

TO: ALL HOLDERS OF OUTBOARD FOREFLAP SEQUENCING CARRIAGE ASSEMBLY AND
 TOGGLE ASSEMBLY OVERHAUL MANUAL, 27-57-22

REVISION NO. 19, DATED JUL 1/09

HIGHLIGHTS

DESCRIPTION OF CHANGE	TOPICS AFFECTED												
	D & O	D / A s s y	C l e a n i n g	I n s p / C h k	R e p a i r	A s s y	F / C	T e s t	T / S h o o t i n g	S / T o o l s	S t o r a g e	I P L	L / O v e r h a u l
Added line to Table for Ref letter C							X						
Changed Part Number for bolt (28A)												X	

OUTBOARD FOREFLAP SEQUENCING CARRIAGE ASSEMBLY AND TOGGLE ASSEMBLY

27-57-22

BOEING P/N 65-47836-8, -9, -12
 65-63413-1, -4
 65-73732-5, -6, -19 thru -22
 65C34015-1, -3
 65C34314-1, -3
 65C34782-1
 69-37880-3, -4, -9, -10, -15 thru -44

AIRLINE P/N

THE FOLLOWING DIRECTIVES APPLY TO THIS SUBJECT:

BOEING SERVICE BULLETIN	BOEING TEMPORARY REVISION	OTHER DIRECTIVES	DATE DIRECTIVE INCORPORATED INTO TEXT
57-1032, Rev 1		PRR 31583 PRR 31718 PRR 32281 PRR 32957 PRR 33890-50	Sep 10/70 Sep 10/70 Jun 25/74 Jan 5/80 Mar 5/89 Sep 5/89 Dec 5/91 Sep 1/95 Nov 1/04
57-1181			
57-1181, R2			
57-1181, R4			
57-1227			
57-1244			

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
27-57-22					
T-1	Nov 1/04				
T-2	BLANK				
* LEP-1	Jul 1/09				
LEP-2	BLANK				
T/C-1	Mar 5/89				
T/C-2	BLANK				
1	Mar 5/89				
2	Mar 5/89				
2A	Mar 5/89				
2B	Mar 5/89				
3	Mar 5/89				
4	Mar 1/01				
4A	Jul 1/98				
4B	Jul 1/98				
4C	Nov 1/98				
4D	BLANK				
5	Mar 5/89				
6	Mar 1/96				
* 7	Jul 1/09				
8	Sep 1/95				
9	Sep 5/89				
10	Jul 1/98				
11	Jul 1/98				
12	Jul 1/98				
12A	Nov 1/04				
* 12B	Jul 1/09				
12C	Nov 1/04				
12D	BLANK				
13	Nov 1/04				
14	Sep 1/95				
15	Nov 1/04				
16	Sep 1/95				



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Fits and Clearances	6
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Trouble Shooting (not applicable)	
Storage Instructions.*[1]	
Special Tools, Fixtures, and Equipment (not applicable)	
Illustrated Parts List.	8

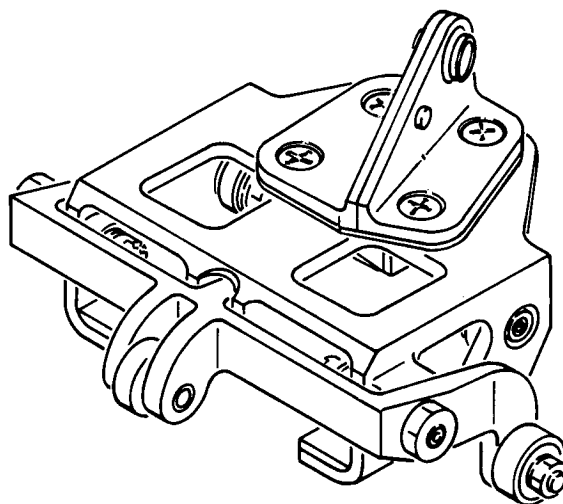
*[1] Special Instructions not required. Use standard industry practices.

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OUTBOARD FOREFLAP SEQUENCING CARRIAGE ASSEMBLY AND TOGGLE ASSEMBLY



Outboard Foreflap Sequencing Carriage Assembly
and Toggle Assembly
Figure 1

1. DESCRIPTION AND OPERATION

A. Description

- (1) The outboard foreflap sequencing carriage assembly consists of a carriage and a lug assembly for attachment to the outboard foreflap. A stop, four roller bearings, two sliders and a toggle assembly are added when the carriage is installed on the airplane.
- (2) The toggle assembly consists of a toggle, four bushings and three bearings.

B. Operation

- (1) The carriage assembly, with its attached rollers, rides along the flap track, supporting and moving the foreflap with it during flap extension and retraction.
- (2) The toggle assembly, in the flap-retracted position, locks the foreflap in the nested position with respect to the midflap. During flap extension, the forward roller of the toggle assembly rides along the flap track until it reaches the toggle detent. As the roller drops into the detent, it allows the aft rollers to disengage from the flap carriage assembly, stopping the aft motion of the foreflap and allowing the midflap to separate from the foreflap.

C. Leading Particulars

Width -- 6.8 inches (approximately)
Length -- 5.3 inches (approximately)
Height -- 3.4 inches (approximately)
Weight -- 4 pounds (approximately)

2. DISASSEMBLY

- A. Standard aircraft shop practices are sufficient for disassembly of this unit.
- B. Items shown in Fig. 3 as installation items are part of the outboard flap installation, and may or may not be on the assembly when it is received for overhaul.
- C. Do not disassemble items (6 thru 9, Fig. 3). Fittings (8 and 9) comprise a matched set.

3. CLEANING

- A. Clean all parts except bearings in solvent, P-D-680, or equivalent, using standard shop practices.

CAUTION: BEARING (5, FIGURE 3) IS TEFLON-LINED. CLEAN ONLY BY SPECIAL METHOD GIVEN IN REFERENCE SUBJECT.

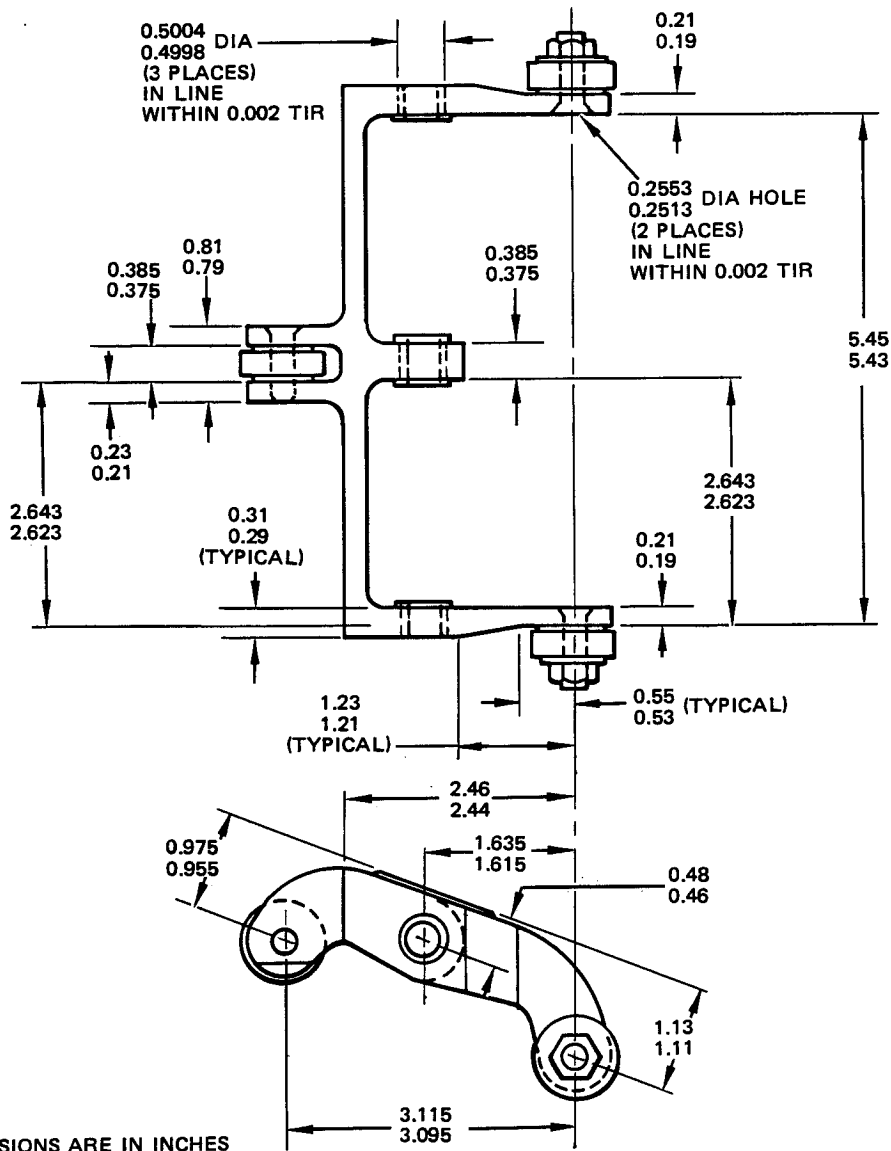
- B. Clean all bearings per Subject 20-30-01, Cleaning and Relubricating Antifriction Bearings.

