TO: ALL HOLDERS OF SPOILER MIXER ASSEMBLY OVERHAUL MANUAL, 27-67-01

REVISION NO. 20, DATED JUL 1/07

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
Added "Bearing and Bushing Replacement SOPM 20-50-03" callouts.		X											

SPOILER MIXER ASSEMBLY

27-67-01

BOEING P/N 65-46360-2 thru -7

AIRLINE P/N

THE FOLLOWING DIRECTIVES APPLY TO THIS SUBJECT:

BOEING SERVICE BULLETIN	BOEING TEMPORARY REVISION	OTHER DIRECTIVES	DATE DIRECTIVE INCORPORATED INTO TEXT
		PRR 30386	Mar 10/70
		PRR 30533-1	Mar 10/70
		PRR 31706	Mar 10/70
		PRR 32039	Sep 10/72
		PRR 32121-10	Sep 10/72
		PRR 32431	Mar 25/75

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
	27-67-01			1108	Jul 1/00			
	T-1	Mar 25/75		1109	Jul 1/00			
	T-2	BLANK		1110	Jul 1/00			
*	LEP-1	Jul 1/07		1111	Jul 1/00			
	LEP-2	BLANK		1112	Jul 1/00			
	T/C-1	Dec 5/89		1112A	Jul 1/00			
	T/C-2	BLANK		1112B	BLANK			
	1	Mar 25/75		1113	Jul 1/00			
	2	Jun 1/96		1114	Mar 1/03			
*	101	Jul 1/07		1115	Jul 1/00			
	102	Mar 25/75		1116	Jul 1/00			
	201	Dec 5/89						
	202	BLANK						
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	302	BLANK						
	401	Nov 1/98						
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	403	Jan 5/79						
	404	Dec 25/75						
	501	Mar 1/99						
	502	Mar 1/99						
	502A	Dec 5/88						
	502B	Dec 5/88						
	503	Jun 1/96						
	504	Dec 5/88						
	601	Jan 5/79						
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	1104	Mar 1/99						
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	1104C	Jan 5/79						
	1104D	BLANK						
	1105	Mar 1/03						
	1106	Jul 1/05						
	1107	Jul 1/00						

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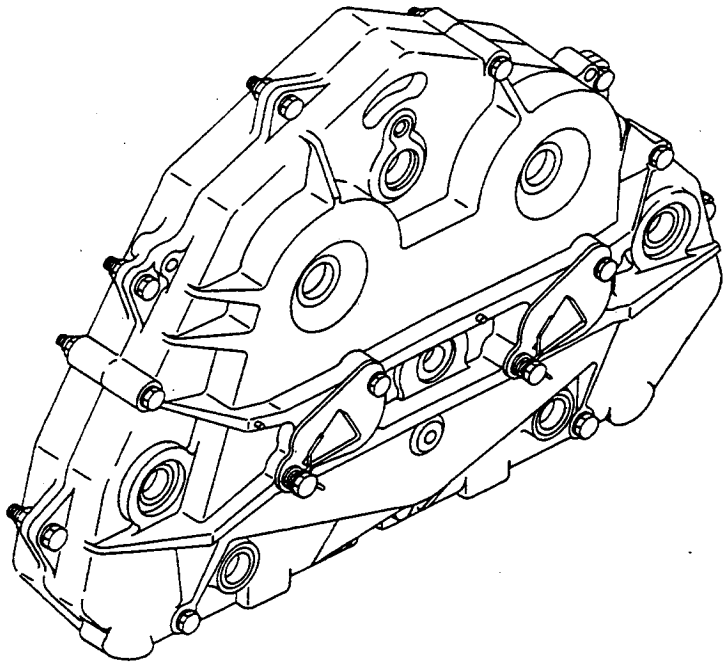
*[1] Special instructions not required. Use standard industry practices.

SPOILER MIXER ASSEMBLY



Spoiler Mixer Assembly
Figure 1

DESCRIPTION AND OPERATION

1. Description

   A. The spoiler mixer assembly consists of a two-piece housing which contains an aileron cam and related levers and links. The housing is connected to the ratio changer by four bolts and by the speed brake input, aileron input, and left and right spoiler input shafts. A fifth shaft on the spoiler mixer provides the speed brake signal to the ground spoiler control valve. Sealed bearings are used in all linkages.

2. Operation

   A. Counterclockwise rotation of the speed brake quadrant repositions the linkage in the spoiler mixer and results in an "up" signal to both spoiler output quadrants. Conversely, clockwise rotation results in a "down" signal to both quadrants. Aileron inputs to the mixer through the ratio changer rotate the cam in the mixer. Clockwise rotation of the cam repositions the linkage in the mixer to provide an "up" signal to the left spoiler quadrant and a "down" signal to the right spoiler quadrant. Counterclockwise rotation of the cam provides a "down" signal to the left spoiler quadrant and an "up" signal to the right spoiler quadrant. Simultaneous inputs from aileron and speed brake systems cause movement of the spoiler output quadrants in a combined manner, providing lateral control from the spoilers with speed brakes on.

3. Leading Particulars (Approximate)

   A. Length -- 21.0 inches

   B. Height -- 15.0 inches

   C. Width -- 6.5 inches

   D. Weight -- 25 to 28 pounds

DISASSEMBLY

1. General

   A. Do not remove bearings and inserts from housing assemblies or lever assemblies unless replacement is necessary per Bearing and Bushing Replacement SOPM 20-50-03.

2. Disassembly (Fig. 1101)

   A. Loosen bolt (7) and remove coupler (10) from shaft (140).

   B. Remove bolt (11), washer (12), nut (13), cotter pin (14), and arm (15).

   C. Remove fasteners (1 thru 6) from spoiler mixer assembly.

   D. Remove aft housing assembly (16).

      NOTE: Do not remove foil marker (24A) from aft housing assembly (16) unless replacement is necessary.

   E. Remove bolts (25, 31), washers (26, 29, 32), springs (27), bushings (28), and covers (30) from aft housing assembly.

   F. Remove cotter pin (39), nut (40), guide (41), shim (42), sleeve (43), spring (44), bolt (46), and pivot blocks (45).

   G. Remove shafts (47).

   H. Remove entire linkage mechanism and shaft (140) from forward housing assembly (33).

      NOTE: Do not remove cam (137) from shaft (140) unless replacement is necessary.

      Do not remove lockbolts (48, 48A, 99, 109, 116, 121, 126) and separate items in linkage mechanism unless repair or replacement is necessary (65-46360-7).

   I. Remove bolts (48, 48A), washers (49), nuts (50), cotter pins (51), levers (52), secondary link assemblies (53), and intermediate lever assemblies (56, 59) (65-46360-2 thru -6).

   J. Remove fasteners (62, 63, 64) from lever assemblies (75, 82).

K. Remove reservoir assemblies (65), washers (71, 72, 74), rollers (73), and shafts (78, 85).

L. Remove bolts (93, 96), washers (94, 97), and nuts (95, 98).

M. Remove shafts (89, 90), spacers (91), washers (92), and levers (76, 77, 83, 84).

NOTE: Levers (76, 77) and (83, 84) are matched sets and should be identified as such. Keep these parts together and protect them from damage.

N. Remove bolts (99, 109), washers (100, 110), nuts (101, 111), cotter pins (102, 112), secondary lever assemblies (103, 106), and speed brake input link assemblies (113) (65-46360-2 thru 6).

O. Remove bolt (116), washer (117), nut (118), cotter pin (119), and lever (120) (65-46360-2 thru -6).

P. Remove bolt (121), washer (122), nut (123), cotter pin (124), and secondary speed brake lever (125) (65-46360-2 thru -6).

Q. Remove bolts (126), washers (127), nuts (128), cotter pins (129) and separate speed brake connecting link assemblies (130) from speed brake lever assembly (134) (65-46360-2 thru -6).

CLEANING

1. General

CAUTION: VAPOR DEGREASING OF TITANIUM PARTS IS RESTRICTED. REFER TO 20-30-03 FOR CLEANING OF TITANIUM AND TITANIUM ALLOY PARTS.

A. Clean all parts except bearings using standard industry practices per 20-30-03.

B. Clean and relubricate bearings using standard industry practices per 20-30-01.

INSPECTION/CHECK

1. Check all parts for obvious defects in accordance with standard industry practices. Refer to Fig. 601 for wear limits.

   A. thru F. Deleted.

2. Compress spring (44) to 0.80 and 0.95 inch. Check that load required to compress spring is 55-65 pounds and 25-35 pounds, respectively.

   A., B., C. Deleted.

3. Perform magnetic particle examination per 20-20-01 on coupler (10, 69-43973-1, -2), bolts (46), lever (52), shafts (89, 90, 65-53599-2, -3, -5, -6), link (114, 69-38175-2), and lever (140).

4. Perform penetrant examination per SOPM 20-20-02 on coupler (10, 69-43973-3), arm (15), housings (17, 34), shafts (47, 69-38910-2; 89, 90, 65-53599-8, -9), links (54, 114, 69-38175-4; 131), and levers (57, 60, 104, 107, 120, 125, and 135).

REPAIR

1. Repair (Fig. 1101)

   A. Remove minor scratches, nicks, and corrosion by polishing lightly with 220-grit or finer abrasive cloth. Refinish as necessary for protection against corrosion.

   B. Repair minor defects on splined shafts by light filing or using an abrasive.

   C. Chase or file minor thread damage.

   D. If parts are worn beyond limits per Fig. 601, repair as follows:

      (1) Shaft (47, P/N 69-38910-1) -- Chrome plate per 20-42-03 and grind to 0.7494-0.7497 inch diameter per 20-10-04.

      (2) Lever (52) -- Chrome plate per 20-42-03 and grind to dimensions specified in Fig. 401 per 20-10-04.

   E. If lever (76, 83, 125) surfaces are worn due to interference with other parts, machine to dimensions and finish shown in Fig. 601.

2. 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. Coupler (10, P/N 69-43973-1 and -2) -- Cadmium-titanium plate (F-1.181) and apply one coat of primer, BMS 10-11, type 1 (SRF-12.205) except omit primer on splines. Material: 4340 steel, 180-200 ksi.

   B. Arm (15), link (54 and 114, P/N 69-38175-4), lever (57, 60, 104, and 107), speed brake lever (120 and 135), and speed brake connecting link (131) -- Alodize or chromic acid anodize and apply one coat primer, BMS 10-11, type 1 (SRF-2.30) except omit primer on bearing surfaces. On arm (15, P/N 69-40315-2 only) apply white gloss enamel, BMS 10-60, BAC 702 (SRF-14.9812) except on splines and bolt holes. Material: A1 alloy.

   C. Forward housing (34, P/N 65-46354-2, -4, -5) and cover (30, P/N 69-42153-1) -- Chromic acid anodize and apply one coat primer, BMS 10-11, type 1 (SRF-2.19) except omit primer on bearing surfaces. Material: A1 alloy.

   D. Forward housing (34, P/N 65-46354-7, -8), aft housing (17) and cover (30, P/N 69-42153-2, 69-75952-1) -- Chromic acid anodize and apply one coat primer, BMS 10-11, type 1 (SRF-2.19). Apply white gloss enamel, BMS 10-60, BAC 702 (SRF-14.9812). Omit primer and enamel on bearing surfaces. Material: A1 alloy.

   E. Spring (27 and 44) -- Cadmium plate and apply one coat primer, BMS 10-11, type 1 (SRF-1.285). Material: Music wire per QQ-W-470.

F. Bushing (28), washer (71), and spacer (91, P/N 69-40324-1) -- Cadmium plate (F-1.1926). Material: 4130 steel (28); 1020 steel (71); and 4340 steel, 160-180 ksi (91).

G. Guide (41), sleeve (43), and washer (92) -- Passivate (F-8.07). Material: 303 CRES (41, 43) and 301 CRES (92).

H. Shaft (47, P/N 69-38910-1), nut (66) -- Passivate (F-8.07). Material: 17-4PH CRES, 180-200 ksi.

I. Lever (52, 76, 83, and 125) -- Fig. 401.

J. Lever (77 and 84) and shaft (78 and 85) -- Cadmium-titanium plate (F-1.181) except single plating thickness on levers (77 and 84). Material: 4330 steel, 220-240 ksi.

K. Shaft (89, P/N 65-53599-2 and -5, and 90, P/N 65-53599-3 and -6) -- Cadmium plate (F-1.1926) all over. Material: 4340 steel, 180-200 ksi.

L. Link (114, P/N 69-38175-2), shaft (140), bolt (46) -- Cadmium-titanium plate (F-1.181) all over. Material: 4340 steel, 180-200 ksi.

