



TO: ALL HOLDERS OF HINGED FLAP ASSEMBLY OVERHAUL MANUAL, 57-53-33

REVISION NO. 4, DATED MAR 1/99

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
Revised title page to correct part number. 65-71930 was 65-52854													

HINGED FLAP ASSEMBLY

57-53-33

BOEING P/N 65-71930, -2, -83, -84, -89, -90, -91, -92

AIRLINE P/N

THE FOLLOWING DIRECTIVES APPLY TO THIS SUBJECT:

BOEING SERVICE BULLETIN	BOEING TEMPORARY REVISION	OTHER DIRECTIVES	DATE DIRECTIVE INCORPORATED INTO TEXT
		PRR 31030 PRR 32121-21 PRR 32335 PRR 32496-7 PRR 33191 PRR 33135-1	Dec 25/72 Dec 25/72 Jun 25/74 Jul 5/76 Dec 5/83 Jul 1/98

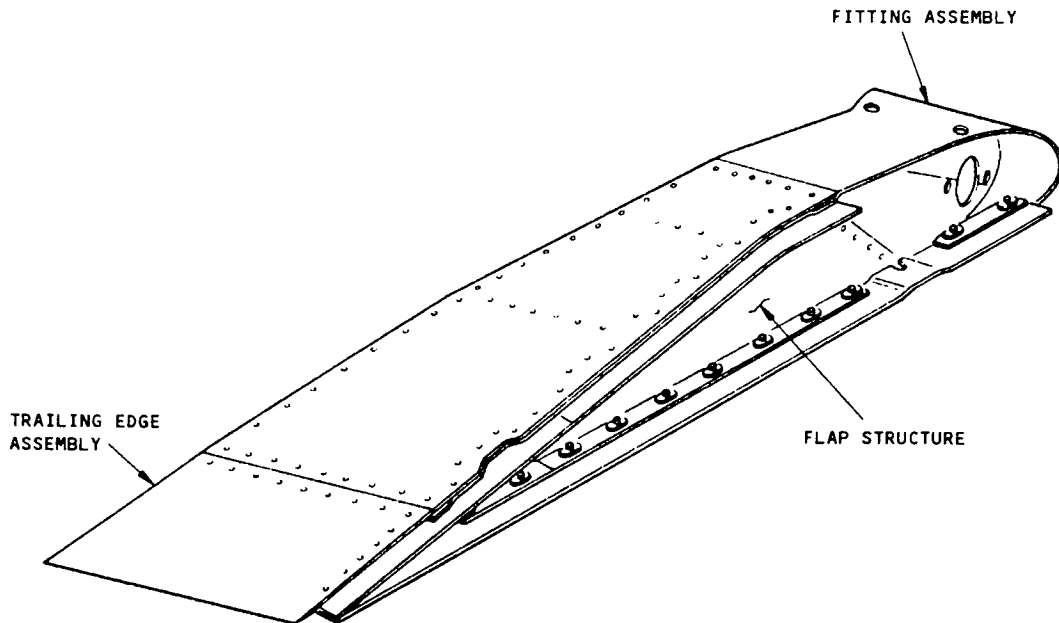
LIST OF EFFECTIVE PAGES

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

PAGE	DATE	PAGE	DATE	PAGE	DATE
57-53-33					
* T-1	Mar 1/99				
T-2	BLANK				
* LEP-1	Mar 1/99				
LEP-2	BLANK				
T/C-1	Jul 1/98				
T/C-2	BLANK				
1	Jul 1/98				
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12	Jul 1/98				

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Testing (not applicable)	
Trouble Shooting (not applicable)	
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* [1] Special instructions are not required. Use standard industry practices.	
* [2] Also refer to SOPM 20-30-03.	
* [3] Also refer to SOPM 20-44-02 and 20-70-01.	



Hinged Flap Assembly
 Figure 1

1. DESCRIPTION AND OPERATION

A. The hinged flap assembly has a flap structure, honeycomb trailing edge, actuator support, bearing support assembly and seals.

B. The hinged flap operates with the outboard flaps to keep a smooth surface between the nacelle fairing and the outboard flaps.

