



SERVICE DIRECTIVE BULLETIN

SERVICE DIRECTIVE BULLETIN NO. 0109

Revision 1

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DATE: October 27, 2010

1. SUBJECT: Idler Yoke Inspection, P/N 28-13299-1
2. MODEL: F-28A, 280, F-28C, 280C, F-28F, 280F, and 280FX
3. EFFECTIVITY: Aircraft built after May 2006.
Aircraft that had a P/N 28-13299-1 Idler Yoke installed after May 2006.
Any P/N 28-13299-1 Idler Yoke in stock.

4. BACKGROUND:

Enstrom has received reports of two 28-13299-1 idler yokes cracking in the field. The 28-13299-1 idler yoke is part of the belt engagement mechanism, which holds idler pulley tension against the drive belt. Failure of the yoke would result in loss of drive to the rotor system requiring immediate autorotation and resulting in a probable engine overspeed. These cracks are confined to a single, suspect lot of castings that were made in 2006.

This Service Directive Bulletin (SDB) requires a one time inspection of the 28-13299-1 idler yoke to identify if it is part of the suspect lot and repetitive inspections or replacement of affected idler yokes.

This Service Directive Bulletin offers a replacement idler yoke, P/N 28-13299-3, which is a machined part rather than a casting. Installation of the new, airworthy idler yoke, P/N 28-13299-3, cancels the requirements of this SDB.

5. COMPLIANCE:

Aircraft having P/N 28-13299-1 idler yoke must proceed to step 5.1. No further action is required for aircraft equipped with P/N 28-13299-3 idler yoke.

5.1 SERIAL NUMBER IDENTIFICATION:

- A. Within five hours, locate the idler yoke serial number (S/N) engraved on the casting. Refer to Figure 1 for locating the serial number.

- B. If the S/N is within the range 14-001-06 to 14-077-06, the idler yoke must be inspected. Proceed to step 5.2.

Note: The serial number format will be 14-##-06 or 14-###-06.

- C. If the S/N is not in this range, no inspection is required. Note that the serial number format has changed over the years and older serial numbers may not be in the ##-###-## format (these are not affected).

5.2 INSPECTION

- A. Within the next 5 hours time in service, inspect the idler yoke for cracks (reference Figure 1 and Figure 2) using dye penetrant method. Follow the dye penetrant manufacturer's instructions.

1. A heavy, solid line bleed-back indicates a crack. Reject the idler yoke and replace with an airworthy idler yoke, P/N 28-13299-3.

2. Some porosity is normal for this casting. For any bleed-back indications greater than 2% of the treated area, contact Enstrom Customer Service.

Note: Enstrom Customer Service will probably ask to see a photograph.

3. If no bleed-back indications are present, the inspection is satisfactory. Thoroughly clean the idler yoke per the penetrant kit instructions.

4. Contact Enstrom Customer Service with the inspection results, the idler yoke serial number, the idler yoke service hours, the aircraft serial number and the aircraft hours.

7. SPECIAL TOOLS:

Met-L-Chek® Dye Penetrant Kit, or Magnaflux Spotcheck® Kit, or equivalent.

8. MAN-HOURS:

Inspection – 45 minutes

9. WARRANTY: Per Enstrom New Helicopter Warranty policy

10. WEIGHT CHANGE: None

11. LOG BOOK ENTRY: Enter compliance with this SDB in the aircraft maintenance records.

12. REPETITIVE ACTION

Repeat the inspection procedure of paragraph 5.2 every 50 hours.

Note: Installation of an airworthy idler yoke with a serial number not included in paragraph 5.1 or P/N 28-13299-3 terminates the repetitive action requirements of this SDB.

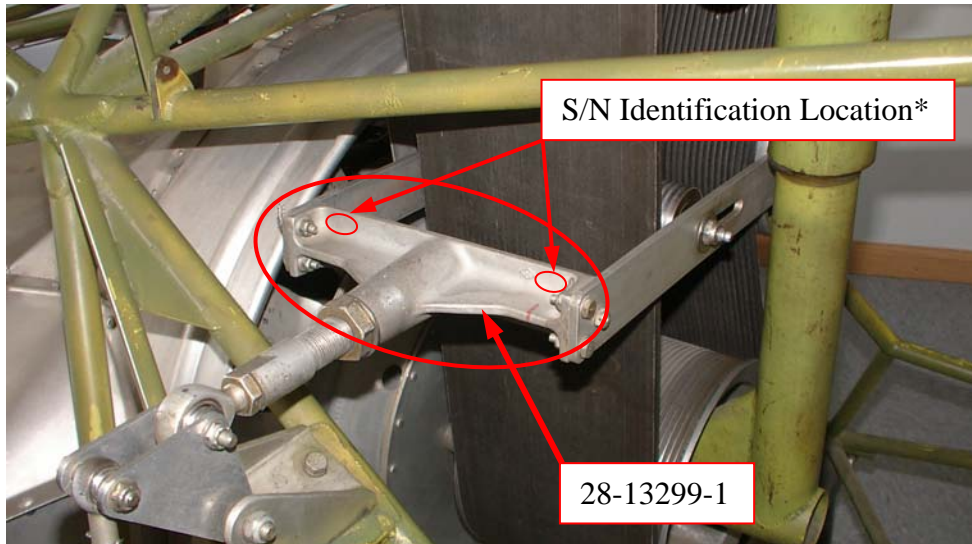


Figure 1 – Idler Yoke, P/N 28-13299-1

* S/N identification will be located in one of the four corners.

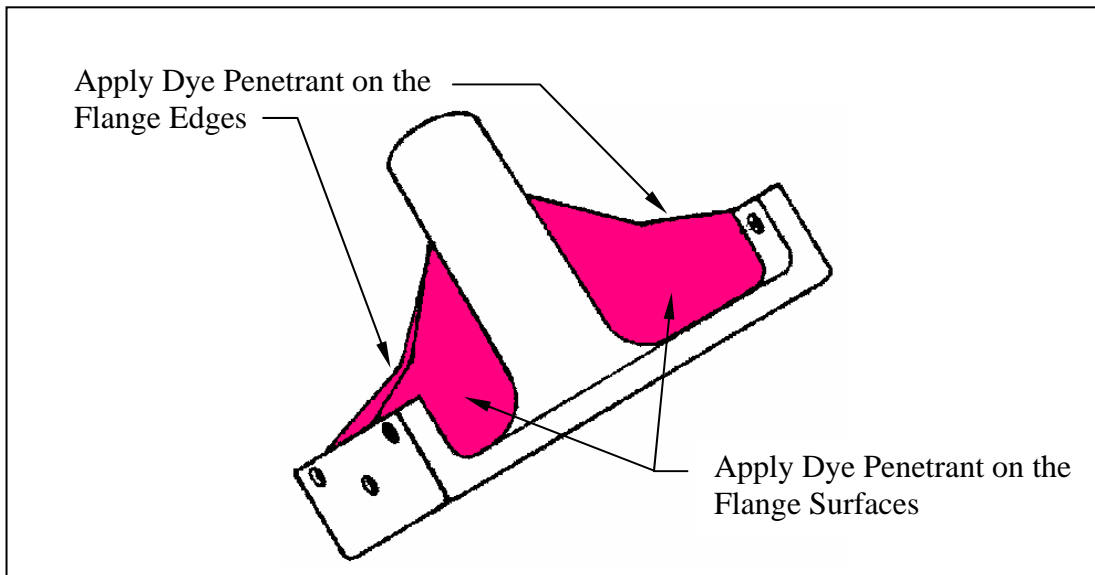


Figure 2 – Idler Yoke Dye Penetrant Inspection Areas