

# FAA Airworthiness Directive

**82-17-01 HUGHES HELICOPTERS, INC.:** Amendment 39-4433. Applies to Model 369D helicopters certificated in all categories, equipped with main transmission part number 369D25100 - basic configuration.

Compliance is required as indicated, unless already accomplished.

To prevent failure of the output gearshaft assembly, P/N 369D25132, accomplish the following:

(A) Within 100 hours' time in service after the effective date of this AD, and thereafter at intervals not to exceed 300 hours' time in service, until such time as the ultrasonic inspection of paragraph (B) of this AD is accomplished, conduct a visual inspection for cracks in the transmission output shaft in accordance with instructions in Part I entitled "Periodic Visual Inspection" of Hughes Service Information Notice No. DN-105 dated May 25, 1982, (hereinafter referred to as DN-105), or FAA approved equivalent.

(B) The visual inspections required by paragraph (A) of this AD may be discontinued by conducting a one-time ultrasonic inspection of the electron beam weld area of the transmission output shaft in accordance with the instructions of Part II entitled "Ultrasonic Inspection" of DN-105, or FAA approved equivalent. This inspection must be accomplished no later than the next overhaul or major disassembly of the transmission.

(C) If cracks are found as a result of the visual inspections required by paragraph (A) of this AD or an unacceptable electron beam weld is found as a result of ultrasonic inspection of paragraph (B) of this AD, before further flight replace the output gearshaft assembly with a like assembly which has been inspected and found to be acceptable in the electron beam weld area in accordance with the ultrasonic inspection technique described herein.

(D) Output gearshaft assemblies ultrasonically inspected and found to have acceptable electron beam welds in the transmission output shaft are to be identified in accordance with Figure 2 of DN-105, or FAA approved equivalent.

(E) Special flight permits may be issued in accordance with Parts 21.197 and 21.199 to operate aircraft to a base for the accomplishment of inspections required by this AD.

(F) Alternative inspections, modifications, or other actions which provide an equivalent level of safety may be used when approved by the Chief, Western Aircraft Certification Field Office, FAA, Northwest Mountain Region, Hawthorne, California.

This amendment becomes effective August 23, 1982.