TO: ALL HOLDERS OF ENTRY DOOR GUIDE ARM ASSEMBLY OVERHAUL MANUAL, 52-17-01

REVISION NO. 8, DATED JUL 1/05

HIGHLIGHTS

DESCRIPTION OF CHANGE	TOPICS AFFECTED												
	D&O	D/Assy	Cleaning	Insp/Chk	Repair	Assy	F/C	Test	T/Shooting	S/Tools	Storage	IPL	L/Overhaul
Deleted obsolete reference "class A" from BMS 3-8 callout					X								

ENTRY DOOR GUIDE ARM ASSEMBLY

52-17-01

BOEING P/N 65-29994-2, -4, -5, -6, -7, -8, -9, -10, -11, -12, -13, -14, -501
69-5338-7

AIRLINE P/N

THE FOLLOWING DIRECTIVES APPLY TO THIS SUBJECT:

BOEING SERVICE BULLETIN	BOEING TEMPORARY REVISION	OTHER DIRECTIVES	DATE DIRECTIVE INCORPORATED INTO TEXT
2465(707)		PRR 16345	Jul 1/67
52-35(727)		PRR 21993	Jul 1/67
		PRR 17704	Jul 10/70
		PRR 23357	Jul 10/70
		PRR 17930	Jun 25/75
		PRR 23824	Jun 25/75
		PRR 32469	Jun 25/75
		PRR 34032	Jun 5/86
		PRR 34820	Sep 5/91

LIST OF EFFECTIVE PAGES

* Indicates pages revised, added or deleted in latest revision
F Indicates foldout pages - print one side only

	PAGE	DATE	PAGE	DATE	PAGE	DATE
52-17-01						
	T-1	Sep 5/91				
	T-2	BLANK				
*	LEP-1	Jul 1/05				
	LEP-2	BLANK				
	T/C-1	Nov 1/02				
	T/C-2	BLANK				
	1	Mar 1/03				
	2	Mar 1/03				
*	3	Jul 1/05				
	4	Nov 1/02				
	5	Nov 1/02				
	6	Nov 1/02				
	6A	Nov 1/02				
	6B	Nov 1/02				
	7	Nov 1/02				
	8	Sep 5/89				
	8A	Sep 5/91				
	8B	Sep 5/89				
	9	Sep 5/91				
	10	Sep 5/91				
	11	Sep 5/91				
	12	BLANK				

TABLE OF CONTENTS

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

*[2] Use applicable procedures contained in SOPM 20-44-02 and standard industry practices.

ENTRY DOOR GUIDE ARM ASSEMBLY

1. DESCRIPTION AND OPERATION

A. Description

(1) The entry door guide arm assembly consists of a guide arm, a roller, entry door pin, a collar assembly, a spring, levers, links, bushings, bearings and attaching parts.

B. Operation

(1) The entry door guide arm assembly is used to lock the entry door in the open position. The locking is accomplished via the interaction of the entry door pin, the spring, the roller and the collar assembly. Operation of the lever allows the lock to be released which frees the door for closing.

C. Leading Particulars (approximate)

Width -- 2 inches
Length -- 12.4 inches
Height -- 2 inches
Weight -- 2 pounds

2. DISASSEMBLY

A. General

(1) Disassembly is generally limited to those items which require removal, or which must be removed to provide access to parts which require removal, for inspection, repair, refinishing, or replacement.

(2) Parts such as press-fit bearings or bushings, lubricator fittings, riveted components, threaded inserts, bonded components, etc., should not be removed unless repair or replacement is necessary.

B. Disassemble using standard industry practices and additional procedures listed below (Fig. 3).

(1) Remove the roller (21) as follows:

(a) For the 65-29994-2, -4, -5, -501, -6 and 69-5338-7 guide arm assemblies

1) Turn the roller (21) and the collar assembly (24) until the pin (18) can be punched out through the holes in the collar assembly.

2) Punch out the pin (18).

(b) Use roller (21) as a mandrel to press the bushing (22) out.

NOTE: Bushing (22) is ball-staked in place on all guide arm assemblies but the 69-5338-7 assembly.

(c) Remove the roller (21).

