TO: ALL HOLDERS OF ELEVATOR ACTUATOR LINK ASSEMBLY COMPONENT MAINTENANCE MANUAL 27-31-65

REVISION NO. 6 DATED JAN 01/91

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
REPAIR 2-1 601	Added bearing pushout lead check.
1008	Added preferred bearing P/N BACB10FH06GC.

ELEVATOR ACTUATOR LINK ASSEMBLY

PART NUMBER 252T2100-3

COMPONENT MAINTENANCE MANUAL
WITH
ILLUSTRATED PARTS LIST

13341

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

13366

TEMPORARY REVISION AND SERVICE BULLETIN RECORD

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

PAGE	DATE	CODE
27-31-65		
TITLE PAGE		
1	JUL 10/83	01
2	BLANK	
REVISION RECORD		
1	JUL 10/83	01
2	BLANK	
TR & SB RECORD		
1	JUL 10/83	01
2	BLANK	
LIST OF EFFECTIVE PAGES		
*1	JAN 01/91	01
THRU LAST PAGE		
CONTENTS		
1	JUL 10/83	01
2	BLANK	
INTRODUCTION		
1	JUL 10/83	01
2	BLANK	
DESCRIPTION & OPERATION		
1	JUL 10/83	01
2	BLANK	
DISASSEMBLY		
301	JUL 10/83	01.1
302	BLANK	
CHECK		
501	JUL 10/85	01.1
502	BLANK	
REPAIR-GENERAL		
601	JUL 10/85	01.1
602	JUL 10/83	01
REPAIR 1-1		
601	JUL 10/85	01.1
602	JUL 10/85	01.1
603	JUL 10/85	01.1
604	BLANK	
REPAIR 2-1		
*601	JAN 01/91	01.1
602	JUL 10/83	01
REPAIR 3-1		
601	JUL 10/85	01.1
602	JUL 10/85	01.1
603	JUL 10/85	01.1
604	JUL 10/85	01.1
605	JUL 10/85	01.1
606	JUL 10/85	01.1
REPAIR 4-1		
601	JUL 10/83	01
602	BLANK	
ASSEMBLY		
701	JUL 10/83	01
702	BLANK	
FITS AND CLEARANCES		
801	JUL 10/83	01
802	JUL 10/85	01.1
803	JUL 10/83	01
804	BLANK	
ILLUSTRATED PARTS LIST		
1001	JUL 10/83	01
1002	JUL 10/83	01.1
1003	JUL 10/83	01.1
1004	JUL 10/83	01.1
1005	BLANK	
1006	JUL 10/83	01.1
1007	JUL 10/83	01.1
*1008	JAN 01/91	01.1
1009	JUL 10/83	01.1
1010	JUL 10/83	01.1

* = REVISED, ADDED OR DELETED

TABLE OF CONTENTS

*[1] Special instructions not required. Use standard industry practices.

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. An asterisked flagnote *[ ] in place of the page number indicates that no special instructions are provided since the function can be performed using standard industry practices.

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:

Disassembly	JUL 21/82
Assembly	JUL 21/82

ELEVATOR ACTUATOR LINK ASSEMBLY

DESCRIPTION AND OPERATION

1. The elevator actuator link assembly consists of a steel trunnion attached to a reaction link assembly and a hanger link assembly. The reaction link assembly is attached to the elevator while the hanger link assembly carries actuator loads to stabilizer structure.

2. Leading Particulars (approximate)

   Length -- 18 inches
   Width -- 6 inches
   Height -- 6 inches
   Weight -- 6 pounds

DISASSEMBLY

NOTE: 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.

1. Remove bolt (5), washers (10, 15), nut (20) and bushing (25). Separate hanger link assembly (65) from trunnion assembly (30).

CAUTION: END CAP ASSEMBLY (120) AND LINK ASSEMBLY (145) MAKE UP A MATCHED SET AND MUST BE KEPT TOGETHER TO ENSURE PROPER OPERATION AFTER ASSEMBLY.

2. Remove bolts (160) and washers (165) from end cap assembly (120) and separate trunnion assembly (30) from link assembly (145). Remove end cap assembly (120).

NOTE: Do not remove bearing (35), fittings (40, 45) or inserts (50, 55) from trunnion (60) unless necessary for repair or replacement.

3. Remove screw (75) from link assembly (65).

NOTE: Do not remove bearing (70), inserts (80), fittings (85), or bushings (90, 95, 96) from link (97) unless necessary for repair or replacement.

4. Remove nut (100), washer (105) and bearing (110) from link assembly (145).

NOTE: Do not remove bushing (150) from link (155) or bushing (135) from cap (140) unless necessary for repair or replacement.

CHECK

1. Check all parts for obvious defects in accordance with standard industry practices.

2. Refer to FITS AND CLEARANCES for design dimensions and wear limits.

3. Magnetic particle check per 20-20-01 -- Trunnion (60), bushing (96).

4. Penetrant check per 20-20-02 -- Links (97, 155) and cap (140).

REPAIR - GENERAL

1. Content

   A. Repair, refinish and replacement procedures are included in separate repair sections as follows:

P/N	NAME	REPAIR
251T2111	LINK, REACTION	1-1
252T2171	TRUNNION	2-1
252T2172	LINK, HANGER	3-1
--	MISC PARTS REFINISH	4-1

2. Standard Practices

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

   20-10-04 Grinding of Chrome Plated Parts
   20-30-02 Stripping of Protective Finishes
   20-30-03 General Cleaning Procedures
   20-41-01 Decoding Table for Boeing Finish Codes
   20-52-03 Hard Chrome Plating
   20-42-05 Bright Cadmium Plating
   20-53-01 Chromic Acid Anodizing
   20-50-03 Bearing Installation and Retention

3. Materials

   NOTE: Equivalent substitutes may be used.

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

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

   C. Grease -- MIL-G-23827 (Ref 20-60-03)

4. Dimensioning Symbols

A. Standard True Position Dimensioning Symbols used in 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
⌖	THEORETICAL EXACT POSITION OF A FEATURE (TRUE POSITION)
∅	DIAMETER
BASIC (BSC) OR [DIM]	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.
[-A-]	DATUM
Ⓜ	MAXIMUM MATERIAL CONDITION (MMC)
Ⓢ	REGARDLESS OF FEATURE SIZE (RFS)
Ⓟ	PROJECTED TOLERANCE ZONE

EXAMPLES

— 0.002	STRAIGHT WITHIN 0.002
⊥ B 0.002	PERPENDICULAR TO B WITHIN 0.002
// A 0.002	PARALLEL TO 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
⌒ A 0.006	EACH LINE ELEMENT OF THE SURFACE AT ANY CROSS SECTION MUST LIE BETWEEN TWO PROFILE BOUNDARIES 0.006 INCH APART IN RELATION TO DATUM PLANE A
⌓ A 0.020	SURFACES MUST LIE WITHIN PARALLEL BOUNDARIES 0.02 INCH APART AND EQUALLY DISPOSED ABOUT TRUE PROFILE
◎ C ∅ 0.0005	CONCENTRIC TO C WITHIN 0.0005 DIAMETER (FULL INDICATOR MOVEMENT)
⌯ A 0.010	SYMMETRICAL WITH A WITHIN 0.010
∠ A 0.005	ANGULAR TOLERANCE 0.005 WITH A
⌖ B ∅ 0.002 Ⓢ	LOCATED AT TRUE POSITION WITHIN 0.002 DIA IN RELATION TO DATUM B, REGARDLESS OF FEATURE SIZE
⊥ A ∅ 0.010 Ⓜ 0.510 Ⓟ	AXIS IS TOTALLY WITHIN A CYLINDER OF 0.010-INCH DIAMETER, PERPENDICULAR TO, AND EXTENDING 0.510-INCH ABOVE, DATUM A, MAXIMUM MATERIAL CONDITION
[2.000] OR 2.000 BSC	EXACT DIMENSION IS 2.000

True Position Dimensioning Symbols
Figure 601

13367

REACTION LINK ASSEMBLY - REPAIR 1-1

252T2111-1

NOTE: Refer to REPAIR-GEN for list of applicable standard practices. For repair of link (155, IPL Fig. 1) and cap (140) surfaces which may only require restoration of original finish, refer to Refinish instructions, Fig. 601.

