TO: ALL HOLDERS OF PRECOOLER INSTALLATION COMPONENTS COMPONENT MAINTENANCE MANUAL 36-12-03

REVISION NO. 2 DATED JUL 01/00

HIGHLIGHTS

Pages which have been added or revised are outlined below together with the highlights of the revision. Remove and insert the affected pages as listed and enter Revision No. and date on the Record of Revision Sheet.

CHAPTER/SECTION AND PAGE NO.	DESCRIPTION OF CHANGE
TITLE PAGE 1	Added link assemblies 312T3216-38, -39, -40 with changed bearing for a better fit.
CONTENTS 1 REPAIR 1-1 601,603 REPAIR 2-1 601,603 REPAIR 3-1 601,603-604 801-803 1003,1005-1006,1009, 1011	
CONTENTS 1 REPAIR-GEN 601 REPAIR 1-1 601-602,604 REPAIR 2-1 601-605 REPAIR 3-1 601-602,604-606 REPAIR 4-1 601-602,604-606	Added clarifications and updated callouts.

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CHAPTER/SECTION AND PAGE NO.	DESCRIPTION OF CHANGE
801	HIGHLIGHT CONTINUED FROM PREVIOUS PAGE
1002-1003,1005-1006, 1009,1011,1013	

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PRECOOLER INSTALLATION COMPONENTS

PART NUMBERS 312T3216-26,-28,-30,-32,-34, -36,-38 THRU -40

COMPONENT MAINTENANCE MANUAL
WITH
ILLUSTRATED PARTS LIST

966654

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REVISION RECORD

- Retain this record in front of manual. On receipt of revision, insert revised pages in the manual, and enter revision number, date inserted and initial.

REVISION NUMBER	REVISION DATE	DATE FILED	BY	REVISION NUMBER	REVISION DATE	DATE FILED	BY

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TEMPORARY REVISION AND SERVICE BULLETIN RECORD

BOEING SERVICE BULLETIN	BOEING TEMPORARY REVISION	OTHER DIRECTIVE	DATE OF INCORPORATION INTO MANUAL
		PRR B10414	OCT 01/91

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PAGE	DATE	CODE
36-12-03		
TITLE PAGE		
*1	JUL 01/00	01.1
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REVISION RECORD		
1	OCT 01/91	01
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TR & SB RECORD		
1	OCT 01/91	01
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LIST OF EFFECTIVE PAGES		
*1	JUL 01/00	01
THRU LAST PAGE		
CONTENTS		
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INTRODUCTION		
1	OCT 01/91	01
2	BLANK	
REPAIR-GENERAL		
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REPAIR 1-1		
*601	JUL 01/00	01.1
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*604	JUL 01/00	01.1
REPAIR 2-1		
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*602	JUL 01/00	01.1
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*604	JUL 01/00	01.1
*605	JUL 01/00	01.1

PAGE	DATE	CODE
REPAIR 2-1		CONT.
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REPAIR 3-1		
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*605	JUL 01/00	01.1
*606	JUL 01/00	01.1
REPAIR 4-1		
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*602	JUL 01/00	01.1
603	OCT 01/91	01
*604	JUL 01/00	01.1
*605	JUL 01/00	01.1
*606	JUL 01/00	01.1
FITS AND CLEARANCES		
*801	JUL 01/00	01.1
*802	JUL 01/00	01.1
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ILLUSTRATED PARTS LIST		
1001	OCT 01/91	01
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*1013	JUL 01/00	01.1
*1014	BLANK	

* = REVISED, ADDED OR DELETED

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TABLE OF CONTENTS

NOTE: This manual contains the data to overhaul some of the components of the precooler installation. Overhaul functions which cannot be done by standard industry practices are included in the repair instructions for each component.

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INTRODUCTION

The instructions in this manual provide the information necessary to perform maintenance functions ranging from simple checks and replacement to complete shop-type repair.

This manual is divided into separate sections:

1. Title Page
2. Record of Revisions
3. Temporary Revision & Service Bulletin Record
4. List of Effective Pages
5. Table of Contents
6. Introduction
7. Procedures & IPL Sections

Refer to the Table of Contents for the page location of applicable sections.

The beginning of the REPAIR section includes a list of the separate repairs, a list of applicable standard Boeing practices, and an explanation of the True Position Dimensioning symbols used.

An explanation of the use of the Illustrated Parts List is provided in the Introduction to that section.

All weights and measurements used in the manual are in English units, unless otherwise stated. When metric equivalents are given they will be in parentheses following the English units.

Design changes, optional parts, configuration differences and Service Bulletin modifications create alternate part numbers. These are identified in the Illustrated Parts List (IPL) by adding an alphabetical character to the basic item number. The resulting item number is called an alpha-variant. Throughout the manual, IPL basic item number references also apply to alpha-variants unless otherwise indicated.

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REPAIR - GENERAL

1. Content

   A. Each repair, as applicable, includes check, repair, and refinish instructions.

2. Standard Practices

   A. Refer to the following standard practices, as applicable, for the details of procedures in each repair.

| 20-00-00 Introduction
| 20-41-01 Decoding Table for Boeing Finish Codes
| 20-50-03 Bearing and Bushing Replacement

3. Materials

NOTE: Equivalent substitutes can be used.

A. Primer -- BMS 10-11, type 1 (SOPM 20-60-02)

B. Sealant -- BMS 5-95 (SOPM 20-60-04)

4. Dimensioning Symbols

A. Standard True Position Dimensioning Symbols used in applicable repair procedures are shown in SOPM 20-00-00.

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LINK ASSEMBLY, SUPPORT - REPAIR 1-1

312T3216-26, -30, -38

NOTE: Refer to REPAIR-GEN for a list of applicable standard practices. Refer to IPL Fig. 1 for item numbers.

1. Repair

A. Bushing Replacement (Fig. 601)

(1) Remove the old bushing.

(2) If you find defects on the link, refer to par. 1.C. for repair instructions.

(3) Install a replacement bushing by the shrink-fit method.

(4) Make a check of the dimensions and machine them as necessary.

B. Bearing Replacement (Fig. 601)

(1) Remove the old bearing.

(2) If you find defects on the link, refer to par. 1.C. for repair instructions.

(3) Install a replacement bearing and roller or anvil swage it as indicated.

C. Link (Fig. 601)

(1) Bore for Bearing (5)

(a) Machine the bore oversize, within repair limits, to remove defects. Restore the chamfer as shown.

(b) Get an oversize bearing and install it in the bore per par. 1.B.(3) above.

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(2) Holes for Bushing

(a) Machine the hole oversize, within repair limits, to remove defects.

(b) Make an oversize bushing (Fig. 602) to adjust for the material removed in step (a).

(c) Install the bushing per par. 1.A.(3), (4) above.

(3) Repair of other surfaces is only replacement of the original finish. Refer to the Refinish instructions for details.

2. Fits and Clearances -- See Fig. 801

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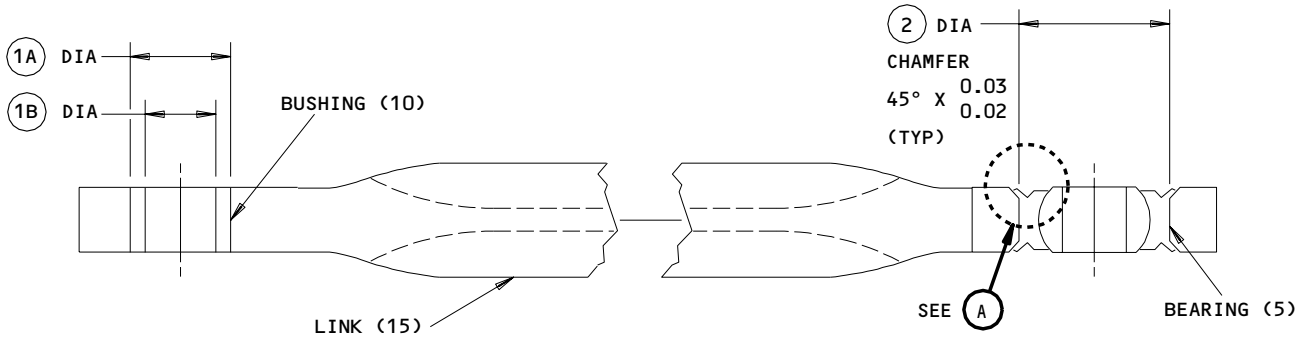
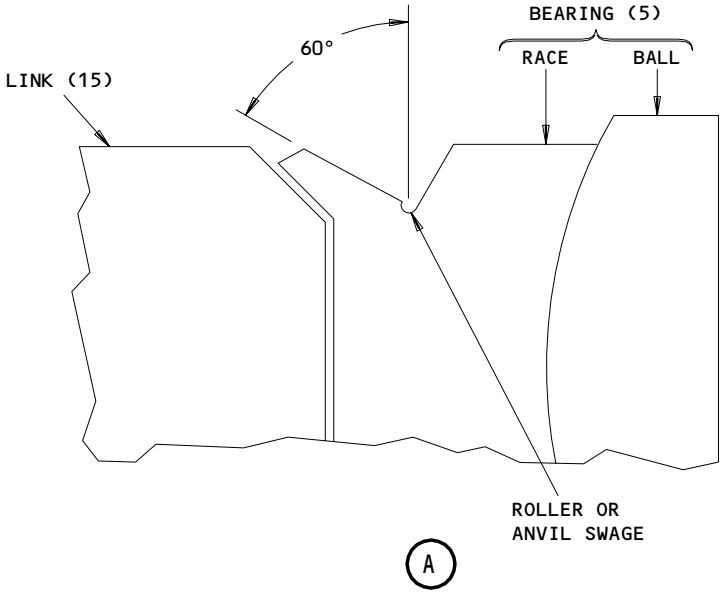