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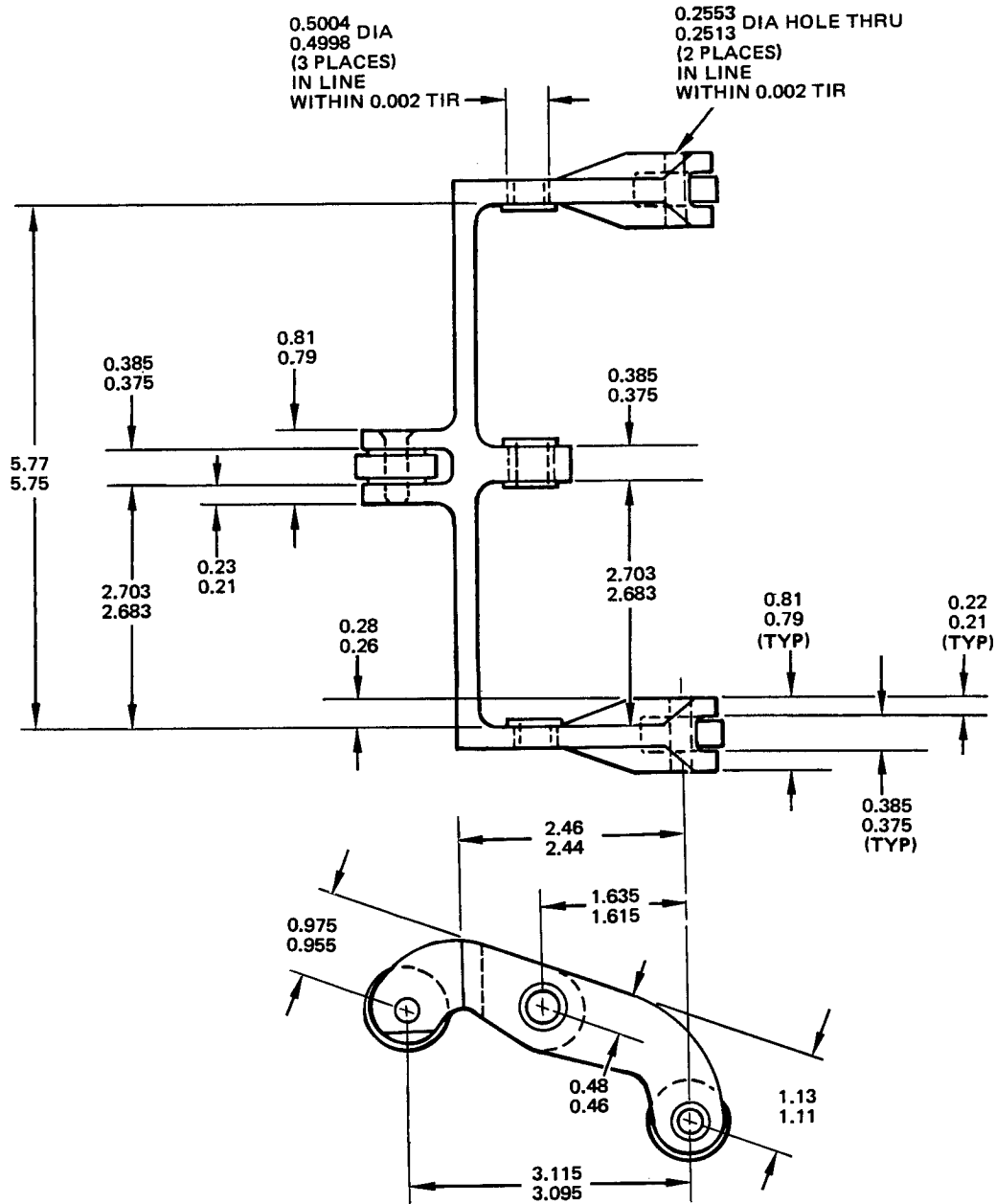
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4. INSPECTION/CHECK

- A. Check all parts for obvious defects in accordance with standard industry practices. See Fig. 2 for wear limits.
- B. Magnetic particle check per 20-20-01 -- lug assembly (4), carriage (12), bolts (18 and 30), stop (39, Fig. 3); and bolts (4, 10, Fig. 4) and toggle (14, Fig. 4).
- C. Check toggle straightness per Fig. 1A.



