

# TECHNICAL BULLETIN



FUJI HEAVY INDUSTRIES LTD.

JCAB APPROVED

HEAD OFFICE ; SUBARU BLDG.  
SHINJUKU, TOKYO, JAPAN

NO. 200-020

DATE May 30, 1989

(SUPERSEDES NO. )

REV.

DATE

(SUPERSEDES NO. )

REASON

1. SUBJECT : Installation of Strength Increased Tube for Control Column
2. AIRCRAFT AFFECTED : All FA200 series aircraft S/N 12 and subsequent.
3. PRIORITY : Desirable.
4. REASON : There has been an instance reported whereby a section of the control column assembly fractured during an aerobatic flight. The fracture, resulting from fatigue crack, occurred at the gust lock pin holes. To prevent fracture of the tube, a new tube which incorporates increased strength property has been designed and offered as a product improvement to replace the existing tube.
5. DESCRIPTION : Tube wall thickness has been changed from .035 in to .058 in.
6. ACCOMPLISHMENT : At customer's option.
7. APPROVAL : JCAB Approval (No-Tokyo-1-001) May 18, 1989
8. PARTS REQUIRED : See "Parts List" for each configuration.
9. SPECIAL TOOL : None required.
10. WEIGHT AND BALANCE: Negligible.
11. REFERENCE : Not applicable.
12. DETAILED INSTRUCTIONS:
  - I. Airplane (S/N 12 through 100) Equipped with Control Column Assembly 200-524027-001
    - (a) Replacement of Control Column Tube only.
      - (1) Remove control column assembly in accordance with Service Manual, Paragraph 8-2-7.
      - (2) See Figure 1. Remove rivents P/N 0413216 and 0413216-4, and disconnect tube P/N 200-524028-003 from control column.

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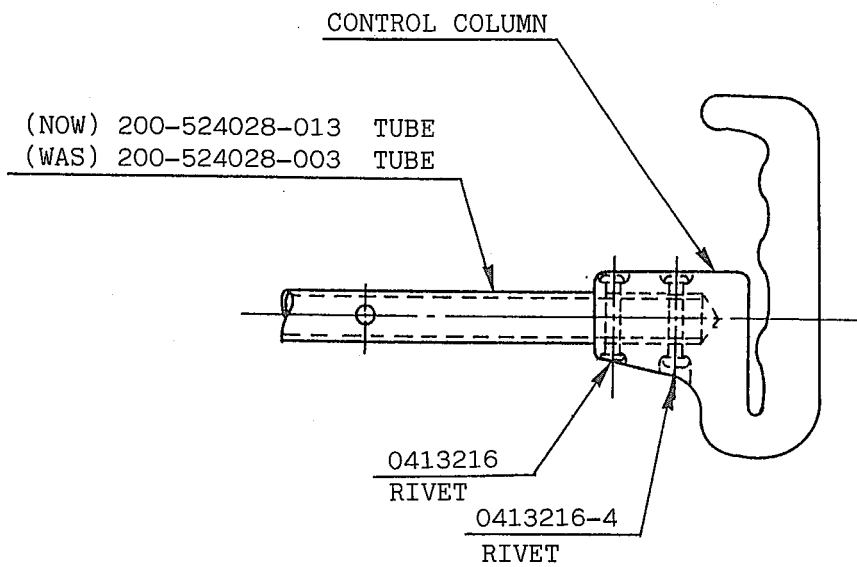


FIGURE 1

- (3) Install new tube P/N 200-524028-013 with rivets 0413216 and 043216-4.
- (4) Install control column assembly in accordance with Service Manual, Paragraph 8-2-7. Replace nuts NAS679A3W with new nuts at installation. If NAS679A3 nuts are not available, MS21042L3 or equivalent self-locking nuts may be used as alternate.

- Parts List -

No.	PART NUMBER	NOMENCLATURE	QTY PER A/C	REMARKS
1	200-524028-013	Tube	2	Required parts for replacements of control column tube only.
2	0413216	Rivet	2	
3	0413216-4	Rivet	2	
4	NAS679A3W	Nut	2	

(b) Replacement of Control Column Assembly

- (1) Remove control column assembly P/N 200-524027-001 in accordance with Service Manual, Paragraph 8-2-7.
- (2) Install new control column assembly P/N 200-524046-101 in accordance with Service Manual, Paragraph 8-2-7. Replace nuts NAS679A3W with new nuts at installation. For aircraft S/N 31 and earlier, replace bolts AN3-13A with bolts \*AN173-13A.

