

SERVICE BULLETIN



FUJI HEAVY INDUSTRIES LTD.

JCAB APPROVED

HEAD OFFICE ; SUBARU BLDG.
SHINJUKU, TOKYO, JAPAN

NO. 200-013 DATE September, 28, 1999. (SUPERSEDES NO.)
REV. DATE (SUPERSEDES NO.)
REASON

1. SUBJECT : Corrosion Inspection and Repair Procedures for Inside Surface of Landing Gear Cylinder Assemblies

2. AIRCRAFT AFFECTED : All FA-200 series aircraft

3. PRIORITY : Essential

4. REASON : Since there have been instances reported whereby corrosion occurred on the inside surface of landing gear cylinder assemblies, this bulletin is issued to establish inspection and repair procedures for the inside area.

5. DESCRIPTION : Disassemble each landing gear into cylinder and piston, and, by removing oil pad from the inside of cylinder, inspect for presence of corrosion. If any corrosion is found, measure wall thickness after cleanup of corrosion. Reassemble cylinder if measurement is equal to or above the specified limits (minimum thickness) in Table 1. (If primer is applied during assembly, subsequent inspection is not required. If primer is not applied, this inspection shall be repeated every 1000 flight hours.) If measurement is less than the specified limits (minimum thickness) and any crack(s) is found, replace affected cylinder with serviceable part.

6. ACCOMPLISHMENT : (1) Within one (1) year after receipt of this Service Bulletin.

(2) Every 100 hours inspection, in the interim period (until accomplishment of this bulletin), visually inspect exterior surface (Table 1, Areas A through C) of cylinder assembly for any cracks, using 5X to 10X magnifying glass.

7. APPROVAL : JCAB Approval (No -Tokyo -11 -001) September 28, 1999

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SERVICE BULLETIN 200-013

PAGE 1 OF 5

8. PARTS REQUIRED : The following parts will be required to comply with this bulletin.

No	P/N	NOMENCLATURE	QTY/ AIRCRAFT	REMARKS
1	200-812000-5	PAD	2	For main L/G
2	200-822100-007	PAD	1	For nose L/G
3	MS24665-134	PIN, COTTER	5	
4	MS24665-283	PIN, COTTER	1	
5	MS24665-355	PIN, COTTER	4	
6	AN6230-1	"O"RING	1	
7	AN6230-2	"O"RING	3	
8	AN6230-5	"O"RING	2	
9	AN6227B6	"O"RING	3	
10	MS20995C32	LOCK WIRE	AR	
11	MIL-H-5606	HYD FLUID	AR	Apply to inside of cylinder
12	MIL-G-25760	GREASE	AR	
13	MIL-G-23827	GREASE	AR	
14	MIL-P-23377	PRIMER	AR	

9. SPECIAL TOOL : None required.

10. WEIGHT AND BALANCE : Not affected.

11. REFERENCE : Service Manual.

12. DETAILED INSTRUCTIONS:

12-1 Inspection of Left and Right Main Landing Gears

- (1) Remove left and right main landing gears. (Refer to paragraph 9-3-1 of Service Manual.)
- (2) Disassemble main gear shock strut. (Refer to paragraph 9-3-10 of Service Manual.)
- (3) Using bore scope, inspection mirror, etc., inspect the inside surface for corrosion.
- (4) If no corrosion is found, proceed with step (9) and subsequent.

- (5) If any corrosion is found, polish out corrosion completely with hand grinder, file, or wire brush. If corrosion pits exist, blend and polish to remove corrosion pits.
- (6) Using bore scope, inspection mirror, etc., inspect the inside surface is free from corrosion.
- (7) After cleanup of corrosion, measure wall thickness of the cylinder with micrometer (P/N PMUS150-25 manufactured by Mitsutoyo or equivalent).
- (8) If measured wall thickness, after cleanup of corrosion, is less than the limits listed in Table 1, replace the cylinder assy with serviceable part. If measured wall thickness is equal to or above the limits, treat as follows:
- (9) Degrease the inside surface of cylinder, and apply epoxy polyamide primer, MIL-P-23377, to the portion where oil pad is installed.
- (10) After drying of epoxy polyamide primer, install new oil pad (P/N200-812000-5) wetted with hydraulic fluid MIL-H-5606.
- (11) Assemble main gear shock strut. (Refer to paragraph 9-3-11 of Service Manual.)
- (12) Install left and right main landing gears. (Refer to paragraph 9-3-2 of Service Manual.)

12-2 Inspection of Nose Landing Gear

- (1) Remove nose landing gears. (Refer to paragraph 9-4-1 of Service Manual.)
- (2) Disassemble main gear shock strut. (Refer to paragraph 9-4-8 of Service Manual.)
- (3) Using bore scope, inspection mirror, etc., inspect the inside surface for corrosion.
- (4) If no corrosion is found, proceed with step (9) and subsequent.

