

# LUBRICATION ORDER

# LO 10-3930-626-12

28 February 1984

(Supersedes LO 10-3930-626-12, 19 JUNE 1971)

**TRACTOR, WHEELED, WAREHOUSE, GASOLINE,  
PNEUMATIC-TIRED WHEELS, 4000-LB DBP (ARMY  
MODEL MHE-217, UNITED TRACTOR MODEL G40C)  
(NSN 3930-00-181-3217)**

Reference: TM 10-3930-626-12 and FEDERAL SUPPLY CATALOG C9100-IL.

Hard time intervals and the related man-hour times are based on normal operation. The man-hour time specified is the time you need to do all the services prescribed for a particular interval. 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.

## **WARNING**

Dry cleaning fluid is flammable. Do not use near a flame or excessive heat. Use only with adequate ventilation. Avoid prolonged breathing of vapors and minimize skin contact.

\*The time specified is the time required to perform all services at the particular interval.

Clean parts or fittings with dry cleaning solvent (SD), Type II or equivalent. Dry before lubricating. Dotted arrow shafts indicate lubrication on both sides of equipment. A dotted circle indicates a drain below. Relubricate all items found contaminated after fording or washing.

The lowest level of maintenance authorized to lubricate a point is indicated by one of the following symbols as appropriate: Operator/Crew (C); and Organizational Maintenance (O).

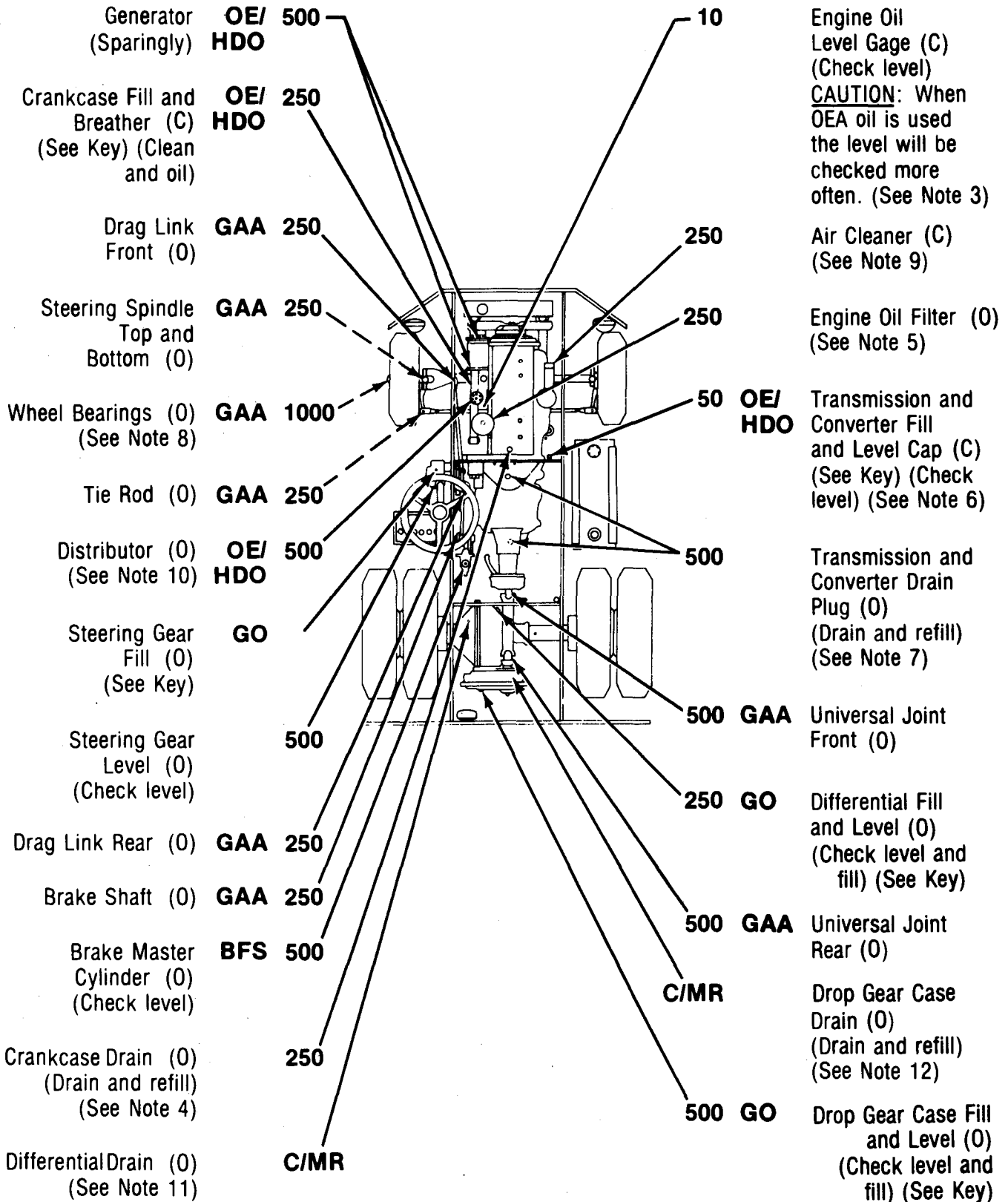
**Reporting errors and recommending improvements.** You can help improve this manual. If you find any mistakes, or if you know of a way to improve the procedures, please let us know. Mail your letter or DA Form 2028 (Recommended Changes to Publications and Blank Forms) direct to: Commander, US Army Tank-Automotive Command, ATTN: DRSTA-MB, Warren, MI 48090. A reply will be furnished to you.

