC AEROSPACE AND INDUSTRIAL PRODUCTS DIV 301 HIGHLAND AVE JENKINTOWN, PENNSYLVANIA 19046 FORMERLY STANDARD PRESSED STEEL FORMERLY IN SALT LAKE, UTAH
57983	GREER IND INC 2659 GRAVEL STREET PO BOX 142 FORT WORTH, TEXAS 76117-0249
60380	TORRINGTON CO BEARINGS DIV SUBSIDIARY OF INGERSOLL-RAND CORP 59 FIELD STREET PO BOX 1008 TORRINGTON, CONNECTICUT 06790-1008 FORMERLY TORRINGTON BEARING COMPANY
62554	SIMMONDS MECAERO FASTENERS INC 1734 SEQUOIA AVENUE ORANGE, CALIFORNIA 92668
72962	HARVARD INDUSTRIES INC 3 WERNER WAY SUITE 210 LEBANON, NEW JERSEY 08833 FORMERLY ESNA V7A079 FORMERLY ELASTIC STOP NUT IN UNION, NJ
81205	BOEING CO THE 7755 EAST MARGINAL WAY PO BOX 3707 SEATTLE, WASHINGTON 98124
92563	MCGILL MFG CO INC BEARINGS DIV 909 LAFAYETTE STREET VALPARAISO, INDIANA 46383-4210
97928	Replaced: [V97928] SEE V17446 HUCK INTL by Code: Name and Address below 17446: HUCK INTL INC AEROSPACE FASTENER DIV 900 WATSON CENTER ROAD CARSON, CALIFORNIA 90745-4201 FORMERLY V32134 REXNORD INC; FORMERLY V97928 HUCK INTL
D2456	

57-53-36

ILLUSTRATED PARTS LIST

Page 1003

Jul 01/2007



COMPONENT MAINTENANCE MANUAL

NUMERICAL INDEX

PART NUMBER	AIRLINE PART NUMBER	FIGURE	ITEM	UNITS PER ASSEMBLY
102LH9031-6		2	410	1
102LH90316		2	410	1
109LH9031-6		1	385	1
109LH90316		1	385	1
12AFC1628		1	25	2
14AFC1832		1	185	2
4AFC614		1	50	2
65-43481-5		1	175A	2
65-46481-101		1	1D	RF
65-46481-102		1	5D	RF
65-46481-103		1	1E	RF
65-46481-104		1	5E	RF
65-46481-105		1	1	RF
65-46481-106		1	5	RF
65-46481-107		1	1F	RF
65-46481-108		1	5F	RF
65-46481-109		1	1G	RF
65-46481-110		1	5G	RF
65-46481-111		1	1H	RF
65-46481-112		1	5H	RF
65-46481-113		1	1A	RF
65-46481-114		1	5A	RF
65-46481-115		1	1B	RF
65-46481-116		1	5B	RF
65-46481-117		1	1Q	RF
65-46481-118		1	5Q	RF
65-46481-119		1	1J	RF
65-46481-120		1	5J	RF
65-46481-121		1	1K	RF
65-46481-122		1	5K	RF
65-46481-123		1	1R	RF
65-46481-124		1	5R	RF
65-46481-133		1	1S	RF
65-46481-134		1	5S	RF

57-53-36

ILLUSTRATED PARTS LIST

Page 1004

Jul 01/2007



COMPONENT MAINTENANCE MANUAL

PART NUMBER	AIRLINE PART NUMBER	FIGURE	ITEM	UNITS PER ASSEMBLY
65-46481-135		1	1T	RF
65-46481-136		1	5T	RF
65-46481-142		2	366A	1
65-46481-143		1	1W	RF
		2	1A	RF
65-46481-144		1	5W	RF
		2	5	RF
65-46481-145		1	1X	RF
		2	1B	RF
65-46481-146		1	5X	RF
		2	5A	RF
65-46481-147		1	1Y	RF
		2	1C	RF
65-46481-148		1	5Y	RF
		2	5B	RF
65-46481-149		1	1Z	RF
		2	1D	RF
65-46481-150		1	5Z	RF
		2	5C	RF
65-46481-151		2	366	1
65-46481-3		1	85	2
		2	95	2
65-46481-4		1	135	2
		2	140	2
65-46481-5		1	175	2
		2	190A	2
65-46481-6		1	137	4
65-46481-87		1	1L	RF
65-46481-88		1	5L	RF
65-46481-89		1	1M	RF
65-46481-90		1	5M	RF
65-46481-91		1	1N	RF
65-46481-92		1	5N	RF
65-46481-93		1	1P	RF
65-46481-94		1	5P	RF

57-53-36

ILLUSTRATED PARTS LIST

Page 1005

Jul 01/2007



COMPONENT MAINTENANCE MANUAL

PART NUMBER	AIRLINE PART NUMBER	FIGURE	ITEM	UNITS PER ASSEMBLY
65-46481-97		1	1C	RF
65-46481-98		1	5C	RF
65C16950-1		1	65B	1
65C16950-10		1	110A	1
65C16950-11		1	65	1
		1	65C	1
		2	75	1
65C16950-12		1	70	1
		1	70C	1
		2	80	1
65C16950-13		1	105	1
		2	110	1
65C16950-14		1	110	1
		2	115	1
65C16950-2		1	70B	1
65C16950-3		1	105B	1
65C16950-4		1	110B	1
65C16950-7		1	65A	1
65C16950-8		1	70A	1
65C16950-9		1	105A	1
65C16951-1		1	115B	1
65C16951-10		1	160A	1
65C16951-11		1	115	1
		1	115C	1
		2	120	1
65C16951-12		1	120	1
		1	120C	1
		2	125	1
65C16951-13		1	155	1
		2	155	1
65C16951-14		1	160	1
		2	160	1
65C16951-2		1	120B	1
65C16951-3		1	155B	1
65C16951-4		1	160B	1

57-53-36

ILLUSTRATED PARTS LIST

Page 1006

Jul 01/2007



COMPONENT MAINTENANCE MANUAL

PART NUMBER	AIRLINE PART NUMBER	FIGURE	ITEM	UNITS PER ASSEMBLY
65C16951-7		1	115A	1
65C16951-8		1	120A	1
65C16951-9		1	155A	1
65C27409-10		1	390D	1
		1	390Q	1
65C27409-11		1	410K	1
65C27409-12		1	410D	1
65C27409-13		1	390C	1
		1	390P	1
65C27409-15		1	410C	1
65C27409-17		1	390E	1
		1	390R	1
65C27409-18		1	390F	1
		1	390S	1
65C27409-19		1	410E	1
65C27409-20		1	410F	1
65C27409-21		1	390G	1
		1	390T	1
65C27409-22		1	410G	1
65C27409-23		1	390	1
		1	390L	1
65C27409-24		1	410	1
65C27409-25		1	390B	1
		1	390N	1
65C27409-26		1	410B	1
65C27409-27		1	390A	1
		1	390M	1
65C27409-28		1	410A	1
65C27409-29		2	415A	1
65C27409-30		2	425A	1
65C27409-31		2	415	1
65C27409-32		2	425	1
65C27409-5		1	390H	1
		1	390U	1
65C27409-6		1	390J	1

57-53-36

ILLUSTRATED PARTS LIST

Page 1007

Jul 01/2007



COMPONENT MAINTENANCE MANUAL

PART NUMBER	AIRLINE PART NUMBER	FIGURE	ITEM	UNITS PER ASSEMBLY
		1	390V	1
65C27409-7		1	410H	1
65C27409-8		1	410J	1
65C27409-9		1	390K	1
		1	390W	1
65C34483-5		1	1U	RF
65C34483-6		1	5U	RF
65C34483-7		1	1V	RF
65C34483-8		1	5V	RF
66-13369-1		1	45	2
		2	65	2
66-19116-1		1	180B	2
66-19144-2		1	190	2
		2	205	2
66-23217-2		1	30	2
		2	45	2
66-23220-1		1	96	1
		1	146	1
66-23220-3		1	99	1
		1	149	1
66-23220-4		1	95	1
		1	145	1
66-23220-5		1	95A	1
		1	145A	1
		2	100	1
		2	145	1
67832AS6		1	385	1
67832AS624		1	385	1
67832CD6		2	410	1
67832CD624		2	410	1
69-20787-1		1	40	2
		2	50	2
69-20787-4		1	43	1
		2	60	1
69-35347-11		2	25	2

57-53-36

ILLUSTRATED PARTS LIST

Page 1008

Jul 01/2007



COMPONENT MAINTENANCE MANUAL

PART NUMBER	AIRLINE PART NUMBER	FIGURE	ITEM	UNITS PER ASSEMBLY
69-35347-5		1	15	2
		2	10	2
69-35347-6		1	19	1
		2	20	1
69-35347-9		1	15A	2
		1	15B	2
69-38825-11		1	170A	2
		1	170B	2
		1	170D	2
69-38825-13		1	174	2
		2	185	2
69-38825-5		1	170	2
		2	170	2
69-38825-6		1	173	1
		2	180	1
69-39243-3		1	200	2
		2	210	2
69-39243-4		1	204	1
		2	220	1
69-39243-5		1	200A	2
		1	200B	2
69-39243-6		2	225	2
		1	405A	1
69-46453-2		1	405	1
69-46453-3		1	230	1
69-54954-3		1	230A	1
69-54954-4		1	230B	1
		2	260	1
		1	270	1
69-54956-1		2	300	1
		1	280	1
69-54956-2		2	310	1
		1	235	1
69-54957-1		1	245	1
69-54957-2		1	235B	1
69-54957-3		1		

57-53-36

ILLUSTRATED PARTS LIST

Page 1009

Jul 01/2007



COMPONENT MAINTENANCE MANUAL

PART NUMBER	AIRLINE PART NUMBER	FIGURE	ITEM	UNITS PER ASSEMBLY
		2	265	1
69-54957-4		1	245B	1
		2	275	1
69-54957-501		1	235A	1
		1	235C	1
		2	265A	1
69-54957-502		1	245A	1
		2	275A	1
69-54958-2		1	255	1
		2	285	1
69-59869-1		1	285	1
		2	315	1
69-59870-1		1	290	1
		2	320	1
69-59870-3		1	300	1
		2	330	1
69-59871-1		1	325	1
		2	355	1
69-59871-3		1	335	1
		2	365	1
69-59872-1		1	310	1
		2	340	1
69-61978-4		1	350	1
		2	375	1
69-61978-5		1	355	AR
		2	380	1
69-77765-1		1	180	2
		1	180C	2
		2	195	2
69-77765-2		1	180A	2
		2	195A	2
6AFC817		1	100B	1
		1	150C	1
		1	215	2
AN316-7L		1	250	1

57-53-36

ILLUSTRATED PARTS LIST

Page 1010

Jul 01/2007



COMPONENT MAINTENANCE MANUAL

PART NUMBER	AIRLINE PART NUMBER	FIGURE	ITEM	UNITS PER ASSEMBLY
		2	280	1
AN320-4		1	60	2
AN320-6		1	225	2
AN960-416		1	130	4
AN960-416L		1	55	2
AN960-616L		1	220A	2
AN960C1216L		1	20	2
AN960C616		1	210	2
AN960C616L		1	210A	2
ATF12		1	25	2
ATF14		1	185	2
ATF14T8		2	200	2
ATF4		1	50	2
ATF4T8		2	70	2
ATF6		1	100B	1
		1	150C	1
		1	215	2
BACB10ET04		1	50	2
BACB10ET06		1	100B	1
		1	150C	1
		1	215	2
BACB10ET12		1	25	2
BACB10ET14		1	185	2
BACB10HH04		2	70	2
BACB10HH06		2	240	2
BACB10HH12		2	40	2
BACB10HH14		2	200	2
BACB28U6B033		1	240	1
		2	270	1
BACB28U6C080		1	400A	2
BACB28U6C088		1	400	2
BACB28U6C168		1	395B	1
		1	395C	1
		2	420A	1
BACB28U6C185		1	395	1