	1A	1B	2
DESIGN DIM	0.5004 0.4997	0.3765 0.3750	0.8133 0.8125
REPAIR LIMIT	0.5604 ▷2	------	0.8433 0.8425 ▷1



REFINISH

LINK (15)--PASSIVATE (F-17.25, WHICH REPLACES F-17.09)

▷1 LIMIT FOR INSTALLATION OF OVERSIZE BEARING P20670P30 (V57606)

▷2 LIMIT FOR INSTALLATION OF OVERSIZE BUSHING (FIG. 602)

REPAIR

REF ▷1

125 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

MATERIAL: 15-5PH CRES, CONDITION H1025

ITEM NUMBERS REFER TO IPL FIG. 1

ALL DIMENSIONS ARE IN INCHES

312T3216-26,-30,-38
Link Assembly Repair and Refinish
Figure 601

969093

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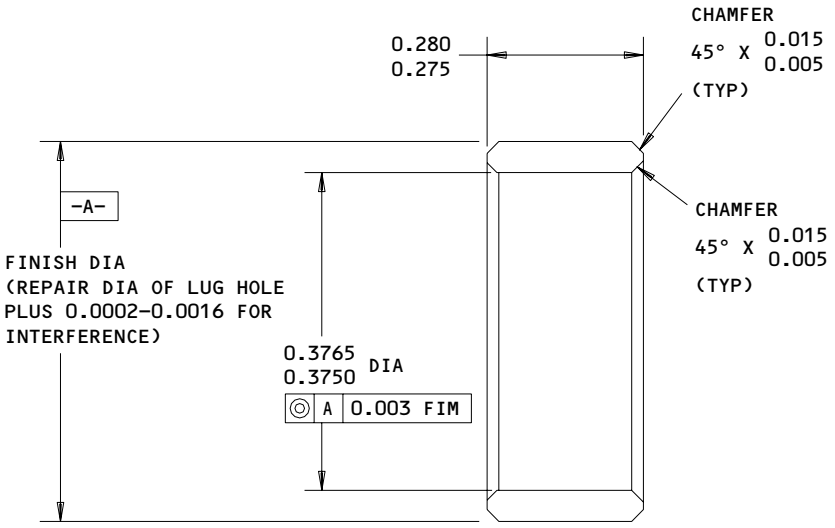

FINISH: PASSIVATE (F-17.25, WHICH REPLACES F-17.09)

125 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

BREAK SHARP EDGES 0.02 R MAX

MATERIAL: 17-4PH CRES, 180-200 KSI

ALL DIMENSIONS ARE IN INCHES

HOLE LOCATION (1A), FIG. 601 - REPLACES BUSHING (IPL FIG. 1; 10) BACB28Y6E028

Oversize Bushing Details
Figure 602

991476

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LINK ASSEMBLY, SUPPORT - REPAIR 2-1

312T3216-28, -32, -39

NOTE: Refer to REPAIR-GEN for a list of applicable standard practices. Refer to IPL Fig. 2 for item numbers.

1. Repair

A. Bushing Replacement (Fig. 601)

(1) Remove the old bushing.

(2) If you find defects on the link, refer to par. 1.C. for repair instructions.

(3) Install a replacement bushing by the shrink-fit method.

(4) Make a check of the dimensions and machine them as necessary.

B. Bearing Replacement (Fig. 601)

(1) Remove the old bearing.

(2) If you find defects on the link, refer to par. 1.C. for repair instructions.

(3) Install a replacement bearing and roller or anvil swage it as indicated.

C. Link (Fig. 601)

(1) Bore for Bearing (5)

(a) Machine the bore oversize, within repair limits, to remove defects. Restore the chamfer as shown.

(b) Get an oversize bearing and install it in the bore per par. 1.B.(3) above.

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(2) Clevis Hole without Bushing

(a) Machine the hole oversize, within repair limits, to remove defects.

(b) Make a repair sleeve (Fig. 602) to adjust for the material removed in step (a).

(c) Install the repair sleeve by the shrink-fit method.

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

(3) Clevis Hole for Bushing

(a) Machine the hole oversize, within repair limits, to remove defects.

(b) Make an oversize bushing (Fig. 603) to adjust for the material removed in step (a).

(c) Install the bushing per par. 1.A.(3), (4) above.

(4) Repair of other surfaces is only replacement of the original finish. Refer to the Refinish instructions for details.

2. Fits and Clearances -- See Fig. 801

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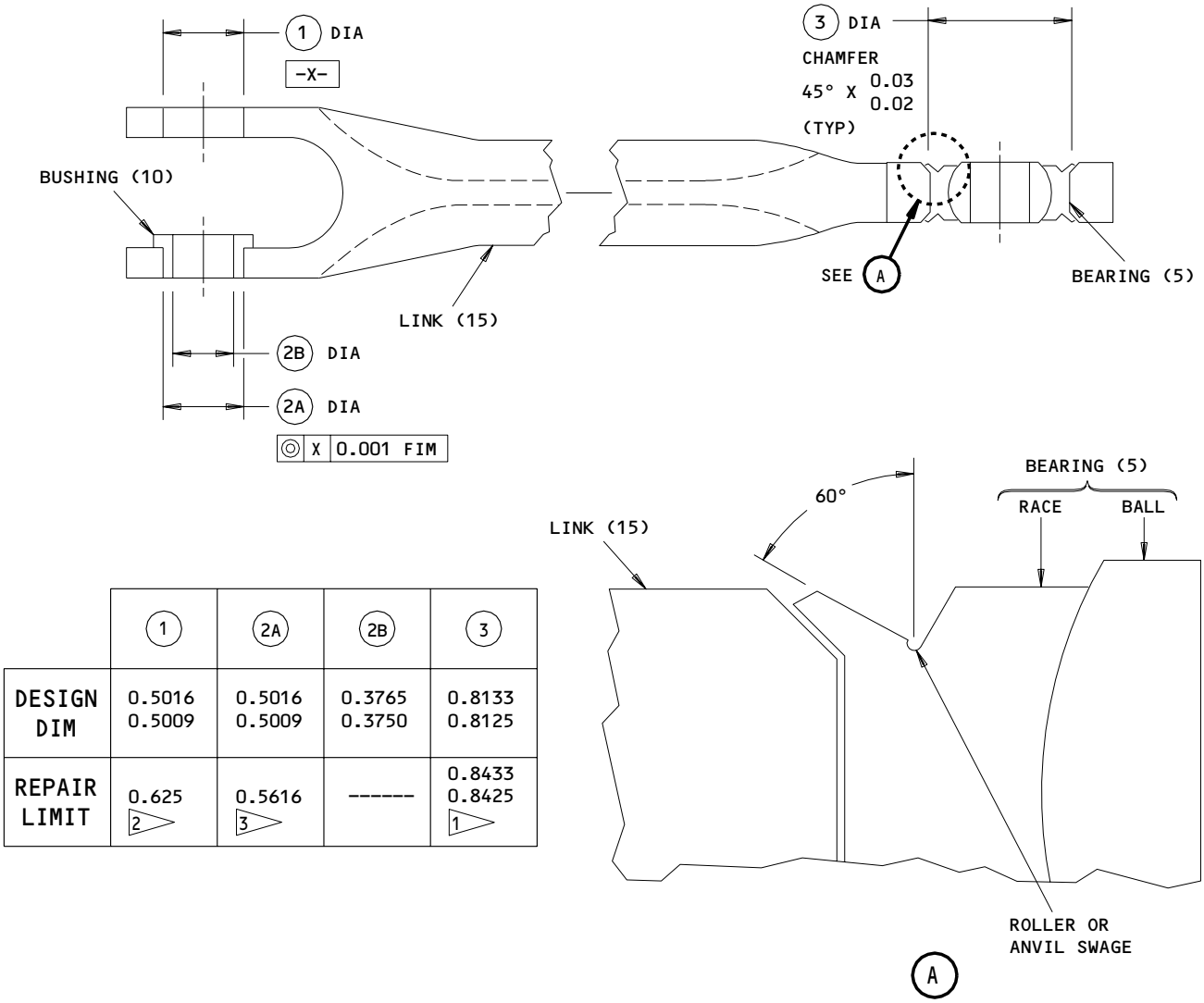