65-47836-9

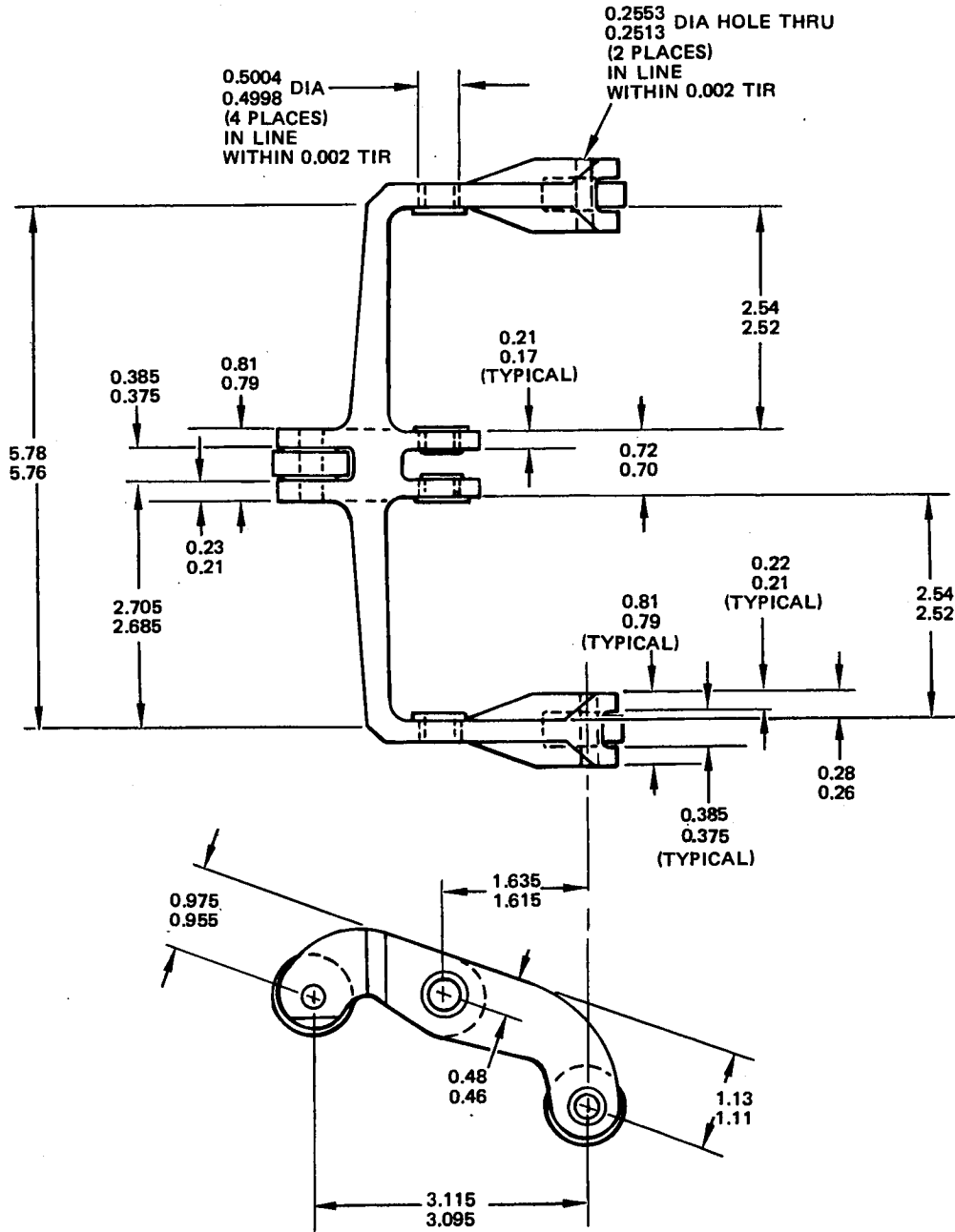


ALL DIMENSIONS ARE IN INCHES

65-47836-8, -12

65-73732 69-37880
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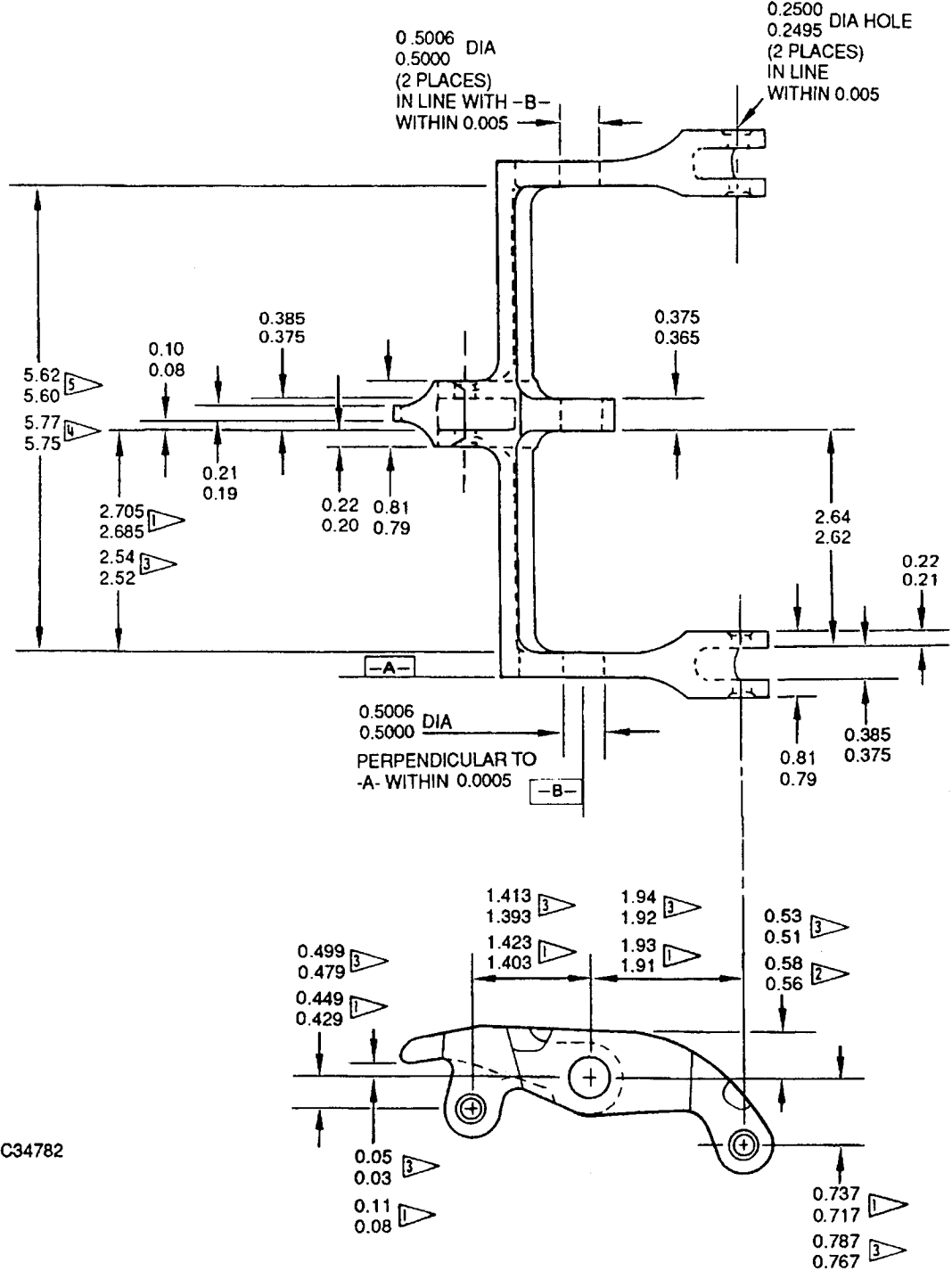
BOEING
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ALL DIMENSIONS ARE IN INCHES

65-63413-1, -4

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- 1 65C34015, 65C34782
- 2 65C34015
- 3 65C34314
- 4 65C34782
- 5 65C34015, 65C34314

ALL DIMENSIONS ARE IN INCHES

65C34015-1,-3
65C34314-1,-3
65C34782-1

Toggle Dimensions
Figure 1A (Sheet 4)

5. REPAIR

A. Repair

- (1) Remove corrosion and minor defects from parts by polishing lightly with abrasive cloth, 220 grit or finer. Do not exceed limits given in Fig. 2 (Fits and Clearances). Refinish as necessary for protection against corrosion.
- (2) Remove minor defects from threads with a small triangular file or thread chaser.

B. Refinish

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

- (a) Lug assembly (4, Fig. 3) -- Apply one coat BMS 10-11, type 1 primer (SRF-12.205) plus BMS 10-60 color 707 gray gloss enamel (SRF-14.9813) all over.
- (b) Fittings (8 and 9, Fig. 3) -- Passivate (F-8.07) all over. Material: 17-4PH CRES (180-200 ksi), except 65C34325-1, -2, 15-5 PH CRES (180-200 ksi).
- (c) Shim (10, Fig. 3) -- Alodize or chromic acid anodize and apply one coat BMS 10-11, type 1 primer (SRF-2.30) all over. Material: Al alloy.
- (d) Carriage (12, Fig. 3) -- Cadmium-titanium alloy plate (F-15.01) all over, then apply one coat BMS 10-11, type 1 primer (SRF-20.02) followed by BMS 10-60 enamel (SRF-14.9813). Material: 4330M steel (220-240 ksi).
- (e) Bolts (4, 10, Fig. 4, 66-23212-2) -- Cadmium plate (F-1.1926) all over. Material: 4340 steel (160-180 ksi).
- (f) Bolt (10, Fig. 4, 69-20787-6) -- Cadmium plate (F-1.1913) all over. Material: 4340 steel (160-180 ksi).
- (g) Pins (4A, 10A, Fig. 4) -- Passivate (F-17.09) all over. Material: 15-5 PH CRES (180-200 ksi).
- (h) Toggle (14, Fig. 4, 65-47836-8, -9, -12, 65-63413-1, 4) -- Cadmium-titanium alloy plate (F-1.181), then apply one coat BMS 10-11, type 1 primer (SRF-12.205) and BMS 10-60 enamel (SRF-14.9813). Material: 4330M steel (220-240 ksi).

- (i) Toggle (14, Fig. 4, 65C34015-2, 65C34314-2, 65C34782-2) -- Passivate (F-17.09) all over, then apply one coat of BMS 10-11, type 1, primer (F-20.02) and BMS 10-60 enamel (SFR-14.9813). Material: 15-5PH CRES (180-200 ksi).
- (j) Bolt (18, Fig. 3, 69-44926-2, -4) -- Cadmium plate (F-1.1926) all over. Material: 4340 steel (180-200 ksi).
- (k) Bolt (18, Fig. 3, 69-77750-2, -4) -- Cadmium plate (F-15.02) all over. Material: 4340 steel (180-200 ksi).
- (l) Bolt (30, Fig. 3) -- Cadmium plate (F-1.1913) all over. Material: 4340 steel (160-180 ksi).
- (m) Stop (39, Fig. 3, 66-23244-1, -2) -- Cadmium plate and then apply one coat BMS 10-11, type 1 primer (SRF-1.285). Material: 4140 steel (180-200 ksi).
- (n) Stop (39, Fig. 3, 69-50771-1, -2) -- Cadmium plate and then apply one coat BMS 10-11, type 1 primer (SRF-1.285). Material: 4340 steel (150-170 ksi).
- (o) Bolt (40, Fig. 3, 66-17191-2) -- Cadmium plate (F-1.1913) all over. Material: 4340 steel (125-145 ksi).
- (p) Bolt (40, Fig. 3, 69-77840-1) -- Cadmium plate (F-15.06) all over. Material: 15-5PH CRES (180-200 ksi).
- (q) Plug (17A, Fig. 3) -- Cadmium plate (F-15.06) all over. Material: 15-5PH CRES (180-200 ksi).