M. Cam (137) -- Passivate (F-8.07). Material: 17-7PH CRES, 180-200 ksi.

N. Spacers (91, P/N 69-40324-3) -- Chromic acid anodize (F-2.20) all over. Material: Al alloy.

3. Replacement

A. Replace all parts damaged beyond simple repair.

B. Replace all lockwire and cotter pins at each overhaul.

C. If bearings require replacement, press out bearing and install new bearing per 20-50-03; on bearings (58, 61, 81, 88, 105, 108, 115, 132, and 133) apply MIL-C-11796, class 3 corrosion preventive compound; on bearings (20, 21, 22, 36, 37, 38, 55, and 136) apply BMS 10-11, Type I primer.

D. Replace marker (24A) if it is illegible or damaged. Optional to mount marker (24A) using Type 70 adhesive, with 100 percent coverage and edge squeeze out.

E. Replace rollers (73) at each overhaul.

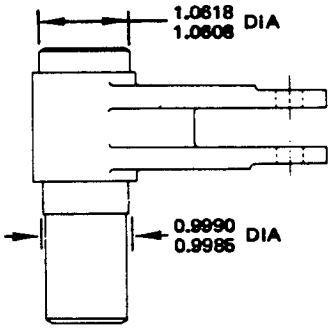
F. Replace spacers (91, P/N 69-40324-1) if unable to satisfy requirements of Fig. 601.

G. Replace cam (137) or shaft (140) as follows:

(1) Remove collars (139) from lockbolts (138) by machining or impacting one side with a chisel to split collars. Drive lockbolts (138) out with a punch.

CAUTION: USE EXTREME CARE TO PREVENT DAMAGE TO HOLES.

(2) Mate replacement cam (137) or shaft (140) with serviceable part and install new lockbolts (138) and collars (139).

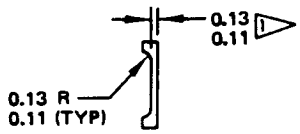


REFINISH

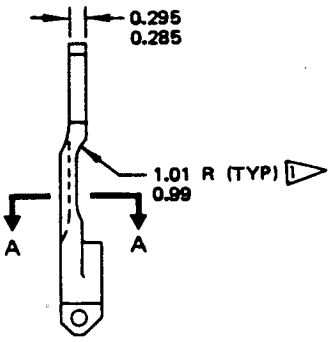
PASSIVATE (F-8.07) ALL OVER

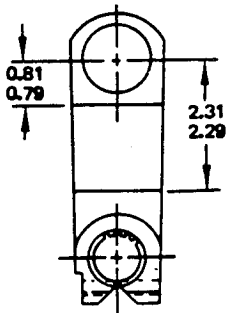
MATERIAL: 17-4PH, CRES 180–200 KSI

LEVER (52)



A–A





REPAIR

REF 1

BREAK ALL SHARP EDGES

125 ALL MACHINED SURFACES

SHOT PEEN: (REF 20-10-03)
0.016-0.033 SHOT SIZE
0.009-0.015A2 INTENSITY

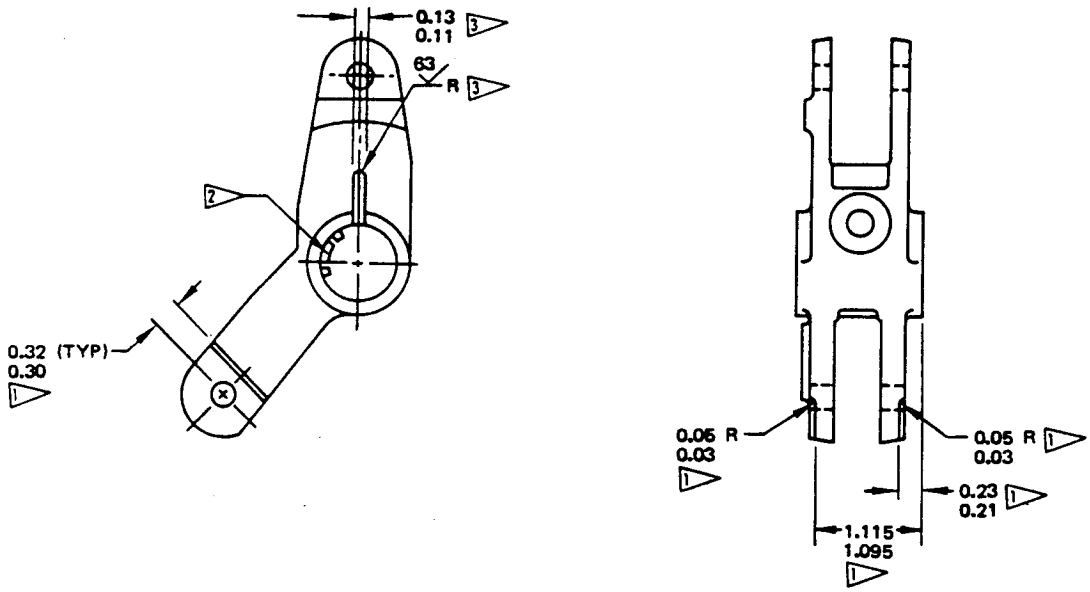
MATERIAL: 4340 STEEL, 180–200 KSI

REFINISH

CADMIUM–TITANIUM PLATE (F-1.181) EXCEPT SINGLE PLATING THICKNESS 0.0002- 0.0006

LEVER (76, 83)

ALL DIMENSIONS ARE IN INCHES



LEVER (125)

REFINISH

ALODIZE (SRF-2.30) ALL OVER, THEN APPLY PRIMER BMS 10-11, TYPE 1 EXCEPT AS NOTED

1 MAXIMUM AMOUNT OF MATERIAL REMOVAL FOR PREVENTION OF INTERFERENCE WITH PARTS AFTER INSTALLATION

2 OMIT PRIMER

3 INSURE COMPLETE PRIMER COATING ON THIS SURFACE

REPAIR

REF 1

125 ALL MACHINED SURFACES EXCEPT AS NOTED

BREAK ALL SHARP CORNERS

SHOT-PEEN: (REF 20-10-03)
0.008-0.016 SHOT SIZE
0.009-0.014A2 INTENSITY

MATERIAL: AL ALLOY

ASSEMBLY

1. Materials

   A. Corrosion Preventive Compound -- MIL-C-11796, class 3 (Ref 20-60-03)

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

2. General

   A. Apply corrosion preventive compound to contact faces of nuts, bolts, and bearing outer race.

   B. Apply a light coat of grease on faying surfaces of shafts and levers.

   C. When tightening nuts (13, 50, 101, 111, 118, 123, 128), use any combination of AN960 light or regular series washers to obtain alignment of slots in nuts and holes in bolts.

3. Linkage Assembly (65-46360-2 thru -6)

   NOTE: Refer to par. 4 for assembly of linkage for 65-46360-7 assembly. Refer to Fig. 502 and IPL, Fig. 1101 for part number of each item used to assemble linkage for each spoiler-mixer assembly.

   A. Assemble links (130) and lever (134) using bolts (126), washers (127) and nuts (128). Tighten nuts (128) to 40-50 lb-in. and install cotter pins (129).

   B. Attach lever (125) to one link (130) using bolt (121), washer (122) and nut (123). Tighten nut (123) to 40-50 lb-in. and install cotter pin (124).

   C. Attach lever (120) to remaining link (130) using bolt (116), washer (117) and nut (118). Tighten nut (118) to 40-50 lb-in. and install cotter pins (119).

   D. Attach links (113) to lever (125) and to lever (120) using bolts (109), washers (110) and nuts (111). Tighten nuts (111) to 40-50 lb-in. and install cotter pins (112) as shown in Fig. 501.

   E. Attach levers (103, 106) to links (113) using bolts (99), washers (100) and nuts (101). Tighten nuts (101) to 40-50 lb-in. and install cotter pins (102) as shown in Fig. 501.

   F. Connect links (53), levers (56, 59), and levers (52) and attach to levers (103, 106), using fasteners (48, 48A, 49, 50). Tighten nuts (50) to 40-50 lb-in. and install cotter pins (51).

4. Linkage Assembly (65-46360-7)

NOTE: Refer to Fig. 502 and IPL, Fig. 1101 for part number of each item used to assemble linkage for each spoiler-mixer assembly.

NOTE: If lockbolts (48, 48A, 99, 109, 116, 121, 126) are replaced, head of lockbolt may be machined to obtain a minimum clearance of 0.04 inch between head of lockbolt and adjacent parts.

A. Place assembled linkage mechanism (items connected with lockbolts) on clean, smooth surface and add items as noted in following steps.

B. Insert spacers (91) into levers (76, 77, 83, 84).

C. Assemble levers (76, 77) and lever (103) and install shaft (78).

D. Assemble levers (83, 84) with lever (106) and install shaft (85).

E. Place washer (74), roller (73), washer (72), and washer (71) on each shaft (78, 85) and secure with reservoir (65). Tighten reservoir to 30-40 lb-in. and install fasteners (62, 63, 64) on levers (83, 76). Tighten nuts (64) to 50-70 lb-in. Fill reservoirs (65) with grease. Remove all excess grease from exterior surfaces. Bend tab on washers (71) and secure nuts (66) with lockwire (Fig. 501).

F. Fill interbearing lever cavities of levers (103, 106) with grease. Align holes in lever (75) and lever (125), insert shaft (90) and align slot in shaft with bolt hole in lever (125). Assemble lever (82), lever (120) and shaft (89) in similar manner. Secure shafts (90, 89) using bolts (93, 96), washers (94, 97), and nuts (95, 98) tightened to 50-70 lb-in.

5. Assemble Spoiler-Mixer Assembly

A. Place washers (92) on both ends of shafts (89, 90). Install linkage assembly in forward housing (33), by inserting shafts (89, 90), and levers (52) into bearings (36, 38).

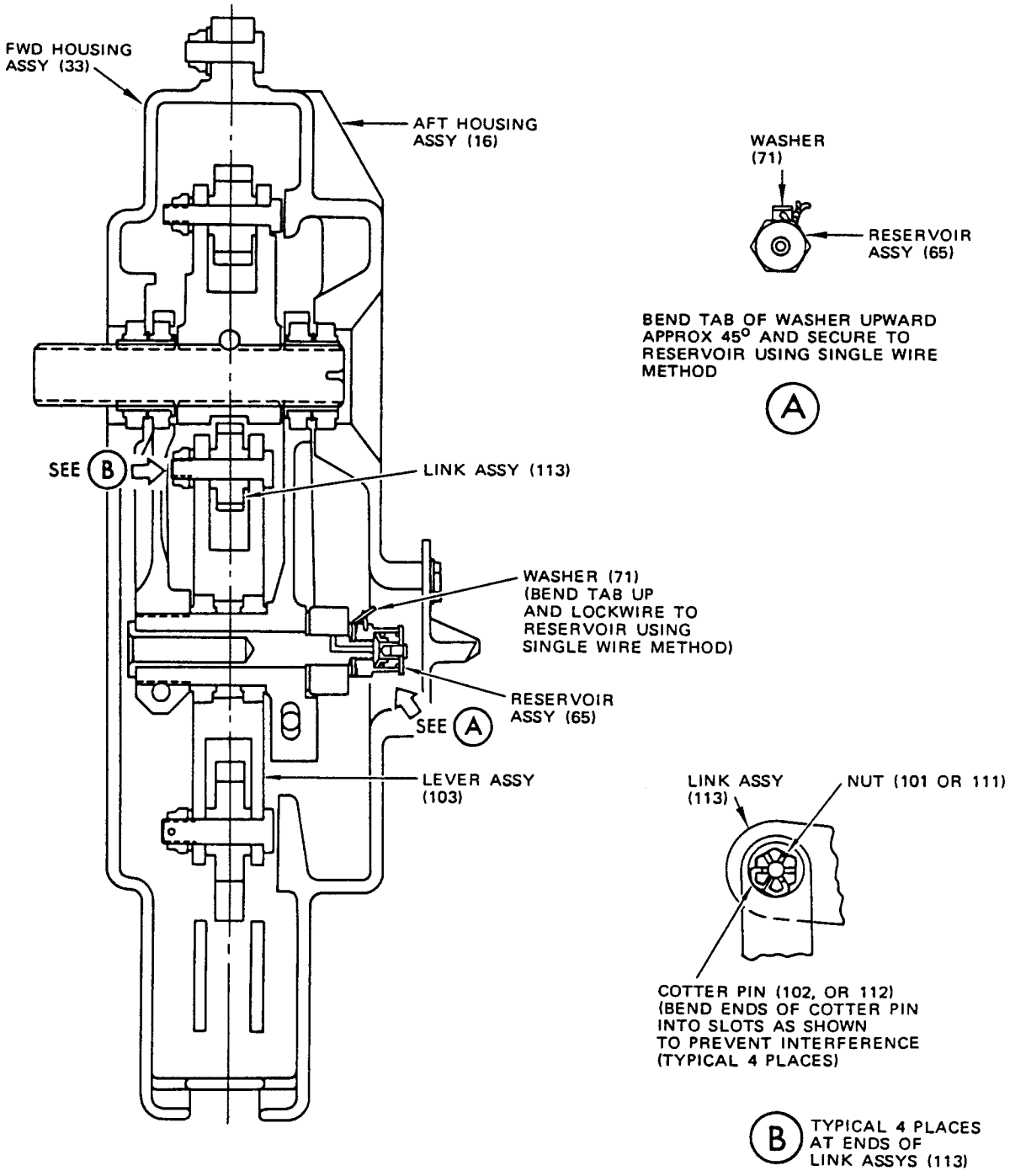
B. Fill interbearing lever cavities of levers (56, 59) and lever (134) with grease. Insert shafts (47) thru levers into bearings (35).