3. INSPECTION/CHECK

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

B. Perform magnetic particle examination per SOPM 20-20-01 of radius links (5, 63-9786-1) and link (8).

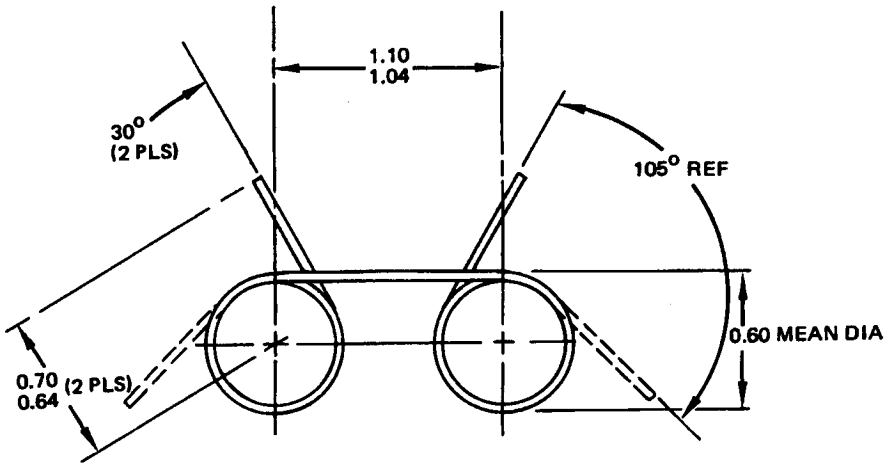
C. Perform penetrant examination per SOPM 20-20-02 of radius link (5, 63-2570) and guide arm (28).

D. Examine spring (20) in accordance with Fig. 1.

Item No. Fig. 3	Test Length (inches)	Allowable Load Limit (pounds)
20	1.03	0.90 to 1.10
	0.68	2.43 to 2.97

Spring Check Data
Figure 1

E. Examine Spring (35) in accordance with Fig. 2.



MINIMUM MOMENT: 0.42 POUNDS AT 85° DEFLECTION
MAXIMUM MOMENT: 0.52 POUNDS AT 105° DEFLECTION
MAX. ANGULAR ROTATION WITHOUT PERMANENT SET: 115°

Spring Check
Figure 2

N46637

5. REPAIR

A. Materials

(1) Enamel -- BMS 10-11, type 2, BAC802 white (Ref 20-60-02)

(2) Lacquer -- TT-L-20 per std 595, 33538 yellow

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

B. Rework

(1) Use standard industry practices for repair of this component.

C. Refinish (Fig. 3)

NOTE: Refer to 20-30-02 for stripping of protective finishes and to 20-41-01 for explanation to F and SRF finish codes.

(1) Link (5, 63-2570), link (14, 63-2546), guide arm (28, 69-5133-1), channel (38, 66-15530-2), -- Alodize or anodize plus one coat primer (SRF-2.30) all over. Material: Al alloy.

(2) Link (5, 63-9786-1) -- Cadmium plate per 20-42-05, type 2, class 2 (F-1.1923). Material: AMS 4130 steel, 150-180 ksi.

(3) Link (8) and shaft (17) -- Cadmium plate per 20-42-05, type 2, class 2 (F-1.1923). After plating, apply dry lubricant, BMS 3-8 (Ref 20-50-08) to outside of shaft. Material: AMS 4130 steel, 125-140 ksi.

(4) Radius Link (5, 69-76554-1), Link (14D), Cam Assembly (32), Trigger (33), -- Cadmium plate to meet requirements of QQ-P-416, type 2, class 2 (F-15.06). Materials: 15-5PH CRES, 150-170 ksi.

(5) Lever (15, 66-18573-1, -2, 66-4740-1) -- Anodize (F-2.20) plus two coats lacquer (F-12.964) all over, except use orange-yellow, color 33538 per std 595 instead of 34424. Material: Al alloy.

(6) Lever (15, 69-76559-1) -- Anodize (F-17.04) and apply one coat of BMS 10-11 Primer (F-18.13). Apply two coats of orange-yellow lacquer per MIL-L-6805, color 33538 per std 595. Material: Al alloy.

(7) Spring (20) -- Cadmium plate per 20-42-05, type 2, class 2 (F-1.1923). Material: Steel music wire.

(8) Collar assembly (24) -- Cadmium plate per 20-42-05, type 2, class 2 (F-1.1923). Material: Steel, AISI 410, 110-140 ksi.

(9) Collar, Entry Door (30) -- Cadmium plate to meet requirements of QQ-P-416, Type 2, class 2 (F-15.06). Material: 15-5PH CRES, 150-170 ksi.

(10) Guide arm (28, 69-5133-2 thru -5, -501) -- Alodize or anodize plus one coat primer (SRF-2.30) all over, plus one coat white enamel (SRF-12.64) all over. Material: Al alloy.

(11) Guide arm (28, 69-5133-6, -7) -- Chromic acid anodize plus three coats of BMS 10-11, Type 1 primer (F-18.13, F-21.03) Material: Al alloy.

(12) Spacer (34) -- Chromic acid anodize and apply one coat of BMS 10-11, Type 2 primer. Material: Al alloy.

(13) Channel (38, 69-78234-2) -- Cadmium plate to meet requirements of QQ-P-416, Type 2, class 2 and apply one coat of BMS 10-11, Type 1 primer (F-16.01). Apply one coat of BMS 10-11, Type II enamel, color BAC702 white gloss. Material: 17-7PH CRES, 150-170 ksi.

D. Replacement (Fig. 3)

(1) If bushings (6, 9, 10, 22, 27) need to be replaced, install new bushing with wet primer per SOPM 20-50-03.

(2) On 65-29994-series assemblies, machine bushing (6 and 9) ID's to 0.4390-0.4405 and 0.7510-0.7525 inch respectively after installation.