	1	2A	2B	3
DESIGN DIM	0.5016 0.5009	0.5016 0.5009	0.3765 0.3750	0.8133 0.8125
REPAIR LIMIT	0.625 2	0.5616 3	------	0.8433 0.8425 1

REFINISH

LINK (15)--PASSIVATE (F-17.25, WHICH REPLACES F-17.09)

1 LIMIT FOR INSTALLATION OF OVERSIZE BEARING P2067OP3O (V57606)

2 LIMIT FOR INSTALLATION OF REPAIR SLEEVE (FIG. 602)

3 LIMIT FOR INSTALLATION OF OVERSIZE BUSHING (FIG. 603)

REPAIR

REF 1

125 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

MATERIAL: 15-5PH CRES, CONDITION H1025

ITEM NUMBERS REFER TO IPL FIG. 2

ALL DIMENSIONS ARE IN INCHES

312T3216-28,-32,-39
Link Assembly Repair and Refinish
Figure 601

969121

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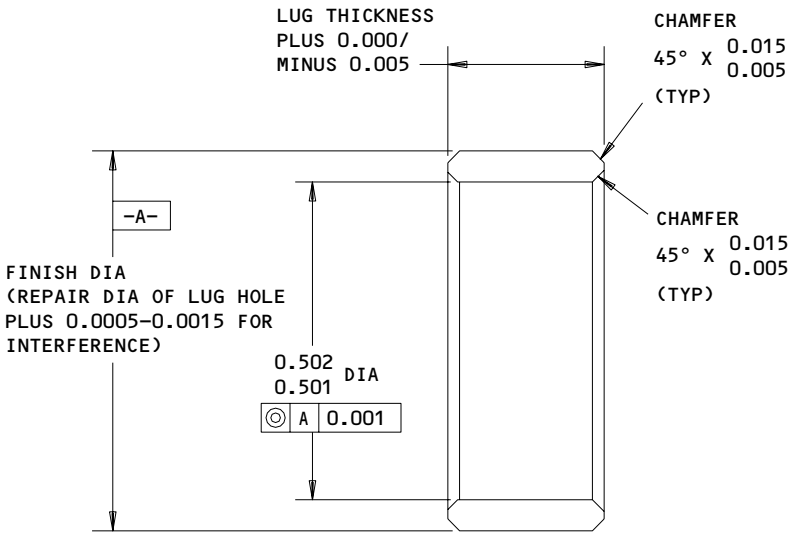

FINISH: PASSIVATE (F-17.25, WHICH REPLACES F-17.09)

125 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

BREAK SHARP EDGES 0.02 R MAX

MATERIAL: 17-4PH CRES, CONDITION H1025

ALL DIMENSIONS ARE IN INCHES

HOLE LOCATION (1), FIG. 601

Repair Sleeve Details
Figure 602

991489

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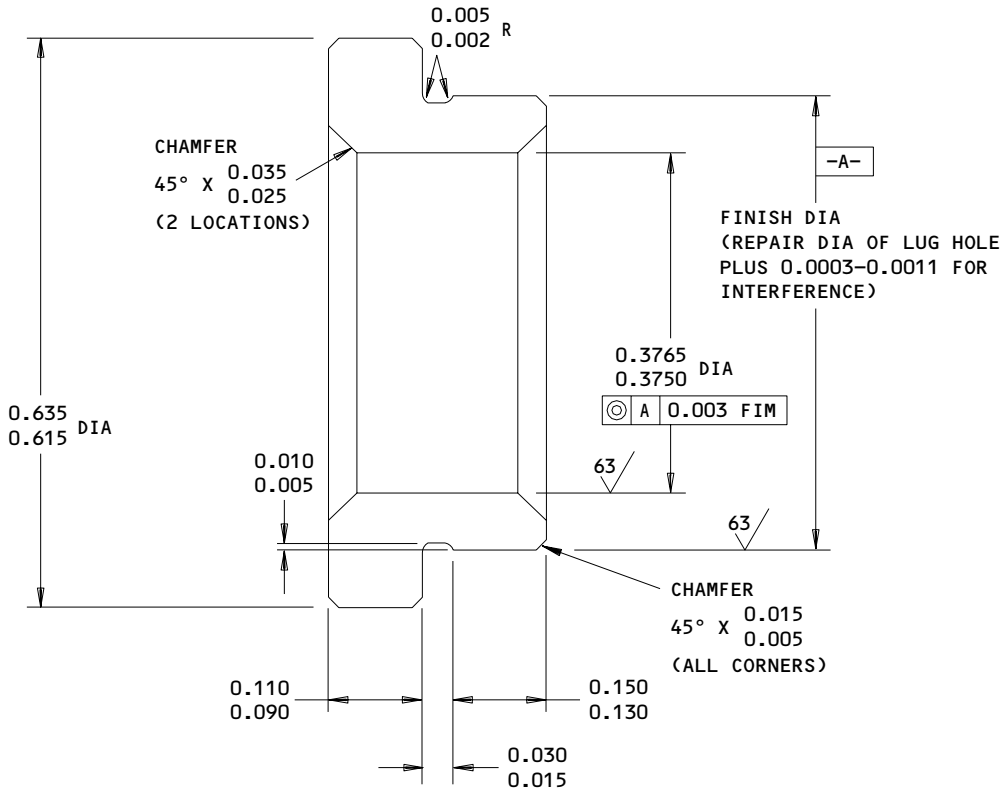

FINISH: PASSIVATE (F-17.25, WHICH REPLACES F-17.09)

125 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

BREAK SHARP EDGES 0.02 R MAX

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

ALL DIMENSIONS ARE IN INCHES

HOLE LOCATION (2A), FIG. 601 - REPLACES BUSHING (IPL FIG. 2; 10) 312T3254-1

Oversize Bushing Details
Figure 603

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LINK ASSEMBLY, SUPPORT - REPAIR 3-1

312T3216-34, -40

NOTE: Refer to REPAIR-GEN for a list of applicable standard practices. Refer to IPL Fig. 3 for item numbers.

1. Repair

A. Bushing Replacement (Fig. 601)

(1) Remove the old bushings.

(2) If you find defects on the link, refer to par. 1.C. for repair instructions.

(3) Install replacement bushings by the shrink-fit method.

(4) Make a check of the dimensions and machine them as necessary.

B. Bearing Replacement (Fig. 601)

(1) Remove the old bearing.

(2) If you find defects on the link, refer to par. 1.C. for repair instructions.

(3) Install a replacement bearing and roller or anvil swage it as indicated.

C. Link (Fig. 601)

(1) Bore for Bearing (5)

(a) Machine the bore oversize, within repair limits, to remove defects. Restore the chamfer as shown.

(b) Get an oversize bearing and install it in the bore per par. 1.B.(3) above.

(2) Clevis Holes without Bushings

(a) Machine holes oversize, within repair limits, to remove defects.

(b) Make repair sleeves (Fig. 602) to adjust for the material removed in step (a).

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(c) Install the repair sleeves by the shrink-fit method.

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

(3) Clevis Holes for Bushings

(a) Machine holes oversize, within repair limits, to remove defects.

(b) Make oversize bushings (Fig. 603) to adjust for the material removed in step (a).

(c) Install the bushings per par. 1.A.(3), (4) above.

(4) Repair of other surfaces is only replacement of the original finish. Refer to the Refinish instructions for details.