C. Replacement

- (1) Replace all parts that are damaged or worn beyond allowable limits (Fig. 2).
- (2) Replace all cotter pins and key washers at each overhaul.
- (3) If a fitting (8 or 9, Fig. 3) needs to be replaced, replace the entire lug assembly (4). Components comprise a matched set.
- (4) If bearing (5, Fig. 3) needs to be replaced, cut outer race to remove swaging, and remove old bearing. On assemblies 65-73732-5, -6, -19 thru -22 and 69-37880-3, -4, -9, -10, -15, -16, -17 thru -32 apply a thin coat of grease, MIL-G-23827 to all bearing surfaces of new bearing and install in lug assembly (4). Swage outer race of bearing per 20-50-03, Bearing Installation and Retention. On assemblies 69-37880-33 and on install bearing into lug assembly (4) with BMS 5-95. Swage outer race of bearing per 20-50-03, Bearing Installation and Retention.

- (5) If rub strip (11, Fig. 3) needs to be replaced, carefully pry off old rub strip and clean any residue from carriage (12) prior to installation of new strips. Bond new rub strip in place using minimum bond thickness per 20-50-12, type 38, Special Method 2. Keep corresponding holes in rub strip (11) and carriage (12) aligned until adhesive has cured.
- (6) Replace rub strip (43, Fig. 3) as follows:
 - (a) Remove the rub strip. Rub strip (43) was bonded to the carriage (12) on some airplanes. If necessary, carefully pry off the old rub strip and clean any residue from the carriage (12).
 - (b) Install the replacement rub strip. It is optional to bond the rub strip to the carriage. The rub strip can be bonded to the carriage as follows:
 - 1) Bond the new rub strip to the carriage using the minimum bond thickness per 20-50-12, type 38, Special Method 2. Keep the corresponding holes in the rub strip and carriage aligned until the adhesive has cured.
- (7) If a bolt assembly (2 or 8, Fig. 4, P/N 66-23212-1) needs to be replaced, drill 0.062- to 0.065-inch diameter hole for spring pin (1) after bolt and bearing (11) have been installed. Use hole in toggle (14) as a guide.
- (8) If bushings (12 or 13, Fig. 4) for toggle assemblies 65-47836-8, -9, -12; 65-63413-1, -4; need to be replaced, press out old bushing and install new one with wet primer, BMS 10-11, type 1. If bushings (12 or 13, Fig. 4) for toggle assemblies 65C34015-1, -3; 65C34314-1, -3; 65C34782-1; need to be replaced, press out the old bushing and install a new bushing with BMS 3-24 grease. On toggle assemblies (P/N 65C34015-1, -3, 65C34314-1, -3 and 65C34782-1) line ream all bushings (12, 13, Fig. 4) to 0.3750-0.3765 inch design diameter.
- (9) If bearing (11, Fig. 4) on toggle assembly 65C34015-1, -3; 65C34314-1, -3; or 65C34782-1 needs to be replaced, remove pin (4A or 10A, Fig. 4) by standard aircraft shop practices. Install new pin and upset hollow end to a minimum diameter of 0.27 inch per Fig. 1B. Make sure that bearing turns freely after the pin has been installed.
- (10) If plug (17A, Fig. 3) and pin (17B, Fig. 3) on the bolt assembly (16, Fig. 3, 69-77750-5, -7) needs to be replaced, remove the plug (17A, Fig. 3) and pin (17B, Fig. 3). Clean the bolt (18, Fig. 3) per 20-30-03, General Cleaning Procedures. Fill all bolt (18, Fig. 3) passages with BMS 5-95 sealant. Install plug (17A, Fig. 3) with BMS 5-95 sealant and pin (17B, Fig. 3) in the bolt (18, Fig. 3). Remove excess sealant.

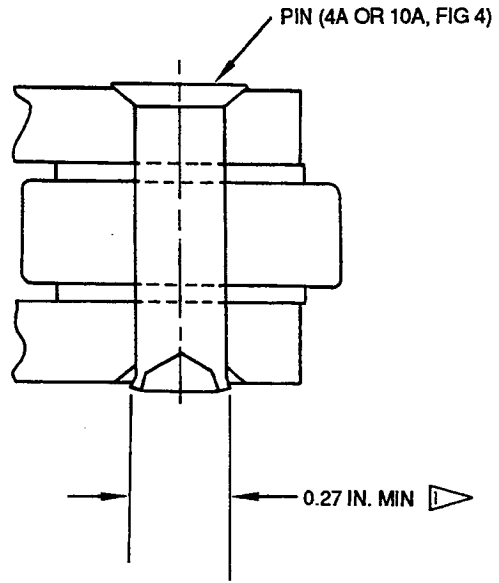
D. Materials

- (1) Grease -- MIL-G-23827
- (2) Adhesive -- Type 38, per 20-50-12
- (3) Primer -- BMS 10-11, type 1
- (4) Sealant -- BMS 5-95

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 UPSET HOLLOW END OF
PIN TO MINIMUM
DIAMETER SHOWN

Pin Installation Details
Figure 1B

6. ASSEMBLY

A. Standard aircraft shop practices are sufficient for assembly of this unit.

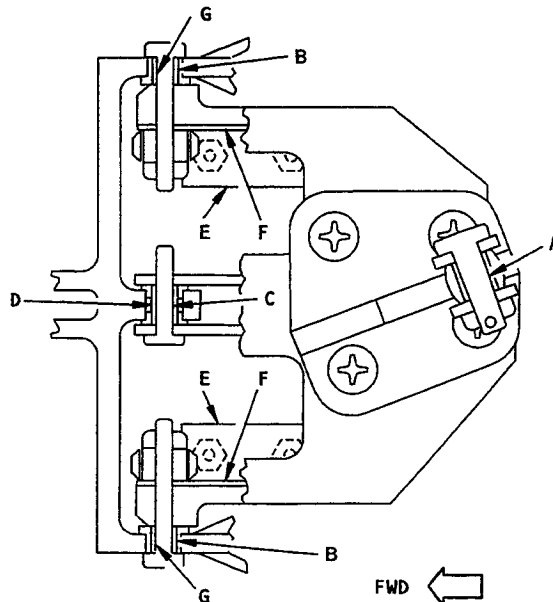
- (1) Install bolts (2, 3, Fig. 3, BACB30NE4-(), BACB30LU5-(), BACB30NE4H3, BACB30LU4-5) with corrosion preventive compound, MIL-C-11796, Class 3. Install bolts (2, 3, Fig. 3, BACB30LR5-7, BACB30WP5K8R) with BMS 5-95 sealant. Install all other bolts with a light coat of grease, MIL-G-23827.
- (2) Tighten nuts (1, Fig. 3, NAS 1805-5L) used with bolts (2, 3, Fig. 3, BACB30LR5-7, BACB30WP5K8R) within a torque range of 170-200 pound-inches.
- (3) Tighten nuts (5, Fig. 4) within a torque range of 30-40 pound-inches.
- (4) Install spring pins (1, Fig. 4) with wet primer, BMS 10-11, Type 1. Use lockwire, MS20995NC32 or equivalent, to secure spring pins (1, Fig. 4) to toggle (14).
- (5) If installation items (13 thru 41, Fig. 3) are with the unit, they may be loosely installed or left disassembled. They must be removed from the unit before the carriage assembly can be installed on the airplane.

B. Materials

- (1) Grease -- MIL-G-23827 (Ref 20-60-03)
- (2) Corrosion Preventive Compound -- MIL-C-11796, Class 3 (Ref 20-60-03)
- (3) Primer -- BMS 10-11, Type 1 (Ref 20-60-02)

7. FITS AND CLEARANCES

A. and B. Deleted.



Fits and Clearances
Figure 2 (Sheet 1)

