

SERVICE BULLETIN



FUJI HEAVY INDUSTRIES LTD.

JCAB APPROVED

HEAD OFFICE ; SUBARU BLDG.
SHINJUKU, TOKYO, JAPAN

NO. 200-002

DATE April 18, 1977

(SUPERSEDES NO.)

REV. "C"

DATE June 5, 1989

(SUPERSEDES NO. 200-002B)

REASON Change of inspection requirements after compliance of
Technical Bulletin 200-022.

1. SUBJECT : Inspection and modification of rudder pedal operation.
2. AIRCRAFT AFFECTED : All FA-200 series aircraft S/N 12 thru. 297.
3. PRIORITY : Mandatory
4. REASON : To prevent overtravel of rudder pedal and to ensure proper operation of rudder control system, this bulletin specifies inspection and modification if required.
5. DESCRIPTION : (1) Inspection - Rudder Pedal Stop

Check left (foot) and right (foot) rudder pedal stops for clearance within specified hours described in "6, ACCOMPLISHMENT" after receipt of this bulletin. Under properly adjusted condition, stop clearance with full rudder travel should be 5mm(0.2in) or less for left pedal and 2.5mm(0.1in) or less for right pedal. Corrective action per para 12 of this bulletin is required if these limits are exceeded.
- (2) Inspection - Brake Master Cylinder Length (Affected Brake Master Cylinder: P/N 0541138-20)

Brake master cylinder is to be adjusted to length as short as possible within range not interfering with rudder pedal tabs. Dimension between both centers of bolt holes should be 204.5 mm (8.05 in) or less. It is required to shorten rod end if measurement is more than 204.5 mm. Details are described in section 12 of this bulletin. These reworks should be accomplished within specified hours described in section 6 of this bulletin.
- (3) Inspection - Brake Link Over-center Force
Note: This inspection is not required after compliance with Technical Bulletin 200-022.

With rudder pedal stop arm contacting stop tube, brake link bolt is pulled with 20 kg force. The brake link should not be over-

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centered (go beyond dead center).
(See Fig. 3 and para 12 for detailed instructions.)

6. ACCOMPLISHMENT : (1) Within 50 operation hours after receipt of this bulletin, or before next acrobatic flight, whichever occurs first, and each 100 hours thereafter.
(2) After compliance of Technical Bulletin 200-022, the inspection per 5-(2), page 1 of 5, may be accomplished at the time of Technical Bulletin compliance, and each 1000 hours thereafter.
7. APPROVAL : JCAB Approval (No-Tokyo-1-005) May 18, 1989
8. PARTS REQUIRED : Following parts are required to adjust stop clearance:
- | | | | |
|-----|----------------|-------------|-------|
| (1) | 200-524085-001 | COLLAR ASSY | 2 SET |
| (2) | MS24665-35 | COTTER PIN | 5 EA |
| (3) | AN960D1016 | WASHER | 4 EA |
9. SPECIAL TOOL : Not required
10. WEIGHT AND BALLANCE: Negligible
11. REFERENCES : NONE
12. DETAILED INSTRUCTIONS :

Inspection - Rudder Pedal Stop per Para 5-(1)

- (1) Remove the front center of fuselage lower access panel.
- (2) Check rudder system for proper adjustment. This check should be performed with nose gear free from ground or rudder pedal torque tube free from steering rods, whichever convenience. (Refer to Service Manual, para 8-4-3.)
- (3) Operate from the condition (2) and keep rudder pedal until control surface contacts its stop. Then check rudder pedal stop arm for proper clearance. If clearance is 5 mm (0.2 in) or less for left pedal and 2.5 mm (0.1 in) or less for right pedal, no further action is required. Reinstall removed parts.
- (4) Check again rudder pedal and rudder for neutral position if measured stop clearance is more than 5 mm (0.2 in) for left and 2.5 mm (0.1 in) for right. Then adjust as required.
- (5) Remove stop tube and install collar assy as shown in Fig. 2, if the measured stop clearance still exceeds 5 mm (0.2 in) for left and 2.5 mm (0.1 in) for right after step (4) is performed.
Removal of stop tube can be accomplished by removing either one of cotter pins.

