



SERVICE BULLETIN

FUJI HEAVY INDUSTRIES LTD.

HEAD OFFICE

: SUBARU BLDG,

SHINJUKU, TOKYO, JAPAN

NO : FAS-039

DATE : February 15, 1971

1. SUBJECT : Modification of Engine Mount and Firewall.
2. AIRCRAFT AFFECTED : FA-200 Series Serial Nos. 1 thru 101.
3. PRIORITY : Desirable.
4. REASON : In order to reduce vibration of instrument panel.
5. DESCRIPTION : Engine mount to be replaced and firewall reinforced.
6. ACCOMPLISHMENT : Optional.
7. APPROVAL : This modification will be a minor alteration and therefore subject to the Aircraft Administration rework inspection. Prior to starting this rework, contact Fuji Heavy Industry Ltd for direction and then proceed, since this directive contains structural repair of firewall. JCAB Approved.
8. PARTS REQUIRED : The following parts are required to perform the modification:

PART NO.	PART NAME	QTY
200-412010-611	E/G MOUNT	1
200-430051-047	CLIP	1
200-430051-048	CLIP	1
200-430051-049	SHIM	2

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8. PARTS REQUIRED : (cont.)

PART NO.	PART NAME	QTY
200-430051-051	SHIM	2
200-430051-065	ANGLE	1
200-430051-066	ANGLE	1
200-430051-067	ANGLE	1
AN5-7A	BOLT	3
AN310-5	NUT	6
AN380-3-4	PIN COTTER	4
AN960-516	WASHER	3
AN960-D516	WASHER	6
AN960-516L	WASHER	6
MS24665-134	PIN	6
NAS1305-25D	BOLT	4
NAS1305-28D	BOLT	2
NAS679A5	NUT	3

9. SPECIAL TOOL : None required.

10. WEIGHT AND BALANCE : Negligible.

11. REFERENCE : None.

12. MANHOUR REQUIRED : 60 manhours required.

13. DETAILED INSTRUCTIONS :

- (1) Remove upper and lower cowlings in accordance with Service Manual 4-3-1.
- (2) Remove engine with engine mount in accordance with the manual 4-5.
- (3) Separate engine from engine mount in accordance with the manual 4-11-1.

- (4) Remove wires and tubes left on firewall rework area to the extent required to accomplish the modification.
- (5) Remove instrument panel in accordance with the manual 11-2-1.
- (6) Remove radio rack cover, and remove radio equipment. Refer to the applicable paragraphs of the manual for removal instruction as follows:
 - Paragraphs 12-2-4,-7,-10 and -13 for VHF
 - Paragraphs 14-3-4, -7 and -10 for VOR
 - Paragraphs 14-4-4, -7 and -10 for ADF
- (7) Remove wires, tubes, and cables from reworked area on aft face of firewall. Refer to the manual 9-16-1 for parking, engine operational equipment removal.
- (8) Remove control wheel from control stick in accordance with the manual 8-2-7(1).
- (9) Remove defrosting duct and branch assy. (Refer to the manual, figure 12-1.)
- (10) Remove emergency signal light (refer to paragraph 12-3-4) first aid box (paragraph 12-3-2), and hand fire extinguisher (paragraph 13-3-3).
- (11) Remove forward left and right seats in accordance with the manual 7-7-11.
- (12) Remove left and right upholstery panels per paragraph 12-4-1 of the manual.
- (13) Remove heat-insulating material from firewall reworked area.
- (14) Attaching portions of support, 200-430051, -019, -020 and -021, which are installed on firewall at WL 2000, will be reworked as follows: See Fig. 1. Firewall Modification.
 - (a) Remove two attaching rivets and remove bracket supporting control cable for cabin heater.
 - (b) Remove 14 attaching rivets and remove bracket for emergency signal light installation.
 - (c) Remove four attaching rivets and remove bracket supporting parking control cable.

- (d) Remove four attaching rivets from the first row of upper rivet location of doubler for attaching cabin heater control valve.
- (e) Remove attaching hardware and remove stiffeners, 200-43051-019, -020, and -021 from firewall web as shown in Fig. 2. Removed stiffeners to be scrapped.
- (f) Remove rivets attaching together 200-430051-015 and -017, -016 and -018. The first row of rivets of -017 and -018 to be removed.
- (g) Rework stiffeners, 200-430051-015, -016, -017 and -018, to the dimensions as indicated in Fig. 1. Firewall Modification.
- (h) Position angles, 200-430051-65 and -66, in place of the stiffeners removed in step (e).
- (i) Position shims, 200-430051-051, for attaching engine mount. Insert shims between angles and firewall web as shown in Fig. 1.
- (j) Insert shims, 200-430051-049, between firewall web and reworked stiffeners, 200-430051-015 and -016.
- (k) Using angle, 200-430051-067, splice angles, 200-430051-065 and -066 at the center of firewall, and secure with rivets as shown in Fig. 1. and view A-A.
- (l) Using existing rivet holes as guide, drill #22 holes through angles 200-430051-066, -067 and firewall web, and secure with rivets, MS20470AD5. Also install bracket removed in step (c) at this time. One size larger rivet may be used as necessary, except for noted.
- (m) Secure stiffeners, 200-430051-015, -016, -017 and -018 with rivets, using existing rivet holes.
- (n) Install clips, 200-430051-047, -048 on stiffeners, 200-430051-017, -018 and on angles, 200-430051-065, -066 as shown in Fig. 1, view B-B.
- (o) Install emergency signal light bracket, as removed in step (b), on stiffener and firewall web, using existing rivet holes.
- (p) Install control cable bracket removed in step (a).
- (q) Install rivets securing doubler removed in step (d).