2. Fits and Clearances -- See Fig. 801

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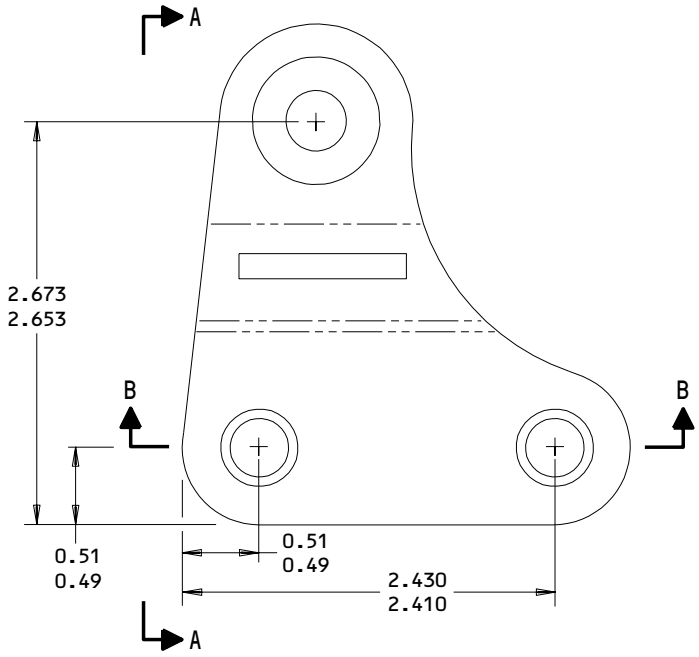
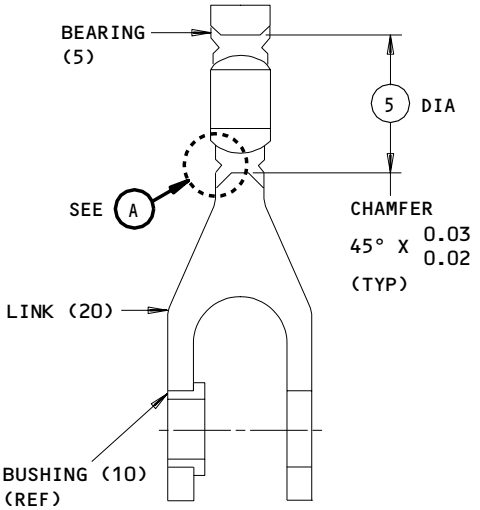
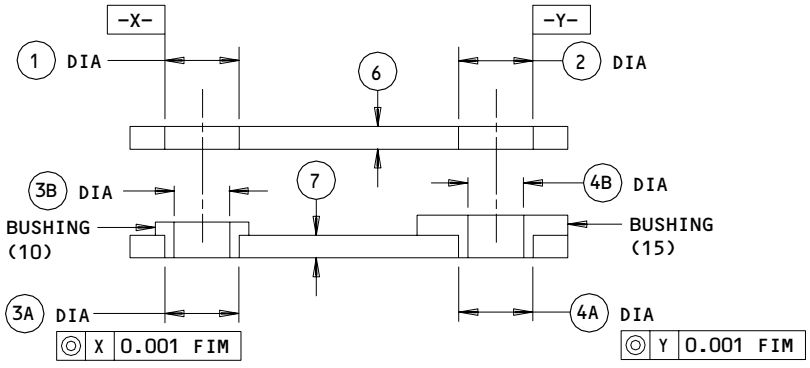
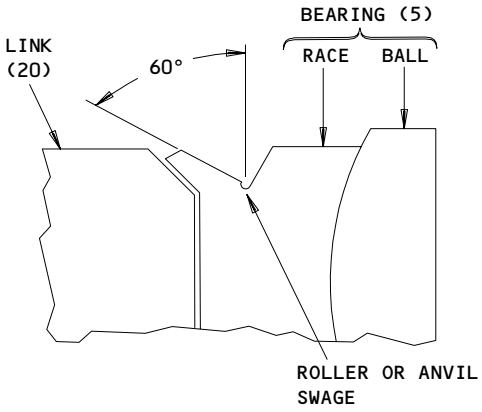




A–A



B–B



ROTATED 90°
COUNTERCLOCKWISE

A

ITEM NUMBERS REFER TO IPL FIG. 3

312T3216-34,-40
Link Assembly Repair and Refinish
Figure 601 (Sheet 1)

966860

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	(1)	(2)	(3A)	(3B)	(4A)	(4B)	(5)	(6)	(7)
DESIGN DIM	0.5016 0.5009	0.5016 0.5009	0.5016 0.5009	0.3765 0.3750	0.5016 0.5009	0.3765 0.3750	0.8133 0.8125	0.17 0.15	0.17 0.15
REPAIR LIMIT	0.625 2	0.625 2	0.5616 3	------	0.5616 3	------	0.8433 0.8425 1	------	------

REFINISH

LINK (20)--PASSIVATE (F-17.25, WHICH REPLACES F-17.09)

1 LIMIT FOR INSTALLATION OF OVERSIZE BEARING P20670P30 (V57606)

2 LIMIT FOR INSTALLATION OF REPAIR SLEEVE (FIG. 602)

3 LIMIT FOR INSTALLATION OF OVERSIZE BUSHING (FIG. 603)

REPAIR

REF 1 2

125 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

MATERIAL: 15-5PH CRES, CONDITION H1025

ITEM NUMBERS REFER TO IPL FIG. 3

ALL DIMENSIONS ARE IN INCHES

312T3216-34,-40
Link Assembly Repair and Refinish
Figure 601 (Sheet 2)

969061

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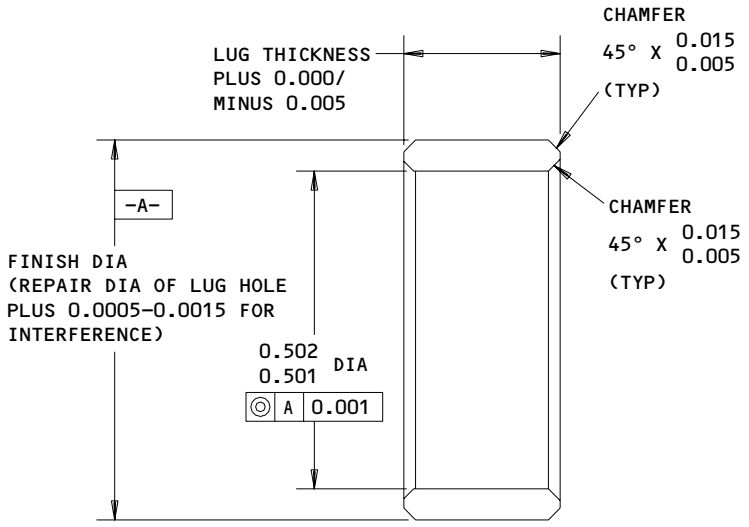

FINISH: PASSIVATE (F-17.25, WHICH REPLACES F-17.09)

125 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

BREAK SHARP EDGES 0.02 R MAX

MATERIAL: 17-4PH CRES, CONDITION H1025

ALL DIMENSIONS ARE IN INCHES

HOLE LOCATIONS (1) (2), FIG. 601

Repair Sleeve Details
Figure 602

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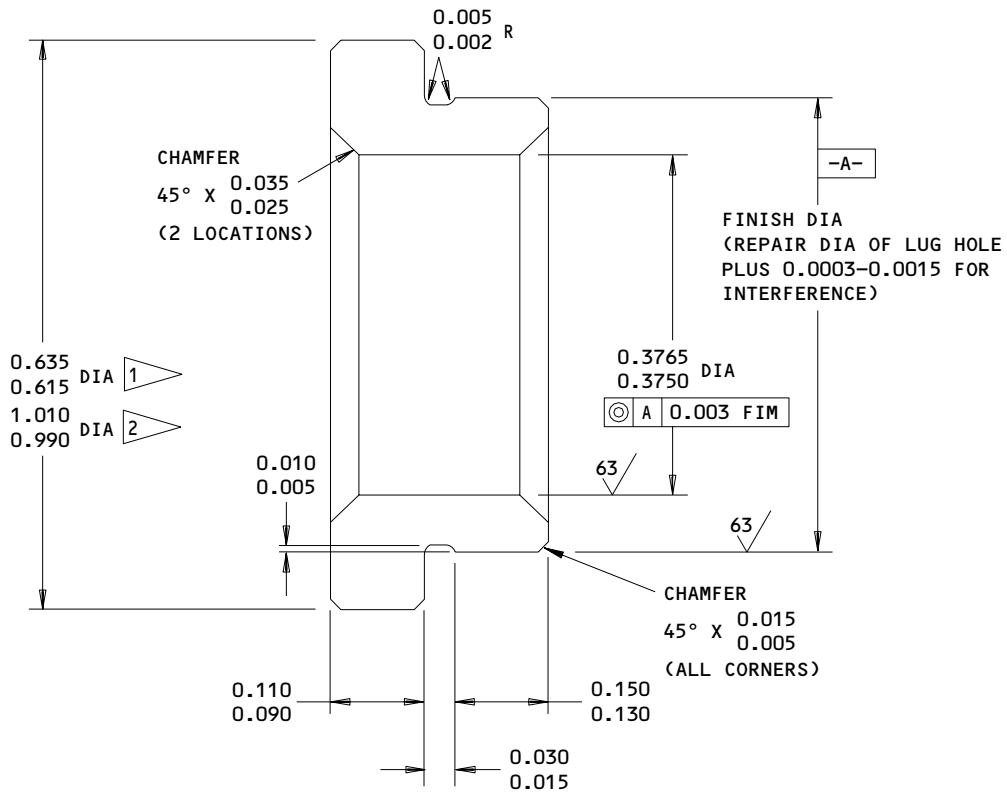

FINISH: PASSIVATE (F-17.25, WHICH REPLACES F-17.09)

1 312T3254-1 REPLACEMENT

2 312T3254-2 REPLACEMENT

125 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

BREAK SHARP EDGES 0.02 R MAX

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

ALL DIMENSIONS ARE IN INCHES

HOLE LOCATIONS (3A) (4A), FIG. 601 - REPLACES BUSHINGS (IPL FIG. 3; 10,15)
312T3254-1,-2

Oversize Bushing Details
Figure 603

991526

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LINK ASSEMBLY, SUPPORT - REPAIR 4-1

312T3216-36

NOTE: Refer to REPAIR-GEN for a list of applicable standard practices. Refer to IPL Fig. 4 for item numbers.