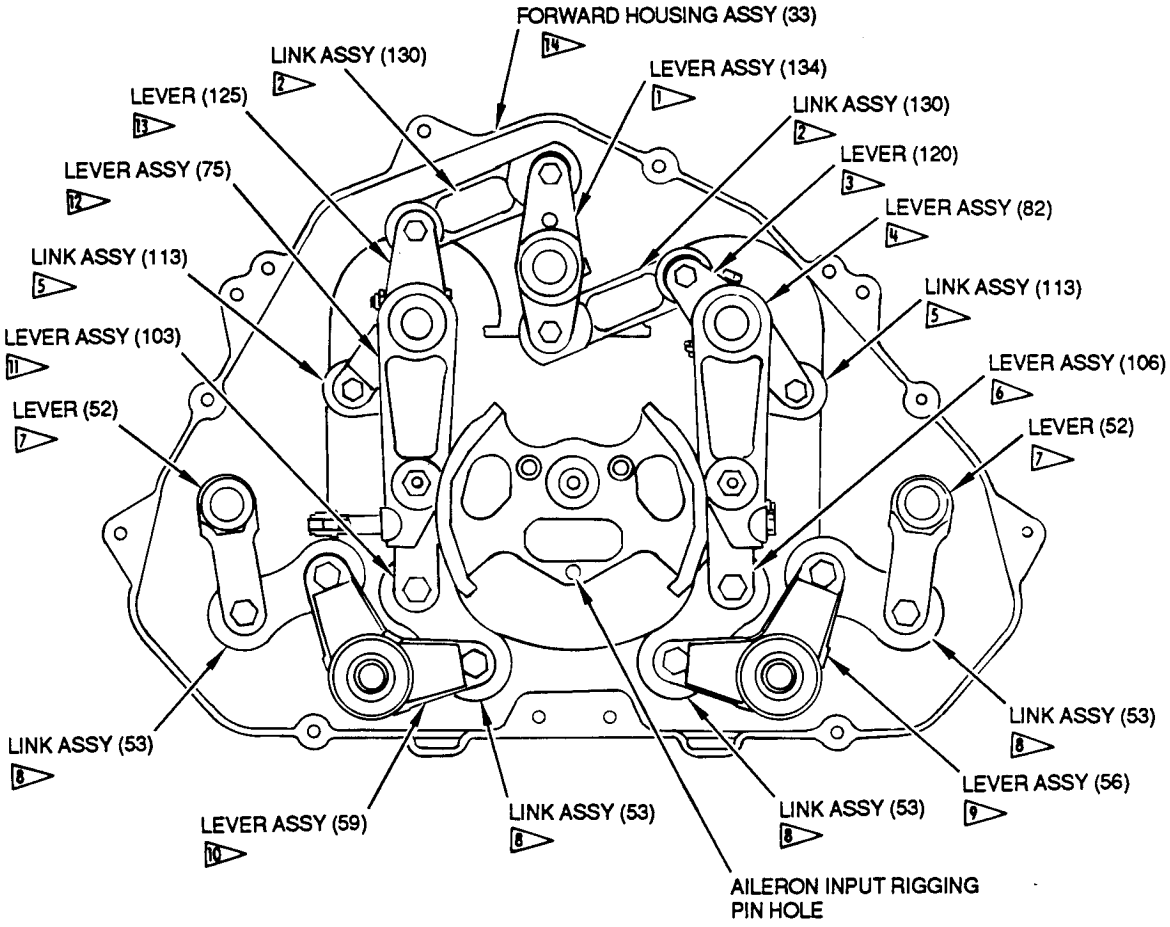
C. Apply light coat of grease to inside of bolt holes in levers (75, 82). Remove excess grease from adjacent surfaces. Slip pivot block (45) over bolt (46) and insert bolt through holes in lever assemblies (75, 82). Install remaining pivot block (45), sleeve (43), spring (44), shim (42) and guide (41) on bolt (46).

D. Install shaft (140), with cam (137) attached, in bearing (37) in forward housing (33).

E. Adjust gap between shim (42) and sleeve (43).

(1) Tighten guide (41) until spring (44) is loaded to 27-33 pounds.


FWD HOUSING ASSY (33)
AFT HOUSING ASSY (16)
SEE B
LINK ASSY (113)
WASHER (71) (BEND TAB UP AND LOCKWIRE TO RESERVOIR USING SINGLE WIRE METHOD)
RESERVOIR ASSY (65)
SEE A
LEVER ASSY (103)
WASHER (71)
RESERVOIR ASSY (65)
BEND TAB OF WASHER UPWARD APPROX 45° AND SECURE TO RESERVOIR USING SINGLE WIRE METHOD
A
LINK ASSY (113)
NUT (101 OR 111)
COTTER PIN (102, OR 112) (BEND ENDS OF COTTER PIN INTO SLOTS AS SHOWN TO PREVENT INTERFERENCE (TYPICAL 4 PLACES)
B
TYPICAL 4 PLACES AT ENDS OF LINK ASSYS (113)



Linkage Assembly
Figure 502 (Sheet 1)

1. 65-51632-1 LEVER ASSEMBLY (USED ON 65-46360-2)
   65-51632-5 LEVER ASSEMBLY (USED ON 65-46360-3 THRU -7)
2. 65-51633-1 LINK ASSEMBLY (USED ON 65-46360-2 THRU -5)
   65-51633-6 LINK ASSEMBLY (USED ON 65-46360-6 AND -7)
3. 65-51632-2 LEVER (USED ON 65-46360-2)
   65-51632-7 LEVER (USED ON 65-46360-3 THRU -7)
4. 69-40296-2 LEVER ASSEMBLY (USED ON 65-46360-2 THRU -6)
   69-40296-4 LEVER ASSEMBLY (USED ON 65-46360-7)
5. 69-38175-1 LEVER ASSEMBLY (USED ON 65-46360-2)
   69-38175-3 LEVER ASSEMBLY (USED ON 65-46360-3 THRU -7)
6. 65-46358-2 LEVER ASSEMBLY (USED ON 65-46360-2)
   65-46358-7 LEVER ASSEMBLY (USED ON 65-46360-3 THRU -5)
   65-46358-13 LEVER ASSEMBLY (USED ON 65-46360-6 AND -7)
7. 65-51682-1 LEVER (USED ON 65-46360-2)
   65-51682-3 LEVER (USED ON 65-46360-3 THRU -7)
8. 65-50856-1 LINK ASSEMBLY (USED ON 65-46360-2 THRU -5)
   65-50856-4 LINK ASSEMBLY (USED ON 65-46360-6 AND -7)
9. 65-46359-1 LEVER ASSEMBLY (USED ON 65-46360-2)
   65-46359-11 LEVER ASSEMBLY (USED ON 65-46360-3 THRU -5)
   65-46359-7 LEVER ASSEMBLY (OPTIONAL TO 65-46360-3)
   65-46359-13 LEVER ASSEMBLY (USED ON 65-46360-6 AND -7)
10. 65-46359-2 LEVER ASSEMBLY (USED ON 65-46360-2)
    65-46359-8 LEVER ASSEMBLY (USED ON 65-46360-3 THRU -5)
    65-46359-14 LEVER ASSEMBLY (USED ON 65-46360-6 AND -7)
11. 65-46358-1 LEVER ASSEMBLY (USED ON 65-46360-2)
    65-46358-7 LEVER ASSEMBLY (USED ON 65-46360-3 THRU -5)
    65-46358-13 LEVER ASSEMBLY (USED ON 65-46360-6 AND -7)
12. 69-40296-1 LEVER ASSEMBLY (USED ON 65-46360-2 THRU -6)
    69-40296-3 LEVER ASSEMBLY (USED ON 65-46360-7)
13. 65-46369-1 LEVER (USED ON 65-46360-2)
    65-46369-3 LEVER (USED ON 65-46360-3 THRU -6)
    65-46369-4 LEVER (USED ON 65-46360-7)
14. 65-46354-1 FORWARD HOUSING ASSEMBLY (USED ON 65-46360-2)
    65-46354-3 FORWARD HOUSING ASSEMBLY (USED ON 65-46360-3 AND -4)
    65-46354-6 FORWARD HOUSING ASSEMBLY (USED ON 65-46360-5 THRU -7)

Linkage Assembly
Figure 502 (Sheet 2)

F76196

(2) Compress spring (44) until sleeve (43) fully contacts shim (42) against guide (41).

(3) Measure and check that movement of guide (41) towards sleeve (43) is 0.040-0.050 inch.

NOTE: This measurement is the same as the gap between shim (42) and sleeve (43).

(4) If measurement is not within limits, remove guide (41) and shim (42) and remove or add laminations to shim (42) to obtain gap of 0.040-0.050 inch.

(5) Install shim (42) and guide (41) and tighten guide until spring (44) is again loaded to 27-33 pounds. Slot in guide must be aligned with cotter pin hole in bolt (46).

(6) Repeat steps (2) and (3) to verify correct gap.

(7) Install nut (40) and tighten to 30-40 lb-in.

(8) Install cotter pin (39) through slot in guide (41) and hole in bolt (46).

F. Place aft housing (16) in position. Make certain that all shafts are properly seated in both housings.

G. Install bolts (1, 4), washers (2, 5), and nuts (3, 6). Tighten nuts (3, 6) to 50-70 lb-in. On assemblies 65-46360-3 thru -7, tighten bolts (4) to 50-70 lb-in.

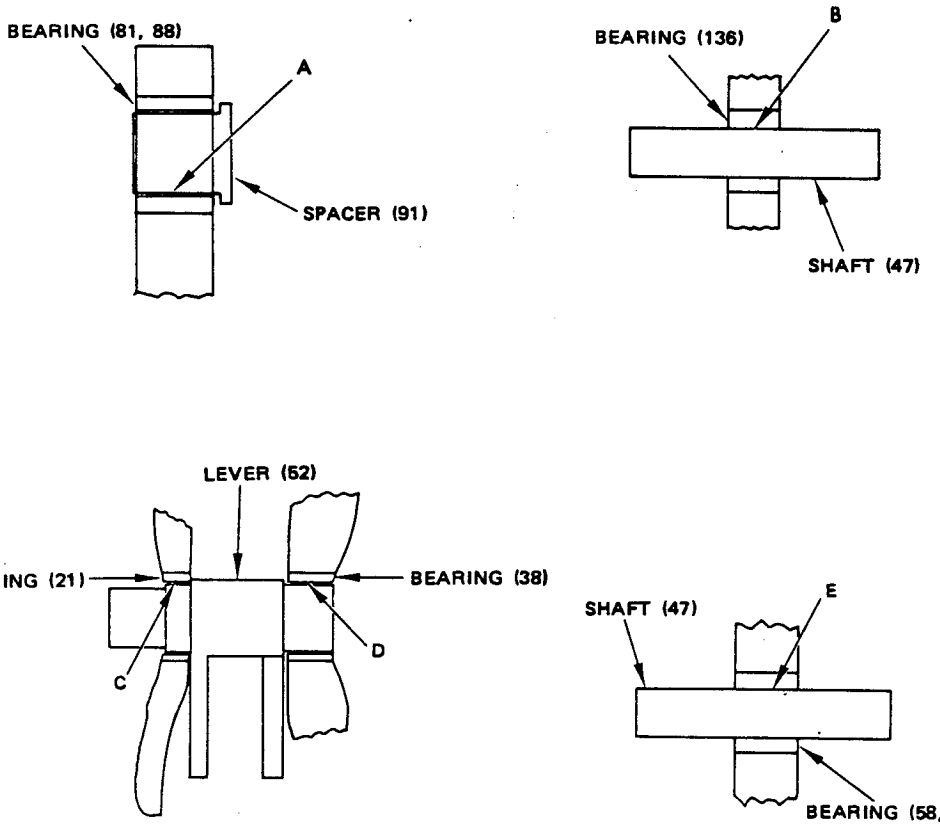
H. Attach coupler (10) to shaft (140) with fasteners (7, 8, 9). Attach arm (15) to shaft (89) with fasteners (11, 12, 13). Tighten nut (13) to 40-50 lb-in. and install cotter pin (14).