- (r) Existing three holes (upper) for engine mount are no longer required. Plug these obsolete holes with bolts, AN5-7A, nuts, NAS679A5, and washers, AN960-516.
- (15) Remove baffle assemblies, 200-914105-003, 200-914106-005, shown in Fig. 4. (Refer to the manual 4-10-1)
- (16) Rework above baffle assemblies as illustrated in fig. 5 and fig. 6.
- (17) Install reworked baffle assemblies. (Refer to the manual 4-10-2)
- (18) Install engine on new, improved engine mount, 200-412010-601. (Refer to the manual 4-11-2.)
- (19) Install parts that have been removed in steps (4) thru (13). For installation instruction, refer to applicable sections of the manual.
- (20) Install engine mount with engine as shown in fig. 3. (Refer to the manual 4-8.)
- (21) Install upper and lower couplings. (Refer to the manual 4-3-2.)

200-412010-611 E/G MOUNT

NAS1305-28D BOLT 2 REQD
 AN310-5 NUT 2 REQD
 AN960-516L WASHER 2 REQD BOLT HEADSIDE
 AN960D516 WASHER 2 REQD NUT SIDE
 MS24665-134 COTTER PIN 2 REQD

NAS1305-25D BOLT 4 REQD
 AN310-5 NUT 4 REQD
 AN960-516L WASHER 4 REQD BOLT HEAD SIDE
 AN960D516 WASHER 4 REQD NUT SIDE
 MS24665-134 COTTER PIN 4 REQD

FIG. 3. INSTALLATION OF ENGINE MOUNT

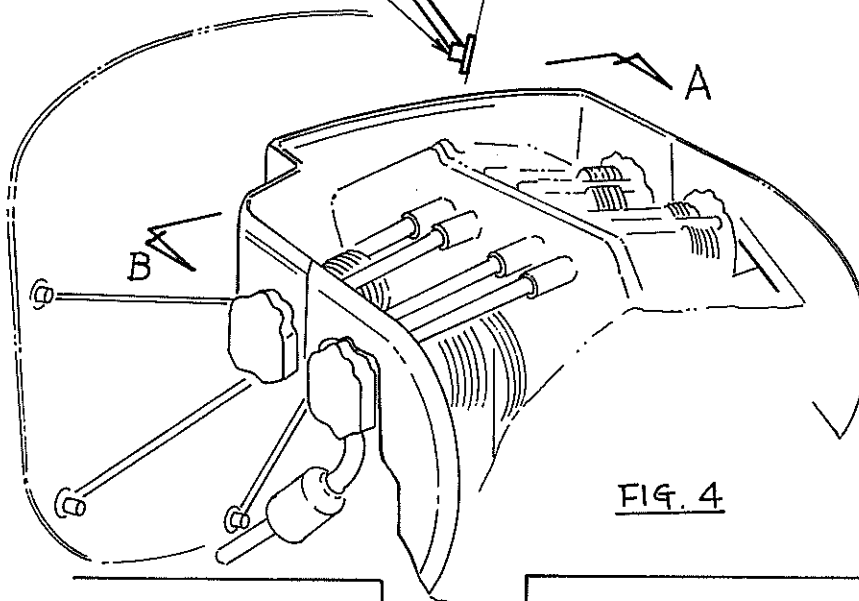


FIG. 4

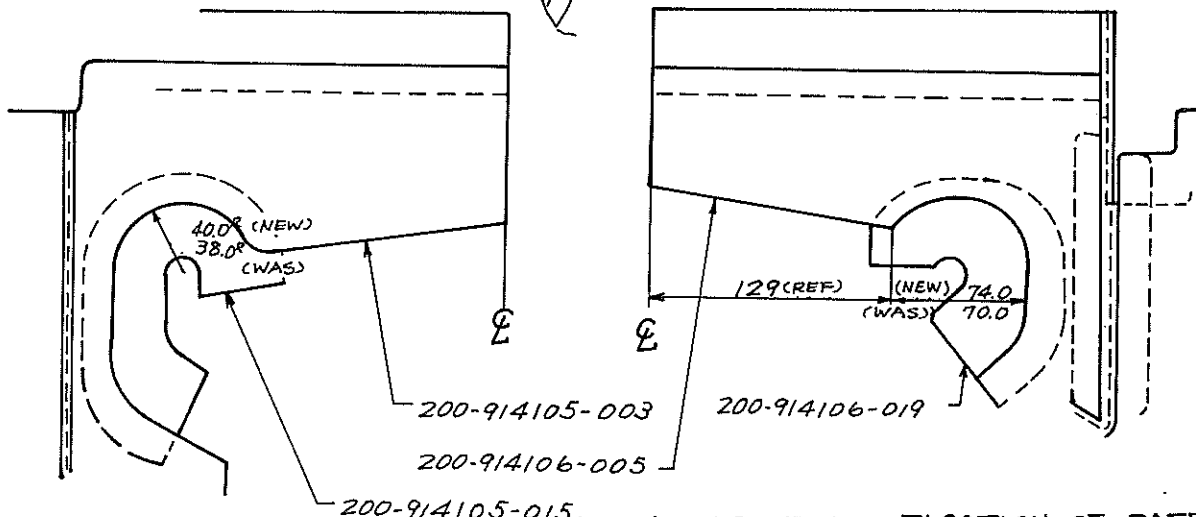


FIG. 6 VIEW B MODIFICATION OF BAFFLE
 CHANGE MEASURE OF BAFFLE 005 AND SEAL 019.

FIG. 5 VIEW A MODIFICATION OF BAFFLE
 CHANGE MEASURE OF BAFFLE-003 AND SEAL 015