- Parts List -

No.	PART NUMBER	NOMENCLATURE	QTY PER A/C	REMARKS
1	200-524046-101	Control Column Assembly	2	Required parts for replacement of control column assembly.
2	NAS679A3W	Nut	2	
3	*AN173-13A	Bolt	2	

II. Airplanes (S/N 101 and subsequent) Equipped with Control Column Assembly 200-524046-001

- (1) Remove control column assembly in accordance with Service Manual, Paragraph 8-2-7.
- (2) See Figure 2. Remove spring pins 5 $\phi$  x 32, and disconnect tube P/N 200-524028-005 from control column.

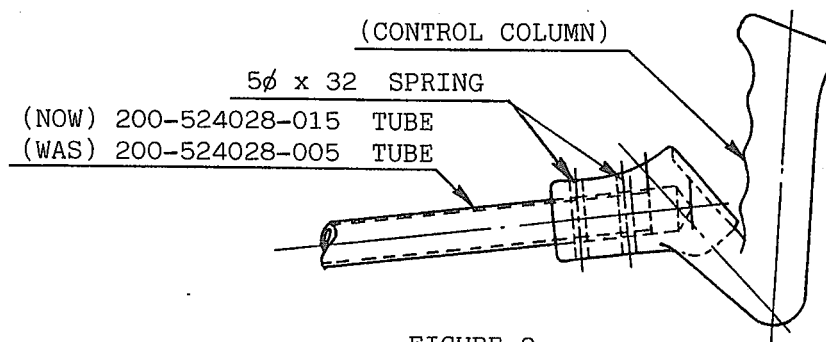


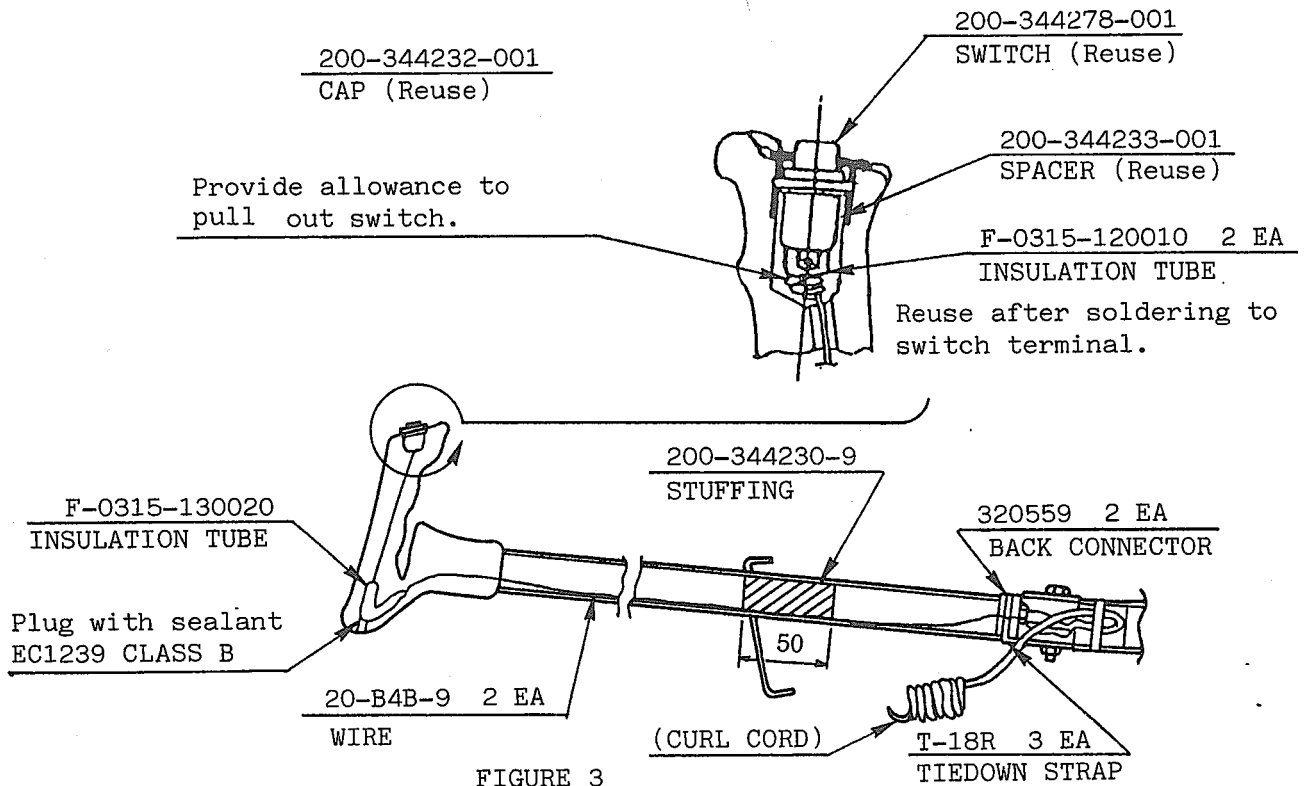
FIGURE 2

- (3) Install new tube P/N 200-524028-015 with new spring pins 5 $\phi$  x 32.
- (4) Install control column assembly in accordance with Service Manual, Paragraph 8-2-7. Replace nuts NAS679A3W with new nuts at installation.

