



TECHNICAL BULLETIN

DATE: 09 APRIL 2001
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MAIN TRANSMISSION LUBRICATION PUMP MODIFICATION

1. PLANNING INFORMATION

A. Aircraft Affected:

All Model 369D, 369E, 369FF, 500N, and 600N Helicopters equipped with Main Transmission Assembly, P/N 369F5100-503, -505.

B. Assembly/Components Affected By This Notice:

Main Transmission Assembly (P/N 369F5100-503, -505), Lubrication Pump (P/N 369F5135-1, -3).

C. Reason:

The settings for the main transmission lubrication pump differential pressure indicator and filter bypass valve are too low for the required oil flow. This condition may result in premature differential pressure indication (button pop) with relatively clean filters.

D. Description:

This Bulletin provides operators with information pertaining to installation of a new filter bypass valve and differential pressure indicator in the main transmission lubrication pump.

E. FAA Approval

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

F. Manpower:

4 Man-hours.

G. Time of Compliance:

Customer option, at operator's discretion, if repeated instances of differential pressure indicator actuations occur with a relatively clean filter installed in the lubrication pump.

H. Interchangeability:

The modified lubrication pump (P/N 369F5135-5) is one-way interchangeable with previous versions of the lubrication pump (P/N 369F5135-1, -3).

I. Material/Part Availability:

The parts listed below are included in Howden Airodynamics, Inc., Kit P/N H26090. Contact MDHI Warranty and Repair Dept.

REPLACEMENT PARTS/SUPPLIES			
Nomenclature	Part No.	Qty.	Source
Element, Filter	H22990	1	MDHI
Valve, Filter Bypass	H24996	1	MDHI

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REPLACEMENT PARTS/SUPPLIES (Cont.)			
Nomenclature	Part No.	Qty.	Source
Indicator, Differential Pressure	H25074	1	MDHI
Plate, Identification	H26089	1	MDHI
Ring, Retaining	P15035A	1	MDHI or Commercial
O-Ring	M83248/1-016	2	MDHI or Commercial
O-Ring	M83248/1-017	1	MDHI or Commercial
O-Ring	M83248/1-028	1	MDHI or Commercial
O-Ring	M83248/1-140	1	MDHI or Commercial
*Petrolatum (petroleum jelly)	W-P-236 MIL-G-6032	AR	Commercial
*Solvent: Alcohol, Isopropyl or Cleaner	Desoclean 45	AR AR	Commercial DeSoto Aerospace Coatings, Inc. 1608 Fourth Street Berkeley, CA 94710
*Adhesive (epoxy)	EA9330.3	AR	Hysol Division Dexter Corporation P.O. Box 312 Pittsburg, CA

*Not part of Kit.

J. Warranty Policy:

If kits are ordered from MDHI Warranty Department prior to 31 December 2001, kits will be provided at no cost to the operator. After 31 December 2001, parts should be ordered through MDHI Parts Sales at the published price.

K. Tooling:

MDHI will coordinate the field use of a special tool (P/N HT10628) required for modification of the lubrication pump.

L. Weight and Balance

N/A

M. Electrical Load Data:

N/A

N. Other Publications Affected:

Illustrated Parts Catalog CSP-IPC-4.



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2. ACCOMPLISHMENT INSTRUCTIONS

A. Preparation Instructions

- (1). Remove sound insulation, transmission access covers and baffle to gain access to lubrication pump on right side of main transmission.

B. Modification Instructions

(Ref. Figure 1)

