
**LANDING CRAFT, MECHANIZED
(LCM-8)
(ROHR AND GUNDERSON MODELS)
(1905-01-284-2647 AND 1905-01-284-2649)**

References: TM 55-1905-222-14, TM 5-2815-231-14, TM 55-2090-201-14&P, C9100-IL and FM 9-207

REPORTING OF ERRORS

You can improve this publication by calling attention to errors and by recommending improvements and stating your reasons for the recommendations. Your letter or DA Form 2028, Recommended Changes to Publications and Forms, should be mailed directly to Commander, US Army Troop Support Command, ATTN: AMSTR-MMTS, 4300 Goodfellow Boulevard, St. Louis, MO 63120-1798. A reply will be furnished directly to you.

GENERAL NOTES

Intervals (on condition or hard time) and the related task-hours times are based on normal operations. The task-hour time specified is the time you need to do all the services prescribed for a particular interval. On-condition (OC) oil sample intervals shall be applied unless changed by the Army Oil Analysis Program (AOAP) laboratory. Change the hard time interval if your lubricants are contaminated or if you are operating the equipment under adverse operating conditions, including longer-than-usual operating hours. The hard time interval may be extended during periods of low activity. If extended, adequate preservation precautions must be taken. Hard time intervals will be applied in the event AOAP laboratory support is not available.

WARNING

Dry cleaning solvent PD-680 used to clean parts is potentially dangerous to personnel and property. Avoid repeated and prolonged skin contact. Do not use near open flame or excessive heat. Flash point of solvent is 100°F - 138° F (38° C - 60° C).

Clean fittings before lubricating. Clean parts with dry CLEANING SOLVENT (SD), type II, PD-680 or equivalent. Dry before lubricating.

Dotted arrow points indicate lubrication on both sides of the equipment. Relubricate all areas exposed to water after vessel operations.

Before you start your lube service.

ALWAYS

- a. Clean fittings and parts before lubricating.
- b. Use the lubrication order as your guide.

NEVER

- a. Use wrong type/grade lubricant.
- b. Use too much lubricant.

Level of Maintenance. The lowest level of maintenance authorized to lubricate a point is indicated by one of the following: (C) Operator/crew; (O) Organizational Maintenance and (F) Intermediate.

See Table 1 for required lubricants.

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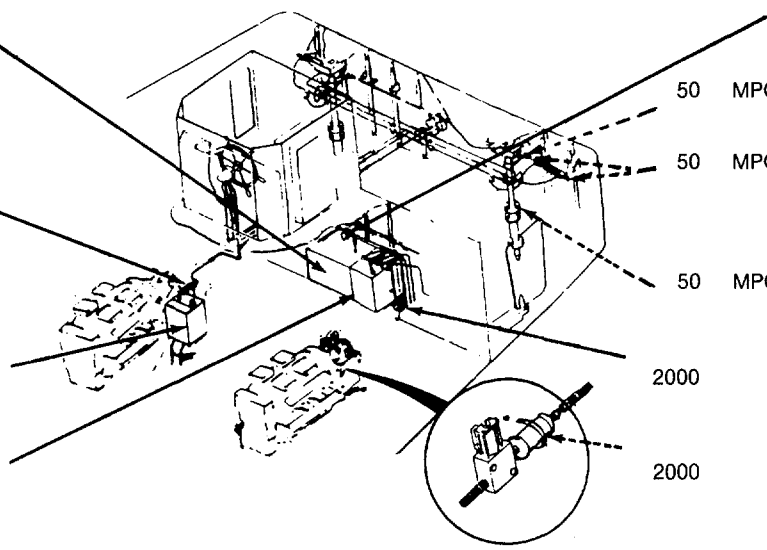
TABLE 1. Lubricant Table for Landing Craft Mechanized (LCM-8)