I. Replace covers (30) with bolts (25, 31), washers (26, 32), springs (27), and bushings (28). Tighten bolts (25) to 50-70 lb-in. Tighten bolts (31) to 30-40 lb-in.

CAUTION: DO NOT REMOVE RIGGING PIN FROM SPOILER-MIXER ASSEMBLY AILERON INPUT RIGGING PIN HOLE. DAMAGE TO LINKAGE CAN RESULT IF CAM IS NOT PROPERLY ALIGNED.

J. Install MS20392-series pins (or equivalent rods, 0.309-0.311 inch diameter) into spoiler-mixer rig pin holes, to prevent possible damage to linkage in storage.

1. and 2. Deleted



Ref Letter Fig.601	Mating Item No. Fig.1101		Design Dimensions				Service Wear Limits		
			Dimensions (inches)		Assembly Clearance (inch)		Dimension Limits (inches)		Maximum Allowable Clearance (inch)
			Min	Max	Min	Max	Min	Max	
A	ID	81,88	0.8747	0.8753	0.0000	-0.0009 *[1]	0.8733	0.8753	0.0020
	OD	91	0.8753	0.8756					
B	ID	136	0.7497	0.7503	0.0000	0.0009	0.7473	0.7503	0.0030
	OD	47	0.7494	0.7497					
C	ID	21	1.0622	1.0628	0.0004	0.0020	1.0578	1.0628	0.0050
	OD	52	1.0608	1.0618					
D	ID	38	0.9990	1.000	0.0000	0.0015	0.9955	1.0000	0.0045
	OD	52	0.9985	0.9990					
E	ID	58,61	0.7497	0.7503	0.0000	0.0009	0.7473	0.7503	0.0030
	OD	47	0.7494	0.7497					

*[1] Interference fit

FOR TORQUE VALUES OF STANDARD FASTENERS, REFER TO 20-50-01			
FIG. & ITEM NO.	NAME	TORQUE	
		POUND-INCHES	POUND-FEET
3, 6, 64, 95, 98	Nut	50-70	
4	Bolt	50-70 *[1]	
13, 50, 101, 111, 118, 123, 128	Nut	40-50	
25	Bolt	50-70	
31, 40	Nut	30-40	
41	Guide	*[2]	
65	Reservoir	30-40	

*[1] Assys 65-46360-3 thru -7
*[2] Tighten until spring (44) is loaded to 27-33 lb.

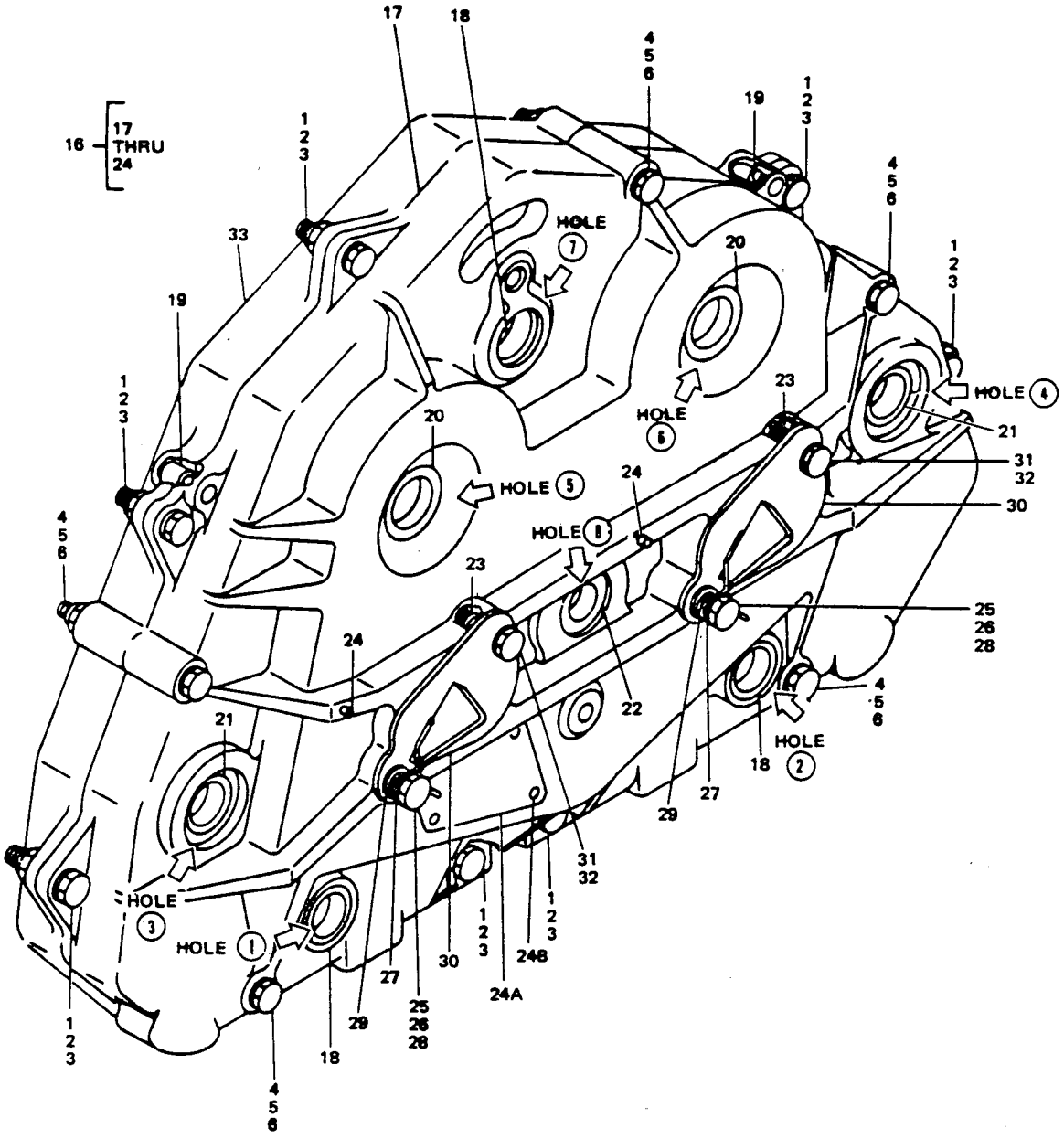
STORAGE INSTRUCTIONS

CAUTION: TO PREVENT POSSIBLE DAMAGE TO SPOILER-MIXER, RIGGING PIN(S) SHOULD REMAIN INSTALLED DURING STORAGE.

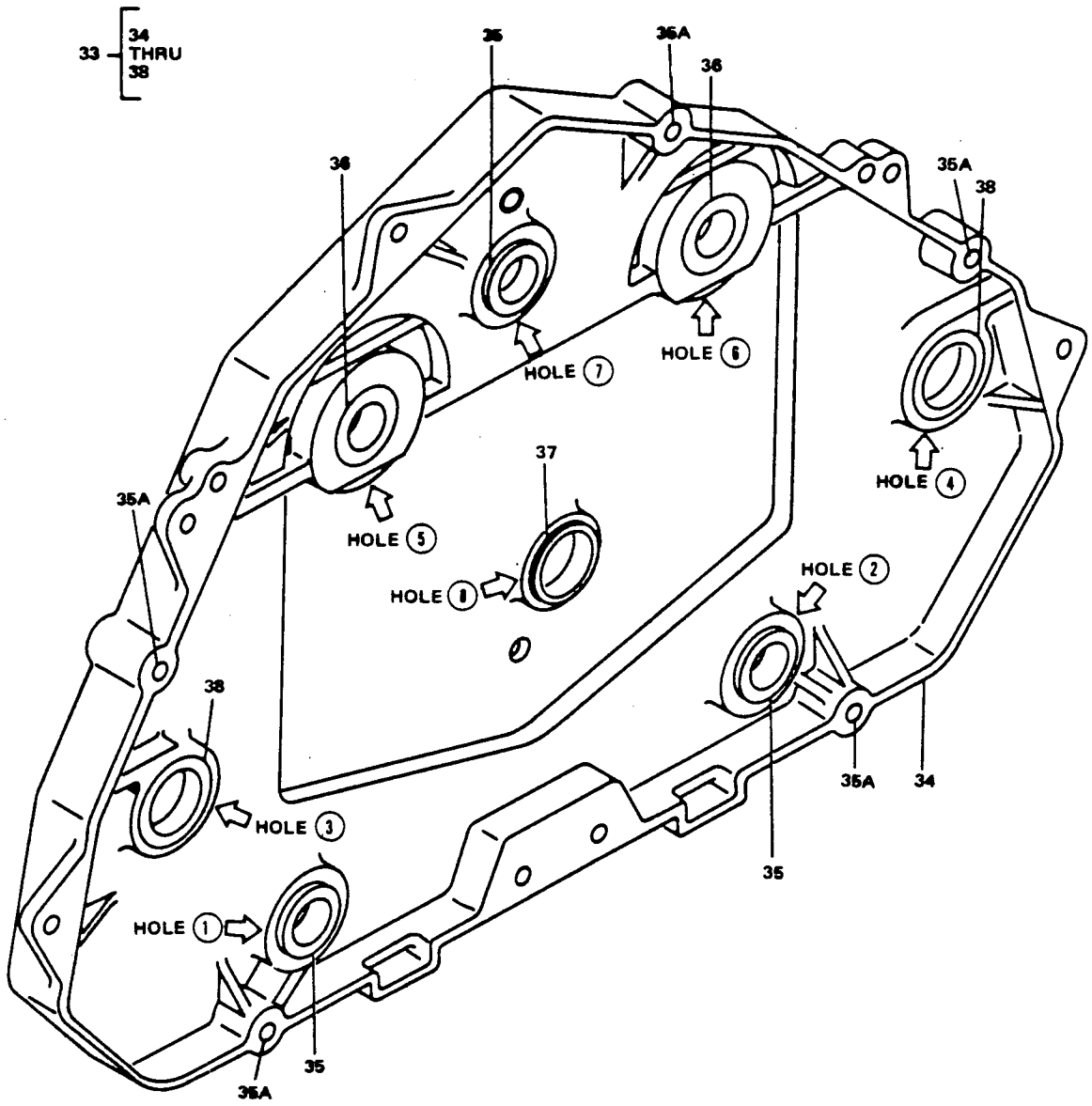
1. Install MS20392 pin(s) or any rod(s) of comparable diameter (0.309 to 0.311 inch) in spoiler-mixer rig pin hole(s).

2. Wrap spoiler-mixer assembly in vapor barrier paper and tag with test date.

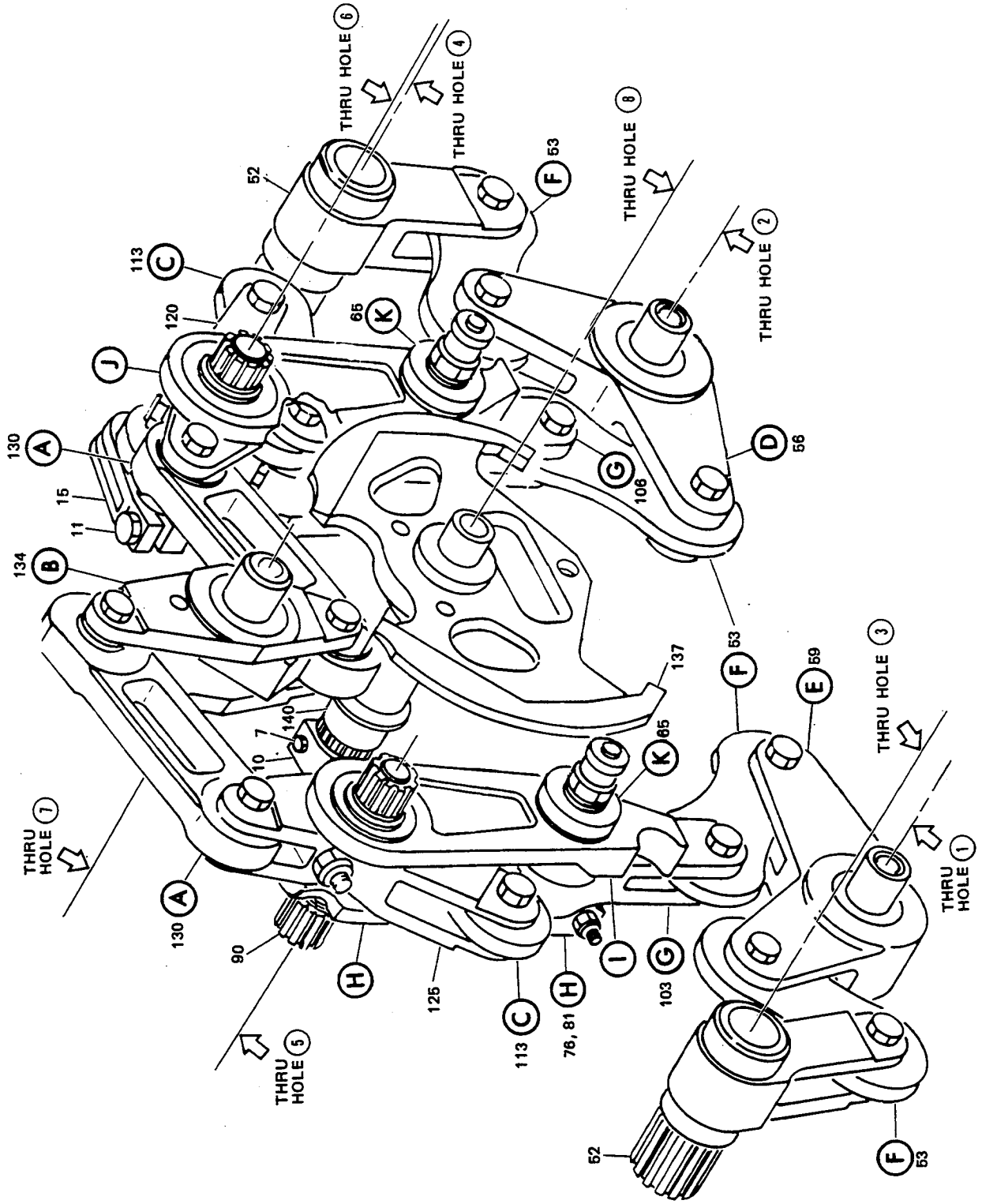
3. For further information refer to "Temporary Protective Coatings," Subject 20-44-02.

