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EN-82
FN-69
NN-009

SERVICE BULLETIN

DATE: 10 JANUARY 1997
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MAIN ROTOR TRANSMISSION COMPONENT INSPECTION (369D25127-11)

1. PLANNING INFORMATION:

A. Aircraft Affected:

All McDonnell Douglas Helicopter Systems (MDHS) 369D, 369E, 369FF and 500N Series Helicopters that have 369D25100 Main Rotor Transmissions installed.

B. Assembly/Components Affected by this Notice:

369D25100 Main Rotor Transmissions that contain 369D25127-11 Output Drive Gears with the following serial numbers:

S/N 005570-0646 thru and including S/N 005570-0765

S/N 005570-0876 thru and including S/N 005570-0998

C. Reason:

An initial MDHS investigation of a commercial cargo hook operator's 369D25127-11 output drive gear which experienced a premature gear tooth fracture while operating during "sling-load" operations.

Based on the results of this investigation, MDHS is requiring operators of aircraft described in 1.A. to determine what serial number 369D25127-11 output drive gear is currently installed in their 369D25100 main rotor transmission. If the operator's aircraft records do not indicate what serial number output drive gear is installed, then the operator must either: (1) contact MDHS Field Service Department and be prepared to provide the installed 369D25100 main transmission serial number, or (2) remove the S51HL liquid level plug for viewing access in order to determine output drive gear serial number.

Failure to perform the requirements of this Notice may result in gear tooth spalling or tooth fracture of the 369D25127-11 output drive gear. This could eventually lead to transmission "chip light" illumination which requires operators to perform a landing as soon as possible.

D. Description:

Procedures in this Bulletin provide owners and operators with information to inspect their main rotor transmissions and, if required, replace the 369D25127-11 output drive gear.

E. FAA Approval:

The technical design aspects of this Service Bulletin are FAA Approved.

F. Manpower:

Refer to Warranty Policy.

G. Time of Compliance for 369D25127-11 Output Gear replacement:

- (1). For helicopters equipped with cargo hook assemblies that maintain a separate permanent log of actual hook time: Within the next 25 hours of logged hook time or 400 hours of helicopter operation after receipt of this Notice, whichever comes first.

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- (2). For helicopters equipped with cargo hook assemblies that do not maintain a separate permanent log of actual hook time: A. Within the next 25 hours of helicopter operation after receipt of this Notice; or, B. Immediately begin maintaining a permanent log of actual hook time and comply with the requirements of G.(1) above.
- (3). For helicopters not equipped with cargo hook assemblies: Within the next 400 hours of helicopter operation after receipt of this Notice.

H. Interchangeability:

None

I. Material/Part Availability:

Contact MDHS Field Service Department.

REPLACEMENT PARTS/SUPPLIES			
Nomenclature	Part No.	Qty.	Source
Output Drive Gear	369D25127-11	1	MDHS

J. Warranty Policy:

Replacement Output Drive Gears will be provided at a prorated price based on hours used on the original output gear since the last TBO. (Transmissions will not be overhauled at MDHS unless specifically requested by the owner; then MDHS will charge for labor and materials above and beyond the Output Gear removal and replacement.)

MDHS will provide credit equivalent of ten (10) labor hours for transmission removal and reinstallation. Please contact MDHS Warranty Administration if a loaner transmission is required.

K. Tooling:

No special tooling required.

L. Weight and Balance:

N/A

M. Electrical Load Data:

N/A

N. Other Publications Affected:

N/A

2. ACCOMPLISHMENT INSTRUCTIONS:

- (1). Inspect aircraft records to determine what serial number output drive gear (369D25127-11) is installed in the main rotor transmission.
- (2). If 369D25127-11 Output Drive Gear serial number determination cannot be made via aircraft records, contact MDHS Field Service Department with transmission serial number or, using a bright light, view thru the open liquid level plug port to determine serial number of Output Gear. **NOTE:** Serial number is located on the back surface of the gear.

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(3). If it is determined that the Output Gear Drive installed is among the serial numbers listed, and the time of compliance requirements of 1.G.(1), 1.G.(2) or 1.G.(3) are satisfied, then the gear must be replaced with one that has a serial number that falls outside the suspect range of serial numbers.

3. DISPOSITION OF PARTS REMOVED:

Return to MDHS.

4. COMPLIANCE RECORD:

Record compliance to this Service Bulletin in the Compliance Record section of the helicopter Log Book.

5. POINTS OF CONTACT:

For further assistance, contact your local MDHS Field Service Representative (refer to the Business Development and Customer Support handbook for address and telephone numbers) or contact the Field Service Department at MDHS, Mesa, Arizona. Telephone: 1-800-388-3378 or (602) 891-6342. DATAFAX: (602) 891-6782.

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