1. Repair

A. Bushing Replacement (Fig. 601)

(1) Remove the old bushings.

(2) If you find defects on the link, refer to par. 1.C. for repair instructions.

(3) Install replacement bushings by the shrink-fit method.

(4) Make a check of the dimensions and machine them as necessary.

B. Bearing Replacement (Fig. 601)

(1) Remove the old bearing.

(2) If you find defects on the link, refer to par. 1.C. for repair instructions.

(3) Install a replacement bearing and roller or anvil swage it as indicated.

C. Link (Fig. 601)

(1) Bore for Bearing (5)

(a) Machine the bore oversize, within repair limits, to remove defects. Restore the chamfer as shown.

(b) Get an oversize bearing and install it in the bore per par. 1.B.(3) above.

(2) Clevis Holes without Bushings

(a) Machine holes oversize, within repair limits, to remove defects.

(b) Make repair sleeves (Fig. 602).

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(c) Install the repair sleeves by the shrink-fit method.

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

(3) Clevis Holes for Bushings

(a) Machine holes oversize, within repair limits, to remove defects.

(b) Make oversize bushings (Fig. 603).

(c) Install the bushings per par. 1.A.(3), (4) above.

(4) Repair of other surfaces is only replacement of the original finish. Refer to the Refinish instructions for details.

2. Fits and Clearances -- See Fig. 801

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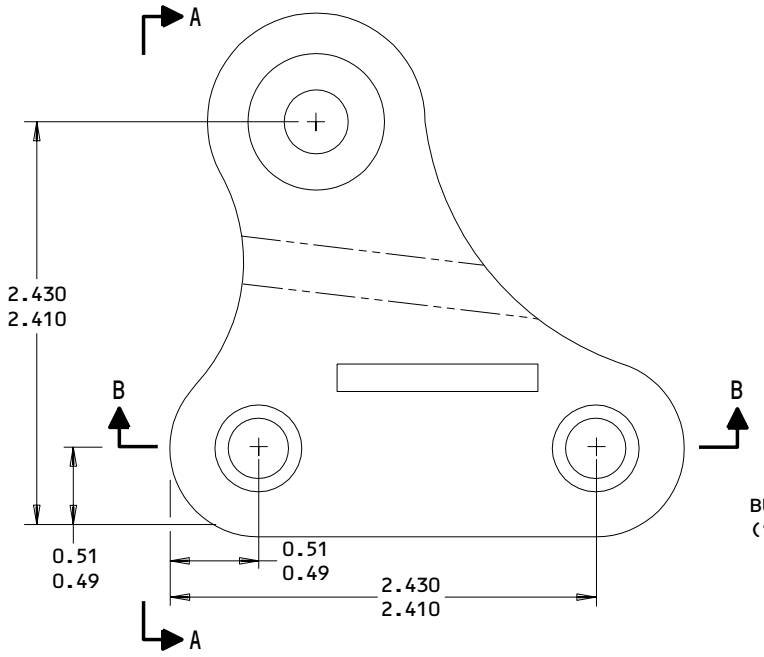
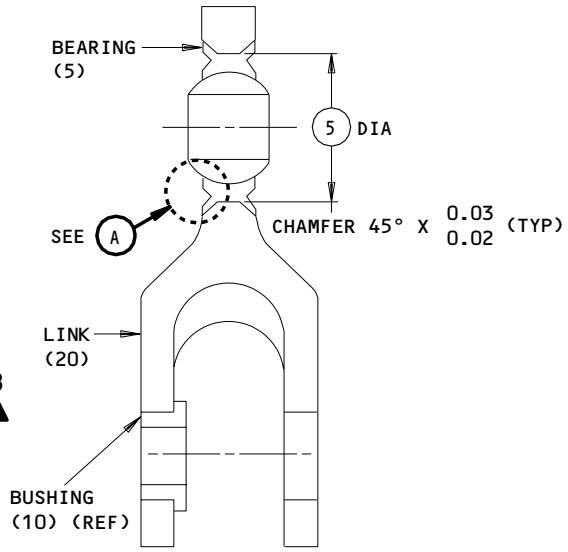
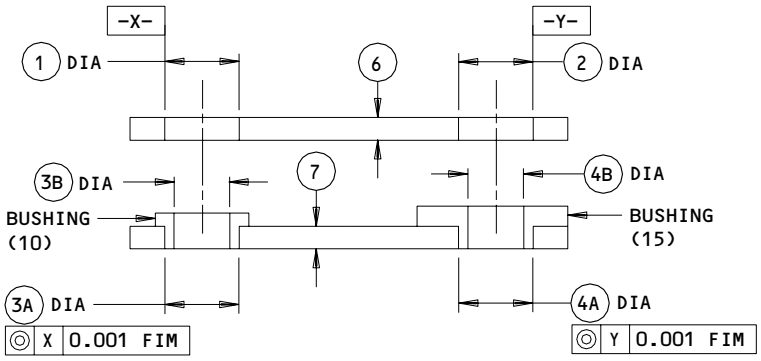
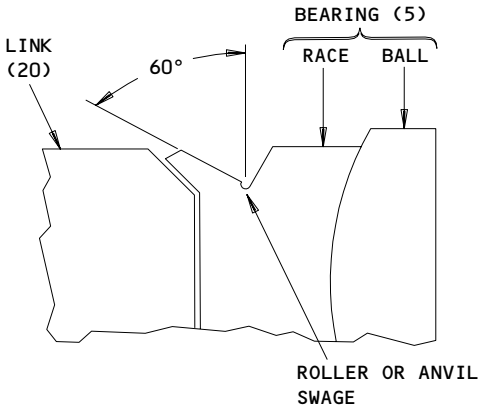




A–A



B–B



ROTATED 90° CW

A

ITEM NUMBERS REFER TO IPL FIG. 4

312T3216-36
Crank Assembly Repair and Refinish
Figure 601 (Sheet 1)

967244

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	(1)	(2)	(3A)	(3B)	(4A)	(4B)	(5)	(6)	(7)
DESIGN DIM	0.5016 0.5009	0.5016 0.5009	0.5016 0.5009	0.3765 0.3750	0.5016 0.5009	0.3765 0.3750	0.8133 0.8125	0.17 0.15	0.17 0.15
REPAIR LIMIT	0.625 2	0.625 2	0.5616 3	------	0.5616 3	------	0.8433 0.8425 1	------	------

REFINISH

LINK (20)--PASSIVATE (F-17.25, WHICH REPLACES F-17.09)

1 LIMIT FOR INSTALLATION OF OVERSIZE BEARING P2067OP30 (V57606)

2 LIMIT FOR INSTALLATION OF REPAIR SLEEVE (FIG. 602)

3 LIMIT FOR INSTALLATION OF OVERSIZE BUSHING (FIG. 603)

REPAIR

REF 1 2

125 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

MATERIAL: 15-5PH CRES, CONDITION H1025

ITEM NUMBERS REFER TO IPL FIG. 4

ALL DIMENSIONS ARE IN INCHES

312T3216-36
Crank Assembly Repair and Refinish
Figure 601 (Sheet 2)

969062

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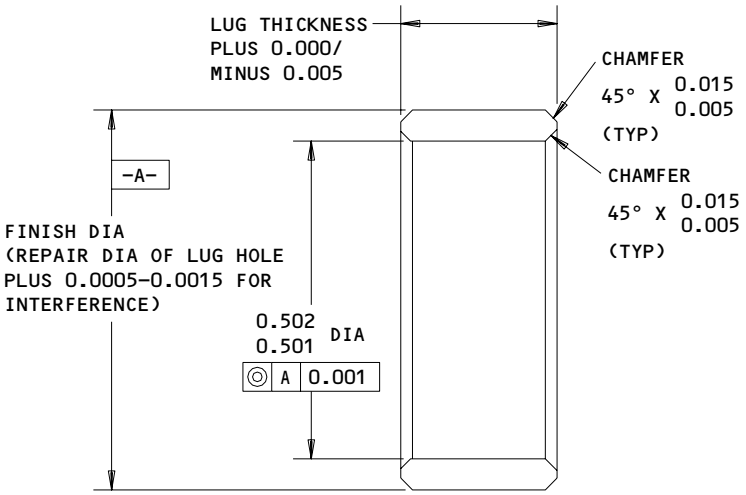

FINISH: PASSIVATE (F-17.25, WHICH REPLACES F-17.09)