57-53-36

ILLUSTRATED PARTS LIST

Page 1011

Jul 01/2007



COMPONENT MAINTENANCE MANUAL

PART NUMBER	AIRLINE PART NUMBER	FIGURE	ITEM	UNITS PER ASSEMBLY
		1	395A	1
		2	420	1
BACB28X6B054		1	205A	2
BACB28X6M054		2	230	2
BACB28Y5M029		1	330	1
		2	360	1
BACB28Y5M031		1	275A	1
		2	305	1
BACB28Y6M029		1	295	1
		2	325	1
BACB30GN4-13		1	125	4
BACB30GN4-4		1	75	4
BACB30LJ4H13		2	130	4
BACB30LJ4H4		2	85	4
BACB30LM4D10		2	62	2
BACB30LM4D11		1	44B	2
BACB30NF4H13		1	125B	4
BACB30NF4H4		1	75B	4
BACN10HR6CD		2	410	1
BACN10HR6CS		1	385	1
BACN10JD104CD		2	68	2
BACN10JD106CD		2	250	2
BACN10JD112		1	345E	1
		2	370	1
BACP18BC02C04P		2	61	2
BACP18BC03C08P		2	9	2
BACP18BC03C10P		2	165	2
		2	207	2
BACP18BD1C41		2	368	1
BACP20AX09A		1	17	1
		1	171A	1
		1	203	1
BACP20AX09AP		1	18	1
		1	172A	1
		1	202A	1

57-53-36

ILLUSTRATED PARTS LIST

Page 1012

Mar 01/2008



COMPONENT MAINTENANCE MANUAL

PART NUMBER	AIRLINE PART NUMBER	FIGURE	ITEM	UNITS PER ASSEMBLY
BACW10BP6ACU		1	370	1
		2	400	1
BACW10BP6APU		1	375	1
		2	395	1
BACW10BR214		1	175B	2
		2	190	2
BCREF15546		1	215C	2
BH003026CS		1	385	1
BH00303-6		1	385	1
BH003036		1	385	1
BH00303CM6		2	410	1
		2	410	1
BMN10HRCWD3-6		2	410	1
BMN5024CPD3-6		1	385	1
BMN5024CPD36		1	385	1
BMN5024CWD36		2	410	1
CR5908		1	385	1
CR60306		2	410	1
EWBM26-6-38		1	365	1
		2	390	1
F12NE4717-126		1	345	1
		1	345C	1
F12NTEC1216		1	345A	1
		1	345D	1
FAG594038		2	70	2
H39953		1	385	1
H39953-6		1	385	1
H51560-6		2	410	1
KJB193615V		1	360	1
		2	385	1
KJB986416V		2	385A	1
KRP123400VT04C		1	50A	2
		1	50C	2
KRP123400VT06C		1	215A	2
		1	215D	2

57-53-36

ILLUSTRATED PARTS LIST

Page 1013

Mar 01/2008



COMPONENT MAINTENANCE MANUAL

PART NUMBER	AIRLINE PART NUMBER	FIGURE	ITEM	UNITS PER ASSEMBLY
KRP123400VT06ZM0D		1	215C	2
KRP123400VT12Z		1	25B	2
		1	25D	2
		2	40A	2
KRP123400VT12ZC		1	25A	2
		1	25C	2
KRP123400VT14Z		1	185B	2
		1	185D	2
		2	200A	2
KRP123400VT14ZC		1	185A	2
		1	185C	2
KRP141606VT		1	100	1
		1	150	1
		2	105A	1
		2	150A	1
KRP190204VTZ		1	50B	2
		1	50D	2
		2	70A	2
KRP191006VTZ		1	215B	2
		1	215E	2
		2	240A	2
KRP202806FTZ		1	100A	1
		1	150B	1
		2	105	1
		2	150	1
KSC170429V		1	380C	1
KSC170933V		1	380	1
KSC234929V		1	380B	1
		2	405A	1
KSC235033V		1	380A	1
KSC255033V		1	380D	1
		2	405B	1
MS14145L12		1	345F	1
MS16562-217		1	90	1
		1	140	1

57-53-36

ILLUSTRATED PARTS LIST

Page 1014

Mar 01/2008



COMPONENT MAINTENANCE MANUAL

PART NUMBER	AIRLINE PART NUMBER	FIGURE	ITEM	UNITS PER ASSEMBLY
MS20392-1C39		1	340	1
MS24665-132		1	35	2
		1	338	1
		2	367	1
MS24665-285		1	10	2
MS24665-287		1	165	2
MS24665-304		1	195	2
NAS1149E0632P		2	245A	2
NAS1149E0663P		2	235A	2
NAS1149E1232P		2	35	2
NAS1149F0432P		2	67	2
NAS1149F0463P		2	135	4
NAS1149FN432P		2	369	2
NAS509-6		1	260	1
		1	315	1
		2	290	1
		2	345	1
NAS509L6		1	305	1
		2	335	1
NAS516-1		1	16	1
		1	41	1
		1	97	1
		1	147	1
		1	171	1
		2	175	1
NAS516-1A		1	201	1
		2	15	1
		2	55	1
		2	215	1
NAS559-2		1	265	1
		1	320	1
		2	295	1
		2	350	1
NAS620-416		1	80	4
		2	90	4

57-53-36

ILLUSTRATED PARTS LIST

Page 1015

Mar 01/2008



COMPONENT MAINTENANCE MANUAL

PART NUMBER	AIRLINE PART NUMBER	FIGURE	ITEM	UNITS PER ASSEMBLY
NAS6604-11		1	44	2
NAS6604D10		1	44A	2
SL705096		1	385	1
SL7059C624		1	385	1
SL7108C6		2	410	1
SL7108C624		2	410	1
VCU0005D6		2	410	1
YAF04B		1	50	2
YAF04XD		2	70	2
YAF06B		1	100B	1
		1	150C	1
		1	215	2
YAF12B		1	25	2
YAF14B		1	185	2

57-53-36

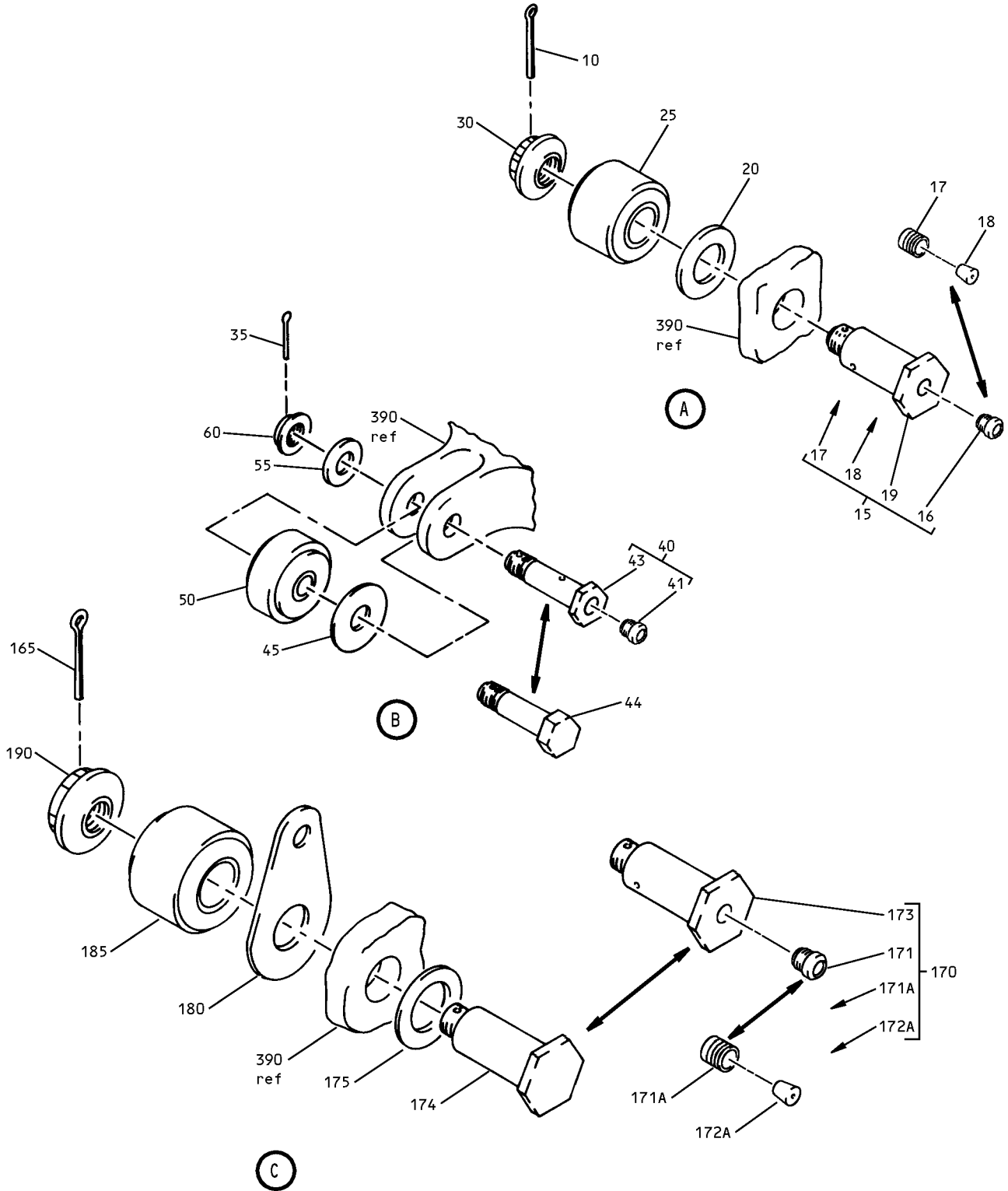
ILLUSTRATED PARTS LIST

Page 1016

Mar 01/2008



COMPONENT MAINTENANCE MANUAL



Outboard Flap Carriage Assembly
IPL Figure 1 (Sheet 2 of 7)