C. Leading Particulars (approximate)

Length -- 43 inches

Width -- 10 inches

Height -- 6 inches

2. DISASSEMBLY (Fig. 3)

A. Use standard industry practices and these steps.

CAUTION: FITTINGS (54 AND 55) WERE MACHINED TOGETHER TO MAKE A MATCHED SET. INDIVIDUAL FITTINGS ARE NOT INTERCHANGEABLE.

B. Do not remove fitting (55) and trailing edge assembly (72) unless replacement is necessary.

C. Examine support assembly (58) per INSPECTION/CHECK before disassembly.

3. INSPECTION/CHECK (Fig. 3)

- A. Examine all parts for defects by standard industry practices. Do the magnetic and penetrant checks only if the visual check finds possible defects.
- B. Penetrant check per SOPM 20-20-02-- fittings (54, 55, 67), plug (63), housing (64).
- C. Magnetic particle check per SOPM 20-20-01-- plunger (60).
- D. Support assembly (58).

NOTE: Do this check before disassembly.

- (1) Make sure plunger (60) turns and moves freely.
- (2) Make sure there is no radial play of plunger (60) in the support assembly (58).

4. REPAIR (Fig. 3)**A. Repair**

- (1) Remove small defects by standard industry practices.

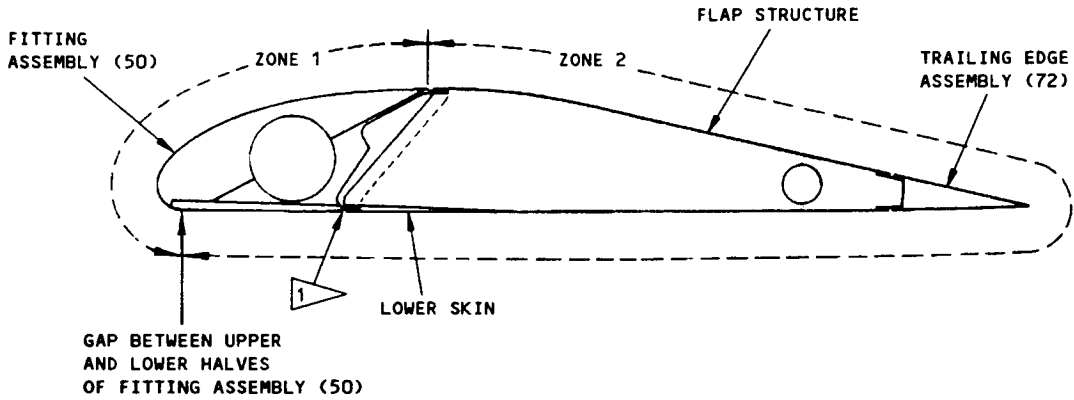
B. Refinish

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

- (1) Fittings (54, 55) -- Chemical treat and apply BMS 10-11 type 1 primer (SRF-2.30), but no primer on mating surfaces, large bore, or seal slots. Material: Al alloy.
- (2) Filler (3), retainer strips (5, 12, 16, 19B, 19F, 22, 26, 33, 37, 40B, 40F), and plug (63) -- Chemical treat and apply BMS 10-11 type 1 primer (SRF-2.30) all over. Material: Al alloy.
- (3) Plunger (60) -- See Fig. 2A or 2B.
- (4) Housing (64) -- See Fig. 2C.
- (5) Support fitting (67) -- Chemical treat and apply BMS 10-11, type 1 primer (SRF-2.30) but not in teflon lined area. Material: Al alloy.
- (6) Hinged flap assembly -- See Fig. 2.

C. Replacement

- (1) Replace the complete fitting assembly (50) if you find defects on fitting (54 or 55) other than on the finish.
- (2) Replace all seals at each overhaul.



