LUFTFARTSVERKET
Luftfartsinspektionen

LUFTVÄRDIGHETSDIREKTIV (LVD)

A Motordrivna Luftfartyg
Enstrom
LVD Nr 2-3233
Upphäver 2-3184

Sektion 2. Utlandstillverkad flygmateriel

TITEL: **Kontroll av huvudrotoraxel.**

GÄLLER: Enstrom Helicopter Corporation modeller F-28, F-28A, F-28C, F-28F, 280, 280C, 280F och 280FX.

ÅTGÄRD: Utför åtgärder enligt Federal Aviation Administration AD 2002-08-03.

TID FÖR ÅTGÄRD: Före nästa flygning, därefter tider och intervall enligt FAA AD 2002-08-03.

UNDERLAG: Enstrom Helicopter Corporation Service Directive Bulletin No. 0094, revision 2 daterad 15 februari, 2002 eller senare utgåva.

REFERENS: FAA AD 2002-08-03.

BESLUTSDATUM: 29 april 2002

LFS 2002:55

Åtgärder enligt LVD utgör nödvändig förutsättning för ifrågavarande 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 senast gällande revision/utgåva. LVD utges i luftfartsverkets författningssamlingar LFS.

Postadress	Gatuadress	Telefonnummer	Faxnummer	Telegram	Telex
				Civilair	
601 79 NORRKÖPING	Vikobplan 11	011-19 20 00	011-19 25 75	Norrköping	62450

AIRWORTHINESS DIRECTIVE

Aircraft Certification Service
Washington, DC

U.S. Department
of Transportation
Federal Aviation
Administration

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The following Airworthiness Directive issued by the Federal Aviation Administration in accordance with the provisions of Title 14 of the Code of Federal Regulations (14 CFR) part 39, applies to an aircraft model of which our records indicate you may be the registered owner. Airworthiness Directives affect aviation safety and are regulations which require immediate attention. You are cautioned that no person may operate an aircraft to which an Airworthiness Directive applies, except in accordance with the requirements of the Airworthiness Directive (reference 14 CFR part 39, subpart 39.3).

2002-08-03 Enstrom Helicopter Corporation: Amendment 39-12710. Docket No. 2001-SW-67-AD. Supersedes AD 2001-22-01, Amendment 39-12479, Docket No. 2001-SW-28-AD.

Applicability: Model F-28, F-28A, F-28C, F-28F, 280, 280C, 280F, and 280FX helicopters, certificated in any category.

Note 1: This AD applies to each helicopter identified in the preceding applicability provision, regardless of whether it has been otherwise modified, altered, or repaired in the area subject to the requirements of this AD. For helicopters that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (e) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and if the unsafe condition has not been eliminated, the request should include specific proposed actions to address it.

Compliance: Required as indicated, unless accomplished previously.

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

(a) Before further flight, determine the part number (P/N) of the main rotor transmission (transmission) and the radius of the upper fillet of the shaft (as shown in the following Figure 1):

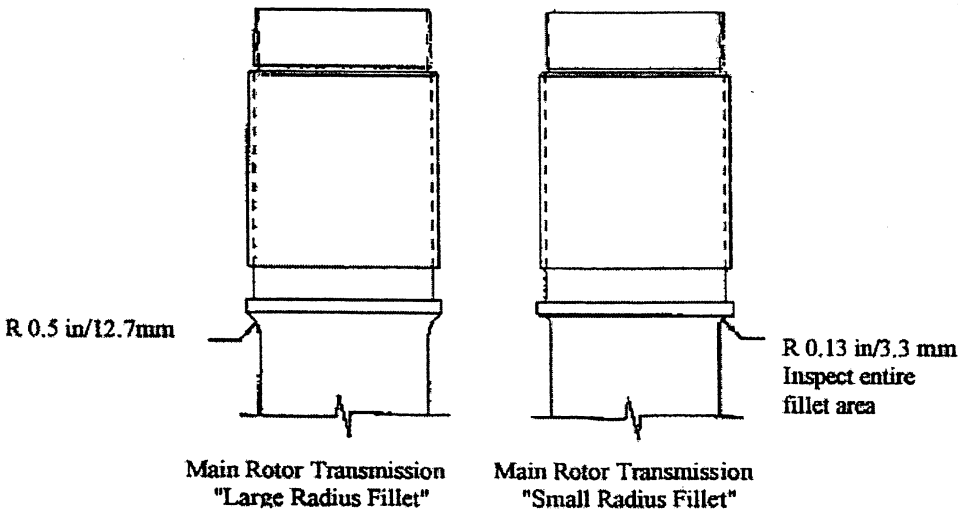

Figure 1. Main Rotor Shaft Inspection

(b) For EHC Model F-28C, F-28F, 280C, 280F, and 280FX helicopters, before further flight, replace any transmission having a small radius shaft fillet with an airworthy transmission having a large radius shaft fillet as specified in Table 1 of this AD.

