TO: ALL HOLDERS OF FLAP CONTROL INPUT QUADRANT SUPPORT ASSEMBLY OVERHAUL MANUAL, 27-57-02

REVISION NO. 7, DATED NOV 1/03

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 SB 27-1241												X	

FLAP CONTROL INPUT QUADRANT SUPPORT ASSEMBLY

27-57-02

BOEING P/N 65-51600-2, -8, -9, -11, -12, -14, -15, -16, -19

AIRLINE P/N

THE FOLLOWING DIRECTIVES APPLY TO THIS SUBJECT:

BOEING SERVICE BULLETIN	BOEING TEMPORARY REVISION	OTHER DIRECTIVES	DATE DIRECTIVE INCORPORATED INTO TEXT
		PRR 33457	Dec 5/84
27-1180			Sep 5/92
27-1241			Nov 1/03

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
27-57-02						
*	T-1	Nov 1/03				
	T-2	BLANK				
*	LEP-1	Nov 1/03				
	LEP-2	BLANK				
	T/C-1	Dec 25/75				
	T-C-2	BLANK				
	1	Dec 5/84				
	2	Sep 5/92				
	3	Dec 5/90				
	4	Dec 5/90				
	5	BLANK				
	6	Sep 5/92				
*	7	Nov 1/03				
	8	Sep 5/92				

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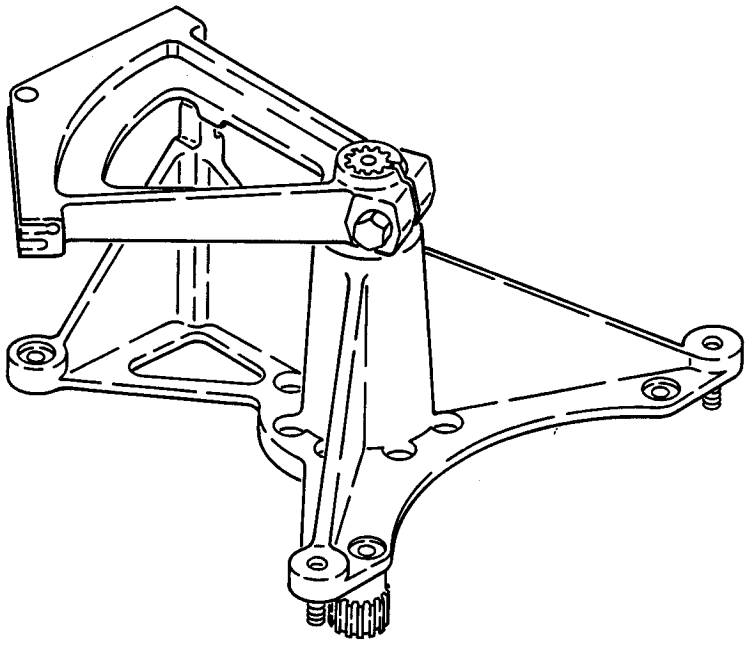
*[1] Special instructions not required. Use standard industry practices.

FLAP CONTROL INPUT QUADRANT SUPPORT ASSEMBLY



Flap Control Input Quadrant Support Assembly
Figure 1

1. DESCRIPTION AND OPERATION

A. Description

(1) The flap control input quadrant support assembly consists of a quadrant assembly, an input shaft, and a support assembly. The support assembly provides a mounting base for the input shaft and quadrant assembly.

B. Operation

(1) The flap control quadrant transfers cable motion through the input shaft, attached linkage, and a bellcrank to position a trailing edge flap control valve slide.

C. Leading Particulars (approximate)

Length -- 11 inches
Width -- 8.5 inches
Height -- 6 inches
Weight -- 3 pounds

2. DELETED

3. CLEANING

A. Clean parts using standard shop practices per 20-30-03 except as indicated below.

CAUTION: BEARINGS (9 AND 16, FIG. 3) ARE TEFLON LINED AND MUST BE CLEANED ONLY BY SPECIAL METHOD.