FLAP PART NUMBER	ZONE 1	ZONE 2
65-71930-1,-2	SRF-14.9624	SRF-14.996 AND SRF-14.9813
65-71930-83,-84,-89,-90	SRF-14.9624	F-14.9863-707
65-71930-91,-91A,-92,-92A	SRF-14.9624	F-14.9863-707
65-71930-91B,-92B	SRF-14.9624	F-14.9863-7067
65-71930-91Z,-92Z	SRF-14.9624	F-14.9863-7525

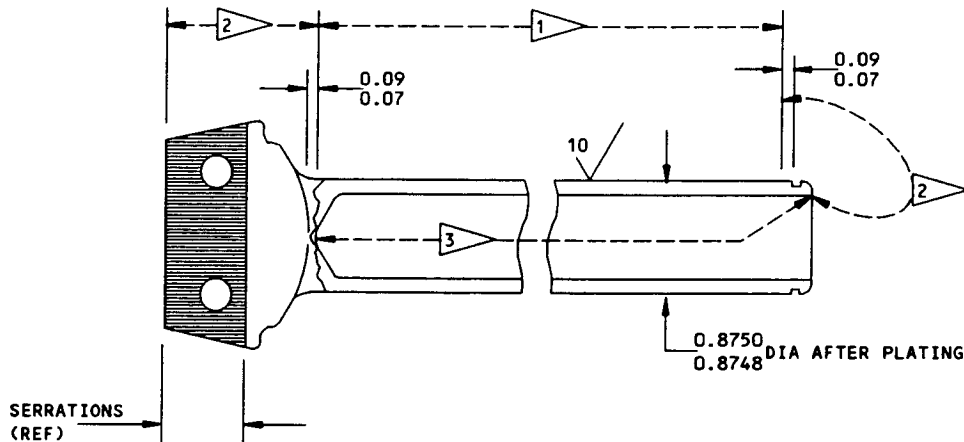
TABLE 1

REFINISH

APPLY PRIMER AND ENAMEL AS SHOWN IN TABLE 1. DO NOT APPLY FINISH TO SEALS, IDENTIFICATION PLATE OR RUB STRIP. FINISH CAN BE APPLIED TO PAINTED FITTINGS OF THE UNIT, BUT NOT TO BUSHINGS OR BEARINGS.

1 FILL THIS GAP WITH AERODYNAMIC SMOOTHER PER SOPM 20-50-11

Flap Assembly Refinish
Figure 2



REFINISH

CHROME PLATE OD AS SHOWN BY **1**,
CADMIUM PLATE AND APPLY PRIMER AS
SHOWN BY **2**. IN INTERIOR APPLY
PRIMER AND COMPOUND AS SHOWN BY **3**.

- 1** CHROME PLATE (F-15.03) THIS AREA
- 2** CADMIUM PLATE AND APPLY PRIMER BMS 10-11, TYPE 1 (F-16.01, WHICH REPLACES F-16.02) THIS AREA
- 3** APPLY PRIMER BMS 10-11, TYPE 1 (F-20.03) AND CORROSION PREVENTIVE COMPOUND MIL-C-16173, GRADE 1 (F-14.13) THIS AREA

REPAIR

(SAME AS REFINISH)

125 ✓ ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

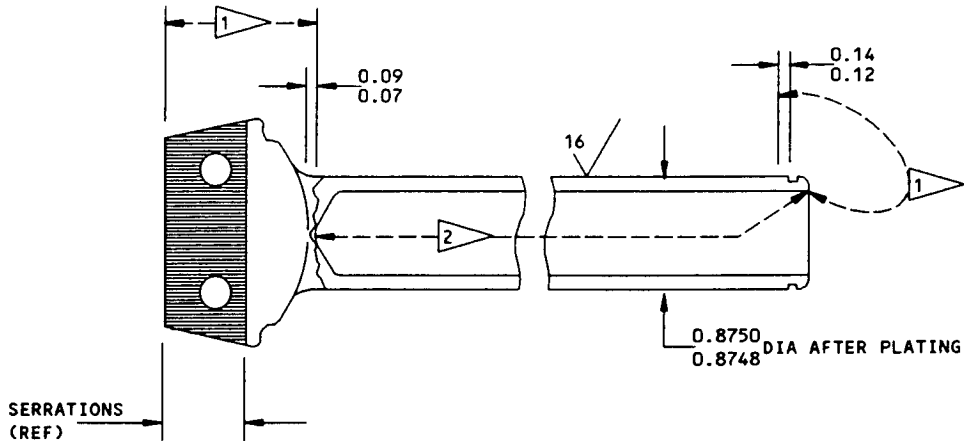
SHOT PEEN (EXTERNAL SURFACES BUT NOT HOLES OR SERRATIONS)
0.017-0.039 SHOT SIZE
0.015 A2 INTENSITY

