

# CHAPTER 15



## FLAP QUADRANT ASSEMBLY

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# ✓ CHAPTER 15

## FLAP QUADRANT & FLAP ROD ASSEMBLY

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### Section 1

#### Flap Quadrant Assembly

#### Figure FQ-1

1. Figure FQ-1                    ATTACHING FLAP QUADRANT PLATE TO BOOM

**IMPORTANT: INSTALL BOLT (7) AND FENDER WASHER (8) THROUGH THE FLAP QUADRANT PLATE BEFORE RIVETING THE PLATE TO THE BOOM.**

- a) Insert the flap handle pivot bolt (7), pointing outward, through the 1/4" fender washer (8), and then through indicated hole in the flap quadrant plate (9).
- b) Position flap quadrant plate (9) as shown, with straight edge of plate facing front. Locate the four 3/16" predrilled holes (two on top, two on bottom) on the boom. Carefully align holes on top and bottom of flap quadrant plate with holes on boom. Pop-rivet all four holes (18).
- c) Place washer (15) on bolt (14). Add flap stop (16), another washer (15) and insert through forward indicated hole in figure. Add final washer (15) and secure with locknut (17). Repeat entire procedure with rear indicated hole.

2. Figure FQ-1                    ATTACHING FLAP HANDLE TO FLAP QUADRANT PLATE

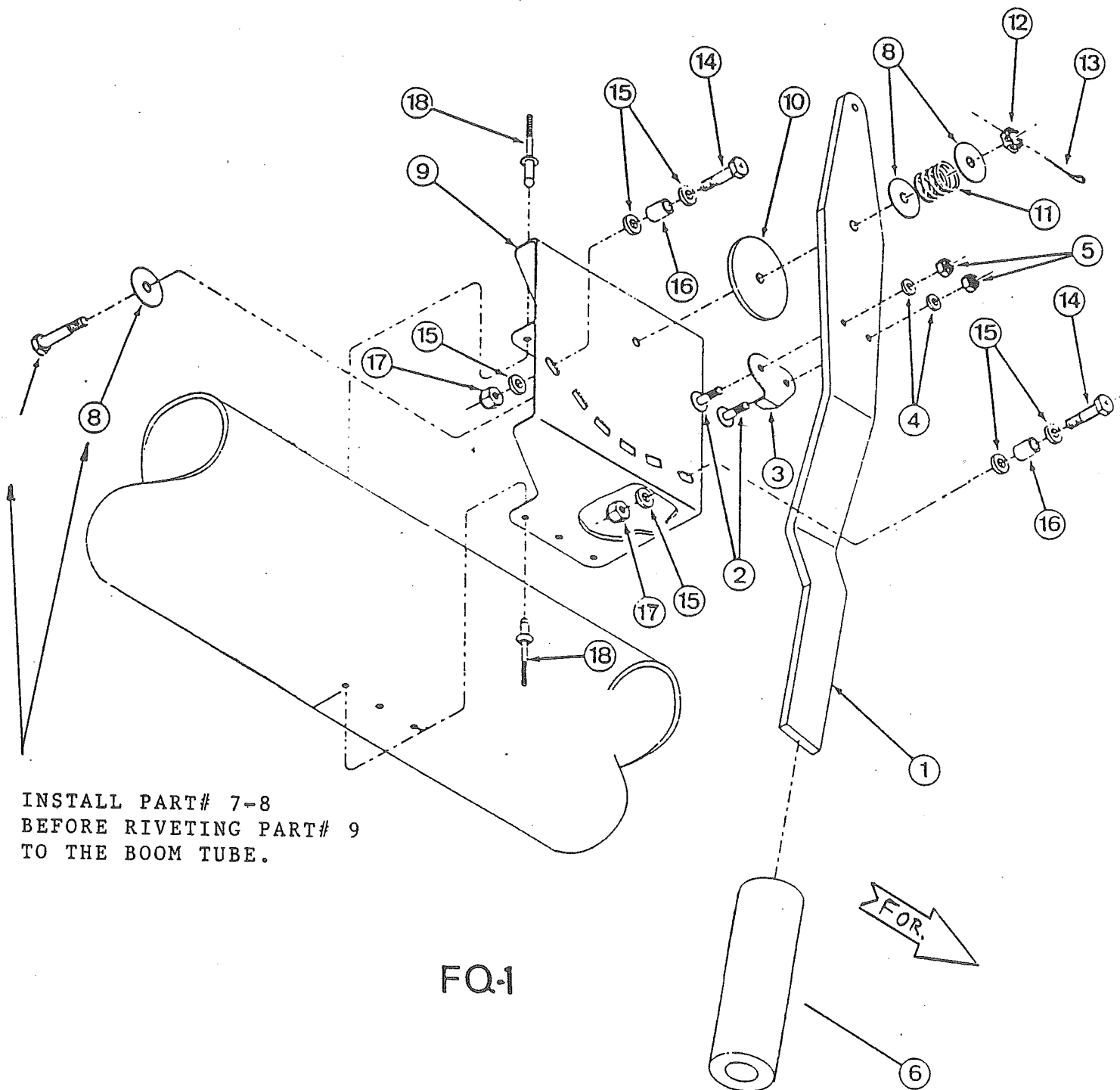
- a) Slide grip (6) onto flap handle (1). Position flap detent pawl (3) as shown, against flap handle and insert washer head screw (2) through pawl and handle. Add washers (4) and secure with locknuts (5).
- b) Place large nylon washer (10) over bolt that was previously inserted through flap quadrant plate in step 1. a). Place handle over same bolt. Add first fender washer (8), flap spring (11), second fender washer (8), castle nut (12) and after adjusting the spring pre-load, (the force that holds the detent pawl into the flap plate) secure with cotter pin (13).