B. Clean bearings (9, 16, Fig. 3) per 20-30-01.

4. INSPECTION/CHECK

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

B. Perform penetrant examination per 20-20-02 on quadrant (7), input shaft (8), and support (17) (Fig. 3).

5. REPAIR

A. Materials

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

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

(3) Grease -- MIL-G-21164 (optional MIL-G-23827) (Ref 20-60-03)

(4) Enamel -- BMS 10-11, Type 2, color BAC 702 white gloss (Ref 20-60-02)

(5) Sealant -- BMS 5-95 (Ref 20-60-04)

B. Repair

(1) Repair minor defects and remove corrosion by polishing with abrasive cloth, 220-grit or finer. Refinish as necessary for protection against corrosion.

(2) Remove minor defects from threads with thread chaser or small triangular file.

(3) Repair minor defects on splines by light filing or by using an abrasive.

C. Refinish (Fig. 3)

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

(1) Quadrant (7) (65-51604-2) -- Sulfuric acid anodize (F-2.201) all over followed by one coat BMS 10-11, Type 1 primer (SRF-12.205) except no primer on splines. Material: Al alloy.

(2) Input shaft (8) -- Fig. 2.

(3) Support (17) (65-51605-2, -6) -- Sulfuric acid anodize (F-17.03) followed by one coat BMS 10-11, Type 1 primer (F-20.02) except no primer in 1.5000-1.5010, 1.748-1.750, and 1.1875- 1.1885-inch diameter bores. Material: Al alloy.

(4) Quadrant (7) (65-51604-4, -7) -- Sulfuric acid anodize (F-17.03) all over followed by one coat BMS 10-11, Type 1 primer (F-20.02) except no primer on splines. Material: Al alloy.

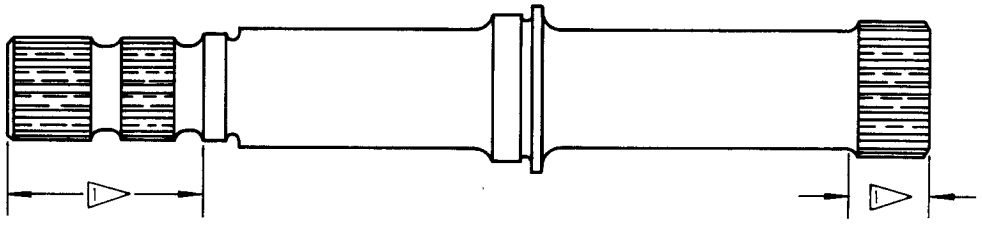
(5) Support (17)(65-51605-8, -10, -12) -- Sulfuric acid anodize or chromic acid anodize (F-17.05) followed by one coat BMS 10-11, Type 1 primer (F-20.02). On 65-51605-8 only, apply one coat BMS 10-11, Type 2 enamel, color BAC 702 white gloss (F-21.03). Omit paint in 1.5000-1.5010, 1.748-1.750, and 1.1875-1.1885-inch diameter bores. Material: Al alloy.

D. Replacement (Fig. 3)

(1) Bearing (9)

(a) Apply corrosion preventive compound to faying surfaces of bearing (9) and staking ring (10).

(b) Install bearing and staking ring swage per 20-50-03.



REFINISH

PASSIVATE (F-8.07).
CADMIUM PLATE EXTERIOR SURFACES PER 1
PLATING IS OPTIONAL ON ID.

1 CADMIUM PLATE (0.0002–0.0004 THICK (F-1.2926)

MATERIAL: 17–4PH CRES (150–170 KSI)

INPUT SHAFT (8)

Refinish Diagram
Figure 2

(2) Lip seal (11)

(a) Fill seal channel and coat entire seal surface with grease.

(b) Install lip seal in support assembly (12).

(3) Locking rings (13) and studs (14)

CAUTION: DO NOT INSTALL LOCKING RINGS (13) BY IMPACT OR SUPPORT (17) MAY BE DAMAGED.

(a) Apply sealant to mating surfaces and press locking rings into support (17).

(b) Locking rings should be flush to 0.01 inch below surface of support (17).

(c) Install studs (14, 15) with sealant.

(4) Bearing (16)

(a) Apply primer (on 65-51605-1, -5, -7) or sealant (on 65-51605-9) to faying surface and install bearing (16) in support (17).

(b) Roller swage bearing per 20-50-03.

6. ASSEMBLY

A. Materials

(1) Corrosion preventive compound -- MIL-C-11796, Class 3 (Ref 20-60-03).

