TO: ALL HOLDERS OF CONTROL ROD ASSEMBLY COMPONENT MAINTENANCE MANUAL 27-00-12

REVISION NO. 19 DATED JUL 01/03

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
ALL PAGES	Added DASH NUMBEWRS LIMITED to the header because some 250N2004-series assemblies are in 777 CMM 27-00-18.
TITLE PAGE 1 REPAIR-GEN 601 REPAIR 6-1 601-602 1012,1014,1043-1044	Added control rod assembly 250N2004-708 with a tube with new finish procedures.
REPAIR-GEN 601-602 REPAIR 6-1 601-602	Added clarifications and updated callouts.

COMPONENT
MAINTENANCE MANUAL

CONTROL ROD ASSEMBLY

PART NUMBERS 250N2004-101,-103,-104,-105, -107 THRU -110,-112, -113,-114,-116,-117,-201, -202,-205 THRU -211,-214, -215,-217 THRU -222, -301 THRU -305, -311 THRU -315,-318, -320,-321,-323 THRU -336, -602,-606 THRU -608, -702 THRU -705,-707,-708, -802,-1002,-1003,-1101, -1103,-1104,-1106,-1107, -1108,-1110,-1112,-1113, -1115 THRU -1123,-1201, -1202,-1205 THRU -1209, -1801,-1802

COMPONENT MAINTENANCE MANUAL
WITH
ILLUSTRATED PARTS LIST

18629

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

TEMPORARY REVISION AND SERVICE BULLETIN RECORD

BOEING SERVICE BULLETIN	BOEING TEMPORARY REVISION	OTHER DIRECTIVE	DATE OF INCORPORATION INTO MANUAL
		PRR N52309	OCT 10/82
		PRR N52760	APR 10/83
		PRR N52782	APR 10/83
		PRR N52192	APR 10/83
		PRR N52942	JUL 10/83
		PRR N53097	APR 10/84
		PRR 53125	APR 10/84
		PRR 53548	OCT 1/87
		PRR 54083	APR 1/90
		PRR 38169	JUL 1/98

PAGE	DATE	CODE
27-00-12		
TITLE PAGE		
*1	JUL 01/03	01.1
2	BLANK	
REVISION RECORD		
*1	JUL 01/03	01.1
2	BLANK	
TR & SB RECORD		
*1	JUL 01/03	01.1
2	BLANK	
LIST OF EFFECTIVE PAGES		
*1	JUL 01/03	01
THRU LAST PAGE		
CONTENTS		
*1	JUL 01/03	01.1
2	BLANK	
INTRODUCTION		
*1	JUL 01/03	01.1
2	BLANK	
DESCRIPTION & OPERATION		
*1	JUL 01/03	01.1
2	BLANK	
CHECK		
*501	JUL 01/03	01.1
502	BLANK	
REPAIR-GENERAL		
*601	JUL 01/03	01.1
*602	JUL 01/03	01.1
REPAIR 1-1		
*601	JUL 01/03	01.1
*602	JUL 01/03	01.1
*603	JUL 01/03	01.1

PAGE	DATE	CODE
REPAIR 1-1		CONT.
*604	JUL 01/03	01.1
REPAIR 2-1		
*601	JUL 01/03	01.1
*602	JUL 01/03	01.1
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*602	JUL 01/03	01.1
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*601	JUL 01/03	01.1
*602	JUL 01/03	01.1
REPAIR 6-1		
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*602	JUL 01/03	01.1
REPAIR 7-1		
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REPAIR 8-1		
*601	JUL 01/03	01.1
*602	JUL 01/03	01.1
REPAIR 9-1		
*601	JUL 01/03	01.1
*602	JUL 01/03	01.1
*603	JUL 01/03	01.1
*604	JUL 01/03	01.1
*605	JUL 01/03	01.1
606	BLANK	

* = REVISED, ADDED OR DELETED

* = 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.

CONTROL ROD ASSEMBLY

DESCRIPTION AND OPERATION

1. Description

   A. This manual covers control rod assemblies in the following series:

   - 100 series -- fixed nonadjustable or one end adjustable
   - 200 series -- half turn adjustable
   - 300 series -- both ends adjustable
   - 600 series -- one end adjustable
   - 700 series -- one end vernier adjustable
   - 800 series -- fixed nonadjustable
   -1000 series -- fixed nonadjustable
   -1100 series -- fixed nonadjustable
   -1200 series -- one end adjustable
   -1800 series -- fixed nonadjustable

2. Operation

   A. The control rod assemblies connect actuating units in the various flight control systems.

CHECK

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

2. Penetrant check per 20-20-02 -- Tube (70, IPL Fig. 1; 35, IPL Fig. 1A; 25, Fig. 1B; 50, Fig. 1C; 35 or 40, Fig. 1D; 15, Fig. 1E; 20, Fig. 1K; 35, Fig. 1M; 15, Fig. 1P, 1T, and 1U; 20, Fig. 1V; 10, Fig. 1W).

REPAIR - GENERAL

1. Content

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

P/N	NAME	REPAIR
25ON2004-101,-103,-104, -105,-107 thru -110, -112,-114,-116,-117	ROD ASSY	1-1
25ON2004-201,-202,-205 thru -209,-221,-222	ROD ASSY	2-1
25ON2004-210,-211,-214,-215, -217 thru -220	ROD ASSY	3-1
25ON2004-301 thru -305, -311 thru -315,-318, -320,-321,-323 thru -336	ROD ASSY	4-1
25ON2004-602,-606 thru -608	ROD ASSY	5-1
25ON2004-702 thru -705,-707, -708	ROD ASSY	6-1
25ON2004-802	ROD ASSY	7-1
25ON2004-1002, -1003	ROD ASSY	8-1
25ON2004-1101,-1103,-1104, -1106,-1107,-1108, -1110,-1112,-1113, -1115 thru -1123	ROD ASSY	9-1
25ON2004-1201,-1202, -1205 thru -1209	ROD ASSY	10-1
25ON2004-1801,-1802	ROD ASSY	11-1
- - - -	MISCELLANEOUS PARTS REFINISH	12-1
25ON2004-113	ROD ASSY	13-1

2. Standard Practices

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

20-30-02 Stripping of Protective Finishes
20-41-01 Decoding Table for Boeing Finish Codes
20-41-02 Application of Chemical and Solvent Resistant Finishes
20-41-05 Application of Corrosion Inhibiting Compounds
20-43-01 Chromic Acid Anodizing
20-50-03 Bearing and Bushing Replacement
20-50-07 Lubrication
20-50-10 Application of Stencils, Insignia, Silk Screen, Part Numbering and Identification Marking
20-60-02 Finishing Materials
20-60-03 Lubricants
20-60-04 Miscellaneous Materials

3. Materials

NOTE: Equivalent substitutes can be used.

A. Lubricant -- AMS-3080 or TT-A-580 Antiseize Compound (SOPM 20-60-03)

B. Primer -- BMS 10-11, Type 1 (SOPM 20-60-02)

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

D. Corrosion Preventive Compound -- MIL-C-16173, Grade 2 (SOPM 20-60-03)

E. Enamel -- BMS 10-11, Type 2, BAC707 gray gloss or BAC702 white gloss (SOPM 20-60-02)

F. Enamel -- BMS 10-60, Type 1, BAC701 black gloss (SOPM 20-60-02)

G. Grease -- MIL-G-21164 (SOPM 20-60-03)

ROD ASSEMBLY - REPAIR 1-1

25ON2004-101, -103, -104, -105, -107 thru -110,
-112, -114, -116, -117

NOTE: Refer to REPAIR-GEN for list of applicable standard practices. For repair of surfaces which may only require stripping and restoration of original finish, refer to Refinish instructions, Fig. 601.

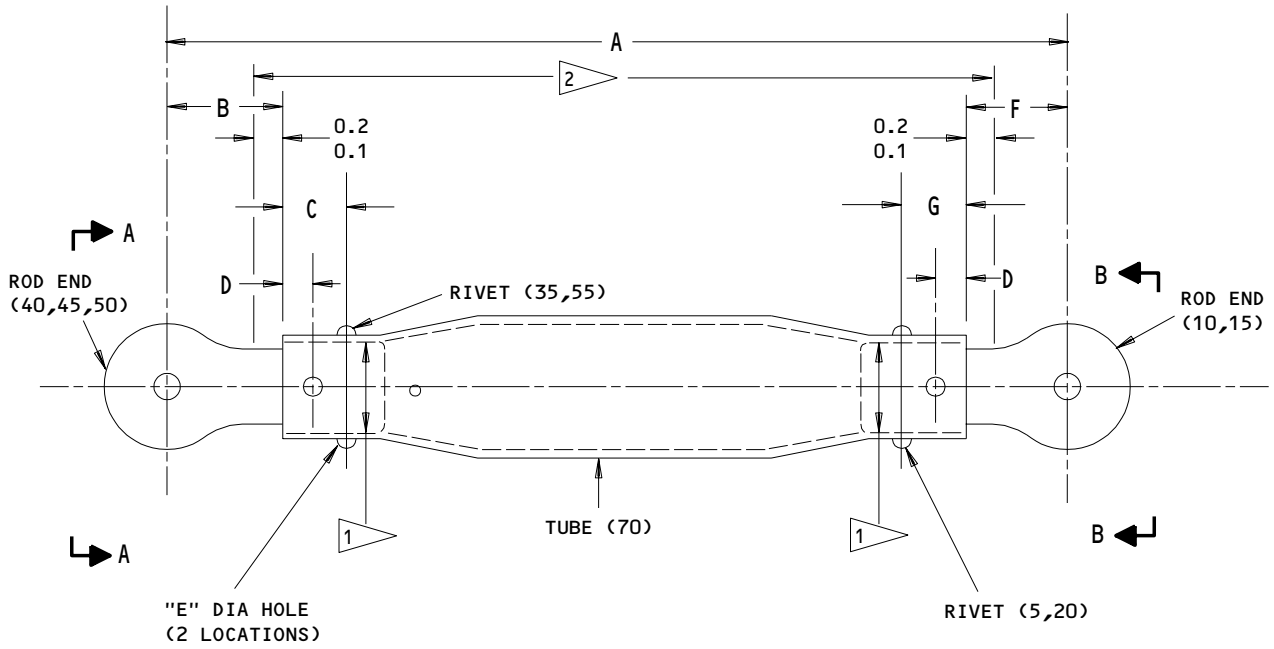
1. Rod End Replacement (IPL Fig. 1, Fig. 601)

   A. Remove rivets (5, 35) or (20, 55) and separate rod ends (10, 40 or 45) or rod assemblies (15, 50) from tube (70).

   B. Using holes in existing parts as guides, drill holes in replacement part as shown.

   C. Disassemble parts and deburr holes.

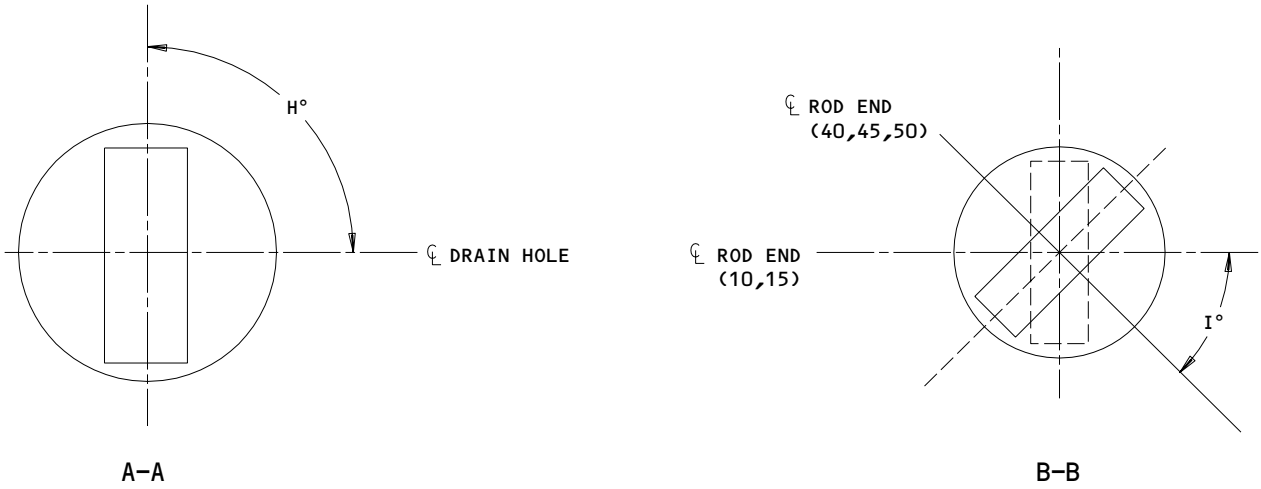
   D. On 25ON2004-109 only, apply BMS 5-95 sealant to faying surfaces and reinstall. On 25ON2004-101 thru -108, -110, -112, -114, -116, -117 apply BMS 10-11 type 1 primer to faying surfaces and reinstall. Secure with rivets.



ASSEMBLY DASH NO.	A ±0.01	B ±0.01	C ±0.03	D ±0.03	"E" ±0.01	F ±0.03	G ±0.03
101	42.46	0.72	0.64	0.38	0.187	0.72	0.64
103	18.76	0.72	0.64	0.38	0.187	0.72	0.64
104	36.33	1.00	0.64	0.35	0.156	1.00	0.64
105	11.929	1.00	0.64	0.35	0.156	1.00	0.64
107	48.45	0.65	0.86	0.35	0.156	0.65	0.86
108	11.41	0.75	0.80	0.32	0.156	0.75	0.80
109	12.00	0.72	0.64	0.35	0.187	1.00	0.75
110	5.625	0.72	0.64	0.38	0.187	0.72	0.64
112	24.96	0.65	0.64	0.38	0.187	0.65	0.64
114	12.00	0.72	0.64	0.35	0.187	1.00	0.75
116	19.19	0.72	0.64	0.35	0.156	0.72	0.64
117	19.36	0.80	0.64	0.35	0.156	0.81	0.64

250N2004-101,-103,-104,-105,-107 THRU -110,-112,-114,-116,-117

Rod End Replacement
Figure 601 (Sheet 1)



ASSEMBLY DASH NO.	H° ±2°	I° ±2°
101	0	0
103	0	0
104	0	90
105	0	0
107	90	90
108	90	0
109	90	0
110	0	0
112	0	0
114	90	0
116	0	0
117	0	0

250N2004-101,-103,-104,-105,-107 THRU -110,-112,-114,-116,-117

Rod End Replacement
Figure 601 (Sheet 2)

18684

REFINISH

TUBE (70,70A,70B,70D,70E,70G,70K) -- CHEMICAL TREAT AND APPLY ONE COAT BMS 10-11, TYPE 1 PRIMER (F-18.07). APPLY WATER DISPLACING CORROSION PREVENTIVE COMPOUND (F-19.26) TO INTERIOR EXCEPT AS NOTED BY 1.

TUBE (70C) -- CHEMICAL TREAT INTERIOR AND EXTERIOR SURFACES AND APPLY ONE COAT OF BMS 10-11, TYPE 1 PRIMER (F-18.07).

TUBE (70F) -- CHEMICAL TREAT AND APPLY ONE COAT BMS 10-11, TYPE 1 PRIMER (F-18.07). APPLY WATER DISPLACING CORROSION PREVENTIVE COMPOUND (F-19.26) TO INTERIOR AND APPLY ONE COAT OF BMS 10-11, TYPE 2 WHITE GLOSS ENAMEL (F-21.03) EXCEPT AS NOTED BY 1.

TUBE (70H,70L) -- APPLY ONE COAT OF BMS 10-11, TYPE 1 PRIMER (F-20.02) ALL OVER PLUS ONE COAT OF BMS 10-11, TYPE 2 GRAY GLOSS ENAMEL (F-21.02) ON EXTERNAL SURFACES.

TUBE (70M) -- CHEMICAL TREAT (F-17.08) AND APPLY WATER DISPLACING CORROSION PREVENTIVE COMPOUND (F-19.26) TO INTERIOR EXCEPT AS NOTED BY 1. CHEMICAL TREAT (F-17.08) AND APPLY TWO COATS BMS 10-11, TYPE 1 PRIMER (F-20.03) TO EXTERNAL SURFACES.

MATERIAL: AL ALLOY

ITEM NUMBERS REFER TO IPL FIG. 1

ALL DIMENSIONS ARE IN INCHES

1 OMIT PRIMER AND CORROSION PREVENTIVE COMPOUND THIS SURFACE

2 ON 250N2004-110, APPLY ONE COAT OF PRIMER BMS 10-11, TYPE 1 (F-20.02) PLUS ONE COAT OF ENAMEL BMS 10-11, TYPE 2, COLOR BAC702 WHITE GLOSS (F-21.03)

250N2004-101,-103,-104,-105,-107 THRU -110,-112,-114,-116,-117

Rod End Replacement
Figure 601 (Sheet 3)

91175

ROD ASSEMBLY - REPAIR 2-1

250N2004-201, -202, -205 thru -209, -221, -222

NOTE: Refer to REPAIR-GEN for list of applicable standard practices. For repair of surfaces which may only require stripping and restoration of original finish, refer to Refinish instructions, Fig. 601.

1. Rod End Replacement (IPL Fig. 1B, Fig. 601)

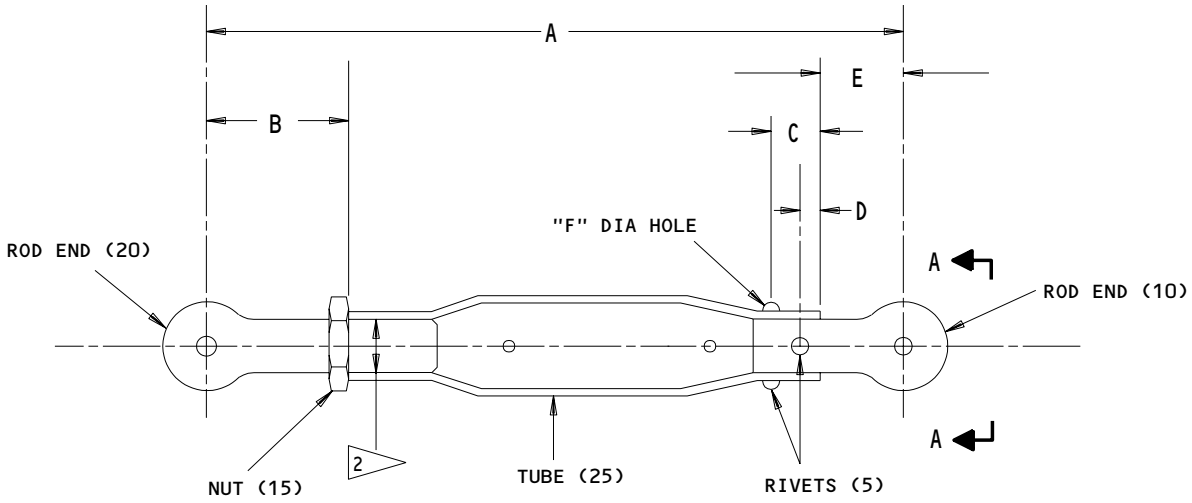
   A. Remove rivets (5) and separate rod end (10) from tube (25). Unscrew rod end (20) and nut (15) from tube (25).

   B. Using holes in existing parts as guides, drill holes in replacement part as shown.

   C. Disassemble parts and deburr holes.

   D. Apply BMS 10-11 type 1 primer to faying surfaces of rod end (10) and reinstall. Secure with rivets.

   E. Lubricate threads of rod end (20) and nut (15) with AMS 3080 antiseize compound or optional MIL-G-21164 grease as specified in SOPM 20-50-07. Install parts in tube (25).



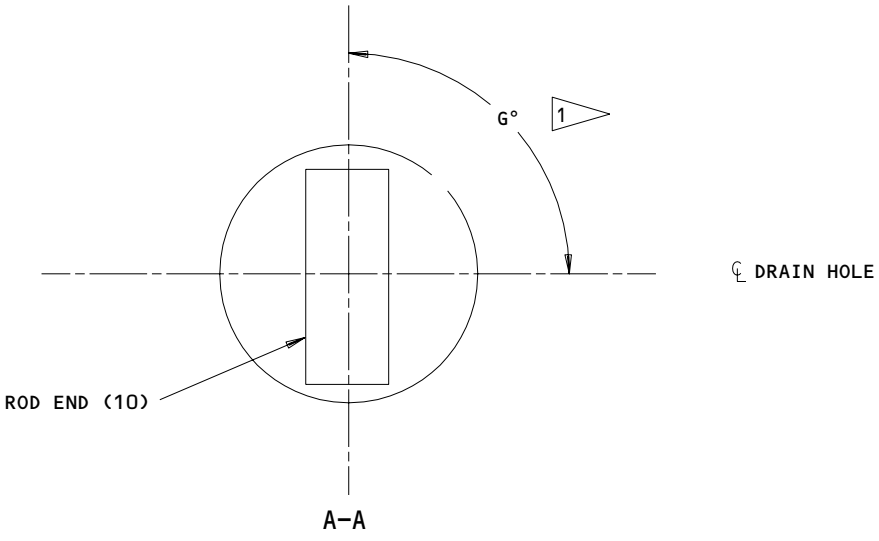
ASSEMBLY DASH NO.	A ±0.03	B ±0.03	C ±0.03	D ±0.03	E ±0.01	"F" ±0.01
201	10.41	1.18	0.86	0.35	0.65	0.156
202	7.14	1.18	0.86	0.35	0.65	0.156
205	11.08	1.18	0.86	0.35	0.65	0.156
206	23.00	1.18	0.68	0.35	0.85	0.156
207	20.00	1.18	0.86	0.35	0.65	0.156
208	35.81	1.32	0.64	0.35	1.33	0.156
209	42.16	1.11	0.86	0.35	0.65	0.156
221	7.14	1.18	0.86	0.35	0.65	0.156
222	42.16	1.11	0.86	0.35	0.65	0.156

ITEM NUMBERS REFER TO IPL FIG. 1B

ALL DIMENSIONS ARE IN INCHES.