# ✓ Chapter 15 SECTION 1 FLAP QUADRANT ASSEMBLY

## Section 1 Flap Quadrant Assembly Parts List Figure FQ-1

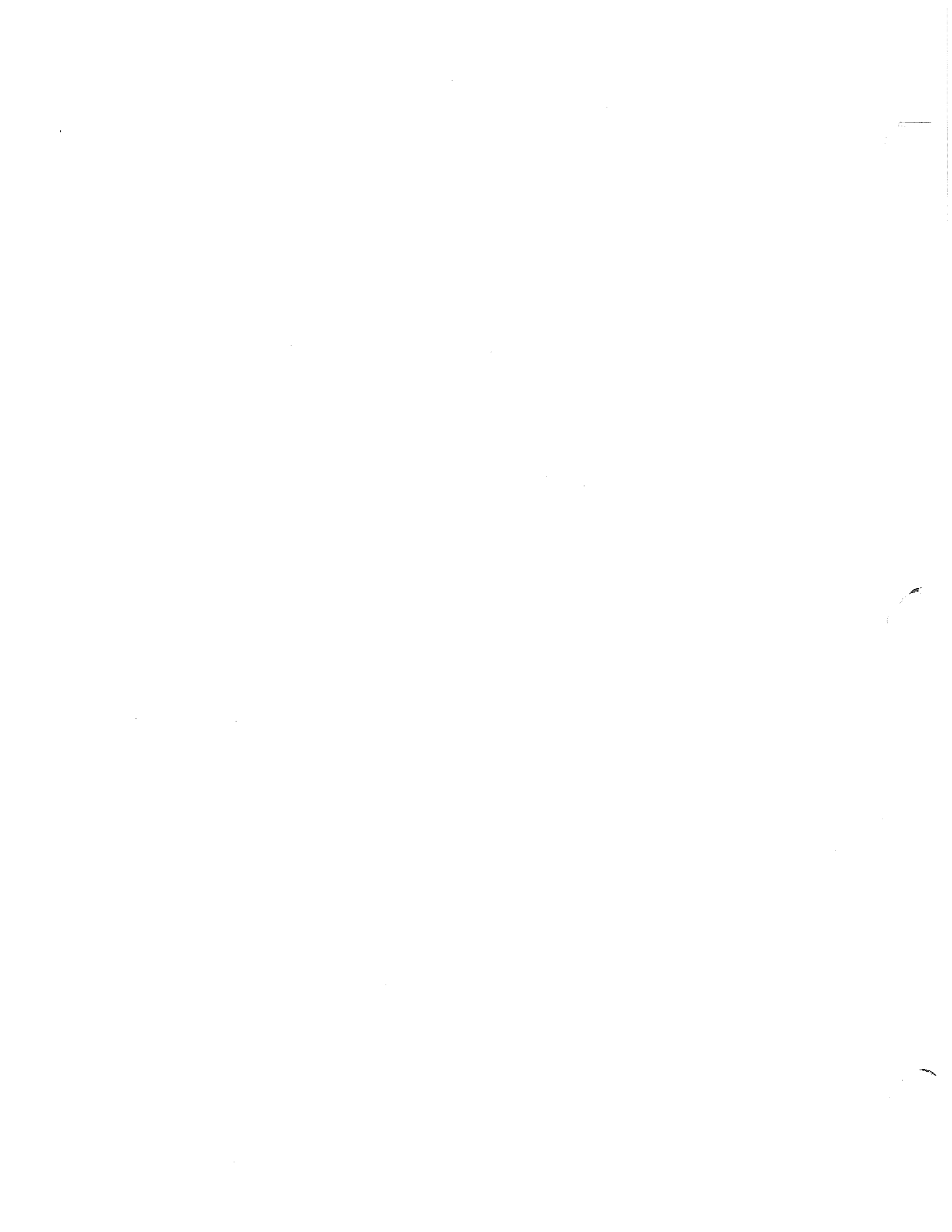
INDEX#	PART #	QTY	DESCRIPTION
1.	CS-344	1	FLAP HANDLE
2.	AN525-10R10	2	WASHER HEAD SCREW
3.	CS 346	1	FLAP DETENT PAWL
4.	AN960-10	2	3/16" WASHER
5.	AN365-1032	2	3/16" LOCKNUT
6.	FSG-1	1	FLAP HANDLE GRIP
7.	AN4-15	1	1/4" BOLT
8.	AN970-4	3	1/4" FENDER WASHER
9.	CS-345	1	FLAP QUADRANT PLATE
10.	QS-20344	1	2" X 1/8 " NYLON WASHER
11.	QS-10830	1	FLAP SPRING
12.	AN410-4	1	1/4" CASTLE NUT
13.	AN380-2-3	1	COTTER PIN 1/2" LONG
14.	AN4-11A	2	1/4" BOLT
15.	AN960-4	6	1/4" WASHER
16.	CS-290	2	FLAP STOP
17.	AN365-428	2	1/4" LOCKNUT
18.	SS64	4	POP-RIVET