1. Bushing Replacement (Fig. 601)

   A. Remove bushing (135, IPL Fig. 1) from cap assembly (120) and bushing (150) from link assembly (145).

   B. Install new bushing (135) in cap (140) and bushing (150) in link (155) per 20-50-03 except use BMS 5-95 sealant instead of wet primer.

   C. Assemble link assembly and cap assembly using bolts (160) and washers (165), or equivalent. Tighten bolts to 225-275 lb-in. Machine bushing bores to dimensions shown.

   D. Fillet seal bushing flanges with BMS 5-95 sealant.

2. Bushing Hole Repair (IPL Fig. 1)

   A. Remove bushing.

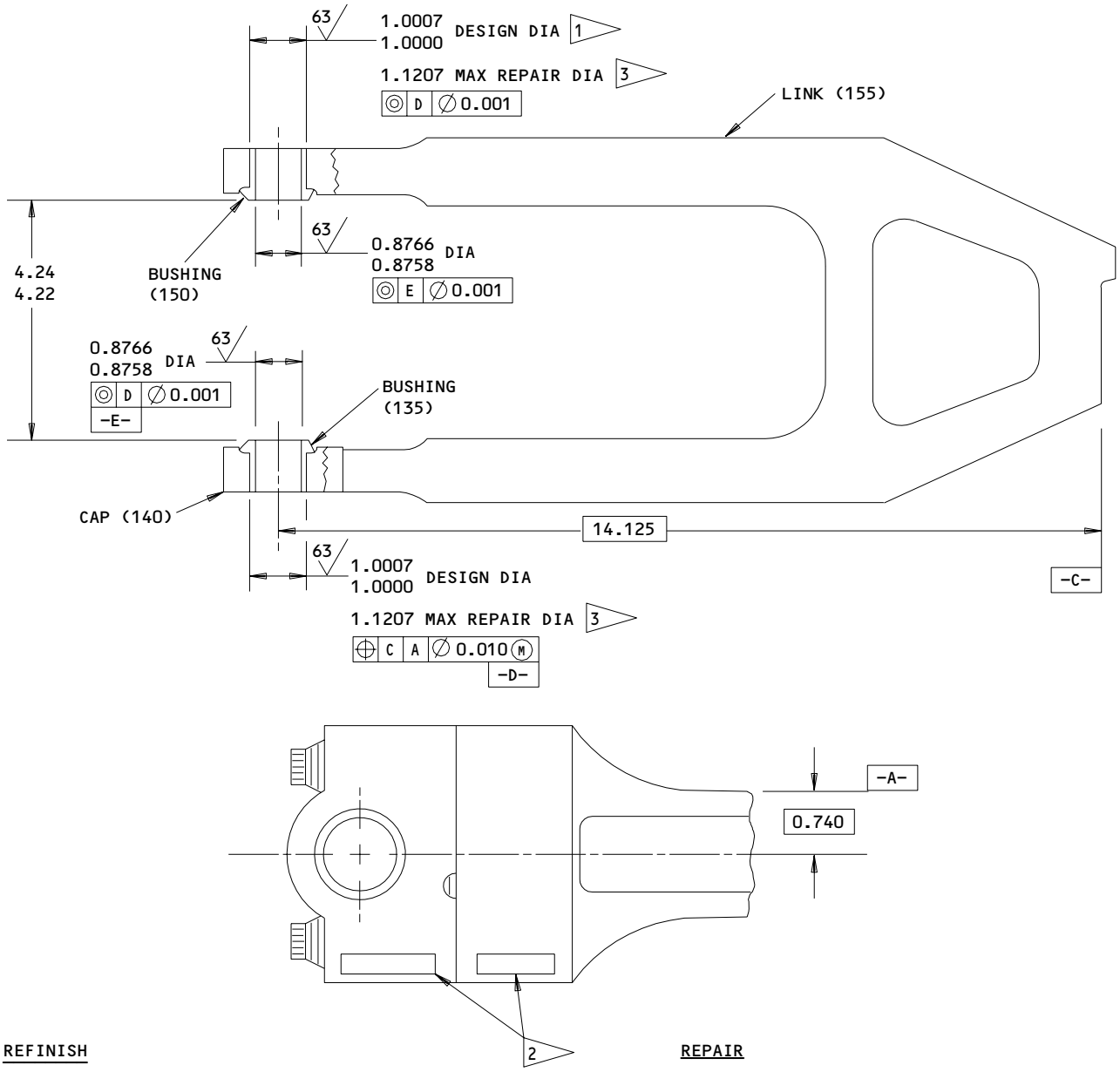
   B. Machine bushing hole in cap assembly (120) and/or link assembly (145) as required to remove defects within repair limits shown in Fig. 601.

   C. Manufacture oversize bushing per Fig. 602.

   D. Install bushing per 20-50-03 except use BMS 5-95 wet sealant instead of primer.

   E. Machine bushing ID per Fig. 601.

   F. Fillet seal gap between bushing flange and mating surface with BMS 5-95 sealant.



REFINISH

LINK (155), CAP (140) -- CHROMIC ACID ANODIZE AND APPLY ONE COAT PRIMER, BMS 10-11, TYPE 1 (F-18.13), EXCEPT AS NOTED IN 1