250N2004-201,-202,-205 THRU -209,-221,-222
Rod End Replacement
Figure 601 (Sheet 1)

18685



REFINISH

TUBE (25,25A) -- CHEMICAL TREAT AND APPLY ONE COAT OF BMS 10-11, TYPE I PRIMER (F-18.07). APPLY WATER DISPLACING CORROSION PREVENTIVE COMPOUND (F-19.26) TO INTERIOR. EXCEPT AS NOTED BY 2

TUBE (25D,25E,25F) -- CHEMICAL TREAT AND APPLY ONE COAT OF PRIMER BMS 10-11, TYPE I (F-18.07). APPLY WATER DISPLACING, CORROSION PREVENTIVE COMPOUND (F-19.26) TO INTERIOR PLUS ONE COAT OF ENAMEL BMS 10-11, TYPE II. COLOR BAC702 WHITE GLOSS (F-21.03) TO EXTERIOR EXCEPT AS NOTED BY 2

TUBE (25G) -- CHEMICAL TREAT AND APPLY ONE COAT OF PRIMER BMS 10-11, TYPE I (F-18.07) EXCEPT AS NOTED BY 2

TUBE (25H) -- CHEMICAL TREAT AND APPLY ONE COAT OF PRIMER BMS 10-11, TYPE I (F-18.07) PLUS ONE COAT OF ENAMEL BMS 10-11, TYPE II COLOR BAC702 WHITE GLOSS (F-21.03) EXCEPT AS NOTED BY 2

MATERIAL: AL ALLOY

1 G° IS 0° ± 2° FOR ALL ASSEMBLIES 250N2004-201 THRU -209,-221,-222

2 OMIT PRIMER OR CORROSION PREVENTIVE COMPOUND OR ENAMEL ON THIS SURFACE (BOTH ENDS OF TUBE)

250N2004-201,-202,-205 THRU -209,-221,-222
Rod End Replacement
Figure 601 (Sheet 2)

18686

ROD ASSEMBLY - REPAIR 3-1

250N2004-210, -211, -214, -215
-217 thru -220

NOTE: Refer to REPAIR-GEN for list of applicable standard practices. For repair of surfaces which may only require stripping and restoration of original finish, refer to Refinish instructions, Fig. 601.

1. Rod End Replacement (IPL Fig. 1C, Fig. 601)

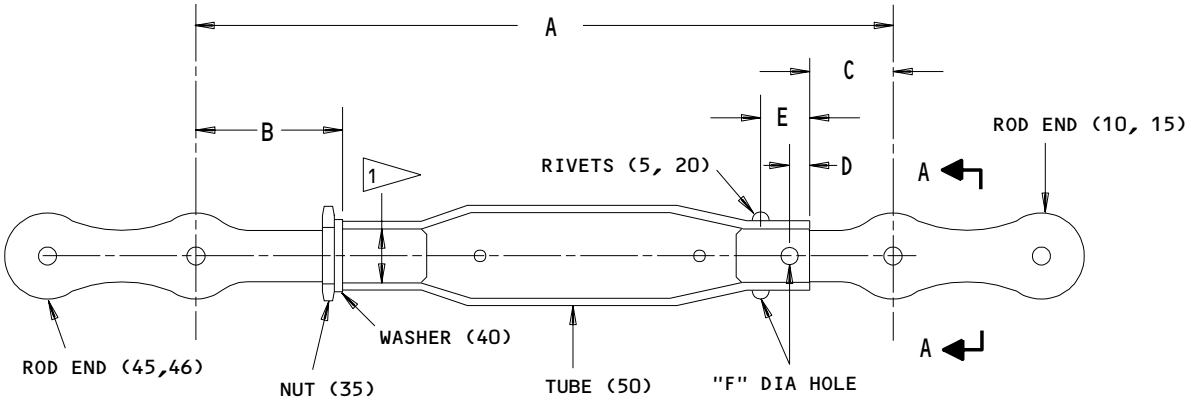
   A. Remove rivets (5 or 20, IPL Fig. 1C) and separate rod end (10) or rod end assembly (15) from tube (50). Unscrew rod end (40), nut (35) and washer (40) from tube (50).

   B. Using holes in existing parts as guides, drill holes in replacement part as shown.

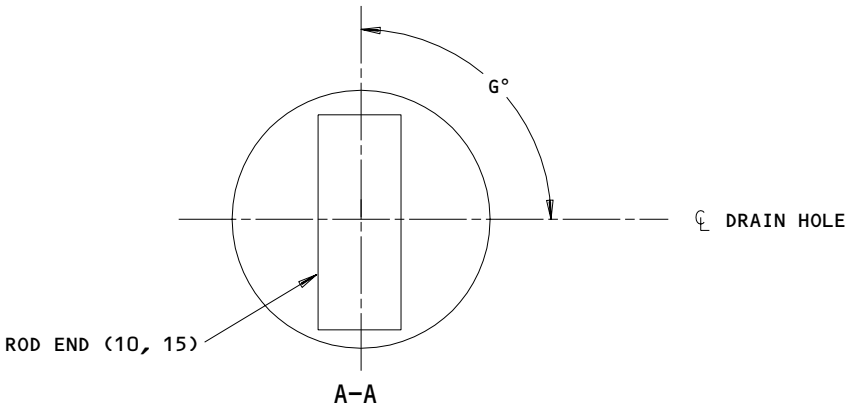
   C. Disassemble parts and deburr holes.

   D. Apply BMS 10-11 type 1 primer on faying surfaces of rod ends (10, 30) and reinstall. Secure with rivets.

   E. Lubricate threads of rod end (45 or 46) and nut (35) with AMS 3080 antiseize compound or optional MIL-G-21164 grease as specified in SOPM 20-50-07.



ASSEMBLY DASH NO.	A ±0.03	B ±0.03	C ±0.01	D ±0.03	E ±0.03	"F" ±0.01	G° ±2°
210	13.90	1.32	1.0	0.37	0.62	0.156	90°
211	16.90	1.32	1.0	0.37	0.62	0.156	90°
214	17.61	1.32	0.93	0.37	0.62	0.156	90°
215	20.61	1.32	0.93	0.37	0.62	0.156	90°
217	13.90	1.32	1.0	0.37	0.62	0.156	90°
218	16.90	1.32	1.0	0.37	0.62	0.156	90°
219	17.61	1.32	0.93	0.37	0.62	0.156	90°
220	20.61	1.32	0.93	0.37	0.62	0.156	90°



REFINISH

TUBE (50) -- CHEMICAL TREAT AND APPLY ONE COAT OF BMS 10-11 TYPE I, PRIMER (F-18.07). APPLY WATER DISPLACING CORROSION PREVENTIVE COMPOUND (F-19.26) TO INTERIOR, EXCEPT AS NOTED.

1 OMIT PRIMER OR CORROSION PREVENTIVE COMPOUND ON THIS SURFACE (BOTH ENDS OF TUBE)

MATERIAL: AL ALLOY

ITEM NUMBERS REFER TO IPL FIG. 1C

ALL DIMENSIONS ARE IN INCHES

250N2004-210,-211,-214,-215,-217 thru 220
Rod End Replacement
Figure 601

ROD ASSEMBLY - REPAIR 4-1

250N2004-301 thru -305, -311 thru -315
-318, -320, -321, -323 thru -336

NOTE: Refer to REPAIR-GEN for list of applicable standard practices. For repair of surfaces which may only require stripping and restoration of original finish, refer to Refinish instructions, Fig. 601.

1. Rod End Replacement (IPL Fig. 1D, Fig. 601)

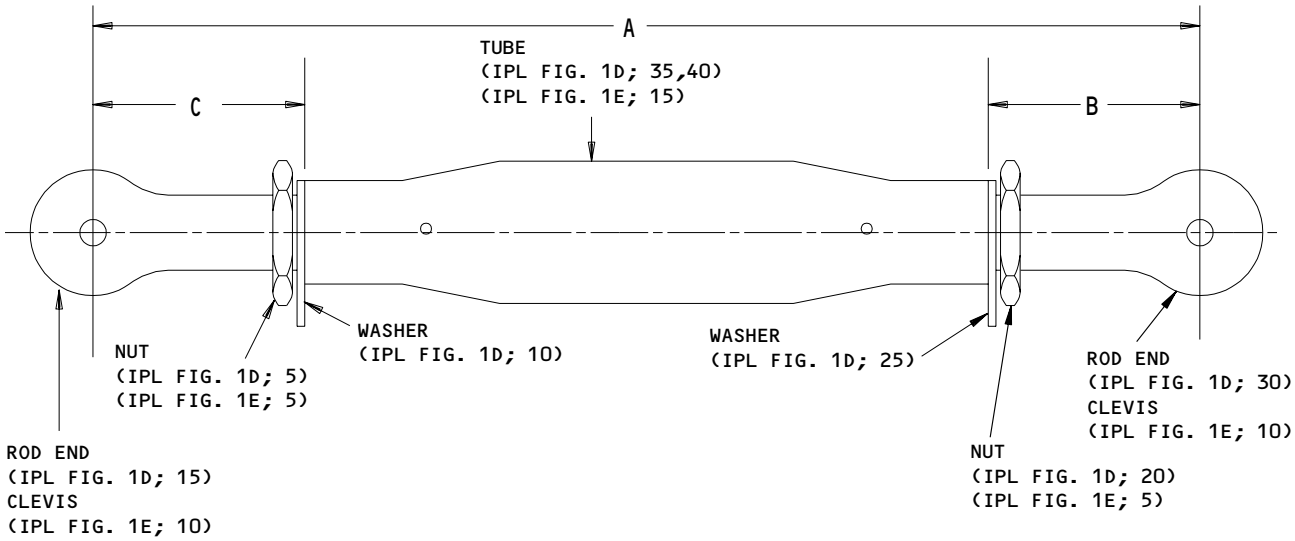
   A. Loosen nuts (5, 20). Unscrew rod end (15, 30) from tube (35 or 40). Remove nuts (5, 20) and washers (10, 25) from rod ends (15, 30).

   B. Lubricate threads of rod ends (15, 30), tube (35 or 40) and nuts (5, 20) with AMS 3080 antiseize compound or optional MIL-G-21164 grease as specified in SOPM 20-50-07. Reinstall parts and adjust to dimensions shown.

2. Clevis Replacement (IPL Fig. 1E, Fig. 601)

   A. Loosen nut (5). Unscrew clevis (10) from tube (15). Remove nut (5) from clevis end.

   B. Lubricate threads of clevis (10), tube (15), and nut (5) with AMS 3080 antiseize compound or optional MIL-G-21164 grease as specified in SOPM 20-50-07. Reinstall parts and adjust to dimensions shown.



ASSEMBLY DASH NO.	A ±0.03	C ±0.03	B ±0.03
301	23.43	1.30	——
302	6.10	1.40	1.40
303	5.28	1.40	1.41
304	18.25	1.32	——
305	18.55	1.32	1.28
311	11.10	1.19	1.19
312	———	1.30	———
313	11.41	1.33	1.27
314	15.30	1.34	1.42
315	12.16	1.30	1.28
318, 327	8.52	1.46	1.46
320	48.20	1.25	1.38
321	11.64	1.33	1.27

ASSEMBLY DASH NO.	A ±0.03	C ±0.03	B ±0.03
323	———	———	———
324	6.45	1.24	1.24
325	11.21	1.33	1.27
326	12.16	1.30	1.28
328	———	1.30	———
329	11.38	1.14	1.14
330	11.21	1.38	1.33
331	8.52	1.46	1.46
332	11.68	1.14	1.05
333	5.28	1.40	1.41
334	18.25	1.32	———
335	12.16	1.30	1.28
336	12.00	1.37	1.15

250N2004-301 THRU -305,-311 THRU -315,-318,
-320,-321,-323 THRU -336

Rod End Replacement
Figure 601 (Sheet 1)

18688

REFINISH

TUBE (35,35C,35D,35H,35J,35L,35M,35N,35P,35R, 35U,35V,35W,40,40A) -- CHEMICAL TREAT AND APPLY ONE COAT PRIMER BMS 10-11, TYPE 1 (F-18.07). APPLY WATER DISPLACING, CORROSION PREVENTIVE COMPOUND (F-19.26) TO INTERIOR EXCEPT OMIT PRIMER AND CORROSION PREVENTIVE COMPOUND ON THREADS.

TUBE (35F,35Q,40B) -- CHEMICAL TREAT AND APPLY ONE COAT PRIMER BMS 10-11, TYPE 1 (F-18.07) EXCEPT OMIT PRIMER ON THREADS.

TUBE (15,15A, IPL FIG. 1E; 35G, IPL FIG. 1D) -- CHEMICAL TREAT AND APPLY ONE COAT PRIMER BMS 10-11, TYPE 1 (F-18.07) PLUS ONE COAT ENAMEL BMS 10-11, TYPE 2, BAC702 WHITE GLOSS (F-21.03) EXCEPT OMIT PRIMER AND ENAMEL ON THREADS.

TUBE (35K,35X) -- CHEMICAL TREAT AND APPLY ONE COAT PRIMER BMS 10-11, TYPE 1 (F-18.07) PLUS ONE COAT ENAMEL BMS 10-11, TYPE 2, BAC707 GRAY GLOSS (F-21.02) EXCEPT OMIT PRIMER AND ENAMEL ON THREADS.

MATERIAL: AL ALLOY

ITEM NUMBERS REFER TO IPL FIG. 1D EXCEPT AS INDICATED

ALL DIMENSIONS ARE IN INCHES

250N2004-301 THRU -305,-311 THRU -315,-318, -320,-321,-323 THRU -336

Rod End Replacement
Figure 601 (Sheet 2)

91188

ROD ASSEMBLY - REPAIR 5-1

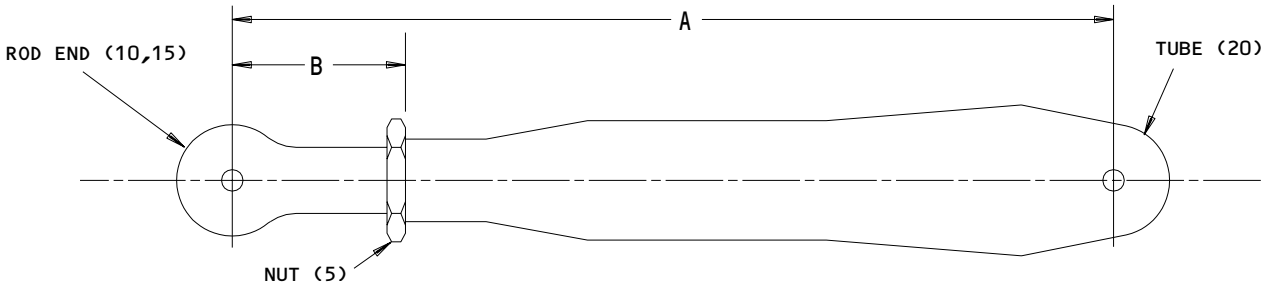
250N2004-602, -606 thru -608

NOTE: Refer to REPAIR-GEN for list of applicable standard practices. For repair of surfaces which may only require stripping and restoration of original finish, refer to Refinish instructions, Fig. 601.

1. Rod End Replacement (IPL Fig. 1K, Fig. 601)

   A. Loosen nut (5). Unscrew rod end (10 or 15) from tube (20) and remove nut (5) from rod end (10 or 15).

   B. Lubricate threads of rod end (10 or 15), tube (20) and nut (5) with antiseize compound. Reinstall parts.



ASSEMBLY DASH NO.	A ±0.03	B ±0.03
602	18.40	0.919
606	18.40	0.919
607	19.18	0.919
608	18.70	0.919

REFINISH

TUBE (20) -- CHEMICAL TREAT AND APPLY ONE COAT OF BMS 10-11, TYPE I, PRIMER (F-18.07). APPLY ONE COAT OF BMS 10-11, TYPE II, WHITE GLOSS ENAMEL (F-21.03), EXCEPT OMIT PRIMER AND ENAMEL ON THREADS.

MATERIAL: AL ALLOY

ITEM NUMBERS REFER TO IPL FIG. 1K

ALL DIMENSIONS ARE IN INCHES

250N2004-602,-606 thru -608
Rod End Replacement
Figure 601

ROD ASSEMBLY - REPAIR 6-1

250N2004-702 thru -705, -707, -708

NOTE: Refer to REPAIR - GENERAL for a list of applicable standard practices. For repair of surfaces which is only replacement of the original finish, refer to Refinish instructions, Fig. 601.

1. Rod End Replacement (IPL Fig. 1M, Fig. 601)

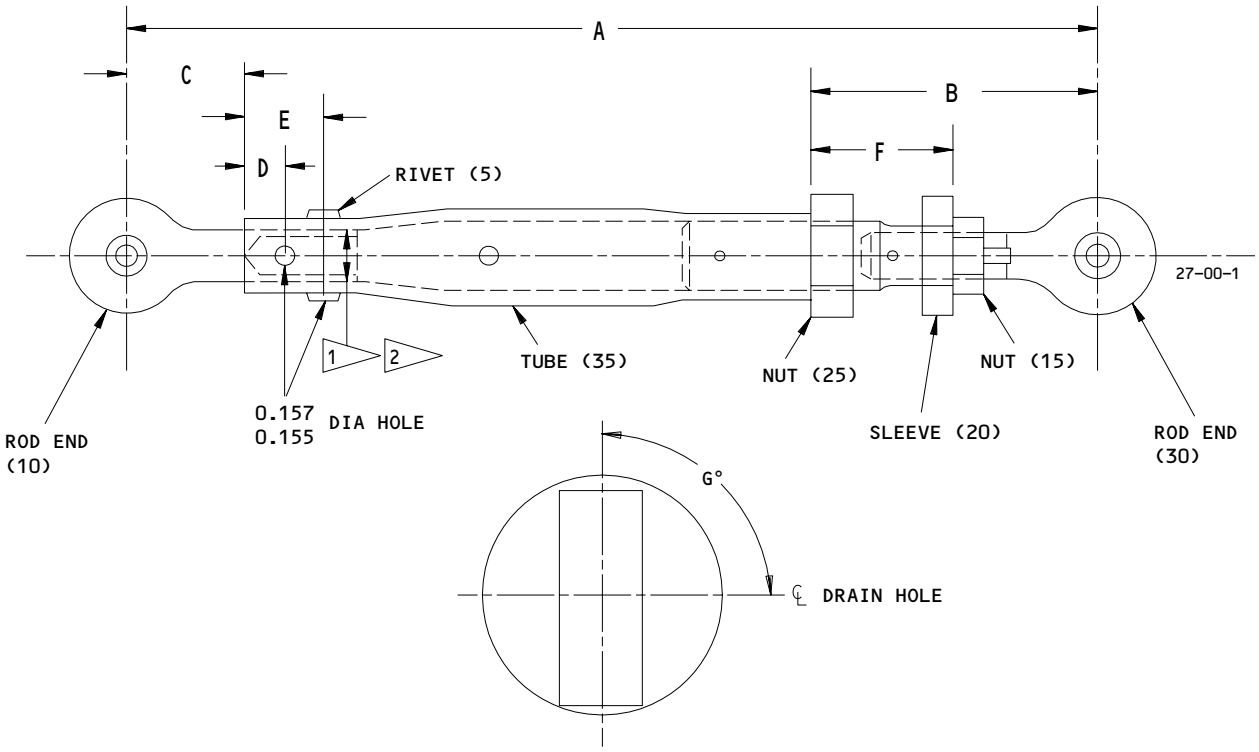
   A. Remove rivets (5) and separate rod end (10) from tube (35). Loosen nut (25) and unscrew sleeve (20) from tube (35). Remove nut (25) and rod end (30) from sleeve (20).

   B. With the holes in existing parts as guides, drill holes in the replacement part as shown.

   C. Disassemble parts and deburr holes.

   D. Apply BMS 10-11, Type 1 primer to faying surfaces of rod end (10) and reinstall. Attach with rivets.

   E. Lubricate threads of rod end (30), sleeve (20) and nuts (15, 25) with AMS 3080 antiseize compound or optional MIL-G-21164 grease (SOPM 20-50-07). Reinstall parts.



ASSEMBLY DASH NO.	A ±0.03	B ±0.03	C ±0.03	D ±0.03	E ±0.03	F ±0.03	G° ±2°
702	11.93	2.36	0.72	0.35	0.64	1.19	0°
703	7.925	2.36	0.96	0.35	0.64	1.19	0°
704	11.93	2.36	0.72	0.35	0.64	1.19	0°
705	25.255	2.36	10.10	0.40	0.95	1.19	0°
707	26.217	2.64	0.955	0.35	0.64	1.19	0°
708	26.217	2.64	0.955	0.35	0.64	1.19	0°

REFINISH

TUBE (35) -- PASSIVATE (F-17.25, WHICH REPLACES F-17.09).

TUBE (35A,35B) -- CHEMICAL TREAT AND APPLY BMS 10-11, TYPE 1 PRIMER (F-18.07). APPLY BMS 3-23 TYPE 2 CORROSION PREVENTIVE COMPOUND (F-19.26) TO INTERIOR UNLESS SHOWN BY 1.

TUBE (35C) -- CHEMICAL TREAT AND APPLY BMS 10-11, TYPE 1 PRIMER (F-18.07) UNLESS SHOWN BY 2. APPLY BMS 3-23 TYPE 2 CORROSION PREVENTIVE COMPOUND (F-19.26) TO INTERIOR AFTER ASSEMBLY.

TUBE (35D) -- CHEMICAL TREAT (F-17.08). APPLY BMS 10-11, TYPE 1 PRIMER (F-20.48) UNLESS SHOWN BY 2.