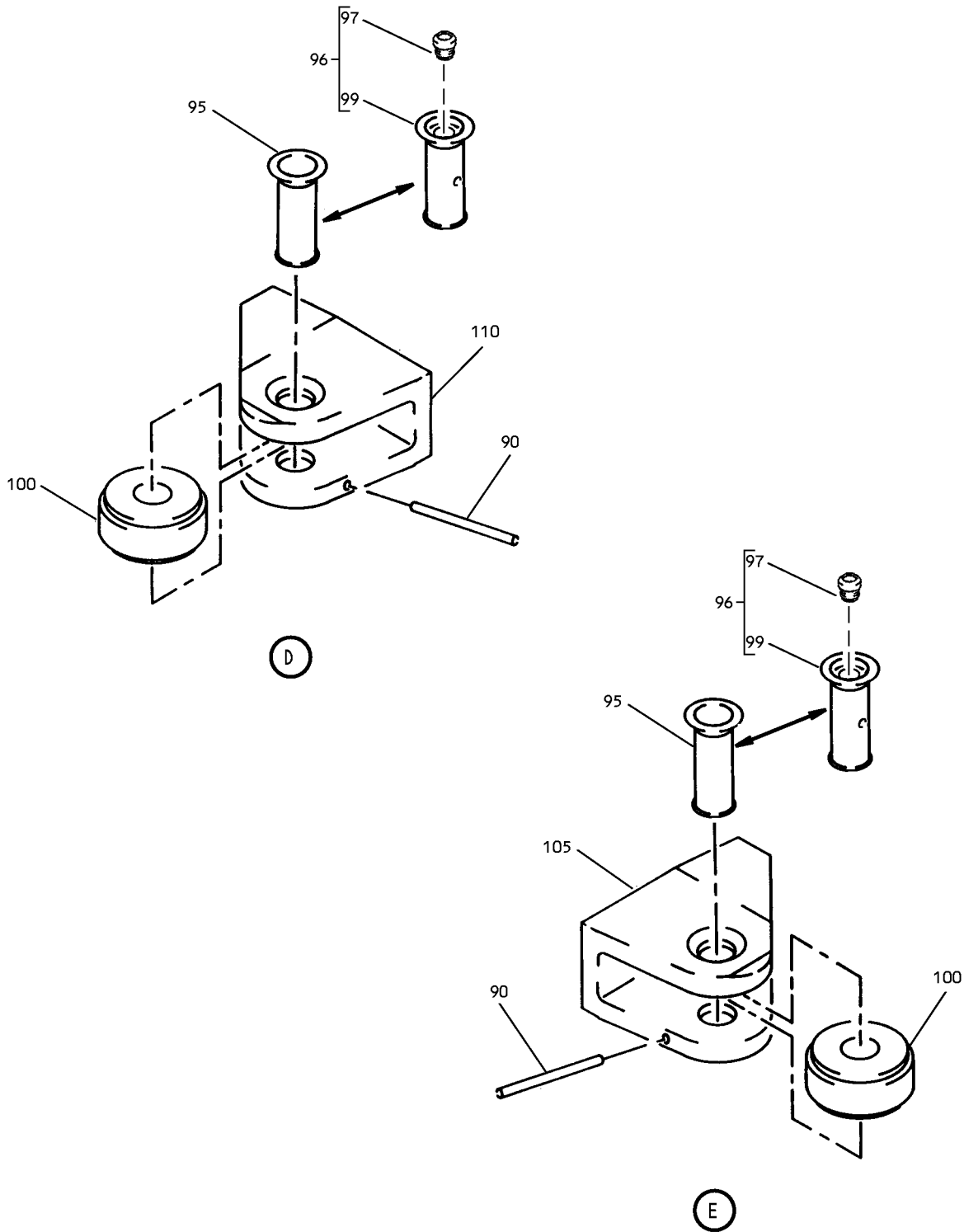
57-53-36

ILLUSTRATED PARTS LIST

Page 1018

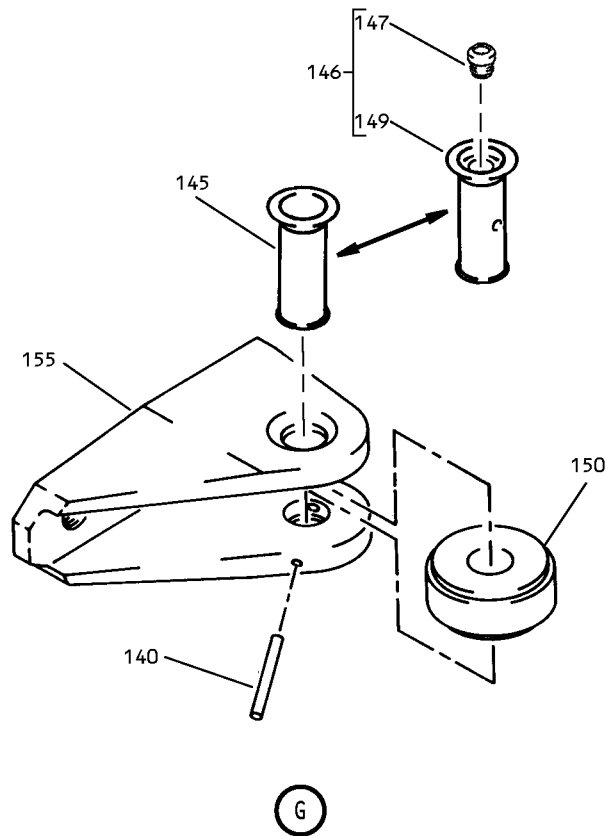
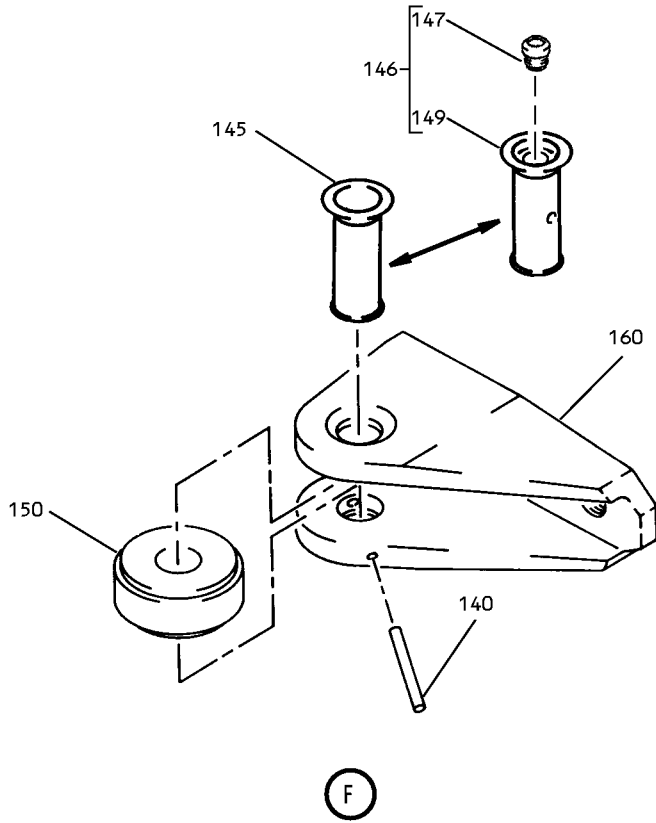
Jul 01/2007

COMPONENT MAINTENANCE MANUAL



Outboard Flap Carriage Assembly
IPL Figure 1 (Sheet 3 of 7)

COMPONENT MAINTENANCE MANUAL



Outboard Flap Carriage Assembly
IPL Figure 1 (Sheet 4 of 7)

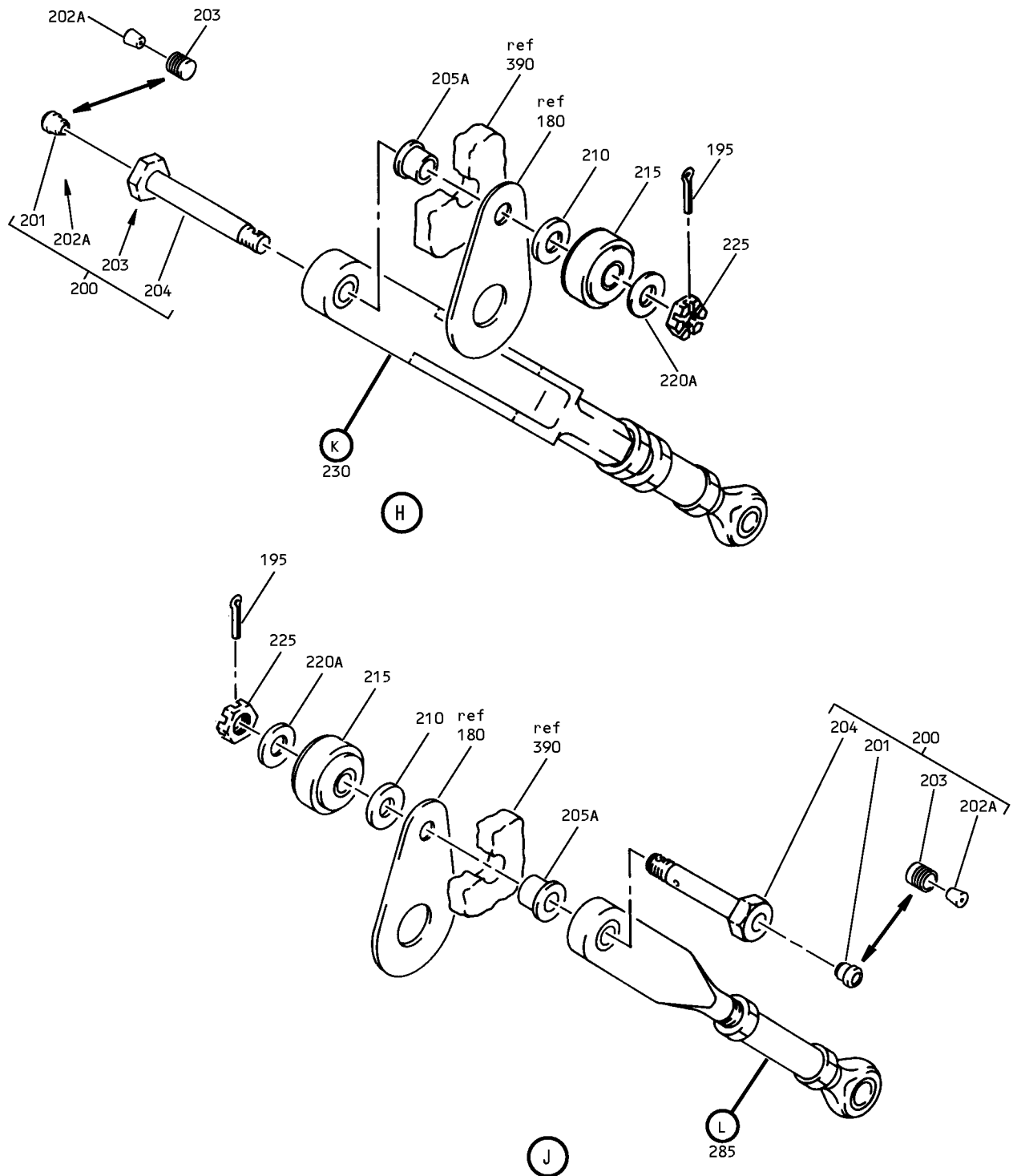
57-53-36

ILLUSTRATED PARTS LIST

Page 1020

Jul 01/2007

COMPONENT MAINTENANCE MANUAL



Outboard Flap Carriage Assembly
IPL Figure 1 (Sheet 5 of 7)

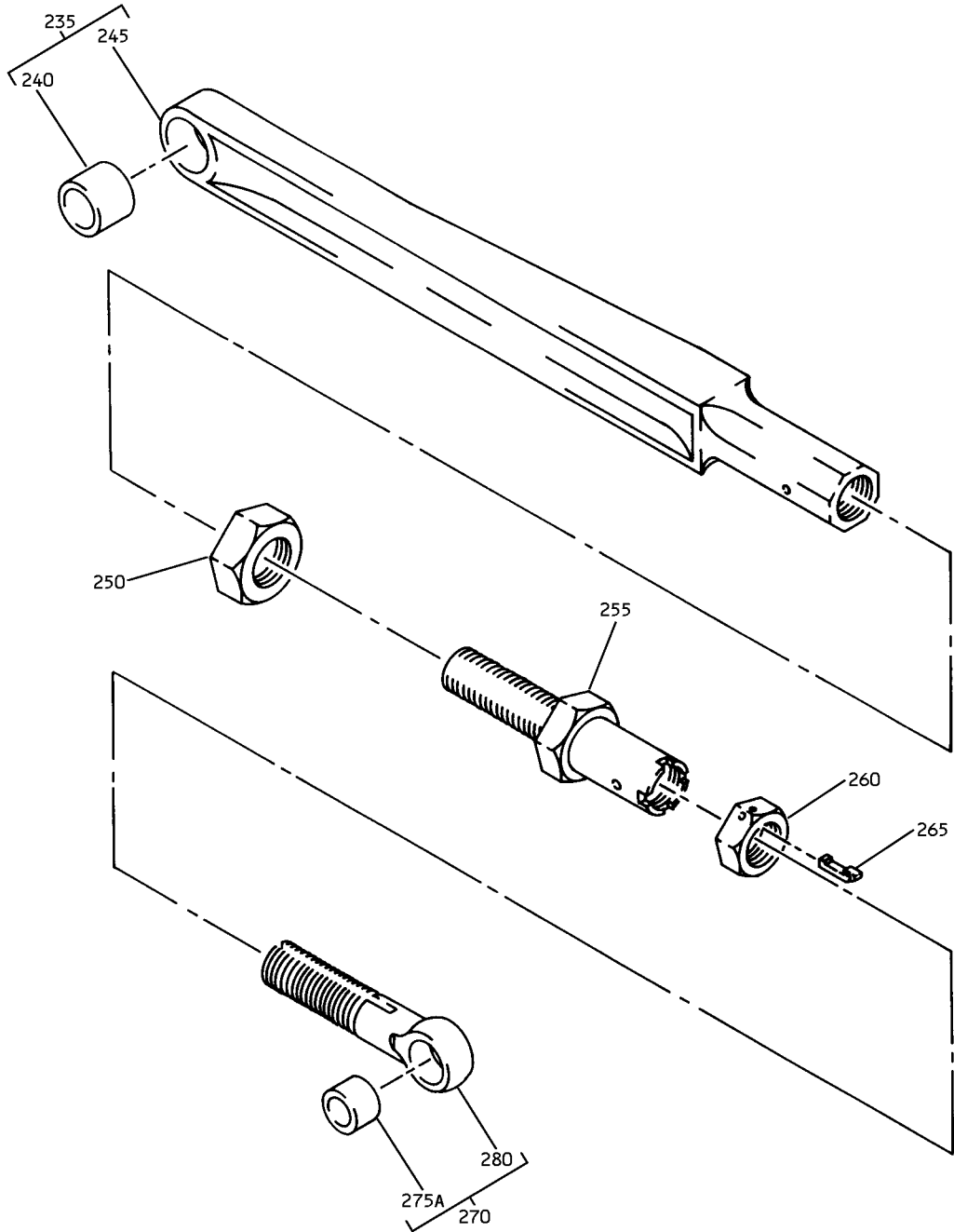
57-53-36

ILLUSTRATED PARTS LIST

Page 1021

Jul 01/2007

COMPONENT MAINTENANCE MANUAL



(K)

Outboard Flap Carriage Assembly
IPL Figure 1 (Sheet 6 of 7)