1 MANUALLY APPLY COLORED CHEMICAL COATING (F-17.10) THIS SURFACE

2 LOCATION OF MATCHING RUBBER STAMPED SERIAL NUMBERS

3 REPAIR LIMIT FOR INSTALLATION OF OVERSIZE BUSHING

REPAIR

REF 3

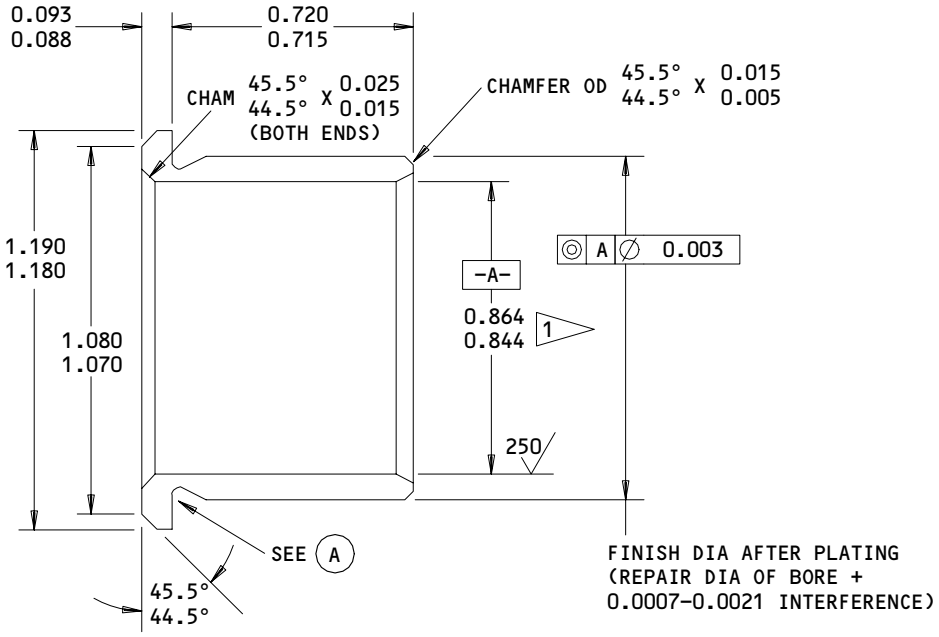
BREAK SHARP EDGES 0.008 R

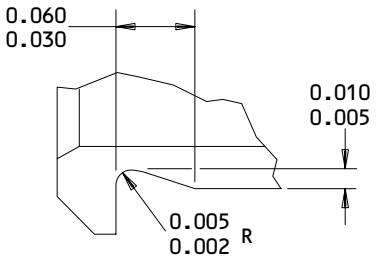
MATERIAL: AL ALLOY

ALL DIMENSIONS ARE IN INCHES

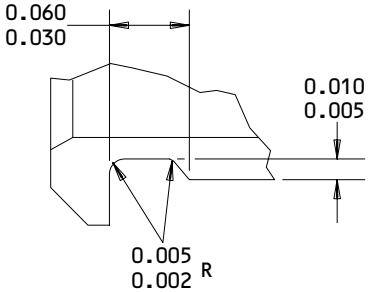
252T2111-1
Link Assembly Repair
Figure 601

13371





TYPE I



TYPE II

UNDERCUT TYPE I OR TYPE II OPTIONAL

A

63 ALL MACHINED SURFACES EXCEPT AS NOTED

MATERIAL: AL-NI-BRONZE

FINISH: CAD PLATE (F-15.06). PLATING IN BORE OPTIONAL

ALL DIMENSIONS ARE IN INCHES

1 INITIAL BORE DIA. BUSHING ID TO BE MACHINED TO DESIGN DIA AND FINISH AFTER INSTALLATION

252T2111-1
Link Assembly - Oversize Bushing Details
Figure 602

181623

TRUNNION ASSEMBLY - REPAIR 2-1

252T2171-1

NOTE: Refer to REPAIR-GEN for list of applicable standard practices. For repair of trunnion (60, IPL Fig. 1) surfaces which may only require restoration of original finish, refer to Refinish instructions, Fig. 601.

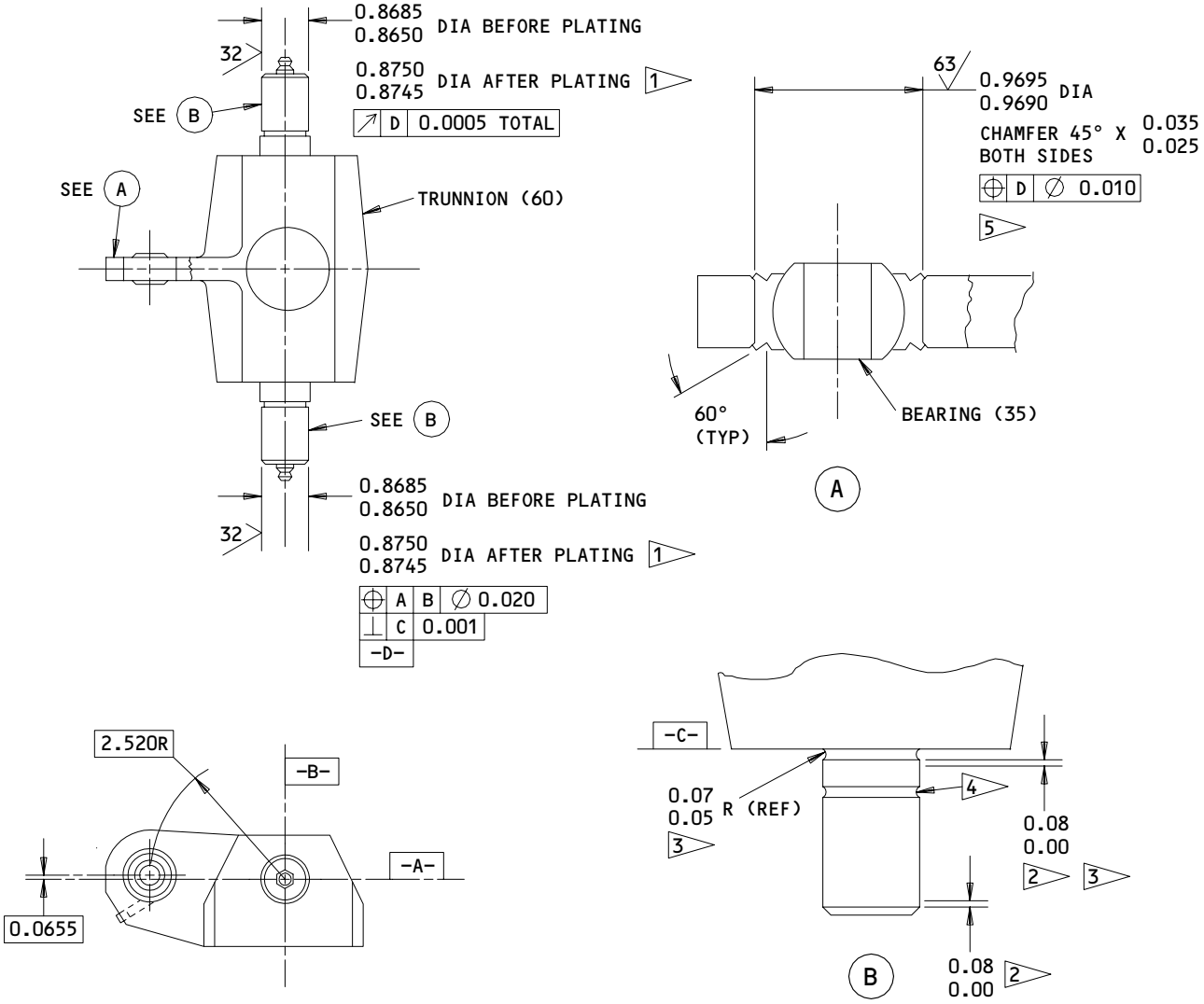
1. Bearing Replacement (Fig. 601)

   A. Remove bearing (35, IPL Fig. 1) from trunnion assembly (30).

   B. Install new bearing per 20-50-03.

   C. Roller swage bearing on both sides per 20-50-03. Optional: Anvil swage bearing.

   D. Do a check of bearing pushout load. Make sure that bearing will hold a 1288 lbs pushout load.



REFINISH

TRUNNION (60) -- CADMIUM PLATE (F-15.03) SURFACES AS NOTED. CADMIUM PLATE (F-15.02) AND APPLY ONE COAT PRIMER, BMS 10-11, TYPE 1 (F-20.02) TO REMAINING AREAS, EXCEPT OMIT PRIMER ON THREADED HOLES AND BEARING BORE.

MATERIAL: TRUNNION (60) -- 4330M STEEL 180-200 KSI

ALL DIMENSIONS ARE IN INCHES

1 CHROMIUM PLATE (F-15.03) THIS SURFACE. SINGLE PLATE THICKNESS 0.003 MIN AFTER GRINDING

2 CHROMIUM PLATE RUNOUT AREA

3 END RUNOUT AT EDGE OF RADIUS. PLATING MUST NOT EXTEND INTO RADIUS AREA

4 PLATING RUNOUT IN GROOVE PERMITTED

5 OMIT PRIMER THIS SURFACE

Trunnion Assembly - Bearing Replacement and Refinish
Figure 601

HANGER LINK ASSEMBLY - REPAIR 3-1

252T2172-1

NOTE: Refer to REPAIR-GEN for list of applicable standard practices. For repair of link (97, IPL Fig. 1) surfaces which may only require restoration of original finish, refer to Refinish instructions, Fig. 601.