MATERIAL: TUBE (35A THRU 35D) AL ALLOY
TUBE (35) CRES

ITEM NUMBERS REFER TO IPL FIG. 1M

ALL DIMENSIONS ARE IN INCHES

1 NO PRIMER AND CORROSION PREVENTIVE COMPOUND ON THIS SURFACE (BOTH ENDS OF TUBE).

2 NO PRIMER ON THIS SURFACE (BOTH ENDS OF TUBE).

250N2004-702 thru -705,-707
Rod End Replacement
Figure 601

ROD ASSEMBLY - REPAIR 7-1

250N2004-802

NOTE: Refer to REPAIR-GEN for list of applicable standard practices. For repair of surfaces which may only require stripping and restoration of original finish, refer to Refinish instructions, Fig. 601.

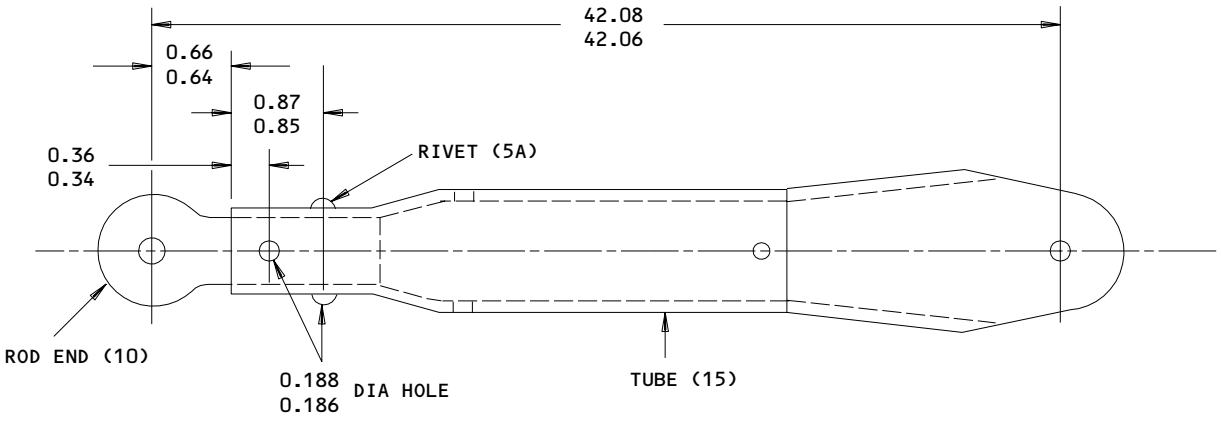
1. Rod End Replacement (IPL Fig. 1P, Fig. 601)

   A. Remove rivets (5A) and separate rod ends (10) from tube (15).

   B. Using holes in existing parts as guides, drill holes in replacement part as shown.

   C. Disassemble parts and deburr holes.

   D. Apply BMS 10-11 type 1 primer to faying surfaces of new rod end (10) and reinstall. Secure with rivets.



REFINISH

TUBE (15) -- CHEMICAL TREAT AND APPLY ONE COAT BMS 10-11, TYPE I PRIMER (F-18.07), ALL OVER PLUS ONE COAT OF ENAMEL BMS 10-11, TYPE II, COLOR BAC707 GRAY GLOSS (F-21.02)

MATERIAL: AL ALLOY

ITEM NUMBERS REFER TO IPL FIG. 1P

ALL DIMENSIONS ARE IN INCHES

Rod End Replacement
Figure 601

18691

ROD ASSEMBLY - REPAIR 8-1

250N2004-1002
-1003

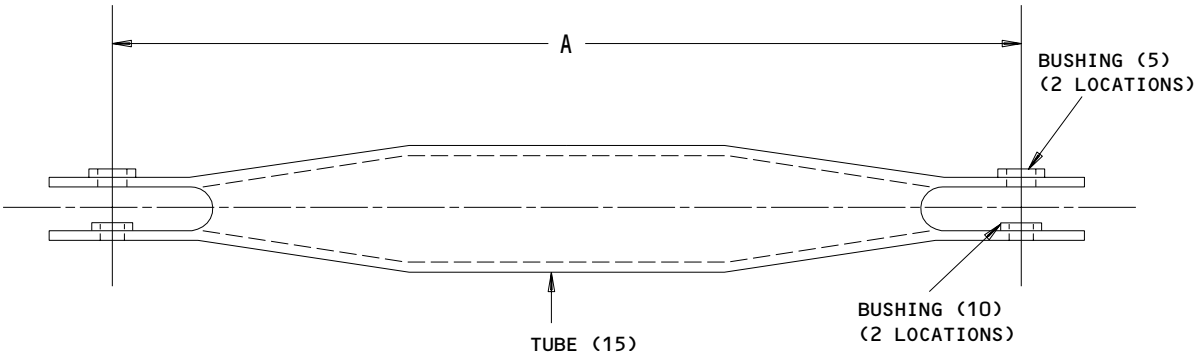
NOTE: Refer to REPAIR-GEN for list of applicable standard practices. For repair of surfaces which may only require restoration of original finish, refer to Refinish instructions, Fig. 601.

1. Bushing Replacement (IPL Fig. 1T, Fig. 601)

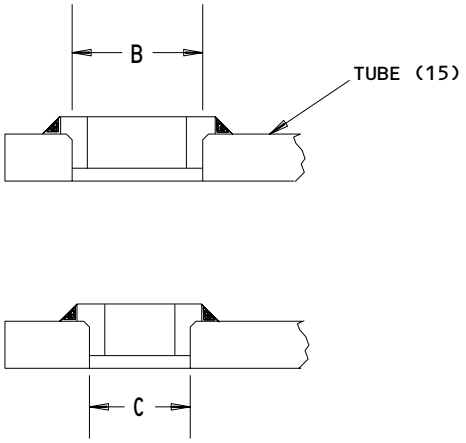
   A. Remove bushings (5, 10, IPL Fig. 1T).

   B. Install new bushings with wet BMS 10-11, type 1 primer per 20-50-03.

   C. Fillet seal flange to mating surface with BMS 5-95 sealant.



ASSEMBLY DASH NO.	A ±0.03	B	C
1002	15.40	0.6880 0.6870	0.5005 0.4995
1003	14.13	0.6880 0.6870	0.5005 0.4995



REFINISH

TUBE (15) -- CHEMICAL TREAT AND APPLY ONE COAT OF BMS 10-11, TYPE I, PRIMER (F-18.07), PLUS WATER DISPLACING, CORROSION PREVENTIVE COMPOUND (F-19.26) TO INTERIOR EXCEPT OMIT PRIMER AND CORROSION PREVENTIVE COMPOUND ON BUSHING HOLES.

MATERIAL: AL ALLOY

ITEM NUMBERS REFER TO IPL FIG. 1T

ALL DIMENSIONS ARE IN INCHES.

250N2004-1002, -1003
Rod Assy - Bushing Replacement
Figure 601

18692

ROD ASSEMBLY - REPAIR 9-1

250N2004-1101, -1103, -1104, -1106, -1107,
-1108, -1110, -1112, -1113, -1115 thru -1123

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

1. Rod End Replacement (IPL Fig. 1U, Fig. 601)

   A. Apply sealant to threads of rod ends (5) prior to installation.

      NOTE: If tube (15) is replaced, refer to Fig. 601 for replacement.

2. Control Rod Assembly Rework (IPL Fig. 1U, Fig. 602)

   NOTE: If tube (15) is not replaced, rework swaged end of control rod assembly as follows:

   A. Prior to disassembly, determine control rod assembly number stamped on part. If number is no longer evident, measure and record rod centers distance noted by dimension "A" in Fig. 602.

   B. Remove rod end (5, 10, 12, 13) from tube (15) as required.

      NOTE: To assist removal of rod end, heat may be applied to rod end to soften sealant, provided 200 degrees Fahrenheit is not exceeded.

   C. Cut off each tube end per dimension "C" noted in Fig. 602.

   D. After rod end (5, 10, 12, 13) has been removed and discarded, inspect tube with 10X glass for cracks or any damage which would prevent reuse. Then clean threads to ensure that they are free of debris.

   E. Install nut (8) on rod end (6, 11, 14) and run onto end of thread.

   F. Install rod end (6, 11, 14) per Fig. 602 and adjust to dimension "A" and "B" corresponding to appropriate control rod assembly. If control rod assembly number is not evident, adjust rod centers to dimension "A" as determined in step A. Tighten nut (8).

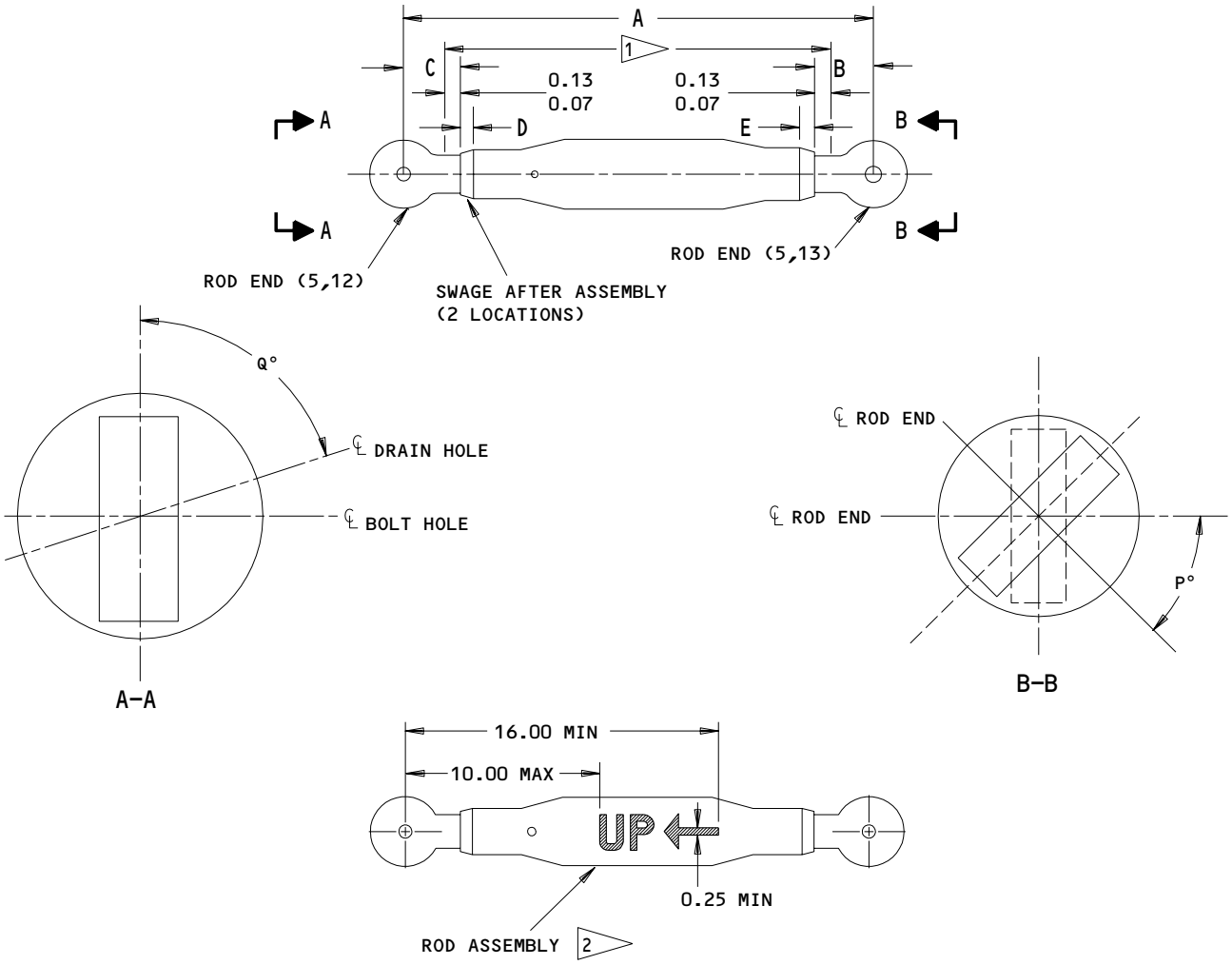
   G. Drill 0.128-0.135 inch diameter rivet hole as shown in Fig. 602.

   H. After hole has been drilled, loosen nut (8), remove rod end, and break sharp edges on drilled hole.

   I. Apply BMS 5-95 sealant to threads on rod end (6, 11, 14) and install rod end into tube (15).

J. Align rivet holes in tube and rod end, then install rivet (9). Installed rivet may be shaved to a minimum height of 0.050 inches to provide required clearance.

K. Apply BMS 10-11, type 1 primer to all bare aluminum surfaces and to fastener heads.



ALL DIMENSIONS ARE IN INCHES

250N2004-1101,-1103,-1104,-1106,-1107,-1108,-1110,-1112,-1113,-1115 THRU -1123
Rod End Replacement
Figure 601 (Sheet 1)

80680

ASSEMBLY DASH NO.	A ±0.03	B ±0.03	C ±0.025	D ±0.03	E ±0.03	P° ±2°	Q° ±2°
1101,1120	42.46	0.75	0.75	0.15	0.15	0°	0°
1103,1121	18.76	0.75	0.75	0.15	0.15	0°	0°
1104	36.33	0.88	0.88	0.15	0.15	90°	0°
1106	4.428	0.75	0.75	0.15	0.15	0°	90°
1107, 1118, 1119	48.45	0.75	0.75	0.15	0.15	90°	90°
1108	11.41	0.75	0.75	0.15	0.15	0°	90°
1110	5.625	0.75	0.75	0.15	0.15	0°	0°
1112,1122	24.96	0.75	0.75	0.15	0.15	0°	0°
1113	11.813	0.75	0.75	0.15	0.15	0°	0°
1115	8.48	0.75	0.75	0.15	0.15	90°	0°
1116	11.21	0.75	0.75	0.15	0.15	0°	90°
1117,1123	23.43	1.20	1.19	0.15	0.15	0°	0°

REFINISH

TUBE (15,15A,15C THRU 15T) -- CHEMICAL TREAT AND APPLY ONE COAT PRIMER BMS 10-11, TYPE I (F-18.07). APPLY WATER DISPLACING, CORROSION PREVENTIVE COMPOUND (F-19.26) TO INTERIOR, EXCEPT OMIT PRIMER ON THREADS. OMIT CORROSION PREVENTIVE COMPOUND ON THREADS (15,15A,15C THRU 15H,15K,15L,15N ONLY). APPLY ONE COAT ENAMEL, BMS 10-11, TYPE II, BAC702 WHITE GLOSS (F-21.03) TO EXTERIOR OF TUBE (15J,15M,15P ONLY)

TUBE (15B) -- CHEMICAL TREAT AND APPLY ONE COAT OF PRIMER BMS 10-11, TYPE I (F-18.07) EXCEPT OMIT PRIMER ON THREADS

ROD END (5) -- STYLUS CADMIUM PLATE (F-15.29) REWORKED AREAS

1 ON 250N2004-1110, APPLY ONE COAT OF PRIMER BMS 10-11, TYPE I (F-20.02) PLUS ONE COAT OF ENAMEL BMS 10-11, TYPE II, BAC702 WHITE GLOSS (F-21.03)

2 ON 250N2004-1117 ONLY, STENCIL AS SHOWN PER 20-50-10, 1-INCH HIGH LETTERS AND ARROW, USING ENAMEL BMS 10-60, BAC701 GLOSS BLACK. STENCIL 2 PLACES, 180 DEGREES APART

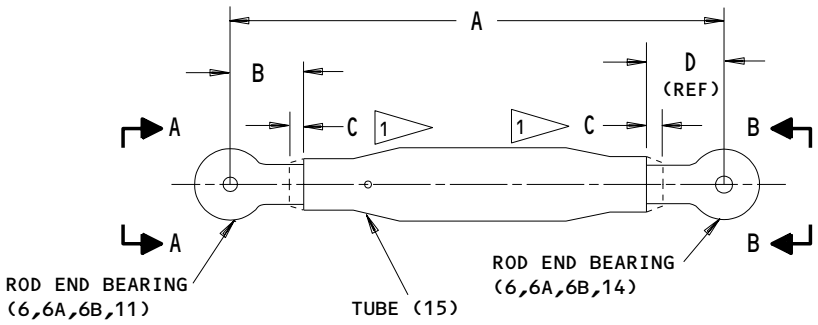
MATERIAL: AL ALLOY

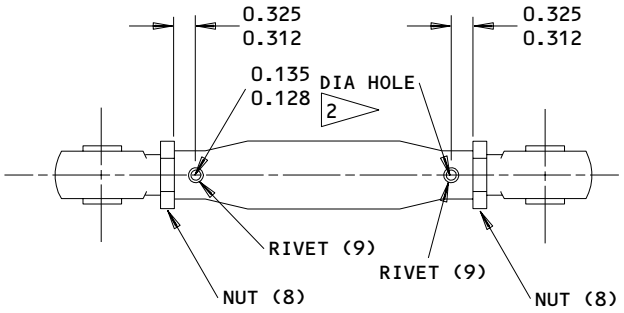
ITEM NUMBERS REFER TO IPL FIG. 1U

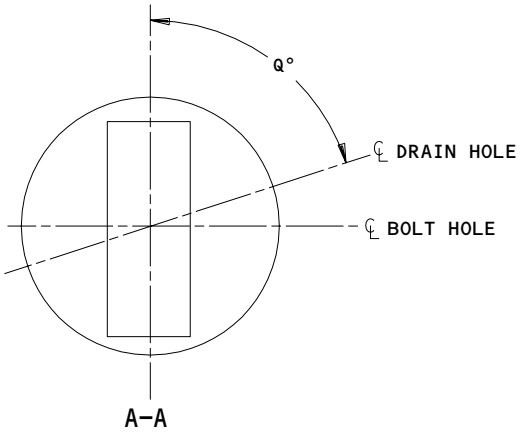
ALL DIMENSIONS ARE IN INCHES

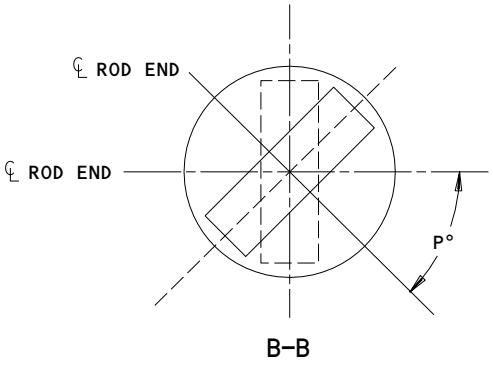
250N2004-1101,-1103,-1104,-1106,-1107,-1108,-1110,-1112,-1113,-1115 THRU -1123
Rod End Replacement
Figure 601 (Sheet 2)

80923









ALL DIMENSIONS ARE IN INCHES

250N2004-1101,-1103,-1104,-1106,-1107,-1108,-1110,-1112,-1113,-1115 THRU -1123

Control Rod Assembly Rework
Figure 602 (Sheet 1)

242542

ASSEMBLY DASH NO.	A ±0.03	B ±0.01	C ±0.01	D REF	P° ±2°	Q° ±2°
1101,1120	42.46	0.89	0.14	0.89	0°	0°
1103,1121	18.76	0.89	0.14	0.89	0°	0°
1104	36.33	1.02	0.14	1.02	90°	0°
1106	4.428	0.89	0.14	0.89	0°	90°
1107,1118, 1119	48.45	0.89	0.14	0.89	90°	90°
1108	11.41	0.89	0.14	0.89	0°	90°
1110	5.625	0.89	0.14	0.89	0°	0°
1112,1122	24.96	0.89	0.14	0.89	0°	0°
1113	11.813	0.89	0.14	0.89	0°	0°
1115	8.48	0.89	0.14	0.89	90°	0°
1116	11.21	0.89	0.14	0.89	0°	90°
1117,1123	23.43	1.33	0.14	1.34	0°	0°

1 REMOVE MATERIAL AS INDICATED

2 RIVET HOLE LOCATIONS ±10°

ITEM NUMBERS REFER TO IPL FIG. 1U

ALL DIMENSIONS ARE IN INCHES

250N2004-1101,-1103,-1104,-1106,-1107,-1108,-1110,-1112,-1113,-1115 THRU -1123

Control Rod Assembly Rework
Figure 602 (Sheet 2)

242726

ROD ASSEMBLY - REPAIR 10-1

250N2004-1201, -1202, -1205 thru -1209

NOTE: Refer to REPAIR-GEN for list of applicable standard practices. For repair of surfaces which may only require stripping and restoration of original finish, refer to refinish instructions, Fig. 601.

1. Rod End Replacement (IPL Fig. 1V, Fig. 601)

   A. Loosen nut (10). Unscrew rod end (15) from tube (20) and remove nut (10) from rod end (15).

   B. Apply corrosion preventive compound on threads of rod ends and tube (20).

   C. Lubricate threads of new rod end (15) and nut (10) with antiseize compound. Reinstall parts.

   D. Apply sealant to threads of rod end (5) prior to installation.

      NOTE: If tube (20) is replaced, refer to Fig. 601 for replacement.

2. Control Rod Assembly Rework (IPL FIg. IV, Fig. 602)

   NOTE: If tube (20) is not replaced, rework swaged end of control rod assembly as follows:

   A. Prior to disassembly determine control rod assembly number stamped on part. If number is no longer evident, measure and record rod centers distance noted by dimension "A" in Fig. 602.

   B. Remove rod end (5) from tube (20).

      NOTE: To assist removal of rod end, heat may be applied to rod end to soften sealant, provided 200 degrees Fahrenheit is not exceeded.

   C. Cut off each tube end per dimension "C" noted in Fig. 602.

   D. After rod end (5) has been removed and discarded, inspect tube with 10X glass for cracks or any damage which would prevent reuse. Then clean threads to ensure that they are free of debris.

   E. Install nut (8) on rod end (6) and run onto end of thread.

   F. Install rod end (6) per Fig. 602 and adjust to dimension "A" and "B" corresponding to appropriate control rod assembly. If control rod assembly number is not evident, adjust rod centers to dimension "A" as determined on step A. Tighten nut (8).