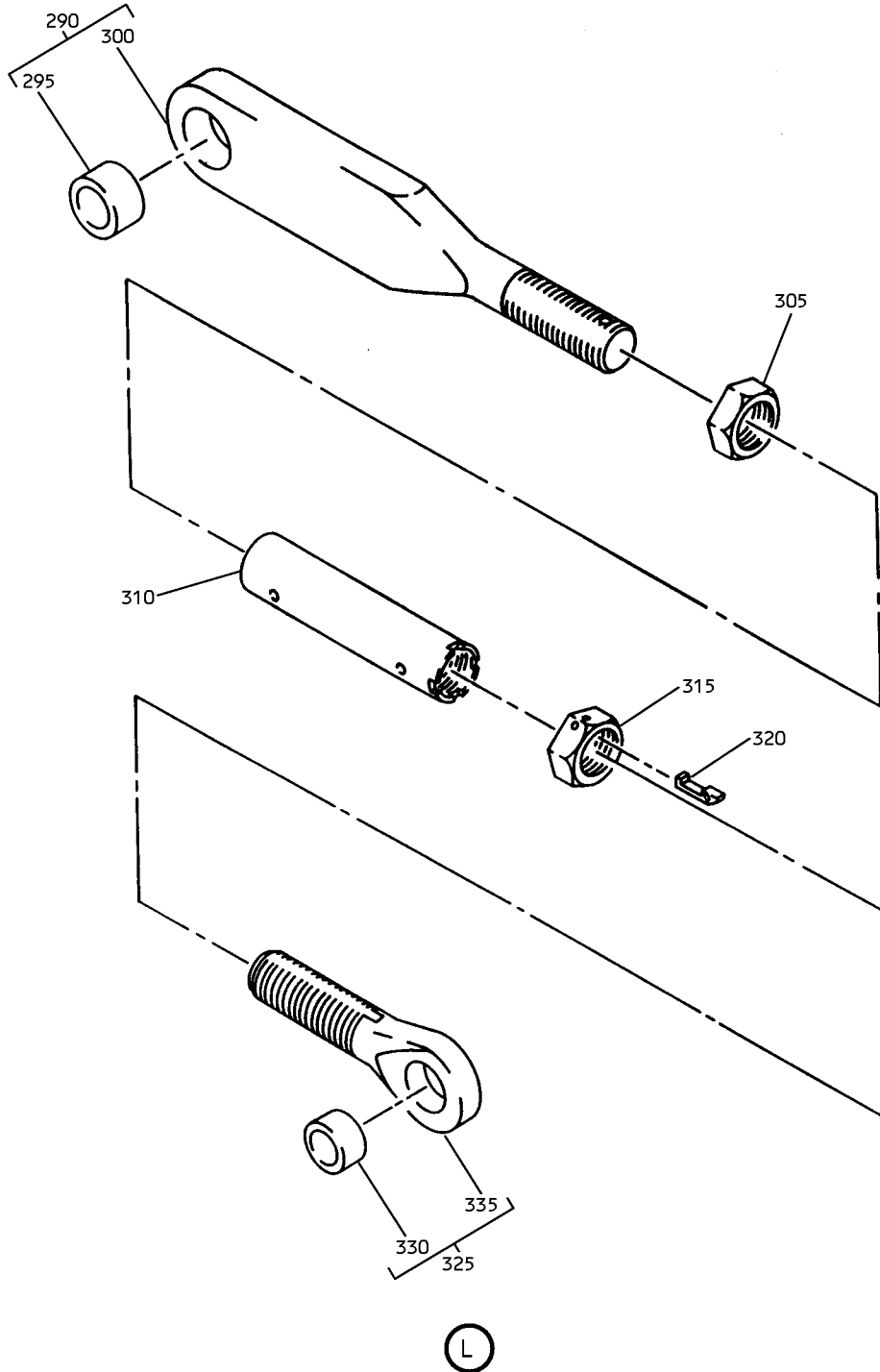
57-53-36

ILLUSTRATED PARTS LIST

Page 1022

Jul 01/2007

COMPONENT MAINTENANCE MANUAL



Outboard Flap Carriage Assembly
IPL Figure 1 (Sheet 7 of 7)

57-53-36

ILLUSTRATED PARTS LIST

Page 1023

Jul 01/2007



COMPONENT MAINTENANCE MANUAL

FIG/ ITEM	PART NUMBER	AIRLINE PART NUMBER	NOMENCLATURE							USAGE CODE	UNITS PER ASSY
			1	2	3	4	5	6	7		
1-											
-1L	65-46481-87									R	RF
-1M	65-46481-89									S	RF
-1N	65-46481-91									T	RF
-1P	65-46481-93									U	RF
-1Q	65-46481-117									AG	RF
-1R	65-46481-123									AH	RF
-1S	65-46481-133									AL	RF
-1T	65-46481-135									AM	RF
-1U	65C34483-5									AQ	RF
-1V	65C34483-7									AS	RF

-Item not Illustrated

57-53-36

ILLUSTRATED PARTS LIST

Page 1025

Jul 01/2007



COMPONENT MAINTENANCE MANUAL

FIG/ ITEM	PART NUMBER	AIRLINE PART NUMBER	NOMENCLATURE							USAGE CODE	UNITS PER ASSY
			1	2	3	4	5	6	7		
1-											
-1W	65-46481-143									AU	RF
-1X	65-46481-145									AW	RF
-1Y	65-46481-147									AY	RF
-1Z	65-46481-149									BA	RF
-5	65-46481-106									E	RF
-5A	65-46481-114									F	RF
-5B	65-46481-116									G	RF
-5C	65-46481-98									H	RF
-5D	65-46481-102									V	RF
-5E	65-46481-104									W	RF
-5F	65-46481-108									X	RF

-Item not Illustrated

57-53-36

ILLUSTRATED PARTS LIST

Page 1026

Jul 01/2007



COMPONENT MAINTENANCE MANUAL

FIG/ ITEM	PART NUMBER	AIRLINE PART NUMBER	NOMENCLATURE							USAGE CODE	UNITS PER ASSY
			1	2	3	4	5	6	7		
1-											
-5G	65-46481-110									Y	RF
-5H	65-46481-112									Z	RF
-5J	65-46481-120									AA	RF
-5K	65-46481-122									AB	RF
-5L	65-46481-88									AC	RF
-5M	65-46481-90									AD	RF
-5N	65-46481-92									AE	RF
-5P	65-46481-94									AF	RF
-5Q	65-46481-118									AJ	RF
-5R	65-46481-124									AK	RF

-Item not Illustrated

57-53-36

ILLUSTRATED PARTS LIST

Page 1027

Jul 01/2007



COMPONENT MAINTENANCE MANUAL

FIG/ ITEM	PART NUMBER	AIRLINE PART NUMBER	NOMENCLATURE							USAGE CODE	UNITS PER ASSY
			1	2	3	4	5	6	7		
1-											
17	BACP20AX09A		.	.						A-AT	1
18	BACP20AX09AP		.	.						A-AT	1
19	69-35347-6		.	.						A-AT	1
20	AN960C1216L		.							A-AT	2
25	ATF12		.							A-AF, AQ-AT	2
-25A	KRP123400VT12ZC		.							AG-AK	2
-25B	KRP123400VT12Z		.							AL-AP	2
-25C	KRP123400VT12ZC		.							AL-AP	2
-25D	KRP123400VT12Z		.							A-AT	2
30	66-23217-2		.							A-AT	2
35	MS24665-132		.							A-AT	2
40	69-20787-1		.							A-AF, AQ-AT	2
-40A	NAS6604-11										
-40B	NAS6604D10										
41	NAS516-1		.	.						A-AF, AQ-AT	1
43	69-20787-4		.	.						A-AF, AQ-AT	1
44	NAS6604-11		.							AJ	2
-44A	NAS6604D10		.							AL-AP	2

-Item not Illustrated

57-53-36

ILLUSTRATED PARTS LIST

Page 1029

Mar 01/2008



COMPONENT MAINTENANCE MANUAL

FIG/ ITEM	PART NUMBER	AIRLINE PART NUMBER	NOMENCLATURE							USAGE CODE	UNITS PER ASSY
			1	2	3	4	5	6	7		
1-											
-44B	BACB30LM4D11		.	B	O	L	T			AG, AH, AK	2
45	66-13369-1		.	W	A	S	H	E	R	A-AT	2
50	ATF4		.	B	E	A	R	I	N	A-AF, AQ-AT	2
-50A	KRP123400VT04C		.	B	E	A	R	I	N	AG-AK	2
-50B	KRP190204VTZ		.	B	E	A	R	I	N	AL-AP	2
-50C	KRP123400VT04C		.	B	E	A	R	I	N	AL-AP	2
-50D	KRP190204VTZ		.	B	E	A	R	I	N	A-AT	2
55	AN960-416L		.	W	A	S	H	E	R	A-AT	2
60	AN320-4		.	N	U	T				A-AT	2
65	65C16950-11		.	R	O	L	L	E	R	A-H, P, Q, AA, AB	1
-65A	65C16950-7		.	R	O	L	L	E	R	A-H, P, Q, AA, AB	1

-Item not Illustrated

57-53-36

ILLUSTRATED PARTS LIST

Page 1030

Mar 01/2008



COMPONENT MAINTENANCE MANUAL

FIG/ ITEM	PART NUMBER	AIRLINE PART NUMBER	NOMENCLATURE							USAGE CODE	UNITS PER ASSY
			1	2	3	4	5	6	7		
1- -65B	65C16950-1		.							J-N, R-Z, AC-AT	1
-65C	65C16950-11		.							J-N, R-Z, AC-AT	1
70	65C16950-12		.							A-H, P, Q, AA, AB	1
-70A	65C16950-8		.							A-H, P, Q, AA, AB	1
-70B	65C16950-2		.							J-N, R-Z, AC-AT	1

-Item not Illustrated

57-53-36

ILLUSTRATED PARTS LIST

Page 1031

Jul 01/2007



COMPONENT MAINTENANCE MANUAL

FIG/ ITEM	PART NUMBER	AIRLINE PART NUMBER	NOMENCLATURE							USAGE CODE	UNITS PER ASSY	
			1	2	3	4	5	6	7			
1- -70C	65C16950-12		.								J-N, R-Z, AC-AT	1
			. ROLLER ASSY-SIDE (65C16950-8 OR -12 CAN REPLACE OR BE REPLACED BY -2 PER S/B 737-57-1227, BUT MAKE CUSTOMER AWARE THAT -8 & -12 HAVE SELF LUBRICATING BEARINGS, WHEREAS -2 HAS BEARING THAT REQUIRES LUBRICATION) (POST SB 737-57-1227)									
			ATTACHING PARTS									
75	BACB30GN4-4		.								A-AT	4
			. BOLT (BACB30NF4H4 CAN REPLACE BUT NOT BE REPLACED BY BACB30GN4- 4)									
-75A	BACB30NF4-4		DELETED									
-75B	BACB30NF4H4		.								A-AT	4
			. BOLT (BACB30NF4H4 CAN REPLACE BUT NOT BE REPLACED BY BACB30GN4- 4)									
80	NAS620-416		.								A-AT	4
			. WASHER									
85	65-46481-3		.								A-AT	2
			. SHIM									
			----- * -----									
90	MS16562-217		..								A-AT	1
			. . PIN (USED ON ITEMS 65A, 65B, 70A, 70B) (USED WITH ITEMS 95, 96)									
95	66-23220-4		..								A-H, P, Q, AA, AB	1
			. . BOLT (USED ON ITEMS 65A, 70A)									
-95A	66-23220-5		..								A-AT	1
			. . BOLT (USED ON ITEMS 65, 65C, 70, 70C)									
96	66-23220-1		..								J-N, R-Z, AC-AT	1
			. . BOLT ASSY (USED ON ITEMS 65B, 70B)									
97	NAS516-1		...								J-N, R-Z, AC-AT	1
			. . . FITTING-LUBE									
99	66-23220-3		...								J-N, R-Z, AC-AT	1
			. . . BOLT									

-Item not Illustrated

57-53-36

ILLUSTRATED PARTS LIST

Page 1032

Jul 01/2007



COMPONENT MAINTENANCE MANUAL

FIG/ ITEM	PART NUMBER	AIRLINE PART NUMBER	NOMENCLATURE							USAGE CODE	UNITS PER ASSY	
			1	2	3	4	5	6	7			
1- 100	KRP141606VT		.	.							A-AT	1
			.	.							A-AT	1
			.	.							J-N, R-Z, AC-AT	1
			.	.							A-AT	1
			.	.							A-H, P, Q, AA, AB	1
			.	.							J-N, R-Z, AC-AT	1
			.	.							A-AT	1
			.	.							A-H, P, Q, AA, AB	1
			.	.							J-N, R-Z, AC-AT	1
			.	.							A-H, P, Q, AA, AB	1
			.	.							A-H, P, Q, AA, AB	1