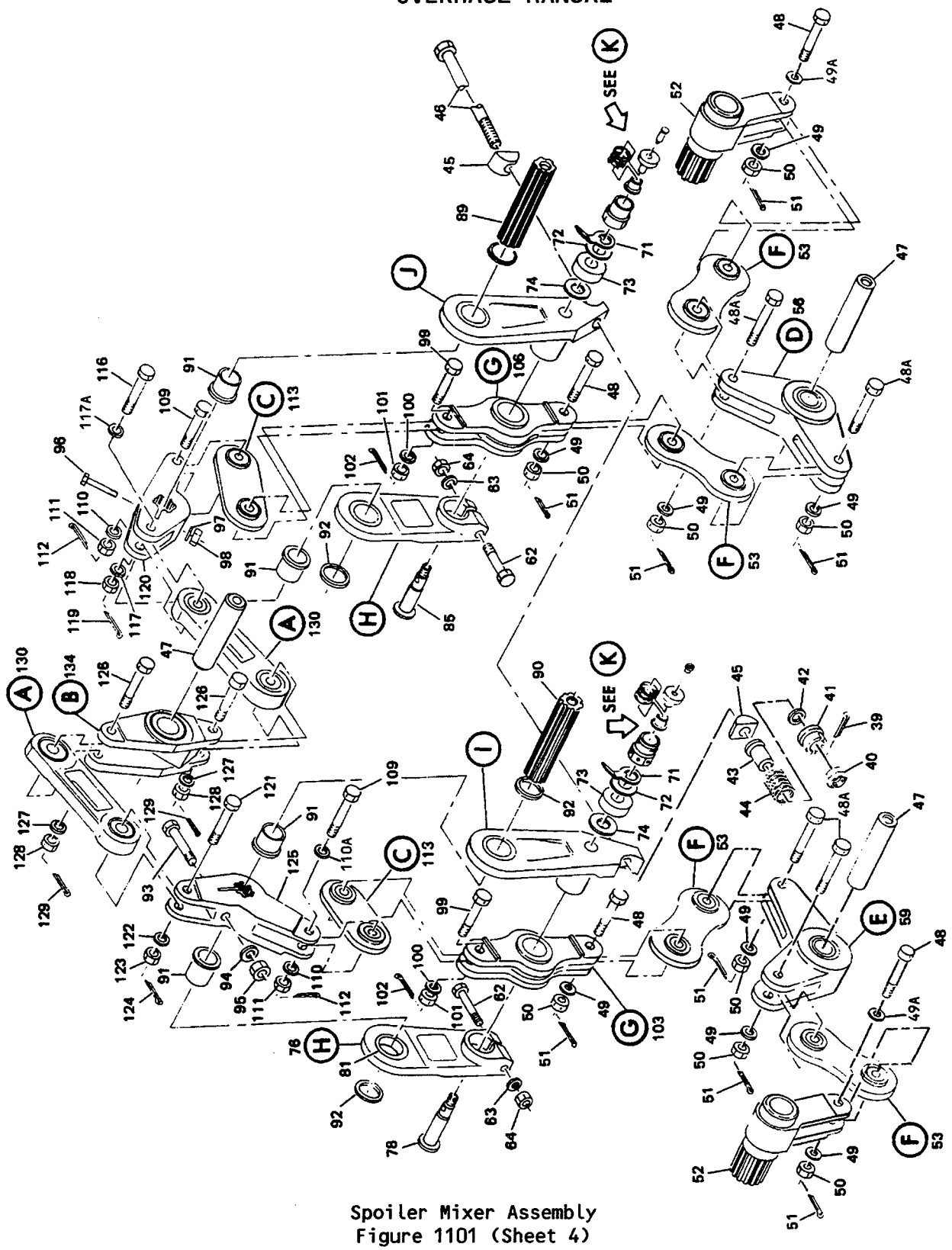


Spoiler Mixer Assembly
Figure 1101 (Sheet 1)



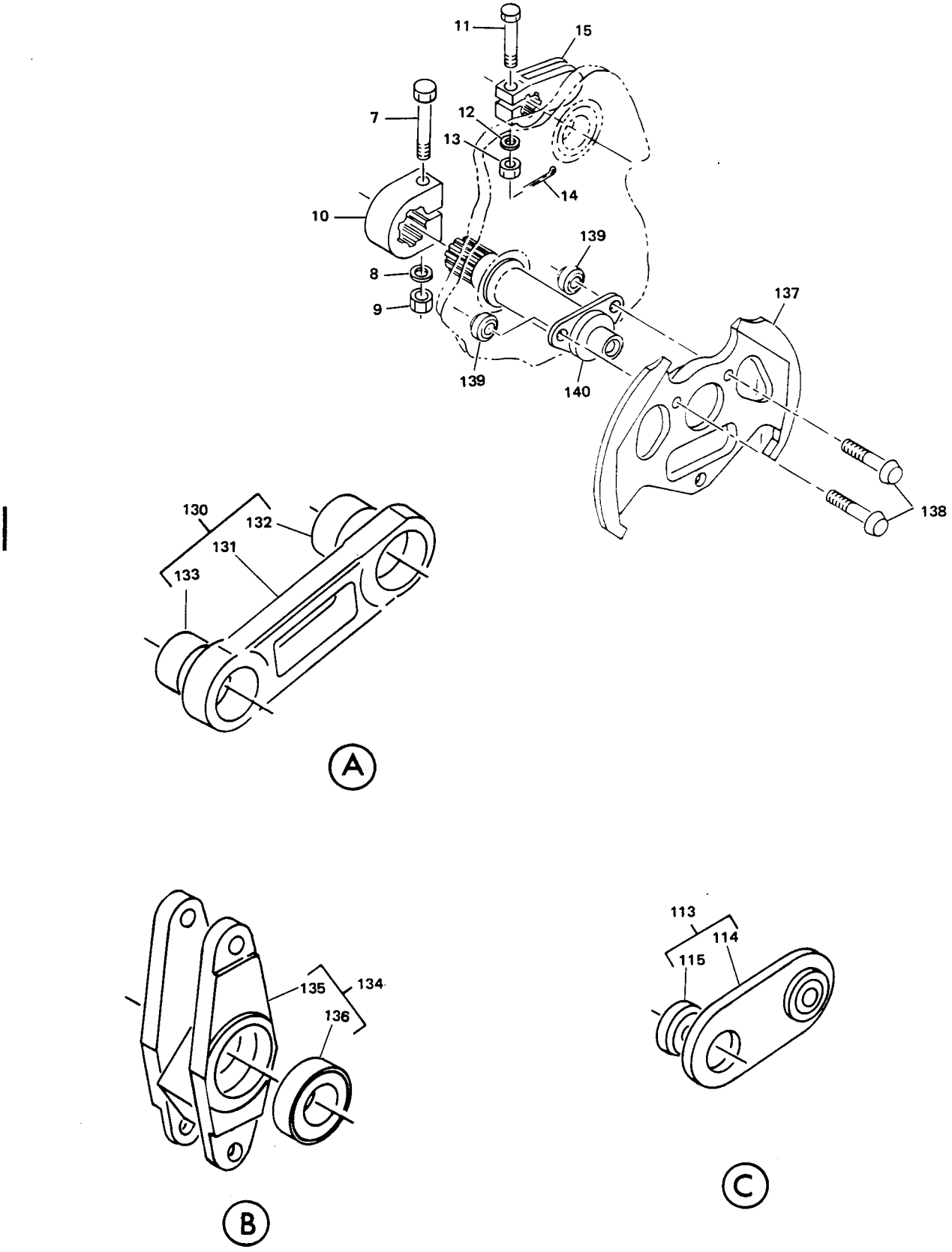
Spoiler Mixer Assembly
Figure 1101 (Sheet 2)


THRU HOLE 6
THRU HOLE 4
THRU HOLE 8
THRU HOLE 2
THRU HOLE 3
THRU HOLE 1
THRU HOLE 7
THRU HOLE 5
52
F 53
113 C
120
J
65 K
130 A
15
11
134 B
G 106
D 56
137
E 69
140
10
7
90
H
125
113 C
76, 81 H
I
103 G

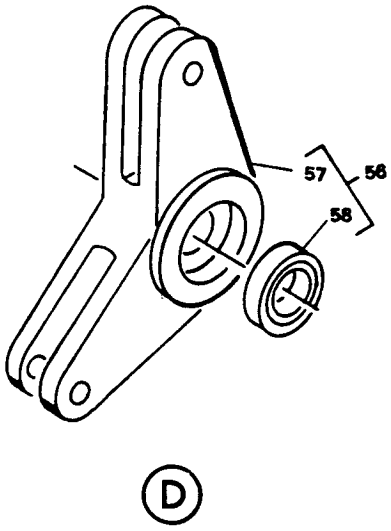


Spoiler Mixer Assembly
Figure 1101 (Sheet 4)

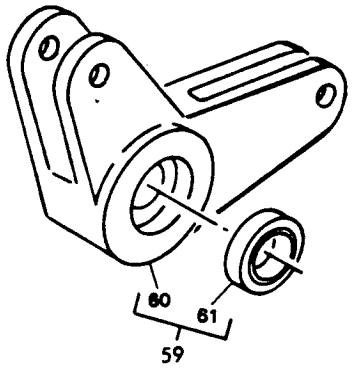
F76344



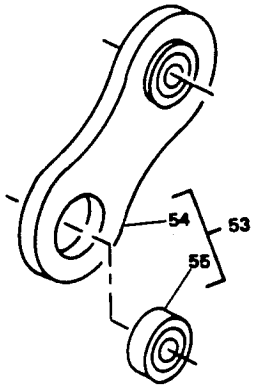
Spoiler Mixer Assembly
Figure 1101 (Sheet 5)



