

SERVICE BULLETIN



FUJI HEAVY INDUSTRIES LTD.

JCAB APPROVED

HEAD OFFICE ; SUBARU BLDG.
SHINJUKU, TOKYO, JAPAN

NO. 200-009

DATE May 30, 1989

(SUPERSEDES NO.)

REV.

DATE

(SUPERSEDES NO.)

REASON

1. SUBJECT : Inspection and Repair of Elevator Torque Tube
2. AIRCRAFT AFFECTED : All FA-200 series aircraft S/N 12 and subsequent
3. PRIORITY : Essential.
4. REASON : Since corrosion was found inside the elevator torque tube, the inspection and standard repair procedures for this tube have been established.
5. DESCRIPTION : Drill an inspection hole in the flange of the elevator torque tube and inspect internal surfaces for corrosion. If corrosion is found, remove corrosion and measure wall thickness after cleanup. If measurement is within the specified limits, add zinc chromate primer or equivalent to the internal surfaces of the tube. If measurement is out of the limits, replace the elevator torque tube with like serviceable item.
6. ACCOMPLISHMENT : (1) Inspect tube within twelve (12) months after receipt of this bulletin.
(2) After compliance with the above (1), inspect tube each 1000 hours or each five (5) years, whichever occurs first.
7. APPROVAL : JCAB Approval (No-Tokyo-1-003) May 18, 1989
8. PARTS REQUIRED : The following parts are required to accomplish this bulletin:

No.	P/N	NOMENCLATURE	QTY	REMARKS
1	NAS679A4W	Nut	4	Arm installation
2	MS24665-134	Pin	2	Elevator installation
3	NAS679A06W	Nut	2	Bonding jumper installation
4	Commercial	Glass Cloth	AR	(40x40)x2
5	PROSEAL 890-B2 or EQUIVALENT	Sealant	AR	
6	EPON 828 or EQUIVALENT	Adhesive	AR	

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9. SPECIAL TOOL : Ultrasonic Thickness Gage which meets the following requirements:
- *Measuring range : 0.2 to 10.0 mm
 - *Accuracy : 0.01 mm (can be measured.)
 - *Location of Measurement: 38 mm diameter tube

10. WEIGHT AND BALANCE: Not affected.

11. REFERENCE : Not applicable.

12. DETAILED INSTRUCTIONS:

- (1) Remove elevator in accordance with Service Manual, Paragraph 8-5-1.
- (2) Drill 30mm diameter hole in flange at the inboard end of elevator torque tube. (See figure 1, view C-C.)
- (3) Using a bore scope or mirror, inspect the internal surfaces of elevator torque tube for evidence of corrosion or unusual condition.
- (4) If no corrosion is found on the internal surfaces, proceed with step (10).
- (5) If corrosion is found, remove corrosion using wire brush or rotary brush.

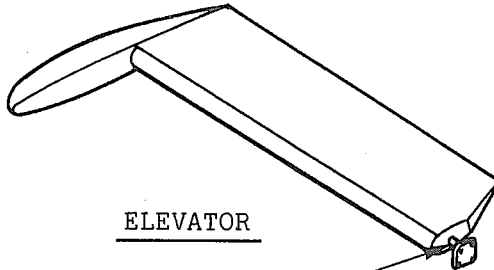
Note

Thoroughly remove corrosion, particularly corrosion at the internal corner of flange. (See figure 1, area (A).)