MATERIAL: 4330M STEEL, 180-200 KSI

ALL DIMENSIONS ARE IN INCHES

PLUNGER (60)
65-71914-1

Plunger Refinish
Figure 2A



REFINISH

CADMIUM PLATE AND APPLY PRIMER AS SHOWN BY 1. IN INTERIOR APPLY PRIMER AND COMPOUND AS SHOWN BY 2.

- 1 CADMIUM PLATE AND APPLY PRIMER BMS 10-11, TYPE 1 (F-16.01) THIS AREA
- 2 APPLY PRIMER BMS 10-11, TYPE 1 (F-20.03) AND CORROSION PREVENTIVE COMPOUND MIL-C-16173, GRADE 1 (F-14.13) THIS AREA

REPAIR

(SAME AS REFINISH)

125/ ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

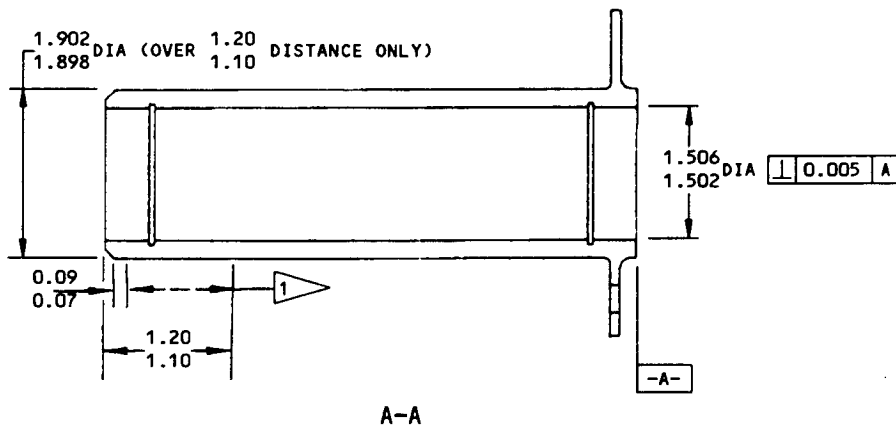
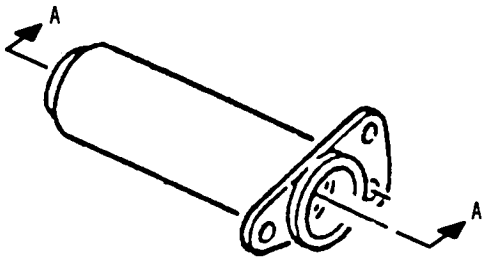
SHOT PEEN (EXTERNAL SURFACES BUT NOT HOLES OR SERRATIONS)
0.017-0.039 SHOT SIZE
0.015 A2 INTENSITY

MATERIAL: 9310 STEEL, CASE HARDENED


ALL DIMENSIONS ARE IN INCHES.

PLUNGER (60)
65-88957-1

Plunger Refinish
Figure 2B



REFINISH

HARD ANODIZE AREA SHOWN BY 
CHROMIC ACID ANODIZE (F-17.02)
THE BORE. ON ALL OTHER SURFACES,
CHEMICAL TREAT OR CHROMIC ACID
ANODIZE AND APPLY PRIMER BMS 10-11,
TYPE 1 (F-18.05)