- (1). Break safety wire and unscrew and remove filter bowl from lube pump housing. Remove and discard O-ring.
- (2). Remove and discard filter element and two O-rings.
- (3). Remove filter bypass valve and O-ring from pump housing using special tool (P/N HT10628).
 - (a). Hold hex portion of special tool, with ball lever at 90° to tool axis, and rotate cylinder (between lever and hex) CW until snug.
 - (b). Rotate cylinder approximately 270° CCW.
 - (c). Carefully install collet end of special tool into receiving end of pump bypass valve.
 - (d). Support special tool and rotate ball lever 90° CW.
 - (e). Support special tool and swivel ball lever 90° until its axis is in line with hex and cylindrical portions of tool.
 - (f). Pull special tool and filter bypass valve outward, along tool axis and away from pump body.
 - (g). Discard O-ring. Return special tool and removed filter bypass valve to MDHI (Ref. 3. Disposition of Parts Removed).
- (4). Lubricate new M83248/1-028 O-ring with petrolatum and install onto new filter bypass valve.
- (5). Install filter bypass valve into pump housing.
- (6). Remove and discard retaining ring holding differential pressure indicator in filter bowl.
- (7). Remove and discard differential pressure indicator and O-ring.
- (8). Lubricate new M83248/1-017 O-ring and install onto new differential pressure indicator.
- (9). Install differential pressure indicator into filter bowl and secure with new retaining ring.
- (10). Lubricate two new M83248/1-016 O-rings and install them into new filter element.
- (11). Insert filter element over differential pressure indicator boss within filter bowl.
- (12). Install new M83248/1-140 O-ring onto filter bowl.
- (13). Screw filter bowl with filter element into pump housing until hand tight.



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- (14). Use 1-inch (25.4 mm) socket on hex located at back end of filter bowl to secure filter bowl to pump housing. Torque filter bowl to 75–100 in-lbs (8.474–11.298 N.m). Safety wire filter bowl.
- (15). Wipe outer cylindrical surface of pump housing body with solvent.
- (16). Affix identification plate to the cleaned surface of pump housing body.
- (17). Seal outside edges of identification plate with adhesive mixed according to container instructions.
- (18). Reidentify P/N 369F5100–503 main transmission as as P/N 369F5100–503M, as follows.
 - (a). Locate nameplate bonded to left side of main transmission housing.
 - (b). Scribe “M” in close proximity to “–503” dash number.
- (19). Reidentify P/N 369F5100–505 main transmission as as P/N 369F5100–507, as follows.
 - (a). Locate nameplate bonded to left side of main transmission housing.
 - (b). Cross-out existing dash number and scribe “–507” in close proximity to “369F5100” base number.

C. Completion Instructions

- (1). Reinstall baffle, transmission access covers and sound insulation.

3. DISPOSITION OF PARTS REMOVED

Return special tool (P/N HT10628) used for filter bypass valve removal and removed filter bypass valve to MDHI Field Service Department. If tool and removed valve are not received within five days of removal, customer will be billed for tool and valve.

Scrap all other parts removed from lubrication pump.

4. COMPLIANCE RECORD

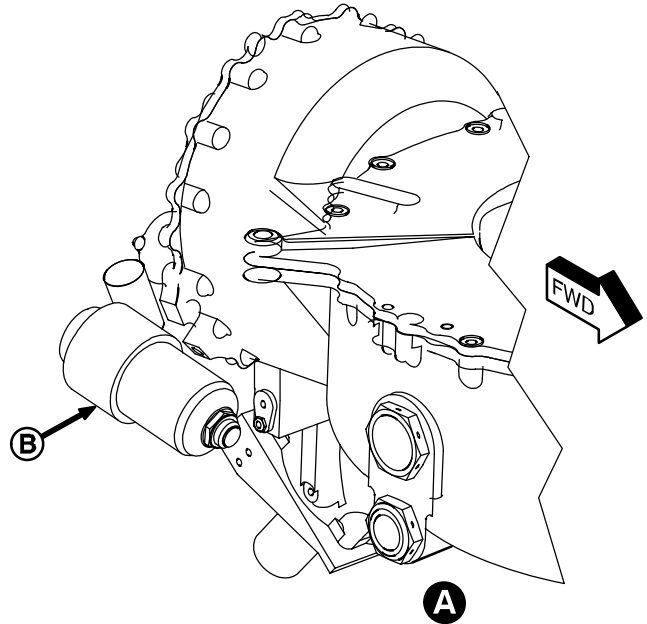
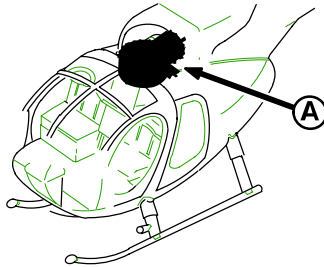
Record compliance to this Technical Bulletin in the Compliance Record section of the helicopter Log Book.