(2) Sealant -- BMS 5-95 (Ref 20-60-04)

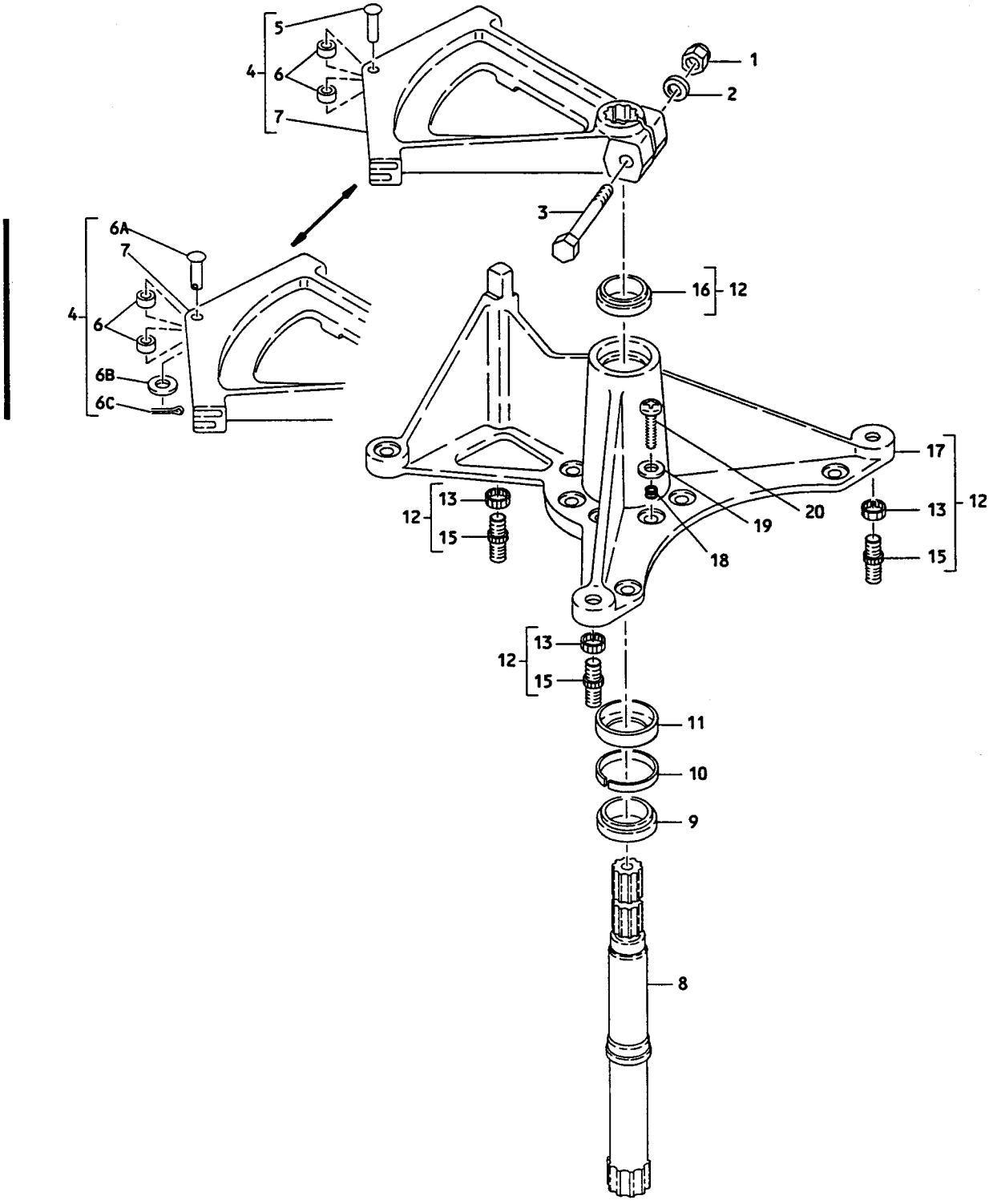
B. Apply corrosion preventive compound to splines of input shaft (8) and quadrant (7) and to ID of bearings (9, 16) prior to assembly.

C. Apply BMS 5-95 sealant for 0.5 inch along the grip length of screw (20), measured from the bottom of the head. Install screw (20) then coat head of screw (20) and washer (19) with BMS 5-95.