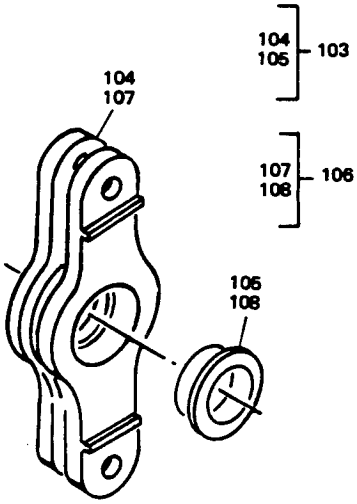
D



E

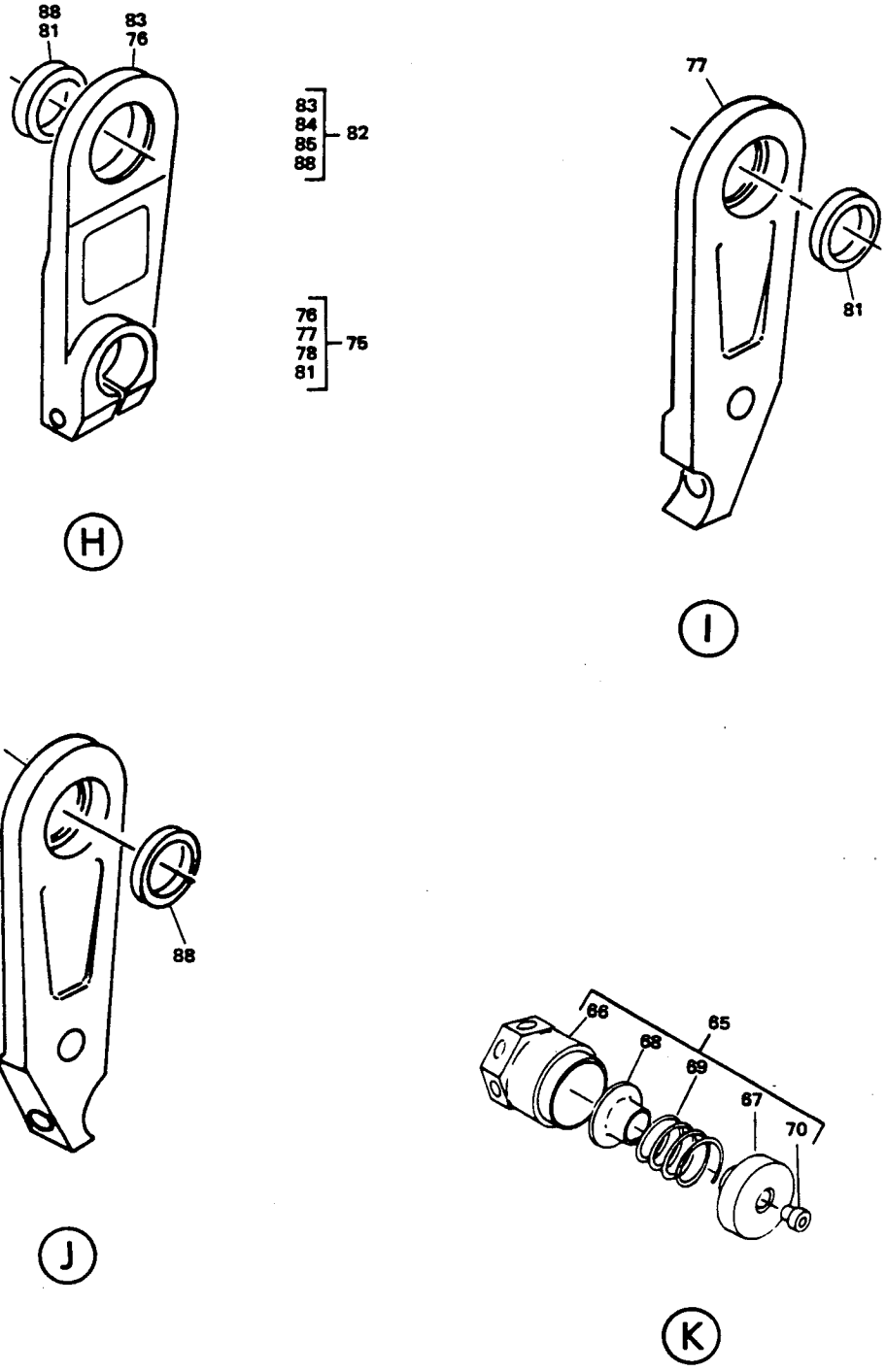


F



G

Spoiler Mixer Assembly
Figure 1101 (Sheet 6)



Spoiler Mixer Assembly
Figure 1101 (Sheet 7)

FIG. & ITEM NO.	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USE CODE	QTY PER ASSY
1101-					
	65-46360-2		SPOILER-MIXER ASSY	A	RF
	65-46360-3		SPOILER-MIXER ASSY	B	RF
	65-46360-4		SPOILER-MIXER ASSY	C	RF
	65-46360-5		SPOILER-MIXER ASSY	D	RF
	65-46360-6		SPOILER-MIXER ASSY	E	RF
	65-46360-7		SPOILER-MIXER ASSY	F	RF
1	NAS1104-9		. BOLT (REPLD BY BACB30NF4-8)	A	7
1	NAS1104-9		. BOLT (REPLD BY BACB30NF4-8)	B-F	4
1	BACB30NF4-8		. BOLT (REPLS NAS1104-9)	A	7
1	BACB30NF4-8		. BOLT (REPLS NAS1104-9)	B-F	4
2	AN960-416L		. WASHER (REPLD BY NAS1149F0432P)	A	14
2	NAS1149F0432P		. WASHER (REPLS AN960-416L)	A	14
2	AN960-416L		. WASHER (REPLD BY NAS1149F0432P)	B-F	8
2	NAS1149F0432P		. WASHER (REPLS AN960-416L)	B-F	8
3	BACN10JC4		. NUT (REPLS NAS679A4W)(REPLD BY BACN10JC4CD)	A	7
3	BACN10JC4CD		. NUT (REPLS BACN10JC4)	A	7
3	BACN10JC4		. NUT (REPLD BY BACN10JC4CD)	B-F	4
3	BACN10JC4CD		. NUT (REPLS BACN10JC4)	B-F	4
4	NAS1104-36		. BOLT (REPLD BY BACB30NF4-35)	A	5
4	NAS1104-18		. BOLT (REPLD BY BACB30NF4-17)	B-E	5
4	NAS1104-19		. BOLT (REPLD BY BACB30NF4-18)	F	5
4	BACB30NF4-35		. BOLT (REPLS NAS1104-36)	A	5
4	BACB30NF4-17		. BOLT (REPLS NAS1104-18)	B-E	5
4	BACB30NF4-18		. BOLT (REPLS NAS1104-19)	F	5
5	AN960-416L		. WASHER (REPLD BY NAS1149F0432P)	A	10
5	NAS1149F0432P		. WASHER (REPLS AN960-416L)	A	10
5	AN960-416L		. WASHER (REPLD BY NAS1149F0432P)	B-F	5
5	NAS1149F0432P		. WASHER (REPLS AN960-416L)	B-F	5
6	BACN10JC4		. NUT (REPLS NAS679A4W) (REPLD BY BACN10JC4CD)	A	5
6	BACN10JC4CD		. NUT (REPLS BACN10JC4)	A	5
7	NAS1104-20		. BOLT (REPLD BY BACB30NF4-19)		1
7	BACB30NF4-19		. BOLT (REPLS NAS1104-20)		1
8	AN960-416L		. WASHER (REPLD BY NAS1149F0432P)		1
8	NAS1149F0432P		. WASHER (REPLS AN960-416L)		1
9	BACN10JC4		. NUT (REPLS NAS679A4W) REPLD BY BACN10JC4CD)		1
9	BACN10JC4CD		. NUT (REPLS BACN10JC4)		1
10	69-43973-1		. COUPLER	A	1
10	69-43973-2		. COUPLER	B	1
10	69-43973-3		. COUPLER	C-F	1
11	NAS1104-16D		. BOLT (REPLD BY BACB30NF4D15)		1
11	BACB30NF4D15		. BOLT (REPLS NAS1104-16D)		1
11	BACB30NF4D16		. BOLT (OPT)		1
12	AN960-416L		. WASHER (REPLD BY NAS1149F0432P)		1
12	NAS1149F0432P		. WASHER (REPLS AN960-416L)		1

FIG. & ITEM NO.	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USE CODE	QTY PER ASSY
1101-					
13	MS17826-4		. NUT		1
14	MS24665-134		. PIN, COTTER (REPLD BY BACP18BC02C06P)		1
14	BACP18BC02C06P		. PIN, COTTER (REPLS MS24665-134)		1
15	69-40315-1		. ARM	A-C	1
15	69-40315-2		. ARM	D-F	1
16	65-53852-1		. HOUSING ASSY, AFT	A	1
16	65-53852-3		. HOUSING ASSY, AFT	BC	1
16	65-53852-5		. HOUSING ASSY, AFT	D-F	1
17	65-53852-2		. . HOUSING	A	1
17	65-53852-4		. . HOUSING	BC	1
17	65-53852-6		. . HOUSING	D-F	1
18	69-38905-1		. . BUSHING		3
19	66-24920-1		. . PIN	A	2
20	B540DDE-9607		. . BEARING, V21335		2
20	BACB10AS14		. . BEARING (OPT)		2
20	BACB10FU14RG		. . BEARING (OPT)		2
21	B541DDE-9607		. . BEARING, V21335		2
21	BACB10AS17		. . BEARING (OPT)		2
21	BACB10FU17RG		. . BEARING (OPT)		2
22	BACB10BX10		. . BEARING (REPLS BACB10A684)		1
22	BACB10FS10J		. . BEARING (OPT)		1
23	MS21209F4-15		. . INSERT		2
24	BACP18L5P0250		. . PIN		2
24A	BAC27DCT151		. . MARKER		1
24B	BACR15BB4A		. . RIVET (REPLS MS20470A4)		4
25	BACB30AK4-4		. BOLT	A-E	2
25	NAS6604P2		. BOLT	F	2
25	BACB30AK4-4		. BOLT (OPT) *[1]	F	2
26	BACW10P250S		. WASHER	A-E	2
26	AN960KD416		. WASHER (REPD BY NAS1149D0463J)	F	2
26	NAS1149D0463J		. WASHER (REPLS AN960KD416)	F	2
26	BACW10P250S		. WASHER (OPT) *[1]	F	2
27	69-42958-1		. SPRING	A-E	2
27	69-42958-1		. SPRING *[1]	F	2
28	69-42594-1		. BUSHING	A-E	2
28	69-42594-1		. BUSHING *[1]	F	2
29	AN960-616		. WASHER (REPLD BY NAS1149F0663P)	A-E	2
29	NAS1149F0663P		. WASHER (REPLS AN960-616)	A-E	2
29	AN960-616		. WASHER (REPLD BY NAS1149F0663P)*[1]	F	2
29	NAS1149F0663P		. WASHER (REPLS AN960-616)*[1]	F	2
30	69-42153-1		. COVER	A-C	2
30	69-42153-2		. COVER	DE	2
30	69-75952-1		. COVER	F	2
30	69-42153-2		. COVER (OPT) *[1]	F	2

FIG. & ITEM NO.	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USE CODE	QTY PER ASSY
1101-					
31	NAS1104-2		. BOLT (REPLD BY BACB30NF4-1)		2
31	BACB30NF4-1		. BOLT (REPLS NAS1104-2)		2
32	AN960-416		. WASHER (REPLD BY NAS1149F0463P)	A-E	2
32	NAS1149F0463P		. WASHER (REPLS AN960-416)	A-E	2
32	AN960KD416		. WASHER (REPLD BY NAS1149D0463J)	F	2
32	NAS1149F0463J		. WASHER (REPLS AN960KD416)	F	2
32	AN960-416		. WASHER (OPT) (REPLD BY NAS1149F0463P)*[1]	F	2
32	NAS1149F0463P		. WASHER (REPLS AN960-416)	F	2
33	65-46354-1		. HOUSING ASSY, FORWARD	A	1
33	65-46354-3		. HOUSING ASSY, FORWARD	BC	1
33	65-46354-6		. HOUSING ASSY, FORWARD	D-F	1
34	65-46354-2		. . HOUSING	A	1
34	65-46354-5		. . HOUSING	BC	1
34	65-46354-4		. . HOUSING (OPT)	BC	1
34	65-46354-8		. . HOUSING	D-F	1
34	65-46354-7		. . HOUSING (OPT)	D-F	1
35	69-38905-1		. . BUSHING		3
35A	MS21209F4-20		. . INSERT	B-F	5
36	B540DDE-9607		. . BEARING, V21335		2
36	BACB10AS14		. . BEARING (OPT)		2
36	BACB10FU14RG		. . BEARING (OPT)		2
37	B541DDE-9607		. . BEARING, V21335		1
37	BACB10AS17		. . BEARING (OPT)		1
37	BACB10FU17RG		. . BEARING (OPT)		1
38	BACB10BW16		. . BEARING (REPLS BACB10A821)		2
38	BACB10FR16G		. . BEARING (OPT)		2
39	MS24665-7		. PIN, COTTER (REPLD BY BACP18BC00C06P)		1
39	BACP18BC00C06P		. PIN, COTTER (REPLS MS24665-7)		1
40	BACN10NZ4		. NUT		1
40	BACN10YR4CD		. NUT (OPT)		1
41	69-40332-1		. GUIDE		1
42	66-24923-1		. SHIM		1
43	66-24919-1		. SLEEVE		1
44	69-38908-1		. SPRING		1
45	69-40330-1		. BLOCK, PIVOT		2
46	69-40333-1		. BOLT		1
47	69-38910-1		. SHAFT	AB	3
47	69-38910-2		. SHAFT	C-F	3
48	NAS1105-15D		. BOLT	A-E	4
48	BACB30GW10D-15		DELETED		
48	BACB30GW10D-15N		. LOCKBOLT	F	4
48A	NAS1105-15D		. BOLT	A-E	4