Temperature Range	Lubricant Mil. Symbol (NATO Code) Specification	Capacity	Interval	Task-hour **
-65°F to + 120°F(-50°C to + 59°C)	Fluid, hydraulic FRH (H-544) MIL-H-46170	Steering System 18 gals. (68 L) Ramp Hoist System 90 gals. (341 L) Starting System 7 gals. (27 L)	* *	
+32°F to +120°F(0°C to +59°C) (0-226)	Oil, lubricating GO-80/90 (0-226) MIL-L-2105	Winch final drive 7 1/2t. (7.1L) 7 1/2 qt. (7.1 L)	*	
-65OF to + 40°F (-50°C to + 5°C)	Oil, lubricating GO-75 (0-186) MIL-L-2105	Winch final drive 7 1/2 qt. (7.1 L)	*	
-65°F to + 120°F(-50°C to + 59°C)	Grease, Multipurpose MPG () MIL-G-24139A	As Required	*	
-65°F to + 120°F(-50°C to + 59°C)	Grease, Wire rope GWR () MIL-G-1 8458B	As Required*		
+32°F to + 120°F (0°C to + 59°C)	Oil, lubricating OE/HDO-30 (0-238) MIL-L-2104	Engine 10 gals (40 L) Transmission 6 gals. (22.7 L)	* D - Daily	0.10
-10°F to + 40°F (+ 23°C to + 5°C)	Oil, lubricating OE/HDO-10 (0-237) MIL-L-2104	Engine 10gals(40L) Transmission 6 gals. (22.7 L)	M - Monthly Q - Quarterly	1.00 0.50
-65°F to 0°F (50°C to -1 8C)	Oil, lubricating OEA (0-183) MIL-L-46167	Engine 10 gals. (40 L) Transmission 6 gals (22.7 L)	S - Semi-annually W - Weekly	0.80 0.20
*** Arctic Operation				
NOTES:				
* Intervals given, for a specific lubrication procedure, are in hours of normal operation.				
** The time specified is the time required to perform all services at the particular interval.				
*** For arctic operation, refer to FM 9-207.				

LUBRICANT • INTERVAL

INTERVAL • LUBRICANT

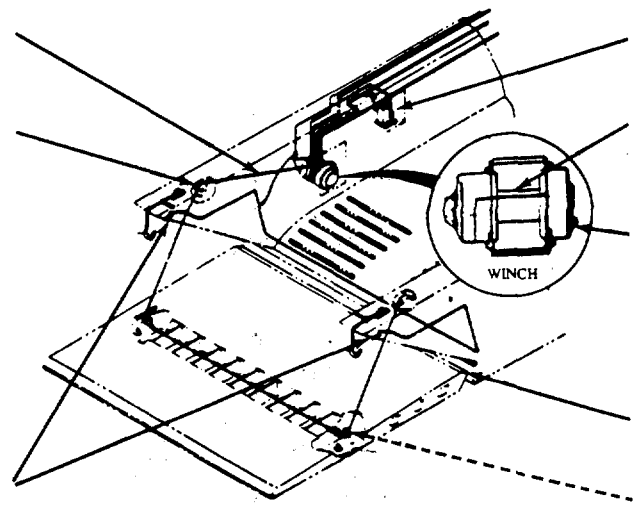
- Ramp Hoist System Reservoir and Strainer (see note 8) (C) FRH
- Steering System Filter (See note 6) (C)
- Steering System Reservoir and Strainer (C) (see note 7) FRH
- Hydraulic Starting System Reservoir (See note 9) (C) FRH



- Ramp Hoist System Filters (See note 6) (C)
- 50 MPG Steering Tie Bar (See note 11) (O)
- 50 MPG Steering Cylinder (See note 10) (O)
- 50 MPG Rudder Posts (3 fittings) (O)
- 2000 Hydraulic Starting System Filter (See note 9) (C)
- 2000 Hydraulic Starting System Filter (See note 9) (C)