NOTE: Removal of cadmium plating on bushing ID is acceptable.

(3) Replace roller (21) if working OD is less than 0.495 inch.

6. ASSEMBLY

A. Materials

(1) Corrosion Preventive Compound -- MIL-C-11796, class 3

(2) Grease -- MIL-G-23827 (SOPM 20-60-03)

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

B. Procedure for 65-29994-2, -4, -5, -501, -6; 69-5338-7 (Fig. 3)

(1) Install bushing (27) with wet primer.

(2) Apply a light film of grease on surface of collar assembly (24), bearing (23), and roller (21). Position collar assembly (24) and bearing (23) in entry door guide arm (28) and insert roller (21).

(3) Apply a light film of grease on surface of pin (19) and spring (20). Install spring and pin (19) in roller (21).

(4) Install pin (18) so that it will not bind in collar assembly (24) when roller (21) is rotated.

(5) Apply primer to bushing (22) and press bushing in guide arm (28) while primer is wet, far enough to limit axial play of roller (21) to 0.01 inch or less.

(6) On all assemblies but the 69-5338-7, stake bushing (22; NAS76A8-012) in five places equidistant between old stake marks, on a diameter of 0.715 to 0.735 inch. Stake bushing 69-62152-3 on a diameter of 0.778 to 0.798 inch.

NOTE: NAS76A8-012 OD is 0.6257-0.6265 inch. 69-62152-3 OD is 0.6882-0.6892 inch.

(7) Apply a light film of grease on surface of shaft (17) and insert in guide arm (28). Install items (11 thru 16), making sure that link (14) and lever (15) engage pins on collar assembly (24).

(8) Apply a light film of grease on surface of pin (4) and install pin (4), ring (3), washers (7) and links (5, 8).

(9) Apply corrosion preventive compound to threaded shank of bearing (2) and mating threads of guide arm (28) and install bearing (2) and nut (1).

(10) For guide arm assemblies 65-29994-6:

(a) If necessary, drill a 0.190-0.199 inch diameter hole through the guide arm channel (38) and guide arm (28) as shown in Fig. 2A.

(b) Apply corrosion preventive compound to the threads of the bolt (40) and install the guide arm channel (38) with bolt (40), washer (41) and nut (39).

C. Procedure for 65-29994-7, -8, -9, 10, -11, -12, -13, -14 (Fig. 3).

(1) Install bushing (27) with wet primer

(2) Apply a light film of grease on surface of collar (30), bearing (23), and roller (21). Position collar (30), and bearing (23) in entry door guide arm (28) and insert roller (21).

(3) Apply a light film of grease on surface of pin (19) and spring (20). Install spring and pin (19) in roller (21).

(4) Install pin (18).

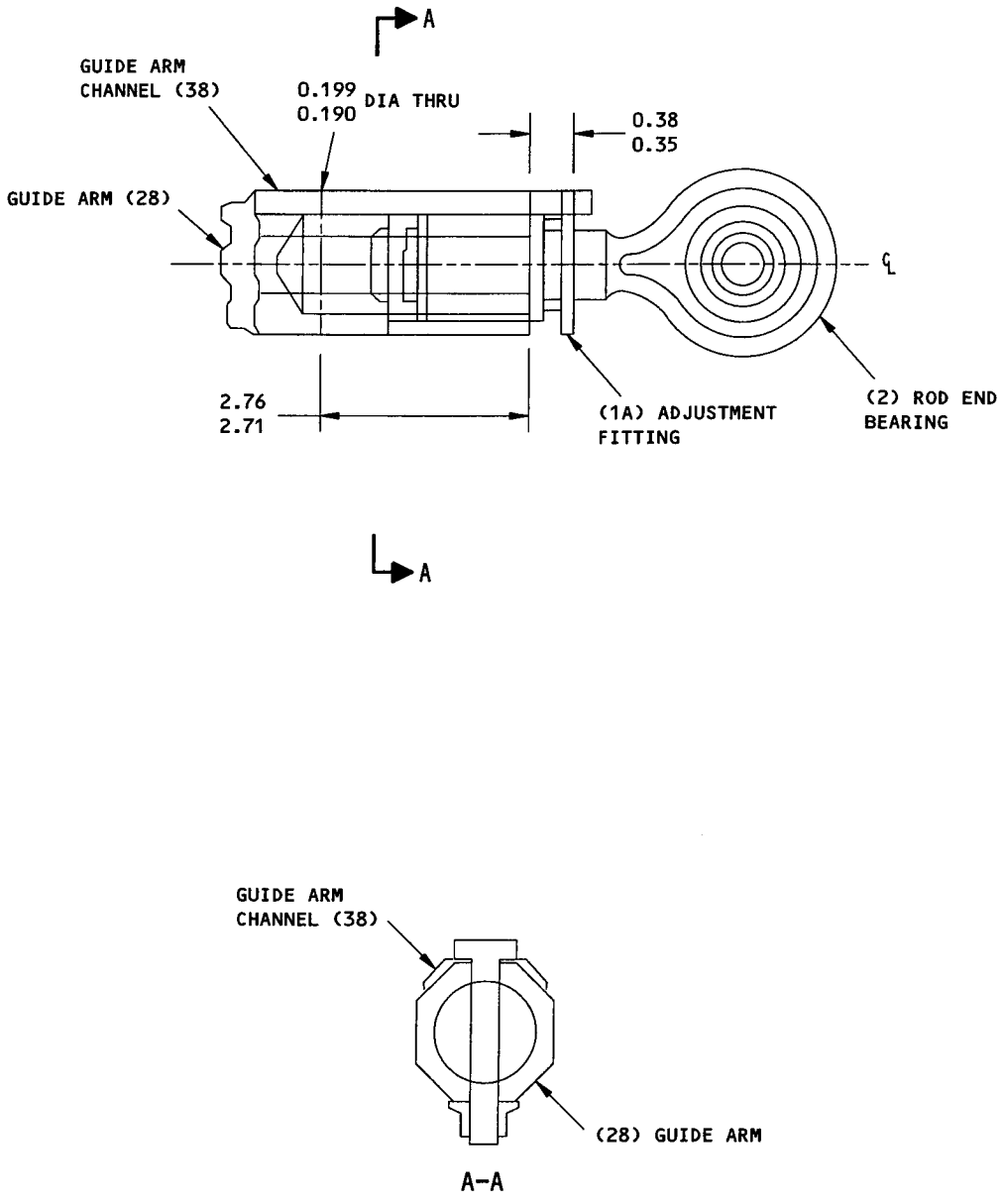
(5) Apply primer to bushing (22) and install into guide arm (28), while primer is wet, far enough to limit axial play of roller (21) to 0.01 inch or less.