D. Assemble parts using standard industry practices and additional procedure in step E.

E. Prior to installing bolt (3), apply BMS 5-95 to bolthole. Hold quadrant assembly (4) at maximum height on shaft (8). Torque bolt (3) to 90-110 pound-inches.

12. ILLUSTRATED PARTS LIST



Flap Control Input Quadrant Support Assembly
Figure 3

FIG. & ITEM NO.	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USE CODE	QTY PER ASSY
3-					
	65-51600-2		SUPPORT ASSY, FLAP CONTROL INPUT QUADRANT	A	RF
	65-51600-8		SUPPORT ASSY, FLAP CONTROL INPUT QUADRANT	B	RF
	65-51600-9		SUPPORT ASSY, FLAP CONTROL INPUT QUADRANT	C	RF
	65-51600-11		SUPPORT ASSY, FLAP CONTROL INPUT QUADRANT	D	RF
	65-51600-12		SUPPORT ASSY, FLAP CONTROL INPUT QUADRANT	E	RF
	65-51600-14		SUPPORT ASSY, FLAP CONTROL INPUT QUADRANT (POST SB 27-1180) (POST SB 27-1241)	F	RF
	65-51600-15		SUPPORT ASSY, FLAP CONTROL INPUT QUADRANT	G	RF
	65-51600-16		SUPPORT ASSY, FLAP CONTROL INPUT QUADRANT (PRE SB 27-1180) (PRE SB 27-1241)	H	RF
	65-51600-19		SUPPORT ASSY, FLAP CONTROL INPUT QUADRANT	I	RF
1	MS21042L4		. NUT (REPLS BACN10JC4, NAS679A4W)		1
2	AN960JD416		. WASHER		1
3	NAS1104-24		. BOLT		1
4	65-51604-1		. QUADRANT ASSY	AB	1
4	65-51604-5		. QUADRANT ASSY	CDE	1
4	65-51604-6		. QUADRANT ASSY	FGHI	1
5	MS20470B4		. . RIVET	A-E	1
6	NAS42DD4-18		. . SPACER		2
6A	MS20392-1C25		. . PIN	FGHI	1
6B	AN960JD8L		. . WASHER	FGHI	1
6C	MS24665-132		. . PIN, COTTER	FGHI	1
7	65-51604-2		. . QUADRANT	AB	1
7	65-51604-4		. . QUADRANT	CDE	1
7	65-51604-7		. . QUADRANT	FGHI	1
8	65-51614-1		. SHAFT, INPUT		1
9	BACB10CF17PP		. BEARING (REPLS BACB10A29DDH)		1
10	BACR12Y22		. RING, STAKING		1
11	21362-0215		. SEAL, LIP (OPT) V73680		1
11	21923-0215		. SEAL, LIP (OPT) V73680	FHI	1
11	69-73393-6		. SEAL, LIP (PREF)	FHI	1
12	65-51605-1		. SUPPORT ASSY	A	1
12	65-51605-5		. SUPPORT ASSY	BC	1
12	65-51605-7		. SUPPORT ASSY	DG	1
12	65-51605-9		. SUPPORT ASSY	EF	1
12	65-51605-11		. SUPPORT ASSY	H	1
12	65-51605-13		. SUPPORT ASSY	I	1
13	BACR12B24		. . RING, LOCKING		3

FIG. & ITEM NO.	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USE CODE	QTY PER ASSY
3-					
14	BACS21S9-20A		. . STUD		1
15	BACS21S9-18A		. . STUD		2
16	BACB10A35DDH		. . BEARING	ABC	1
16	BACB10CF12PP		. . BEARING	D-I	1
17	65-51605-2		. . SUPPORT	A	1
17	65-51605-6		. . SUPPORT	BC	1
17	65-51605-8		. . SUPPORT	DG	1
17	65-51605-10		. . SUPPORT	EFI	1
17	65-51605-12		. . SUPPORT	H	1
18	MS21209F1-20P		. . INSERT	H	1
19	AN960JD10L		. . WASHER	H	1
20	NAS603-16P		. . SCREW	H	1

VENDORS

V73680 GARLOCK INC., MECHANICAL PACKING DIVISION, SUBSIDIARY OF COLT INDUSTRY, 1666 DIVISION STREET, PALMYRA, NEW YORK 14522-9343