5. POINTS OF CONTACT:

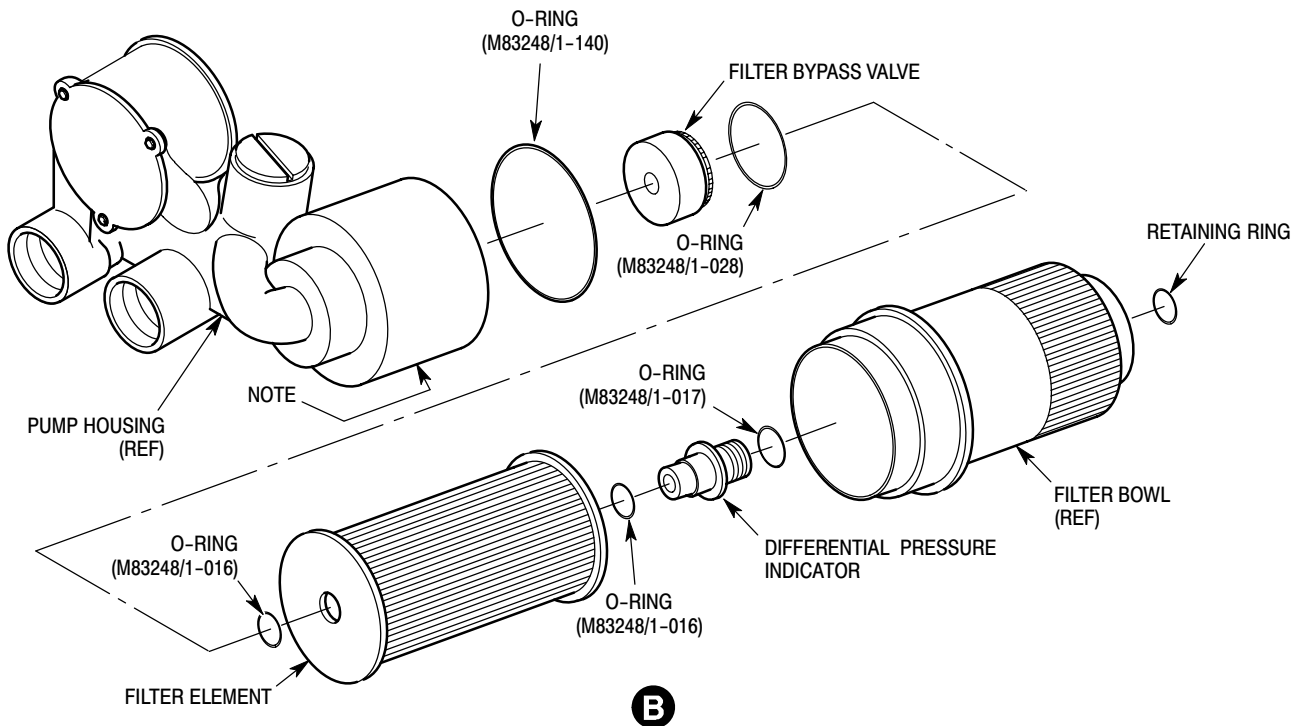
For further assistance, contact your local MDHI Field Service Representative (refer to the latest revision of the “*At Your Service*” handbook for address and telephone numbers) or contact the Field Service Department at MDHI, Mesa, Arizona. Telephone 1–800–388–3378 or (480) 346–6387. DATAFAX: (480) 346–6813.

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M/R TRANSMISSION-VIEW ROTATED



LUBRICATION PUMP-VIEW ROTATED

NOTE:
 LOCATE IDENTIFICATION PLATE ON CYLINDRICAL
 SURFACE OF PUMP HOUSING.

Figure 1. Lubrication Pump Modification