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Make thru hole ($\frac{.128}{.125}$ in) as shown in Fig. 2 and apply zinc chromate primer or equivalent corrosion preventive paint to the holes.

- (6) Install stop tube with properly matched collars. Tube and collar should be secured with cotter pin.
- (7) Recheck stop clearance and then reinstall removed parts.

Inspection - Brake Master Cylinder per Para 5-(2)

- (1) Aircraft equipped with brake master cylinder P/N Cessna 0541138-20 or equivalent requires the following special inspection.

(Brake Master Cylinder P/N 200-584160-1 is not affected.)

- (2) Check clevis for proper thread engagement.
- (3) Length between bolt hole centers at both ends should be 204.5 mm (8.05 in) or less in the fully extended position.
If any interference is noted by this adjustment between rudder pedal and clevis rod end, trim the rod end to provide clearance.

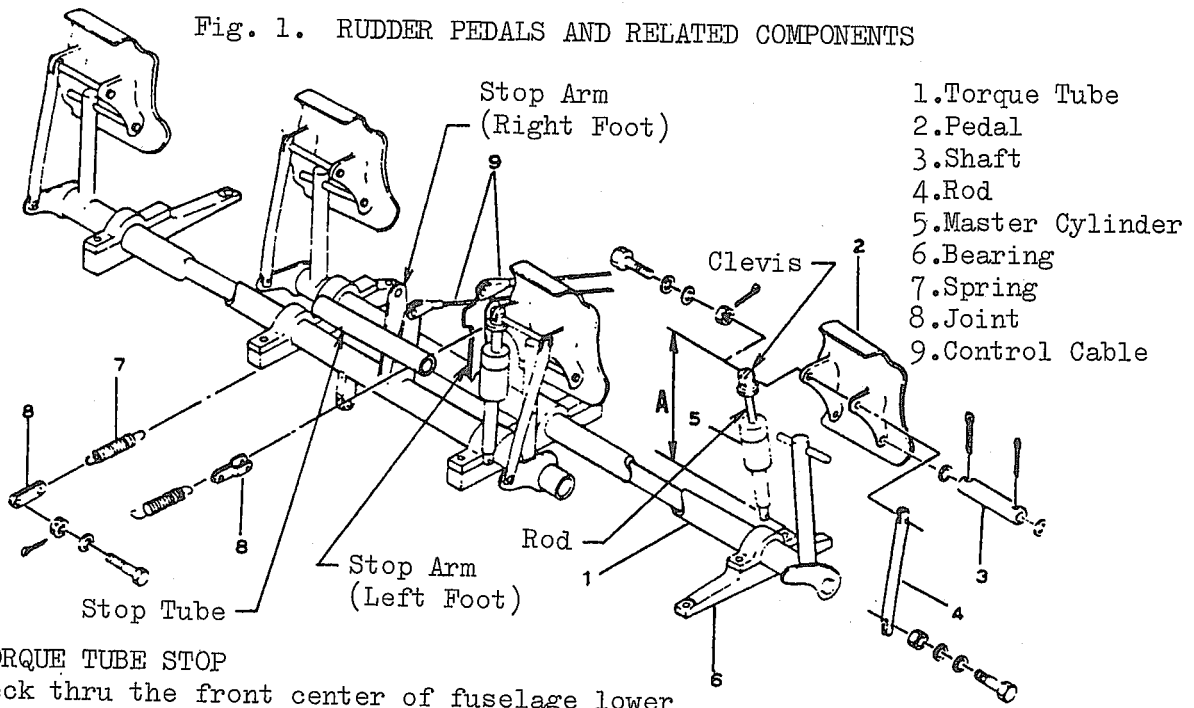
Inspection - Brake Link Over-center Force per Para 5-(3)

Note: This inspection is not required after compliance with Technical Bulletin 200-022.

- (1) Install wire around brake link connecting bolt as shown in Fig. 3.
- (2) For each of left and right rudder pedals, apply full rudder pedal until its stop arm contacts stop tube. In this condition, pull brake link bolt with 20 kg force as shown in Fig. 3. The brake link should not be over-centered (go beyond dead center).
- (3) If the above check reveals over-centering, inspect link detailed parts for wear and other damages. Replace defective part(s) and repeat operational check per above step (2).