-Item not Illustrated

57-53-36

ILLUSTRATED PARTS LIST

Page 1033

Jul 01/2007



COMPONENT MAINTENANCE MANUAL

FIG/ ITEM	PART NUMBER	AIRLINE PART NUMBER	NOMENCLATURE							USAGE CODE	UNITS PER ASSY	
			1	2	3	4	5	6	7			
1- -115A	65C16951-7		.								A-H, P, Q, AA, AB	1
-115B	65C16951-1		.								J-N, R-Z, AC-AT	1
-115C	65C16951-11		.								J-N, R-Z, AC-AT	1
120	65C16951-12		.								A-H, P, Q, AA, AB	1
-120A	65C16951-8		.								A-H, P, Q, AA, AB	1

-Item not Illustrated

57-53-36

ILLUSTRATED PARTS LIST

Page 1034

Jul 01/2007



COMPONENT MAINTENANCE MANUAL

FIG/ ITEM	PART NUMBER	AIRLINE PART NUMBER	NOMENCLATURE							USAGE CODE	UNITS PER ASSY
			1	2	3	4	5	6	7		
1- -120B	65C16951-2		.							J-N, R-Z, AC-AT	1
-120C	65C16951-12		.							J-N, R-Z, AC-AT	1
125	BACB30GN4-13		.							A-AT	4
-125A	BACB30NF4-13										
-125B	BACB30NF4H13		.							A-AT	4
130	AN960-416		.							A-AT	4
135	65-46481-4		.							A-AT	2
137	65-46481-6		.							J-N, R-Z, AC-AF	4
140	MS16562-217		.	.						A-AT	1
145	66-23220-4		.	.						A-H, P, Q, AA, AB	1

-Item not Illustrated

57-53-36

ILLUSTRATED PARTS LIST

Page 1035

Jul 01/2007



COMPONENT MAINTENANCE MANUAL

FIG/ ITEM	PART NUMBER	AIRLINE PART NUMBER	NOMENCLATURE							USAGE CODE	UNITS PER ASSY
			1	2	3	4	5	6	7		
1-											
-145A	66-23220-5		. .	BOLT						A-AT	1
				(USED ON ITEMS 115, 115C, 120, 120C)							
146	66-23220-1		. .	BOLT ASSY						J-N, R-Z, AC-AT	1
				(USED ON ITEMS 115B, 120B)							
147	NAS516-1		. . .	FITTING-LUBE						J-N, R-Z, AC-AT	1
149	66-23220-3		. . .	BOLT						J-N, R-Z, AC-AT	1
150	KRP141606VT		. .	BEARING						A-AT	1
				(V50632)							
				(OPT ITEM 150B)							
				(USED ON ITEMS 115, 115A, 115C, 120, 120A, 120C)							
-150A	KRP141606VT			DELETED							
-150B	KRP202806FTZ		. .	BEARING						A-AT	1
				(V50632)							
				(OPT ITEM 150)							
				(USED ON ITEMS 115, 115A, 115C, 120, 120A, 120C)							
-150C	ATF6		. .	BEARING						J-N, R-Z, AC-AT	1
				(V60380)							
				(SPEC BACB10ET06)							
				(OPT 6AFC817 (V92563))							
				(OPT YAF06B (V07484))							
				(USED ON ITEMS 115B, 120B)							
155	65C16951-13		. .	BRACKET						A-AT	1
				(USED ON ITEMS 115, 115C)							
-155A	65C16951-9		. .	BRACKET						A-H, P, Q, AA, AB	1
				(USED ON ITEM 115A)							
-155B	65C16951-3		. .	BRACKET						J-N, R-Z, AC-AT	1
				(USED ON ITEM 115B)							
160	65C16951-14		. .	BRACKET						A-AT	1
				(USED ON ITEMS 120, 120C)							
-160A	65C16951-10		. .	BRACKET						A-H, P, Q, AA, AB	1
				(USED ON ITEM 120A)							
-160B	65C16951-4		. .	BRACKET						J-N, R-Z, AC-AT	1
				(USED ON ITEM 120B)							

-Item not Illustrated

57-53-36

ILLUSTRATED PARTS LIST

Page 1036

Jul 01/2007



COMPONENT MAINTENANCE MANUAL

FIG/ ITEM	PART NUMBER	AIRLINE PART NUMBER	NOMENCLATURE							USAGE CODE	UNITS PER ASSY	
			1	2	3	4	5	6	7			
1-												
165	MS24665-287		.							PIN-COTTER	A-AT	2
170	69-38825-5		.							BOLT ASSY (PRE SB 737-57-1227)	A-AF, AQ-AT	2
-170A	69-38825-11		.							BOLT ASSY (VARIABLE)	AG-AK	2
-170B	69-38825-11		.							BOLT ASSY (VARIABLE) (69-38825-13 CAN REPLACE BUT NOT BE REPLACED BY 69-38825-11)	AL-AP	2
-170C	69-38825-13									DELETED		
-170D	69-38825-11		.							BOLT ASSY (VARIABLE) (POST SB 737-57-1227)	A-AF, AQ-AT	2
171	NAS516-1		.	.						FITTING-LUBE	A-AF, AQ-AT	1
171A	BACP20AX09A		.	.						PLUG	AG-AP	1
-172	69-38825-6									DELETED		
172A	BACP20AX09AP		.	.						PIN	AG-AP	1
173	69-38825-6		.	.						BOLT	A-AT	1
174	69-38825-13		.							BOLT (69-38825-13 CAN REPLACE BUT NOT BE REPLACED BY 69-38825-11)	AL-AP	2
175	65-46481-5		.							WASHER	A-N, R-Z, AC-AF, AQ-AT	2
-175A	65-43481-5		.							WASHER (OPT ITEM 175B)	P, Q, AA, AB, AG- AP	2
-175B	BACW10BR214		.							WASHER (OPT ITEM 175A)	P, Q, AA, AB, AG- AP	2
180	69-77765-1		.							STRIP-RUB (69-77765-1 MAY REPLACE 66-19116- 1 AT WBL 254 ONLY UPON INCORPORATION OF S/B 737-57- 1181)	A, B, E, F, M, P, Y, AA, AG, AJ, AL, AN, AQ, AR	2

-Item not Illustrated

57-53-36

ILLUSTRATED PARTS LIST

Page 1037

Jul 01/2007



COMPONENT MAINTENANCE MANUAL

FIG/ ITEM	PART NUMBER	AIRLINE PART NUMBER	NOMENCLATURE							USAGE CODE	UNITS PER ASSY
			1	2	3	4	5	6	7		
1- -180A	69-77765-2		.	STRIP-RUB (69-77765-2 I/W 66-19116-1 AT WBL 355 ONLY)						C, D, G, H, N, Q, Z, AB, AH, AK, AM, AP, AS, AT	2
-180B	66-19116-1		.	STRIP-RUB (69-77765-2 I/W 66-19116-1 AT WBL 355 ONLY) (69-77765-1 MAY REPLACE 66-19116-1 AT WBL 254 ONLY UPON INCORPORATION OF S/B 737-57-1181) (PRE SB 737-57-1181)						J-L, R-X, AC-AF	2
-180C	69-77765-1		.	STRIP-RUB (69-77765-1 MAY REPLACE 66-19116- 1 AT WBL 254 ONLY UPON INCORPORATION OF S/B 737-57- 1181) (POST SB 737-54-1181)						J-L, R-X, AC-AF	2
185	ATF14		.	BEARING (V60380) (SPEC BACB10ET14) (OPT 14AFC1832 (V92563)) (OPT YAF14B (V07484)) (PRE SB 737-57-1227)						A-AF, AQ-AT	2
-185A	KRP123400VT14ZC		.	BEARING (V50632) (PRE SB 737-57-1227)						AG-AK	2
-185B	KRP123400VT14Z		.	BEARING (V50632) (OPT ITEM 185C)						AL-AP	2
-185C	KRP123400VT14ZC		.	BEARING (V50632) (OPT ITEM 185B) (PRE SB 737-57-1227)						AL-AP	2
-185D	KRP123400VT14Z		.	BEARING (V50632) (POST SB 737-57-1227)						A-AT	2
190	66-19144-2		.	NUT						A-AT	2
195	MS24665-304		.	PIN-COTTER						A-AT	2
200	69-39243-3		.	BOLT ASSY (PRE SB 737-57-1227)						A-AF, AQ-AT	2

-Item not Illustrated

57-53-36

ILLUSTRATED PARTS LIST

Page 1038

Jul 01/2007



COMPONENT MAINTENANCE MANUAL

FIG/ ITEM	PART NUMBER	AIRLINE PART NUMBER	NOMENCLATURE							USAGE CODE	UNITS PER ASSY
			1	2	3	4	5	6	7		
1-											
-200A	69-39243-5		.	BOLT	ASSY					AG-AP	2
				(VARIABLE)							
-200B	69-39243-5		.	BOLT	ASSY					A-AF, AQ-AT	2
				(VARIABLE)							
				(POST SB 737-57-1227)							
201	NAS516-1A		.	.	FITTING-LUBE					A-AF, AQ-AT	1
-201A	PLGA1255020			DELETED							
-202	69-39243-4			DELETED							
202A	BACP20AX09AP		.	.	PIN					AG-AP	1
203	BACP20AX09A		.	.	PLUG					A-AT	1
204	69-39243-4		.	.	BOLT					A-AT	1
-205	BACB28X6B54			DELETED							
205A	BACB28X6B054		.	BUSHING						A-AT	2
210	AN960C616		.	WASHER						A-AT	2
				(OPT ITEM 210A)							
-210A	AN960C616L		.	WASHER						A-AT	2
				(OPT ITEM 210)							
215	ATF6		.	BEARING						A-AF, AQ-AT	2
				(V60380)							
				(SPEC BACB10ET06)							
				(OPT 6AFC817 (V92563))							
				(OPT YAF06B (V07484))							
				(PRE SB 737-57-1227)							
-215A	KRP123400VT06C		.	BEARING						AG-AK	2
				(V50632)							
				(PRE SB 737-57-1227)							
-215B	KRP191006VTZ		.	BEARING						AL-AP	2
				(V50632)							
				(OPT ITEM 215C, 215D)							
-215C	BCREF15546		.	BEARING						AL-AP	2
				(V81205)							
				(KRP123400VT06ZM0D)							
				(OPT ITEM 215B, 215D)							
-215D	KRP123400VT06C		.	BEARING						AL-AP	2
				(V50632)							
				(OPT ITEM 215B, 215C)							
				(PRE SB 737-57-1227)							

-Item not Illustrated

57-53-36

ILLUSTRATED PARTS LIST

Page 1039

Jul 01/2007



COMPONENT MAINTENANCE MANUAL

FIG/ ITEM	PART NUMBER	AIRLINE PART NUMBER	NOMENCLATURE							USAGE CODE	UNITS PER ASSY
			1	2	3	4	5	6	7		
1-											
-215E	KRP191006VTZ		.	BEARING						A-AT	2
				(V50632)							
				(POST SB 737-57-1227)							
-220	AN960616L			DELETED							
220A	AN960-616L		.	WASHER						A-AT	2
225	AN320-6		.	NUT						A-AT	2
230	69-54954-3		.	STRUT ASSY						A-N, R-Z, AC-AF, AQ-AT	1
				(OPT ITEM 230B)							
-230A	69-54954-4		.	STRUT ASSY						P, Q, AA, AB, AG- AP	1
-230B	69-54954-4		.	STRUT ASSY						A-N, R-Z, AC-AF, AQ-AT	1
				(OPT ITEM 230)							
235	69-54957-1		.	END ASSY-ROD						A-N, R-Z, AC-AF, AQ-AT	1
				(OPT ITEM 235A)							
				(USED ON ITEM 230)							
-235A	69-54957-501		.	END ASSY-ROD						A-N, R-Z, AC-AF, AQ-AT	1
				(OPT ITEM 235)							
				(USED ON ITEM 230)							
-235B	69-54957-3		.	END ASSY-ROD							1
				(OPT ITEM 235C)							
				(USED ON ITEMS 230A, 230B)							
-235C	69-54957-501		.	END ASSY-ROD							1
				(OPT ITEM 235B)							
				(USED ON ITEMS 230A, 230B)							
240	BACB28U6B033		.	BUSHING						A-AT	1
245	69-54957-2		.	END						A-N, R-Z, AC-AF, AQ-AT	1
				(USED ON ITEM 235)							
-245A	69-54957-502		.	END						A-AT	1
				(USED ON ITEMS 235A, 235C)							
-245B	69-54957-4		.	END							1
				(USED ON ITEM 235B)							
250	AN316-7L		.	NUT						A-AT	1
255	69-54958-2		.	COUPLING						A-AT	1
260	NAS509-6		.	NUT						A-AT	1