FIG. & ITEM NO.	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USE CODE	QTY PER ASSY
1101-					
48A	BACB30GW10D-16		DELETED		
48A	BACB30GW10D-16N		. LOCKBOLT	F	4
49	AN960-516L		. WASHER (REPLD BY NAS1149F0532P)	A-E	8
49	NAS1149F0532P		. WASHER (REPLS AN960-516L)*[2]	A-E	8
49A	AN960-416L		. WASHER (REPLD BY NAS1149F0432P)*[2]	F	2
49A	NAS1149F0432P		. WASHER (REPLS AN960-416L)	F	2
50	MS17826-5		. NUT	A-E	8
-50	BACC30K10		DELETED		
-50	NAS1080E10		. COLLAR	F	8
51	MS24665-134		. PIN, COTTER (REPLD BY BACP18BC02C06P)	A-E	8
51	BACP18BC02C06P		. PIN, COTTER (REPLS MS24665-134)	A-E	1
52	65-51682-1		. LEVER	A	2
52	65-51682-3		. LEVER	B-F	2
53	65-50856-1		. LINK ASSY	A-D	4
53	65-50856-4		. LINK ASSY	EF	4
54	65-50856-2		. . LINK	A-D	1
54	65-50856-5		. . LINK	EF	1
55	BACB10AC05		. . BEARING		2
56	65-46359-1		. LEVER ASSY	A	1
56	65-46359-11		. LEVER ASSY	B-D	1
56	65-46359-7		. LEVER ASSY (OPT)	B	1
56	65-46359-13		. LEVER ASSY	EF	1
57	65-46359-3		. . LEVER	A	1
57	65-46359-9		. . LEVER (USED ON 65-46359-7)	B	1
57	65-46359-12		. . LEVER (USED ON 65-46359-11)	B-D	1
57	65-78225-1		. . LEVER (OPT) (USED ON 65-46359-11)	B-D	1
57	65-46359-15		. . LEVER	EF	1
58	B539DDFS428		. . BEARING		2
58	B539DDE-8469		. . BEARING, V21335 (OPT)		2
58	BACB10AS12		. . BEARING (OPT)		2
58	BACB10FU12RG		. . BEARING (OPT)		2
59	65-46359-2		. LEVER ASSY	A	1
59	65-46359-8		. LEVER ASSY	B-D	1
59	65-46359-14		. LEVER ASSY	EF	1
60	65-46359-4		. . LEVER	A	1
60	65-46359-10		. . LEVER	B-D	1
60	65-78225-2		. . LEVER (OPT)	B-D	1
60	65-46359-16		. . LEVER	EF	1
61	B539DDFS428		. . BEARING, V21335		2
61	B539DDE-8469		. . BEARING, V21335 (OPT)		2
61	BACB10AS12		. . BEARING (OPT)		2
61	BACB10FU12RG		. . BEARING (OPT)		2

FIG. & ITEM NO.	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USE CODE	QTY PER ASSY
1101-					
62	NAS1104-21		. BOLT (REPLD BY BACB30NF4-20)		2
62	BACB30NF4-20		. BOLT (REPLS NAS1104-21)		2
63	AN960-416L		. WASHER (REPLD BY NAS1149F0432P)		2
63	NAS1149F0432P		. WASHER (REPLS AN960-416L)		2
64	BACN10JC4		. NUT (REPLS NAS679A4W) (REPLD BY BACN10JC4CD)		2
64	BACN10JC4CD		. NUT (REPLS BACN10JC4)		2
65	69-40320-1		. RESERVOIR ASSY	A	2
65	69-40320-2		. RESERVOIR ASSY	B-F	2
66	69-40319-1		. . NUT		1
67	69-40321-1		. . GUIDE		1
68	69-38906-1		. . PISTON	A	1
68	69-38906-2		. . PISTON	B-F	1
69	69-40323-1		. . SPRING		1
70	NAS516-1		. . FITTING, LUBE		1
71	69-38909-3		. WASHER		2
72	BACW10P250S		. WASHER		2
73	BACB10ET06		. ROLLER (REPLS BACB10BN06P)		2
73	BACB10BN06P		. ROLLER (REPLS BACB10B257R) (REPLD BY BACB10ET06)		2
73	BACB10B257R		. ROLLER (REPLD BY BACB10BN06P)		2
74	66-24924-1		. WASHER		2
75	69-40296-1		. LEVER ASSY	A-E	1
75	69-40296-3		. LEVER ASSY	F	1
76	65-46356-1		. . LEVER (MATCHED PART)	A-E	1
76	65-46356-4		. . LEVER (MATCHED PART)	F	1
77	65-46357-1		. . LEVER (MATCHED PART)		1
78	69-40322-1		. . SHAFT		1
81	B540DDE-9607		. . BEARING, V21339		2
81	BACB10AS14		. . BEARING (OPT)		2
81	BACB10FU14RG		. . BEARING (OPT)		2
82	69-40296-2		. LEVER ASSY	A-E	1
82	69-40296-4		. LEVER ASSY	F	1
83	65-46356-1		. . LEVER (MATCHED PART)	A-E	1
83	65-46356-4		. . LEVER (MATCHED PART)	F	1
84	65-46357-2		. . LEVER (MATCHED PART)		1
85	69-40322-1		. . SHAFT		1
88	B540DDE-9607		. . BEARING		2
88	BACB10AS14		. . BEARING (OPT)		2
88	BACB10FU14RG		. . BEARING (OPT)		2
89	65-53599-2		. SHAFT	A	1
89	65-53599-5		. SHAFT	B	1
89	65-53599-8		. SHAFT	C-F	1
90	65-53599-3		. SHAFT	A	1
90	65-53599-6		. SHAFT	B	1
90	65-53599-9		. SHAFT	C-F	1

FIG. & ITEM NO.	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USE CODE	QTY PER ASSY
1101-					
91	69-40324-1		. SPACER	A	4
91	69-40324-3		. SPACER	B-F	4
92	69-40327-1		. WASHER		4
93	NAS1104-20		. BOLT (REPLD BY BACB30NF4-19)	A	1
93	NAS1104-18		. BOLT (REPLD BY BACB30NF4-17)	B-F	1
93	BACB30NF4-19		. BOLT (REPLS NAS1104-20)	A	1
93	BACB30NF4-17		. BOLT (REPLS NAS1104-18)	B-F	1
94	AN960-416L		. WASHER (REPLD BY NAS1149F0432P)		1
94	NAS1149F0432P		. WASHER (REPLS AN960-416L)		1
95	BACN10JC4		. NUT (REPLS NAS679A4W) (REPLD BY BACN10JC4CD)		1
95	BACN10JC4CD		. NUT (REPLS BACN10JC4)		1
96	NAS1104-25		. BOLT (REPLD BY BACB30NF4-24)	A	1
96	NAS1104-22		. BOLT (REPLD BY BACB30NF4-21)	B-F	1
96	BACB30NF4-24		. BOLT (REPLS NAS1104-25)	A	1
96	BACB30NF4-21		. BOLT (REPLS NAS1104-22)	B-F	1
97	AN960-416L		. WASHER (REPLD BY NAS1149F0432P)		1
97	NAS1149F0432P		. WASHER (REPLS AN960-416L)		1
98	BACN10JC4		. NUT (REPLS NAS679A4W) (REPLD BY BACN10JC4CD)		1
98	BACN10JC4CD		. NUT (REPLS BACN10JC4)		1
99	NAS1104-14D		. BOLT (REPLD BY BACB30NF4D13)	A-E	2
99	BACB30NF4D13		. BOLT (REPLS NAS1104-14D)	A-E	2
-99	BACB30GW8D-15		DELETED		
-99	BACB30GW8D-15N		. LOCKBOLT	F	2
100	AN960-416L		. WASHER (REPLD BY NAS1149F0432P)	A-E	2
100	NAS1149F0432P		. WASHER (REPLS AN960-416L)	A-E	2
101	MS17826-4		. NUT	A-E	2
-101	BACC30K8		DELETED		
-101	NAS1080E08		. COLLAR	F	2
102	MS24665-134		. PIN, COTTER (REPLD BY BAC018BC02C06P)	A-E	2
102	BACP18BC02C06P		. PIN COTTER (REPLS MS24665-134)	A-E	1
103	65-46358-1		. LEVER ASSY	A	1
103	65-46358-7		. LEVER ASSY	B-D	1
103	65-46358-13		. LEVER ASSY	EF	1
104	65-46358-3		. . LEVER	A	1
104	65-46358-8		. . LEVER	B-D	1
104	65-46358-12		. . LEVER	EF	1
105	B540DDE-9607		. . BEARING, V21335		2
105	BACB10AS14		. . BEARING		2
105	BACB10FU14RG		. . BEARING (OPT)		2
106	65-46358-2		. LEVER ASSY	A	1
106	65-46358-7		. LEVER ASSY	B-D	1
106	65-46358-13		. LEVER ASSY	EF	1

FIG. & ITEM NO.	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USE CODE	QTY PER ASSY
1101-					
107	65-46358-4		. . LEVER	A	1
107	65-46358-8		. . LEVER	B-D	1
107	65-46358-12		. . LEVER	EF	1
108	B540DDE-9607		. . BEARING, V21335		2
108	BACB10AS14		. . BEARING		2
108	BACB10FU14RG		. . BEARING (OPT)		2
109	NAS1104-15D		. BOLT (REPLD BY BACB30NF4D14)	A-E	2
109	BACB30NF4D14		. BOLT (REPLS NAS1104-15D)	A-E	2
-109	BACB30GW8D-15		DELETED		
-109	BACB30GW8D-15N		. LOCKBOLT	F	2
110	AN960-416L		. WASHER (REPLD BY NAS1149F0432P)	A-E	2
110	NAS1149F0432P		. WASHER (REPLS AN960-416L)	A-E	2
-110A	AN960PD416L		. WASHER (REPLD BY NAS1149D0416J)*[2]	F	1
-110A	NAS1149D0416J		. WASHER (REPLS AN960PD416L)*[2]	F	1
111	MS17826-4		. NUT	A-E	2
-111	BACC30K8		DELETED		
-111	NAS1080E08		. COLLER	F	2
112	MS24665-134		. PIN, COTTER (REPLD BY BACP18BC02C06P)	A-E	2
112	BACP18BC02C06P		. PIN, COTTER (REPLS MS24665-134)	A-E	1
113	69-38175-1		. LINK ASSY	A	2
113	69-38175-3		. LINK ASSY	B-F	2
114	69-38175-2		. . LINK	A	1
114	69-38175-4		. . LINK	B-F	1
115	BACB10BY04		. . BEARING (REPLS BACB10A689)		2
116	NAS1104-15D		. BOLT (REPLD BY BACB30NF4D14)	A-E	1
116	BACB30NF4D14		. BOLT (REPLS NAS1104-15D)	A-E	1
-116	BACB30GW8D-16		DELETED		
-116	BACB30GW8D-16N		. LOCKBOLT	F	1
117	AN960-416L		. WASHER (REPLD BY NAS1149F0432P)	A-E	1
117A	NAS1149F0432P		. WASHER (REPLS AN960-416L)	A-E	1
-117A	AN960-416L		. WASHER (REPLD BY NAS1149F0432P)*[2]	F	1
-117A	NAS1149F0432P		. WASHER (REPLS AN960-416L)*[2]	F	1
118	MS17826-4		. NUT	A-E	1
-118	BACC30K8		DELETED		
-118	NAS1080E08		. COLLAR	F	1
119	MS24665-134		. PIN, COTTER (REPLD BY BACP18BC02C06P)	A-E	1
119	BACP18BC02C06P		. PIN, COTTER (REPLS MS24665-134)	A-E	1
120	65-51632-2		. LEVER	A	1
120	65-51632-7		. LEVER	B-F	1

FIG. & ITEM NO.	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USE CODE	QTY PER ASSY
1101-					
121	NAS1104-16D		. BOLT (REPLD BY BACB30NF4D15)	A-E	1
121	BACB30NF4D15		. BOLT (REPLS NAS1104-16D)	A-E	1
-121	BACB30GW8D-17		DELETED		
-121	BACB30GW8D-17N		. LOCKBOLT	F	1
122	AN960-416L		. WASHER (REPLD BY NAS1149F0432P)	A-E	1
122	NAS1149F0432P		. WASHER (REPLS AN960-416L)	A-E	1
123	MS17826-4		. NUT	A-E	1
-123	BACC30K8		DELETED		
-123	NAS1080E08		. COLLAR	F	1
124	MS24665-134		. PIN, COTTER (REPLD BY BACP18BC02C06P)	A-E	1
124	BACP18BC02C06P		. PIN, COTTER (REPLS MS24665-134)	A-E	1
125	65-46369-1		. LEVER	A	1
125	65-46369-3		. LEVER	B-E	1
125	65-46369-4		. LEVER	F	1
126	NAS1104-16D		. BOLT (REPLD BY BACB30NF4D15)	A-E	2
126	BACB30NF4D15		. BOLT (REPLS NAS1104-16D)	A-E	2
-126	BACB30GW8D-16		DELETED		
-126	BACB30GW8D-16N		. LOCKBOLT	F	1
128	MS17826-4		. NUT	A-E	2
-128	BACC30K8		DELETED		
-128	NAS1080E08		. COLLAR	F	2
129	MS24665-134		. PIN, COTTER (REPLD BY BACP18BC02C06P)	A-E	2
129	BACP18BC02C06P		. PIN, COTTER (REPLS MS24665-134)	A-E	1
130	65-51633-1		. LINK ASSY	A-D	2
130	65-51633-6		. LINK ASSY	EF	2
131	65-51633-2		. . LINK	A-D	1
131	65-51633-5		. . LINK	EF	1
132	BACB10CB4		. . BEARING (REPLS BACB10A581)		1
133	BACB10C160H		. . BEARING		1
134	65-51632-1		. LEVER ASSY	A	1
134	65-51632-5		. LEVER ASSY	B-F	1
135	65-51632-3		. . LEVER	A	1
135	65-51632-6		. . LEVER	B-F	1
136	B539DDE-9607		. . BEARING, V21335		2
136	B539DDFS428		. . BEARING (OPT)		2
136	BACB10AS12		. . BEARING (OPT)		2
136	BACB10FU12RG		. . BEARING (OPT)		2

FIG. & ITEM NO.	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USE CODE	QTY PER ASSY
1101-					
137	65-65519-1		. CAM		1
138	BACB30GW8-6		. LOCKBOLT		2
139	BACC30K8		. COLLAR		2
140	65-51678-1		. SHAFT		1

NOT ILLUSTRATED

*[1] COVER 69-42153-2 USED WITH BOLTS BACB30AK4-4, WASHERS BACW10P250S, AN960-616 (NAS1149F0663P), AN960-416 (NAS1149F0463P), BUSHING 69-42594-1, AND SPRING 69-42958-1 OPTIONAL TO COVER 69-75952-1 USED WITH BOLTS NAS6604P2 AND WASHERS AN960KD416 (NAS1149D0463J).