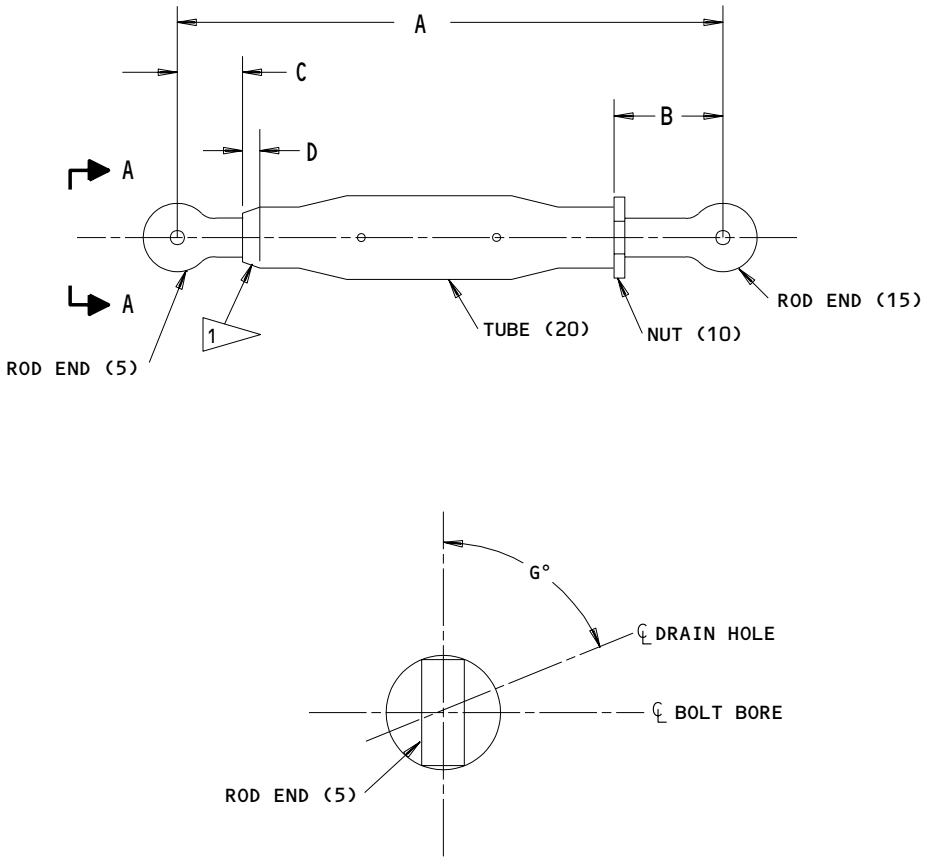
   G. Drill 0.128-0.135 inch diameter rivet hole as shown in Fig. 602.

H. After hole has been drilled, loosen nut (8), remove rod end, and break sharp edges on drilled hole.

I. Apply BMS 5-95, sealant to threads on rod end (6) and install rod end into tube (15).

J. Align rivet holes in tube and rod end, then install rivet (9). Installed rivet may be shaved to a minimum height of 0.050 inches to provide required clearance.

K. Apply BMS 10-11, type 1 primer to all bare aluminum surfaces and to fastener heads.



A-A

250N2004-1201,-1202,-1205 THRU -1209
Rod End Replacement
Figure 601 (Sheet 1)

ASSEMBLY DASH NO.	A ±0.03	B ±0.03	C ±0.01	D ±0.03	G° ±2
1201	10.41	1.18	0.75	0.15	0°
1202	7.14	1.18	0.75	0.15	0°
1205	11.08	1.18	0.75	0.15	0°
1206	23.00	1.18	0.75	0.15	0°
1207	20.00	1.18	0.75	0.15	0°
1208	35.81	1.32	0.88	0.15	0°
1209	42.16	1.11	0.75	0.15	0°

REFINISH

TUBE (20,20A,20C,20D,20E) -- CHEMICAL TREAT AND APPLY ONE COAT PRIMER BMS 10-11, TYPE I (F-18.07). APPLY WATER DISPLACING CORROSION PREVENTIVE COMPOUND (F-19.26) TO INTERIOR EXCEPT OMIT PRIMER AND CORROSION PREVENTIVE COMPOUND ON THREADS. APPLY ONE COAT ENAMEL, BMS 10-11, TYPE II, BAC702 WHITE GLOSS (F-21.03) TO EXTERIOR OF TUBE (20C,20D, 20E ONLY).

TUBE (20G) -- CHEMICAL TREAT AND APPLY ONE COAT OF PRIMER BMS 10-11, TYPE I (F-18.07) EXCEPT OMIT PRIMER ON THREADS.

TUBE (20H) -- CHEMICAL TREAT AND APPLY ONE COAT BMS 10-11, TYPE I, PRIMER (F-18.07). APPLY ONE COAT OF BMS 10-11, TYPE II, WHITE GLOSS ENAMEL (F-21.03), EXCEPT OMIT PRIMER AND ENAMEL ON THREADS.

ROD ASSY (1A) -- APPLY ONE COAT OF BMS 10-11, TYPE I, WHITE GLOSS ENAMEL (F-21.03) EXCEPT OMIT ENAMEL ON ROD ENDS.

ROD END (5) -- STYLUS CADMIUM PLATE (F-15.29) ON REWORKED AREAS

1 SWAGE AFTER ASSEMBLY

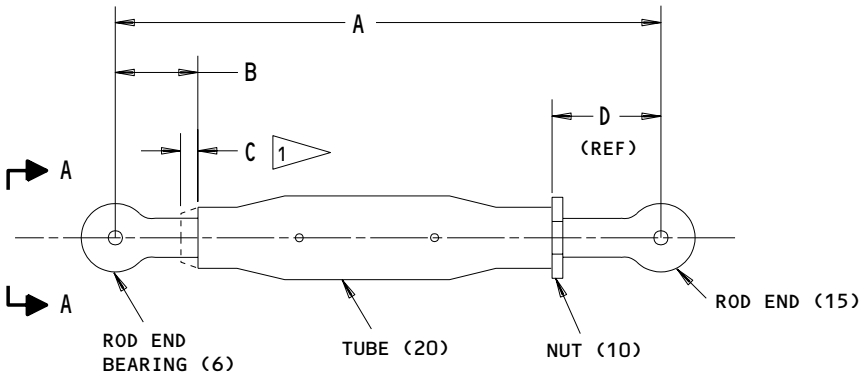
MATERIAL: AL ALLOY

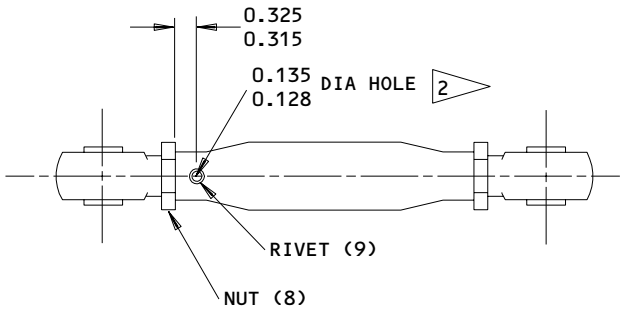
ITEM NUMBERS REFER TO IPL FIG. 1V

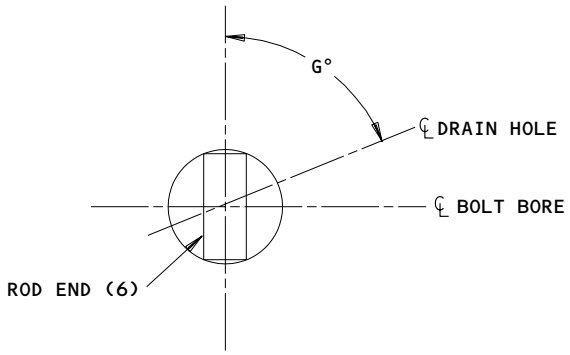
ALL DIMENSIONS ARE IN INCHES

250N2004-1201,-1202,-1205 THRU -1209
Rod End Repair
Figure 601 (Sheet 2)

80946







A-A

250N2004-1201,-1202,-1205 THRU -1209

Control Rod Assembly Rework
Figure 602 (Sheet 1)

242545

ASSEMBLY DASH NO.	A ±0.03	B ±0.01	C ±0.01	D ±0.03	G° ±2°
1201	10.41	0.89	0.14	1.18	0°
1202	7.14	0.89	0.14	1.18	0°
1205	11.08	0.89	0.14	1.18	0°
1206	23.00	0.89	0.14	1.18	0°
1207	20.00	0.89	0.14	1.18	0°
1208	35.81	1.02	0.14	1.32	0°
1209	42.16	0.89	0.14	1.11	0°

1 REMOVE MATERIAL AS INDICATED

2 RIVET HOLE LOCATIONS ±10°

ITEM NUMBERS REFER TO IPL FIG. 1V

ALL DIMENSIONS ARE IN INCHES

250N2004-1201,-1202,-1205 THRU -1209

Control Rod Assembly Rework
Figure 602 (Sheet 2)

242727

ROD ASSEMBLY - REPAIR 11-1

250N2004-1801, -1802

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

1. Rod End Replacement (IPL Fig. 1W, Fig. 601)

   A. Apply sealant to threads of rod end (5) prior to installation.

      NOTE: If tube (10) is replaced, refer to Fig. 601 for replacement.

2. Control Rod Assembly Rework (IPL Fig. 1W, Fig. 602)

   NOTE: If tube (10) is not replaced, rework swaged end of control rod assembly as follows:

   A. Prior to disassembly, determine control rod assembly number stamped on part. If number is no longer evident, measure and record rod centers distance noted by dimension "A" in Fig. 602.

   B. Remove rod end (5) from tube (10).

      NOTE: To assist removal of rod end, heat may be applied to rod end to soften sealant provided 200 degrees Fahrenheit is not exceeded.

   C. Cut off each tube end per dimension "C" noted in Fig. 602.

   D. After rod end (5) has been removed and discarded, inspect tube with 10X glass for cracks or any damage which would prevent reuse. Then clean threads to ensure that they are free of debris.

   E. Install nut (8) on rod end (6) and run onto end of thread.

   F. Install rod end (6) per Fig. 602 and adjust to dimension "A" and "B" corresponding to appropriate control rod assembly. If control rod assembly number is not evident, adjust rod centers to dimension "A" as determined in step A. Tighten nut (8).

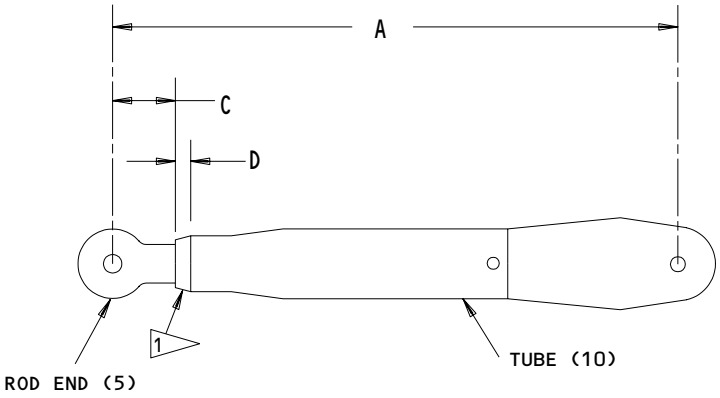
   G. Drill 0.128-0.135 inch diameter rivet hole as shown in Fig. 602.

   H. After hole has been drilled, loosen nut (8), remove rod end, and break sharp edges on drilled hole.

   I. Apply BMS 5-95 sealant to threads on rod end (6) and install rod end into tube (10).

J. Align rivet holes in tube and rod end, then install rivet (9). Installed rivet may be shaved to a minimum height of 0.050 inches to provide required clearance.

K. Apply BMS 10-11, type 1 primer to all bare aluminum surfaces and to fastener heads.



ASSEMBLY DASH NO.	A ±0.01	C ±0.03	D ±0.03
1801	42.07	0.75	0.15
1802	42.07	0.75	0.15

REFINISH

TUBE (10) -- CHEMICAL TREAT AND APPLY ONE COAT OF BMS 10-11, TYPE I, PRIMER (F-18.07). APPLY ONE COAT OF BMS 10-11, TYPE II, WHITE GLOSS ENAMEL (F-21.03). EXCEPT OMIT PRIMER AND ENAMEL ON THREADS.

ROD END (5) -- STYLUS CADMIUM PLATE (F-15.29) REWORKED AREAS.

1 SWAGE AFTER ASSEMBLY

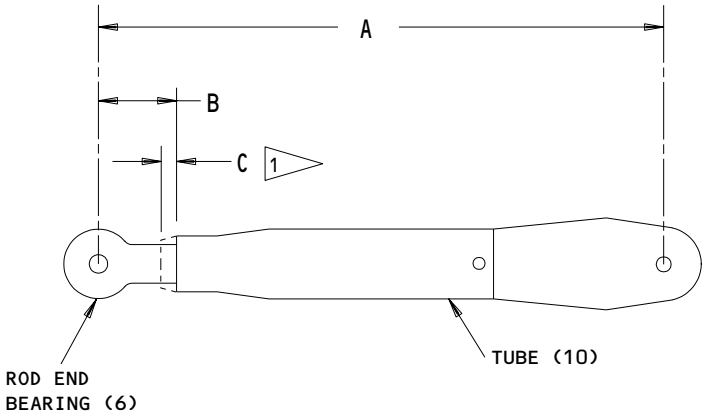
MATERIAL: AL ALLOY

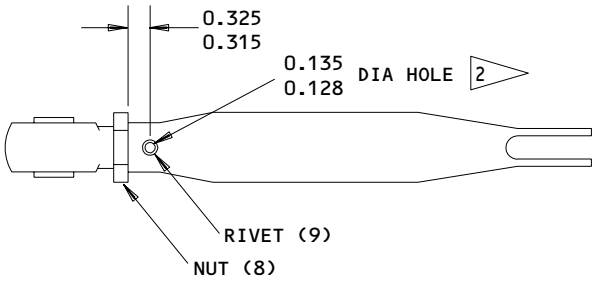
ITEM NUMBERS REFER TO IPL FIG. 1W

ALL DIMENSIONS ARE IN INCHES

250N2004-1801,-1802
Rod End Replacement
Figure 601

80952





ASSEMBLY DASH NO.	A ±0.01	B ±0.01	C ±0.01
1801	42.07	0.89	0.14
1802	42.07	0.89	0.14

1 REMOVE MATERIAL AS INDICATED

2 RIVET HOLE LOCATIONS ±10°

MATERIAL: AL ALLOY

ALL DIMENSIONS ARE IN INCHES

ITEM NUMBERS REFER TO IPL FIG. 1W

250N2004-1801,-1802
Control Rod Assembly Rework
Figure 602

MISCELLANEOUS PARTS REFINISH - REPAIR 12-1

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

Refinish Details
Figure 601

IPL FIG. & ITEM	MATERIAL	FINISH
Fig. 1		
Plug (25,60)	Al alloy	Chromic acid anodize (F-2.20).
Fig. 1C		
Plug (25)	Al alloy	Chromic acid anodize (F-2.20).
Fig. 1M		
Sleeve (20)	15-5PH CRES, 180-200 ksi	Cadmium plate (0.0002 to 0.0004 inch) (F-15.02), external surface only.

Refinish Details
Figure 601

ROD ASSEMBLY - REPAIR 13-1

250N2004-113

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

1. Bearing Replacement (IPL Fig. 1A, Fig. 601)

   A. Loosen nut (15). Unscrew bearing (20) from fitting (30). Remove nut (15) from fitting (30).

   B. Remove rivets (25) and separate fitting (30) from tube (35).

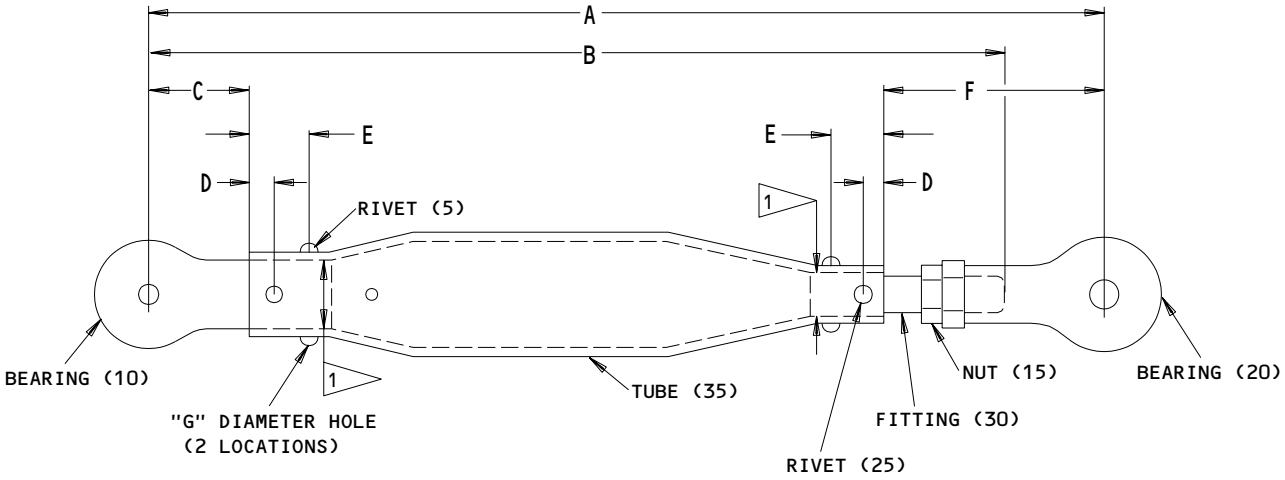
   C. Remove rivets (5) and separate bearing (10) from tube (35).

   D. Using holes in existing parts as guide, drill hole in replacement parts as shown.

   E. Disassemble parts and deburr holes.

   F. Apply BMS 10-11 type 1 primer to faying surfaces of bearing (10) and fitting (30), and reinstall. Secure with rivets (5, 25).

   G. Lubricate threads of bearing (20), fitting (30) and nut (15) with antiseize compound. Install parts in bearing (20).



ASSEMBLY DASH NO.	A ±0.01	B ±0.01	C ±0.01	D ±0.03	E ±0.03	F ±0.03	"G" ±0.01
113	25.26	24.39	10.10	0.40	0.95	1.92	0.156

REFINISH

TUBE (35) -- CHEMICAL TREAT AND APPLY ONE COAT OF PRIMER BMS 10-11, TYPE 1 (F-18.07). APPLY WATER DISPLACING, CORROSION PREVENTIVE COMPOUND (F-19.26) TO INTERIOR EXCEPT AS NOTED BY 1

FITTING (30) -- CADIUM PLATE (15.06)

BEARING (10) -- CHROMIC ACID ANODIZE AND APPLY ONE COAT OF PRIMER BMS 10-11, TYPE 1 (F-18.13) EXCEPT OMIT PRIMER FROM BEARING BORE

1 OMIT PRIMER OR CORROSION PREVENTIVE COMPOUND ON THIS SURFACE.

MATERIAL: AL ALLOY

ITEM NUMBERS REFER TO IPL FIG. 1A

ALL DIMENSIONS ARE IN INCHES

250N2004-113
Rod End Replacement
Figure 601

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

02758 NETWORKS ELECTRONIC CORP U S BEARING DIV
9750 DESOTO AVENUE
CHATSWORTH, CALIFORNIA 91311

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

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

21335 TORRINGTON CO FAFNIR BEARING DIVISION
59 FIELD STREET
TORRINGTON, CONNECTICUT 06790

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

38443 MRC BEARINGS
402 CHANDLER STREET
JAMESTOWN, NEW YORK 14701

50294 NEW HAMPSHIRE BALL BEARINGS INC.
9730 INDEPENDENCE AVENUE
CHATSWORTH, CALIFORNIA 91311-4323

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

73134 IMO INDUSTRIES INC HEIM BEARINGS DIVISION
60 ROUND HILL ROAD
FAIRFIELD, CONNETICUT 06430

77896 REXNORD INC. BEARING DIVISION
2400 CURTIS STREET
DOWNERS GROVE, ILLINOIS 60515-4005

81376 SOUTHWEST PRODUCTS COMPANY
2240 BUENA VISTA ST PO BOX 2046
IRVINDALE, CALIFORNIA 91706

VENDORS

94892 MASTER MACHINE PRODUCTS CORPORATION
1551 SOUTH PRIMROSE AVE
MONROVIA, CALIFORNIA 91016-4542

97613 SARGENT TECHNOLOGIES
1851 SOUTH PANTANO ROAD
TUCSON, ARIZONA 85710

PART NUMBER	AIRLINE PART NO.	FIG.	ITEM	TTL REQ
ABR4H104		1	40	1
		1M	10A	1
ABR4H105		1	10E	1
		1	40E	1
		1B	10A	1
ABR4H106		1	10C	1
		1	40C	1
		1B	10	1
		1P	10	1
ABR4M103		1D	15A	1
		1D	30C	1
ABR4M104		1D	30	0
		1D	15D	1
ABR4M105		1D	15E	1
ABR4M106		1D	30D	1
ABR4M8G		1B	20A	1
		1M	30A	1
		1V	15A	1
		1V	15C	1
ABR4M8WG		1B	20	1
		1V	15	1
ABR4S2G		1	10D	1
		1	40D	1
ABR5H101		1	10	1
		1	40B	1
		1B	10C	1
ABR5M10G		1B	20D	1
		1V	15B	1
AN316-4R		1D	20G	1
AN316-5R		1A	5	1
		1D	5F	1
		1K	5B	1
AN316-6R		1B	15	1
		1C	35	1
		1D	5A	1
		1D	20C	1
		1M	15	1
		1V	10	1
AN316-7R		1D	5	1
		1D	20	1
AN316-9R		1M	25	1
AN316C5R		1K	5A	