125 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

BREAK SHARP EDGES 0.02 R MAX

MATERIAL: 17-4PH CRES, CONDITION H1025

ALL DIMENSIONS ARE IN INCHES

HOLE LOCATIONS (1) (2), FIG. 601

Repair Sleeve Details
Figure 602

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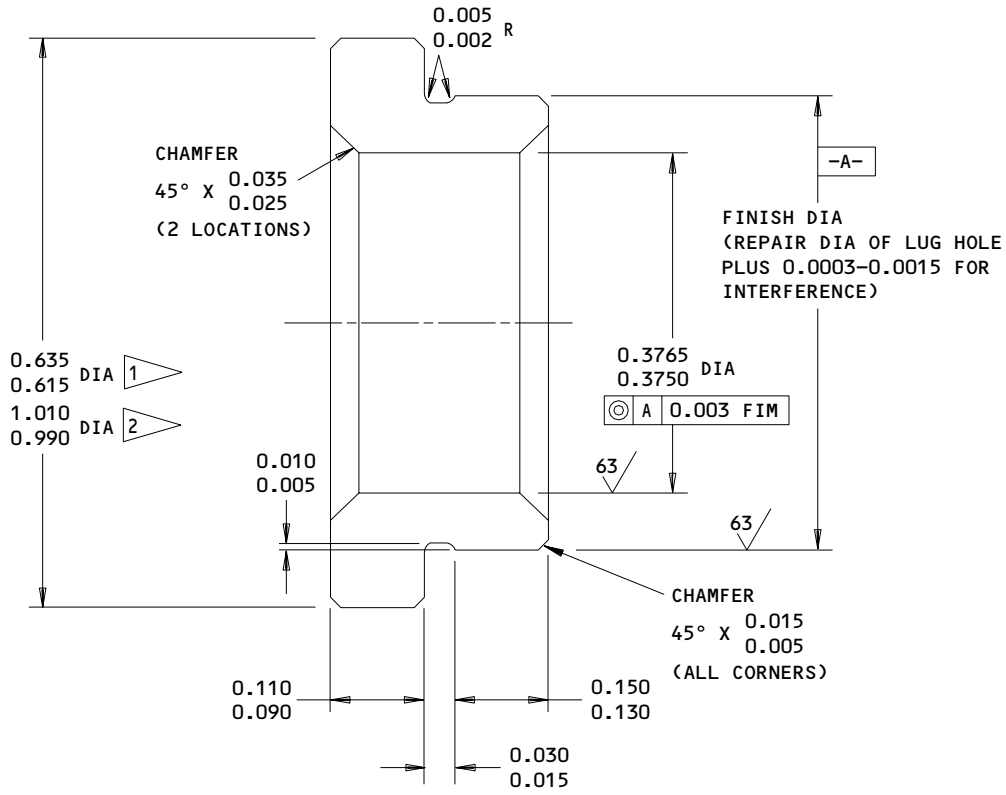

FINISH: PASSIVATE (F-17.25, WHICH REPLACES F-17.09)

1 312T3254-1 REPLACEMENT

2 312T3254-2 REPLACEMENT

125 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

BREAK SHARP EDGES 0.02 R MAX

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

ALL DIMENSIONS ARE IN INCHES

HOLE LOCATIONS (3A) (4A), FIG. 601 - REPLACES BUSHINGS (IPL FIG. 3; 10,15)

312T3254-1,-2

Oversize Bushing Details
Figure 603

991530

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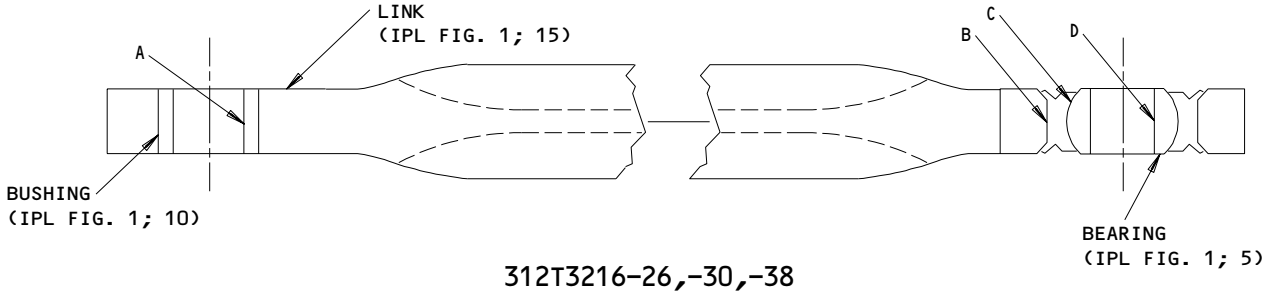
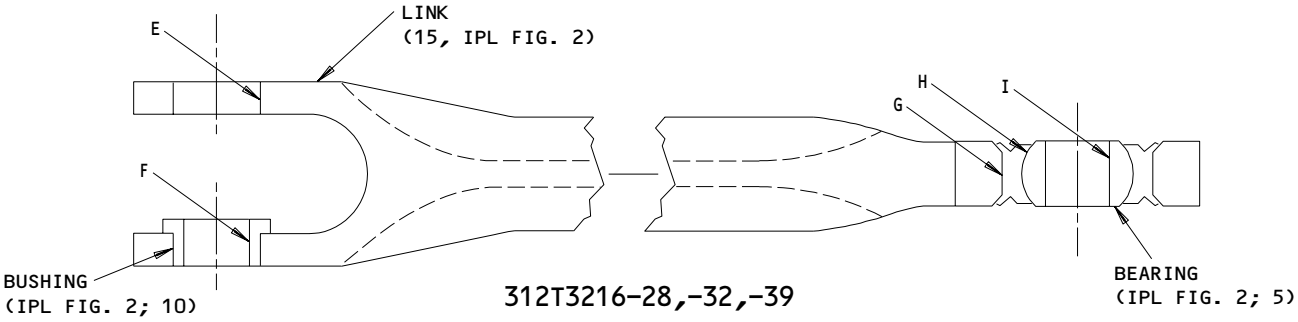
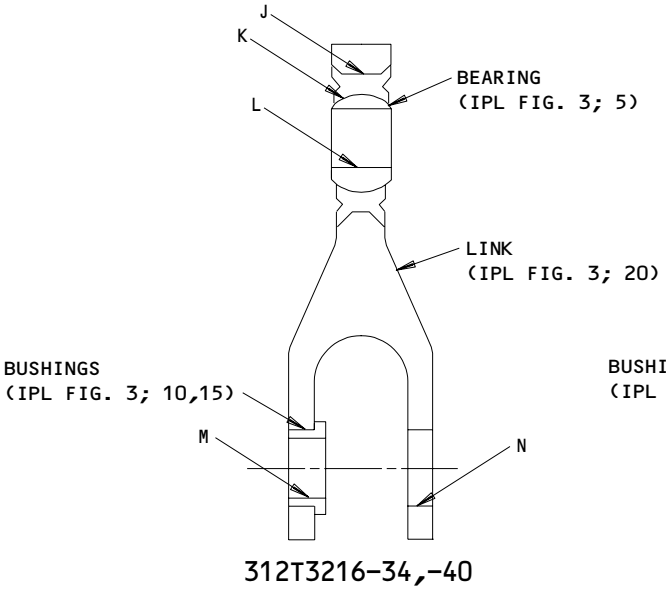
FITS AND CLEARANCES



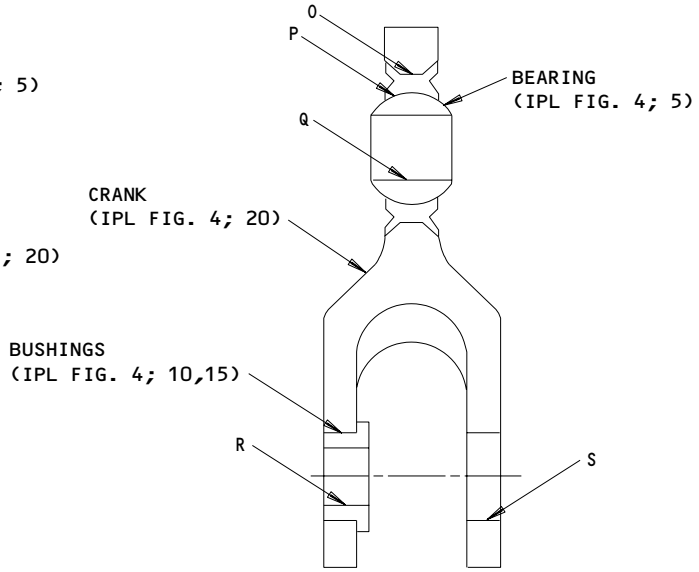
312T3216-26,-30,-38



312T3216-28,-32,-39



312T3216-34,-40



312T3216-36

Fits and Clearances
Figure 801 (Sheet 1)