1. Bearing Replacement (Fig. 601)

   A. Remove bearing (70, IPL Fig. 1) from link assembly (65).

   B. Install new bearing per 20-50-03 and roller swage bearing on both sides to secure. Optional: Anvil swage bearing.

2. Bushing Replacement (Fig. 601)

   A. Remove bushings (90, 95, 96) from link assembly (65).

   B. Install new bushings per 20-50-03, except use BMS 5-95 sealant instead of wet primer when installing bushings (90, 95).

   C. Machine bushing bores to dimensions shown.

   D. Fillet seal bushing (90, 95) flanges with BMS 5-95.

3. Bushing Hole Repair (IPL Fig. 1)

   A. Remove bushing.

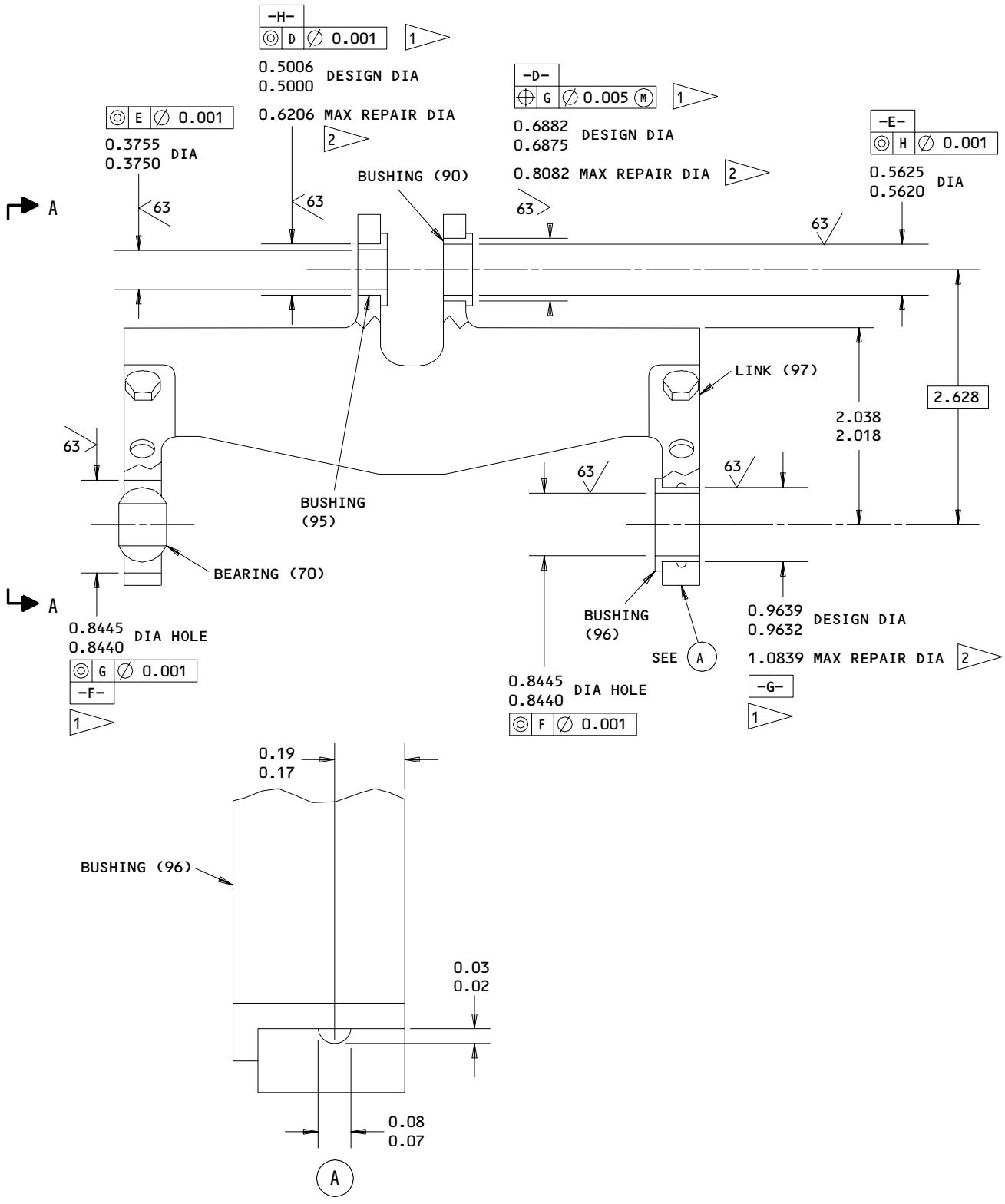
   B. Machine bushing hole in carriage as required to remove defects, within repair limits shown in Fig. 601.

   C. Manufacture oversize bushing per Fig. 602.

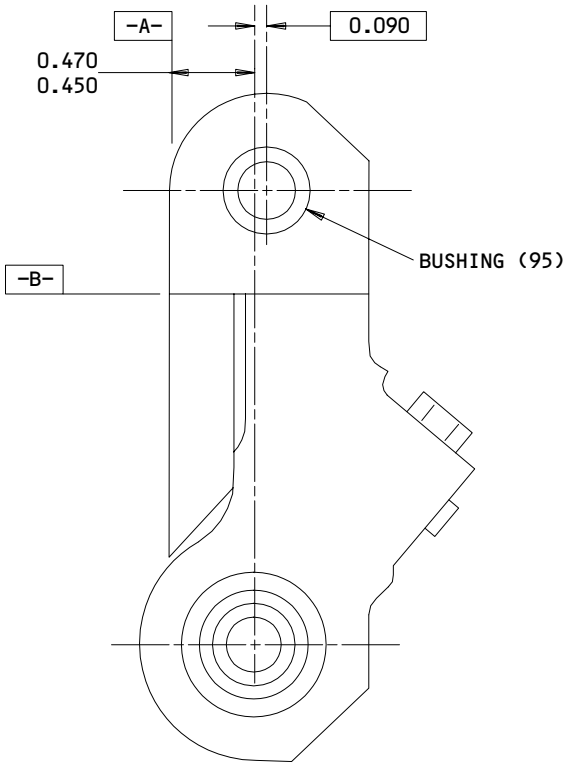
   D. Install bushing per 20-50-03 except use BMS 5-95 wet sealant instead of primer for bushing (90, 95).