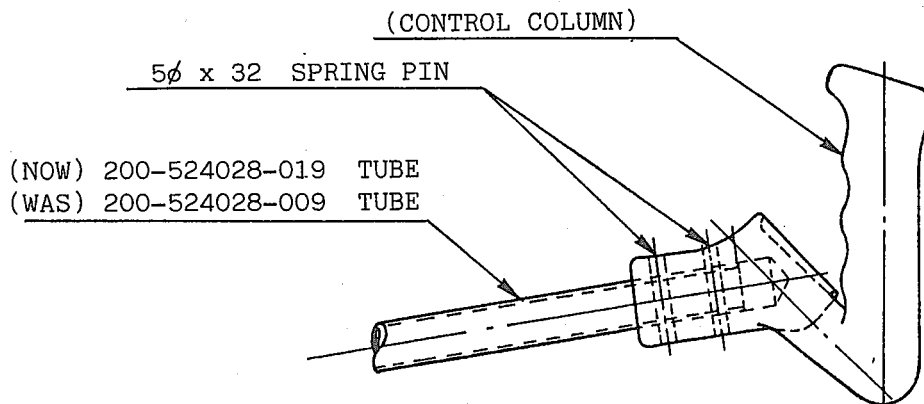
- Parts List -

No.	PART NUMBER	NOMENCLATURE	QTY PER A/C	REMARKS
1	200-524028-015	Tube	2	
2	5 $\phi$ x 32	Spring Pin	4	
3	NAS679A3W	Nut	2	

III. Airplanes (S/N 101 and subsequent) Equipped with Control Column Assemblies 200-524046-011 & -012 which incorporate ICS switch



- (1) See Figure 3. Cut two wires at butt connectors which connect wire and curl cord extending from control column tube.
- (2) Remove the above tiedown straps.
- (3) Remove control column assembly in accordance with Service Manual, Paragraph 8-2-7.
- (4) See Figure 4. Remove spring pins  $5\phi \times 32$ , and disconnect tube P/N 200-524028-009 from control column.