(6) Ball stake bushing (22) 5 equidistant places, between old staking marks, on a diameter of 0.715-0.735.

NOTE: Hole diameter for bushing (22, 27) is 0.6247-0.6254 inch diameter.

(7) Apply a light film of grease on surface of shaft (17) and insert into guide arm (28). Install items 11, 12, 13, 14, 15, 34, 35, making sure that link (14D) and lever (15) engage pins on collar (30).

(8) Apply corrosion preventive compound to the threads of the bolt (40) and install the guide arm channel (38) with bolt (40), washer (41) and nut (39).



Entry Door Guide Arm Assembly
Figure 2A

7. TESTING

A. Rotate roller (21, Fig. 3) to ensure that it rotates freely without sticking or binding.

B. Check that axial movement of roller (21) does not exceed 0.01 inch.

NOTE: Deleted.

C. Operate pin (19) via lever (15) to ensure that pin moves easily and smoothly.

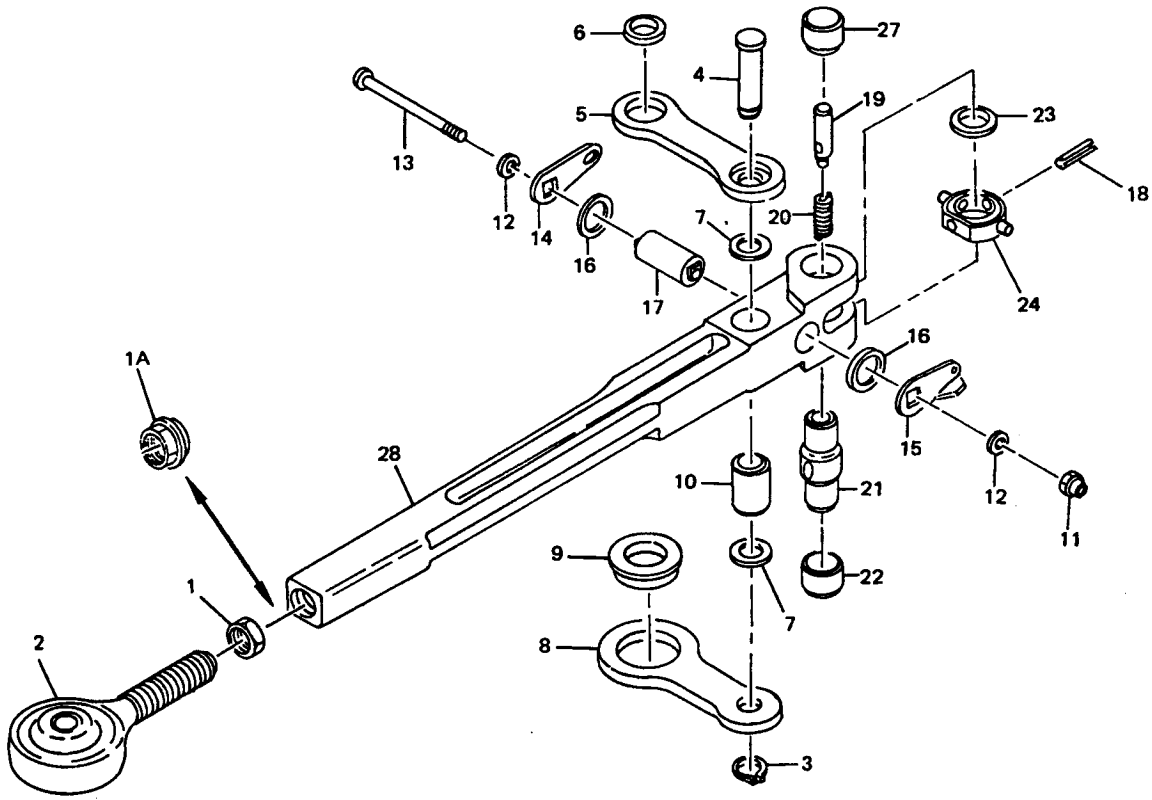
NOTE: Deleted.