-Item not Illustrated

57-53-36

ILLUSTRATED PARTS LIST

Page 1040

Jul 01/2007



COMPONENT MAINTENANCE MANUAL

FIG/ ITEM	PART NUMBER	AIRLINE PART NUMBER	NOMENCLATURE							USAGE CODE	UNITS PER ASSY
			1	2	3	4	5	6	7		
1-											
265	NAS559-2		.	.						A-AT	1
270	69-54956-1		.	.						A-AT	1
-275	BACB28Y5M31										
275A	BACB28Y5M031		.	.	.					A-AT	1
280	69-54956-2		.	.	.					A-AT	1
285	69-59869-1		.							A-AT	1
290	69-59870-1		.	.						A-AT	1
295	BACB28Y6M029		.	.	.					A-AT	1
300	69-59870-3		.	.	.					A-AT	1
305	NAS509L6		.	.						A-AT	1
310	69-59872-1		.	.						A-AT	1
315	NAS509-6		.	.						A-AT	1
320	NAS559-2		.	.						A-AT	1
325	69-59871-1		.	.						A-AT	1
330	BACB28Y5M029		.	.	.					A-AT	1
335	69-59871-3		.	.	.					A-AT	1
338	MS24665-132		.							A-AT	1
340	MS20392-1C39		.							A-AT	1
345	F12NE4717-126		.							A, D, E, G-N, R-Z, AB-AF, AK, AN- AT	1
-345A	F12NTEC1216		.							A, D, E, G-N, R-Z, AB-AF, AK, AN- AT	1
-345B	BACN10JD112										

-Item not Illustrated

57-53-36

ILLUSTRATED PARTS LIST

Page 1041

Jul 01/2007



COMPONENT MAINTENANCE MANUAL

FIG/ ITEM	PART NUMBER	AIRLINE PART NUMBER	NOMENCLATURE							USAGE CODE	UNITS PER ASSY
			1	2	3	4	5	6	7		
1- -345C	F12NE4717-126		.	NUT (V72962) (F12NTEC1216 OR F12NE4717-126 CAN REPLACE OR BE REPLACED BY MS14145L12) (OPT ITEM 345D, 345E)						B, C, F, P, Q, AA, AG-AJ, AL, AM	1
-345D	F12NTEC1216		.	NUT (V57983) (F12NTEC1216 OR F12NE4717-126 CAN REPLACE OR BE REPLACED BY MS14145L12) (OPT ITEM 345C, 345E)						B, C, F, P, Q, AA, AG-AJ, AL, AM	1
-345E	BACN10JD112		.	NUT (OPT ITEM 345C, 345D)						B, C, F, P, Q, AA, AG-AJ, AL, AM	1
-345F	MS14145L12		.	NUT (F12NTEC1216 OR F12NE4717-126 CAN REPLACE OR BE REPLACED BY MS14145L12)						A-AT	1
350	69-61978-4		.	WASHER						A-AT	1
355	69-61978-5		.	WASHER						A-AT	AR
360	KJB193615V		.	BEARING ASSY (V50632)						A-AT	1
365	EWBM26-6-38		.	BOLT (V56878)						A-AT	1
370	BACW10BP6ACU		.	WASHER						A-AT	1
375	BACW10BP6APU		.	WASHER						A-AT	1
380	KSC170933V		.	BEARING (V50632)						A, E, K- M, S, U, W-Y, AD, AF, AQ, AR	1
-380A	KSC235033V		.	BEARING (V50632) (OPT ITEM 380D)						B, F, P, AA, AG, AJ, AL, AN	1
-380B	KSC234929V		.	BEARING (V50632)						C, G, Q, AB, AH, AK, AM, AP	1

-Item not Illustrated

57-53-36

ILLUSTRATED PARTS LIST

Page 1042

Jul 01/2007



COMPONENT MAINTENANCE MANUAL

FIG/ ITEM	PART NUMBER	AIRLINE PART NUMBER	NOMENCLATURE							USAGE CODE	UNITS PER ASSY	
			1	2	3	4	5	6	7			
1- -380C	KSC170429V		.								D, H, J, N, R, T, V, Z, AC, AE, AS, AT	1
-380D	KSC255033V		.								B, F, P, AA, AG, AJ, AL, AN	1
385	H39953-6		.								A-AT	1
390	65C27409-23		.								A, E	1
-390A	65C27409-27		.								B, F, P, AA, AG, AJ, AL, AN	1
-390B	65C27409-25		.								C, G, Q, AB, AH, AK, AM, AP	1
-390C	65C27409-13		.								D, H	1
-390D	65C27409-10		.								U, AF	1
-390E	65C27409-17		.								J, N, V, Z, AS, AT	1

-Item not Illustrated

57-53-36

ILLUSTRATED PARTS LIST

Page 1043

Jul 01/2007



COMPONENT MAINTENANCE MANUAL

FIG/ ITEM	PART NUMBER	AIRLINE PART NUMBER	NOMENCLATURE							USAGE CODE	UNITS PER ASSY
			1	2	3	4	5	6	7		
1-											
-390F	65C27409-18		.							K, W	1
-390G	65C27409-21		.							L, M, X, Y, AQ, AR	1
-390H	65C27409-5		.							R, AC	1
-390J	65C27409-6		.							S, AD	1
-390K	65C27409-9		.							T, AE	1
-390L	65C27409-23		.							A, E	1
-390M	65C27409-27		.							B, F, P, AA, AG, AJ, AL, AN	1
-390N	65C27409-25		.							C, G, Q, AB, AH, AK, AM, AP	1
-390P	65C27409-13		.							D, H	1
-390Q	65C27409-10		.							U, AF	1
-390R	65C27409-17		.							J, N, V, Z, AS, AT	1
-390S	65C27409-18		.							K, W	1
-390T	65C27409-21		.							L, M, X, Y, AQ, AR	1
-390U	65C27409-5		.							R, AC	1
-390V	65C27409-6		.							S, AD	1
-390W	65C27409-9		.							T, AE	1

-Item not Illustrated

57-53-36

ILLUSTRATED PARTS LIST

Page 1044

Jul 01/2007



COMPONENT MAINTENANCE MANUAL

FIG/ ITEM	PART NUMBER	AIRLINE PART NUMBER	NOMENCLATURE							USAGE CODE	UNITS PER ASSY		
			1	2	3	4	5	6	7				
1-													
395	BACB28U6C185		. .								BUSHING (ITEM 400, QTY 2, IS OPT TO ITEM 395, QTY 1)	A, E, K- M, S, U, W-Y, AD, AF, AQ, AR	1
-395A	BACB28U6C185		. .								BUSHING	B, F, P, AA, AG, AJ, AL, AN	1
-395B	BACB28U6C168		. .								BUSHING	C, G, Q, AB, AH, AK, AM, AP	1
-395C	BACB28U6C168		. .								BUSHING (ITEM 400A, QTY 2, IS OPT TO ITEM 395C, QTY 1)	D, H, J, N, R, T, V, Z, AC, AE, AS, AT	1
400	BACB28U6C088		. .								BUSHING (ITEM 400, QTY 2, IS OPT TO ITEM 395, QTY 1)	A, E, K- M, S, U, W-Y, AD, AF, AQ, AR	2
-400A	BACB28U6C080		. .								BUSHING (ITEM 400A, QTY 2, IS OPT TO ITEM 395C, QTY 1)	D, H, J, N, R, T, V, Z, AC, AE, AS, AT	2
405	69-46453-3		. .								SLEEVE	A, E, K- M, S, U, W-Y, AD, AF, AQ, AR	1
-405A	69-46453-2		. .								SLEEVE	D, H, J, N, R, T, V, Z, AC, AE, AS, AT	1
410	65C27409-24		. .								CARRIAGE	A, E	1
-410A	65C27409-28		. .								CARRIAGE	B, F, P, AA, AG, AJ, AL, AN	1

-Item not Illustrated

57-53-36

ILLUSTRATED PARTS LIST

Page 1045

Jul 01/2007



COMPONENT MAINTENANCE MANUAL

FIG/ ITEM	PART NUMBER	AIRLINE PART NUMBER	NOMENCLATURE							USAGE CODE	UNITS PER ASSY
			1	2	3	4	5	6	7		
1-											
-410B	65C27409-26		.	.	CARRIAGE					C, G, Q, AB, AH, AK, AM, AP	1
-410C	65C27409-15		.	.	CARRIAGE					D, H	1
-410D	65C27409-12		.	.	CARRIAGE					U, AF	1
-410E	65C27409-19		.	.	CARRIAGE					J, N, V, Z, AS, AT	1
-410F	65C27409-20		.	.	CARRIAGE					K, W	1
-410G	65C27409-22		.	.	CARRIAGE					L, M, X, Y, AQ, AR	1
-410H	65C27409-7		.	.	CARRIAGE					R, AC	1
-410J	65C27409-8		.	.	CARRIAGE					S, AD	1
-410K	65C27409-11		.	.	CARRIAGE					T, AE	1

-Item not Illustrated

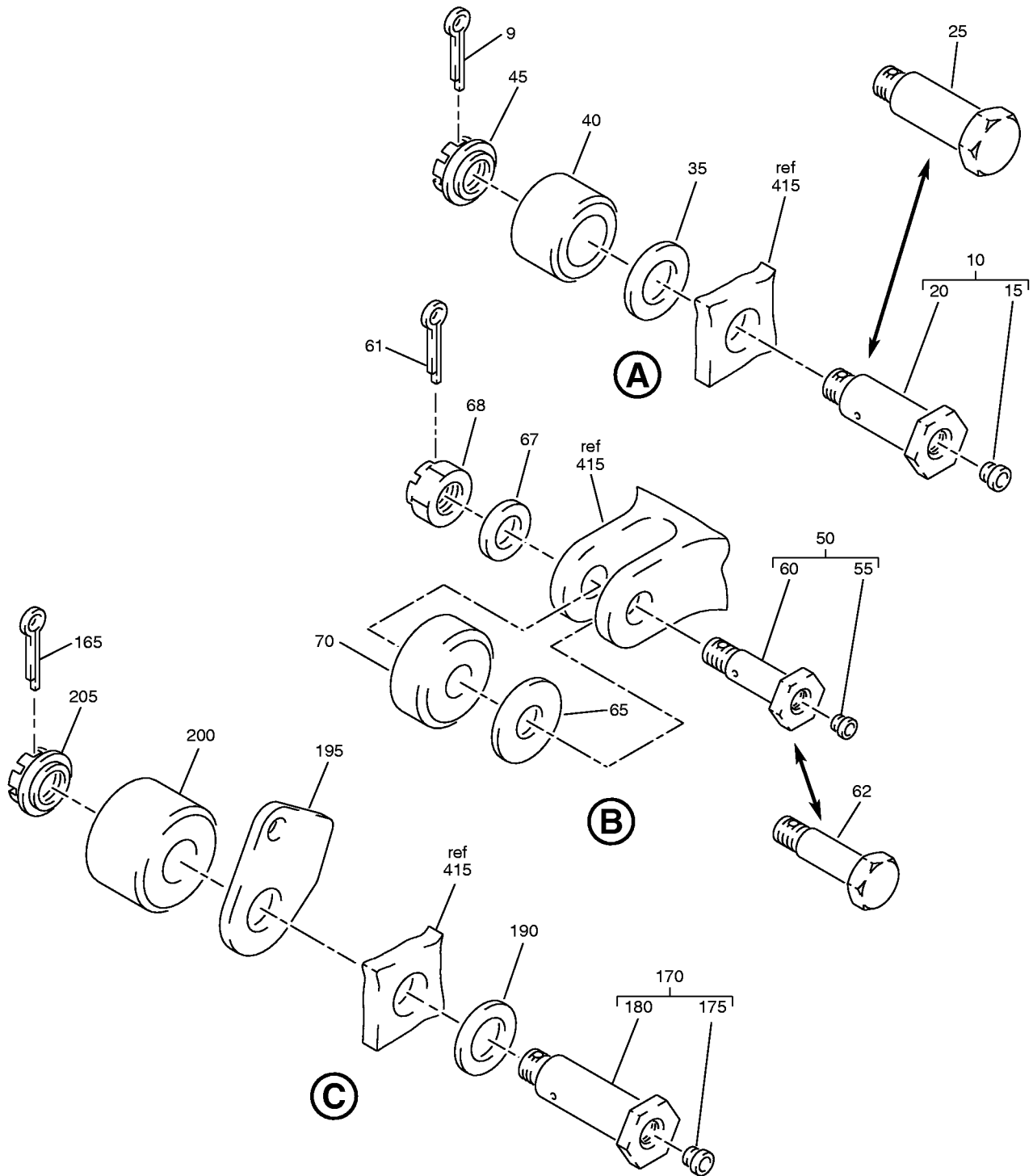
57-53-36

ILLUSTRATED PARTS LIST

Page 1046

Jul 01/2007

COMPONENT MAINTENANCE MANUAL



Outboard Flap Carriage Assembly
IPL Figure 2 (Sheet 2 of 5)

