TO: ALL HOLDERS OF LANDING GEAR CRANK ASSEMBLY - ALTERNATE RELEASE ACTUATOR (NLG) COMPONENT MAINTENANCE MANUAL 32-35-85.

REVISION NO. 1 DATED NOV 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
DESCRIPTION & OPERATION	Added clarification and details.
1	
501	
REPAIR-GEN	
601	
REPAIR 1-1	
601	
REPAIR 2-1	
601	
REPAIR 2-2	
601-603,605	
REPAIR 3-2	
601,604	
701-702	
802-804	
1005	

BOEING

COMPONENT
MAINTENANCE MANUAL

NOSE LANDING GEAR ALTERNATE RELEASE ACTUATOR CRANK ASSEMBLY

PART NUMBER 257T4350-1

COMPONENT MAINTENANCE MANUAL
WITH
ILLUSTRATED PARTS LIST

K24425

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

K24430

TEMPORARY REVISION AND SERVICE BULLETIN RECORD

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

PAGE	DATE	CODE
32-35-85		
TITLE PAGE		
1	JUL 01/99	01
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REVISION RECORD		
1	JUL 01/99	01
2	BLANK	
TR & SB RECORD		
1	JUL 01/99	01
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LIST OF EFFECTIVE PAGES		
*1	NOV 01/00	01
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1	JUL 01/99	01
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*1	NOV 01/00	01.1
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*301	NOV 01/00	01.101
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604	JUL 01/99	01
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*601	NOV 01/00	01.1
*602	NOV 01/00	01.1
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602	JUL 01/99	01
603	JUL 01/99	01
*604	NOV 01/00	01.1
ASSEMBLY		
*701	NOV 01/00	01.1
*702	NOV 01/00	01.1
FITS AND CLEARANCES		
801	JUL 01/99	01
*802	NOV 01/00	01.1
*803	NOV 01/00	01.1
*804	NOV 01/00	01.1

* = REVISED, ADDED OR DELETED

PAGE	DATE	CODE
ILLUSTRATED PARTS LIST		
1001	JUL 01/99	01
1002	JUL 01/99	01
1003	JUL 01/99	01
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1006	BLANK	

PAGE	DATE	CODE

* = REVISED, ADDED OR DELETED

TABLE OF CONTENTS

*[1] Not Applicable.

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.

Verification:

CRANK ASSEMBLY - ALTERENATE RELEASE ACTUATOR (NLG)

DESCRIPTION AND OPERATION

1. Description

   A. The crank assembly mainly consists of an aluminum crank and berryllium-copper roller.

2. Operation

   A. The crank assembly transfer the linear motion of the alternate uplock release actuator to the forward lock link. This moves the lock links to the overcenter position which allow the nose landing gear to extend.

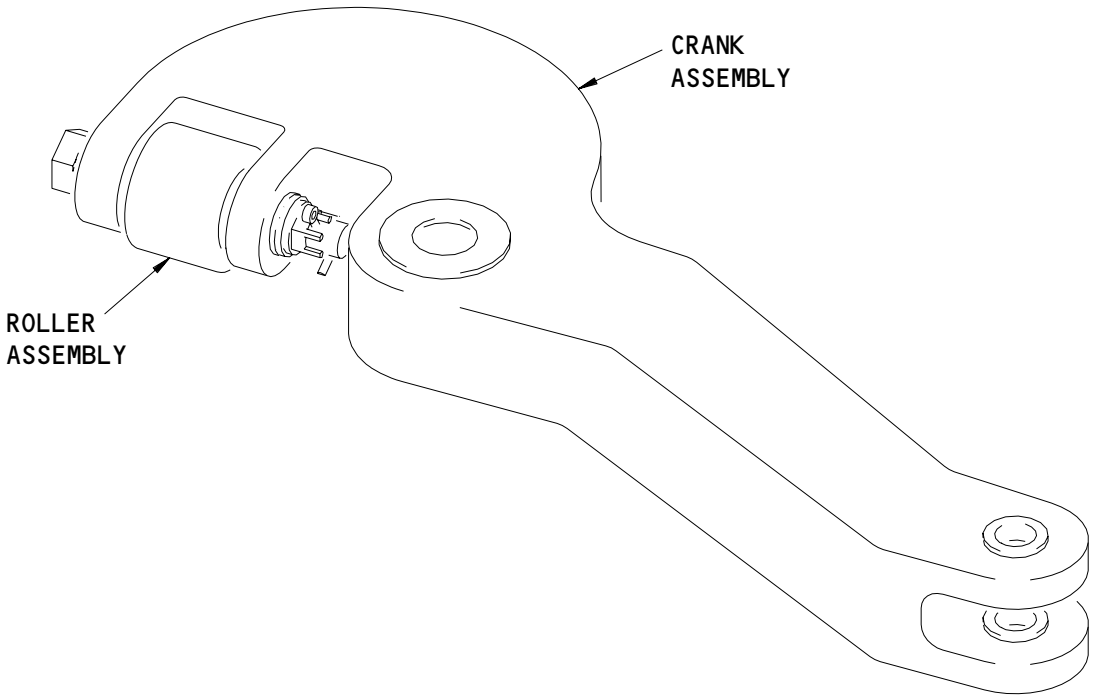
3. Leading Particulars (Approximate)

   A. Length -- 11.70 inches

   B. Width -- 4.70 inches

   C. Height -- 3.10 inches

   D. Weight -- 4 pounds



257T4350-1
Nose Landing Gear Alternate Release Actuator Crank Assembly
Figure 1

K23817

DISASSEMBLY

1. General

   A. This procedure contains the data necessary to disassemble the the crank assembly.

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

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

   D. Refer to IPL Fig. 1 for item numbers.

2. Disassembly

   A. Procedure

      (1) Remove the cotter pin (5).

      (2) Remove bolt (10), nut (25), roller assembly (30), washers (15, 20).

CHECK

1. General

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

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

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

   D. Refer to IPL Fig. 1 for item numbers.

2. Check

   A. References

      (1) SOPM 20-20-02, Penetrant Methods of Inspection

   B. Procedure

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

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

         (a) Crank (65)

         (b) Roller (30)

REPAIR - GENERAL

1. General

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

PART NUMBER	NAME	REPAIR
---	REFINISH OF OTHER PARTS	1-1
257T4351-1	CRANK ASSEMBLY	2-1, 2-2
257T4351-3	ROLLER ASSEMBLY	3-1, 3-2

2. Dimensioning Symbols

   A. Standard True Position Dimensioning Symbols used in the applicable repair procedures are shown in Fig. 601.

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

EXAMPLES

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

True Position Dimensioning Symbols
Figure 601

K24426

REFINISH OF OTHER PARTS - REPAIR 1-1

1. General

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

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

   C. Refer to IPL Fig. 1 for item numbers.

2. Refinish of Other Parts

   A. General

      (1) Instructions for the repair of the parts listed in Table 601 are for repair of the initial finish.

   B. References

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

      (2) SOPM 20-30-03, General Cleaning Procedures

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

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

      (5) SOPM 20-60-02, Finishing Materials

   C. Procedure

IPL FIG. & ITEM	MATERIAL	FINISH
IPL Fig. 1 Washers (15, 20)	A286 CRES	Cadmium plate (F-15.41)

Refinish Details
Table 601

CRANK ASSEMBY- REPAIR 2-1

257T4351-1

1. General

   A. This procedure contains the data necessary to repair and refinish the crank assembly (35).

   B. Refer to the Standard Overhaul Practices Manual (SOPM) for the standard practices shown in the repair.

   C. Refer to the REPAIR - GENERAL (32-35-85/601, REPAIR - GENERAL) for the Standard True Position Dimensioning Symbols shown in the repair.

   D. Refer to IPL Fig. 1 for item numbers.

2. Bearing Replacement

   A. Consumable Materials

      NOTE: Equivalent material can be used.

      (1) A00247 Sealant -- BMS 5-95 (SOPM 20-60-04)

   B. References

      (1) SOPM 2--41-01, Decoding Table for Boeing Finish codes

      (2) SOPM 20-50-03, Bearing Removal, Installation and Retention

   C. Procedure

      (1) Remove the bearings (50, 55) from crank (65).

