

SERVICE BULLETIN

DATE: 27 DECEMBER 2011

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* Supersedes Service Bulletin SB900-087, dated 20 August 2002. Revised to show the change from Mobil SHC 626 to Mobil AGL lubrication oil.

MAIN ROTOR TRANSMISSION ASSEMBLY UPGRADE

1. PLANNING INFORMATION:

A. Aircraft Affected:

MD900 helicopters, serial number 900-00008 thru 900-00115.

B. Assembly/Components Affected By This Bulletin:

Main Rotor Transmission Assembly (P/N 900D1400005-101, 900D1400004-101)

C. Reason:

To improve the type and quantity of oil to lubricate and cool the gears and bearings in the transmission, improve the input quill oil seal performance, and permit extreme cold weather operations with an increased flow lube pump and Mobil AGL lubrication oil.

NOTE: New orders of Mobil SHC 626 are being labeled not approved for aviation use. Operators can use current inventories of Mobil SHC 626 until they are completely gone. Ref. SB900-118 for instructions.

Failure to comply with instructions in this bulletin may result in out of warranty repairs or modifications to the transmission.

D. Description:

Procedures in this Bulletin provide owners and operators with information pertaining to removing the main rotor transmission assembly that fails to satisfy the inspection requirements relating to the generation of metallic chips/particles and replacing it with an upgraded main transmission assembly. The upgraded main transmission assembly will be designated Time Since Overhaul (TSO) = 0 hours and will require periodic inspection via an accelerated inspection Interval Extension Program (IEP). The IEP will mandate that a limited number of upgraded main transmission assemblies satisfy serviceability criteria at specific hourly intervals. If results are deemed acceptable, the hourly interval at which an inspection is required will be increased. The time interval at which these inspections are to occur (at Kawasaki Heavy Industries in Japan) will be defined in the Rotorcraft Maintenance Manual (CSP-900RMM-2, Section 05, Continued Airworthiness Inspections).

E. Time of Compliance:

The requirements of this Bulletin shall be accomplished when the main rotor transmission assembly P/N 900D1400005-101, 900D1400004-101 fails to satisfy the inspection requirements relating to the generation of metallic chips/particles.

F. FAA Approval:

The technical design aspects of this Bulletin are FAA Approved.

G. Manpower:

Eight (8) man-hours.

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H. Interchangeability:

None

I. Material/Part Availability:

Contact MDHI Warranty and Repair Department or Parts Sales Department.

REPLACEMENT PARTS/SUPPLIES			
Nomenclature	Part No.	Qty.	Source
Transmission Assembly, Main Rotor	900D1400006-101	1	MDHI
Filter, 3 Micron	900D3409006-101	1	MDHI
Filter, 75 Micron	900D3409008-101	1	MDHI
Decal, Transmission Oil Fill	MHS5833-14	1	MDHI
O-ring	M83248/1-017	1	MDHI
O-ring	M83248/1-018	1	MDHI
O-ring	M83248/1-044	1	MDHI
O-ring	M83248/1-130	1	MDHI
Oil, Lubrication	Mobil AGL	6 gal	ExxonMobil Corporation

J. Warranty Policy:

Main Rotor Transmission Assemblies requiring upgrade and covered by warranty: MDHI will provide parts specifically related to the upgrade at no cost to the owner/operator.

Main Rotor Transmission Assemblies requiring upgrade and not covered by warranty: MDHI will provide parts specifically related to the upgrade at a prorated cost to the owner/operator.

The cost of parts not specifically related to the upgrade that are deemed unserviceable at the time of the upgrade will be borne by the owner/operator.

The upgraded main rotor transmission assembly, P/N 900D1400006-101 will be designated Time Since Overhaul (TSO) = 0 hours and be warranted for 1,000 hours or 12 months, whichever occurs first.

K. Tooling:

N/A

L. Weight and Balance:

N/A

M. Electrical Load Data:

N/A

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N. Other Publications Affected:

Rotorcraft Maintenance Manual (CSP-900RMM-2)
Illustrated Parts List (CSP-900IPL-4)
Shipping Manual (CSP-900SHP-S)
Rotorcraft Flight Manual (900 Config w/ PW206A (CSP-900RFM-1)
Rotorcraft Flight Manual (900 Config w/ PW206E (CSP-900ERFM-1)
Rotorcraft Flight Manual (900 Config w/ PW207E) (CSP-900RFM207E-1)
Rotorcraft Flight Manual (902 Config w/ PW206E) (CSP-902RFM-1)
Rotorcraft Flight Manual (902 Config w/ PW207E) (CSP-902RFM207E-1)