*TOTAL MAN-HOURS		*TOTAL MAN-HOURS	
INTERVAL	MAN-HOURS	INTERVAL	MAN-HOURS
10	0.1	500	1.6
50	0.2	1000	2.5
250	1.8		

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**LUBRICANT • INTERVAL**

**INTERVAL • LUBRICANT**



\* KEY -

LUBRICANTS	CAPACITY	EXPECTED TEMPERATURES			INTERVALS
		Above +15°F (Above -9°C)	+40° to -15°F (+4° to -26°C)	+40° to -65°F (+4° to -54°C)	
<b>OE/ HDO</b> - Lubricating Oil, Internal Combustion Engine, Tactical Service  <b>OEA</b> - Lubricating Oil, Internal Combustion, Arctic  - Crankcase W/Filter  - Oil Can Points (See Note 2)	6 qts. (5.67 L)	<b>OE/HDO 30</b>	<b>OE/HDO 10</b>	<b>OEA</b> (See Note 1)	C/MR - Condition Monitor  Intervals given are in hours of normal operation.
- Transmission and Converter	8 qts. (7.56 L)				
<b>GO</b> - Lubricating Oil, Gear, Multipurpose  - Front Differential - Drop Gear Case - Steering Gear Housing	9-1/2 pts. (4.5 L) 1-1/2 pts. (0.8 L) 3/4 pt. (0.355 L)	<b>GO 85W/140</b>	<b>GO 80W/90</b>	<b>GO 75W</b>	
<b>BFS</b> - Brake Fluid, Silicone, Automotive,  - Brake Master Cylinder	5/16 qt. (0.3 L)	ALL TEMPERATURES			
<b>GAA</b> - Grease, Automotive and Artillery		ALL TEMPERATURES			

For Arctic operation refer to FM 9-207

\*See Note 13 for lubricant specification number.

## NOTES:

**1. FOR OPERATION OF EQUIPMENT IN PROTRACTED COLD TEMPERATURES BELOW -15°F (-26°C).** Remove lubricants prescribed in Key for temperatures above -15°F (-26°C). Relubricate with lubricants specified in Key for temperatures below -15°F (-26°C). If OEA lubricant is required to meet the temperature ranges prescribed in the Key, OEA lubricant is to be used in place of OE/HDO-10 lubricant for all temperature ranges where OE/HDO-10 is specified in the Key.

**2. OIL CAN POINTS.** Each 50 hours clean and lightly coat control linkages, hinges, and all exposed adjusting threads with OE/HDO.

**3. ENGINE OIL LEVEL HOT OR COLD CHECK.** Cold engine, oil level should be at high mark on dipstick. Hot engine, oil level must be between high and low marks on dipstick (allow to set 5 minutes before checking).

**4. ENGINE.** Oil is to be changed each 250 hours. Drain when lubricant is warm.

**5. ENGINE OIL FILTER.** Each 250 hours, remove filter element, clean housing and install new filter element. After installing new filter element, fill crankcase, operate engine for 5 minutes, check housing for leaks, check crankcase oil level and bring to "FULL" mark.

**6. TRANSMISSION AND CONVERTER FILL AND LEVEL.** Check level each 50 hours with engine running at idle speed, oil at operating temperature and transmission in neutral. Maintain oil level at "FULL" mark.

**7. DRAINING TRANSMISSION AND CONVERTER.** Each 500 hours, when hot, remove transmission drain plug and drain completely. Install transmission drain plug. Remove and clean oil pan. Install new oil filter. Use new gasket when replacing oil pan. Install and tighten oil pan. Remove converter housing cover plate and turn starter ring gear until converter plug is accessible. Remove plug and allow converter to drain completely. Install converter drain plug and tighten to 14 ft pounds. Install housing cover plate. Fill transmission to low mark. Run engine at idle speed to fill converter and lines. With engine running at idle speed, oil at operating temperature and transmission in neutral, add oil to bring oil level to "FULL" mark. Operate for 5 minutes and check for leaks.

**8. WHEEL BEARINGS.** Each 1000 hours remove front wheels, clean and inspect all parts, replace damaged or worn parts, repack bearings and assemble.

**9. AIR CLEANER.** Replace element each 250 hours. Air cleaner is dry type, no lubrication is required.

**10. DISTRIBUTOR.** Each 500 hours, lubricate rotor wick with 1 or 2 drops of OE/HDO 10. Apply very light coat of GAA to breaker cam.

**11. DIFFERENTIAL.** Check level each 250 hours. Change gear lubricant only when required by maintenance repair action, contamination by water, or other foreign material. After refill, operate for five minutes, check for leaks and bring oil level to fill and level plug opening.

**NOTES - CONTINUED:**

**12. DROP GEAR CASE.** Check level each 500 hours. Change gear lubricant only when required by maintenance repair action, contamination by water, or other foreign material. After refill, operate for five minutes, check for leaks and bring oil level to fill and level plug opening.

**13. LUBRICANTS.** The following is a list of lubricants with military symbols and applicable specification numbers.

OE/HDO	MIL-L-2104
GO	MIL-L-2105
GAA	MIL-G-10924
OEA	MIL-L-46167
BFS	MIL-B-46176
(SD), Type II	P-D-680

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:

JOHN A. WICKHAM, JR.  
General, United States Army  
Chief of Staff

OFFICIAL:

ROBERT M. JOYCE  
Major General, United States Army  
The Adjutant General

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