REPAIR

(SAME AS REFINISH)
125/ ALL MACHINED SURFACES
MATERIAL: AL ALLOY
ALL DIMENSIONS ARE IN INCHES

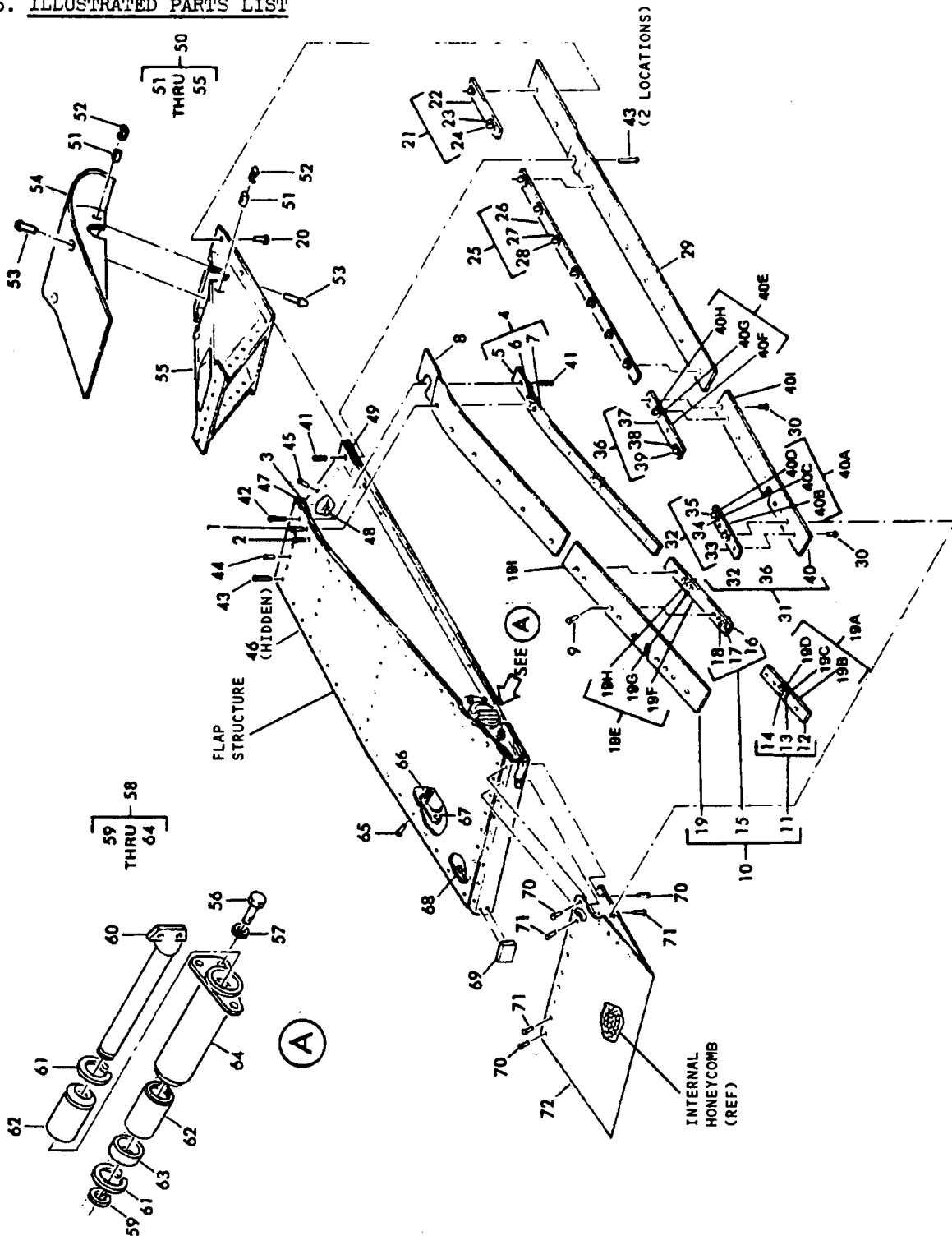
HOUSING (64)

Housing Refinish
Figure 2C

5. ASSEMBLY (Fig. 3)

- A. Use standard industry practices and these steps.
- B. Support assembly (58)
 - (1) Fill the cavities between ID of bearings (62) and OD of plunger (60) with MIL-G-25760 grease.
 - (2) Put bearings (62) and plug (63) in housing (64). Install retaining rings (61).
 - (3) Push plunger (60) through bearings (62) until the shoulder of the plunger touches housing (64) at the end of its stroke.
 - (4) Install retaining ring (59).
 - (5) Wipe unwanted grease from support assembly (58).
- C. Be sure to apply aerodynamic sealant to the gap between fitting (50) and the lower skin, as shown in Fig. 2.