STERN AREA

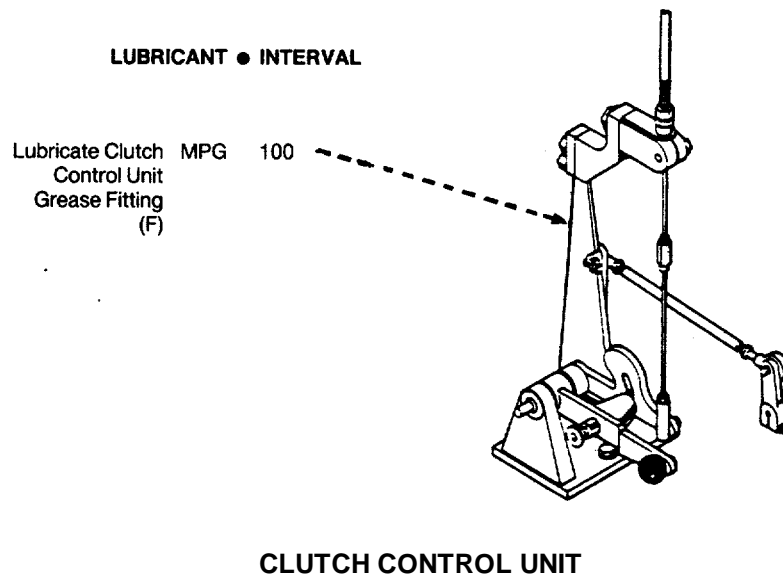
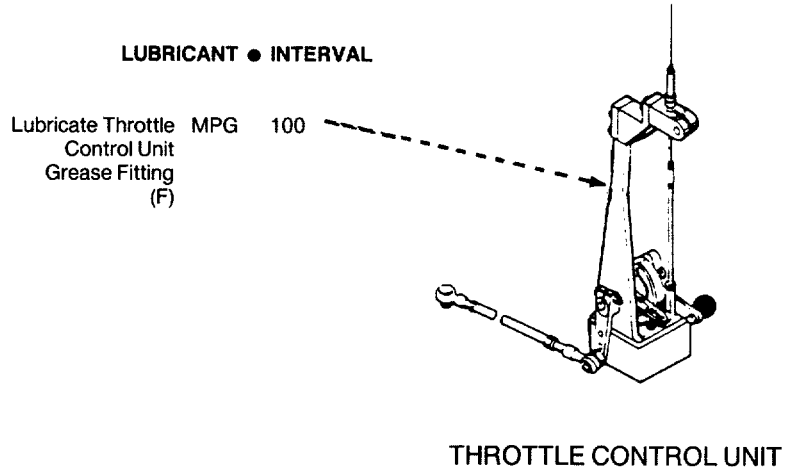
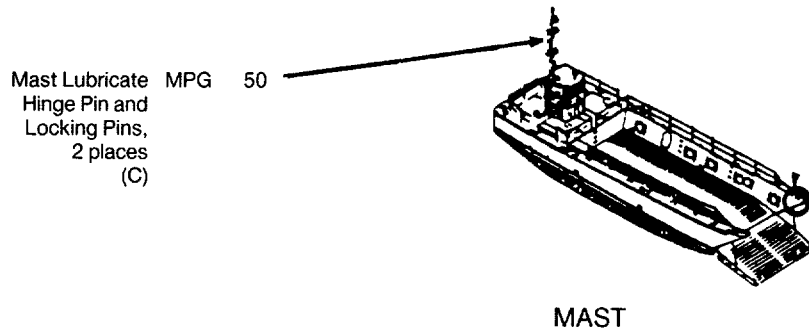
- Ramp Hoist Cable (See note 12) (C) GWR 250
- Ramp Hoist Bow Sheave (See note 3) (C) MPG 50
- Ramp Locking Mechanism (See note 13) (C) MPG 50



- FRH Ramp Hoist Hand Pump (See note 15) (C)
- 50 MPG Reversing Mechanism Lever Arm (See note 5) (C)
- 50 GO Winch Final Drive Oil Level Plug (Check and Fill) (See note 2) (C)
- 50 MPG Ramp Hinge Pins (Six) (C) (See note 14)
- 50 MPG Ramp Hoist Ramp Sheaves (See note 4) (C)

BOW/RAMP AREA

LUBRICANT • INTERVAL



NOTES:

1. FOR OPERATION OF EQUIPMENT IN PROTRACTED COLD TEMPERATURES BELOW -10°F. Remove lubricants prescribed in table 1 for temperatures above -10°F. Lubricate with lubricants specified in table 2 for temperatures below -10° F.
2. WINCH. Remove inspection plate and remove oil level plug to check oil level. Add lubricant as required at fill to bring up to level plug. Install oil level p lug and inspection cover.
3. BOW SHEAVE. Remove cover plate to lubricate: install cover plate.
4. RAMP SHEAVES. Lubricate through drain holes on underside of ramp. One fitting each sheave.
5. REVERSING MECHANISM LEVER ARM. Lubricate lever arm grease fittings, two places.
6. STEERING SYSTEM AND RAMP HOIST SYSTEM FILTERS.
 - a. Steering System filters must be changed when pressure drop across filter is 15 P.S.I. See note 7.
 - b. Ramp Hoist System filters must be changed when indicator reads in red. See note 8.
7. STEERING SYSTEM RESERVOIR AND STRAINER. When pressure drop across filter is 15 P.S.I., inspect reservoir and strainers as specified in TM 55-1905-222-14.
8. RAMP HOIST SYSTEM STRAINER AND RESERVOIR. When filter indicator reads in red zone, inspect reservoir and strainers as specified in TM 55-1905-22-14.
9. HYDRAULIC STARTING SYSTEM FILTERS.