      (2) Install the bearings (50, 55) by the Shrink-fit method with BMS 5-95 sealant as shown in (SOPM 20-60-03).

3. Bushing Replacement

   A. Consumable Materials

      NOTE: Equivalent material can be used.

      (1) A00247 Sealant -- BMS 5-95 (SOPM 20-60-04)

B. References

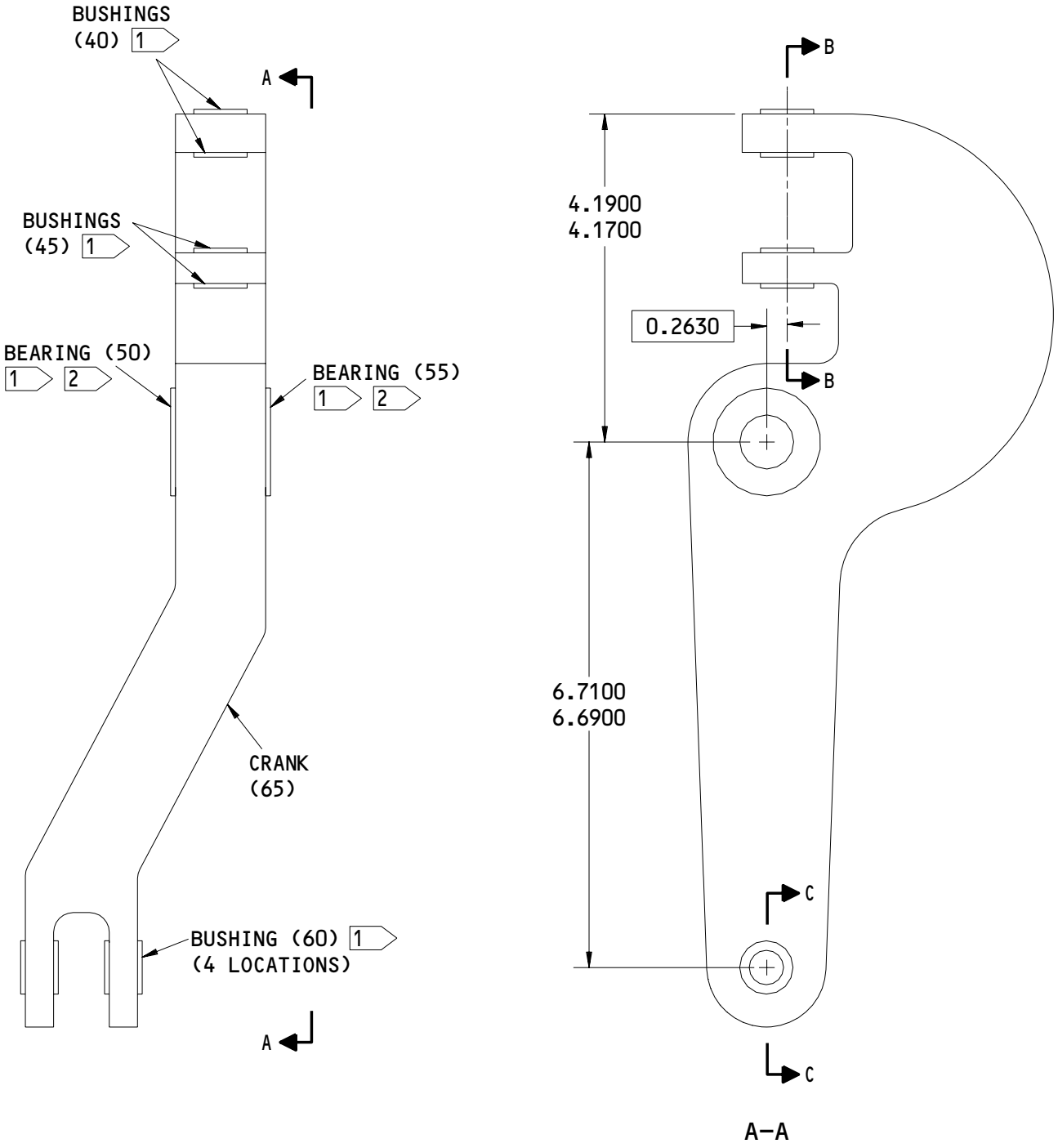
(1) SOPM 20-50-03, Bearing Removal, Installation, and Rentention

(2) SOPM 20-50-03, Lubricants

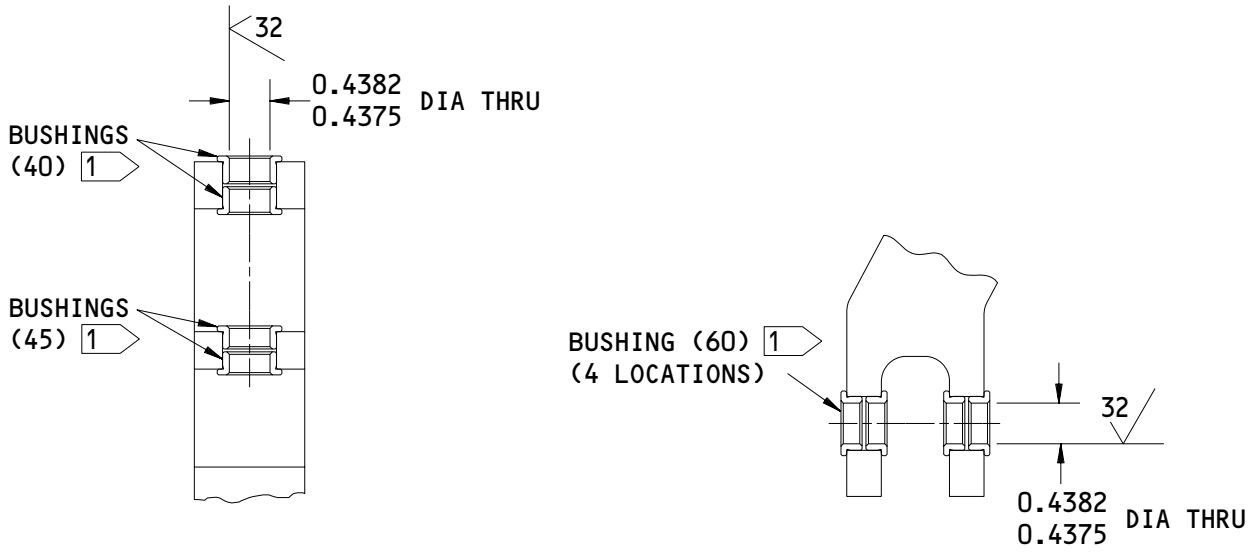
C. Procedure

(1) Remove the bushings (40, 45, 60) from the crank (65).

(2) Install bushings (40, 45, 60) by Shrink-fit method with BMS 5-95 as shown in (SOPM 20-60-03).



257T4351-1
Crank Assembly Bearing and Bushing Replacement
Figure 601 (Sheet 1)



1 APPLY BMS 5-95 SEALANT TO THE BEARINGS AND BUSHINGS (REFER TO BAC5000). THEN INSTALL THE BEARINGS AND BUSHINGS WITH THE SHRINK-FIT PROCEDURE (REFER TO BAC5435)

2 MAKES NO DIFFERENCE WHICH SIDE OF THE CRANK YOU INSTALL THE BEARINGS

ITEM NUMBERS REFER TO IPL FIG. 1

ALL DIMENSIONS ARE IN INCHES

257T4351-1
Crank Assembly Bearing and Bushing Replacement
Figure 601 (Sheet 2)

K24121

CRANK- REPAIR 2-2

257T4351-2

1. General

A. This procedure contains the data necessary to repair and refinish the crank (65).

B. Refer to the Standard Overhaul Practices Manual (SOPM) for the standard practices shown in the repair.

C. Refer to the REPAIR - GENERAL (32-35-85/601, REPAIR - GENERAL) for the Standard True Position Dimensioning Symbols shown in the repair.