PART NUMBER	AIRLINE PART NO.	FIG.	ITEM	TTL REQ
AN316C6R		1B	15A	1
		1D	5B	1
		1K	5	1
AN316C7R		1D	20E	1
AN509-4		1D	20F	1
AN509-5		1D	5E	1
ARB4E60TW		1K	15	1
ARB5E60MW		1D	15C	1
		1D	30B	1
ARB6E60MW		1D	15B	1
		1D	30A	1
ART4E129		1D	15F	1
ART4E136		1D	30F	1
ARYT4E-105		1U	14	1
AR4E8W3		1K	15	1
AR5E7W13		1D	15C	1
		1D	30B	1
AR6E7W13		1D	15B	1
		1D	30A	1
BACB10AD11		1	10D	1
		1	40D	1
BACB10AD12		1D	15A	1
		1D	30C	1
BACB10AD12K		1D	15E	1
BACB10AD13		1D	30	0
		1D	15D	1
BACB10AD13K		1D	30D	1
BACB10AD5		1B	20A	1
		1M	30A	1
		1U	6	2
		1V	6	2
		1V	15A	1
		1V	15C	1
		1W	6	1
BACB10AD5K		1B	20	1
		1V	15	1
		1V	6A	2
BACB10AD6		1B	20D	1
		1U	6A	2
		1V	6B	2
		1V	15B	1
BACB10AE10A		1	10	1
		1	40	1
		1M	10A	1
BACB10AE11		1	10B	1
		1	40B	1
		1B	10C	1

PART NUMBER	AIRLINE PART NO.	FIG.	ITEM	TTL REQ
BACB10AE9A		1	10C	1
		1	40C	1
		1B	10	1
		1P	10	1
BACB10AE9B		1	10E	1
		1	40E	1
		1B	10A	1
BACB10C55H		1C	45	1
BACB10C71		1C	30	1
BACB10Y4T		1K	15	1
BACB10Y5M		1D	15C	1
		1D	30B	1
BACB10Y6M		1D	15B	1
		1D	30A	1
BACB28X6C010		1T	10	2
BACB28X9M012		1T	5	2
BACR15BB4AD		1U	9	2
		1V	9	1
		1W	9	1
BACR15BB5D		1	5C	4
		1	35D	4
		1A	5	4
		1A	5	4
BACR15CE6D		1P	5A	4
BACR15FT5D		1	20	4
		1	5B	4
		1	55	4
		1	35C	4
		1B	5	4
		1C	5	4
		1C	20	4
		1M	5A	4
BACR15FT5KE		1	5D	4
		1	35B	4
BACR15FT6D		1P	5	
BACR15FT6KE		1	5	4
		1	35	4
BRES4-2236EL1		1K	15	1
BRES5-2001M1		1D	15C	1
		1D	30B	1
BRES6-2001M1		1D	15B	1
		1D	30A	1
DREM4-304		1D	30F	1
DREN4-292		1D	15F	1

PART NUMBER	AIRLINE PART NO.	FIG.	ITEM	TTL REQ
GRR4M6-7FS428		1M	30B	1
GRR4M7-2FS428		1M	10C	1
HB4E212KT		1K	15	1
HB5E212KM		1D	15C	1
		1D	30B	1
HB6E212KM		1D	15B	1
		1D	30A	1
HHRE4H6-1		1	10C	1
		1	40C	1
		1B	10	1
		1P	10	1
HHRE4H8-1		1	10	1
		1	40	1
		1M	10A	1
HHRE4MS6-1		1B	20	1
		1V	15	1
HHRE4M6-1		1B	20A	1
		1M	30A	1
		1V	15A	1
		1V	15C	1
HHRE4M6-2		1D	15A	1
		1D	30C	1
HHRE4M7-1		1D	30	0
		1D	15D	1
HHRE4S10-1		1	10D	1
		1	40D	1
HHRE5H8-1		1	10B	1
		1	40B	1
		1B	10C	1
HHRE5M6-1		1B	20D	1
		1V	15B	1
KBDE4-44		1D	30F	1
KBE4-150WT		1K	15	1
KBE5-150WD5		1D	15C	1
		1D	30B	1
KBE6-150WD5		1D	15B	1
		1D	30A	1
KSR14870OB1		1D	30G	1
KSR14870OB2		1D	15G	1
MIL-B-81935 *[1]		1U	6B	2
MR4H		1C	45	1
MSSKR44-14BAC		1D	30F	1
MSSK4AS2		1K	15	1
MSSK5AS1		1D	15C	1
		1D	30B	1
MSSK6AS1		1D	15B	1
		1D	30A	1

PART NUMBER	AIRLINE PART NO.	FIG.	ITEM	TTL REQ
MSSR45-14BAF		1D	15F	1
MS20615-5M		1M	5	4
MS206156M		1	5A	
		1	35A	
MS21151-8		1M	30	1
MS35338-46		1C	40	1
M81935/1-4		1U	6B	2
NAS1193K6CP		1D	10B	1
		1D	25C	1
NAS1423-5		1U	8A	2
NAS1423-6		1U	8	2
		1V	8	1
		1W	8	1
NAS509-5		1D	5D	1
		1D	20B	1
NAS509-6		1D	5C	1
		1D	20A	1
NAS509-7		1D	20D	1
NAS513-4		1D	25D	
NAS513-5		1D	10A	1
		1D	25A	1
NAS513-6		1D	10	1
		1D	25	
NAS513-7		1D	25B	1
NHNE4-205		1D	15F	1
NHNE4-216		1D	30F	1
REMS8ATC8-2		1D	30F	1
REM8ATC10-6		1D	15F	1
REP4F5-8		1A	0	1
REP4H5-2		1	40E	1
		1B	10A	1
REP4H5-2FS436		1	10E	1
		1	40E	1
		1B	10A	1
REP4H5—2		1	10E	1
REP4H6-2		1	10C	1
		1	40C	1
		1B	10	1
		1P	10	1
REP4H6E9171A		1	10C	1
		1	40C	1
		1B	10	1
		1P	10	1
REP4H6FS436		1	10C	1
		1	40C	1
		1B	10	1
		1P	10	1

PART NUMBER	AIRLINE PART NO.	FIG.	ITEM	TTL REQ
REP4H8-4		1	10	1
		1	40	1
		1M	10A	1
REP4H8E9171A		1	10	1
		1	40	1
		1M	10A	1
REP4H8FS436		1	10	1
		1	40	1
		1M	10A	1
REP4MS6-5FS428		1D	15E	1
REP4MS7-2FS428		1D	30D	1
REP4M6-4E9171B		1B	20	1
		1V	15	1
REP4M6-4FS428		1B	20	1
		1V	15	1
REP4M6-5E9171B		1D	15A	1
		1D	30C	1
REP4M6-5FS428		1B	20B	
		1D	15A	1
		1D	30C	1
REP4M6E9171B		1B	20A	1
		1M	30A	1
		1V	15A	1
		1V	15C	1
REP4M6FS428		1B	20A	1
		1M	30A	1
		1V	15A	1
		1V	15C	1
REP4M7-2E9171B		1D	30	0
		1D	15D	1
REP4M7-2FS428		1D	30	
		1D	15D	1
REP4S10E9171B		1	10D	1
		1	40D	1
REP4S10FS428		1	10D	1
		1	40D	1
REP5H8FS436		1	10B	1
		1	40B	1
		1B	10C	1
		1B	20C	
REP5M6E6531		1B	20D	1
		1V	15B	1
REP5M6FS428		1B	10B	
		1B	20D	1
		1V	15B	1
RMF4BF		1U	11	1
RM4BG		1D	15	1

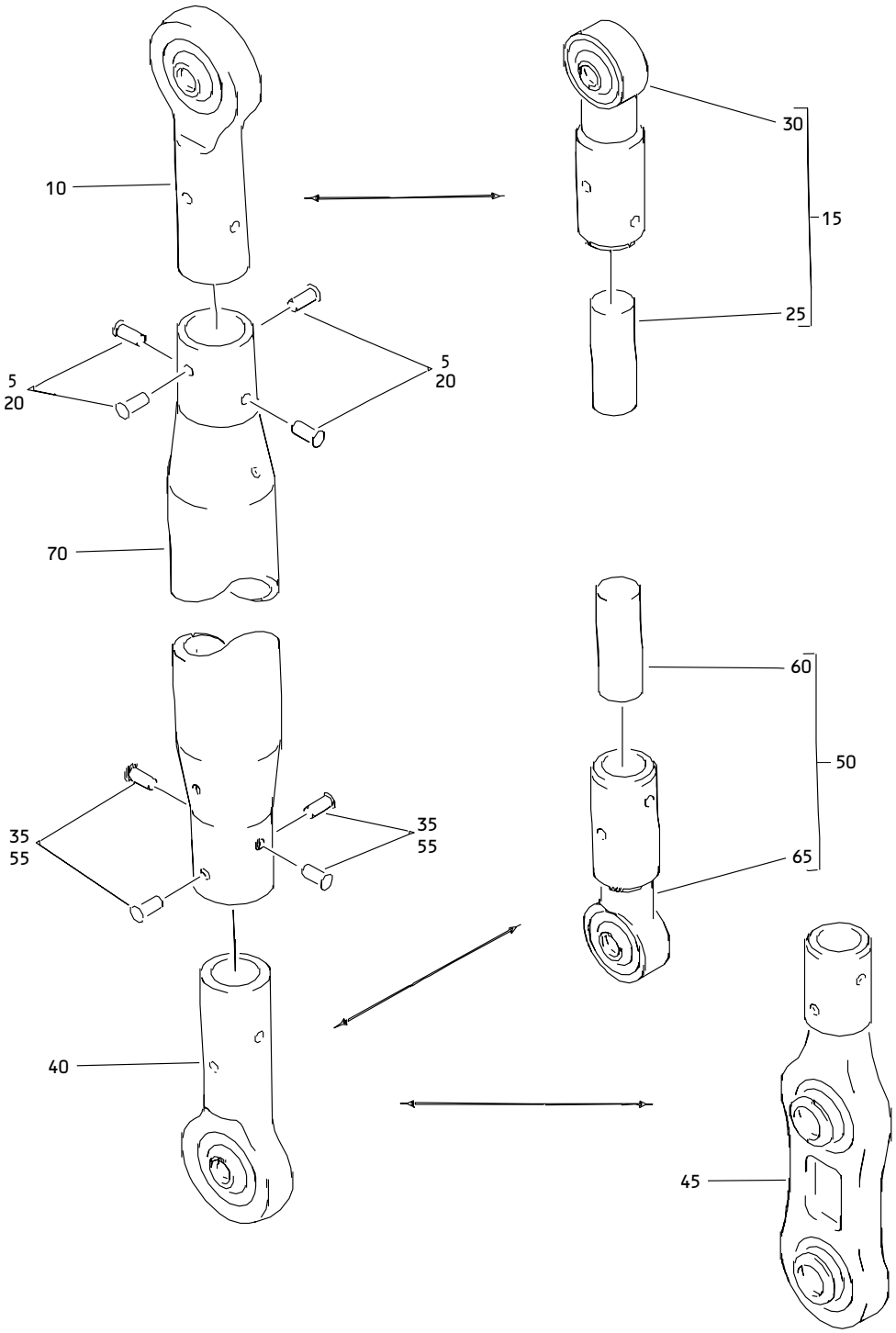
PART NUMBER	AIRLINE PART NO.	FIG.	ITEM	TTL REQ
SM4-6AS1-501		1U	12A	1
SM4-6T4		1C	45	1
SPH4-10D1-501		1	10A	
		1	40A	
SRX10		1	45A	1
SRX9		1	45	1
S012T236-202		1	45	1
S012T236-204		1	45A	1
TFM3R		1D	30F	1
YS185		1C	30	1
YTM187		1D	15F	1
10-60779-124		1D	15F	1
10-60779-17		1D	30E	
10-60779-177		1D	30F	1
10-60779-216		1	30	1
		1	65	1
177156		1D	30F	1
250N2004-1002		1T	1	RF
250N2004-1003		1T	1A	RF
250N2004-101		1	1	RF
250N2004-102		1	1A	
250N2004-103		1	1B	RF
250N2004-104		1	1C	RF
250N2004-105		1	1D	RF
250N2004-106		1	1E	
250N2004-107		1	1F	RF
250N2004-108		1	1G	RF
250N2004-109		1	1H	RF
250N2004-110		1	1J	RF
250N2004-1101		1U	1	RF
250N2004-1103		1U	1A	RF
250N2004-1104		1U	1B	RF
250N2004-1106		1U	1C	RF
250N2004-1107		1U	1D	RF
250N2004-1108		1U	1E	RF
250N2004-1110		1U	1F	RF
250N2004-1112		1U	1G	RF
250N2004-1113		1U	1H	RF
250N2004-1115		1U	1J	RF
250N2004-1116		1U	1K	RF
250N2004-1117		1U	1L	RF
250N2004-1118		1U	1M	RF
250N2004-1119		1U	1N	RF
250N2004-112		1	1K	RF
250N2004-1120		1U	1P	RF
250N2004-1121		1U	1Q	RF
250N2004-1122		1U	1R	RF

PART NUMBER	AIRLINE PART NO.	FIG.	ITEM	TTL REQ
250N2004-1123		1U	1S	RF
250N2004-113		1A	1	R
250N2004-114		1	1L	RF
250N2004-116		1	1M	RF
250N2004-1201		1V	1	RF
250N2004-1202		1V	1A	RF
250N2004-1205		1V	1B	RF
250N2004-1206		1V	1C	RF
250N2004-1207		1V	1D	RF
250N2004-1208		1V	1E	RF
250N2004-1209		1V	1F	RF
250N2004-1801		1W	1	RF
250N2004-1802		1W	1A	RF
250N2004-201		1B	1	RF
250N2004-202		1B	1A	RF
250N2004-203		1B	1B	
250N2004-204		1B	1C	
250N2004-205		1B	1D	RF
250N2004-206		1B	1E	RF
250N2004-207		1B	1F	RF
250N2004-208		1B	1G	RF
250N2004-209		1B	1H	RF
250N2004-210		1C	1	RF
250N2004-211		1C	1A	RF
250N2004-214		1C	1B	RF
250N2004-215		1C	1C	RF
250N2004-217		1C	1D	RF
250N2004-218		1C	1E	RF
250N2004-219		1C	1F	RF
250N2004-220		1C	1G	RF
250N2004-221		1B	1J	RF
250N2004-222		1B	1K	RF
250N2004-301		1D	1	RF
250N2004-302		1D	1A	RF
250N2004-303		1D	1B	RF
250N2004-304		1D	1C	RF
250N2004-305		1D	1D	RF
250N2004-310		1D	1E	
250N2004-311		1D	1F	RF
250N2004-312		1D	1G	RF
250N2004-313		1D	1H	RF
250N2004-314		1D	1J	RF
250N2004-315		1D	1K	RF
250N2004-320		1D	1L	RF
250N2004-321		1D	1M	RF
250N2004-323		1D	1N	RF
250N2004-324		1D	1P	RF

PART NUMBER	AIRLINE PART NO.	FIG.	ITEM	TTL REQ
250N2004-325		1D	1Q	RF
250N2004-326		1D	1R	RF
250N2004-328		1D	1S	RF
250N2004-329		1D	1T	RF
250N2004-330		1D	1U	
250N2004-332		1D	1V	RF
250N2004-333		1D	1W	RF
250N2004-334		1D	1X	RF
250N2004-335		1D	1Y	RF
250N2004-336		1D	1Z	RF
250N2004-601		1K	1	
250N2004-602		1K	1A	RF
250N2004-604		1K	1B	
250N2004-605		1K	1C	
250N2004-606		1K	1E	RF
250N2004-607		1K	1F	RF
250N2004-608		1K	1G	RF
250N2004-701		1M	1	
250N2004-702		1M	1A	RF
250N2004-703		1M	1B	RF
250N2004-704		1M	1C	RF
250N2004-705		1M	1D	RF
250N2004-707		1M	1E	RF
250N2004-708		1M	1F	RF
250N2004-801		1P	1	
250N2004-802		1P	1A	RF
250N2005-101		1	70	1
250N2005-102		1	70A	
250N2005-103		1	70B	1
250N2005-104		1	70C	1
250N2005-105		1	70D	1
250N2005-106		1	70E	
250N2005-107		1	70F	1
250N2005-108		1	70G	1

PART NUMBER	AIRLINE PART NO.	FIG.	ITEM	TTL REQ
250N2005-109		1	70H	1
250N2005-110		1	70J	1
250N2005-112		1	70K	1
250N2005-113		1A	35	1
250N2005-114		1	70L	1
250N2005-116		1	70M	1
250N2005-201		1B	25	1
250N2005-202		1B	25A	1
250N2005-203		1B	25B	
250N2005-204		1B	25C	
250N2005-205		1B	25D	1
250N2005-301		1D	35	1
250N2005-304		1D	35C	1
250N2005-305		1D	35D	1
250N2005-310		1D	35F	1
250N2005-312		1D	35G	1
250N2005-313		1D	35H	1
250N2005-314		1D	35J	1
250N2005-315		1D	35K	1
250N2005-320		1D	35M	1
250N2005-321		1U	15	1
250N2005-323		1U	15A	1
250N2005-324		1U	15B	1
250N2005-326		1U	15C	1
250N2005-327		1U	15D	1
250N2005-328		1U	15E	1
250N2005-330		1U	15F	1
250N2005-331		1U	15G	1
250N2005-332		1V	20	1
250N2005-333		1V	20A	1
250N2005-336		1V	20C	1
250N2005-337		1V	20D	1
250N2005-338		1V	20E	1
250N2005-339		1V	20G	1
250N2005-340		1V	20H	1
250N2005-341		1D	35N	1
250N2005-345		1U	15H	1
250N2005-346		1U	15J	1
250N2005-347		1D	35P	1
250N2005-348		1U	15K	1
250N2005-349		1U	15L	1
250N2005-350		1D	35Q	1
250N2005-351		1D	35R	
250N2005-352		1U	15M	1
250N2005-354		1D	35U	1
250N2005-355		1U	15N	1
250N2005-356		1U	15P	1

PART NUMBER	AIRLINE PART NO.	FIG.	ITEM	TTL REQ
250N2005-358		1D	35W	1
250N2005-359		1U	15Q	1
250N2005-360		1U	15R	1
250N2005-361		1U	15S	1
250N2005-362		1U	15T	1
250N2005-363		1D	35X	1
250N2005-366		1M	35C	1
250N2005-367		1M	35D	1
250N2005-502		1D	35L	1
250N2005-603		1W	10	1
250N2005-606		1W	10A	1
		1W	10B	1
250N2005-607		1W	10C	1
		1W	10D	1
250N2005-701		1D	35V	1
250N2010-1		1U	5	2
		1V	5	1
		1W	5	1
250N2010-2		1U	10	2
		1V	5A	1
250N2010-3		1U	12	1
250N2010-4		1U	13	1
250N2010-5		1U	5A	2
250N2010-3		1U	12B	1
254N1071-1		1M	10	1
254N1130-1		1A	0	1
		1M	10B	1
51588-041VL		1K	15	1
51588-051DD		1D	15C	1
		1D	30B	1
51588-061DD		1D	15B	1
		1D	30A	1
66-14564-1		1	15	1
		1	50	1
66-14564-2		1	25	1
		1	60	1
66-16954-1		1C	15	1
66-16954-2		1C	25	1
69B81534-1		1C	10	1
69B82107-1		1K	10	
69B94153-3		1M	20	1
69B94153-4		1M	20A	1
69B82107-1		1K	10	
69B94153-3		1M	20	1
69B94153-4		1M	20A	1



Control Rod Assembly
Figure 1

T56303

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01-					
-1	250N2004-101		ROD ASSY-CONT	A	RF
-1A	250N2004-102		DELETED		
-1B	250N2004-103		ROD ASSY-CONT	C	RF
-1C	250N2004-104		ROD ASSY-CONT	D	RF
-1D	250N2004-105		ROD ASSY-CONT	E	RF
-1E	250N2004-106		DELETED		
-1F	250N2004-107		ROD ASSY-CONT	G	RF
-1G	250N2004-108		ROD ASSY-CONT	H	RF
-1H	250N2004-109		ROD ASSY-CONT	J	RF
-1J	250N2004-110		ROD ASSY-CONT	K	RF
-1K	250N2004-112		ROD ASSY-CONT	L	RF
-1L	250N2004-114		ROD ASSY-CONT	M	RF
-1M	250N2004-116		ROD ASSY-CONT	N	RF
-1N	250N2004-117		ROD ASSY-CONT	O	RF
5	BACR15FT6KE		.RIVET	ACJ-M	4
-5A	MS206156M		DELETED		
-5B	BACR15FT5D		.RIVET	DG	4
-5C	BACR15BB5D		.RIVET	H	4
-5D	BACR15FT5KE		.RIVET	N	4
-5E	BACR15FT5KE2R5C		.RIVET	O	4
10	REP4H8FS436		.BEARING-BALL,ROD END (V21335) (SPEC BACB10AE10A) (OPT HHRE4H8-1 (V38443)) (OPT REP4H8-4 (V38443)) (OPT REP4H8E9171A (V21335)) (OPT ABR5H101 (V50294))	ACJ-M	1
-10A	SPH4-10D1-501		DELETED		
-10B	REP5H8FS436		.ROD END-BALL BRG (V21335) (SPEC BACB10AE11) (OPT HHRE5H8-1 (V38443))	D	1