O. Reference Publications:

SB900-118 Replacement of Mobil SHC 626 with Mobil AGL

2. ACCOMPLISHMENT INSTRUCTIONS:

A. Replacement of Main Rotor Transmission Assembly, P/N 900D1400005-101, 900D1400004-101

- (1). When a main rotor transmission assembly P/N 900D1400005-101, 900D1400004-101 fails to satisfy inspection requirements related to generation of metallic chips/particles (ref. CSP-900RMM-2, Section 63-20-00, Metal Particle Inspection), proceed as follows:
 - (a). Submit a properly filled out Service Operations Report (SOR) to MDHI Field Support which includes the following:
 - 1). Reason(s) for main transmission assembly removal (digital photographs of metallic chip(s) and dimensions of chip(s) are requested).
 - 2). Identify main transmission assembly part number, serial number, and time since new (TSN).
 - 3). Identify number, duration and recorded value of any overtorque condition(s) experienced by this main rotor transmission assembly (obtained from Rotorcraft Log Book or IIDS exceedance log).
 - (b). Remove main rotor transmission assembly (ref. CSP-900RMM-2, Section 63-20-00, Transmission Removal).
 - (c). Contact MDHI Warranty/Repair Department for shipping instructions for removed main rotor transmission assembly.

B. Installation of Upgraded Main Rotor Transmission Assembly, P/N 900D1400006-101

- (1). Install upgraded main rotor transmission assembly (ref. CSP-900RMM-2, Section 63-20-00, Transmission Installation), except as follows:



Mobil AGL is the lubricant approved for use in the P/N 900D1400006-101 main rotor transmission assembly. Ref. SB900-118 for use of Mobil SHC 626.

- (a). Apply new transmission oil fill decal over existing decal on oil filler (ref. CSP-900RMM-2, Section 11-00-00, Decal and Placard Installation).
- (b). After performing Transmission Operational Test - Run-Up, drain main transmission oil (ref. CSP-900RMM-2, Section 12-00-00, Main Transmission Draining).

NOTE: Do not drain engine oil from lower core of left and right heat exchangers.

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- (c). Drain residual transmission oil from left and right heat exchangers (top core only) (ref. CSP-900RMM-2, Section 63-21-00, Heat Exchanger Assembly).
- (d). Remove and scrap lubrication pump filters (ref. CSP-900RMM-2, Section 63-21-00, Lubrication Pump Filter Assembly Removal).
- (e). Install new lubrication pump filters (ref. CSP-900RMM-2, Section 63-21-00, Lubrication Pump Filter Assembly Installation).

CAUTION

Mobil AGL is the lubricant approved for use in the P/N 900D1400006-101 main rotor transmission assembly. Ref. SB900-118 for use of Mobil SHC 626.

- (f). Fill main rotor transmission assembly with lubricating oil (ref. CSP-900RMM-2, Section 12-00-00, Main Transmission Filling/Replenishing).
- (g). Perform Transmission Operational Test - Run-Up (ref. CSP-900RMM-2, Section 63-21-00).

3. DISPOSITION OF PARTS REMOVED:

Return to MDHI.

4. COMPLIANCE RECORD:

- (1). Record compliance to this Service Bulletin in the Compliance Record section of the Rotorcraft Log Book.
- (2). Complete Bulletin Completed Record form (attached) and FAX or e-mail to MDHI Field Service Department.

5. POINTS OF CONTACT:

For further assistance, contact the Field Service Department at MDHI, Mesa, Arizona. Telephone 1-800-388-3378 or (480) 346-6387. DATAFAX: (480) 346-6813.

Website: <http://www.mdhelicopters.com/>



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Bulletin Completed Record

Main Rotor Transmission Assembly Upgrade

MD Helicopters, Inc.
Field Service Department
4555 E. McDowell Road
Mesa, AZ 85215-9734

800-388-3378 Phone (U.S. and Canada)
480-346-6387 Phone (International)
480-346-6813 Fax

FAX this form to MDHI (480) 346-6813 or E-mail to ServiceEngineering@mdhelicopters.com

Owner /Operator: _____	Helicopter Serial No: _____
Address: _____ _____ _____	Helicopter Total Time: _____
	Date: _____
	Location: _____
Phone: _____	Transmission: Serial No. _____
E-mail: _____	

This bulletin is complete: _____
 (Signature)

(Print Name)

(Title)

Comments: _____

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