D. Refer to IPL Fig. 1 for item numbers.

E. General repair details:

(1) Material: 7050-T7451 Al alloy

2. Bearing Holes Repair

A. References

(1) SOPM 20-10-02, Penetrant Methods of inspection

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

(3) SOPM 20-60-02, Finishing Materials

B. Procedure

(1) Machine the worn or damaged hole for the bearings (50, 55) to the incremental hole sizes (Crank hole diameter 'A') given in the table in Fig 603, as necessary to remove defects, cracks, and/or corrosion up to the limit shown in Fig 603.

(2) Break all sharp edges to a radius of 0.020-0.040 inch.

(3) Do a penetrant check as shown in the (SOPM 20-20-02).

(4) Select the bearing from the table in Fig 603 which corresponds to the crank hole diameter 'A'

(5) Install bearings (50, 55) as shown in REPAIR 2-1 Step 2.

3. Bushing Hole Repair

A. References

(1) SOPM 20-20-02, Penetrant Methods of Inspection

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

B. Procedure

(1) Machine the worn or damage hole for bushings (40, 45, 60), as necessary, to to remove defects, cracks and/or corrosion up to the limit shown on Fig. 601.

(2) Break all sharp edges to a radius 0.010-0.020 inch.

(3) Do a penetrant check as shown in the (SOPM 20-20-02).

(4) Machine the hole to the finish shown in Fig. 601.

(5) Oversize bushings.

(a) Make the oversize bushings (40, 45, 60) as shown in Fig 602 and in the follwing instructions.

1) Bushing Materal: Al-NI-BRONZE AMS 4640

2) Break all sharp edges.

3) Do a penetrant check as shown in (SOPM 20-20-02).

4) Prepare the surface and cadium plate (15.02) or Zink-Nickel plate (15.40) as shown in (SOPM 20-42-05).

5) Obey flag note 1 in the Fig 602.

6) Install the oversize repair bushing as shown in repair 2-1.

4. Crank Refinish

A. References

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

(2) SOPM 20-30-03, General Cleaning Procedures

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

(4) SOPM 20-43-01, Chromic Acid Anodize

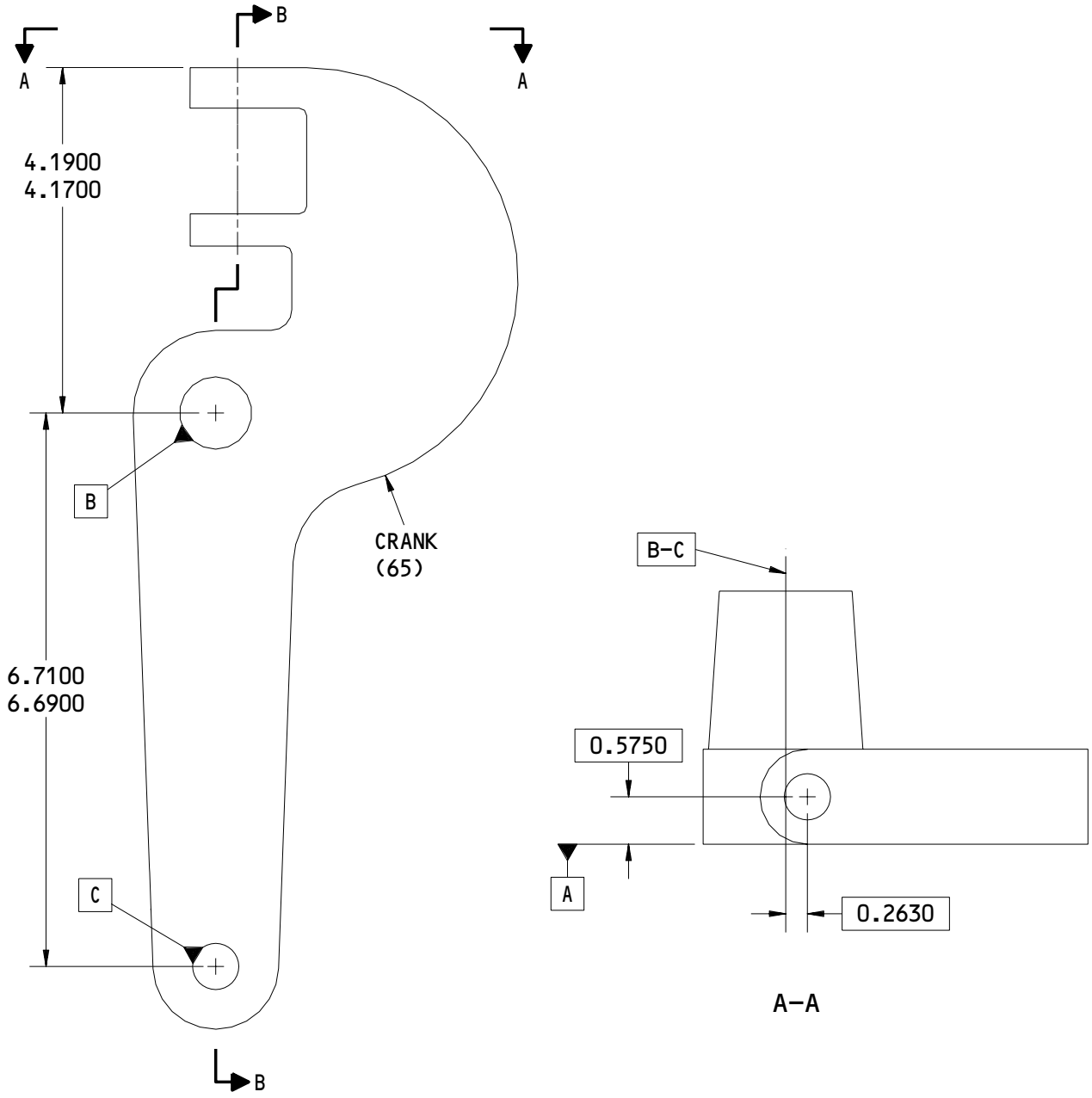
B. Procedure

(1) Put a finish on the crank (65).

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

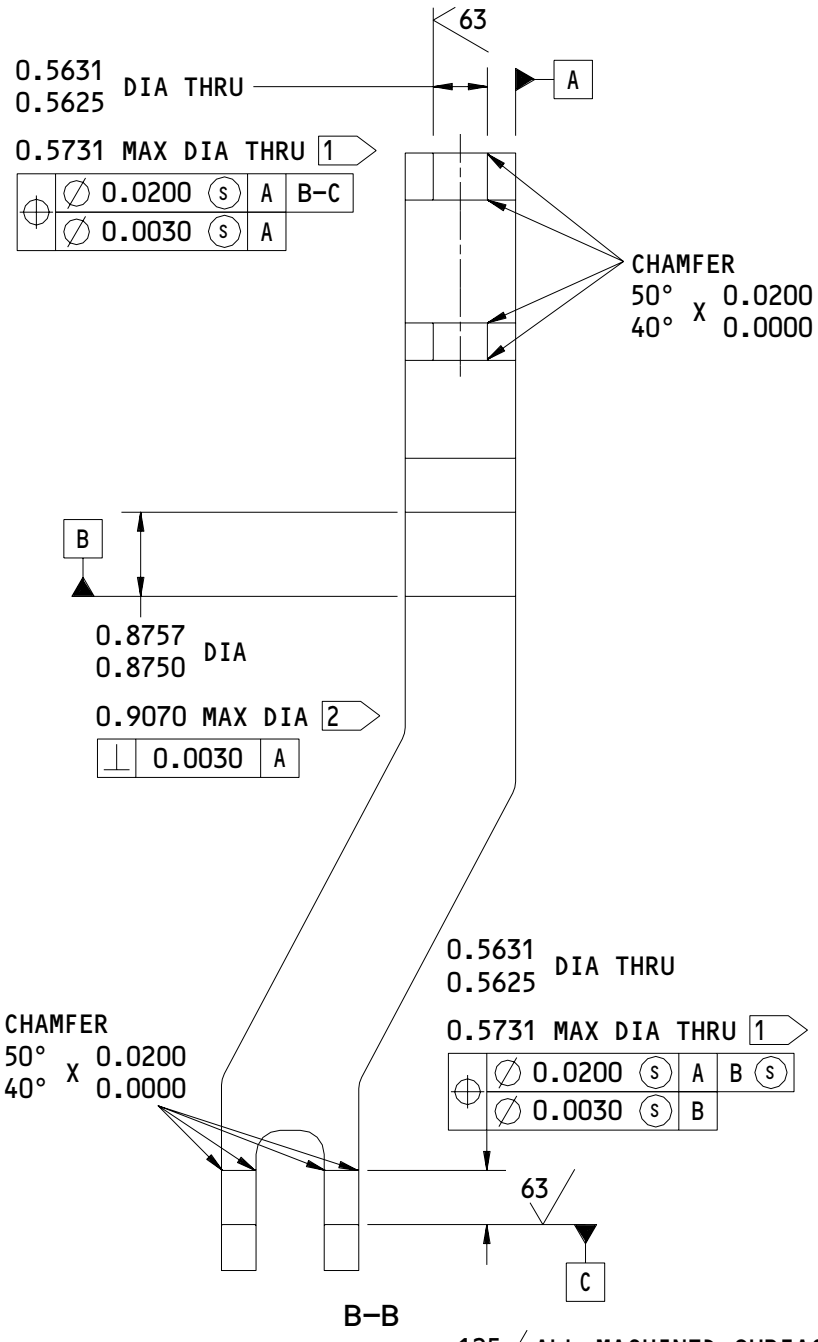
(b) Apply two coat of BMS 10-11, Type I primer (F- 20.03).