D. Deleted.

8. TROUBLE SHOOTING

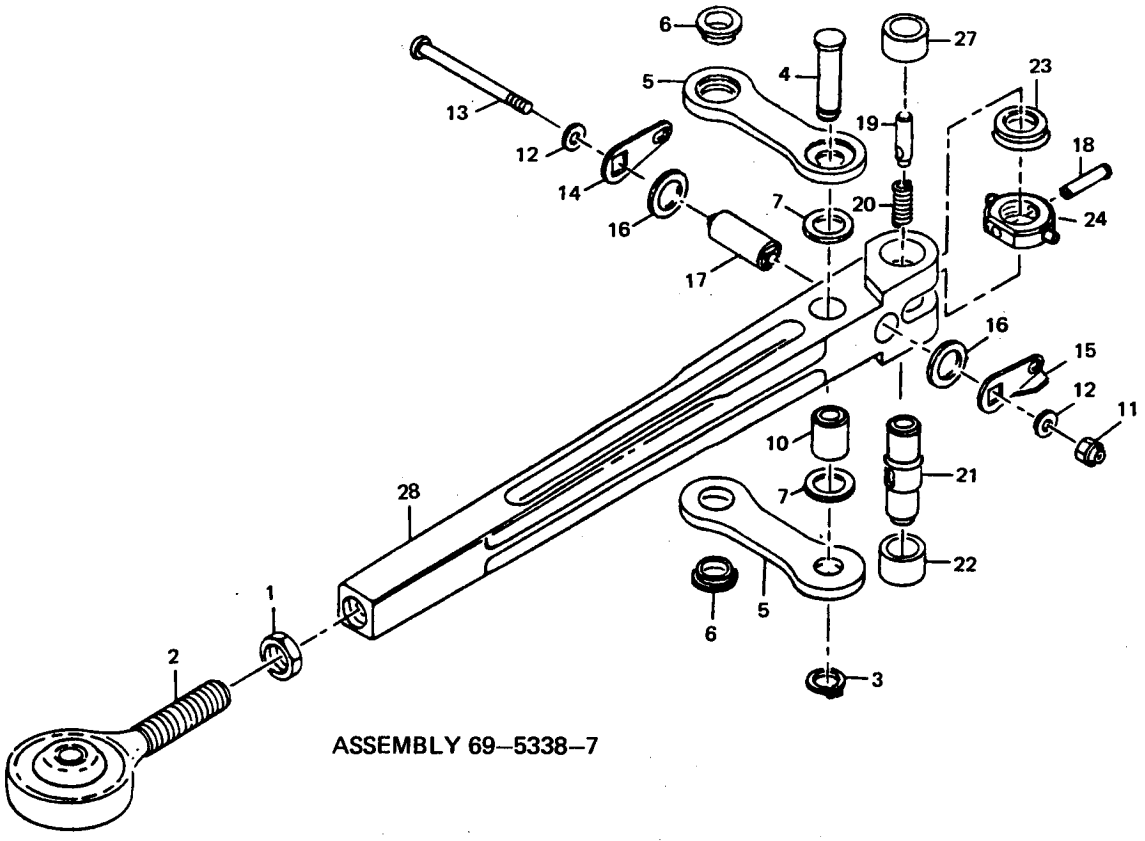
	Trouble	Possible Cause	Correction
A.	Roller (21) does not rotate freely	Pin (18) improperly installed; binding in collar assembly (24)	Reinstall pin (18) correctly per ASSEMBLY
		Bushing (22, 27) installed too closely	Lightly tap roller (21) to separate bushing
B.	Axial movement of roller (21) exceeds 0.01 inch	Bushing (22 or 27) improperly installed	Install bushing correctly per ASSEMBLY
C.	Pin (19) binds	Bent or dirty pin (19)	Clean or replace pin
D.	Deleted.		