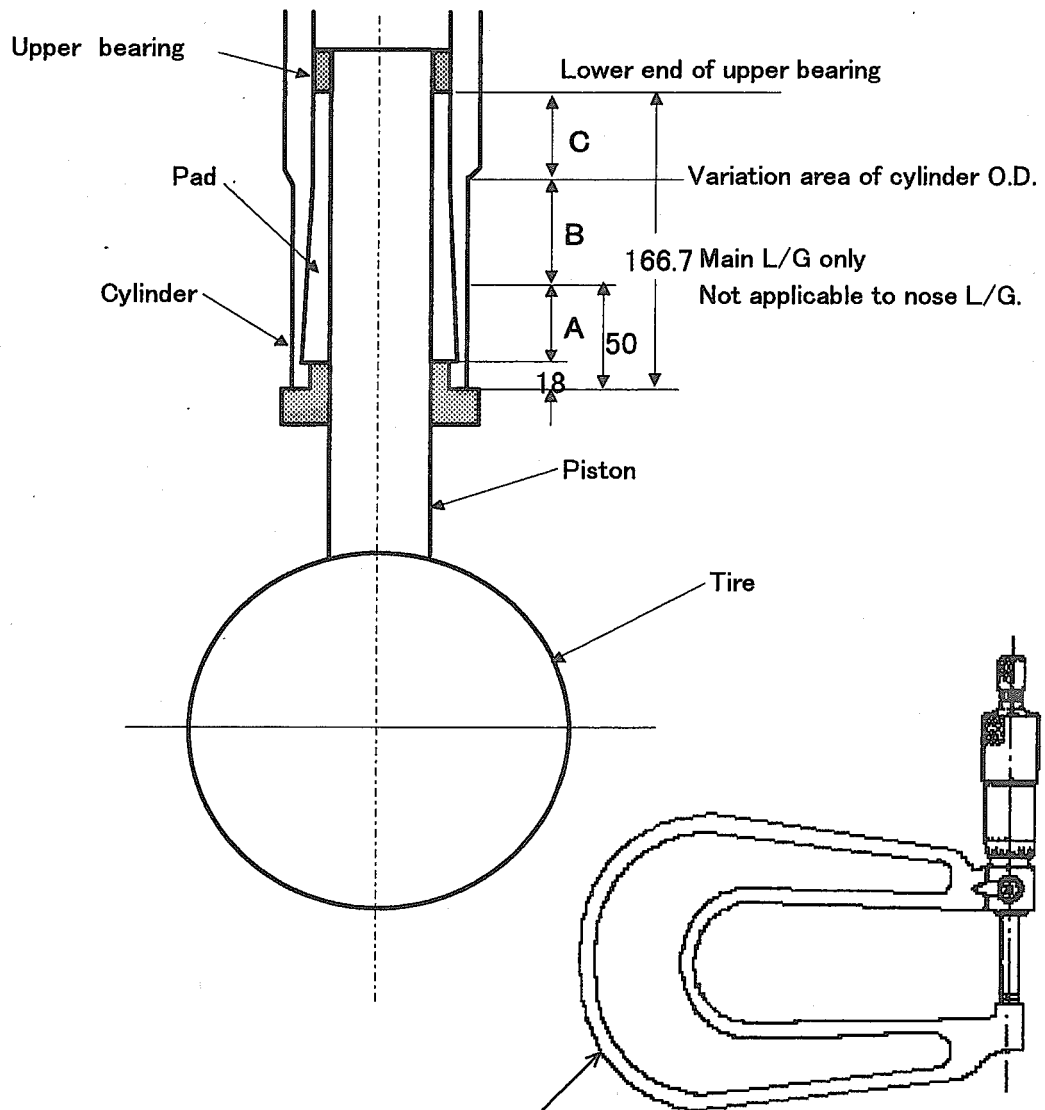
- (5) If any corrosion is found, polish out corrosion completely with hand grinder, file, or wire brush. If corrosion pits exist, blend and polish to remove corrosion pits.
- (6) Using bore scope, inspection mirror, etc., inspect the inside surface is free from corrosion.
- (7) After cleanup of corrosion, measure wall thickness of the cylinder with micrometer (P/N PMUS150-25 manufactured by Mitsutoyo or equivalent).
- (8) If measured wall thickness, after cleanup of corrosion, is less than the limits listed in Table 1, replace the cylinder assy with serviceable part. If measured wall thickness is equal to or above the limits, treat as follows:
- (9) Degrease the inside surface of cylinder, and apply epoxy polyamide primer, MIL-P-23377, to the portion where oil pad is installed.
- (10) After drying of epoxy polyamide primer, install new oil pad (P/N200-822100-007) wetted with hydraulic fluid MIL-H-5606.
- (11) Assemble nose gear shock strut. (Refer to paragraph 9-4-9 of Service Manual.)
- (12) Install nose landing gears. (Refer to paragraph 9-4-1 of Service Manual.)

13 Other:

Inspection and/or repair, after completion, shall be confirmed by qualified mechanic. Appropriate entry shall be made in aircraft log book to reflect compliance with this bulletin.

Table-1 Minimum wall thickness (unit:mm) after corrosion cleanup

	Area A	Area B	Area C
Main L/G	2.0	2.0 (lower) to 2.35 (upper) linear variation	2.95
Nose L/G	1.1	1.1 (lower) to 1.6 (upper) liner variation	N/A



An example of wall thickness measuring device
 PMUS 150-25 micrometer
 made by Mitsutoyo.