(c) Apply one coat of BMS 10-11, Type II, Gloss Enamel (F-21.17).



257T4351-2
Crank Repair
Figure 601 (Sheet 1)

K24215



125 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

BREAK ALL SHARP EDGES

ITEM NUMBERS REFER TO IPL FIG. 1

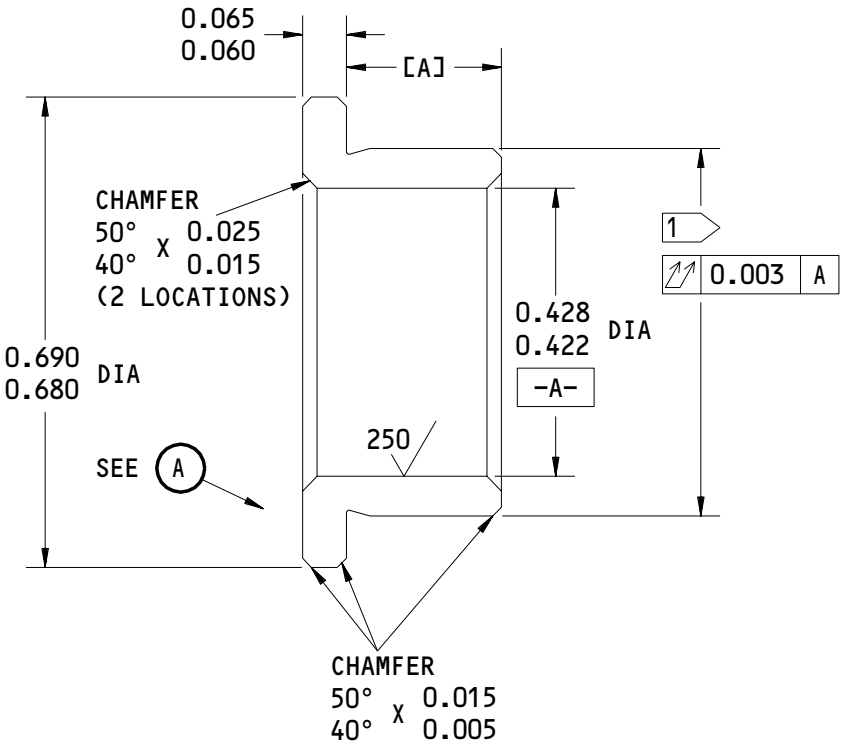
ALL DIMENSIONS ARE IN INCHES

1 REPAIR LIMIT FOR THE INSTALLATION OF OVERSIZE BUSHINGS (40,45,60)

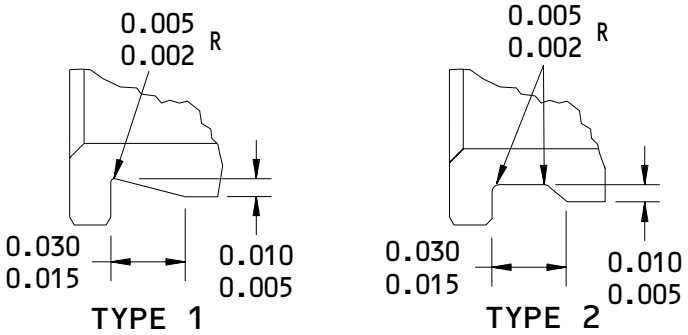
2 REPAIR LIMIT FOR THE INSTALLATION OF OVERSIZE BEARINGS (50,55)

257T4351-2
Crank Repair
Figure 601 (Sheet 2)

K24217



OVERSIZE REPLACEMENT FOR BUSHINGS (40,45,60)



BUSHING REPLACES ITEM NO.	[A]
40	0.230 0.225
45	0.180 0.175
60	0.160 0.155

1 THE OUTSIDE DIAMETER OF THE BUSHING AFTER PLATING IS EQUAL TO THE INSIDE DIAMETER OF THE LUG HOLE PLUS A -0.0005 THRU -0.0016 INTERFERENCE

63 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

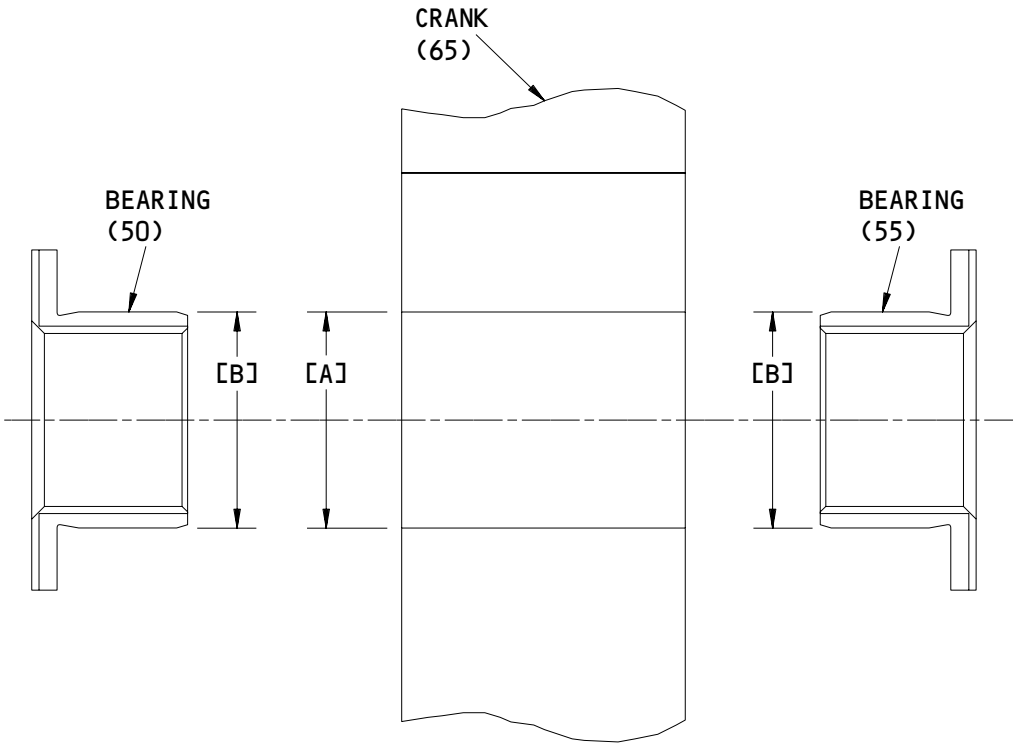
BREAK ALL SHARP EDGES

ITEM NUMBERS REFER TO IPL FIG. 1

ALL DIMENSIONS ARE IN INCHES

Oversize Bushing Details
Figure 602

K24950



BEARING TO BE REPLACED (ITEM NUMBER)	[A] CRANK HOLE DIA	REPLACEMENT BEARING PART NUMBER	[B] BEARING (50,55) OUTSIDE DIA
KRJ11-UDSBC-016 (50)	0.8757 0.8750	KRJ11-UDSBC-016	0.8767 0.8762
	0.8907 0.8900	KJB607611B-01	0.8917 0.8912
	0.9057 0.9050	KJB607611B-02	0.9067 0.9062
KRJ11-UDSBC-018 (55)	0.8757 0.8750	KRJ11-UDSBC-018	0.8767 0.8762
	0.8907 0.8900	KJB607711B-01	0.8917 0.8912
	0.9057 0.9050	KJB607711B-02	0.9067 0.9062