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Ref Letter Fig.801	Mating Item No.	IPL Fig. No.	Design Dimensions				Service Wear Limits		
			Dimensions		Assembly Clearance		Dimension Limits		Maximum Allowable Clearance
			Min	Max	Min	Max	Min	Max	
A	ID 10 OD 1	1 -	0.3750 0.3740	0.3765 0.3745	0.0005	0.0030	0.3720	0.3780	0.0045
B	ID 15 OD 5 2	1 1	0.8125 0.8120	0.8133 0.8125	0.0000	0.0013	0.8113	0.8140	0.0020
C	ID 5 2 OD 5 3	1 1	0.6260 0.6245	0.6265 0.6250	0.0010	0.0020	0.6205	0.6305	0.0060
D 6	ID 5 3 OD 1	1 -	0.3745 0.3735	0.3750 0.3745	0.0000	0.0015	0.3730	0.3755	0.0020
D 7	ID 5 3 OD 1	1 -	0.3760 0.3735	0.3765 0.3745	0.0015	0.0030			
E	ID 15 OD 4	2 -	0.5009 0.5006	0.5016 0.5013	−0.0004 5	0.0010	0.5001	0.5021	0.0015
F	ID 10 OD 1	2 -	0.3750 0.3740	0.3765 0.3745	0.0005	0.0030	0.3720	0.3780	0.0045
G	ID 15 OD 5 2	2 2	0.8125 0.8120	0.8133 0.8125	0.0000	0.0013	0.8113	0.8140	0.0020
H	ID 5 2 OD 5 3	2 2	0.6260 0.6245	0.6265 0.6250	0.0010	0.0020	0.6205	0.6305	0.0060
I 8	ID 5 3 OD 1	2 -	0.3745 0.3735	0.3750 0.3745	0.0000	0.0015	0.3730	0.3755	0.0020
I 9	ID 5 3 OD 1	2 -	0.3760 0.3735	0.3765 0.3745	0.0015	0.0030			
J	ID 20 OD 5 2	3 3	0.8125 0.8120	0.8133 0.8125	0.0000	0.0013	0.8113	0.8140	0.0020
K	ID 5 2 OD 5 3	3 3	0.6260 0.6245	0.6265 0.6250	0.0010	0.0020	0.6205	0.6305	0.0060

ALL DIMENSIONS ARE IN INCHES

Fits and Clearances
Figure 801 (Sheet 2)

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Ref Letter Fig.801	Mating Item No.	IPL Fig. No.	Design Dimensions				Service Wear Limits		
			Dimensions		Assembly Clearance		Dimension Limits		Maximum Allowable Clearance
			Min	Max	Min	Max	Min	Max	
L	ID 5 (3)	3	0.3745	0.3750	0.0000	0.0015		0.3755	0.0020
	OD (1)	-	0.3735	0.3745			0.3730		
M	ID 10,15	3	0.3750	0.3765	0.0010	0.0030		0.3780	0.0045
	OD (1)	-	0.3735	0.3740			0.3720		
N	ID 20	3	0.5009	0.5016	-0.0004 (5)	0.0010		0.5021	0.0015
	OD (4)	-	0.5006	0.5013			0.5001		
O	ID 20	4	0.8125	0.8133	0.0000	0.0013		0.8140	0.0020
	OD 5 (2)	4	0.8120	0.8125			0.8113		
P	ID 5 (2)	4	0.6260	0.6265	0.0010	0.0020		0.6305	0.0060
	OD 5 (3)	4	0.6245	0.6250			0.6205		
Q (10)	ID 5 (3)	4	0.3745	0.3750	0.0000	0.0015		0.3755	0.0020
	OD (1)	-	0.3735	0.3745			0.3730		
Q (11)	ID 5 (3)	4	0.3760	0.3765	0.0015	0.0030			
	OD (1)	-	0.3735	0.3745					
R	ID 10,15	4	0.3750	0.3765	0.0005	0.0030		0.3780	0.0045
	OD (1)	4	0.3740	0.3745			0.3720		
S	ID 20	4	0.5009	0.5016	-0.0004 (5)	0.0010		0.5021	0.0015
	OD (4)	-	0.5006	0.5013			0.5001		

ALL DIMENSIONS ARE IN INCHES

(1) INSTALLATION BOLT
(2) BEARING RACE
(3) BEARING BALL
(4) INSTALLATION BUSHING
(5) NEGATIVE VALUES ARE INTERFERENCE FIT
(6) 312T3216-26,-30
(7) 312T3216-38
(8) 312T3216-28,-32
(9) 312T3216-39
(10) 312T3216-34
(11) 312T3216-40

Fits and Clearances
Figure 801 (Sheet 3)

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ILLUSTRATED PARTS LIST

1. This section lists and illustrates replaceable or repairable component parts. The Illustrated Parts Catalog contains a complete explanation of the Boeing part numbering system.

2. Indentures show parts relationships as follows:

   Assembly
   - Detail Parts for Assembly
   - Subassembly
   - Attaching Parts for Subassembly
     - Detail Parts for Subassembly

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

3. One use code letter (A, B, C, etc.) is assigned in the EFF CODE column for each variation of top assembly. All listed parts are used on all top assemblies except when limitations are shown by use code letter opposite individual part entries.

4. Letter suffixes (alpha-variants) are added to item numbers for optional parts, Service Bulletin modification parts, configuration differences (Except left- and right-hand parts), product improvement parts, and parts added between two sequential item numbers. The alpha-variant is not shown on illustrations when appearance and location of all variants of the part is the same.

5. Service Bulletin modifications are shown by the notations PRE SB XXXX and POST SB XXXX.

   A. When a new top assembly part number is assigned by Service Bulletin, the notations appear at the top assembly level only. The configuration differences at detail part level are then shown by use code letter.

   B. When the top assembly part number is not changed by the Service Bulletin, the notations appear at the detail part level.

6. Parts Interchangeability

Optional (OPT)	The parts are optional to and interchangeable with other parts having the same item number.
Supersedes, Superseded By (SUPSDS, SUPSD BY)	The part supersedes and is not interchangeable with the original part.
Replaces, Replaced By (REPLS, REPLD BY)	The part replaces and is interchangeable with, or is an alternate to, the original part.

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VENDORS

S0352 NIPPON MINIATURE BEARING CO. LTD
4106-73 MIYOTA-MACHI
KITASAKU-GUN NAGANO-KEN 389-0293
JAPAN

06710 LAMSON AND SESSIONS COMPANY
VALLEY-TODECO 12975 BRADLEY AVENUE
SYLMAR, CALIFORNIA 91342-3830

57606 PSI BEARING DIV. REXNORD CORP.
2175 UNION PLACE
SIMI VALLEY, CALIFORNIA 93065-1661

73134 ROLLER BEARING CO. OF AMERICA, INC.
HEIM BEARING DIVISION
60 ROUND HILL ROAD
P.O. BOX 430
FAIRFIELD, CONNECTICUT 06430-0430

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PART NUMBER	AIRLINE PART NO.	FIG.	ITEM	TTL REQ
BACB28Y6E028		1	10	1
P2A3020		1	5A	1
		2	5A	1
		3	5A	1
P20670		1	5	1
		2	5	1
		3	5	1
		4	5	1
312T3216-26		1	1	RF
312T3216-27		1	15	1
312T3216-28		1	1A	RF
		2	1	RF
312T3216-29		2	15	1
312T3216-30		1	1B	RF
312T3216-31		1	15A	1
312T3216-32		1	1C	RF
		2	1A	RF
312T3216-33		2	15A	1
312T3216-34		1	1D	RF
		3	1	RF
312T3216-35		3	20	1
312T3216-36		1	1E	RF
		4	1	RF
312T3216-37		4	20	1
312T3216-38		1	1F	RF
312T3216-39		1	1G	RF
		2	1B	RF
312T3216-40		1	1H	RF
		3	1A	RF
312T3254-1		2	10	1
		3	10	1
		4	10	1
312T3254-2		3	15	1
		4	15	1

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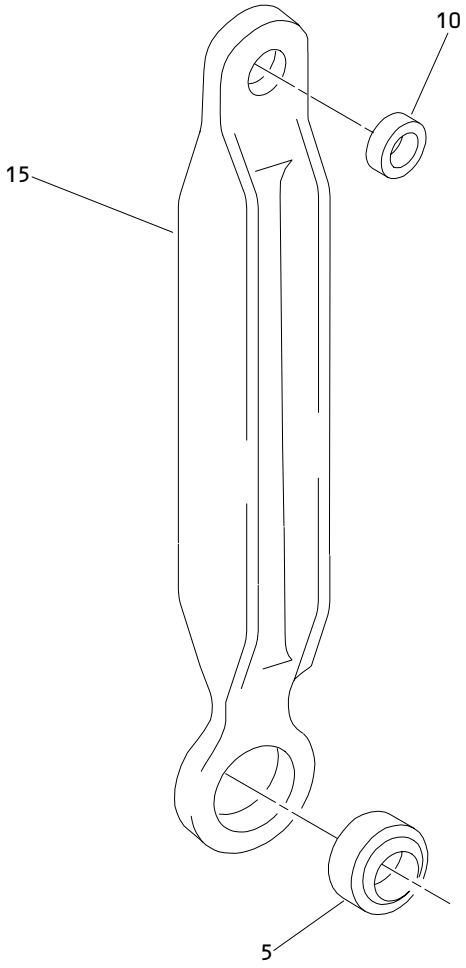