(c) For EHC Model F-28, F-28A and 280 helicopters:

(1) If the transmission has a shaft with a small radius fillet and the transmission P/N is not listed in Table 1, before further flight, replace the transmission with an airworthy transmission specified in the following Table 1 of this AD:

TABLE 1.—MAIN ROTOR TRANSMISSION EFFECTIVITY

Description	Transmission P/N	Qty per assy	Models effectivity						
			F–28, F–28A	280	F–28C	280C	F–28F	280F	280FX
(i) Main Rotor Gearbox (0.13 in. radius fillet M/R shaft).	28–13101–1 or –1–R, or 28–13101–3 or –3–R.	1	X	X					
(ii) Main Rotor Gearbox (0.5 in. radius fillet M/R shaft).	28–13101–5 or –5–R*	1	X	X	X	X			
(iii) Main Rotor Gearbox (0.5 in. radius fillet M/R shaft).	28–13101–8 or –8–R	1	X	X	X	X	X	X	
(iv) Main Rotor Gearbox (0.5 in. radius fillet M/R shaft).	28–13101–9 or –9–R	1	X	X	X	X	X	X	
(v) Main Rotor Gearbox (0.5 in. radius fillet, heavy M/R shaft).	28–13101–101 or –101–R*.	1	X	X	X	X			
(vi) Main Rotor Gearbox (0.5 in. radius fillet M/R shaft).	28–13170–1 or –1–R	1	X	X	X	X	X	X	
(vii) Main Rotor Gearbox (0.5 in. radius fillet M/R shaft).	28–13170–3 or –3–R*	1	X	X	X	X	X	X	
(viii) Main Rotor Gearbox (0.5 in. radius fillet, heavy M/R shaft).	28–13170–7 or –7–R*	1	X	X	X	X	X	X	
(ix) Main Rotor Gearbox (0.5 in. radius fillet, heavy M/R shaft, magnetic chip detector, and low rotor RPM pick-up).	28–13170–9 or –9–R*	1					X		X

Note: "–R" indicates an overhauled transmission.

*Transmissions currently available from EHC.

(2) If the installed transmission is P/N 28-13101-1 or -1-R, or P/N 28-13101-3 or -3-R, and has a small radius shaft, before further flight and thereafter at intervals not to exceed 25 hours TIS, visually inspect each transmission for a crack in the shaft upper fillet using a 10X or higher magnifying glass.

(i) If there is any indication of a crack, before further flight, a level II nondestructive inspector must dye-penetrant inspect the shaft using materials approved by MIL-I-25135.

(ii) If the shaft is cracked, before further flight, replace the transmission with an airworthy transmission having a large radius shaft fillet.

(3) If the transmission is P/N 28-13101-1 or -1-R, or P/N 28-13101-3 or -3-R, within 5 hours TIS, and thereafter at intervals not to exceed 100 hours TIS:

(i) Dye-penetrant inspect the shaft upper fillet for a crack, a nick, or a scratch.

(ii) Polish out nicks or scratches less than 0.005-inch deep.

(iii) If the shaft is cracked or has a nick or scratch 0.005 inch or more deep, replace the transmission with an airworthy transmission having a large radius shaft fillet before further flight.

(4) Within 300 hours TIS or at the next overhaul after the effective date of this AD, whichever occurs first, replace transmission, P/N 28-13101-1 or -1-R, or P/N 28-13101-3 or -3-R, with an airworthy transmission having a large radius shaft fillet.

(d) Installing an airworthy transmission with a shaft, P/N 28-13104-1 or -1-R, Revision K, L, M, N, P, R or S, or P/N 28-13140-1 or -1-R, is terminating action for the requirements of this AD.

Note 2: Enstrom Helicopter Corporation Service Directive Bulletin No. 0094, Revision 2, dated February 15, 2002, pertains to the subject of this AD.

(e) An alternative method of compliance or adjustment of the compliance time that provides an acceptable level of safety may be used if approved by the Manager, Chicago, Aircraft Certification Office (ACO), FAA. Operators shall submit their requests through an FAA Principal Maintenance Inspector, who may concur or comment and then send it to the Manager, Chicago ACO.

Note 3: Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the Chicago ACO.

(f) Special flight permits may be issued in accordance with 14 CFR 21.197 and 21.199 to operate the helicopter to a location where the requirements of this AD can be accomplished provided an inspection in accordance with paragraph (c)(2) of this AD reveals no crack in the shaft.

(g) This amendment becomes effective on May 2, 2002.

Issued in Fort Worth, Texas, on April 9, 2002.
David A. Downey,
Manager, Rotorcraft Directorate, Aircraft Certification Service.
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