   E. Machine bushing ID per Fig. 601.

   F. Fillet seal gap between bushing flange and mating surface with BMS 5-95 sealant.



252T2172-1
Link Assembly Repair
Figure 601 (Sheet 1)



A-A

REFINISH

LINK (97) -- CHROMIC ACID ANODIZE AND APPLY ONE COAT OF BMS 10-11, TYPE 1 PRIMER (F-18.13), EXCEPT AS NOTED IN 1

1 OMIT PRIMER ON THIS SURFACE

2 REPAIR LIMIT FOR INSTALLATION OF OVER-SIZE BUSHING

REPAIR

REF 2

BREAK SHARP EDGES 0.008

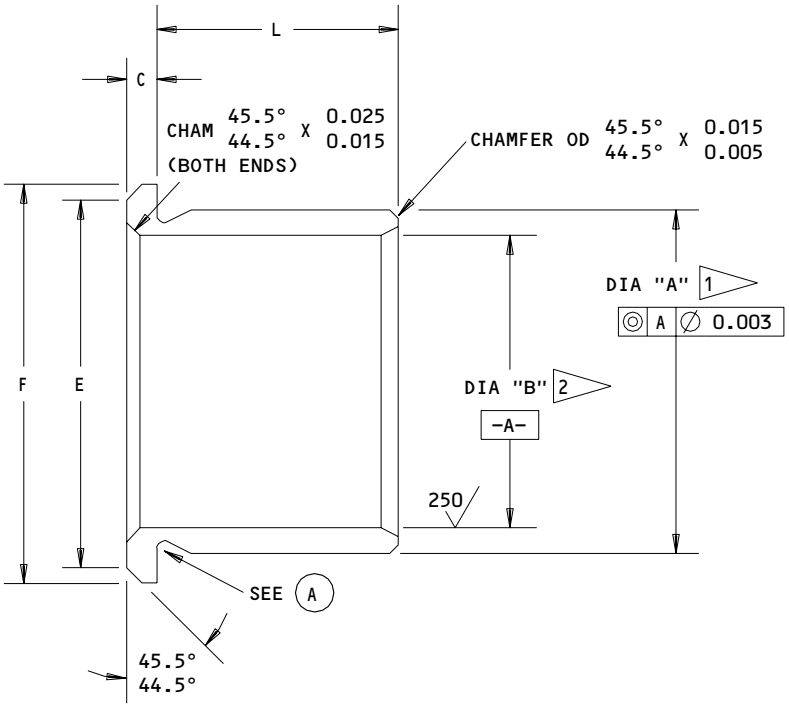
SHOT PEEN: SHOT SIZE 230-550
INTENSITY 0.014A
COVERAGE 2.0

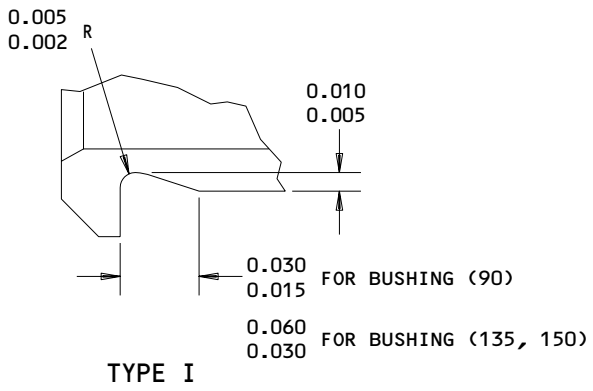
MATERIAL: AL ALLOY

ALL DIMENSIONS ARE IN INCHES

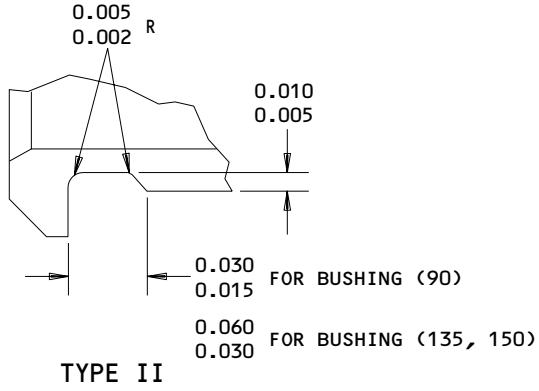
252T2172-1
Link Assembly Repair
Figure 601 (Sheet 2)

181625





TYPE I



TYPE II

UNDERCUT TYPE I OR TYPE II OPTIONAL

A

MATERIAL: AL-NI-BRONZE PER AMS 4640

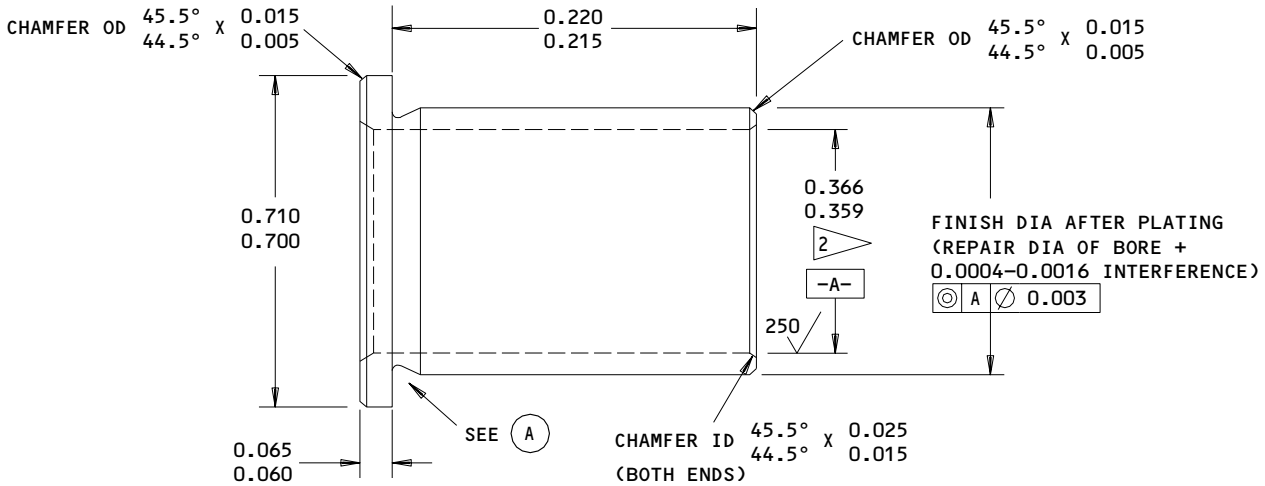
ALL DIMENSIONS ARE IN INCHES

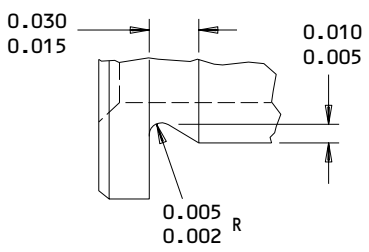
BUSHING (90, 135, 150)

252T2172-1
Link Assembly - Oversize Bushing Details
Figure 602 (Sheet 1)

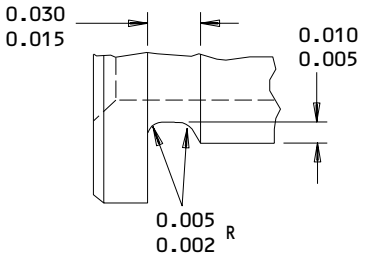
BUSHING TO BE REPLACED ITEM NO.	L	B ▷2	F	C	E	INTERFERENCE ▷1
90	0.220 0.215	0.553 0.547	0.810 0.800	0.065 0.060	0.710 0.700	0.0018 0.0005
135,150	0.720 0.715	0.864 0.844	1.190 1.180	0.093 0.088	1.080 1.070	0.0021 0.0007

BUSHING (90,135,150)