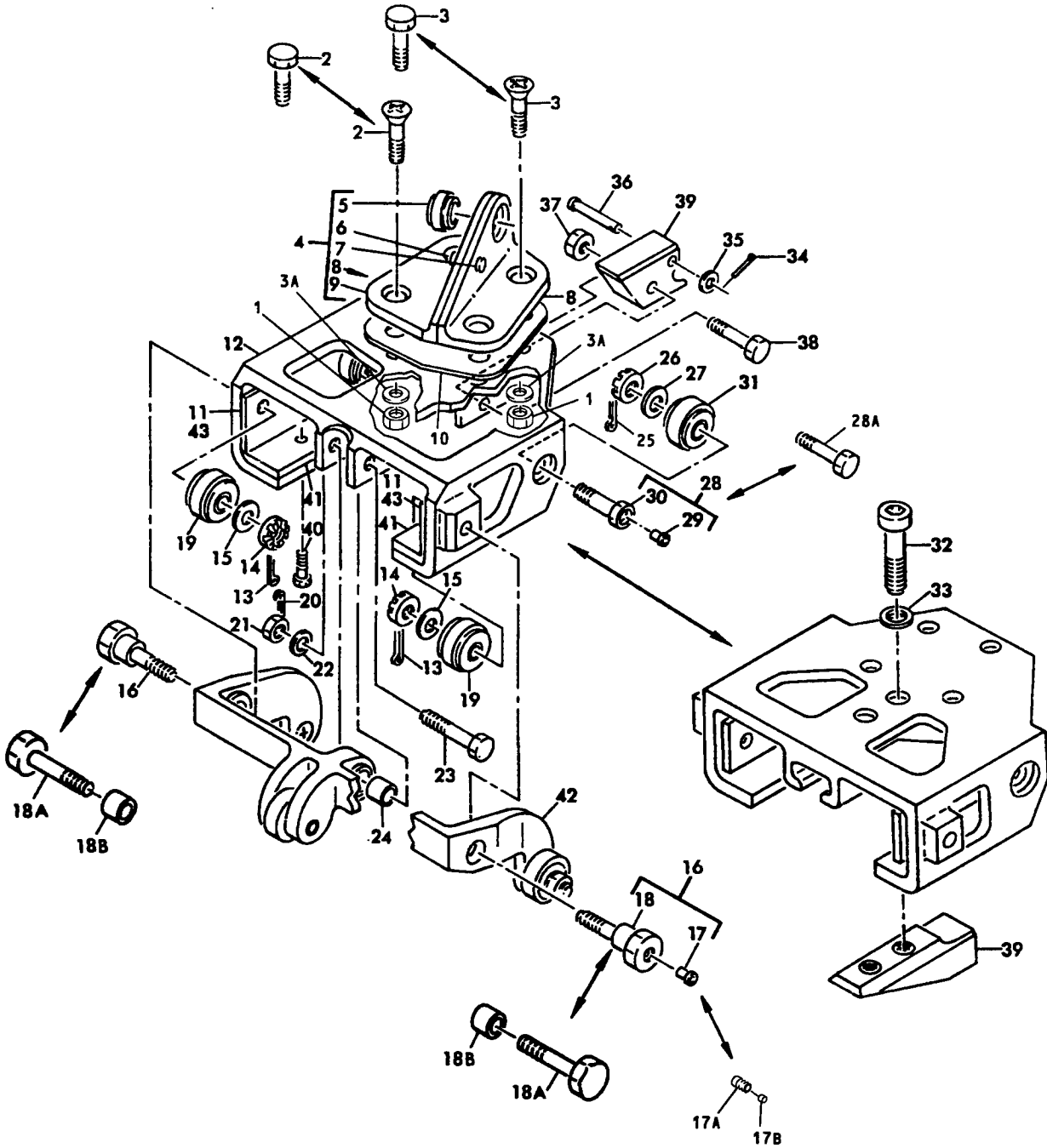
FITS AND CLEARANCES								
Ref Letter Fig. 2	Mating Item No. Fig.	Original Design Dimensions				Service Wear Limits		
		Dimensions (inches)		Assembly Clearance (inch)		Dimension Limits (inch)		Maximum Allowable Clearance (inch)
		Min	Max	Min	Max	Min	Max	
A	ID 3-5	0.4370	0.4375	0.0005	0.0020	0.4330	0.4405	0.0040
	OD *[1]	0.4355	0.4365					
B	ID 4-12	0.3750	0.3765	0.0005	0.0030	0.3690	0.3805	0.0060
	OD *[4]	0.3735	0.3745					
C	ID 3-24	0.2500	0.2540	0.0005	0.0055	0.2390	0.2605	0.0110
	OD *[2]	0.2485	0.2495					
C	ID 3-24	0.2500	0.2540	0.0008	0.0063	0.2380	0.2612	0.0120
	OD *[3]	0.2477	0.2492					
C	ID 3-24	0.2500	0.2540	0.0015	0.0061			
	OD *[6]	0.2479	0.2485					
D	ID 4-13	0.3750	0.3765	0.0050	0.0115	0.3520	0.3990	0.0230
	OD 3-24	0.3650	0.3700					
E	3-41	SLIDER THICKNESS		VARIATION		ALLOWABLE WEAR DIMENSION		
		Min	Max	0.010		Fwd End	Aft End	
		0.135	0.145			0.120	0.120	
F	3-11 *[5]	0.0565	0.0635	0.0035		0.040	0.040	
G	ID 3-18B	0.2500	0.2510	0.0005	0.0025	0.2450	0.2545	0.0050
	OD 3-18A	0.2485	0.2495					

- *[1] 69-43503 Bushing (Reference)
- *[2] Item (3-23, P/N NAS1104-12D)
- *[3] Item (3-23, P/N MS20004H12)
- *[4] Items (3-16) and (3-18B)
- *[5] 66-24508-2, -3, Rub Strip
- *[6] Item (3-23, P/N BACB30LJ4D12)

Fits and Clearances
Figure 2 (Sheet 2)

8. DELETED

9. ILLUSTRATED PARTS LIST



Outboard Foreflap Sequencing Carriage Assembly
Figure 3

F23542


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 65-47836 65-634
 65C34015 65C34782
 65C34314
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FIG. & ITEM NO.	PART NO.	AIRLINE PART NUMBER	N O M E N C L A T U R E							USE CODE	QTY PER ASSY
			1	2	3	4	5	6	7		
3-	65-73732-5		C	A	R	R	A	S	S	A	RF
	65-73732-6		C	A	R	R	A	S	S	A	RF
	65-73732-19		C	A	R	R	A	S	S	A	RF
	65-73732-20		C	A	R	R	A	S	S	A	RF
	65-73732-21		C	A	R	R	A	S	S	A	RF
	65-73732-22		C	A	R	R	A	S	S	A	RF
	69-37880-3		C	A	R	R	A	S	S	A	RF
	69-37880-4		C	A	R	R	A	S	S	A	RF
	69-37880-9		C	A	R	R	A	S	S	A	RF
	69-37880-10		C	A	R	R	A	S	S	A	RF
	69-37880-15		C	A	R	R	A	S	S	A	RF
	69-37880-16		C	A	R	R	A	S	S	A	RF
	69-37880-17		C	A	R	R	A	S	S	A	RF
	69-37880-18		C	A	R	R	A	S	S	A	RF
	69-37880-19		C	A	R	R	A	S	S	A	RF
	69-37880-20		C	A	R	R	A	S	S	A	RF
	69-37880-21		C	A	R	R	A	S	S	A	RF
	69-37880-22		C	A	R	R	A	S	S	A	RF
	69-37880-23		C	A	R	R	A	S	S	A	RF
	69-37880-24		C	A	R	R	A	S	S	A	RF



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 65C34015 65C34782
 65C34314
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FIG. & ITEM NO.	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE							USE CODE	QTY PER ASSY
			1	2	3	4	5	6	7		
3-	69-37880-25		CARRIAGE ASSY, OUTBOARD FOREFLAP SEQUENCING (PRE SB 57-1181R2)							U	RF
	69-37880-26		CARRIAGE ASSY, OUTBOARD FOREFLAP SEQUENCING (PRE SB 57-1181R2)							V	RF
	69-37880-27		CARRIAGE ASSY, OUTBOARD FOREFLAP SEQUENCING (PRE SB 57-1181R2)							W	RF
	69-37880-28		CARRIAGE ASSY, OUTBOARD FOREFLAP SEQUENCING (PRE SB 57-1181R2)							X	RF
	69-37880-29		CARRIAGE ASSY, OUTBOARD FOREFLAP SEQUENCING (PRE SB 57-1181R2)							Y	RF
	69-37880-30		CARRIAGE ASSY, OUTBOARD FOREFLAP SEQUENCING (PRE SB 57-1181R2)							Z	RF
	69-37880-31		CARRIAGE ASSY, OUTBOARD FOREFLAP SEQUENCING (PRE SB 57-1181R2)							BA	RF
	69-37880-32		CARRIAGE ASSY, OUTBOARD FOREFLAP SEQUENCING (PRE SB 57-1181R2)							CA	RF
	69-37880-33		CARRIAGE ASSY, OUTBOARD FOREFLAP SEQUENCING (POST SB 57-1181R2, R4)							DA	RF
	69-37880-34		CARRIAGE ASSY, OUTBOARD FOREFLAP SEQUENCING (POST SB 57-1181R2, R4)							EA	RF
	69-37880-35		CARRIAGE ASSY, OUTBOARD FOREFLAP SEQUENCING (POST SB 57-1181R2, R4)							FA	RF
	69-37880-36		CARRIAGE ASSY, OUTBOARD FOREFLAP SEQUENCING (POST SB 57-1181R2, R4)							GA	RF
	69-37880-37		CARRIAGE ASSY, OUTBOARD FOREFLAP SEQUENCING							HA	RF
	69-37880-38		CARRIAGE ASSY, OUTBOARD FOREFLAP SEQUENCING							IA	RF
	69-37880-39		CARRIAGE ASSY, OUTBOARD FOREFLAP SEQUENCING							JA	RF
	69-37880-40		CARRIAGE ASSY, OUTBOARD FOREFLAP SEQUENCING							KA	RF
	69-37880-41		CARRIAGE ASSY, OUTBOARD FOREFLAP SEQUENCING							LA	RF
	69-37880-42		CARRIAGE ASSY, OUTBOARD FOREFLAP SEQUENCING							MA	RF
	69-37880-43		CARRIAGE ASSY, OUTBOARD FOREFLAP SEQUENCING							NA	RF
	69-37880-44		CARRIAGE ASSY, OUTBOARD FOREFLAP SEQUENCING							PA	RF
1	BACN10BL4L		. NUT							A-F	4
1	BACN10BL5L		. NUT							G-P	4
1	BACN10GW5		. NUT							S-CA	4
1	NAS1805-5L		. NUT							QR DA-PA	4