*[2] INSTALL WASHER UNDER HEAD OF BOLT IF REQUIRED TO OBTAIN CORRECT GRIP LENGTH.

VENDORS

V21335 TORRINGTON CO., FAFNIR BEARING DIV., 59 FIELD ST., TORRINGTON, CONNECTICUT 06790-4942

Part No.	Fig. and Index No.	Qty. per Assy
AN960-416	1101-32	2
AN960-416	32	2
AN960-416L	100	2
AN960-416L	110	2
AN960-416L	117	1
AN960-416L	-117A	1
AN960-416L	12	1
AN960-416L	122	1
AN960-416L	2	14
AN960-416L	2	8
AN960-416L	49	2
AN960-416L	5	10
AN960-416L	5	5
AN960-416L	63	2
AN960-416L	8	1
AN960-416L	94	1
AN960-416L	97	1
AN960-516L	49	8
AN960-616	9	2
AN960-616	29	2
AN960KD416	26	2
AN960KD416	32	2
AN960PD416L	-110A	1
B539DDE-8469	58	2
B539DDE-8469	61	2
B539DDE-9607	136	2
B539DDFS428	136	2
B539DDFS428	58	2
B539DDFS428	61	2
B540DDE-9607	105	2
B540DDE-9607	108	2
B540DDE-9607	20	2
B540DDE-9607	36	2
B540DDE-9607	81	2
B540DDE-9607	88	2
B541DDE-9607	21	2
B541DDE-9607	37	1
BAC27DCT151	24A	1
BACB10AC05	55	2
BACB10AS12	136	2
BACB10AS12	58	2
BACB10AS12	61	2
BACB10AS14	105	2
BACB10AS14	108	2
BACB10AS14	20	2
BACB10AS14	36	2
BACB10AS14	81	2
BACB10AS14	88	2

Part No.	Fig. and Index No.	Qty. per Assy
BACB10AS17	21	2
BACB10AS17	37	1
BACB10B257R	73	2
BACB10BN06P	73	2
BACB10BW16	38	2
BACB10BX10	22	1
BACB10BY04	115	2
BACB10C160H	133	1
BACB10CB4	132	1
BACB10ET06	73	2
BACB10FR16G	38	2
BACB10FS10J	22	1
BACB10FU12RG	136	2
BACB10FU12RG	58	2
BACB10FU12RG	61	2
BACB10FU14RG	105	2
BACB10FU14RG	108	2
BACB10FU14RG	20	2
BACB10FU14RG	36	2
BACB10FU14RG	81	2
BACB10FU14RG	88	2
BACB10FU17RG	21	2
BACB10FU17RG	37	1
BACB30AK4-4	25	2
BACB30AK4-4	25	2
BACB30GW10D-15	48	
BACB30GW10D-15N	48	4
BACB30GW10D-16	48A	
BACB30GW10D-16N	48A	4
BACB30GW8-6	138	2
BACB30GW8D-15	-109	
BACB30GW8D-15	-99	
BACB30GW8D-15N	-109	2
BACB30GW8D-15N	-99	2
BACB30GW8D-16	-116	
BACB30GW8D-16	-126	
BACB30GW8D-16N	-116	1
BACB30GW8D-16N	-126	1
BACB30GW8D-17	-121	
BACB30GW8D-17N	-121	1
BACB30NF4-1	31	2
BACB30NF4-17	4	5
BACB30NF4-17	93	1
BACB30NF4-18	4	5
BACB30NF4-19	7	1
BACB30NF4-19	93	1
BACB30NF4-20	62	2
BACB30NF4-21	96	1

Part No.	Fig. and Index No.	Qty. per Assy
BACB30NF4-24	1101-96	1
BACB30NF4-35	4	5
BACB30NF4-8	1	4
BACB30NF4-8	1	7
BACB30NF4D13	99	2
BACB30NF4D14	109	2
BACB30NF4D14	116	1
BACB30NF4D15	11	1
BACB30NF4D15	121	1
BACB30NF4D15	126	2
BACB30NF4D16	11	1
BACC30K10	-50	
BACC30K8	-101	
BACC30K8	-111	
BACC30K8	-118	
BACC30K8	-123	
BACC30K8	-128	
BACC30K8	139	2
BACN10JC4	3	4
BACN10JC4	3	7
BACN10JC4	6	5
BACN10JC4	64	2
BACN10JC4	9	1
BACN10JC4	95	1
BACN10JC4	98	1
BACN10JC4CD	3	4
BACN10JC4CD	3	7
BACN10JC4CD	6	5
BACN10JC4CD	64	2
BACN10JC4CD	9	1
BACN10JC4CD	95	1
BACN10JC4CD	98	1
BACN10NZ4	40	1
BACN10YR4CD	40	1
BACP18BC00C06P	39	1
BACP18BC02C06P	102	2
BACP18BC02C06P	112	2
BACP18BC02C06P	119	1
BACP18BC02C06P	124	1
BACP18BC02C06P	129	2
BACP18BC02C06P	14	1
BACP18BC02C06P	51	8
BACP18L5P0250	24	2
BACR15BB4A	24B	4
BACW10P250S	26	2
BACW10P250S	26	2
BACW10P250S	72	2
MS17826-4	101	2
MS17826-4	111	2

Part No.	Fig. and Index No.	Qty. per Assy
MS17826-4	118	1
MS17826-4	123	1
MS17826-4	128	2
MS17826-4	13	1
MS17826-5	50	8
MS21209F4-15	23	2
MS21209F4-20	35A	5
MS24665-134	102	2
MS24665-134	112	2
MS24665-134	119	1
MS24665-134	124	1
MS24665-134	129	2
MS24665-134	14	1
MS24665-134	51	8
MS24665-7	39	1
NAS1080E08	-101	2
NAS1080E08	-111	2
NAS1080E08	-118	1
NAS1080E08	-123	1
NAS1080E08	-128	2
NAS1080E10	-50	8
NAS1104-14D	99	2
NAS1104-15D	109	2
NAS1104-15D	116	1
NAS1104-16D	11	1
NAS1104-16D	121	1
NAS1104-16D	126	2
NAS1104-18	4	5
NAS1104-18	93	1
NAS1104-19	4	5
NAS1104-2	31	2
NAS1104-20	7	1
NAS1104-20	93	1
NAS1104-21	62	2
NAS1104-22	96	1
NAS1104-25	96	1
NAS1104-36	4	5
NAS1104-9	1	4
NAS1104-9	1	7
NAS1105-15D	48	4
NAS1105-15D	48A	4
NAS1149D0416J	-110A	1
NAS1149D0463J	26	2
NAS1149F0432P	100	2
NAS1149F0432P	110	2
NAS1149F0432P	-117	1
NAS1149F0432P	117A	1
NAS1149F0432P	12	1

Part No.	Fig. and Index No.	Qty. per Assy
NAS1149F0432P	122	1
NAS1149F0432P	2	14
NAS1149F0432P	2	8
NAS1149F0432P	49A	2
NAS1149F0432P	5	10
NAS1149F0432P	5	5
NAS1149F0432P	63	2
NAS1149F0432P	8	1
NAS1149F0432P	94	
NAS1149F0432P	97	1
NAS1149F0463J	32	2
NAS1149F0463P	32	2
NAS1149F0463P	32	2
NAS1149F0532P	49	8
NAS1149F0663P	29	2
NAS1149F0663P	1101-29	2
NAS516-1	70	1
NAS6604P2	25	2
65-46354-1	33	1
65-46354-2	34	1
65-46354-3	33	1
65-46354-4	34	1
65-46354-5	34	1
65-46354-6	33	1
65-46354-7	34	1
65-46354-8	34	1
65-46356-1	76	1
65-46356-1	83	1
65-46356-4	76	1
65-46356-4	83	1
65-46357-1	77	1
65-46357-2	84	1
65-46358-1	103	1
65-46358-12	104	1
65-46358-12	107	1
65-46358-13	103	1
65-46358-13	106	1
65-46358-2	106	1
65-46358-3	104	1
65-46358-4	107	1
65-46358-7	103	1
65-46358-7	106	1
65-46358-8	104	1
65-46358-8	107	1
65-46359-1	56	1
65-46359-10	60	1

Part No.	Fig. and Index No.	Qty. per Assy
65-46359-11	56	1
65-46359-12	57	1
65-46359-13	56	1
65-46359-14	59	1
65-46359-15	57	1
65-46359-16	60	1
65-46359-2	59	1
65-46359-3	57	1
65-46359-4	60	1
65-46359-7	56	1
65-46359-8	59	1
65-46359-9	57	1
65-46360-2		RF
65-46360-3		RF
65-46360-4		RF
65-46360-5		RF
65-46360-6		RF
65-46360-7		RF
65-46369-1	125	1
65-46369-3	125	1
65-46369-4	125	1
65-50856-1	53	4
65-50856-2	54	1
65-50856-4	53	4
65-50856-5	54	1
65-51632-1	134	1
65-51632-2	120	1
65-51632-3	135	1
65-51632-5	134	1
65-51632-6	135	1
65-51632-7	120	1
65-51633-1	130	2
65-51633-2	131	1
65-51633-5	131	1
65-51633-6	130	2
65-51678-1	140	1
65-51682-1	52	2
65-51682-3	52	2
65-53599-2	89	1
65-53599-3	90	1
65-53599-5	89	1
65-53599-6	90	1
65-53599-8	89	1
65-53599-9	90	1
65-53852-1	16	1
65-53852-2	17	1

Part No.	Fig. and Index No.	Qty. per Assy
65-53852-3	16	1
65-53852-4	17	1
65-53852-5	16	1
65-53852-6	17	1
65-65519-1	137	1
65-78225-1	57	1
65-78225-2	60	1
66-24919-1	43	1
66-24920-1	19	2
66-24923-1	42	1
66-24924-1	74	2
69-38175-1	113	2
69-38175-2	114	1
69-38175-3	113	2
69-38175-4	114	1
69-38905-1	18	3
69-38905-1	35	3
69-38906-1	68	1
69-38906-2	68	1
69-38908-1	1101-44	1
69-38909-3	71	2
69-38910-1	47	3
69-38910-2	47	3
69-40296-1	75	1
69-40296-2	82	1
69-40296-3	75	1
69-40296-4	82	1
69-40315-1	15	1
69-40315-2	15	1
69-40319-1	66	1
69-40320-1	65	2
69-40320-2	65	2
69-40321-1	67	1
69-40322-1	78	1
69-40322-1	85	1
69-40323-1	69	1
69-40324-1	91	4
69-40324-3	91	4
69-40327-1	92	4
69-40330-1	45	2
69-40332-1	41	1
69-40333-1	46	1
69-42153-1	30	2
69-42153-2	30	2
69-42153-2	30	2
69-42594-1	28	2
69-42594-1	28	2

Part No.	Fig. and Index No.	Qty. per Assy
69-42958-1	27	2
69-42958-1	27	2
69-43973-1	10	1
69-43973-2	10	1
69-43973-3	10	1
69-75952-1	30	2