6. ILLUSTRATED PARTS LIST



Hinged Flap Assembly
Figure 3

FIG. & ITEM NO.	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE							USE CODE	QTY PER ASSY
			1	2	3	4	5	6	7		
3-	65-71930-1		HINGED FLAP ASSY							A	RF
	65-71930-2		HINGED FLAP ASSY							B	RF
	65-71930-83		HINGED FLAP ASSY							C	RF
	65-71930-84		HINGED FLAP ASSY							D	RF
	65-71930-89		HINGED FLAP ASSY							E	RF
	65-71930-90		HINGED FLAP ASSY							F	RF
	65-71930-91		HINGED FLAP ASSY							G	RF
	65-71930-92		HINGED FLAP ASSY							H	RF
1	BACB30LU3-6		. BOLT								1
2	BACB30LU3-4		. BOLT								9
3	65-71930-55		. FILLER							ACEG	1
3	65-71930-56		. FILLER							BDFH	1
4	65-71930-39		. RETAINER ASSY							ACEG	1
4	65-71930-40		. RETAINER ASSY							BDFH	1
5	65-71930-43		. . STRIP, RETAINER								1
6	BACR15BA3D		. . RIVET								12
7	BACN10LK5A32		. . NUTPLATE								6
8	65-71930-45		. SEAL							A-F	1
8	65-71930-96		. SEAL							GH	1
9	BACR15BA5D		. RIVET							A-F	4
10	65-71930-33		. SEAL ASSY							ACE	1
10	65-71930-34		. SEAL ASSY							BDF	1
11	65-71930-35		. . RETAINER ASSY (USED ON 65-71930-33)								1
11	65-71930-36		. . RETAINER ASSY (USED ON 65-71930-34)								1
12	65-71930-41		. . . STRIP, RETAINER								1
13	BACR15BA3D		. . . RIVET (REPLS MS20426D3)								4
14	BACN10LK5A32		. . . NUTPLATE								2
15	65-71930-37		. . RETAINER ASSY (USED ON 65-71930-33)								1
15	65-71930-38		. . RETAINER ASSY (USED ON 65-71930-34)								1
16	65-71930-42		. . . STRIP, RETAINER								1
17	BACR15BA3D		. . . RIVET (REPLS MS20426D3)								4
18	BACN10LK5A32		. . . NUTPLATE								2
19	65-71930-44		. . SEAL								1

FIG. & ITEM NO.	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE							USE CODE	QTY PER ASSY
			1	2	3	4	5	6	7		
3-											
19A	65-71930-35		.							G	1
19A	65-71930-36		.							H	1
19B	65-71930-41		.	.							1
19C	BACR15BA3D		.	.							4
19D	BACN10LK5A32		.	.							2
19E	65-71930-37		.							G	1
19E	65-71930-38		.							H	1
19F	65-71930-42		.	.							1
19G	BACR15BA3D		.	.							4
19H	BACN10LK5A32		.	.							2
19I	65-71930-95		.							GH	1
20	BACB30LU3-4		.								13
21	65-71930-53		.							ACEG	1
21	65-71930-54		.							BDFH	1
22	65-71930-30		.	.							1
23	BACR15BA3D		.	.							4
24	BACN10LK5A32		.	.							2
25	65-71930-25		.							ACEG	1
25	65-71930-26		.							BDFH	1
26	65-71930-29		.	.							1
27	BACR15BA3D		.	.							14
28	BACN10LK5A32		..								7
29	65-71930-32		.							A-F	1
29	65-71930-94		.							GH	1
30	BACR15BA5D		.							A-F	4
31	65-71930-19		.							ACE	1
31	65-71930-20		.							BDF	1
32	65-71930-21		.	.							1
32	65-71930-22		.	.							1
33	65-71930-27		.	.	.						1
34	BACR15BA3D		.	.	.						4
35	BACN10LK5A32		.	.	.						2
36	65-71930-23		.	.							1
36	65-71930-24		.	.							1
37	65-71930-28		.	.	.						1
38	BACN15BA3D		.	.	.						4