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FIG. & ITEM NO.	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE							USE CODE	QTY PER ASSY
			1	2	3	4	5	6	7		
3-2	BACB30NE4-4		.	BOLT (REPLS NAS1304-4)						ABEF	2
2	BACB30NE4-6		.	BOLT (REPLS NAS1304-6)						CD	2
2	BACB30LU5-5		.	BOLT						G-J	2
2	BACB30LU5-7		.	BOLT						K-CA	2
2	BACB30LR5-7		.	BOLT						DA-GA	2
2	BACB30WP5K8R		.	BOLT						HA-PA	2
3	BACB30NE4H3		.	BOLT (REPLS NAS1304-3H)						ABEF	2
3	BACB30LU4-5		.	BOLT						CD	2
3	BACB30LU5-5		.	BOLT						G-J	2
3	BACB30LU5-7		.	BOLT						K-CA	2
3	BACB30LR5-7		.	BOLT						DA-GA	2
3	BACB30WP5K8R		.	BOLT						HA-PA	2
3A	BACW10BP5NDP		.	WASHER						HA-PA	4
4	65-63437-1		.	LUG ASSY						AE	1
4	65-63437-2		.	LUG ASSY (OPP 65-63437-1)						BF	1
4	65-76122-1		.	LUG ASSY						C	1
4	65-76122-2		.	LUG ASSY (OPP 65-76122-1)						D	1
4	69-37879-1		.	LUG ASSY						GI	1
4	69-37879-2		.	LUG ASSY (OPP 69-37879-1)						HJ	1
4	65-76124-1		.	LUG ASSY						KMOQS	1
4	65-76124-2		.	LUG ASSY (OPP 65-76124-1)						UWY BA LNPRT	1
4	65C34325-1		.	LUG ASSY						VXZ CA DA FA HA JA LA,NA	1
4	65C34325-2		.	LUG ASSY (OPP 65C34325-1)						EA GA IA KA MA,PA	1
5	03-728-0437		.	BEARING, V09455 (BOEING 10-60545-114S)(OPT)						A-CA	1
5	SBS14ATC29		.	BEARING, V21335 (BOEING 10-60545-114S)(OPT)						A-CA	1
5	TFA7A		.	BEARING, V77896 (BOEING 10-60545-114S)(OPT)						A-CA	1
5	BLFN7-017		.	BEARING, V81376 (BOEING 10-60545-114S)(OPT)						A-CA	1
5	KSBG7N5		.	BEARING, V97613 (BOEING 10-60545-114S)(OPT)						A-CA	1
5	MS21232-7		.	BEARING (OPT TO 10-60545-114S)						A-CA	1
5	BACB10FC07		.	BEARING						DA-PA	1
5	MS14101-7		.	BEARING (OPT TO BACB10FC07)						DA-PA	1
6	NAS108OR8		.	COLLAR						ABEF	1
6	BACC30M8		.	COLLAR						CDG-PA	1
7	BACB30DX8-5		.	LOCKBOLT						ABEF	1
7	BACB30FM8-6		.	BOLT						CDG-PA	1



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FIG. & ITEM NO.	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE							USE CODE	QTY PER ASSY	
			1	2	3	4	5	6	7			
3-8	65-63437-3		.	.						FITTING	AE	1
8	65-63437-4		.	.						FITTING (OPP 65-63437-3)	BF	1
8	65-76122-3		.	.						FITTING	C	1
8	65-76122-4		.	.						FITTING (OPP 65-76122-3)	D	1
8	65-76124-3		.	.						FITTING	KMOQS UWY BA	1
8	65-76124-4		.	.						FITTING (OPP 65-76124-3)	LNPRT VXZ CA	1
8	69-37879-3		.	.						FITTING	GI	1
8	69-37879-4		.	.						FITTING (OPP 69-37879-3)	HJ	1
8	65C34325-3		.	.						FITTING	DA FA HA JA LA NA	1
8	65C34325-4		.	.						FITTING (OPP 65C34325-3)	EA GA IA KA MA PA	1
9	65-63437-5		.	.						FITTING	AE	1
9	65-63437-6		.	.						FITTING (OPP 65-63437-5)	BF	1
9	65-76122-5		.	.						FITTING	C	1
9	65-76122-6		.	.						FITTING (OPP 65-76122-5)	D	1
9	65-76124-5		.	.						FITTING	KMOQS UWY BA	1
9	65-76124-6		.	.						FITTING (OPP 65-76124-5)	LNPRT VXZ CA	1
9	69-37879-5		.	.						FITTING	GI	1
9	69-37879-6		.	.						FITTING (OPP 69-37879-5)	HJ	1
9	65C34325-5		.	.						FITTING	DA FA HA JA LA NA	1
9	65C34325-6		.	.						FITTING (OPP 65C34325-5)	EA GA IA KA MA PA	1
10	69-59861-1		.							SHIM	CD	1
10	69-59862-2		.							SHIM	KL	1
11	69-77765-3		.							STRIP, RUB	A-PWX BA CA	2
11	66-24508-2		.							STRIP, RUB (OPT TO 69-77765-3)	A-PWX BA CA	2
11	65C18285-10		.							STRIP, RUB	QR	2
11	69-77765-4		.							STRIP, RUB	S-VYZ	2
11	66-24508-3		.							STRIP, RUB (OPT TO 69-77765-4)	S-VYZ	2
12	65-63433-1		.							CARRIAGE	A	1
12	65-63433-2		.							CARRIAGE (OPP 65-63433-1)	B	1
12	65-63433-9		.							CARRIAGE	CE	1
12	65-63433-10		.							CARRIAGE (OPP 65-63433-9)	DF	1
12	65-67130-1		.							CARRIAGE	GK	1

FIG. & ITEM NO.	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE							USE CODE	QTY PER ASSY	
			1	2	3	4	5	6	7			
3-12	65-67130-2		.	CARRIAGE	(OPP	65-67130-1)					HL	1
12	65-47824-7		.	CARRIAGE							I	1
12	65-47824-8		.	CARRIAGE	(OPP	65-47824-7)					J	1
12	65-67130-9		.	CARRIAGE							MQ	1
12	65-67130-10		.	CARRIAGE	(OPP	65-67130-9)					NR	1
12	65-67130-13		.	CARRIAGE							O	1
12	65-67130-14		.	CARRIAGE	(OPP	65-67130-13)					P	1
12	65-67130-15		.	CARRIAGE							S	1
12	65-67130-16		.	CARRIAGE	(OPP	65-67130-15)					T	1
12	65-67130-17		.	CARRIAGE							U	1
12	65-67130-18		.	CARRIAGE	(OPP	65-67130-17)					V	1
12	65-67130-19		.	CARRIAGE							W	1
12	65-67130-20		.	CARRIAGE	(OPP	65-67130-19)					X	1
12	65-67130-21		.	CARRIAGE							Y	1
12	65-67130-22		.	CARRIAGE	(OPP	65-67130-21)					Z	1
12	65-67130-23		.	CARRIAGE							BA	1
12	65-67130-24		.	CARRIAGE	(OPP	65-67130-23)					CA	1
12	65-67130-25		.	CARRIAGE							DA HA	1
12	65-67130-26		.	CARRIAGE	(OPP	65-67130-25)					EA IA	1
12	65-67130-27		.	CARRIAGE							FA JA	1
12	65-67130-28		.	CARRIAGE	(OPP	65-67130-27)					GA KA	1
12	65-67130-29		.	CARRIAGE							LA	1
12	65-37130-30		.	CARRIAGE							MA	1
12	65-37130-31		.	CARRIAGE							NA	1
12	65-67130-32		.	CARRIAGE							PA	1
				INSTALLATION ITEMS								
13	MS24665-153			PIN, COTTER								2
14	BACN10JD104			NUT (REPLS AN320-4)								2
15	AN960PD416L			WASHER (REPLS AN960PD416)								2
16	69-44926-1			BOLT ASSY *[2] *[3] (LIMITED)								2
				(PRE SB 57-1227)								
16	69-44926-3			BOLT ASSY *[2] *[3] (LIMITED)								2
				(PRE SB 57-1227)								
16	69-77750-1			BOLT ASSY *[4] (LIMITED) (PRE SB 57-1227)								2
16	69-77750-3			BOLT ASSY *[4] (LIMITED) (PRE SB 57-1227)								2
16	69-77750-1			BOLT ASSY *[8] (LIMITED) (PRE SB 57-1244)								2
16	69-77750-3			BOLT ASSY *[8] (LIMITED) (PRE SB 57-1244)								2
16	69-77750-5			BOLT ASSY *[8] (LIMITED)								2
				(POST SB 57-1244)								
16	69-77750-7			BOLT ASSY *[8] (LIMITED)								2
				(POST SB 57-1244)								
16	69-77750-5			BOLT ASSY (POST SB 57-1227)								2
16	69-77750-7			BOLT ASSY (POST SB 57-1227)								2
17	NAS516-1		.	FITTING, LUBRICATION (USED ON								1
				69-44926-1, -3)								