ITEM NUMBERS REFER TO IPL FIG. 1

ALL DIMENSIONS ARE IN INCHES

Repair Bearing Details
Figure 603

K24404

ROLLER ASSEMBLY- REPAIR 3-1

257T4351-3

1. General

   A. This procedure contains the data necessary to repair and refinish the roller assembly (31).

   B. Refer to the Standard Overhaul Practices Manual (SOPM) for the standard practices shown in the repair.

   C. Refer to the REPAIR - GENERAL (32-35-85/601, REPAIR - GENERAL) for the Standard True Position Dimensioning Symbols shown in the repair.

   D. Refer to IPL Fig. 1 for item numbers.

2. Bearing Replacement

   A. Consumable Materials

      NOTE: Equivalent material can be used.

      (1) A00359 Sealant -- BMS 5-95 (SOPM 20-60-04)

   B. References

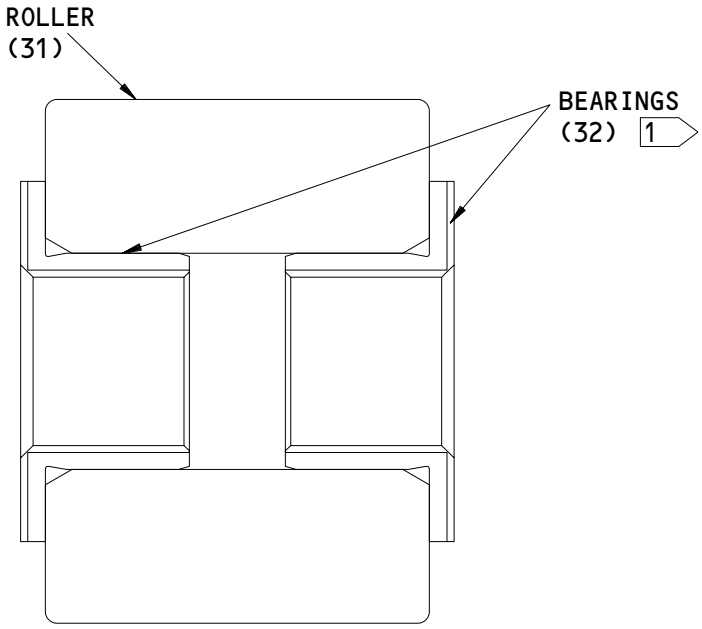
      (1) SOPM 2--41-01, Decoding Table for Boeing Finish codes

      (2) SOPM 20-50-03, Bearing Removal, Installation and Retention

   C. Procedure

      (1) Remove the bearings (32) from roller (31).

      (2) Install the bearings (32) by the Shrink-fit method with BMS 5-95 sealant as shown in (SOPM 20-60-03).



1 APPLY BMS 5-95 SEALANT TO THE BEARINGS (REFER TO BAC5000). THEN INSTALL THE BEARINGS WITH THE SHRINK-FIT PROCEDURE (REFER TO BAC5435)

ITEM NUMBERS REFER TO IPL FIG. 1

257T4351-3
Roller Assembly Bearing Replacement
Figure 601

K24378

ROLLER REPAIR 3-2

257T4351-4

1. General

A. This procedure contains the data necessary to repair and refinish the roller (30).

B. Refer to the Standard Overhaul Practices Manual (SOPM) for the standard practices shown in the repair.

C. Refer to IPL Fig. 1 for item numbers.

D. Refer to the REPAIR - GENERAL (32-35-85/601, REPAIR - GENERAL) for the Standard True Position Dimensioning Symbols shown in the repair.

E. General repair details:

(1) Material: BE-COPPER bar per AMS4533

2. Bearing Holes Repair

A. References

(1) SOPM 20-10-02, Penetrant Methods of Inspection

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

(3) SOPM 20-60-02, Finishing Materials

B. Procedure

(1) Machine the worn or damaged hole for the bearings (32) to the incremental hole sizes (roller hole diameter 'A') given in the table in Fig 602, as necessary to remove defects, cracks, and/or corrosion up to the limit shown in Fig 601.

(2) Break all sharp edges to a radius of 0.020-0.040 inch.

(3) Do a penetrant check as shown in the (SOPM 20-20-02).

(4) Select the bearing from the table in Fig 602 which corresponds to the roller hole diameter 'A'.

(5) Install bearings (32) as shown in REPAIR 3-1 Step 2.

3. Roller Refinish

A. References

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

(2) SOPM 20-30-03, General Cleaning Procedures

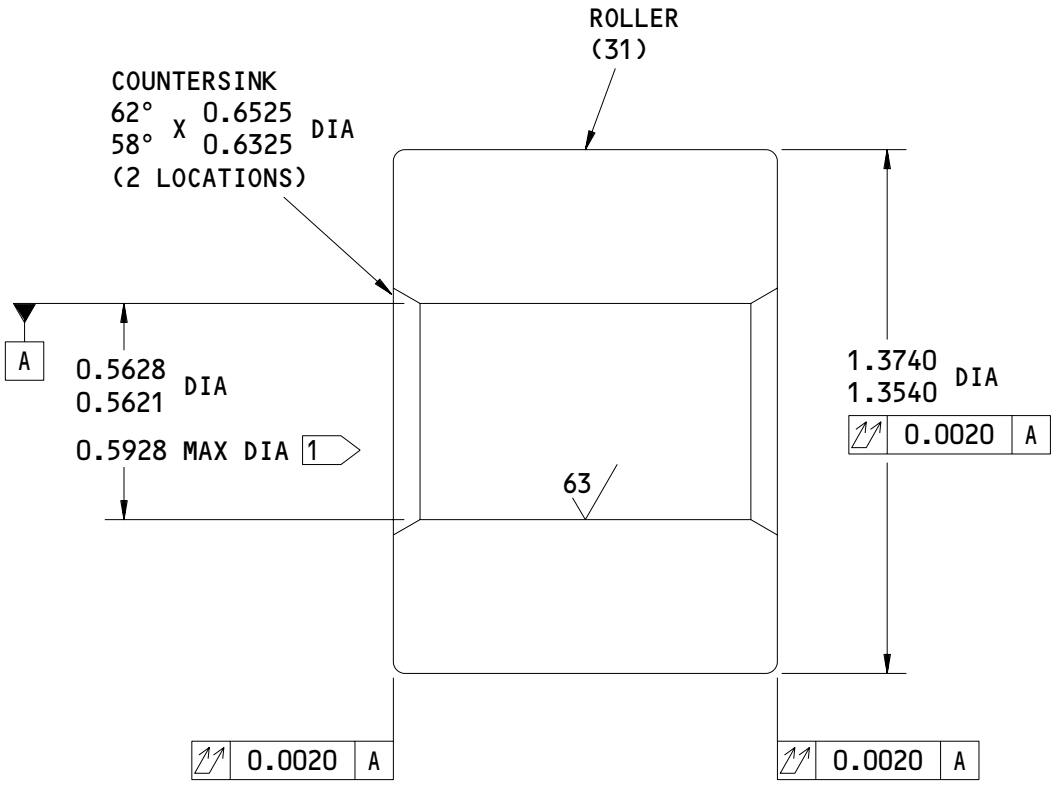
(3) SOPM 20-41-01, Decoding of Boeing Finish Codes

(4) SOPM 20-43-01, Chromic Acid Anodize.