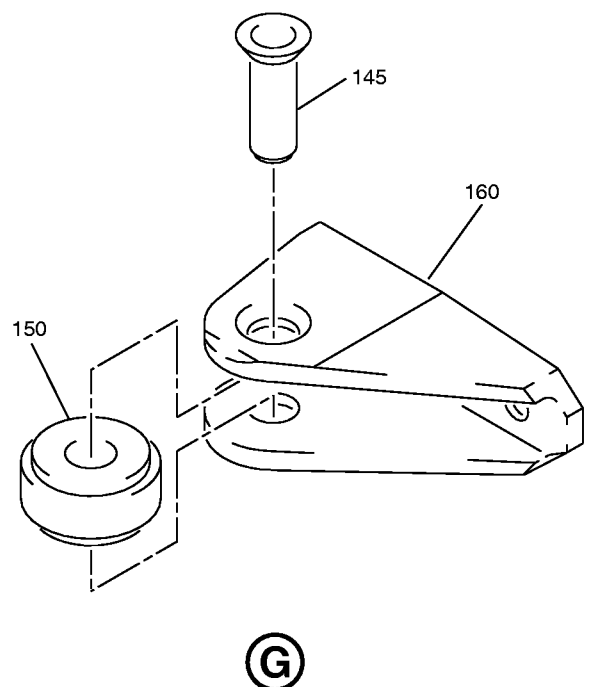
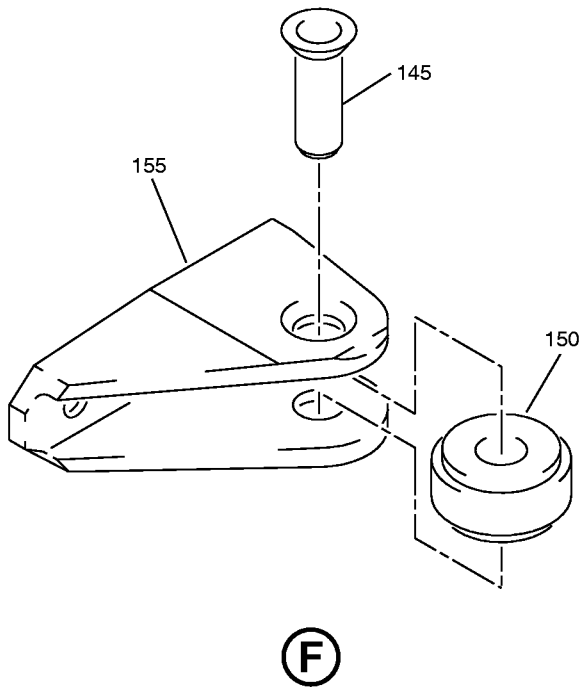
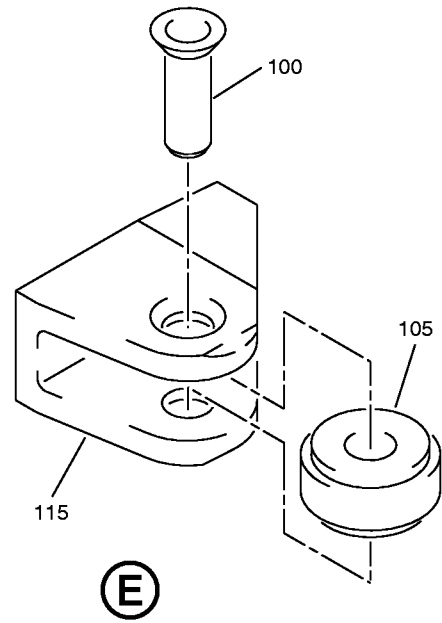
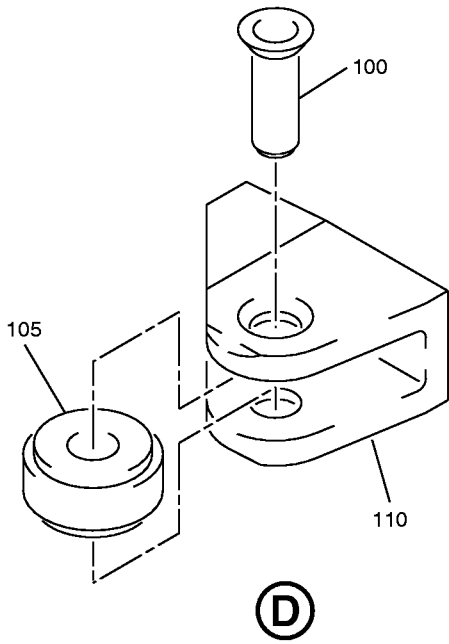
57-53-36

ILLUSTRATED PARTS LIST

Page 1048

Nov 01/2007

COMPONENT MAINTENANCE MANUAL



Outboard Flap Carriage Assembly
IPL Figure 2 (Sheet 3 of 5)

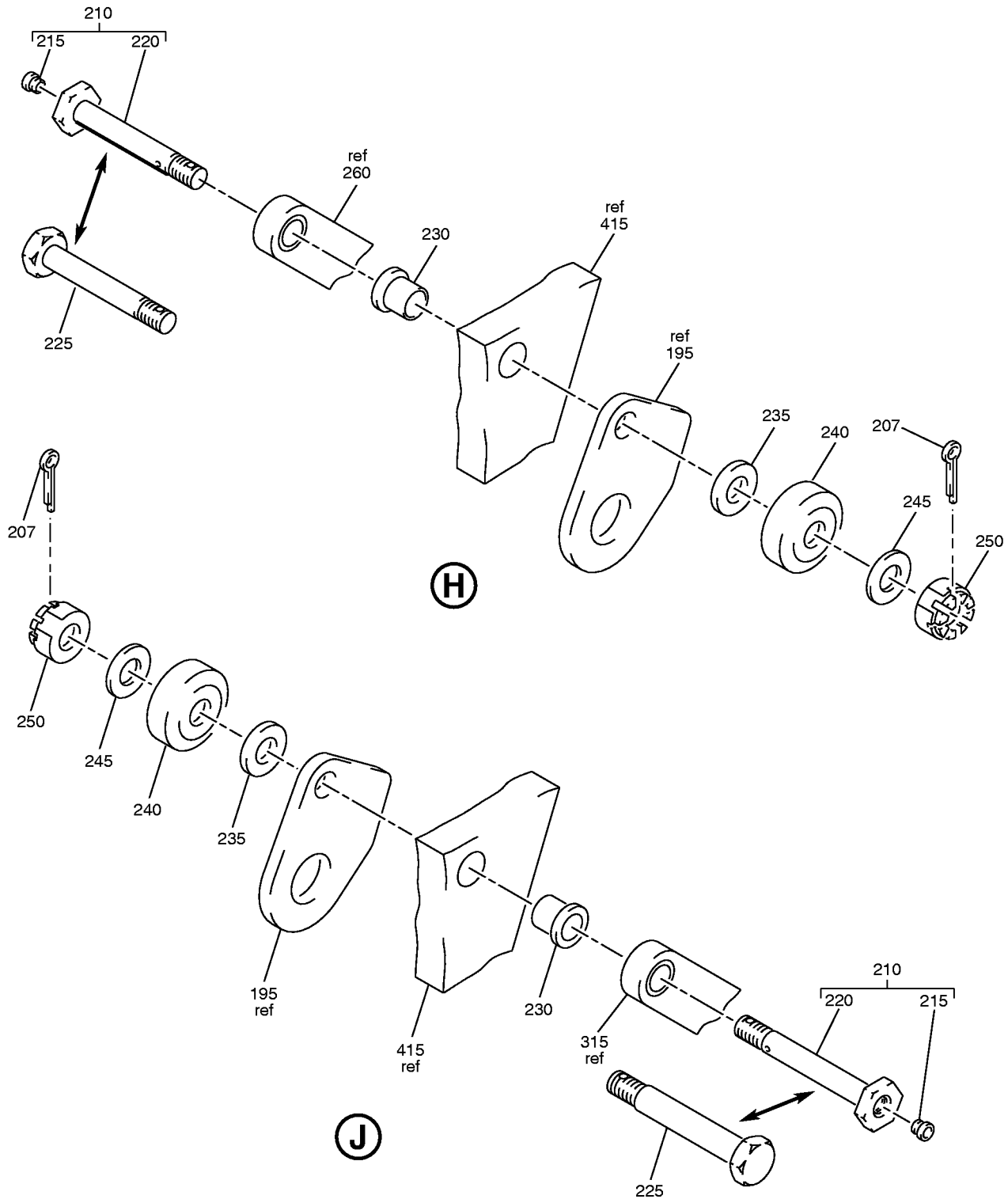
57-53-36

ILLUSTRATED PARTS LIST

Page 1049

Nov 01/2007

COMPONENT MAINTENANCE MANUAL



Outboard Flap Carriage Assembly
IPL Figure 2 (Sheet 4 of 5)

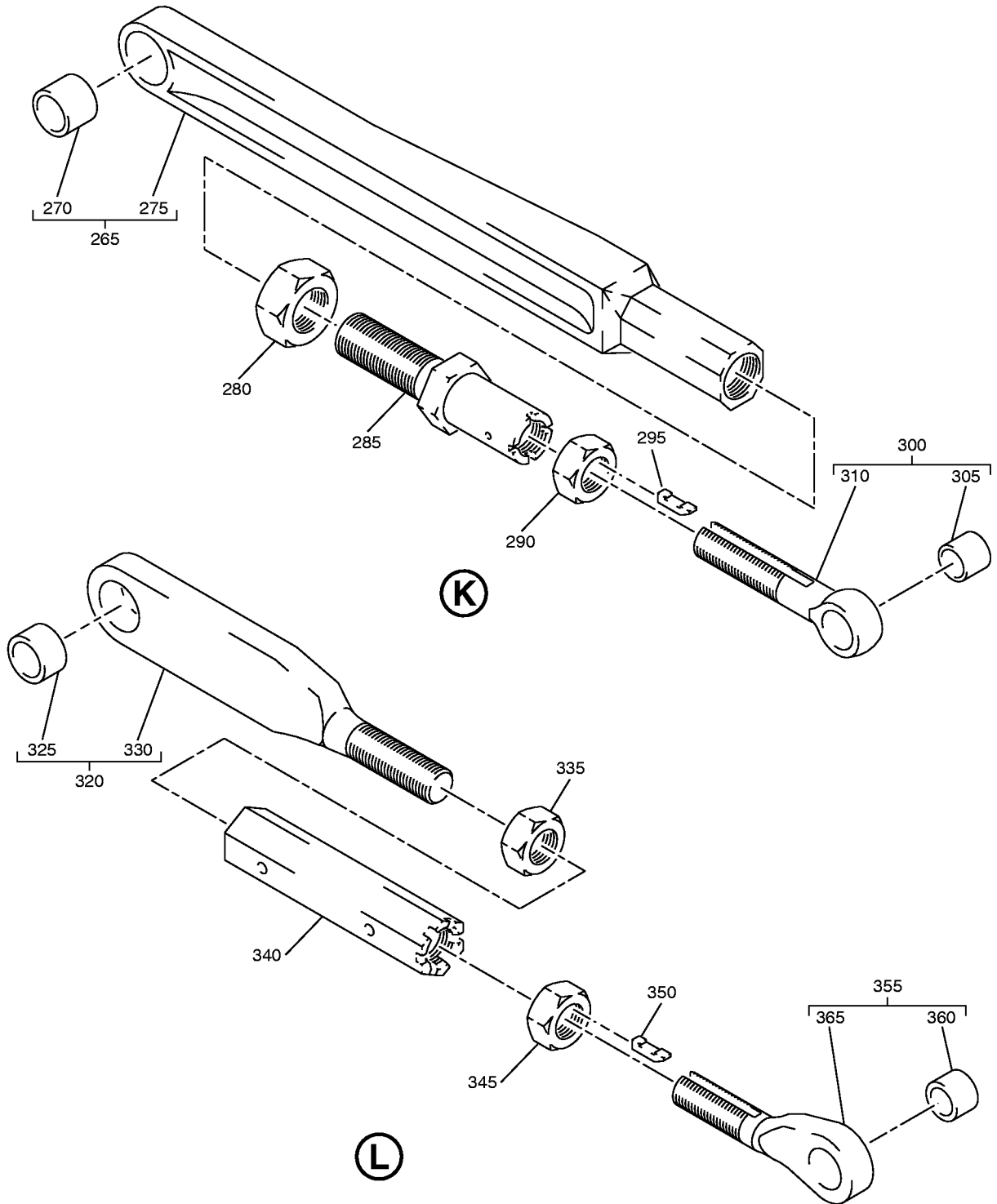
57-53-36

ILLUSTRATED PARTS LIST

Page 1050

Nov 01/2007

COMPONENT MAINTENANCE MANUAL



Outboard Flap Carriage Assembly
 IPL Figure 2 (Sheet 5 of 5)

