

## LUFTVÄRDIGHETSDIREKTIV (LVD)

Helikopter Enstrom LVD Nr 2503

Sektion 2. Utlandstillverkad flygmateriel

TITEL:

Kontroll / byte av huvudrotoraxel

**GÄLLER:** 

Modell F-28A, F-28C, F28C2, F-28F, 280, 280C, 280F och 280FX

utrustade med kompositlindad huvudrotoraxel, P/N 28 - 13183.

**ÅTGÄRD:** 

Utför åtgärder angivna i Enstrom Service Directive Bulletin nr 0083

daterad 16 juli, 1993 (SBD 0083).

TID FÖR

ATGARD: Kontroll av huvudrotoraxel före flygning,utbyte av axel inom 10

flygtimmar eller vid nästa 100 timmars tillsyn vilket som först

inträffar om ej tidigare utförts.

**UNDERLAG:** 

FAA AD 93-15-10 (bifogad kopia)

Enstrom Service Directive Bulletin nr 0083 daterad 16 juli, 1993

(SBD 0083).

**REFERENS:** 

FAA AD 93-15-10, samt LFV skrivelse L 9308-1313-31203 daterad

1993-08-04 sänd till ägare/brukare.

UTGIVNINGS-

**DATUM:** 

1993-09-30

LFS: 1993:27

→ 601 79 NORRKÖPING

Åtgärd enligt LVD utgör nödvändig förutsättning för ifrågavarende flygmateriels luftvärdighet. Referens BCL M 1.11. Anteckning om åtgärd, som vidtagits i enlighet med LVD, skall införas i teknisk journal för berörd flygmateriel med hänvisning till ifrågavarande LVD-nummer. Angivet underlag refererar till senaste gällande revision/utgåva. LVD utges i luftfartsverkets författningssamlingar LFS.

Vikboplan 11

Telefon nr



## PRIORITY LETTER AIRWORTHINESS DIRECTIVE

FLIGHT STANDARDS SERVICE REGULATORY SUPPORT DIVISION P.O. BOX 26460 OKLAHOMA CITY, OKLAHOMA 73125-0460

LUFTFARTSINSPEKTIONEN

U.S. Department of Transportation Federal Aviation Administration

DATE: August 3, 1993 93-15-10

This priority letter Airworthiness Directive (AD) is prompted by the report of a significant crack in a composite-wrapped main rotor shaft. Investigation reveals that the main rotor shaft (shaft) cracked just below the upper radius in the metal beneath the composite wrap. Main rotor track and balance problems that arise suddenly, or those that do not respond to normal corrective actions, could be caused by a cracked shaft. Persistent vibrations or the inability to track and balance the main rotor may indicate a severely cracked shaft. This condition, if not corrected, could result in failure of the shaft, loss of the main rotor, and subsequent loss of control of the helicopter.

Enstrom Helicopter Corp. has issued Service Directive Bulletin No. 0083, dated July 16, 1993 (SDB 0083), concerning the shaft.

Since an unsafe condition has been identified that is likely to exist or develop on other helicopters of this same type design, this AD requires (1) an initial inspection upon receipt of the AD; and (2) additional inspections whenever persistent main rotor vibrations exist. Replacement of all affected shafts is also required as prescribed. The actions are required to be accomplished in accordance with the service bulletin described previously.

Pursuant to the authority of the Federal Aviation Act of 1958, delegated to me by the Administrator, the following Priority Letter AD 93-15-10, applicable to Enstrom Helicopter Corporation Model F-28A, F-28C, F-28C2, F-28F, 280, 280C, 280F, and 280FX helicopters, is issued and is effective immediately upon receipt.

93-15-10 ENSTROM HELICOPTER CORPORATION: Priority Letter issued on August 3, 1993. Docket No. 93-SW-21-AD.

Applicability: Model F-28A, F-28C, F-28C2, F-28F, 280, 280C, 280F, and 280FX helicopters, equipped with composite-wrapped main rotor shaft, part number (P/N) 28-13183, certificated in any category.

Compliance: Required as indicated, unless accomplished previously.

To prevent failure of the main rotor shaft (shaft) that could result in loss of the main rotor and subsequent loss of control of the helicopter, accomplish the following:

- (a) Before further flight, after the effective date of this AD, perform a one-time inspection of the shaft in accordance with paragraph 5.1 of Enstrom Service Directive Bulletin No. 0083, dated July 16, 1993 (SBD 0083).
- (b) If the shaft is found with composite-wrapping separations, corrosion, red color residue or cracks during the inspections in paragraph (a) of this airworthiness directive (AD), remove the shaft from further service and install an airworthy shaft, P/N 28-13140-11 or P/N 28-13104-1.
- (c) If main rotor (M/R) vibrations occur that cannot be corrected with track and balance procedures; or, if M/R track and balance procedures are required more than once; replace the shaft with an airworthy shaft, P/N 28-13140-11 or P/N 28-13104-1, before further flight.
- (d) Within the next 10 hours' time-in-service, or at the next annual inspection after the effective date of this AD, whichever occurs first, remove the shaft, P/N 28-13183, and install an airworthy shaft, P/N 28-13140-11 or P/N 28-13104-1.

## PRIORITY LETTER AIRWORTHINESS DIRECTIVE

- (e) Installation of airworthy shafts, P/N 28-13140-11 or P/N 28-13104-1, constitutes terminating action for the requirements of this AD.
- (f) An alternative method of compliance or adjustment of the compliance time, which provides an acceptable level of safety, may be used when approved by the Manager, Chicago Aircraft Certification Office. Operators shall submit their requests through an FAA Principal Maintenance Inspector, who may concur or comment and then send it to the Manager, Chicago Aircraft Certification Office.

NOTE: Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the Chicago Aircraft Certification Office.

- (g) Special flight permits may be issued in accordance with FAR 21.197 and 21.199 to operate the helicopter to a location where the requirements of only paragraph (a) and (d) of this AD can be accomplished.
- (h) Copies of the applicable service information may be obtained from The Enstrom Helicopter Corporation, Twin County Airport, P. O. Box 490, Menominee, Michigan 49858. This information may be examined at the FAA, Southwest Region, Office of the Assistant Chief Counsel, 4400 Blue Mound Road, bldg. 3, room 158, Fort Worth, Texas.
  - (i) Priority Letter AD 93-15-10, issued August 3, 1993, becomes effective upon receipt.

FOR FURTHER INFORMATION CONTACT: Mr. Joe McGarvey, Aerospace Engineer, Chicago Aircraft Certification Office, FAA, Airframe Branch, Small Airplane Directorate, 2300 East Devon Avenue, room 232, Des Plaines, Illinois 60018, telephone (708) 294-7136, fax (708) 294-7834.