B. Procedure

(1) Put a finish on the roller (31).

(a) Apply no finish (F-25.01).



125 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

BREAK ALL SHARP EDGES

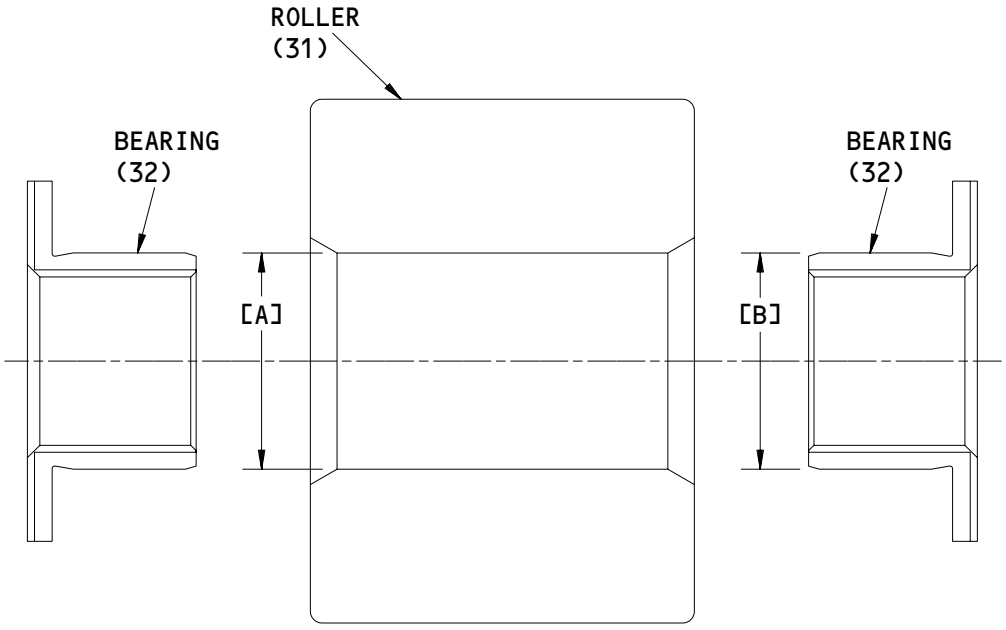
ITEM NUMBERS REFER TO IPL FIG. 1

ALL DIMENSIONS ARE IN INCHES

1 REPAIR LIMIT FOR THE INSTALLATION OF OVERSIZE BEARINGS (32)

257T4351-4
Roller Repair
Figure 601

K24422



BEARING TO BE REPLACED (ITEM NUMBER)	[A] ROLLER HOLE DIA	REPLACEMENT BEARING PART NUMBER	[B] BEARING OUTSIDE DIA
KRJ7-UDSBC-014 (32)	0.5628 0.5621	KRJ7-UDSBC-014	0.5638 0.5633
	0.5788 0.5783	KJB607507B-01	0.5778 0.5771
	0,5928 0.5921	KJB607507B-02	0.5938 0.5933

ITEM NUMBERS REFER TO IPL FIG. 1

ALL DIMENSIONS ARE IN INCHES

Repair Bearing Details
Figure 602

K24402

ASSEMBLY

1. General

   A. This procedure contains the data necessary to assemble the crank assembly.

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

   C. Refer to IPL Fig. 1 for item numbers.

2. Crank Assembly

   A. Consumable Materials

      NOTE: Equivalent material can be used.

      (1) **** A00247 Sealant -- BMS 5-95 (SOPM 20-60-04)

   B. References

      (1) SOPM 20-44-02, Temporary Protective Coating

      (2) SOPM 20-50-01, Bolt and Nut Installation

      (3) SOPM 20-60-02, Finish Material

      (4) SOPM 20-60-04, Miscellaneous Materials

   C. Procedure

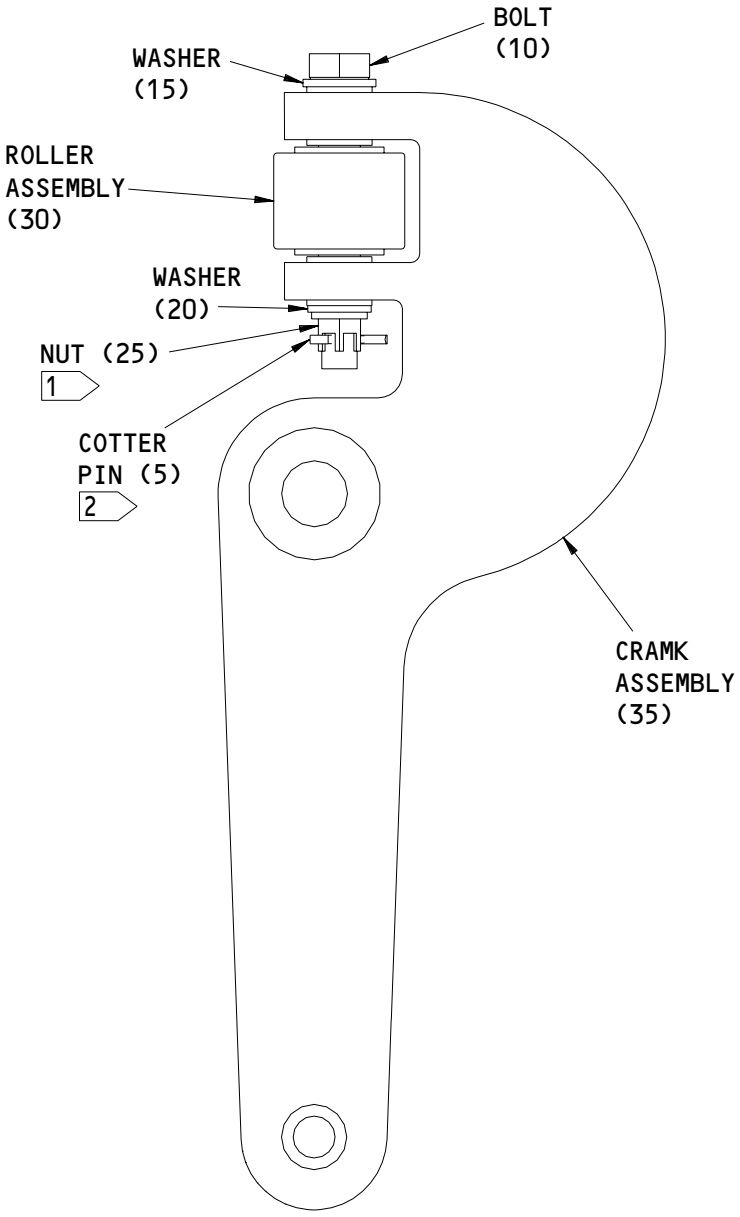
      (1) Use standard industry procedures to assemble this component.

      (2) Install roller assembly (30) in the crank assembly (35).

      (3) Install bolt (10), washer (15), washer (20) and nut (25).

      (4) Torque nut (25) to 220-230 pound-inches and back up to align nearerst costellation.

      (5) Install Cotter Pin (5).