FIG. & ITEM NO.	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE							USE CODE	QTY PER ASSY
			1	2	3	4	5	6	7		
3-39	BACN10LK5A32		.	.	.	.	.	.	.		2
40	65-71930-31		.	.	.	.	.	.	.	A-F	1
40A	65-71930-21		.	.	.	.	.	.	.	G	1
40A	65-71930-22		.	.	.	.	.	.	.	H	1
40B	65-71930-27		.	.	.	.	.	.	.		1
40C	BACR15BA3D		.	.	.	.	.	.	.		4
40D	BACN10LK5A32		.	.	.	.	.	.	.		2
40E	65-71930-23		.	.	.	.	.	.	.	G	1
40E	65-71930-24		.	.	.	.	.	.	.	H	1
40F	65-71930-28		.	.	.	.	.	.	.		1
40G	BACR15BA3D		.	.	.	.	.	.	.		4
40H	BACN10LK5A32		.	.	.	.	.	.	.		2
40I	65-71930-93		.	.	.	.	.	.	.	GH	1
41	BACC30M6		.	.	.	.	.	.	.		4
42	BACB30FN6-4		.	.	.	.	.	.	.		1
43	BACB30FN6-3		.	.	.	.	.	.	.		3
44	BACR15EB6-3		.	.	.	.	.	.	.		7
45	BACR15EB6P-3		.	.	.	.	.	.	.		12
46	65-71930-50		.	.	.	.	.	.	.		1
47	65-71930-51		.	.	.	.	.	.	.		1
48	BACS40R9B15		.	.	.	.	.	.	.		AR
49	BACS40R9B16		.	.	.	.	.	.	.		AR
50	65-71929-11		.	.	.	.	.	.	.	ACEG	1
50	65-71929-12		.	.	.	.	.	.	.	BDFH	1
51	BACN10CP4L		.	.	.	.	.	.	.		4
52	BACR10V4		.	.	.	.	.	.	.		4
53	BACB30LE4-12		.	.	.	.	.	.	.		4
53	MS20004-12		.	.	.	.	.	.	.		4
54	65-71929-5		.	.	.	.	.	.	.		1
54	65-71929-6		.	.	.	.	.	.	.		1
55	65-71929-8		.	.	.	.	.	.	.		1
55	65-71929-9		.	.	.	.	.	.	.		1
56	NAS1304-3		.	.	.	.	.	.	.		3
57	AN960-416		.	.	.	.	.	.	.		3
58	65-71920-1		.	.	.	.	.	.	.	A-D	1
58	65-71920-2		.	.	.	.	.	.	.	EFGH	1
59	MS16624-4087		.	.	.	.	.	.	.		1
60	65-71914-1		.	.	.	.	.	.	.		1
60	65-88957-1		.	.	.	.	.	.	.		1
61	MS16625-4150		.	.	.	.	.	.	.		2

FIG. & ITEM NO.	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE							USE CODE	QTY PER ASSY
			1	2	3	4	5	6	7		
-3 62	ML875-15001-1A		.	.	BEARING, V75523						2
63	69-57809-1		.	.	PLUG						1
64	69-57807-1		.	.	HOUSING						1
65	BACB30FM8-4		.		BOLT						2
66	BACC30M8		.		COLLAR						2
67	65-71927-1		.		FITTING, SUPPORT						1
68	BACR15BB5D		.		RIVET						2
69	65-71930-73		.		BLOCK, RUB				ACEG		1
69	65-71930-74		.		BLOCK, RUB				BDFH		1
70	BACR15BA5D		.		RIVET (REPLS MS20426D5)						4
71	BACR15EB5		.		RIVET						14
72	65-71930-3		.		TRAILING EDGE ASSY				A		1
72	65-71930-4		.		TRAILING EDGE ASSY				B		1
72	65-71930-85		.		TRAILING EDGE ASSY				CEG		1
72	65-71930-86		.		TRAILING EDGE ASSY				DFH		1

VENDORS

| V75523

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