9. ILLUSTRATED PARTS LIST

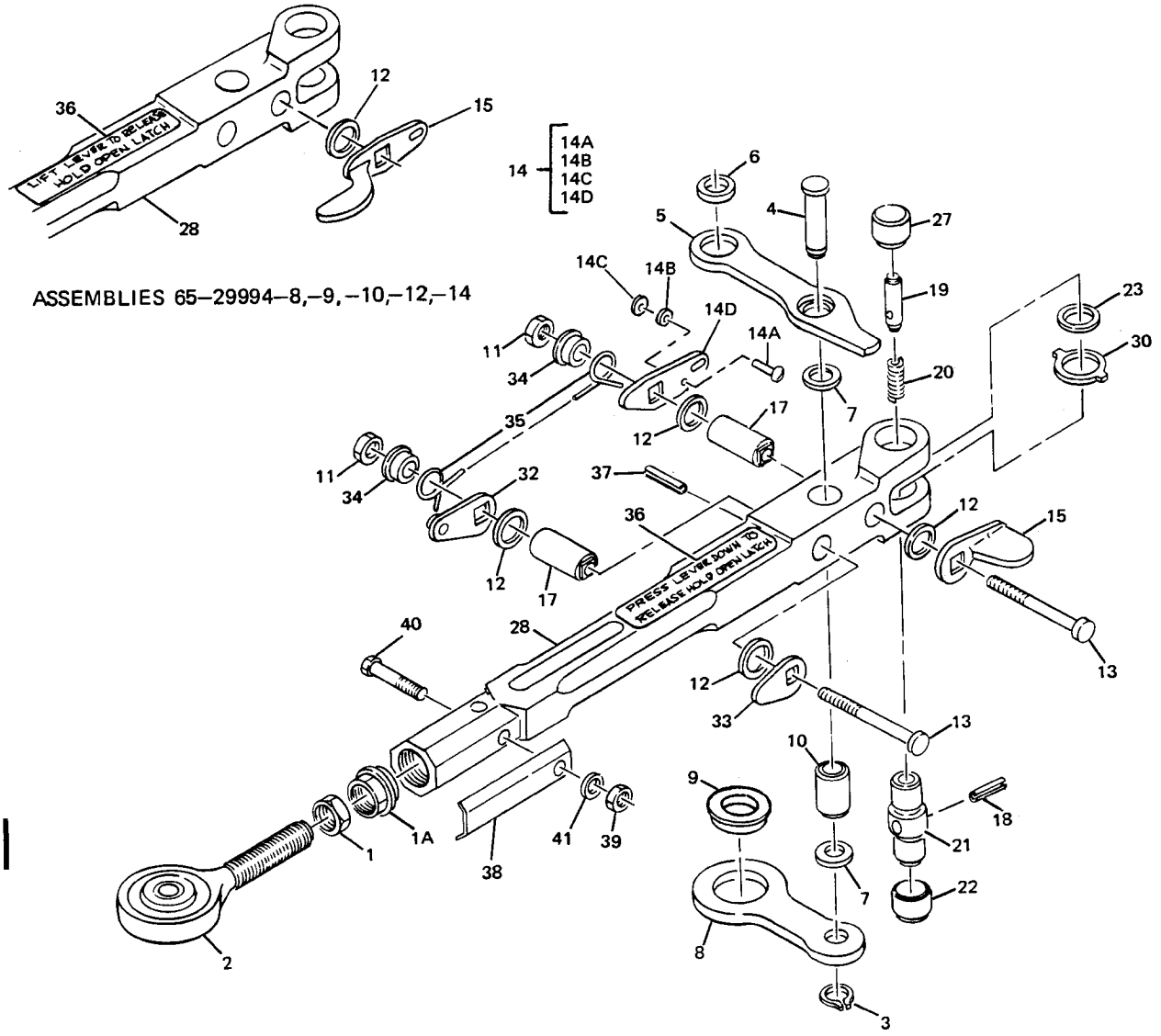


ASSEMBLIES 65-29994-2, -4, -5, -501

Entry Door Guide Arm Assembly
Figure 3 (Sheet 1)