Note: Make a logbook entry to indicate completion of inspections.

Fig. 1. RUDDER PEDALS AND RELATED COMPONENTS



DETAIL- TORQUE TUBE STOP

Check thru the front center of fuselage lower access panel

Full length of "A" should be 204.5mm(8.05 in) or less.

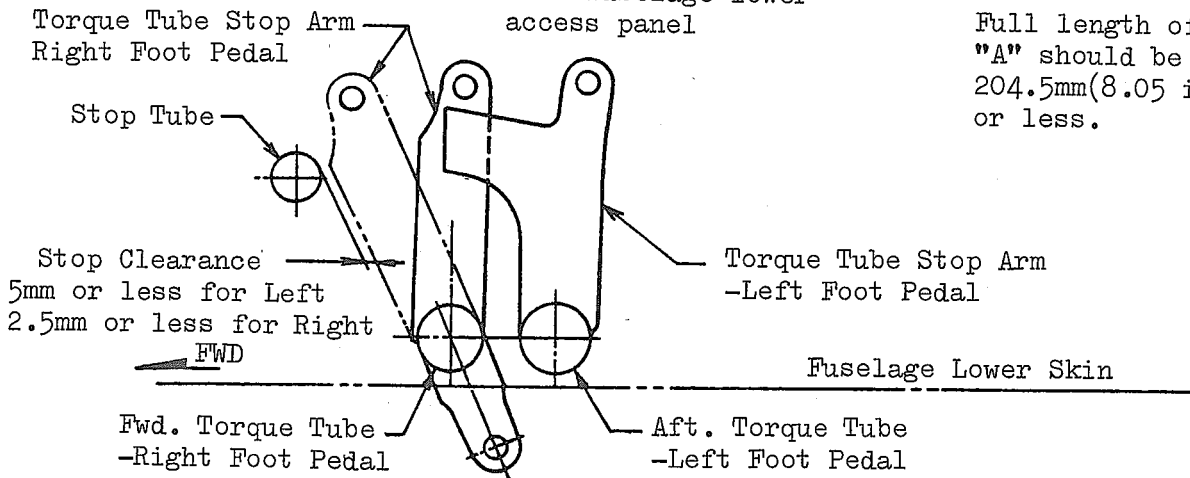
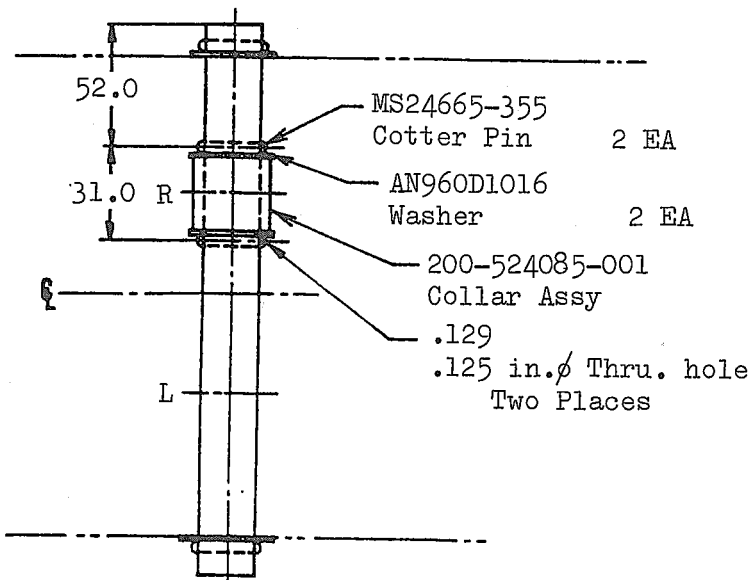


Fig. 2. STOP TUBE MODIFICATION



Left Fig. shows right foot pedal stop collar installation. Left pedal stop collar is installed on opposite side of center line.

Fig. 3. OPERATIONAL CHECK - BRAKE LINK OVER-CENTER FORCE

Note: This inspection is not required after compliance with Technical Bulletin 200-022.