FIG. & ITEM NO.	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE							USE CODE	QTY PER ASSY
			1	2	3	4	5	6	7		
3-17	NAS516-1A		.	FITTING, LUBRICATION							1
				(USED ON 69-77750-1, -3)							
17A	BACP20AXO9A		.	PLUG (USED ON 69-77750-5, -7)							1
17B	BACP20AXO9AP		.	PIN (USED ON 69-77750-5, -7)							1
18	69-44926-2		.	BOLT (USED ON 69-44926-1)							1
18	69-44926-4		.	BOLT (USED ON 69-44926-3)							1
18	69-77750-2		.	BOLT (USED ON 69-77750-1, -5)							1
18	69-77750-4		.	BOLT (USED ON 69-77750-3, -7)							1
18A	BACB30NF4D21			BOLT (OPT TO 69-44926-3)(USED WITH 69-59833-1)							2
18A	NAS1104-21D			BOLT (OPT TO 69-44926-3)(USED WITH 69-59833-1)							2
18B	69-59833-1			SPACER (USED WITH NAS1104-21D AND BACB30NF4D21)							2
19	BACB10ET04			BEARING *[2] *[3] (REPLS BACB10BN04) (PRE SB 57-1227)							2
19	BACB10BN04			BEARING *[2] *[3] (REPLS BACB10B131) (PRE SB 57-1227)							2
19	BACB10ET04			BEARING *[4] (PRE SB 57-1227)							2
19	BACB10ET04			BEARING *[8] (LIMITED) (PRE SB 57-1244)							2
19	KRP123400VT04			DELETED							
19	KRP123400VT04C			BEARING, V50632 *[8] (LIMITED) (PRE SB 57-1244)							2
19	KRP123400VT04C			BEARING, V50632 (POST SB 57-1227)							2
19	KRP190204VTZ			BEARING, V50632 (POST SB 57-1244)							2
20	MS24665-153			PIN, COTTER *[3] *[4] *[8]							1
21	BACN10JD104			NUT (REPLS AN320-4) *[3] *[4] *[8]							1
22	AN960PD416			WASHER *[3] *[4] *[8]							1
23	NAS1104-12D			DELETED							
23	BACB30LJ4D12			BOLT *[3] *[4] *[8]							1
23	MS20004H12			BOLT *[2]							1
24	66-15959-1			BUSHING *[3] *[4] *[8]							1
24	66-15959-4			BUSHING *[2]							1
25	MS24665-153			PIN, COTTER							2
26	AN320-4			NUT *[1]							2
26	BACN10JD104			NUT *[1]							2
27	AN960PD416			WASHER (LIMITED)							2
27	AN960PD416L			WASHER (LIMITED)							2
28	69-20787-10			BOLT ASSY *[1] (PRE SB 57-1227, 57-1244)							2
28	69-20787-2			BOLT ASSY *[1] (PRE SB 57-1227, 57-1244)							2
28A	NAS6704D10			BOLT (LIMITED) *[9]							2
28A	NAS6704D10			BOLT (POST SB 57-1227, 57-1244)							2
28A	BACB30LM4D10			BOLT (POST SB 57-1227, 57-1244) (REPLS NAS6704D10)							2
29	NAS516-1		.	FITTING, LUBRICATION							1
30	69-20787-11		.	BOLT (USED ON 69-20787-10)							1
30	69-20787-5		.	BOLT (USED ON 69-20787-2)							1

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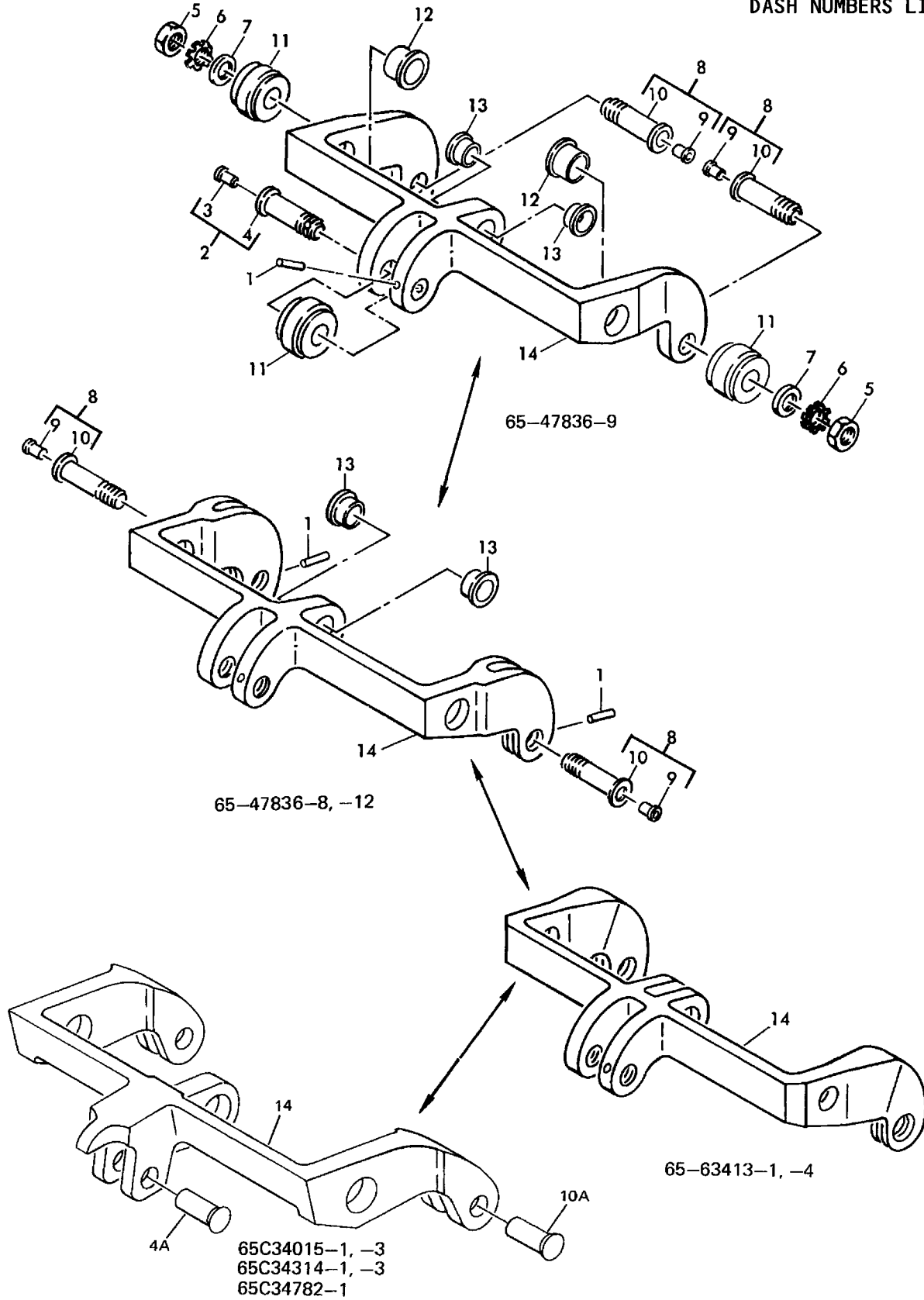
FIG. & ITEM NO.	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE							USE CODE	QTY PER ASSY
			1	2	3	4	5	6	7		
3-31	BACB10BN04		BEARING *[2] *[3] (REPLS BACB10B131) (PRE SB 57-1227)								2
31	BACB10ET04		BEARING *[2] *[3] (REPLS BACB10BN04) (PRE SB 57-1227)								2
31	BACB10ET04		BEARING *[4] (PRE SB 57-1227)								2
31	BACB10ET04		BEARING *[8] (LIMITED) (PRE SB 57-1244)								2
31	KRP123400VT04		DELETED								
31	KRP123400VT04C		BEARING, V50632 *[8] (LIMITED) (PRE SB 57-1244)								2
31	KRP123400VT04C		BEARING, V50632 (POST SB 57-1227)								2
31	KRP190204VTZ		BEARING, V50632 (POST SB 57-1244)								2
32	BACB30FD4H4		BOLT *[2]								2
33	MS20002C4		WASHER *[2]								2
34	MS24665-153		PIN, COTTER *[3] *[4] *[8]								1
35	AN960PD10		WASHER *[3] *[4] *[8]								1
36	MS20392-2C27		PIN *[3]								1
36	MS20392-2C29		PIN *[4] *[8]								1
37	BACN10JC4		NUT (REPLS NAS679A4W) *[3] *[4] *[8]								1
38	NAS1104-12		DELETED								
38	BACB30NR4K12		BOLT *[3] *[4] *[8]								1
39	69-50771-1		STOP (REPLD BY 69-50771-2 PER SB 57-1032)*[2]								1
39	69-50771-2		STOP (REPLS 69-50771-1 PER SB 57-1032) *[2]								1
39	66-23244-1		STOP (REPLD BY 66-23244-2 PER SB 57-1032)*[3]								1
39	66-23244-2		STOP (REPLS 66-23244-1 PER SB 57-1032) *[3]								1
39	66-23244-2		STOP *[4] *[8]								1
40	66-17191-2		BOLT *[2] *[3]								4
40	69-77840-1		BOLT *[4] *[8]								4
41	66-23214-1		SLIDER *[3] (LIMITED)								2
41	66-23214-2		SLIDER *[2]								2
41	65-73732-45		SLIDER *[3] *[4] (LIMITED)								2
41	P41780		SLIDER *[3] *[4] (LIMITED)								2
41	P41780-1		SLIDER *[3] *[4] (LIMITED)								2
41	P41780-2		SLIDER *[3] *[4] (OPT)								2
41	VTM047		SLIDER *[3] *[4] (OPT)								2