THIS VIEW IS FROM THE RIGHT HAND SEAT LOOKING UP



INSTALL PART# 7-8  
BEFORE RIVETING PART# 9  
TO THE BOOM TUBE.

FQ-1



## ✓ Chapter 15 Section 2 FLAP ROD ASSEMBLY

### Section 2 Flap Rod Assembly Figure TQ-2

1. **Figure FQ-2 ASSEMBLING THE FLAP RODS**
  - a) Begin with the long flap rod (1). Insert flap rod plugs (3) into both ends of long flap rod, carefully aligning holes. Pop-rievet (4) through both plugs and flap rod ends. Tap the rivets flush with a ball-peen hammer. Note that the part called is a pop-rievet not an Aluminum Brad.
  - b) Thread jam nuts (6) a little more than half way down threads on each of the rod ends. Thread the rod ends (5) into each of the flap rod plugs (3).
  - c) Repeat entire procedure with short flap rod (2).

2. **Figure FQ-2 ATTACHING FLAP RODS TO AILERON CONTROL HORNS & FLAP QUADRANT HANDLE**
  - a) Insert bolt (7) through rod end (5) of short flap rod (2). Add two washers (8). Insert through RIGHT SIDE hole of flap handle, previously attached in Section 1. Add two more washers (8) and rod end of long flap rod (1).

IT IS IMPORTANT THAT THE LONG FLAP ROD IS POSITIONED ON THE LEFT HAND SIDE OF THE QUADRANT / FLAP HANDLE.

- b) Insert bolt (10) through rod end of unattached short flap rod (2). Add washer (8). Position the short flap rod on the right side of the wing flap control horn and insert bolt through flap control horn. Add a second washer (8) and locknut (9).
- c) Repeat entire procedure for long flap rod (1), positioned on right side of left wing aileron control horn.

