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No. CF-88-16

AIRWORTHINESS DIRECTIVE

The following airworthiness directive (AD) may be applicable to an aircraft which our records indicate is registered in your name. ADs are issued pursuant to Canadian Aviation Regulation (CAR) 593. Pursuant to CAR 605.84 and the further details of CAR Standard 625, Appendix H, the continuing airworthiness of a Canadian registered aircraft is contingent upon compliance with all applicable ADs. Failure to comply with the requirements of an AD may invalidate the flight authorization of the aircraft. Alternative means of compliance shall be applied for in accordance with CAR 605.84 and the above- referenced Standard.

This AD has been issued by the Continuing Airworthiness Division (AARDG), Aircraft Certification Branch, Transport Canada, Ottawa, telephone (613) 952-4357.

CF-88-16 ENSTROM

Applies to Enstrom models F28, F28A, F28C and F28C-2 helicopters of all serial numbers; and to model F28F helicopters through to s/n 743.

Compliance is required as indicated below.

Fatigue cracks of the horizontal stabilizer spar led the FAA to issue Airworthiness Directive (AD) 72-04-04, primarily on the 0.035-inch spar tube. A subsequent failure of the improved 0.049-inch tube led to Enstrom Service Bulletin No. 0076, December 15, 1987, and to corresponding FAA AD 88-11-06, which superseded the earlier AD.

To detect cracks in the horizontal stabilizer attachments thereby preventing possible failure which could result in loss of control of the helicopter, accomplish the following:

(a) Prior to the first flight of each day after the effective date of this AD, conduct the following:

- (1) Check both the left and right stabilizer security by applying a light up and down load at the tip of the stabilizer (i.e. approximately 3 lbs);
- (2) Check for deflection and/or looseness; and
- (3) If a stabilizer deflects or is loose, comply with paragraph (b)(1) through (b)(10) of this AD before next flight.

NOTE: The checks (a)(1) and (2) above may be performed and certified for compliance by a pilot who has been trained in accordance with the requirements of an Approved Company Maintenance Control Manual which contains methods by which fleet pilots may be qualified to comply with repetitive ADs.

(b) Within the next 10 hours time in service after the effective date of this AD, unless already accomplished, and thereafter at intervals not to exceed 100 hours time in service from the last inspection, accomplish the following:

- (1) Remove the left and right stabilizer assemblies P/N 28-20100, from the center spar, P/N 28-11222. Mark spar position left, right, top, etc., prior to removal so that on reinstallation the spar will be repositioned correctly. Remove the inspection panel on the left side of the tailcone. Remove the bolts securing the spar to the tailcone and remove the spar from the tailcone.
- (2) Visually inspect the attachment fittings for burrs, fretting, or cracks. Particular attention must be directed to the spar attachment area around all drilled holes.
- (3) Replace cracked fittings before next flight. Repair cracked sheet metal per standard practice, or replace with airworthy parts, before next flight.
- (4) Measure the center spar wall thickness one time. Replace any center spar having a wall thickness less than 0.044 inch with an airworthy spar and comply with paragraph (b)(8) of this AD prior to the next flight.
- (5) If the center spar thickness is 0.044 inch or greater, inspect the spar for cracks using a magnetic

particle inspection method. Particular attention must be directed to the spar area around all drilled holes and if a crack is found, replace the spar with an airworthy part before next flight.

(6) Inspect the stabilizer spar trailing edge attachment clips, P/N 28-20106, for cracks using a dye penetrant inspection or a visual inspection using a 10-power or higher magnifying glass. If a crack is found, replace the clip with an airworthy part before next flight.

(7) Inspect the center spar (particularly in areas of dissimilar metal contact) for corrosion. Surface corrosion may be removed with 320 grit emery paper to a maximum dressed depth of 0.005 inch. Deeper corrosion is cause for replacement. Protect bare areas using a light coat of epoxy primer (De Soto 593X300 or equivalent).

(8) Install the center spar in its proper relative position to the tail cone. Whenever a new spar is installed it must be match-drilled to the tailcone and stabilizers for proper incidence. Remove and deburr all holes, and protect all bare surfaces with epoxy primer prior to final assembly.

(9) Install the horizontal stabilizer using airworthy parts. A light coat of lubricant (LPS 500 or equivalent) on the outside of the spar and the inside of the fittings will aid in assembly.

(10) Record the rotorcraft's weight and balance change as appropriate. Changing from a 0.035-inch to a 0.049-inch nominal wall thickness center spar causes a weight increase of 0.37 lb. at longitudinal station 270.0.

Alternative means of compliance with the requirements of this Directive may be used only if approved by the Director, Airworthiness Branch, Transport Canada, Ottawa.

This Directive supersedes FAA ADs 88-11-06 and 72-04-04.

This Directive becomes effective August 31, 1988.

Pursuant to CAR 202.51 the registered owner of a Canadian aircraft shall, within seven days, notify the Minister in writing of any change of his or her name or address. To request a change of address, contact the Civil Aviation Communications Centre (AARC) at Place de Ville, Ottawa, Ontario K1A 0N8, or 1-800-305-2059, or <http://www.tc.gc.ca/civilaviation/communications/centre/address.asp>.

24-0022 (01-2001)