CAUTION

Do not attempt to service filter element until system pressure has been relieved.

Service filter as specified in TM 55-1905-222-14.

10. STEERING CYLINDERS. Remove pin and lubricate pin sparingly and install pin.
11. STEERING TIE BAR. Remove pin and lubricate pin sparingly and install pin.
12. RAMP HOISTCABLE.

WARNING

When applying grease to wire rope by hand, broken strands of wire can cause injury to personnel. Use approved gloves.

Apply grease evenly with small brush or by hand.

13. RAMP LOCKING MECHANISM. Grease every 50 hours, 3 grease fittings.
14. RAMP HINGE PINS. Lubricate hinge pins (6 places) with MPG grease.
15. RAMP HOIST HAND PUMP. Fill reservoir 2/3 full.;

NOTES:

16. TRANSMISSION. Start engine and let run until warm (160°-185°F). Check transmission oil level daily with engine running at idle speed (550 RPM) and transmission in neutral. Fill transmission with oil, OE/HDO, up to FULL mark on dipstick.

17. TACHOMETER DRIVE CABLE ADAPTER. Lubricate grease fitting with two shots of MPG grease.

18. TRANSMISSION OIL FILTER AND STRAINER. Start engine and let run until warm (160°-185°F). See note 21. Drain oil from transmission reservoir.

a. Filter. Remove filter element and install new element and new gasket and o-ring.

b. Strainer. Remove strainer and discard gasket. Clean strainer and inspect. Replace if defective. Install strainer and new gasket.

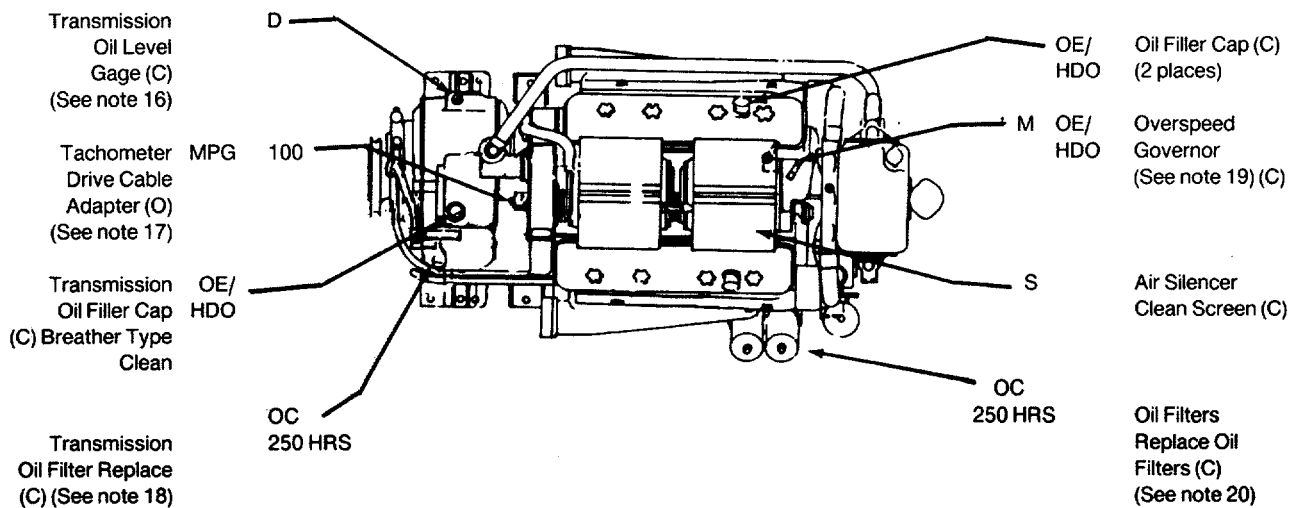
c. Fill transmission reservoir with 24 quarts (22.7 liters) of OE/HDO. Operate engine and check for leaks. Check transmission oil level per note 16.

