



SERVICE INFORMATION LETTER

SERVICE INFORMATION LETTER (SIL) NO. 0193
Revision 1

DATE: May 9, 2023

1. SUBJECT: Tail Rotor Gearbox, Oil Level Check and Servicing
2. MODEL: F-28A, 280, F-28C, F-28C-2, F-28C-2R, 280C, F-28F, F-28F-R, 280F, and 280FX
3. EFFECTIVITY: All Serial Numbers
4. BACKGROUND:

This Service Information Letter (SIL) provides updated tail rotor gearbox oil level check and servicing procedures. This SIL also clarifies the tail rotor gearbox system oil capacity, minimum and maximum tail rotor gearbox oil level requirements, and tail rotor gearbox oil level checking and servicing intervals.

“Servicing”, as used in this SIL, means “topping off” or filling the gearbox to capacity.

Revision 1 corrected a typo in the footer of page 1.

5. COMPLIANCE:
 - A. During routine maintenance checks and preflight inspections, check the tail rotor gearbox oil level in accordance with Paragraph 6.
 - B. Service the tail rotor gearbox in accordance with Paragraph 7 under the following conditions:
 - (1) Low oil level as indicated by a check of the sight glass.
 - (2) Any time the helicopter is undergoing scheduled or unscheduled maintenance.
 - C. Drain and service the tail rotor gearbox in accordance with Paragraph 7 under the following conditions:
 - (1) 100 hour/annual inspection.

NOTE: Perform a 100 Hour/Annual Inspection, as a minimum, to meet the requirements for an Annual Inspection as required by 14 CFR Part 91. Check with applicable certifying authorities for the region of operation for additional scheduled or special scheduled inspection requirements.

- (2) The tail rotor gearbox has been flushed. (Reference F-28F and 280F Series Maintenance Manual Paragraph (Para. 4-16.1); this procedure is applicable to all models.)
- (3) The helicopter has been in storage for 6 months or longer. (Reference F-28F and 280F Series Maintenance Manual Paragraph (Para. 4-81, (4)); this procedure is applicable to all models.)

D. Refer to Paragraph 8 for authorized parts and consumables referenced in this SIL.

E. Information provided in this SIL supersedes the tail rotor gearbox servicing procedures presently published in the F-28A/F-28C, 280/280C, and F-28F/280F Series Maintenance Manual (MM) publications.

6. CHECK – Tail Rotor Gearbox Oil Level

NOTE: If the helicopter is undergoing scheduled or unscheduled maintenance, proceed to Paragraph 7 to service the gearbox.

NOTE: The tailcone of the helicopter should be approximately level when servicing the tail rotor gearbox.

A. Check oil level by using the sight glass located in the aft side of the tail rotor gearbox.

NOTE: The sight glass should be transparent and free of any bubbles for the oil level check.

(1) If the sight glass is dirty, opaque, or cloudy:

- (a) Drain the oil from the gearbox.
- (b) Remove and clean the sight glass.
- (c) Reinstall the sight glass (torque 60 in-lb/6.8 Nm).
- (d) Proceed to Paragraph 7 to service the gearbox.

(2) If bubbles are present in the sight glass, raise and lower the tail to change the attitude of the helicopter to clear any bubbles from the sight glass.

(3) The minimum required oil level is when the oil fills half the sight glass.

- (a) If the oil level fills half or more than half of the sight glass, the gearbox is adequately filled for operation.
- (b) If the oil level fills less than half of the sight glass, proceed to Paragraph 7 to service the gearbox.

7. SERVICING – Tail Rotor Gearbox Oil Level

NOTE: The tailcone of the helicopter should be approximately level when servicing the tail rotor gearbox.

NOTE: The capacity of the tail rotor gearbox is 5 US fl oz (0.15 L). It may require less than 5 US fl oz (0.15 L) to service the gearbox because the oil might not drain completely. A small amount of residual oil remaining in the gearbox is not a cause for concern.

A. Remove the filler port located directly above sight glass.

B. Add oil until the oil begins to flow from the filler port.

NOTE: The sight glass should be free of any air bubbles.

C. Install a new O-ring.

D. Install the filler plug (torque 20 in-lb/2.3 Nm).

E. Lockwire (.032) the filler plug to the magnetic plug/chip detector and the sight glass.

8. PARTS: Consumables

Part Number	Description	Quantity (per servicing period)
MIL-PRF-2105, SAE-J2360, or API GL-5	Transmission Oil	Up to 5 US fl oz (0.15 L)
P/N MS28778-2	O-ring	1
MS20995C32	Safety Wire	As required

9. SPECIAL TOOLS OR EQUIPMENT: None

10. MAN-HOURS: N/A

11. WARRANTY: Per Enstrom policy

12. WEIGHT CHANGE: N/A

13. LOG BOOK ENTRY: As required for maintenance actions

14. REPETITIVE INSPECTIONS: Review Paragraph 5.