Precooler Support Link Assembly
Figure 1

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FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01-					
-1	312T3216-26		LINK ASSY-PRECOOLER SUPPORT	A	RF
-1A	312T3216-28		LINK ASSY-PRECOOLER SUPPORT (FOR DETAILS, SEE FIG. 2)		RF
-1B	312T3216-30		LINK ASSY-PRECOOLER SUPPORT	B	RF
-1C	312T3216-32		LINK ASSY-PRECOOLER SUPPORT (FOR DETAILS, SEE FIG. 2)		RF
-1D	312T3216-34		LINK ASSY-PRECOOLER SUPPORT (FOR DETAILS, SEE FIG. 3)		RF
-1E	312T3216-36		LINK ASSY-PRECOOLER SUPPORT (FOR DETAILS, SEE FIG. 4)		RF
-1F	312T3216-38		LINK ASSY-PRECOOLER SUPPORT	C	RF
-1G	312T3216-39		LINK ASSY-PRECOOLER SUPPORT (FOR DETAILS, SEE FIG. 2)		RF
-1H	312T3216-40		LINK ASSY-PRECOOLER SUPPORT (FOR DETAILS, SEE FIG. 3)		RF
5	P20670		.BEARING ASSY (V57606) (SPEC S302T001-207) (OPT AMB6-170 (V50294)) (OPT LHSSTM6BAC (V73134)) (OPT VTB04500 (V06710))	AB	1

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FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01-					
-5A	P2A3020		.BEARING ASSY (V57606) (SPEC S302T001-236) (OPT VTB13150 (V06710))	C	1
10	BACB28Y6E028		.BUSHING		1
15	312T3216-27		.LINK	AC	1
-15A	312T3216-31		.LINK	B	1

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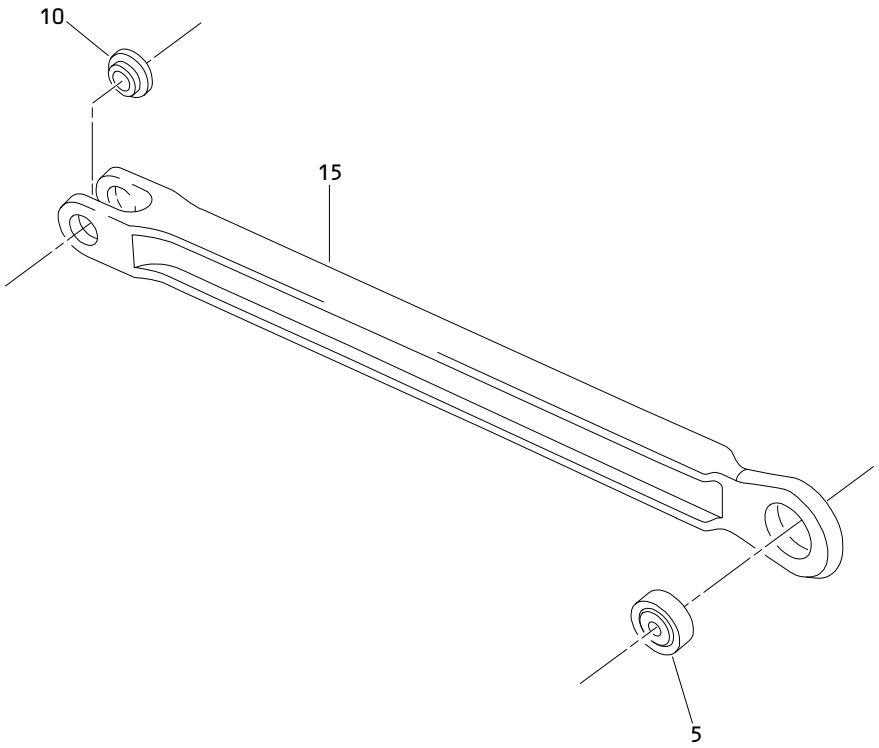

Precooler Support Link Assembly
Figure 2

967469

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FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
02-					
-1	312T3216-28		LINK ASSY-PRECOOLER SUPPORT	A	RF
-1A	312T3216-32		LINK ASSY-PRECOOLER SUPPORT	B	RF
-1B	312T3216-39		LINK ASSY-PRECOOLER SUPPORT	C	RF
5	P20670		.BEARING ASSY (V57606) (SPEC S302T001-207) (OPT AMB6-170 (VS0352)) (OPT LHSSTM6BAC (V73134)) (OPT VTB04500 (V06710))	AB	1
-5A	P2A3020		.BEARING ASSY (V57606) (SPEC S302T001-236) (OPT VTB13150 (V06710))	C	1
10	312T3254-1		.BUSHING-FLANGED		1
15	312T3216-29		.LINK	AC	1
-15A	312T3216-33		.LINK	B	1

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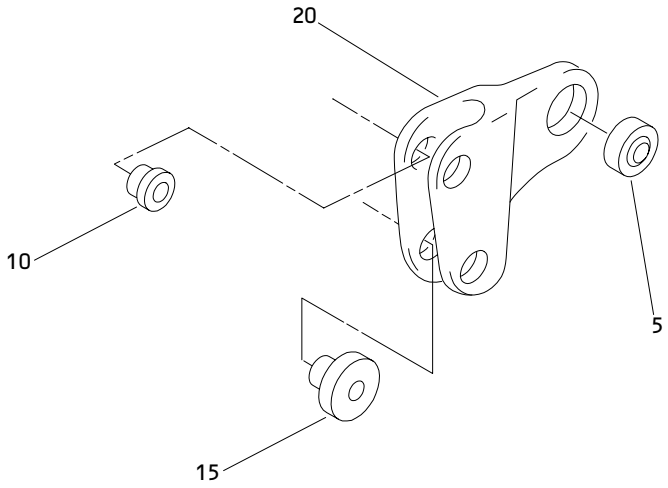

Precooler Support Link Assembly
Figure 3

967654

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FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
03-					
-1	312T3216-34		LINK ASSY-PRECOOLER SUPPORT	A	RF
-1A	312T3216-40		LINK ASSY-PRECOOLER SUPPORT	B	RF
5	P20670		.BEARING ASSY (V57606) (SPEC S302T001-207) (OPT AMB6-170 (VS0352)) (OPT LHSSTM6BAC (V73134)) (OPT VTB04500 (V06710))	A	1
-5A	P2A3020		.BEARING ASSY (V57606) (SPEC S302T001-236) (OPT VTB13150 (V06710))	B	1
10	312T3254-1		.BUSHING-FLANGED		1
15	312T3254-2		.BUSHING-FLANGED		1
20	312T3216-35		.LINK		1

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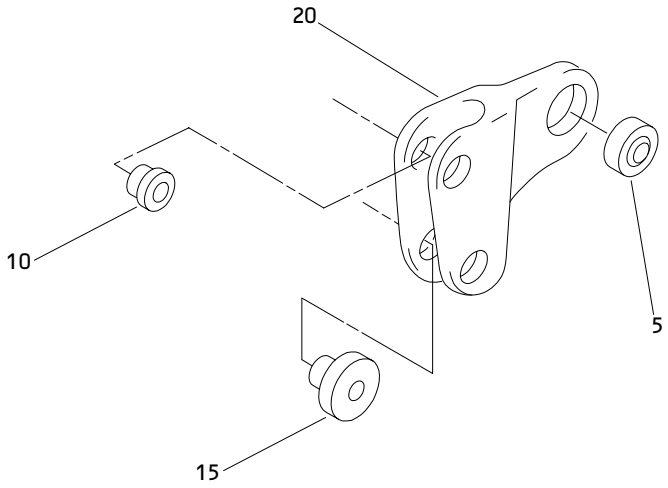

Precooler Support Crank Assembly
Figure 4

967655

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FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
04-					
-1	312T3216-36		CRANK ASSY-PRECOOLER SUPPORT		RF
5	P20670		.BEARING ASSY (V57606) (SPEC S302T001-207) (OPT AMB6-170 (VS0352)) (OPT LHSSTM6BAC (V73134)) (OPT VTB04500 (V06710))		1
10	312T3254-1		.BUSHING-FLANGED		1
15	312T3254-2		.BUSHING-FLANGED		1
20	312T3216-37		.CRANK		1

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