19. OVERSPEED GOVERNOR. Do not lubricate the overspeed governor while the engine is operating. Avoid excessive lubrication. Add 5 or 6 drops of OE/HDO to hinge-type cap oiler or oil cups.

20. ENGINE OIL FILTERS. Start engine and let run until warm (160°-185°F). See note 21. Drain oil from crankcase. Drain oil from filters into suitable container. Install filter drain plug with new gasket if necessary. Remove filter elements, clean adapter and install new elements. Fill crankcase with 40 qts (37.9 liters) of OE/HDO. Operate engine 5 minutes. Check for leaks. Wait 5 minutes after engine shut down, check crankcase oil level and bring to FULL mark.

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**MAIN PROPULSION ENGINE
VIEW, LOOKING DOWN**

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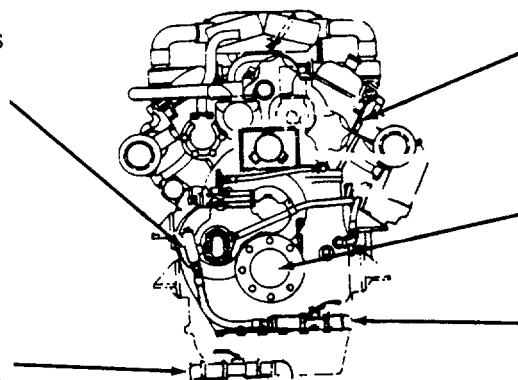
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Transmission
Oil
Strainer (C)
See note 18.

OC
250 HRS

Crankcase Oil Drain
(C) See note 21.

OC
250 HRS



D Engine Oil Level
Gage (C)
(Check daily. Maintain
level at full mark.)

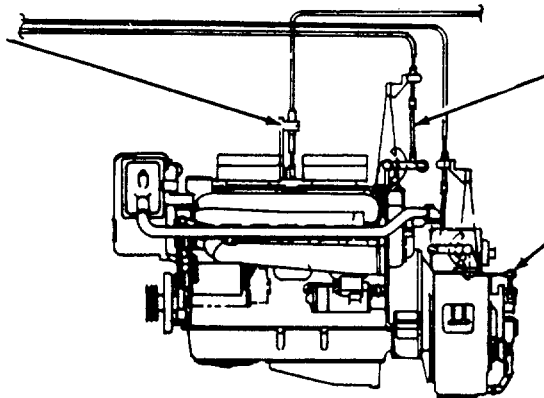
W MPG Output Bearing

OC
250 HRS

Transmission,
Drain (C).
See note 21.

TRANSMISSION, END VIEW

Engine Emergency OE/ Q
Shut Down Linkage HDO
Lubricate Control 10
Linkage with 2 to
4 drops of oil
(12 places) (C)
See Note 22.



Q MPG Engine Throttle
Control Linkage.
Lubricate rod
grease fittings.
(2 places) (C)
See Note 22.

Q MPG Transmission clutch
Control Linkage.
Apply grease to all
ball joint sockets
and light film on all
rod ends.
See Note 22.

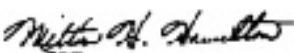
**ENGINE CONTROLS
MAIN PROPULSION ENGINE
DETROIT DIESEL MODEL 7122-7000**

21. TRANSMISSION/ENGINE CRANKCASE OIL DRAIN. A sample of oil shall be sent to an AOAP Laboratory for analysis at an interval of 50 hours or 30 days. Refer to TB 43-0210 for sampling requirements. When AOAP Laboratory support is not available, drain and refill crankcase at 250 hours or 6 months. Do not drain oil into bilges. Connect to oil separation system for collection of drained oil.

22. OIL CAN POINTS. Lubricate control linkage, swivel joints and all exposed adjusting threads with OE/HDO 10 oil.

Copy of this Lubrication Order will remain with the equipment at all times; instructions contained herein are mandatory.

By Order of the Secretary of the Army:

Official: 


MILTON H. HAMILTON
Administrative Assistant to the
Secretary of the Army
00480

GORDON R. SULLIVAN
General, United States Army
Chief of Staff

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