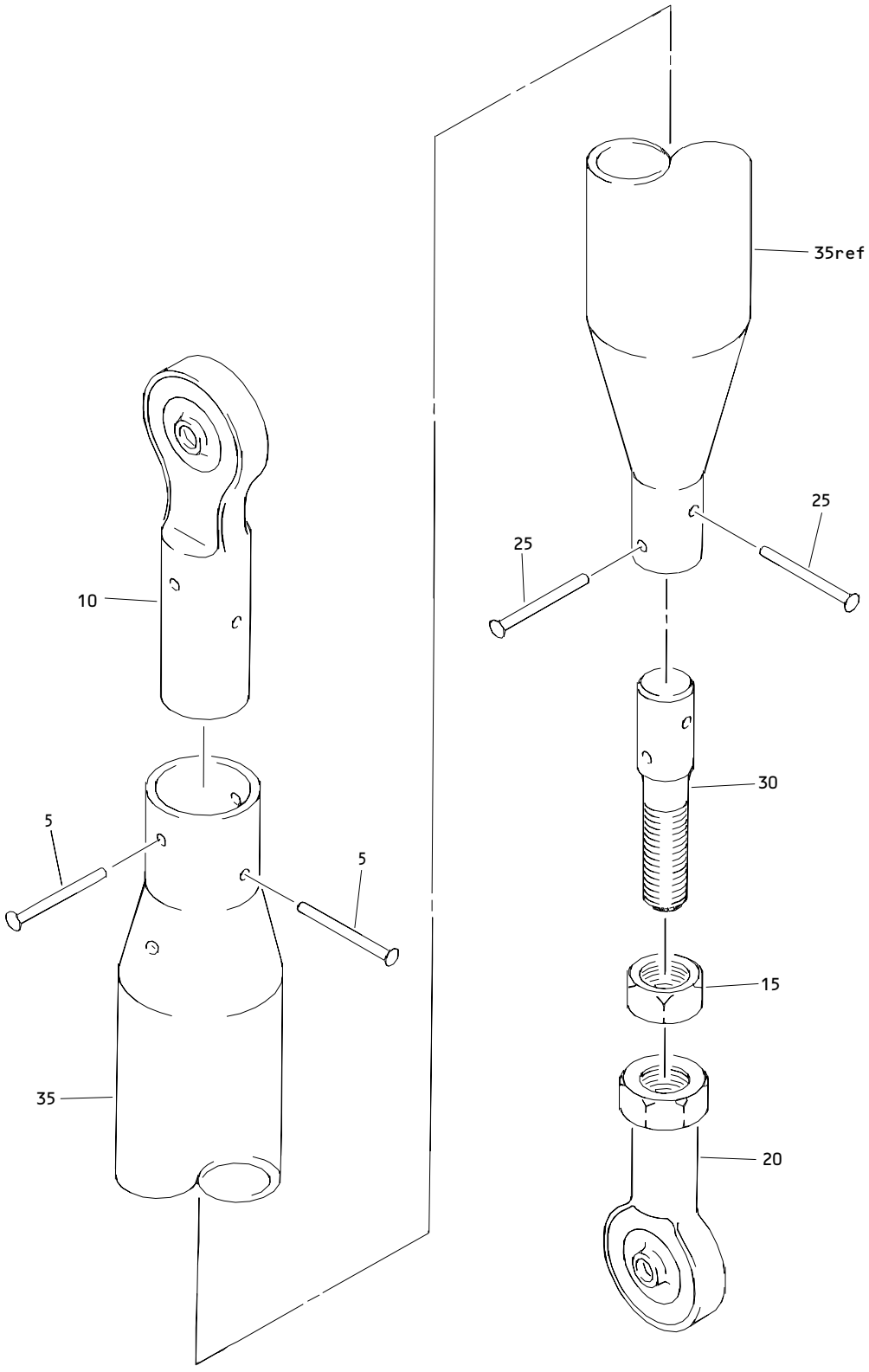
FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01-					
-10C	REP4H6FS436		.BEARING-BALL,ROD END (V21335) (SPEC BACB10AE9A) (OPT HHRE4H6-1 (V38443)) (OPT REP4H6-2 (V38443)) (OPT REP4H6E9171A (V21335)) (OPT ABR4H106 (V50294))	G	1
-10D	REP4S10FS428		.BEARING-BALL,ROD END (V21335) (SPEC BACB10AD11) (OPT HHRE4S10-1 (V38443)) (OPT REP4S10E9171B (V21335)) (OPT ABR4S2G (V50294))	H	1
-10E	REP4H5-2FS436		.BEARING-BALL,ROD END (V21335) (SPEC BACB10AE9B) (OPT REP4H5–2 (V38443)) (OPT ABR4H105 (V50294))	N	1
-10F	REP4H5-2FS436		.BEARING-BALL,ROD END (OPT ITEM 10G) (V21335) (SPEC BACB10AE9B) (OPT REP4H5–2 (V38443)) (OPT ABR4H105 (V50294))	0	1

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01-					
-10G	25ON2004-118		.BEARING-BALL,ROD END (OPT ITEM 10F)	O	1
15	66-14564-1		.BEARING ASSY-ROD END ATTACHING PARTS	E	1
20	BACR15FT5D		.RIVET -------*-------	E	4
25	66-14564-2		..PLUG	E	1
30	10-60779-216		..BEARING-BALL,ROD END	E	1
35	BACR15FT6KE		.RIVET	ACJ-M	4
-35A	MS206156M		DELETED		
-35B	BACR15FT5KE		.RIVET	D,N	4
-35C	BACR15FT5D		.RIVET	G	4
-35D	BACR15BB5D		.RIVET	H	4
-35E	BACR15FT5KE2R5C		.RIVET	O	4
40	REP4H8FS436		.BEARING-BALL,ROD END (V21335) (SPEC BACB10AE10A) (OPT HHRE4H8-1 (V38443)) (OPT REP4H8-4 (V38443)) (OPT REP4H8E9171A (V21335)) (OPT ABR4H104 (V50294))	ACKL	1
-40A	SPH4-10D1-501		DELETED		
-40B	REP5H8FS436		.BEARING-BALL, ROD END (V21335) (SPEC BACB10AE11) (OPT HHRE5H8-1 (V38443)) (OPT ABR5H101 (V50294))	D	1
-40C	REP4H6FS436		.BEARING-BALL, ROD END (V21335) (SPEC BACB10AE9A) (OPT HHRE4H6-1 (V38443)) (OPT REP4H6-2 (V38443)) (OPT REP4H6E9171A (V21335)) (OPT ABR4H106 (V50294))	G	1

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01-					
-40D	REP4S10FS428		.BEARING BALL,ROD END (V21335) (SPEC BACB10AD11) (OPT HHRE4S10-1 (V38443)) (OPT REP4S10E9171B (V21335)) (OPT ABR4S2G (V50294))	H	1
-40E	REP4H5-2FS436		.BEARING-BALL,ROD END (V21335) (SPEC BACB10AE9B) (OPT REP4H5-2 (V38443)) (OPT ABR4H105 (V50294))	N	1
-40F	REP4H5-2FS436		.BEARING-BALL,ROD END (OPT ITEM 40G) (V21335) (SPEC BACB10AE9B) (OPT REP4H5-2 (V38443)) (OPT ABR4H105 (V50294))	N	1
-40G	250N2004-118		.BEARING-BALL,ROD END (OPT ITEM 40F)	0	1
45	SRX9		.BEARING-ROD END, DBL EYE (V77896) (SPEC S012T236-202) (OPT ITEM 45A) *[1]	JM	1
-45A	SRX10		.BEARING-ROD END,DBL EYE (V77896) (SPEC S012T236-204) (OPT ITEM 45) *[1]	JM	1
50	66-14564-1		.BEARING ASSY-ROD END ATTACHING PARTS	E	1
55	BACR15FT5D		.RIVET -------*-------	E	4
60	66-14564-2		..PLUG	E	1
65	10-60779-216		..BEARING-BALL,ROD END	E	1
70	250N2005-101		.TUBE	A	1
-70A	250N2005-102		DELETED		
-70B	250N2005-103		.TUBE	C	1

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01-					
-70C	250N2005-104		.TUBE	D	1
-70D	250N2005-105		.TUBE	E	1
-70E	250N2005-106		DELETED		
-70F	250N2005-107		.TUBE	G	1
-70G	250N2005-108		.TUBE	H	1
-70H	250N2005-109		.TUBE	J	1
-70J	250N2005-110		.TUBE	K	1
-70K	250N2005-112		.TUBE	L	1
-70L	250N2005-114		.TUBE	M	1
-70M	250N2005-116		.TUBE	NO	1

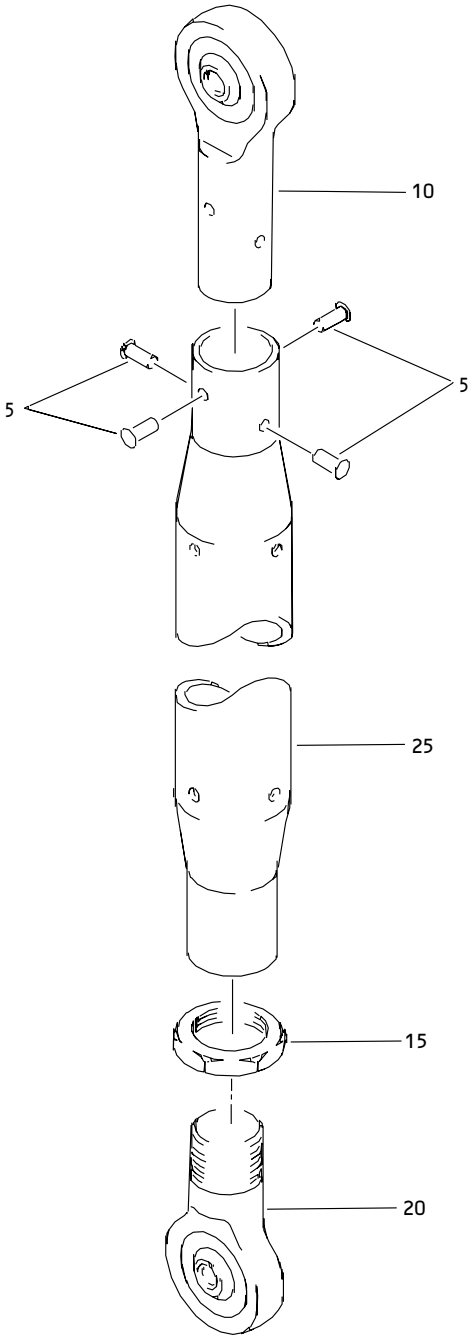
*[1] S012T236-204, OPTIONAL TO S012T236-202 WHEN HOLE IN BASE OF S012T236-204 IS FILLED WITH EPOXY RESIN PER BAC5432 COMPOUND NO. 8 AND CURING AGENT 7103 PER NARMCO DATA SHEET SRDS11.



Control Rod Assembly
Figure 1A

93620

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01A-					
-1	250N2004-113		ROD ASSY-CONT		RF
5	BACR15BB5D		.RIVET- (SIZE DETERMINE ON INST)		4
10	254N1130-1		.BEARING		1
15	AN316-5R		.NUT		1
20	REP4F5-8		.BEARING-OUTER (V21335)		1
25	BACR15BB5D		.RIVET- (SIZE DETERMINE ON INST)		4
30	253T1223-1		.FITTING-INNER		1
35	250N2005-113		.TUBE		1

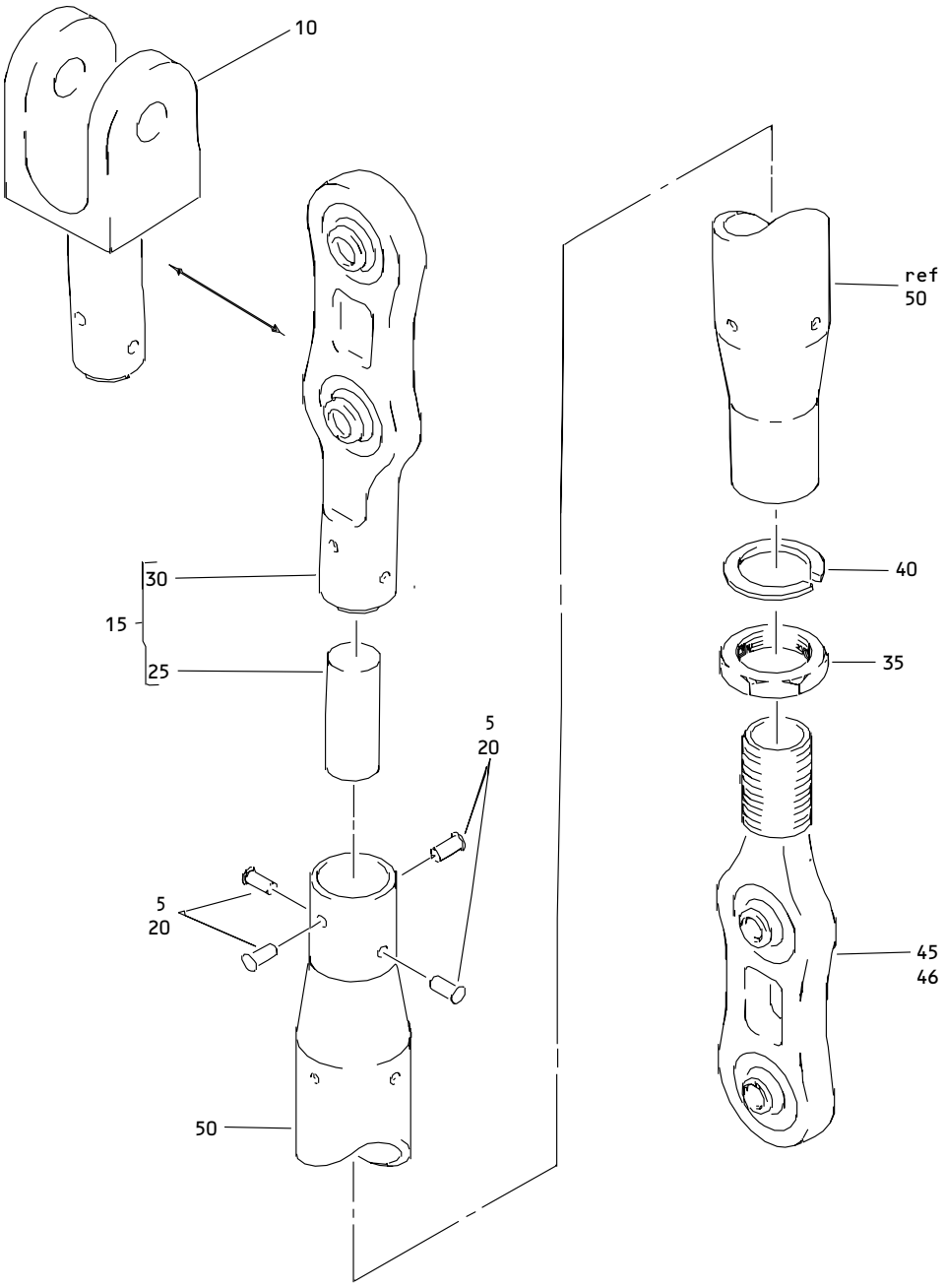


Control Rod Assembly
Figure 1B

T56304

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01B-					
-1	250N2004-201		ROD ASSY-CONT	A	RF
-1A	250N2004-202		ROD ASSY-CONT	B	RF
-1B	250N2004-203		DELETED		
-1C	250N2004-204		DELETED		
-1D	250N2004-205		ROD ASSY-CONT	E	RF
-1E	250N2004-206		ROD ASSY-CONT	F	RF
-1F	250N2004-207		ROD ASSY-CONT	G	RF
-1G	250N2004-208		ROD ASSY-CONT	H	RF
-1H	250N2004-209		ROD ASSY-CONT	J	RF
-1J	250N2004-221		ROD ASSY-CONT	K	RF
-1K	250N2004-222		ROD ASSY-CONT	C	RF
5	BACR15FT5D		.RIVET (SIZE DETERMINE ON INST)		4
10	REP4H6FS436		.BEARING-BALL,ROD END (V21335) (SPEC BACB10AE9A) (OPT HHRE4H6-1 (V38443)) (OPT REP4H6-2 (V38443)) (OPT REP4H6E9171A (V21335)) (OPT ABR4H106 (V50294))	A	1
-10A	REP4H5-2FS436		.BEARING-BALL,ROD END (V21335) (SPEC BACB10AE9B) (OPT REP4H5-2 (V38443)) (OPT ABR4H105 (V50294))	BCE-G JK	1
-10B	REP5M6FS428		DELETED		
-10C	REP5H8FS436		.BEARING-BALL,ROD END (V21335) (SPEC BACB10AE11) (OPT HHRE5H8-1 (V38443)) (OPT ABR5H101 (V50294))	H	1

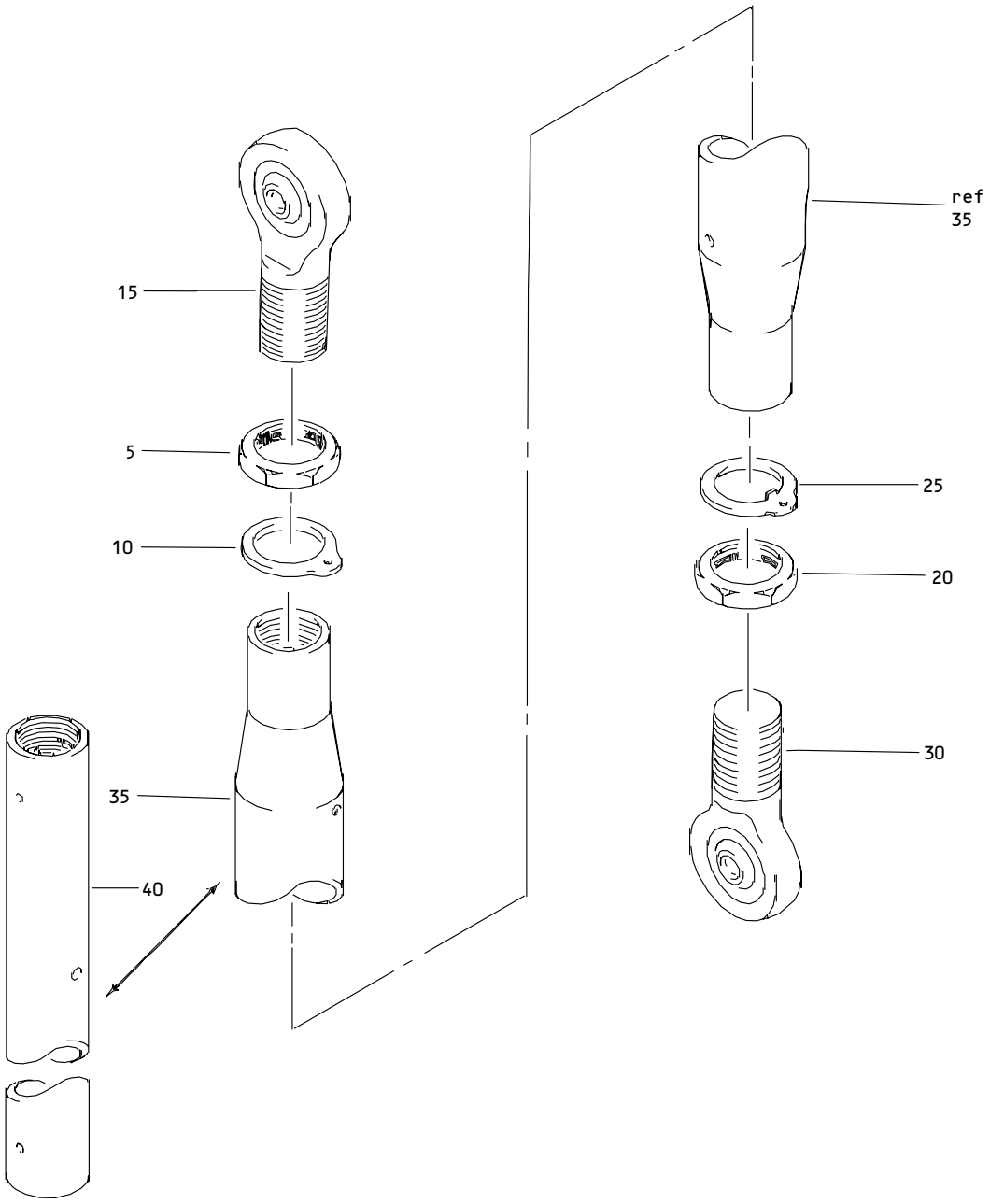
FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01B-					
15	AN316-6R		.NUT-JAM	ABC E-HK	1
-15A	AN316C6R		.NUT-JAM	J	1
20	REP4M6-4FS428		.BEARING-BALL,ROD END (V21335) (SPEC BACB10AD5K) (OPT HHRE4MS6-1 (V38443)) (OPT REP4M6-4E9171B (V21335)) (OPT ABR4M8WG (V50294))	AJ	1
-20A	REP4M6FS428		.BEARING-BALL,ROD END (V21335) (SPEC BACB10AD5) (OPT HHRE4M6-1 (V38443)) (OPT REP4M6E9171B (V21335)) (OPT ABR4M8G (V50294))	BCE-G K	1
-20B	REP4M6-5FS428		DELETED		
20C	REP5H8FS436		DELETED		
-20D	REP5M6FS428		.BEARING-BALL,ROD END (V21335) (SPEC BACB10AD6) (OPT HHRE5M6-1 (V38443)) (OPT REP5M6E6531 (V21335)) (OPT ABR5M10G (V50294))	H	1
25	25ON2005-201		.TUBE	A	1
-25A	25ON2005-202		.TUBE	BK	1
-25B	25ON2005-203		DELETED		
-25C	25ON2005-204		DELETED		
-25D	25ON2005-205		.TUBE	E	1
-25E	25ON2005-206		.TUBE	F	1
-25F	25ON2005-207		.TUBE	G	1
-25G	25ON2005-208		.TUBE	H	1
-25H	25ON2005-209		.TUBE	CJ	1