TYPE I



TYPE II

BUSHING (95)
UNDERCUT TYPE I OR TYPE II OPTIONAL

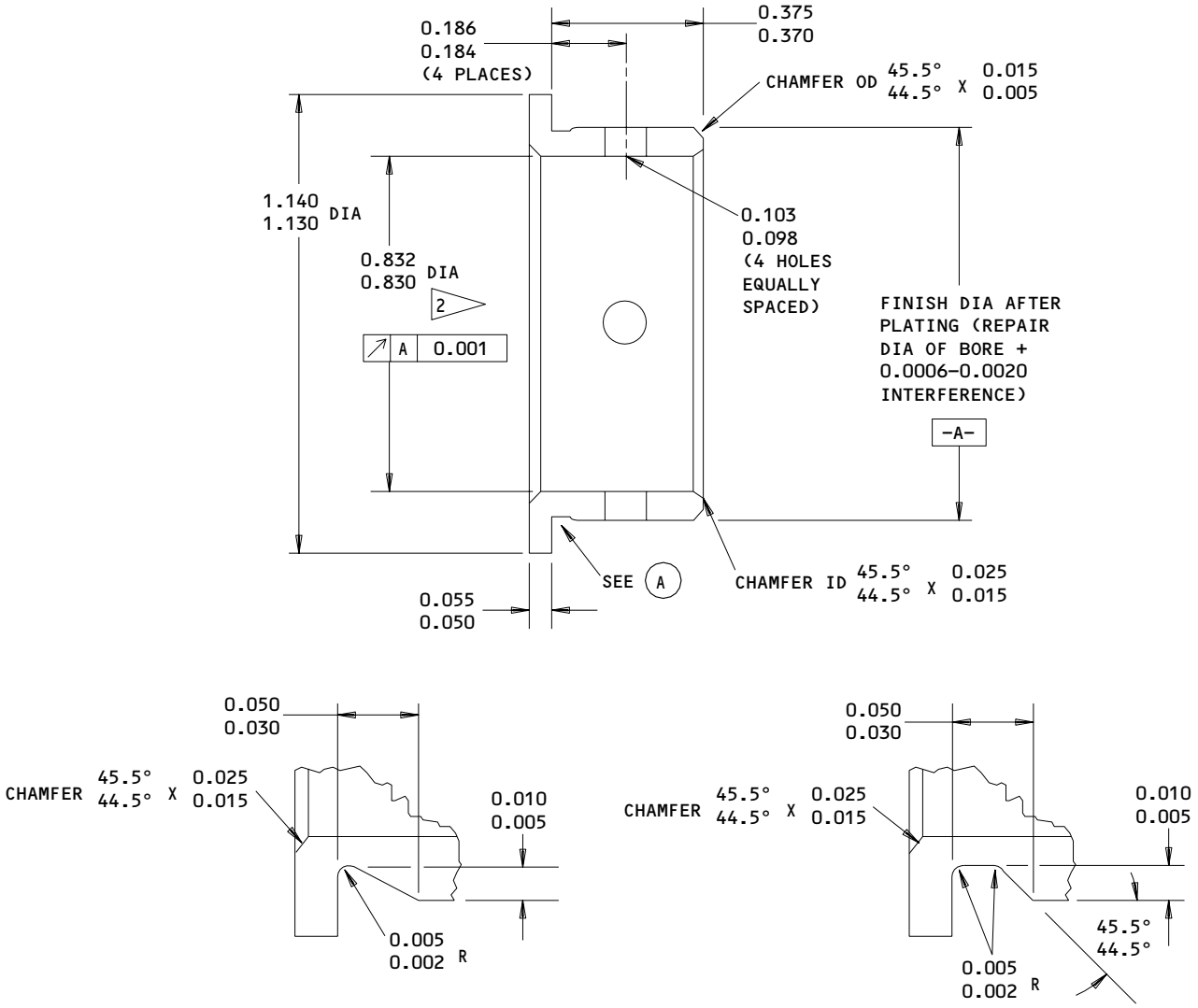
A

ALL DIMENSIONS ARE IN INCHES

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

252T2172-1
Link Assembly - Oversize Bushing Details
Figure 602 (Sheet 2)

181627



UNDERCUT TYPE I OR TYPE II OPTIONAL

A

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

BUSHING (96)

1 MACHINE DIA "A" TO PROVIDE INDICATED INTERFERENCE FIT WITH REPAIR DIA OF HOLE IN LINK (REF FIG. 601)

2 INITIAL BORE DIA. BUSHING TO BE MACHINED TO DESIGN DIA AND FINISH AFTER INSTALLATION

63 ALL MACHINED SURFACES EXCEPT AS INDICATED

DIMENSIONS APPLY BEFORE PLATING EXCEPT AS NOTED BY 1

FINISH: CADMIUM PLATE PER F-15.06. PLATING OPTIONAL IN BORE

ALL DIMENSIONS ARE IN INCHES

252T2172-1
Link Assembly - Oversize Bushing Details
Figure 602 (Sheet 3)

MISCELLANEOUS PARTS REFINISH - REPAIR 4-1

1. Repair of parts listed in Fig. 601 consists of restoration of the original finish.

IPL FIG. & ITEM	MATERIAL	FINISH
Fig. 1 Bushing (96)	15-5PH CRES 180-200 ksi	Passivate (F-17.09) ID. Cadmium plate (F-15.06) remainder. Plating optional on ID.

Refinish Details
Figure 601

ASSEMBLY

1. Materials

NOTE: Equivalent substitutes may be used.

A. Grease -- BMS 3-24 (Ref 20-60-03)

B. Grease -- MIL-G-23827 (Ref 20-60-03)

2. Assembly (IPL Fig. 1)

A. Install bearing (110), washer (105) and nut (100) on link assembly (145). Tighten nut to 950-1100 lb-in.

CAUTION: REACTION LINK ASSEMBLY (115) IS A MATCHED SET COMPRISING LINK ASSEMBLY (145) AND END CAP ASSEMBLY (120). CHECK THAT STAMPED SERIAL NUMBERS ON PARTS MATCH.

B. Apply a light coat of BMS 3-24 grease to shafts of trunnion assembly (30). Position trunnion assembly on link assembly (145) and install cap assembly (120) with bolts (160) and washers (165). Tighten bolts to 225-275 lb-in. Check that trunnion assembly rotates freely without binding.

C. Lockwire bolts (160) per 20-50-02, double-twist method.

D. Install screws (75) on link (97).

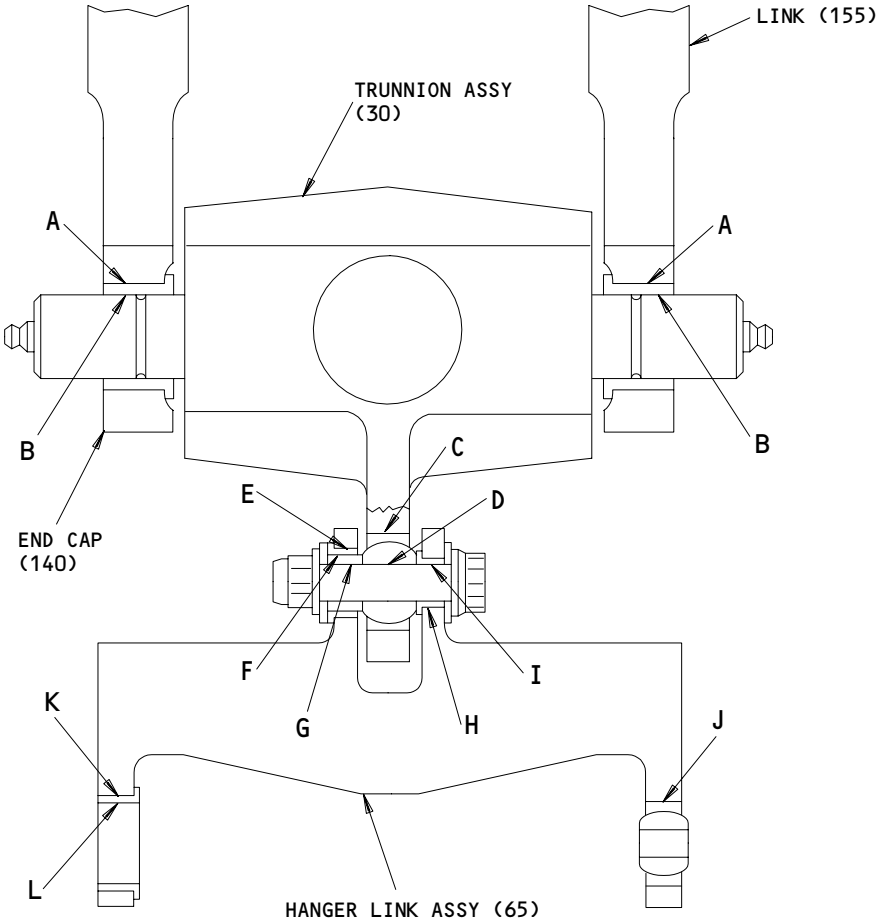
E. Apply a light coat of BMS 3-24 grease to shank and threads of bolt (5) and attach hanger link assembly (65) to trunnion assembly with parts (5 thru 25).