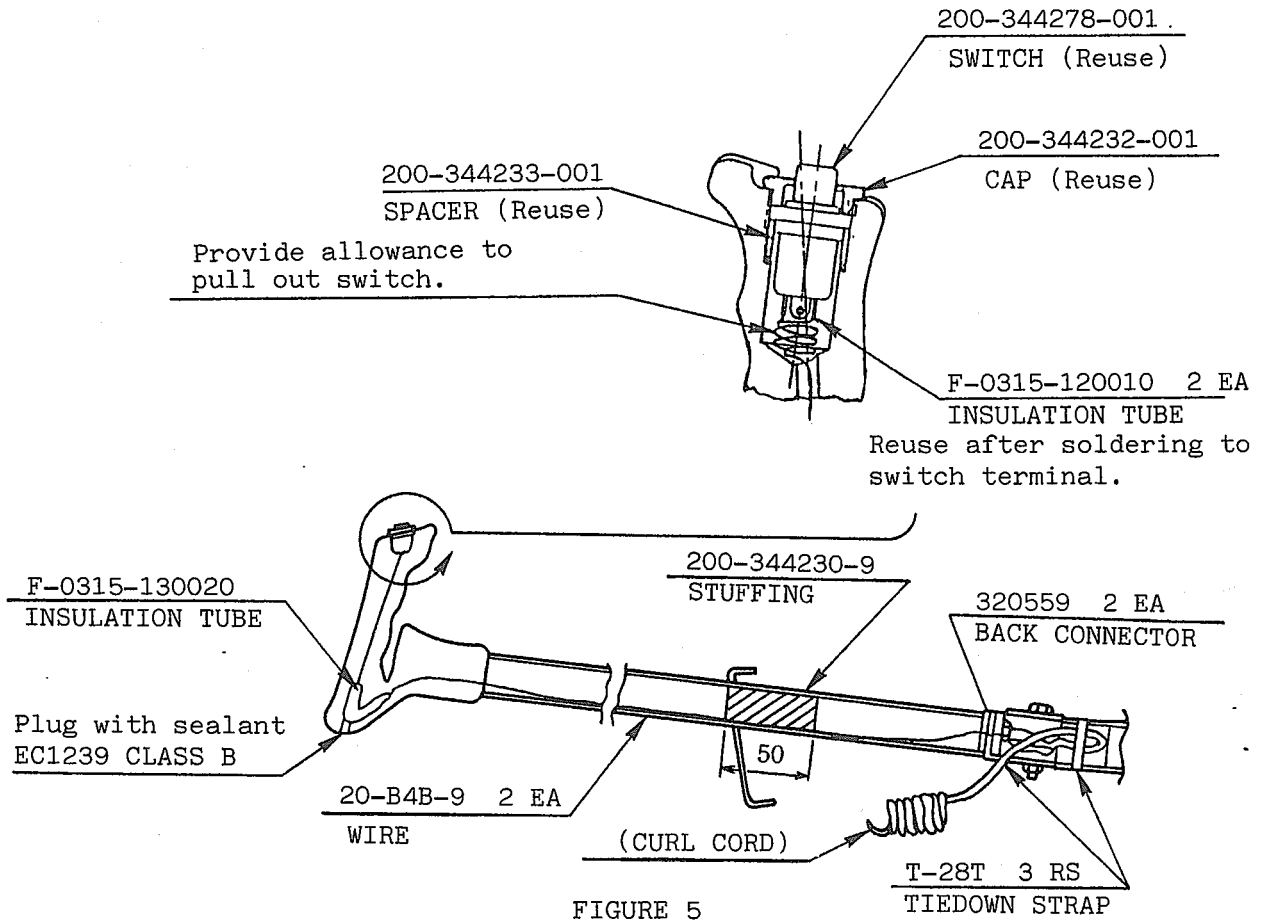


- (5) Remove two wires located inside control column and tube (see figure 3).
- (6) Install two, new wires 20-B4B-9 (slightly longer than the removed wires) through control column and new tube 200-524028-019. Install switch and related parts, in the reverse order of removal, as shown on figure 3.
- (7) Install new tube P/N 200-524028-019 with new spring pins 5ø x 32 (see figure 4).
- (8) Install control column assembly in accordance with Service Manual, Paragraph 8-2-7. Replace nuts NAS679A3W with new nuts at installation.
- (9) Using two butt connectors, connect wires and curl cord removed from tube, and secure with two tiedown straps T-18R (see figure 3).

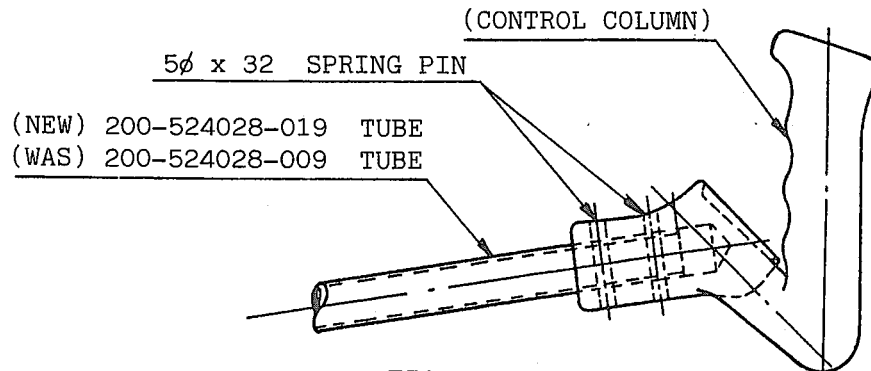
- Parts List -

No.	PART NUMBER	NOMENCLATURE	QTY PER A/C	REMARKS
1	200-524028-019	Tube	2	
2	5ø x 32	Spring Pin	4	
3	NAS679A3W	Nut	2	
4	320559	Butt Connector	4	
5	20-B4B-9	Wire	1.5 m	
6	200-344230-9	Sponge	2	
7	T-18R	Tiedown Strap	4	
8	F-0315-130020	Insulation Tube	2	
9	F-0315-120010	Insulation Tube	4	
10	EC1239 CLASS B	Sealant	AR	