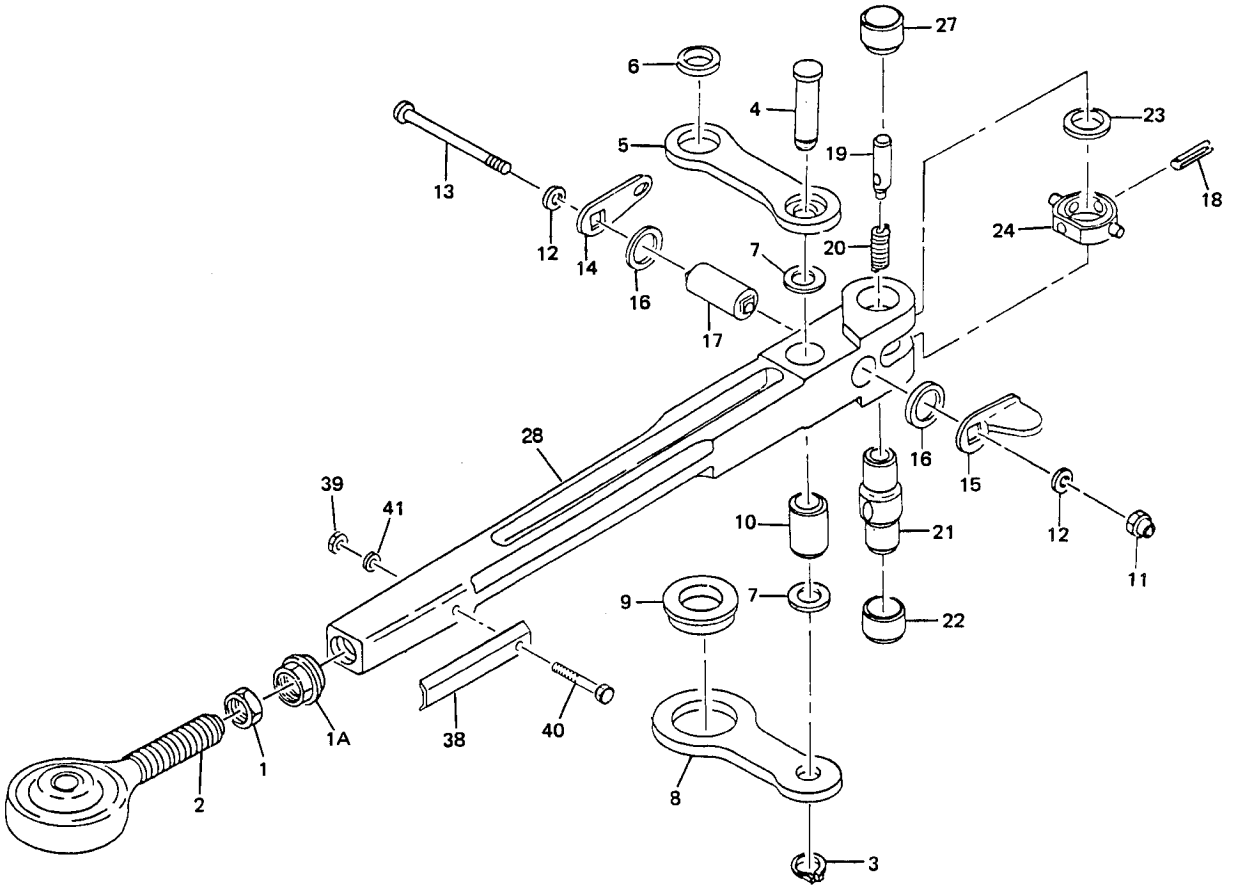


ASSEMBLY 69–5338–7



ASSEMBLIES 65–29994–8,–9,–10,–12,–14

ASSEMBLIES 65–29994–7, –8,–9, –10, –11, –12, –13, –14



ASSEMBLY 65–29994–6

FIG. & ITEM NO.	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USE CODE	QTY PER ASSY
3-					
	65-29994-1		DELETED		
	65-29994-2		ENTRY DOOR GUIDE ARM ASSY (SB 52-35)	B	RF
	69-5338-3		DELETED		
	69-5338-4		DELETED		
	69-5338-5		DELETED		
	69-5338-6		DELETED		
	69-5338-7		ENTRY DOOR GUIDE ARM ASSY (SB 2465)	G	RF
	65-29994-3		DELETED		
	65-29994-4		ENTRY DOOR GUIDE ARM ASSY	I	RF
	65-29994-5		ENTRY DOOR GUIDE ARM ASSY	J	RF
	65-29994-501		ENTRY DOOR GUIDE ARM ASSY	K	RF
	65-29994-6		ENTRY DOOR GUIDE ARM ASSY	L	1
	65-29994-7		ENTRY DOOR GUIDE ARM ASSY	M	1
	65-29994-8		ENTRY DOOR GUIDE ARM ASSY	N	1
	65-29994-9		ENTRY DOOR GUIDE ARM ASSY	O	1
	65-29994-10		ENTRY DOOR GUIDE ARM ASSY	P	1
	65-29994-11		ENTRY DOOR GUIDE ARM ASSY	Q	RF
	65-29994-12		ENTRY DOOR GUIDE ARM ASSY	R	RF
	65-29994-13		ENTRY DOOR GUIDE ARM ASSY	S	RF
	65-29994-14		ENTRY DOOR GUIDE ARM ASSY	T	RF
1	AN316-7R		. NUT	L-T	1
1	AN316-8R		. NUT	BGIJ	1
1A	66-14523-1		. FITTING, ADJUSTMENT	K-P	1
1A	69-78241-1		. FITTING, ADJUSTMENT	Q-T	1
2	AR5E6FN		. BEARING, ROD END (V50294)(OPT TO KBE5-13SSFN)	L-T	1
2	BACB10A400M2L		. BEARING, ROD END	BGIJ	1
2	KBE5-13SSFN		. BEARING, ROD END (V97613)	K-T	1
3	MS16624-1037		. RING, EXTERNAL RETAINING (REPLS NAS670-37)	G	1
3	MS16624-1037		. RING, EXTERNAL RETAINING	BI-T	1
4	63-2589		. PIN, ENTRY DOOR		1
5	63-2570		. LINK, RADIUS	G	2
5	63-9786-1		. LINK, RADIUS	BI-L	1
5	69-76554-1		. LINK, RADIUS	M-T	1
6	NAS76A7-006P		. BUSHING	BI-T	1
6	NAS77A7-19		. BUSHING	G	2
7	AN960PD616L		. WASHER		2
8	66-18315-1		. LINK, RADIUS	BI-T	1
9	NAS77A12-19P		. BUSHING	BI-T	1
10	NAS76A6-026		. BUSHING		1
11	BACN10JC06		. NUT (REPLS NAS67906W)	BGI-L	1
11	BACN10JC06		. NUT	M-T	2
12	AN960PD6L		. WASHER	BGI-L	2
12	AN960PD6L		. WASHER	M-T	4