F. Thoroughly lubricate trunnion and hanger link assemblies with MIL-G-23827 grease applied through fittings (40, 45, 85). Rotate parts to ensure full coverage and wipe off excess.

3. Storage

A. Use standard industry practices and information in 20-44-02 to store this component.

FITS AND CLEARANCES



Fits and Clearances
Figure 801 (Sheet 1)

80180

Ref Letter Fig.801	Mating Item No. IPL Fig.	Design Dimension				Service Wear Limit		
		Dimension		Assembly *[1] Clearance		Dimension		Maximum Clearance
		Min	Max	Min	Max	Min	Max	
A	ID 140,155 OD 135,150	1.0000 1.0014	1.0007 1.0021	-0.0021	-0.0007	1.0000	1.0014	0.0000
B	ID 135,150 OD 60	0.8758 0.8745	0.8766 0.8750	0.0008	0.0021	0.8739	0.8775	0.0030
C	ID 60 OD 35	0.9690 0.9683	0.9695 0.9688	0.0002	0.0012	0.9670	0.9708	0.0025
D	ID 35 OD 5	0.3750 0.3740	0.3754 0.3745	0.0005	0.0014	0.3724	0.3770	0.0030
E	ID 97 OD 90	0.6875 0.6887	0.6882 0.6893	-0.0018	-0.0005	0.6875	0.6887	0.0000
F	ID 90 OD 25	0.5620 0.5610	0.5625 0.5615	0.0005	0.0015	0.5595	0.5640	0.0030
G	ID 25 OD 5	0.3750 0.3740	0.3755 0.3745	0.0005	0.0015	0.3725	0.3770	0.0030
H	ID 97 OD 95	0.5000 0.5010	0.5006 0.5016	-0.0016	-0.0004	0.5006	0.5010	0.0000
I	ID 95 OD 5	0.3750 0.3740	0.3755 0.3745	0.0005	0.0015	0.3725	0.3770	0.0030
J	ID 97 OD 70	0.8440 0.8433	0.8445 0.8438	0.0002	0.0012	0.8420	0.8458	0.0025
K	ID 97 OD 96	0.9632 0.9645	0.9639 0.9652	-0.0020	-0.0006	0.9639	0.9645	0.0000
L	ID 96	0.8440	0.8445				0.8458	

*[1] NEGATIVE VALUES DENOTE INTERFERENCE FIT

ALL DIMENSIONS ARE IN INCHES

Fits and Clearances
Figure 801 (Sheet 2)

FOR TORQUE VALUES OF STANDARD FASTENERS, REFER TO 20-50-01			
ITEM NO. IPL FIG. 1	NAME	TORQUE	
		POUND-INCHES	POUND-FEET
100	NUT	950-1100	
125	BOLT	225-275	