Control Rod Assembly
Figure 1C

T56305

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01C-					
-1	250N2004-210		ROD ASSY-CONT	A	RF
-1A	250N2004-211		ROD ASSY-CONT	B	RF
-1B	250N2004-214		ROD ASSY-CONT	C	RF
-1C	250N2004-215		ROD ASSY-CONT	D	RF
1D	250N2004-217		ROD ASSY-CONT	E	RF
1E	250N2004-218		ROD ASSY-CONT	F	RF
1F	250N2004-219		ROD ASSY-CONT	G	RF
1G	250N2004-220		ROD ASSY-CONT	H	RF
5	BACR15FT5D		.RIVET- (SIZE DETERMINE ON INST)	CDGH	4
10	69B81534-1		.CLEVIS-PUSH ROD	CDGH	1
15	66-16954-1		.BEARING ASSY-ROD END, DBL EYE ATTACHING PARTS	ABEF	1
20	BACR15FT5D		.RIVET- (SIZE DETERMINE ON INST) -------*-------	ABEF	4
25	66-16954-2		..PLUG	ABEF	1
30	YS185		..BEARING-ROD END,DBL EYE (V77896) (SPEC BACB10C71)	ABEF	1
35	AN316-6R		.NUT-JAM		1
40	MS35338-46		.WASHER	A-D	1
45	BACB10C55H		.BEARING-ROD END,DBL EYE (OPT MR4H (V77896)) (OPT SM4-6T4 (V77896))	A-D	1
46	SM4-6H22		.BEARING-ROD END,DBL EYE (V77896)	E-H	1
50	250N2005-210		.TUBE	AE	1
-50A	250N2005-211		.TUBE	BF	1
-50B	250N2005-214		.TUBE	CG	1
-50C	250N2005-215		.TUBE	DH	1



Control Rod Assembly
Figure 1D

T56306

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01D-					
-1	250N2004-301		ROD ASSY-CONT	A	RF
-1A	250N2004-302		ROD ASSY-CONT	B	RF
-1B	250N2004-303		ROD ASSY-CONT	C	RF
-1C	250N2004-304		ROD ASSY-CONT	D	RF
-1D	250N2004-305		ROD ASSY-CONT	E	RF
-1E	250N2004-310		DELETED		
-1F	250N2004-311		ROD ASSY-CONT	G	RF
-1G	250N2004-312		ROD ASSY-CONT	H	RF
-1H	250N2004-313		ROD ASSY-CONT	J	RF
-1J	250N2004-314		ROD ASSY-CONT	K	RF
-1K	250N2004-315		ROD ASSY-CONT	L	RF
-1L	250N2004-320		ROD ASSY-CONT	M	RF
-1M	250N2004-321		ROD ASSY-CONT	N	RF
-1N	250N2004-323		ROD ASSY-CONT	P	RF
-1P	250N2004-324		ROD ASSY-CONT	Q	RF
-1Q	250N2004-325		ROD ASSY-CONT	R	RF
-1R	250N2004-326		ROD ASSY-CONT	F	RF
-1S	250N2004-328		ROD ASSY-CONT	S	RF
-1T	250N2004-329		ROD ASSY-CONT	T	RF
-1U	250N2004-330		DELETED		
-1V	250N2004-332		ROD ASSY-CONT	U	RF
-1W	250N2004-333		ROD ASSY-CONT	V	RF
-1X	250N2004-334		ROD ASSY-CONT	W	RF
-1Y	250N2004-335		ROD ASSY-CONT	X	RF
-1Z	250N2004-336		ROD ASSY-CONT	Y	RF
5	AN316-7R		.NUT-JAM	AJNR	1
-5A	AN316-6R		.NUT-JAM	B-FMS VWX	1
-5B	AN316C6R		.NUT-JAM	HL	1
-5C	NAS509-6		.NUT-JAM	KQ	1
-5D	NAS509-5		.NUT-JAM	GT	1
-5E	AN509-5		.NUT-JAM (REPLD BY ITEM 5F)	U	1
-5F	AN316-5R		.NUT-JAM (REPLS ITEM 5E)	UY	1
10	NAS513-6		.WASHER	K	1
-10A	NAS513-5		.WASHER	GT	1
-10B	NAS1193K6CP		.WASHER	Q	1
15	RM4BG		.ROD END- (V77896)	A	1

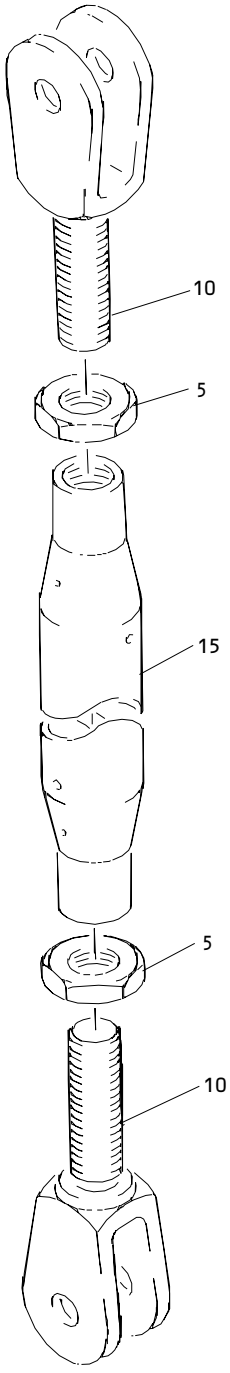
FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01D- -15A	REP4M6-5FS428		.BEARING-BALL,ROD END (V21335) (SPEC BACB10AD12) (OPT HHRE4M6-2 (V38443)) (OPT REP4M6-5E9171B (V21335)) (OPT ABR4M103 (V50294))	B-FHL MSVWX	1
-15B	ARB6E60MW		.BEARING-ROD END (V15860) (SPEC BACB10Y6M) (OPT AR6E7W13 (V50294)) (OPT BRES6-2001M1 (V81376)) (OPT HB6E212KM (V02758)) (OPT KBE6-150WD5 (V97613)) (OPT MSSK6AS1 (V73134)) (OPT 51588-061DD (V09455))	Q	1
-15C	ARB5E60MW		.BEARING-ROD END (V15860) (SPEC BACB10Y5M) (OPT AR5E7W13 (V50294)) (OPT BRES5-2001M1 (V81376)) (OPT HB5E212KM (V02758)) (OPT KBE5-150WD5 (V97613)) (OPT MSSK5AS1 (V73134)) (OPT 51588-051DD (V09455))	GT	1

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01D-					
-15D	REP4M7-2FS428		.BEARING-BALL,ROD END (V21335) (SPEC BACB10AD13) (OPT HHRE4M7-1 (V38443)) (OPT REP4M7-2E9171B (V21335)) (OPT ABR4M104 (V50294))	JNR	1
-15E	REP4MS6-5FS428		.BEARING-BALL,ROD END (V21335) (SPEC BACB10AD12K) (OPT ABR4M105 (V50294))	K	1
-15F	ART4E129		.BEARING-ROD END (V50294) (SPEC 10-60779-124) (OPT DREN4-292 (V81376)) (OPT MSSR45-14BAF (V73134)) (OPT NHNE4-205 (V15860)) (OPT REM8ATC10-6 (V21335)) (OPT YTM187 (V77896))	U	1
-15G	KSR148700B2		.ROD END (V50632)	Y	1
20	AN316-7R		.NUT-JAM	BCEFM PVX	1
-20A	NAS509-6		.NUT-JAM	Q	1
-20B	NAS509-5		.NUT-JAM	GT	1
-20C	AN316-6R		.NUT-JAM	JNR	1
-20D	NAS509-7		.NUT-JAM	K	1
-20E	AN316C7R		.NUT	L	1
-20F	AN509-4		.NUT-JAM (REPLD BY ITEM 20G)	U	1
-20G	AN316-4R		.NUT-JAM (REPLS ITEM 20F)	UY	1
25	NAS513-6		DELETED		
25A	NAS513-5		.WASHER	GT	1
-25B	NAS513-7		.WASHER	K	1
-25C	NAS1193K6CP		.WASHER	Q	1
-25D	NAS513-4		DELETED		

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01D-30	REP4M7-2FS428		.BEARING_BALL,ROD END (V21335) (SPEC BACB10AD13) (OPT HHRE4M7-1 (V38443)) (OPT REP4M7-2E9171B (V21335)) (OPT ABR4M104 (V50294))	BCEFL MPVX	
-30A	ARB6E60MW		.BEARING-ROD END (V15860) (SPEC BACB10Y6M) (OPT AR6E7W13 (V50294)) (OPT BRES6-2001M1 (V81376)) (OPT HB6E212KM (V02758)) (OPT KBE6-150WD5 (V97613)) (OPT MSSK6AS1 (V73134)) (OPT 51588-061DD (V09455))	Q	1
-30B	ARB5E60MW		.BEARING-ROD END (V15860) (SPEC BACB10Y5M) (OPT AR5E7W13 (V50294)) (OPT BRES5-2001M1 (V81376)) (OPT HB5E212KM (V02758)) (OPT KBE5-150WD5 (V97613)) (OPT MSSK5AS1 (V73134)) (OPT 51588-051DD (V09455))	GT	1

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01D-					
-30C	REP4M6-5FS428		.BEARING BALL,ROD END (V21335) (SPEC BACB10AD12) (OPT HHRE4M6-2 (V38443)) (OPT REP4M6-5E9171B (V21335)) (OPT ABR4M103 (V50294))	JNR	1
-30D	REP4MS7-2FS428		.BEARING-BALL,ROD END (V21335) (SPEC BACB10AD13K) (OPT ABR4M106 (50294))	K	1
-30E	10-60779-17		DELETED		
-30F	KBDE4-44		.BEARING-ROD END (V97613) (SPEC 10-60779-177) (OPT 177156 (V09455)) (OPT REMS8ATC8-2 (V21335)) (OPT TFM3R (V77896)) (OPT NHNE4-216 (V15860)) (OPT MSSKR44-14BAC (V73134)) (OPT ART4E136 (V50294)) (OPT DREM4-304 (V81376))	U	1
-30G	KSR148700B1		.ROD END (V50632)	Y	1
35	250N2005-301		.TUBE	A	1
-35C	250N2005-304		.TUBE	D	1
-35D	250N2005-305		.TUBE	E	1
-35F	250N2005-310		.TUBE	G	1
-35G	250N2005-312		.TUBE	HS	1
-35H	250N2005-313		.TUBE	J	1
-35J	250N2005-314		.TUBE	K	1

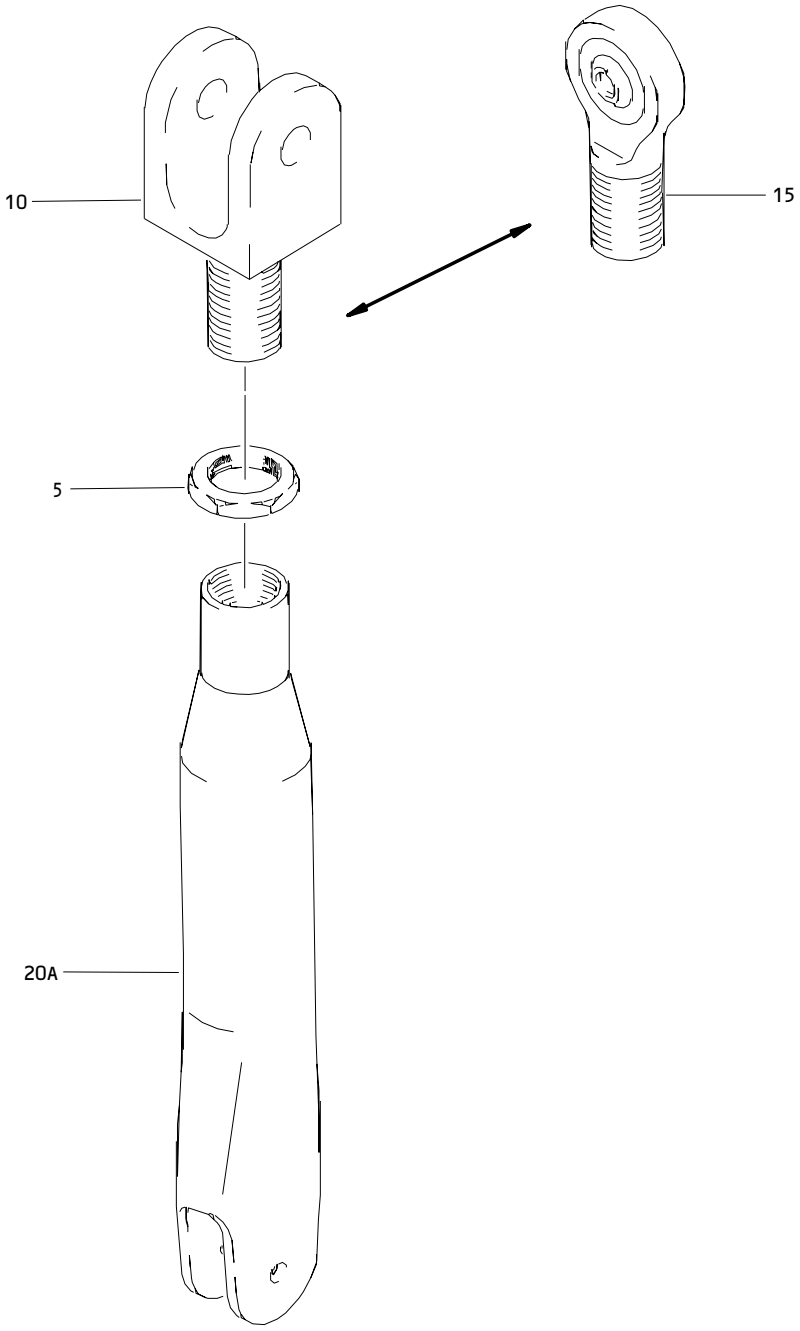
FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01D-					
-35K	250N2005-315		.TUBE	FL	1
-35L	250N2005-502		.TUBE	P	1
-35M	250N2005-320		.TUBE	M	1
-35N	250N2005-341		.TUBE	N	1
-35P	250N2005-347		.TUBE	R	1
-35Q	250N2005-350		.TUBE	T	1
-35R	250N2005-351		DELETED		
-35U	250N2005-354		.TUBE	UY	1
-35V	250N2005-701		.TUBE	V	1
-35W	250N2005-358		.TUBE	W	1
-35X	250N2005-363		.TUBE	X	1
40	250N2005-401		.TUBE	B	1
-40A	250N2005-501		.TUBE	C	1
-40B	250N2005-402		.TUBE	Q	1



Control Rod Assembly
Figure 1E

T64456

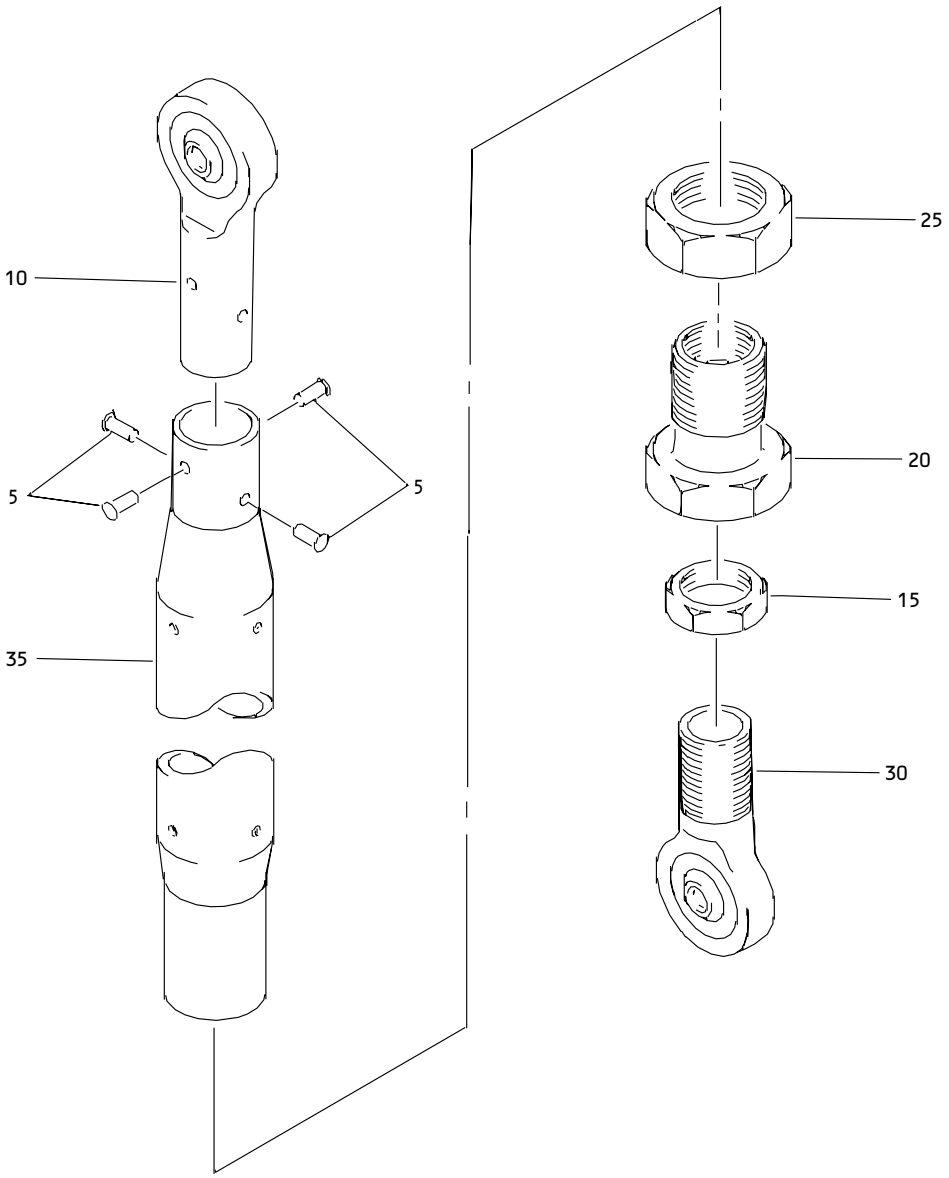
FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01E-					
-1	250N2004-318		ROD ASSY-CONT	A	RF
-1A	250N2004-327		ROD ASSY-CONT	B	RF
-1B	250N2004-331		ROD ASSY-CONT	C	RF
5	AN316C6R		.NUT-JAM	A	2
-5A	AN316-6R		.NUT	BC	2
10	69B82107-1		.CLEVIS		2
15	250N2005-318		.TUBE	AB	1
-15A	250N2005-353		.TUBE	C	1



Control Rod Assembly
Figure 1K

T56307

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01K-					
-1	250N2004-601		DELETED		
-1A	250N2004-602		ROD ASSY-CONT	A	RF
-1B	250N2004-604		DELETED		
-1C	250N2004-605		DELETED		
-1E	250N2004-606		ROD ASSY-CONT	B	RF
-1F	250N2004-607		ROD ASSY-CONT	C	RF
-1G	250N2004-608		ROD ASSY-CONT	D	RF
5	AN316C6R		.NUT-JAM	A	1
-5A	AN316C5R		DELETED		
-5B	AN316-5R		.NUT-JAM	BCD	1
10	69B82107-1		DELETED		
15	ARB4E60TW		.BEARING-ROD END (V15860) (SPEC BACB10Y4T) (OPT AR4E8W3 (V50294)) (OPT BRES4-2236EL1 (V81376)) (OPT HB4E212KT (V02758)) (OPT KBE4-150WT (V97613)) (OPT MSSK4AS2 (V73134)) (OPT 51588-041VL (V09455))		1
20	250N2005-601		DELETED		
20A	250N2005-602		.TUBE	AB	1
-20B	250N2005-604		.TUBE	C	1
-20C	250N2005-605		.TUBE	D	1

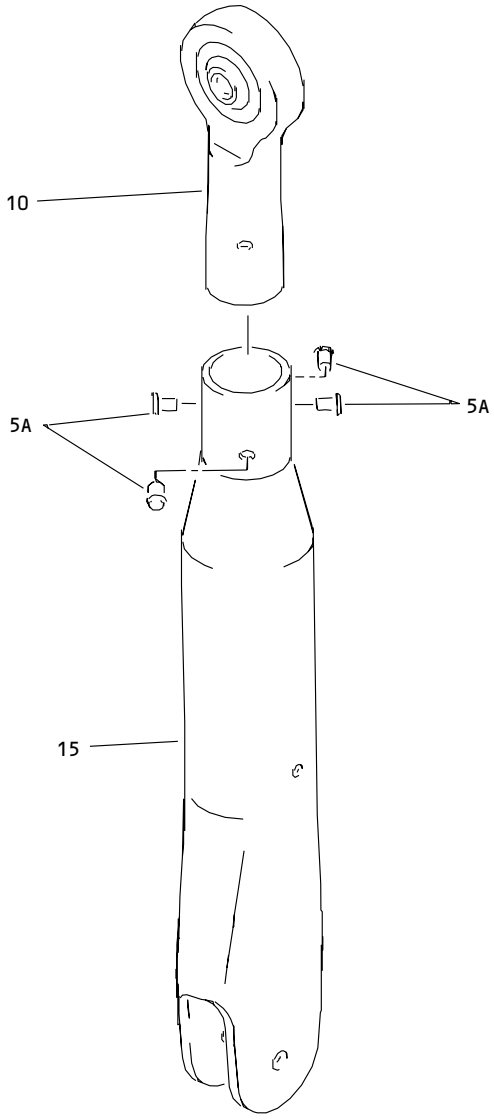


Control Rod Assembly
Figure 1M

T56308

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01M-					
-1	250N2004-701		DELETED		
-1A	250N2004-702		ROD ASSY-CONT	B	RF
-1B	250N2004-703		ROD ASSY-CONT	C	RF
-1C	250N2004-704		ROD ASSY-CONT	D	RF
-1D	250N2004-705		ROD ASSY-CONT	E	RF
-1E	250N2004-707		ROD ASSY-CONT	F	RF
-1F	250N2004-708		ROD ASSY-CONT	G	RF
5	MS20615-5M		.RIVET (SIZE DETERMINE ON INST)	C	4
-5A	BACR15FT5D		.RIVET (SIZE DETERMINE ON INST)	BDEF	4
10	254N1071-1		.BEARING-ROD END	C	1
-10A	REP4H8FS436		.BEARING-BALL,ROD END (V21335) (SPEC BACB10AE10A) (OPT HHRE4H8-1 (V38443)) (OPT REP4H8-4 (V38443)) (OPT REP4H8E9171A (V21335)) (OPT ABR4H104 (V50294))	BD	1
-10B	254N1130-1		.BEARING-ROD END	E	1
-10C	GRR4M7-2FS428		.BEARING-ROD END (V21335)	FG	1
15	AN316-6R		.NUT-JAM		1
20	69B94153-3		.SLEEVE-ADJUSTING	BEFG	1
-20A	69B94153-4		.SLEEVE-ADJUSTING	CD	1
25	AN316-9R		.NUT-JAM		1
30	MS21151-8		.BEARING-ROD END	C	1
-30A	REP4M6FS428		.BEARING-BALL,ROD END (V21335) (SPEC BACB10AD5) (OPT HHRE4M6-1 (V38443)) (OPT REP4M6E9171B (V21335)) (OPT ABR4M8G (V50294))	BDE	1