57-53-36

ILLUSTRATED PARTS LIST

Page 1051

Nov 01/2007



COMPONENT MAINTENANCE MANUAL

FIG/ ITEM	PART NUMBER	AIRLINE PART NUMBER	NOMENCLATURE							USAGE CODE	UNITS PER ASSY
			1	2	3	4	5	6	7		
2-											
-1A	65-46481-143									AU	RF
-1B	65-46481-145									AW	RF
-1C	65-46481-147									AY	RF
-1D	65-46481-149									BA	RF
-5	65-46481-144									AV	RF
-5A	65-46481-146									AX	RF
-5B	65-46481-148									AZ	RF
-5C	65-46481-150									BB	RF
9	BACP18BC03C08P									AU-BB	2
10	69-35347-5									AU-AX	2
15	NAS516-1A									AU-AX	1
20	69-35347-6									AU-AX	1
25	69-35347-11									AY-BB	2
30	69-35347-11									DELETED	
35	NAS1149E1232P									AU-BB	2
40	BACB10HH12									AU-AX	2
-40A	KRP123400VT12Z									AY-BB	2
45	66-23217-2									AU-BB	2
50	69-20787-1									AU-AX	2

-Item not Illustrated

57-53-36

ILLUSTRATED PARTS LIST
Page 1052
Jul 01/2007



COMPONENT MAINTENANCE MANUAL

FIG/ ITEM	PART NUMBER	AIRLINE PART NUMBER	NOMENCLATURE							USAGE CODE	UNITS PER ASSY
			1	2	3	4	5	6	7		
2-											
55	NAS516-1A		.	.						AU-AX	1
60	69-20787-4		.	.						AU-AX	1
61	BACP18BC02C04P		.							AU-BB	2
			ATTACHING PARTS								
62	BACB30LM4D10		.							AY-BB	2
			-----*								
65	66-13369-1		.							AU-BB	2
67	NAS1149F0432P		.							AU-BB	2
68	BACN10JD104CD		.							AU-BB	2
70	ATF4T8		.							AU-AX	2
-70A	KRP190204VTZ		.							AY-BB	2
75	65C16950-11		.							AU-BB	1
80	65C16950-12		.							AU-BB	1
			ATTACHING PARTS								
85	BACB30LJ4H4		.							AU-BB	4
90	NAS620-416		.							AU-BB	4
95	65-46481-3		.							AU-BB	2
			-----*								
100	66-23220-5		.	.						AU-BB	1
105	KRP202806FTZ		.	.						AU-BB	1
-105A	KRP141606VT		.	.						AU-BB	1
110	65C16950-13		.	.						AU-BB	1
115	65C16950-14		.	.						AU-BB	1
120	65C16951-11		.							AU-BB	1

-Item not Illustrated

57-53-36

ILLUSTRATED PARTS LIST

Page 1053

Jul 01/2007



COMPONENT MAINTENANCE MANUAL

FIG/ ITEM	PART NUMBER	AIRLINE PART NUMBER	NOMENCLATURE	USAGE CODE	UNITS PER ASSY
2-					
125	65C16951-12		. ROLLER ASSY-SIDE ATTACHING PARTS	AU-BB	1
130	BACB30LJ4H13		. BOLT	AU-BB	4
135	NAS1149F0463P		. WASHER	AU-BB	4
140	65-46481-4		. SHIM	AU-BB	2
			-----*		
145	66-23220-5		. . BOLT	AU-BB	1
150	KRP202806FTZ		. . BEARING (V50632) (OPT ITEM 150A)	AU-BB	1
-150A	KRP141606VT		. . BEARING (V50632) (OPT ITEM 150)	AU-BB	1
155	65C16951-13		. . BRACKET (USED ON ITEM 120)	AU-BB	1
160	65C16951-14		. . BRACKET (USED ON ITEM 125)	AU-BB	1
165	BACP18BC03C10P		. PIN-COTTER	AU-BB	2
170	69-38825-5		. BOLT ASSY	AU-AX	2
175	NAS516-1		. . FITTING-LUBE	AU-AX	1
180	69-38825-6		. . BOLT	AU-AX	1
-185	69-38825-13		. BOLT	AY-BB	2
190	BACW10BR214		. WASHER (OPT ITEM 190A)	AU-BB	2
-190A	65-46481-5		. WASHER (OPT ITEM 190)	AU-BB	2
195	69-77765-1		. STRIP-RUB	AU, AV, AY, AZ	2
-195A	69-77765-2		. STRIP-RUB	AW, AX, BA, BB	2
200	ATF14T8		. BEARING (V60380) (SPEC BACB10HH14)	AU-AX	2
-200A	KRP123400VT14Z		. BEARING (V50632)	AY-BB	2
205	66-19144-2		. NUT	AU-BB	2

-Item not Illustrated

57-53-36

ILLUSTRATED PARTS LIST
Page 1054
Jul 01/2007



COMPONENT MAINTENANCE MANUAL

FIG/ ITEM	PART NUMBER	AIRLINE PART NUMBER	NOMENCLATURE							USAGE CODE	UNITS PER ASSY
			1	2	3	4	5	6	7		
2-											
207	BACP18BC03C10P		.	PIN-COTTER						AU-BB	2
210	69-39243-3		.	BOLT ASSY						AU-AX	2
215	NAS516-1A		. .	FITTING-LUBE						AU-AX	1
220	69-39243-4		. .	BOLT						AU-AX	1
225	69-39243-6		.	BOLT						AY-BB	2
230	BACB28X6M054		.	BUSHING						AU-BB	2
235	NAS1149C0663P			DELETED							
-235A	NAS1149E0663P		.	WASHER						AU-BB	2
240	BACB10HH06		.	BEARING						AU-AX	2
-240A	KRP191006VTZ		.	BEARING (V50632)						AY-BB	2
245	NAS1149C0632P			DELETED							
245A	NAS1149E0632P		.	WASHER						AU-BB	2
250	BACN10JD106CD		.	NUT						AU-BB	2
-255	BACP18BC03C10P			DELETED							
260	69-54954-4		.	STRUT ASSY						AU-BB	1
265	69-54957-3		. .	END ASSY-ROD (OPT ITEM 265A)						AU-BB	1
-265A	69-54957-501		. .	END ASSY-ROD (OPT ITEM 265)						AU-BB	1
270	BACB28U6B033		. . .	BUSHING						AU-BB	1
275	69-54957-4		. . .	END (USED ON ITEM 265)						AU-BB	1
-275A	69-54957-502		. . .	END (USED ON ITEMS 265A)						AU-BB	1
280	AN316-7L		. .	NUT						AU-BB	1
285	69-54958-2		. .	COUPLING						AU-BB	1
290	NAS509-6		. .	NUT						AU-BB	1
295	NAS559-2		. .	LOCK						AU-BB	1
300	69-54956-1		. .	END ASSY-ROD						AU-BB	1
305	BACB28Y5M031		. . .	BUSHING						AU-BB	1
310	69-54956-2		. . .	END						AU-BB	1
315	69-59869-1		.	STRUT ASSY						AU-BB	1

-Item not Illustrated

57-53-36

ILLUSTRATED PARTS LIST

Page 1055

Jul 01/2007



COMPONENT MAINTENANCE MANUAL

FIG/ ITEM	PART NUMBER	AIRLINE PART NUMBER	NOMENCLATURE							USAGE CODE	UNITS PER ASSY
			1	2	3	4	5	6	7		
2-											
320	69-59870-1		. .							AU-BB	1
325	BACB28Y6M029		. . .							AU-BB	1
330	69-59870-3		. . .							AU-BB	1
335	NAS509L6		. .							AU-BB	1
340	69-59872-1		. .							AU-BB	1
345	NAS509-6		. .							AU-BB	1
350	NAS559-2		. .							AU-BB	1
355	69-59871-1		. .							AU-BB	1
360	BACB28Y5M029		. . .							AU-BB	1
365	69-59871-3		. . .							AU-BB	1
366	65-46481-151		. LOOSE KIT ASSY-OUTBD							AU, AV, AY, AZ	1
-366A	65-46481-142		. LOOSE KIT ASSY-OUTBD							AW, AX, BA, BB	1
367	MS24665-132		. .							AU-BB	1
368	BACP18BD1C41		. .							AU-BB	1
369	NAS1149FN432P		. .							AU-BB	2
370	BACN10JD112		. .							AU-BB	1
375	69-61978-4		. .							AU-BB	1
380	69-61978-5		. .							AU-BB	1
385	KJB193615V		. . BEARING ASSY (V50632)							AU, AV, AY, AZ	1
-385A	KJB986416V		. . BEARING ASSY (V50632)							AW, AX, BA, BB	1
390	EWBM26-6-38		. BOLT (V56878)							AU-BB	1
395	BACW10BP6APU		. WASHER							AU-BB	1
400	BACW10BP6ACU		. WASHER							AU-BB	1
-405	KSC235033V		DELETED								
405A	KSC234929V		. BEARING (V50632)							AW, AX, BA, BB	1
-405B	KSC255033V		. BEARING (V50632)							AU, AV, AY, AZ	1

-Item not Illustrated

57-53-36

ILLUSTRATED PARTS LIST

Page 1056

Jul 01/2007



COMPONENT MAINTENANCE MANUAL

FIG/ ITEM	PART NUMBER	AIRLINE PART NUMBER	NOMENCLATURE							USAGE CODE	UNITS PER ASSY	
			1	2	3	4	5	6	7			
2- 410	BMN10HRCWD3-6		.	NUT (V97928) (SPEC BACN10HR6CD) (OPT H51560-6 (V15653)) (OPT 67832CD624 (V56878)) (OPT 102LH9031-6 (V72962)) (OPT BH00303CM6 (V27238)) (OPT SL7108C624 (V11815)) (OPT BH00303CM6 (V27238)) (OPT BMN5024CWD36 (V97928)) (OPT CR60306 (V62554)) (OPT SL7108C6 (V11815)) (OPT 102LH90316 (V72962)) (OPT 67832CD6 (V56878)) (OPT VCU0005D6 (V06710))							AU-BB	1
415	65C27409-31		.	SUB ASSY-CARRIAGE							AU, AV, AY, AZ	1
-415A	65C27409-29		.	SUB ASSY-CARRIAGE							AW, AX, BA, BB	1
420	BACB28U6C185		.	BUSHING							AU, AV, AY, AZ	1
-420A	BACB28U6C168		.	BUSHING							AW, AX, BA, BB	1
425	65C27409-32		.	CARRIAGE							AU, AV, AY, AZ	1
-425A	65C27409-30		.	CARRIAGE							AW, AX, BA, BB	1
-430	BACP18BD1C41			DELETED								
-435	NAS1149FN432P			DELETED								
-440	BACP18BC02C04P			DELETED								
-445	BACP18BC03C08P			DELETED								
-450	NAS1149F0432P			DELETED								
-455	BACN10JD104CD			DELETED								

-Item not Illustrated

57-53-36

ILLUSTRATED PARTS LIST

Page 1057

Jul 01/2007