Torque Table
Figure 802

13368

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

06710 VALLEY-TODECO INCORPORATED
12975 BRADLEY AVENUE
SYLMAR,CALIFORNIA 91342

06725 AIR INDUSTRIES CORPORATION
12570 KNOTT STREET
GARDEN GROVE, CALIFORNIA 92641

08524 DEUTSCH FASTENER CORPORATION
PO BOX 92925 7001 WEST IMPERIAL HIGHWAY
LOS ANGELES, CALIFORNIA 90045

09455 LEAR SIEGLER INC TRANSPORT DYNAMICS DIV
PO BOX 1953 3131 WEST SEGERSTROM STREET
SANTA ANA, CALIFORNIA 92702

10630 ANILLO INDUSTRIES, INCORPORATED
2090 NORTH GLASSELL
ORANGE, CALIFORNIA 92667

11815 TOWNSEND DIV OF TEXTRON INC CHERRY FASTENER UNIT
BOX 2157 1224 EAST WARNER AVENUE
SANTA ANA, CALIFORNIA 92707

15653 KAYNAR MFG COMPANY INC KAYLOCK DIV
PO BOX 3001 800 SOUTH STATE COLLEGE BLVD
FULLERTON, CALIFORNIA 92634

15860 NEW HAMPSHIRE BALL BEARINGS, INCORPORATED ASTRO DIVISION
155 LEXINGTON AVENUE
LACONIA, NEW HAMPSHIRE 03246

17943 FEDERAL MANUFACTURING CORPORATION
6910 FARMDALE AVENUE
NORTH HOLLYWOOD, CALIFORNIA 91605

23294 AVALON MACHINE PRODUCTS INC
15337 ALLEN STREET
PARAMOUNT, CALIFORNIA 90723

27624 PAUL R BRILES INC P.B. FASTENER DIV
1700 WEST 132ND STREET PO BOX 1157
GARDENA, CALIFORNIA 90249

VENDORS

50294 NMB INC
9730 INDEPENDENCE AVENUE
CHATSWORTH, CALIFORNIA 91311

56878 SPS TECHNOLOGIES INC
HIGHLAND AVENUE
JENKINTOWN, PENNSYLVANIA 19046

70265 ALL POWER MANUFACTURING COMPANY
13141 MOLETTE STREET
SANTE FE SPRINGS, CALIFORNIA 90670

72962 AMERACE CORP ESNA DIV
2330 VAUXHALL ROAD
UNION, NEW JERSEY 07083

73134 HEIM DIV INCOM INTERNATIONAL INC
60 ROUND HILL ROAD
FAIRFIELD, CONNECTICUT 06430

77896 REXNORD INC. BEARING DIVISION
2400 CURTIS STREET
DOWNERS GROVE, ILLINOIS 60515

80539 SPS TECHNOLOGIES INC AEROSPACE PRODUCTS DIV
2701 SOUTH HARBOR BOULEVARD PO BOX 1259
SANTA ANA, CALIFORNIA 92702

92215 VOI-SHAN DIV OF VSI CORP
8463 HIGUERA STREET
CULVER CITY, CALIFORNIA 90230

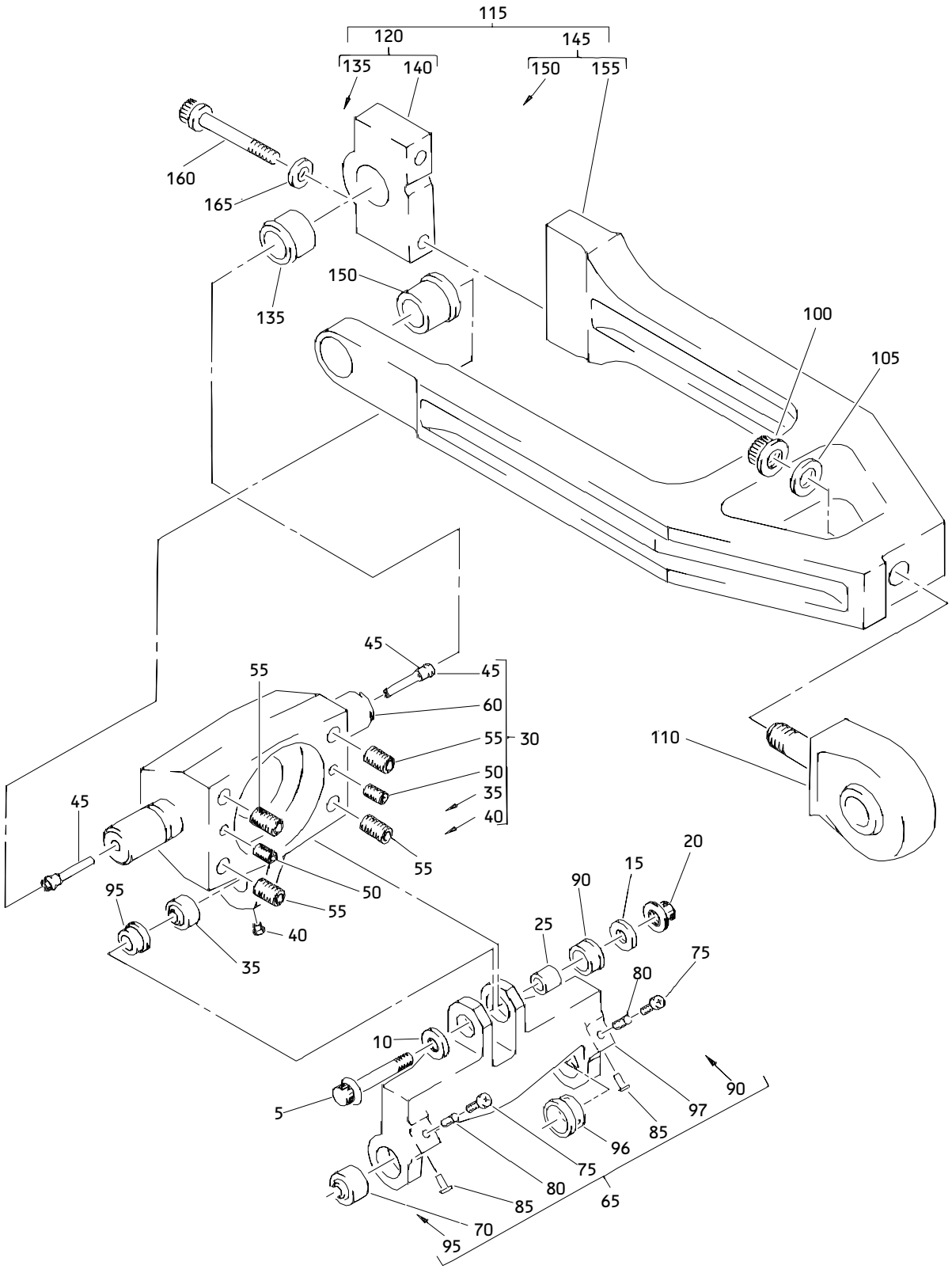
93907 TEXTRON INC CAMCAR DIV
600 18TH AVENUE
ROCKFORD, ILLINOIS 61101

94892 MASTER MACHINE PRODUCTS CORPORATION
2069 RANDOLPH STREET
HUNTINGTON PARK, CALIFORNIA 90255

97613 SARGENT INDUSTRIES KAHR BEARING DIVISION
3010 NORTH SAN FERNANDO ROAD
BURBANK, CALIFORNIA 91503

VENDORS

97928 LITTON FASTENING SYSTEMS DIV OF LITTON SYSTEMS INC
3969 PARAMONT BOULEVARD
LAKEWOOD, CALIFORNIA 90712



Elevator Actuator Link Assembly
Figure 1

T72712

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01-					
-1	252T2100-3		LINK ASSY-ELEV ACTR		RF
5	BACB30LE6U20		.BOLT- (V06710) (SPEC BACB30LE6U20) (V06725) (V08524) (V17943) (V27624) (V80539) (V92215) (V93907) (V97928)		1
10	BACW10BP6ACU		.WASHER- (V10630) (SPEC BACW10BP6ACU)		1
15	BACW10BP6APU		.WASHER- (V10630) (SPEC BACW10BP6APU)		1
20	BMN5024CPD6		.NUT- (V08524) (SPEC BACN10HR6CS) (OPT H39953-6 (V15653)) (OPT SL7059C624 (V11815)) (OPT 109LH9031-6 (V72962)) (OPT 67832AS624 (V56878))		1
25	BACB28AK06-040		.BUSHING- (V23294) (SPEC BACB28AK06-040) (V70265) (V94892)		1
30	252T2171-1		.TRUNNION ASSY		1

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01-					
35	ABWEN06VC		..BEARING- (REPLD BY ITEM 35A) (V50294) (SPEC BACB10EN06GC) (OPT AG6V29C (V15860)) (OPT KWB6-48-50 (V97613)) (OPT LHB06ENGC (V73134)) (OPT 03-526-06E002C (V09455))		1
35A	ASBFH06V		..BEARING (REPLS ITEM 35) (V50294) (SPEC BACB10FH06GC) (OPT AG6V31)(V15860) (OPT LHB-06ENG)(V73134)		1
40	NAS516-1A		..FITTING		1
45	MS15001-1		..FITTING-LUBE		2
50	MS21209F1-20		..INSERT		2
55	MS21209F5-20		..INSERT		4
60	252T2171-2		..TRUNNION		1
65	252T2172-1		.LINK ASSY-HANGER		1
70	ABWEND05VC		..BEARING- (V50294) (SPEC BACB10EN05GC) (OPT AG5V29C (V15860)) (OPT KWB5-48-50 (V97613)) (OPT LHB05ENGC (V73134)) (OPT 03-526-05E002C (V09455))		1
75	NAS1801-08-3		..SCREW		2
80	MS21209C0815		..INSERT		2
85	NAS516-1A		..FITTING		2
90	BACB28AM09B022A		..BUSHING- (V23294) (SPEC BACB28AM09B022A) (V70265) (V94892)		1

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01-					
95	BACB28AP06P022		..BUSHING- (V23294) (SPEC BACB28AP06P022) (V70265) (V94892)		1
96	252T2163-1		..BUSHING		1
97	252T2172-2		..LINK		1
100	BACN10GW10		.NUT- (OPT BMN10GW10 (V08524)) (OPT H93-10 (V15653)) (OPT RMLH18-10 (V72962)) (OPT VN497A108 (V92215)) (OPT 66796-1018 (V56878))		1
105	AN960PD1016		.WASHER		1
110	DMD12-10A1-501		.BEARING- (V77896) (SPEC S012T236-2)		1
115	252T2111-1		.LINK ASSY-REACTION		1
120	252T2111-3		..CAP ASSY-END (MATCHED PART)		1
125	BACB30LE5H26		DELETED		2
130	BACW10BP5CD		DELETED		2
135	BACB28AM14B072A		...BUSHING-(MATCHED PART) (V23294) (SPEC BACB28AM14B072A) (V70265) (V94892)		1
140	252T2111-5		...CAP-END (MATCHED PART)		1
145	252T2111-2		..LINK ASSY-(MATCHED PART)		1
150	BACB28AM14B072A		...BUSHING-(MATCHED PART) (V23294) (SPEC BACB28AM14B072A) (V70265) (V94892)		1

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01-					
155	252T2111-4		...LINK-(MATCHED PART)		1
160	BACB30LE5H28		.BOLT		2
165	BACW10BP5CD		.WASHER- (V10630) (SPEC BACW10BP5CD)		2