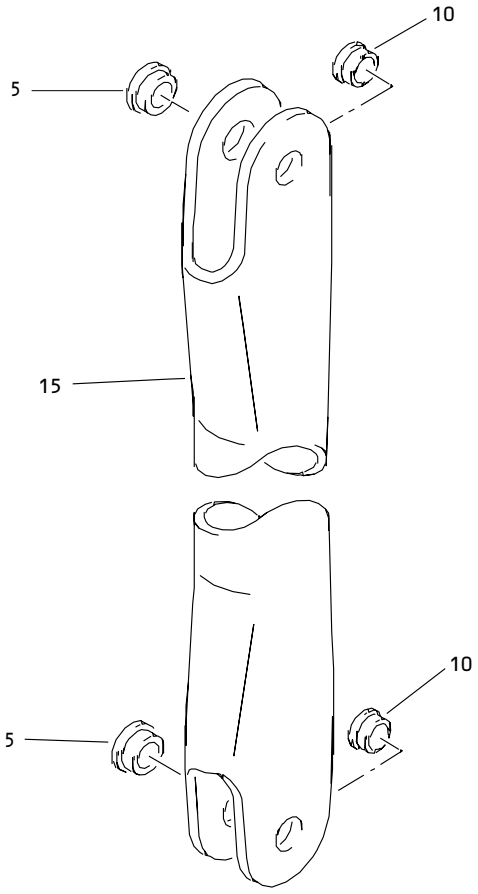
FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01M-					
-30B	GRR4M6-7FS428		.BEARING-ROD END (V21335)	FG	1
35	250N2005-212		.TUBE	C	1
-35A	250N2005-213		.TUBE	BD	1
-35B	250N2005-216		.TUBE	E	1
-35C	250N2005-366		.TUBE	F	1
-35D	250N2005-367		.TUBE	G	1



Control Rod Assembly
Figure 1P

T56309

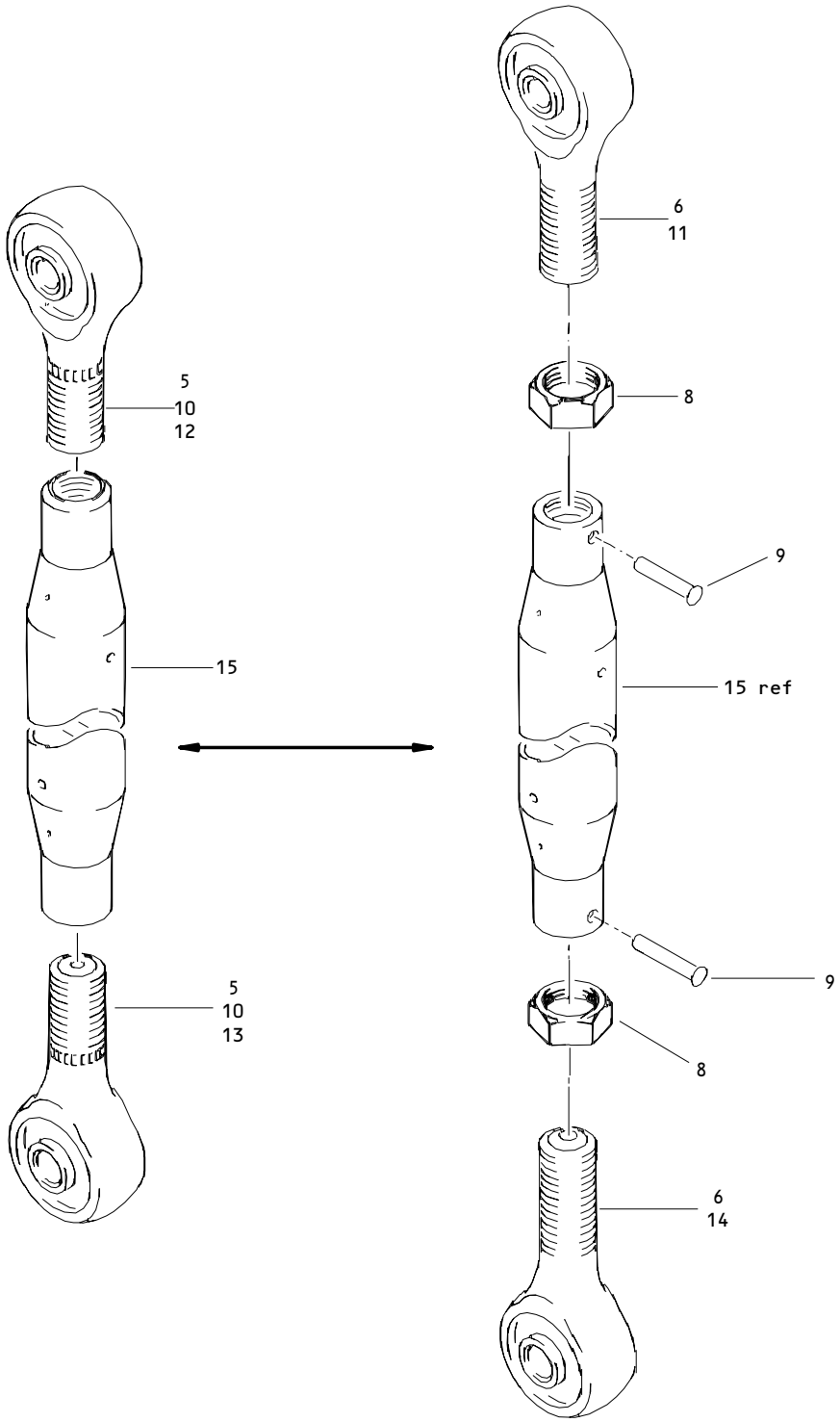
FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01P-					
-1	250N2004-801		DELETED		
-1A	250N2004-802		ROD ASSY-CONT		RF
5	BACR15FT6D		DELETED		
5A	BACR15CE6D		.RIVET (SIZE DETERMINE ON INST)		4
10	REP4H6FS436		.BEARING-BALL,ROD END (V21335) (SPEC BACB10AE9A) (OPT HHRE4H6-1 (V38443)) (OPT REP4H6-2 (V38443)) (OPT REP4H6E9171A (V21335)) (OPT ABR4H106 (V50294))		1
15	250N2005-801		.TUBE		1



Control Rod Assembly
Figure 1T

T56310

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01T-					
-1	250N2004-1002		ROD ASSY-CONT	A	RF
-1A	250N2004-1003		ROD ASSY-CONT	B	RF
5	BACB28X9M012		.BUSHING- (V23294) (SPEC BACB28X9M012) (OPT BACB28X9M012 (V70265)) (OPT BACB28X9M012 (V90255))		2
10	BACB28X6C010		.BUSHING- (V23294) (SPEC BACB28X6C010) (OPT BACB28X6C010 (V70265)) (OPT BACB28X6C010 (V94892))		2
15	250N2005-1002		.TUBE	A	1
-15A	250N2005-1003		.TUBE	B	1



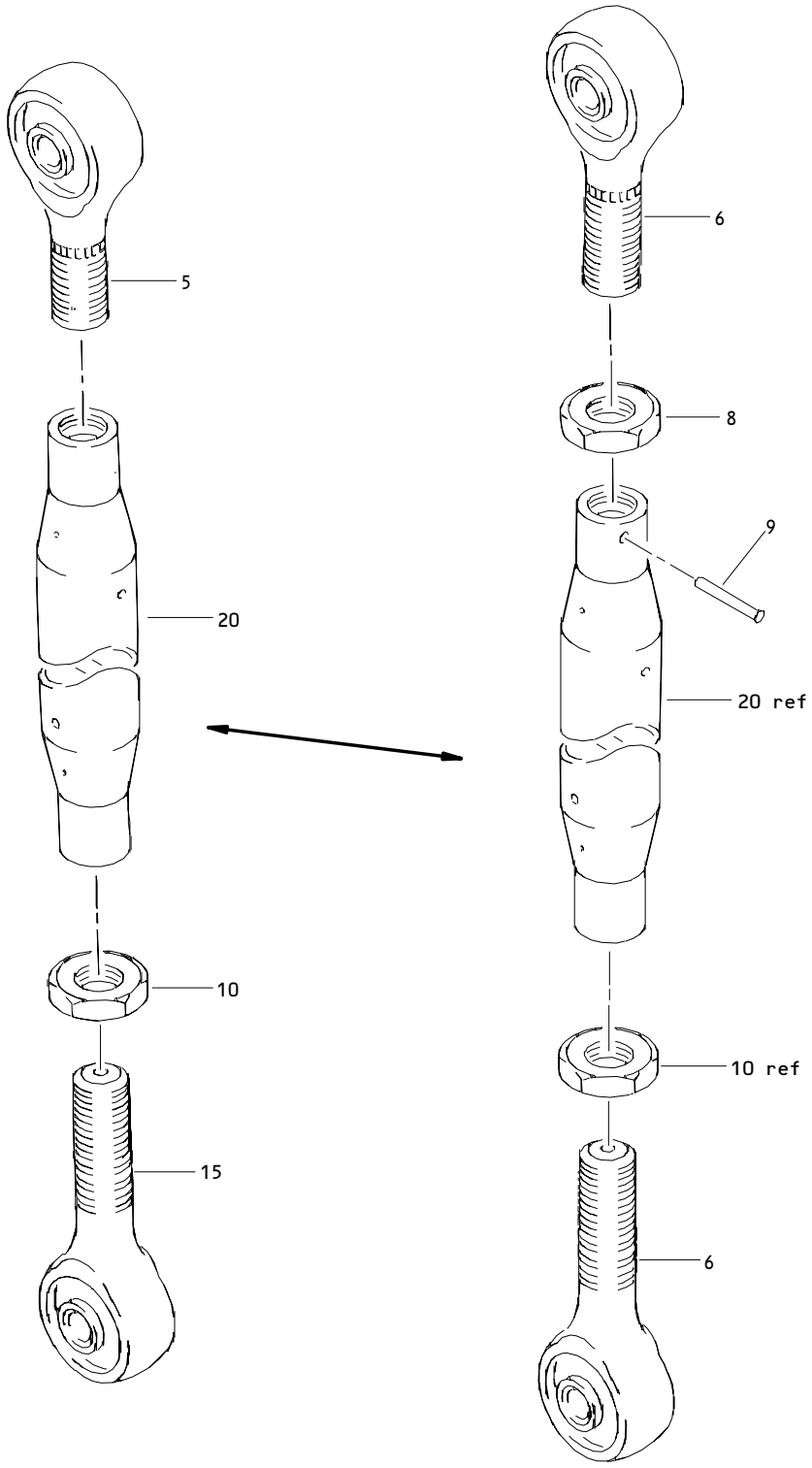
Control Rod Assembly
Figure 1U

U15117

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01U-					
-1	250N2004-1101		ROD ASSY-CONT	A	RF
-1A	250N2004-1103		ROD ASSY-CONT	B	RF
-1B	250N2004-1104		ROD ASSY-CONT	C	RF
-1C	250N2004-1106		ROD ASSY-CONT	D	RF
-1D	250N2004-1107		ROD ASSY-CONT	E	RF
-1E	250N2004-1108		ROD ASSY-CONT	F	RF
-1F	250N2004-1110		ROD ASSY-CONT	G	RF
-1G	250N2004-1112		ROD ASSY-CONT	H	RF
-1H	250N2004-1113		ROD ASSY-CONT	J	RF
-1J	250N2004-1115		ROD ASSY-CONT	K	RF
-1K	250N2004-1116		ROD ASSY-CONT	L	RF
-1L	250N2004-1117		ROD ASSY-CONT	M	RF
-1M	250N2004-1118		ROD ASSY-CONT	N	RF
-1N	250N2004-1119		ROD ASSY-CONT	P	RF
-1P	250N2004-1120		ROD ASSY-CONT	Q	RF
-1Q	250N2004-1121		ROD ASSY-CONT	R	RF
-1R	250N2004-1122		ROD ASSY-CONT	S	RF
-1S	250N2004-1123		ROD ASSY-CONT	T	RF
5	250N2010-1		.ROD END	ABD-H J-LN Q-S	2
-5A	250N2010-5		.ROD END	P	2
6	BACB10AD5		.BEARING-BALL,ROD END *[1]	ABD-L NQ-S	2
6A	BACB10AD6		.BEARING-BALL,ROD END *[1]	C	2
6B	M81935/1-4		.BEARING-ROD END (SPEC MIL-B-81935) *[1]	P	2
8	NAS1423-6		.NUT (USED WITH ITEMS 6, 6A,11,14) *[1]	A-N Q-T	2
-8A	NAS1423-5		.NUT (USED WITH ITEM 6B) *[1]	P	2
9	BACR15BB4AD		.RIVET (USED WITH ITEMS 6,6A,6B,11,14) *[1]		2
10	250N2010-2		.ROD END	C	2
11	RMF4BF		.BEARING-ROD END (V77896) *[1] (OPT ITEM 12A)	MT	1
12	250N2010-3		.ROD END (OPT ITEM 12A)	M	1
-12A	SM4-6AS1-501		.ROD END (V77896) (OPT ITEM 12)	M	1
-12B	250N2010-3		.ROD END	T	1

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01U-					
13	25ON2010-4		.ROD END	MT	1
14	ARYT4E-105		.BEARING-ROD END (V50294) *[1]	MT	1
15	25ON2005-321		.TUBE	A	1
-15A	25ON2005-323		.TUBE	B	1
-15B	25ON2005-324		.TUBE	C	1
-15C	25ON2005-326		.TUBE	D	1
-15D	25ON2005-327		.TUBE	E	1
-15E	25ON2005-328		.TUBE	F	1
-15F	25ON2005-330		.TUBE (OPT ITEM 15N)	G	1
-15G	25ON2005-331		.TUBE	H	1
-15H	25ON2005-345		.TUBE	J	1
-15J	25ON2005-346		.TUBE	K	1
-15K	25ON2005-348		.TUBE	L	1
-15L	25ON2005-349		.TUBE	M	1
-15M	25ON2005-352		.TUBE	N	1
-15N	25ON2005-355		.TUBE (PREF)	G	1
-15P	25ON2005-356		.TUBE	P	1
-15Q	25ON2005-359		.TUBE	Q	1
-15R	25ON2005-360		.TUBE	R	1
-15S	25ON2005-361		.TUBE	S	1
-15T	25ON2005-362		.TUBE	T	1

*[1] USE ONLY WITH REWORKED CONTROL ROD ASSEMBLIES. ROD ASSEMBLIES REWORKED PER REPAIR 9-1.



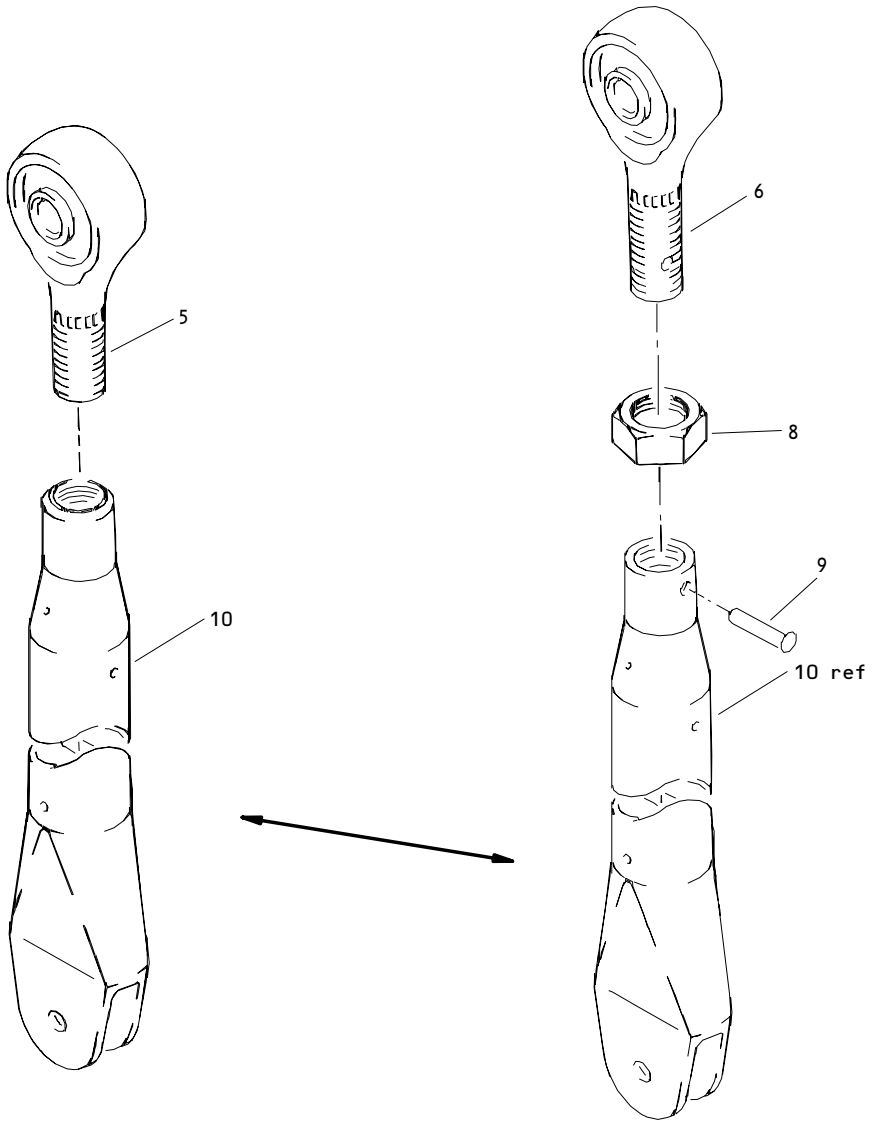
Control Rod Assembly
Figure 1V

U15118

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01V-					
-1	250N2004-1201		ROD ASSY-CONT	A	RF
-1A	250N2004-1202		ROD ASSY-CONT	B	RF
-1B	250N2004-1205		ROD ASSY-CONT	C	RF
-1C	250N2004-1206		ROD ASSY-CONT	D	RF
-1D	250N2004-1207		ROD ASSY-CONT	E	RF
-1E	250N2004-1208		ROD ASSY-CONT	F	RF
-1F	250N2004-1209		ROD ASSY-CONT	G	RF
5	250N2010-1		.ROD END	A-EG	1
-5A	250N2010-2		.ROD END	F	1
6	BACB10AD5		.BEARING-ROD END *[1]	B-E	2
-6A	BACB10AD5K		.BEARING-ROD END *[1]	AG	2
-6B	BACB10AD6		.BEARING-ROD END *[1]	F	2
8	NAS1423-6		.NUT (USED WITH ITEMS 6,6A,6B) *[1]		1
9	BACR15BB4AD		.RIVET (USED WITH ITEMS 6,6A,6B) *[1]		1
-10	AN316-6R		.JAMNUT		1
15	REP4M6-4FS428		.BEARING-BALL, ROD END (OPT ITEM 15C) (V21335) (SPEC BACB10AD5K) (OPT HHRE4MS6-1 (V38443)) (OPT REP4M6-4E9171B (V21335)) (OPT ABR4M8WG (V50294))	AG	1
-15A	REP4M6FS428		.BEARING-BALL, ROD END (V21335) (SPEC BACB10AD5) (OPT HHRE4M6-1 (V38443)) (OPT REP4M6E9171B (V21335)) (OPT ABR4M8G (V50294))	B-E	1
-15B	REP5M6FS428		.BEARING-BALL, ROD END (V21335) (SPEC BACB10AD6) (OPT HHRE5M6-1 (V38443)) (OPT REP5M6E6531 (V21335)) (OPT ABR5M10G (V50294))	F	1

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01V- -15C	REP4M6FS428		.BEARING-BALL, ROD END (OPT ITEM 15) (V21335) (SPEC BACB10AD5) (OPT HHRE4M6-1 (V38443)) (OPT REP4M6E9171B (V21335)) (OPT ABR4M8G (V50294))	AG	1
20	250N2005-332		.TUBE	A	1
-20A	250N2005-333		.TUBE	B	1
-20C	250N2005-336		.TUBE	C	1
-20D	250N2005-337		.TUBE	D	1
-20E	250N2005-338		.TUBE	E	1
-20G	250N2005-339		.TUBE	F	1
-20H	250N2005-340		.TUBE	G	1

*[1] USE ONLY WITH REWORKED CONTROL ROD ASSEMBLIES. ROD ASSEMBLIES REWORKED PER REPAIR 10-1.



Control Rod Assembly
Figure 1W

U15119

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01W-					
-1	250N2004-1801		ROD ASSY-CONT	A	RF
-1A	250N2004-1802		ROD ASSY-CONT	B	RF
5	250N2010-1		.ROD END		1
6	BACB10AD5		.BEARING-ROD END *[1]		1
8	NAS1423-6		.NUT (USED WITH ITEM 6 *[1]		1
9	BACR15BB4AD		.RIVET (USED WITH ITEM 6)*[1]		1
10	250N2005-603		.TUBE (OPT ITEM 10B)	A	1
-10A	250N2005-606		.TUBE (OPT ITEM 10D)	B	1
-10B	250N2005-606		.TUBE (OPT ITEM 10)	A	1
-10C	250N2005-607		DELETED		
-10D	250N2005-607		.TUBE (OPT ITEM 10A)	B	1

*[1] USE ONLY WITH REWORKED CONTROL ROD ASSEMBLIES. ROD ASSEMBLIES REWORKED PER REPAIR 11-1.