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No. CF-88-09

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-88-09 MCDONNELL DOUGLAS HELICOPTER (HUGHES)

Applies to all McDonnell Douglas Helicopter Company (Hughes Helicopters Inc.) Model 369D, 369E, 369F and 369FF helicopters incorporating main rotor transmission output shaft assembly ring gear carriers (P/N 369D25132-BSC or -5) in main transmission assemblies P/N 369D25100-BSC, -501 or -503.

Compliance is required as indicated unless previously accomplished.

(A) For helicopters with metal particles found in the main transmission, excessive noise or vibration experienced in the main transmission, or vibrations felt in the aircraft that cannot be reduced or eliminated by ordinary main rotor blade tracking and balancing procedures, accomplish the inspection of paragraph (i) prior to further flight after the effective date of this Directive, and thereafter at intervals not to exceed 300 hours time in service from the last inspection.

(B) For helicopters that have main transmission assemblies installed with less than 200 hours time in service on the output shaft assembly ring gear carrier on the effective date of this Directive, accomplish the inspection of paragraph (i) prior to accumulating 300 hours time in service, and thereafter at intervals not to exceed 300 hours time in service from the last inspection.

(C) For helicopters that have main transmission assemblies installed with more than 200 hours time in service on the output shaft assembly ring gear carrier on the effective date of this Directive, accomplish the inspection of paragraph (i) within the next 100 hours time in service after the effective date of this Directive, and thereafter at intervals not to exceed 300 hours time in service from the last inspection.

Reports have been received of cracking originating in the area of the electron beam weld which attaches the lower disk to the output shaft; and in the upper disk, in the area of potential electron beam impingement directly in line with the welded area.

To preclude failure of the transmission output shaft assembly ring gear carrier, accomplish the following:

(i) Perform the inspection titled "Periodic Visual Inspection" of the McDonnell Douglas Helicopter Company Service Information Notice (SIN) DN-148.1/EN-36.1/ FN-25.1, dated October 30, 1987. In lieu of the dye penetrant inspection specified in the SIN, a fluorescent penetrant inspection of the upper and lower disk surfaces shall be conducted by personnel certified to Level II of CGSB Standard 48-GP-9M or by a Transport Canada approved NDT organization.

NOTE: When the main rotor transmission output shaft assembly ring gear carrier P/N 369D25132-3 is installed and the main transmission assembly is re-identified as P/N 369D25100-505, repetitive inspections are no longer required.

If cracks are found, the transmission output shaft assembly ring gear carrier must be removed from service before further flight and a Malfunction or Defect Report submitted to the local Regional Airworthiness Office.

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 Airworthiness Directive 87-18-12R1 issued January 15, 1988 and any revisions thereof.

This Directive becomes effective May 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>.

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