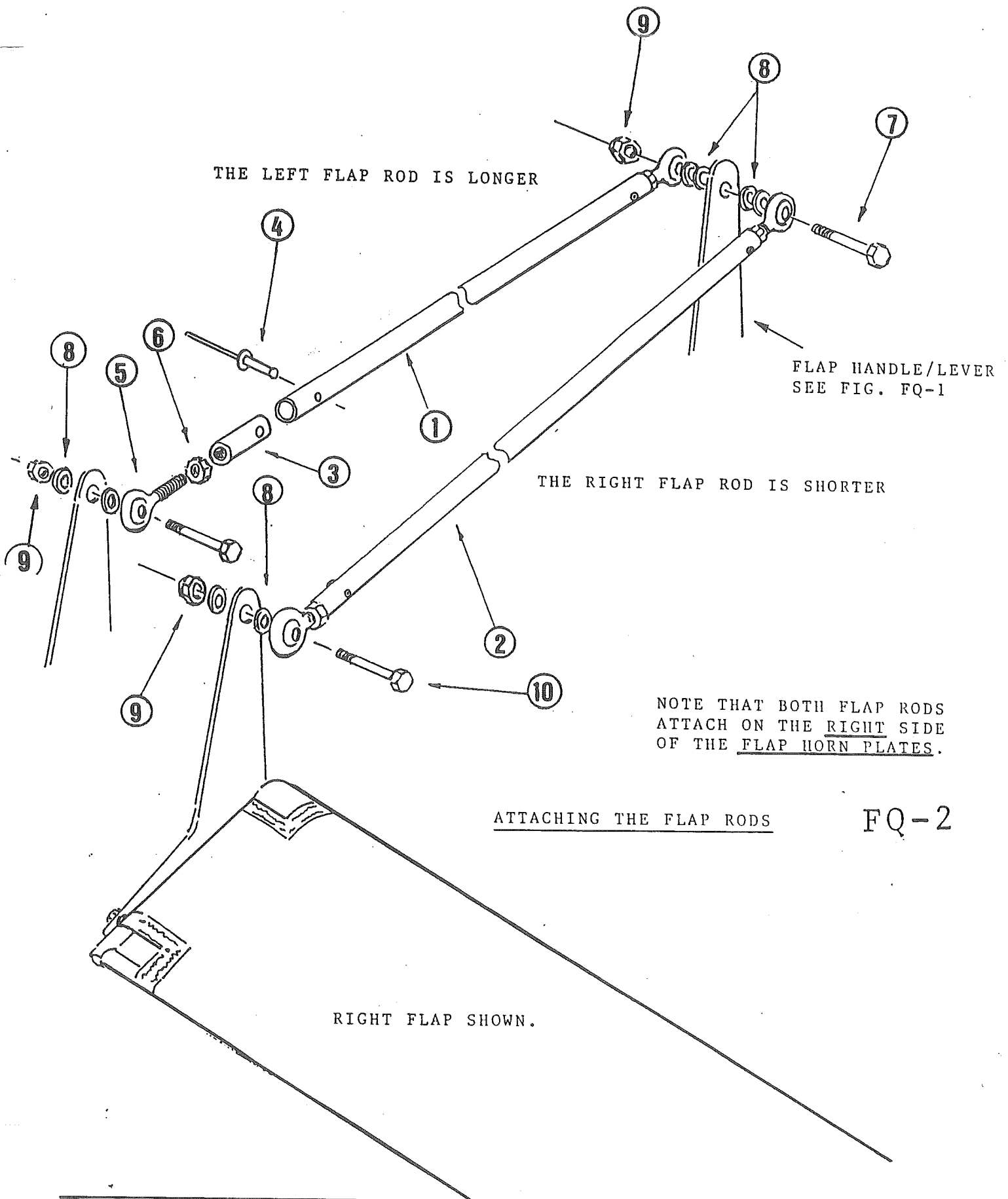
A REMINDER THAT BOTH FLAP RODS WILL BE POSITIONED ON THE RIGHT SIDE OF THEIR RESPECTIVE FLAP CONTROL HORNS. THE FLAPS SHOULD BE EVEN WITH THE AILERONS WHEN ADJUSTED CORRECTLY. TAKE IN ACCOUNT THE CLEARANCE OF THE DETENT TO THE FLAP QUADRANT BY HOLDING THE FLAP UP SLIGHTLY WHEN JUDGING THE ADJUSTMENT.

**✓ Chapter 15** SECTION 2 FLAP ROD ASSEMBLY**Section 2  
Flap Rod Assembly Parts List  
Figure FQ-2**

<b>INDEX#</b>	<b>PART #</b>	<b>QTY</b>	<b>DESCRIPTION</b>
1.	CS-195	1	LONG FLAP ROD
2.	CS-195-1	1	SHORT FLAP ROD
3.	CS-160	4	FLAP ROD PLUG
4.	SB6-8	4	3/16" X 7/8" POP-RIVET
5.	CM-4	4	1/4-28 ROD END
6.	AN316-412	4	1/4-28 JAM NUT
7.	AN4-15A	1	1/4" BOLT
8.	AN960-4	8	1/4" WASHER
9.	AN365-428	3	1/4" LOCKNUT
10.	AN4-10A	2	1/4" BOLT

5.





FQ-2