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FIG. & ITEM NO.	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE							USE CODE	QTY PER ASSY
			1	2	3	4	5	6	7		
3-41	P41780										2
41	P41780-1										2
41	P41780-2										2
41	VTM047										2
41	65C18285-6										2
41A	65C18285-3										2
41B	65C18285-7										2
42	65-47836-8										1
42	65-47836-9										1
42	65-47836-12										1
42	65-63413-1										1
42	65-63413-4										1
42	65C34015-1										1
42	65C34015-3										1
42	65C34015-1										1
42	65C34015-3										1
42	65C34314-1										1
42	65C34314-3										1
42	65C34314-1										1
42	65C34314-3										1
42	65C34782-1										1
43	69-77765-3										2
43	69-77765-4										2

- *[1] BOLT ASSY (28, 69-20787-2) WITH NUT (26, AN320-4) OPTIONAL TO BOLT ASSY (28, 69-20787-10) WITH NUT (26, BACN10JD104)
- *[2] USED WITH 65-73732- SERIES CARRIAGE ASSEMBLIES
- *[3] USED WITH 69-37880-3, -4, -9, -10, -15 THRU -32 CARRIAGE ASSEMBLIES
- *[4] USED WITH 69-37880-33 THRU -36 CARRIAGE ASSEMBLIES
- *[5] 65C34782-1 PREFERRED OPTION TO 65-47836-8, -9, -12
- *[6] POST SERVICE BULLETIN 737-57-1181R2
- *[7] POST SERVICE BULLETIN 737-57-1181R4
- *[8] USED WITH 69-37880-37 THRU -44 CARRIAGE ASSEMBLIES
- *[9] USED WITH BEARING, ITEM 31 P/N KRP123400VT04C



Toggle Assembly
 Figure 4

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FIG. & ITEM NO.	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE							USE CODE	QTY PER ASSY
			1	2	3	4	5	6	7		
4-	65-47836-8		TOGGLE ASSY							A	
	65-47836-9		TOGGLE ASSY							B	
	65-47836-12		TOGGLE ASSY (SB 57-1032) (PRE SB 57-1181R2)							C	
	65-63413-1		TOGGLE ASSY							D	
	65-63413-4		TOGGLE ASSY (SB 57-1032)							E	
	65C34015-1		TOGGLE ASSY (POST SB 57-1181R2) (PRE SB 57-1227, 57-1244)							F	
	65C34314-1		TOGGLE ASSY (POST SB 57-1181R2) (PRE SB 57-1227, 57-1244)							G	
	65C34782-1		TOGGLE ASSY							H	
	65C34015-3		TOGGLE ASSY (POST SB 57-1227, 57-1244)							I	
	65C34314-3		TOGGLE ASSY (POST SB 57-1227, 57-1244)							J	
1	MS16562-9		. PIN, SPRING							AC	3
1	MS16562-9		. PIN, SPRING							B	1
1	MS16562-10		. PIN, SPRING							DE	3
2	66-23212-1		. BOLT ASSY							A-E	1
3	NAS516-1		. . FITTING, LUBRICATION								1
4	66-23212-2		. . BOLT								1
4A	69-77698-1		. PIN							F-J	1
5	BACN10JC4		. NUT (REPLS NAS679A4)							B	2
6	MS27111-1		. WASHER, KEY (REPLS NAS460-416)							B	2
7	AN960PD416		. WASHER							B	2
8	66-23212-1		. BOLT ASSY							ACDE	2
8	69-20787-3		. BOLT ASSY							B	2
9	NAS516-1		. . FITTING, LUBRICATION								1
10	66-23212-2		. . BOLT (USED ON 66-23212-1)								1
10	69-20787-6		. . BOLT (USED ON 69-20787-3)								1
10A	69-77698-1		. PIN							F-J	2
11	BACB10BN04		. BEARING (REPLS BACB10B131)							A-E	3
11	KRP502-4VT		. BEARING							F-J	3
12	BACB28X6B23		. BUSHING							ACDE	2
12	BACB28X6B28		. BUSHING							B	2
12	BACB28AT06B028A		. BUSHING							FG	2
12	BACB28AT06B018A		. BUSHING							H	2
12	KJB331106V		. BUSHING, V50632							IJ	2
12	KJB331106V		. BUSHING, V50632							C	2
13	BACB28X6B18		. BUSHING							ABC	2
13	BACB28X6B23		. BUSHING							DE	2
13	BACB28AT06B018A		. BUSHING							FGH	2
13	KJB331206V		. BUSHING, V50632							C	2
13	KJB331206V		. BUSHING, V50632							IJ	2


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FIG. & ITEM NO.	PART NO.	AIRLINE PART NUMBER	N O M E N C L A T U R E							USE CODE	QTY PER ASSY
			1	2	3	4	5	6	7		
4-											
14	65-47836-10		.	T	O	G	G	L	E	A	1
14	65-47836-11		.	T	O	G	G	L	E	B	1
14	65-47836-13		.	T	O	G	G	L	E	C	1
14	65-63413-2		.	T	O	G	G	L	E	D	1
14	65-63413-5		.	T	O	G	G	L	E	E	1
14	65C34015-2		.	T	O	G	G	L	E	FI	1
14	65C34314-2		.	T	O	G	G	L	E	GJ	1
14	65C34782-2		.	T	O	G	G	L	E	H	1

VENDORS

V09455 LEAR SIEGLER INC., TRANSPORT DYNAMICS DIVISION, 3131
 WEST SEGERSTROM AVE., SANTA ANA, CALIFORNIA 92702

V21335 FAFNIR BEARING COMPANY, DIVISION OF TEXTRON INC., 37 BOOTH STREET,
 NEW BRITAIN, CONNECTICUT 06050

V50632 KAMATICS CORP., 1335 BLUE HILLS ROAD, BLOOMFIELD, CONN 06002

V77896 REXNORD INC., BEARING DIVISION, 2400 CURTIS STREET, DOWNER'S GROVE,
 ILLINOIS 60515

V81376 SOUTHWEST PRODUCTS CO., 1705 SOUTH MOUNTAIN AVE., MONROVIA,
 CALIFORNIA 91016

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