IV. Airplanes Equipped with Control Column Assembly 200-524046-021



- (1) See figure 5. Cut four wires at butt connectors which connect wire and curl cord extending from control column tube.
- (2) Remove the above tiedown straps.
- (3) Remove control column assembly in accordance with Service Manual, Paragraph 8-2-7.
- (4) See figure 6. Remove spring pins  $5\phi \times 32$ , and disconnect tube P/N 200-524028-009 from control column.



- (5) Remove four wires located inside control column and tube (see figure 5).
- (6) Install four, new wires (slightly longer than the removed wires) through control column and new tube P/N 200-524028-019. Install switch and related parts, in the reverse order of removal, as shown on figure 5.
- (7) Install new tube P/N 200-524028-019 with new spring pins 5 $\phi$  x 32 (see figure 6). Replace nuts NAS679A3W with new nuts at installation.
- (8) Using four butt connectors, connect wires and curl cord removed from tube, and secure with two tiedown straps T-18R (see figure 5).

- Parts List -

No.	PART NUMBER	NOMENCLATURE	QTY PER A/C	REMARKS
1	200-524028-019	Tube	2	
2	5 $\phi$ x 32	Spring Pin	4	
3	NAS679A3W	Nut	2	
4	320559	Butt Connector	8	
5	20-B4B-9	Wire	3 m	
6	200-344230-9	Sponge	2	
7	T-18R	Tiedown Strap	4	
8	F-0315-130020	Insulation Tube	2	
9	F-0315-120010	Insulation Tube	8	
10	EC1239 CLASS B	Sealant	AR	



V. Airplanes (S/N 101 and subsequent) Equipped with Control Column Assembly 200-524046-031 (on which ICS switch can be installed)

(1) Installation Procedures : Same as Control Column Assembly 200-524046-001.

(2) Required Parts : Same as Parts List shown on page 8 of 9.

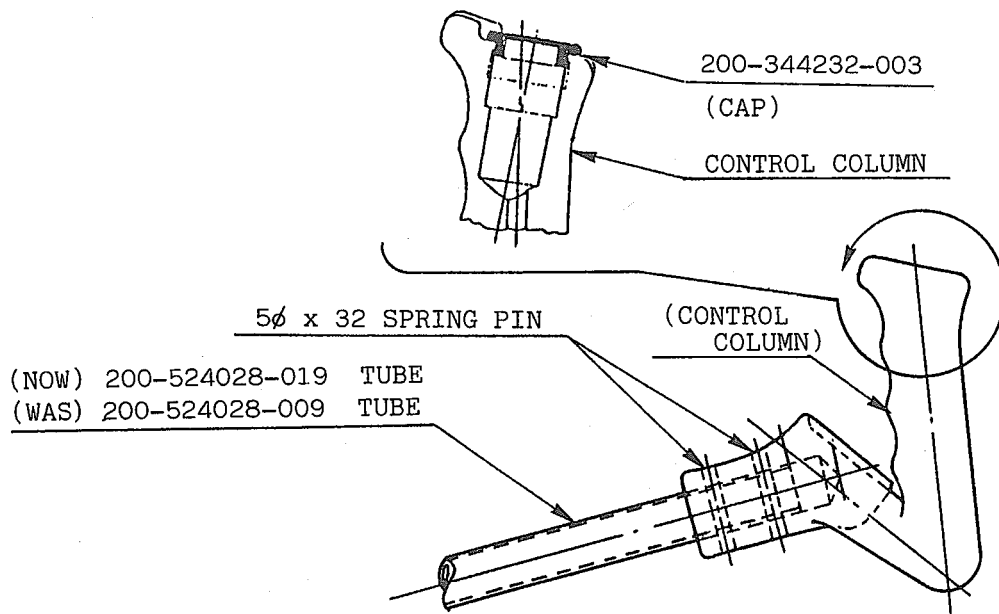


FIGURE 7

13. AIRCRAFT LOG ENTRY :

After compliance of this bulletin, make entry in aircraft log book.