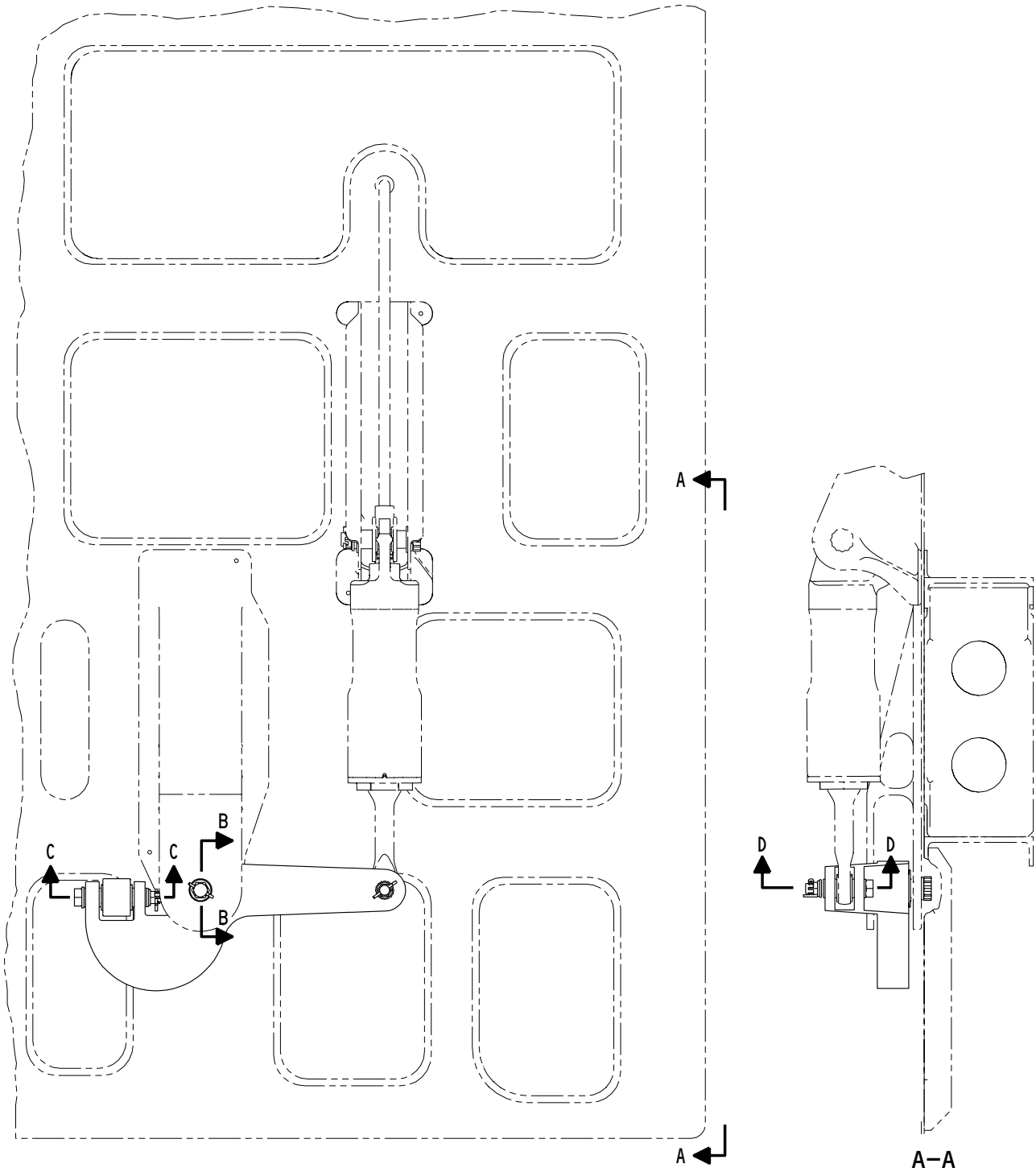
1 APPLY A TORQUE OF 220-350 POUND-INCHES TO THE NUT. THEN LOOSEN THE NUT TO THE NEAREST CASTEL-LATION

2 REFER TO BAC5018 TO INSTALL THE COTTER PIN

ITEM NUMBERS REFER TO IPL FIG. 1

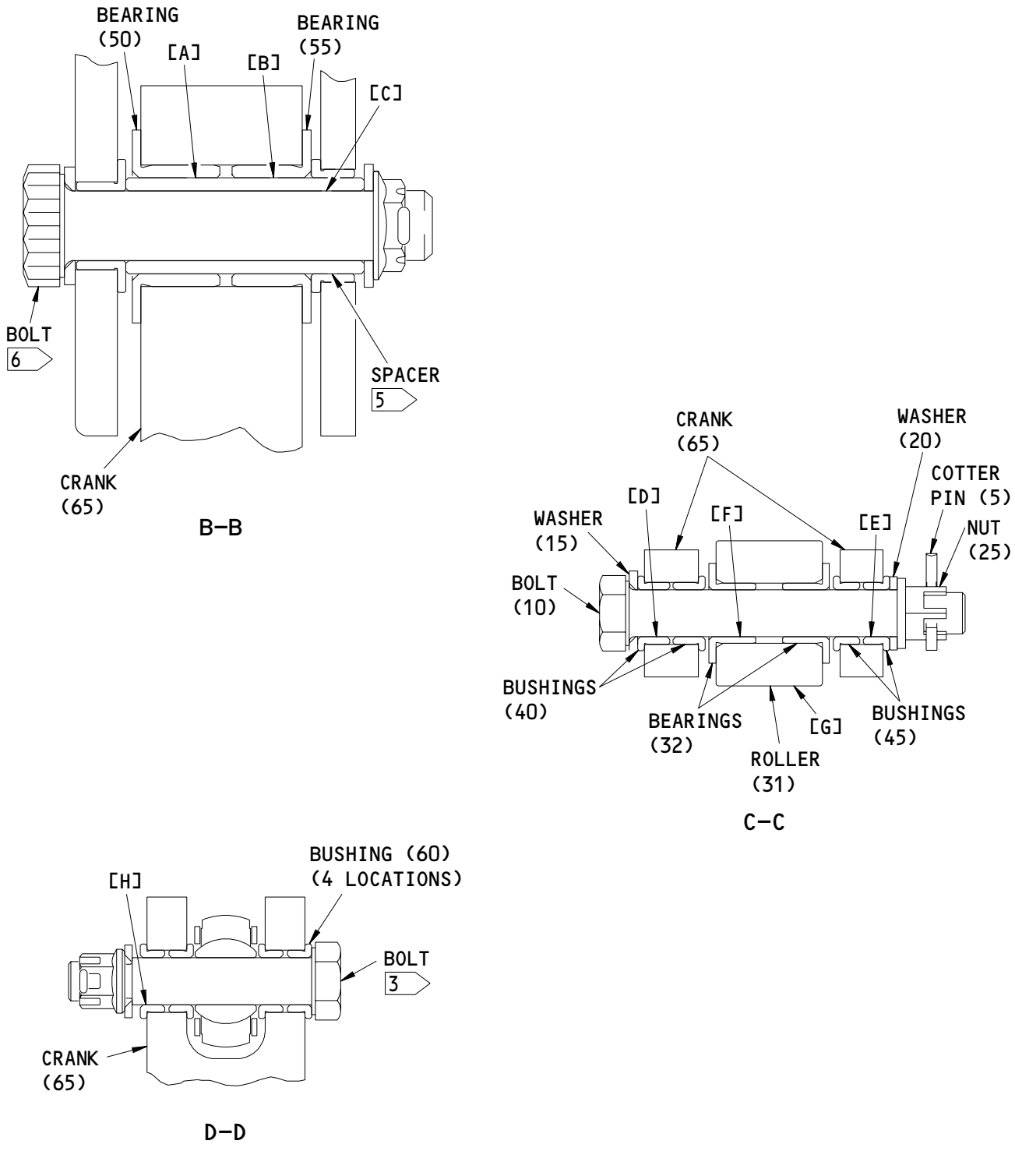
257T4350-1
Crank Assembly Details
Figure 701

K23818



Fits and Clearances
Figure 801 (Sheet 1)

K24916



Fits and Clearances
Figure 801 (Sheet 2)