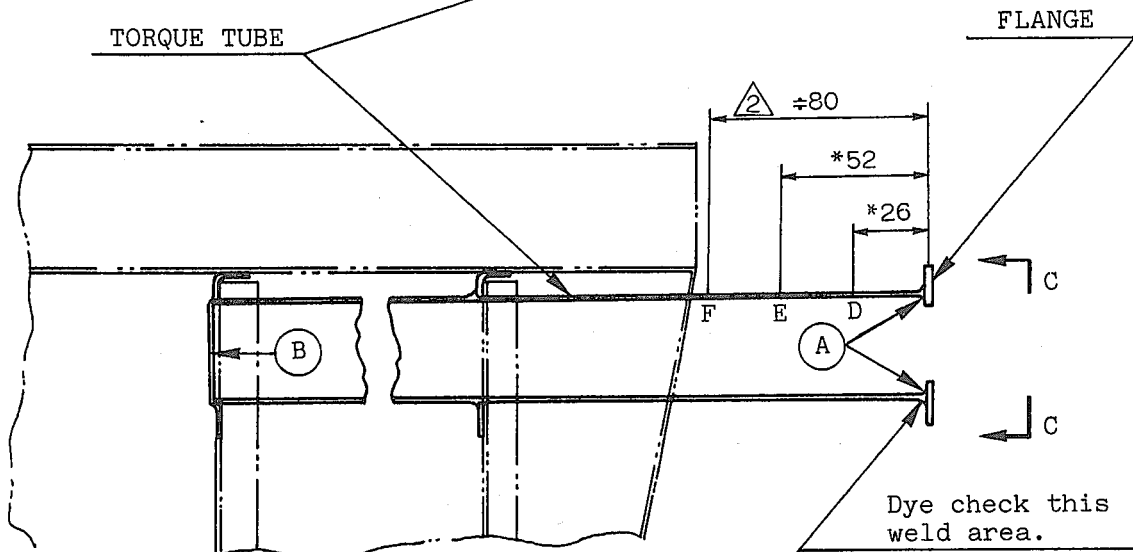
(Measuring points should be at least total 12 points.)

- (6) Using a bore scope or mirror, inspect the internal surfaces to ensure corrosion has been cleaned up.
- (7) After corrosion clean up, measure wall thickness of elevator torque tube using ultrasonic thickness gage as specified in the preceding "9. SPECIAL TOOL" block.
Measure wall thickness in \triangle area of figure 1. Measurements should be taken at diameters D, E, and F with at least four (4) circumferential points equally apart.
- (8) Dye check the weld area, at the inboard end of tube, for crack.
- (9) If any measurement per above step (7) is 0.5mm or less, replace elevator torque tube with like item. If any measurement is more than 0.5mm and inspection per above step (7) reveals no cracks, proceed with the following steps:

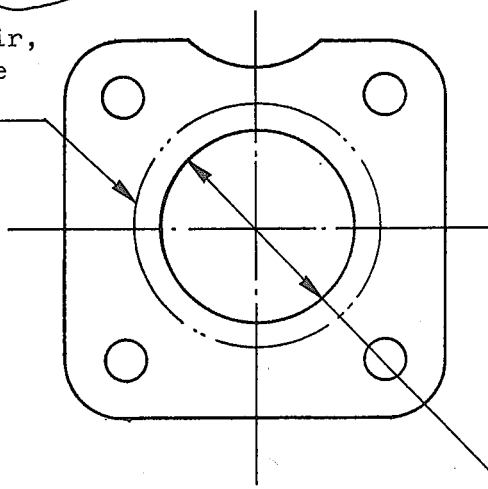
- (10) A small hole is existing in the plate at the outboard end of elevator torque tube. (See figure 1, area (B).) Plug this hole with ProSeal 890 B-2 or equivalent. (Apply sealant to the tip of a long rod, and plug the hole.)
 - (11) Apply zinc chromate primer or equivalent to the internal surface of tube.
 - (12) Cover 30 mm diameter hole, drilled per above step (2), with glass cloth impregnated with EPON 828 or equivalent adhesive.
 - (13) Install elevator in accordance with Service Manual, Paragraph 8-5-2. At installation of elevator, apply PreSeal 890 B-2 or equivalent to the exterior surface of flange, and then attach to the mating arm assembly.
 - (14) The inspection imposed by this bulletin is repetitive and shall be accomplished each 1000 hours or each five (5) years, whichever occurs first.
13. AIRCRAFT LOG ENTRY:
- (1) Replacement of elevator torque tube per above step 12-(9) requires local governing agency's approval.
 - (2) After compliance of this bulletin, make entry in aircraft log book.



ELEVATOR



After inspection and repair,
bond glass cloth to flange
surface.



30mm diameter
inspection hole

VIEW C-C

FIGURE 1