



# SERVICE DIRECTIVE BULLETIN

SERVICE DIRECTIVE BULLETIN NO. 0119

Revision 3

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**NOTE:** Revision 3 changed the Repetitive Action inspection from 300 hours to 500 hours. Revision 2 changed the time-in-service limit for inspection of the main rotor spindles from 3,500 hours to 1,500 hours.

DATE:            June 24, 2016

1.    SUBJECT:    Main Rotor Spindle, P/N 28-14282-11 and P/N 28-14282-13
2.    MODEL:       F-28A, F-28C, F-28F, 280, 280C, 280F, and 280FX
3.    EFFECTIVITY:   All S/N
4.    BACKGROUND:

Preliminary results of an accident investigation indicate a main rotor spindle, P/N 28-14282-13, separated, resulting in the loss of one of the main rotor blades. The separation resulted from a fatigue crack at the last thread of the spindle retention nut threads. While the investigation could not determine when the crack initiated, it was able to determine that the crack existed, undetected, for a significant amount of time before the separation. Records indicate that the spindle had been in service approximately 9,300 hours. Separation of the spindle will cause the loss of a main rotor blade, which will result in the loss of the aircraft.

This Service Directive Bulletin (SDB) requires a magnetic particle inspection for main rotor spindles, P/N 28-14282-11 and 28-14282-13, that have been in service more than 1,500 hours.

5.    COMPLIANCE:

Within the next 5 hours time-in-service, for any main rotor spindle, P/N 28-14282-11 or 28-14282-13, with 1,500 hours or more time-in-service, remove the spindle and send it to Enstrom Helicopter Corporation for magnetic particle inspection.

For any main rotor spindle, P/N 28-14282-11 or 28-14282-13, with less than 1,500 hours time-in-service, remove the spindle and send it to Enstrom Helicopter Corporation for magnetic particle inspection at or before reaching 1,500 hours time-in-service.

## 6. PROCEDURE:

**NOTE**

**Perform all maintenance in accordance with the applicable F-28/280/A/C or F-28F/280F Series Maintenance Manual (MM).**

- 6.1 Review the aircraft maintenance records to determine the time-in-service for the main rotor spindles. If spindle time-in-service cannot be determined from the aircraft maintenance records, use the aircraft total operating time for the spindle time-in-service hours.
- 6.2 If the spindle time-in-service equals or exceeds 1,500 hours, remove the spindle and send to Enstrom Helicopter for magnetic particle inspection.

**NOTE**

**If for any reason the spindle is inspected at a facility other than Enstrom Helicopter, report the results to Enstrom. This should include the spindle part number, serial number, time in service, and the results of the inspection.**

- 6.2.1 Spindle shipment identification: Attach a tag to the spindle with the following information:

Attn: **Enstrom Product Support (Reference SDB 0119)**

Aircraft S/N \_\_\_\_\_ Aircraft Total Time \_\_\_\_\_

Spindle P/N \_\_\_\_\_ Spindle S/N \_\_\_\_\_

Hours Time-in-Service \_\_\_\_\_

Owner \_\_\_\_\_

Point of Contact \_\_\_\_\_

Address \_\_\_\_\_

Phone \_\_\_\_\_

Email \_\_\_\_\_

- 6.2.2 Individually wrap the spindle and ensure the spindle is secure in the packaging media.

- 6.2.3 Send the spindle shipment to:

**ENSTROM HELICOPTER CORPORATION**  
**Attn: Product Support (Ref. SDB 0119)**  
 2209 22<sup>nd</sup> Street  
 Menominee, MI 49858

- 6.2.4 Contact Product Support prior to shipment of the spindle.

Phone: 906-863-1200

Email: [customerservice@enstromhelicopter.com](mailto:customerservice@enstromhelicopter.com)

June 24, 2016

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7. PARTS: N/A
8. SPECIAL TOOLS: N/A
9. MAN-HOURS: 14 hours (spindle removal and reinstallation)
10. WARRANTY: Per Enstrom Warranty Policy
11. WEIGHT CHANGE: None
12. LOG BOOK ENTRY: Record spindle time-in-service at the point at which the spindle is removed for magnetic particle inspection at Enstrom Helicopter.
13. REPETITIVE ACTION: Repeat the instructions of this SDB every 500 hours for spindles with over 1,500 hours time-in-service.