K24918

REF LETTER	REF IPL FIG. 1, MATING ITEM NO.	DESIGN DIMENSION*				SERVICE WEAR LIMIT*		
		DIMENSION		ASSEMBLY CLEARANCE		DIMENSION		MAXIMUM CLEARANCE
		MIN	MAX	MIN	MAX	MIN	MAX	
[A]	ID 50 [1] OD [4]	0.6880 0.6860	0.6890 0.6865	0.0015	0.0030	0.6850	0.6910	0.0060
[B]	ID 55 [1] OD [4]	0.6880 0.6860	0.6890 0.6865	0.0015	0.0030	0.6850	0.6910	0.0060
[C]	ID [4] OD [5]	0.5000 0.4985	0.5005 0.4995	0.0005	0.0020	0.4975	0.5015	0.0040
[D]	ID 40 [1] OD 10 [3]	0.4375 0.4360	0.4382 0.4370	0.0005	0.0022	0.4350	0.4392	0.0042
[E]	ID 45 [1] OD 10 [3]	0.4375 0.4360	0.4382 0.4370	0.0005	0.0022	0.4350	0.4392	0.0042
[F]	ID 32 [1] OD 10 [3]	0.4380 0.4360	0.4390 0.4370	0.0010	0.0030	0.4350	0.4410	0.0060
[G]	OD 31 [1]	1.3540	1.3740			1.3510		
[H]	ID 60 [1] OD [2]	0.4375 0.4360	0.4382 0.4370	0.0005	0.0022	0.4350	0.4392	0.0042

* ALL DIMENSIONS ARE IN INCHES

[1] IF THE WEAR LIMIT IS MORE THAN THE APPROVED WEAR LIMIT, REPLACE THE PART

[2] INSTALLATION PART BACB30PW7CD26. IF NECESSARY, REPLACE THE PART. DO NOT REPAIR THIS PART

[3] INSTALLATION PART BACB30PW7CD39. IF NECESSARY, REPLACE THE PART. DO NOT REPAIR THIS PART

[4] INSTALLATION PART BACB28AK08-170. IF NECESSARY, REPLACE THE PART. DO NOT REPAIR THIS PART

[5] INSTALLATION PART BACB30LT8DK33. IF NECESSARY, REPLACE THE PART. DO NOT REPAIR THIS PART

Fits and Clearances
Figure 801 (Sheet 3)

K24919

REF IPL		NAME	TORQUE*	
FIG. NO.	ITEM NO.		POUND-INCHES	POUND-FEET
1	10	Bolt	220-350	

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

Torque Table
Figure 802

K25952

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.

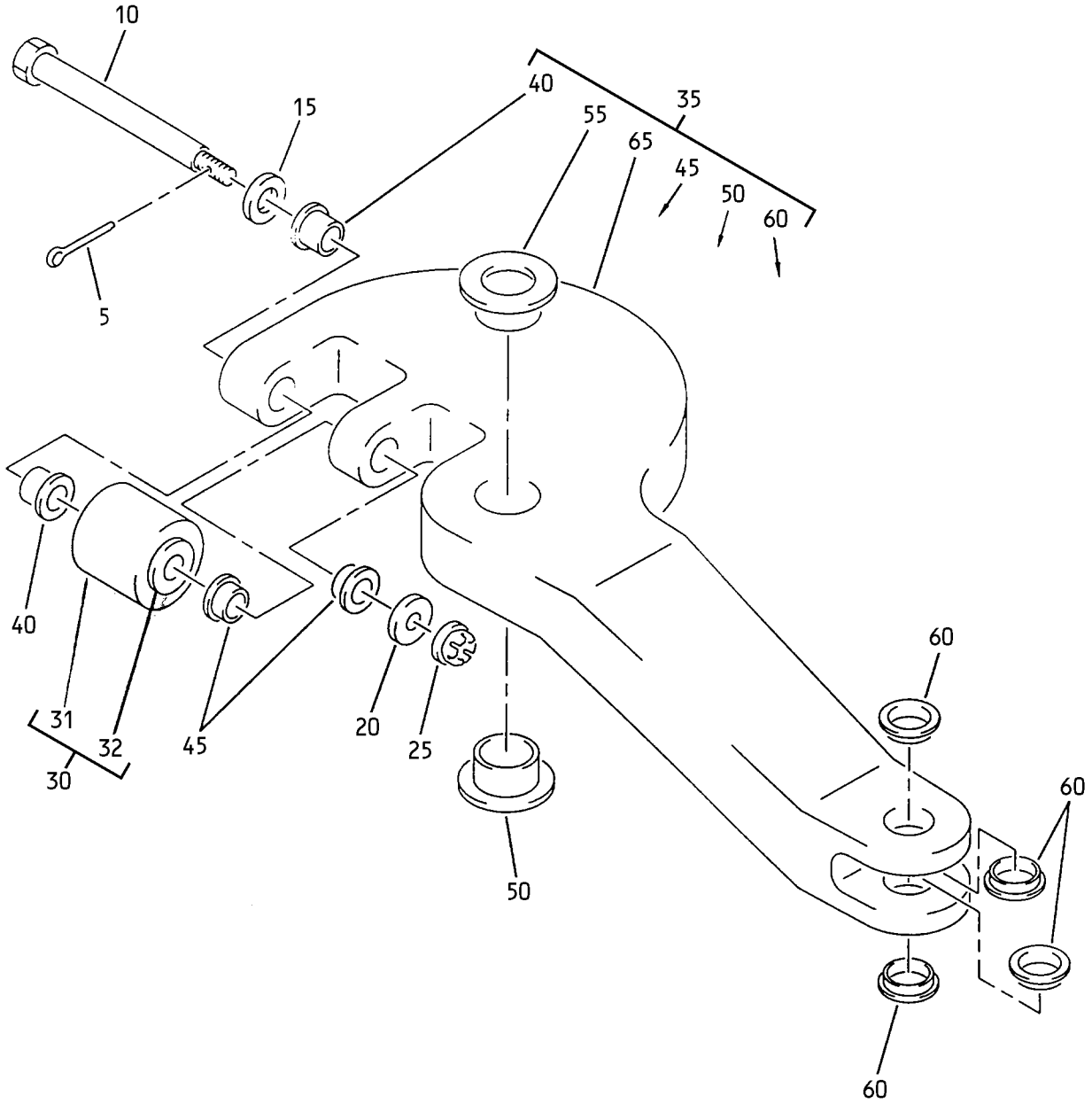
6. Parts Interchangeability

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.

VENDORS

50632 KAMATICS CORP SUB OF KAMAN CORP
1335 BLUE HILLS ROAD
BLOOMFIELD, CONNECTICUT 06002-1304

PART NUMBER	AIRLINE PART NO.	FIG.	ITEM	TTL REQ
BACB28AT07BO16C		1	60	4
BACB28AT07BO18C		1	45	2
BACB28AT07BO23C		1	40	2
BACB30PW7CD39		1	10	1
BACN11N6CD		1	25	1
BACP18BC03A10P		1	5	1
BACW10BP6DP		1	20	1
BACW10BP7CD		1	15	1
KRJ7UDSBC014		1	32	2
KRJ11UDSBC016		1	50	1
KRJ11UDSBC018		1	55	1
257T4350-1		1	1A	RF
257T4351-1		1	35	1
257T4351-2		1	65	1
257T4351-3		1	30	1
257T4351-4		1	31	1



Nose Landing Gear Alternate Release Actuator Crank Assembly
Figure 1

K25660

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01-					
-1A	257T4350-1		CRANK ASSY-ALTERNATE RELEASE ACTUATOR NLG		RF
5	BACP18BC03A10P		.PIN-COTTER		1
10	BACB30PW7CD39		.BOLT		1
15	BACW10BP7CD		.WASHER		1
20	BACW10BP6DP		.WASHER		1
25	BACN11N6CD		.NUT		1
30	257T4351-3		.ROLLER ASSY		1
31	257T4351-4		.ROLLER		1
32	KRJ7UDSBC014		.BEARING (V50632)		2
35	257T4351-1		.CRANK ASSY		1
40	BACB28AT07B023C		..BUSHING		2
45	BACB28AT07B018C		..BUSHING		2
50	KRJ11UDSBC016		..BEARING- (V50632)		1
55	KRJ11UDSBC018		..BEARING- (V50632)		1
60	BACB28AT07B016C		..BUSHING		4
65	257T4351-2		..CRANK		1

- Item Not Illustrated