



HN-222  
DN-164.1\*  
EN-54.1\*  
FN-44.1\*

# SERVICE BULLETIN

DATE: 04 MAY 1990  
PAGE 1 OF 3

/// MANDATORY ////////////////////////////////////// MANDATORY ////////////////////////////////////// MANDATORY ///

\* Supersedes Service Information Notices ON-164, EN-54 and FN-44, dated 27 October 1989.

**SUBJECT:** CONVERSION TO 369A5350-41 OVERRUNNING CLUTCH SUB-ASSEMBLIES.

**MODELS AFFECTED:** All MD Helicopters, Inc. (MDHI) 369H Series, 369D, 369E (0001 E thru 0324E) and 369F/FF (0001F thru 0065FF) Series helicopters equipped with cargo hooks, including the 369A (OH-6A) Series helicopter that do not have a 369A5350-41 overrunning clutch sub-assembly or 369A5350-605 clutch assembly installed.

### NOTE

The primary reason for re-issuing this Notice is to include the 369H and 369A Series helicopters and to make a change to the time of compliance section of this Notice. This revision also splits the Notice into two parts: PART I contains a procedure to modify the clutch sub-assembly and PART II reidentifies the clutch housing to indicate 369A5350-605.

**TIME OF COMPLIANCE: PART I** – Operators of 369 Series helicopters equipped with cargo hook assemblies shall comply with PART I of this Notice within the next 300 hours\*\* of helicopter cargo hook operation.

\*\* To establish TIME OF COMPLIANCE, either clutch total time with hook installed may be used, or a separate and permanent log of external load (cargo hook) operating time (take-off to landing which involves external load operations) may be used. The log must meet requirements of FAR 91.173.

**PART II** – Shall be accomplished at the next removal of the engine.

**PREFACE:** Field reports indicate that some operators utilizing cargo hooks are experiencing chipping of the sprag elements in 369A5350-31 overrunning clutch sub-assemblies. Increased frequency of full power lifts causing component deflections are believed to be the cause this chipping of the sprag elements. The applicable Component Overhaul Manuals contain instructions for upgrading existing overrunning clutch sub-assemblies to the 369A5350-41 configuration which is adapted to handle increased loads.

### REFERENCE PUBLICATIONS:

- 369H Basic HMI (CSP-H-2) Revised 15 January 1989
- 369D/E HMI Vol. I (CSP-D-2) Revised 01 August 1989
- 369F/FF HMI Vol. I (CSP-F-2) Revised 01 June 1989
- 369H COM (CSP-H-5) Revised 15 July 1989
- 369D/E/F COM (CSP-DEF-5) Revised 29 September 1989

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# SERVICE BULLETIN

**MANDATORY**

## PART I - MODIFICATION OF OVERRUNNING CLUTCH SUB-ASSEMBLY PARTS LIST

Nomenclature	Part No.	Qty.	Source
Inner race	369A5353-3	1	MDHI
Nut, bearing retainer	369A5365-3	1	MDHI
Sprag	369D25351	1 *	MDHI
Seal kit	99-369A5350-603	1	MDHI

\* Not required if converting from a 369A5350-31 to 369A5350-41 overrunning clutch sub-assembly and the sprag assembly meets the inspection criteria called out in the Component Overhaul Manual.

### PROCEDURE

- a. Remove overrunning dutch sub-assembly per Section 9 of applicable HMI.
- b. Rework overrunning clutch sub-assembly to convert it to the 369A5350-41 configuration per instructions contained in the applicable Component Overhaul Manuals.

#### NOTE

The various items needed to convert to a -41 clutch from the various configurations are shown in the applicable Component Overhaul Manual and parts list contained in this Notice.

- c. Ensure that the overrunning clutch sub-assembly has been properly serviced and the output and input splines have been coated with grease per the applicable HMI.

#### NOTE

Add 30cc of lubricating oil (MIL-L-23699) to 369A5350-41 overrunning clutch sub-assemblies as existing HMIs give instructions to add 45cc of lubricating oil to the earlier configuration clutch sub-assemblies during assembly.

- d. Re-identify the overrunning clutch sub-assembly to the 369A5350-41 configuration by vibro-scribing or impression stamping on the existing sub-assembly data plate.
- e. Install the overrunning clutch sub-assembly which has been upgraded to the 369A5350-41 configuration.
- f. After installation, verify oil level is acceptable per the applicable HMI.
- g. Record compliance to PART I of this Service Information Notice in the Compliance Record section of the helicopter Log Book.

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# SERVICE BULLETIN

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PAGE 3 OF 3

**/// MANDATORY ////////////////////////////////////// MANDATORY ////////////////////////////////////// MANDATORY ///**

## PART II - RE-IDENTIFICATION OF CLUTCH ASSEMBLY

Verify that PART I of this Service Information Notice has been accomplished.

Re-identify the overrunning clutch to a 369A5350-605 configuration by vibro-scribing or impression stamping on the existing clutch assembly data plate at the next removal of the engine.

### NOTE

The clutch assembly data plate is located on the outside of the 369A5351-5 housing and is accessible only with the engine removed. The 369A5350-41 clutch sub-assembly is a component of the 369A5350-605 clutch assembly. The 369A5350-11, -21 and -31 clutch sub-assemblies are components of the 369A5351-603 clutch assembly.

Record compliance to PART II of this Service Information Notice in the Compliance Record and Component Log sections of the helicopter Log Book.

**WEIGHT AND BALANCE:** Weight and balance data not affected.

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