FIG. & ITEM NO.	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USE CODE	QTY PER ASSY
3-					
13	MS51957-36		. SCREW (REPLS AN515C6R24)	BGI-L	1
13	NAS601-26P		. SCREW	M-T	2
14	63-2546		. LINK, ENTRY DOOR	BGI-L	1
14	69-76556-1		. LINK ASSY	M-T	1
14A	BACR15CE3D		. . RIVET		1
14B	NAS42DD3-4		. . SPACER		1
14C	AN960D3		. . WASHER		1
14D	69-76556-2		. . LINK		1
15	66-18573-1		. LEVER	BI-MQ	1
15	66-18573-2		. LEVER	S	1
15	66-4740-1		. LEVER	G	1
15	69-76559-1		. LEVER	N-PRT	1
16	AN960PD616L		. WASHER		2
17	63-2552		. SHAFT, ENTRY DOOR	BGI-L	1
17	63-2552		. SHAFT, ENTRY DOOR	M-T	2
18	MS16562-216		. PIN, SLOTTED (REPLS NAS561C3-12)		1
19	63-2539		. PIN, ENTRY DOOR	BGI-R	1
19	63-2539-1		. PIN, ENTRY DOOR	ST	1
20	63-2554		. SPRING, ENTRY DOOR, COMPRESSION		1
20	69-62154-1		DELETED		
21	66-4727		. ROLLER	BG	1
21	66-4727-3		. ROLLER (OPT)	G	1
21	66-4727-2		. ROLLER	I	1
21	66-4727		. ROLLER (OPT)	I	1
21	66-4727-3		. ROLLER	J-T	1
21	69-62152-1		DELETED		
22	NAS76A8-012		. BUSHING		1
22	69-62152-3		. BUSHING *[1]	B	1
23	BACB10D67T		. BEARING		1
23	69-62152-2		DELETED		
24	66-9968		. COLLAR ASSY, ENTRY DOOR	BGI-L	1
24	69-62153-1		DELETED		
25	66-9968-1		DELETED		
25	69-62153-3		DELETED		
26	63-2551-1		DELETED		
26	69-62153-2		DELETED		
27	NAS76A8-012		. BUSHING		1
28	69-5133-1		. ARM, GUIDE	G	1
28	69-5133-2		. ARM, GUIDE	G	1
28	69-5133-3		. ARM, GUIDE (SB 2465 AND 52-35)	G	1
28	69-5133-4		. ARM, GUIDE (SB 2465 AND 52-35)	BIGJ	1
28	69-5133-5		. ARM, GUIDE *[1]	B	1
28	69-5133-501		. ARM, GUIDE	KL	1
28	69-5133-6		. ARM, GUIDE	M-P	1
28	69-5133-7		. ARM, GUIDE	Q-T	1

FIG. & ITEM NO.	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USE CODE	QTY PER ASSY
3-					
30	69-76555-1		. COLLAR	M-T	1
32	69-76557-1		. CAM	M-T	1
33	69-76558-1		. TRIGGER	M-T	1
34	69-76560-1		. SPACER	M-T	2
35	69-76561-1		. SPRING	M-T	1
36	BAC27DBY0167		. ALUM FOIL MARKER	N-PRT	1
36	BAC27DBY0168		. ALUM FOIL MARKER	MQS	1
37	MS16562-23		. PIN, SLOTTED	M-T	1
38	66-15530-2		. CHANNEL-GUIDE ARM	L-P	1
38	69-78234-2		. CHANNEL-GUIDE ARM	Q-T	1
39	MS21042L3		. NUT	L-T	1
40	NAS6603-15		. BOLT	L-T	1
41	AN960PD10L		. WASHER	L-T	1

*[1] USED ONLY ON 65-29994-2 ASSEMBLIES REWORKED FROM 65-29994-3

VENDORS

V97613 SARGENT INDUSTRIES, KAHR BEARING DIV., 3010 SAN FERNANDO BLVD., BURBANK CALIFORNIA 91503

V50294 NIPPON MINIATURE BEARING CO., 9730 INDEPENDENCE AVE., CHATSWORTH, CALIFORNIA 91311