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.

<table>
<thead>
<tr>
<th>INTERVAL</th>
<th>MAN-HOURS</th>
<th>INTERVAL</th>
<th>MAN-HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>0.1</td>
<td>500</td>
<td>1.6</td>
</tr>
<tr>
<td>50</td>
<td>0.2</td>
<td>1000</td>
<td>2.5</td>
</tr>
<tr>
<td>250</td>
<td>1.8</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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
© 120488
LUBRICANT INTERVAL

Generator (Sparingly)  OE/ HDO  500
Crankcase Fill and Breather (C) (See Key) (Clean and oil)  OE/ HDO  250
Drag Link Front (O)  GAA  250
Steering Spindle Top and Bottom (O)  GAA  250
Wheel Bearings (O) (See Note 8)  GAA  1000
Tie Rod (O)  GAA  250
Distributor (O) (See Note 10)  OE/ HDO  500
Steering Gear Fill (O) (See Key)  GO
Steering Gear Level (O) (Check level)  500
Drag Link Rear (O)  GAA  250
Brake Shaft (O)  GAA  250
Brake Master Cylinder (O) (Check level)  BFS  500
Crankcase Drain (O) (Drain and refill) (See Note 4)  250
Differential Drain (O) (See Note 11)  C/MR  500

INTERVAL LUBRICANT

Engine Oil Level Gage (C) (Check level)  10
CAUTION: When OEA oil is used the level will be checked more often. (See Note 3)
Air Cleaner (C) (See Note 9)
Engine Oil Filter (O) (See Note 5)
Transmission and Converter Fill and Level Cap (C) (See Key) (Check level) (See Note 6)
Transmission and Converter Drain Plug (O) (Drain and refill) (See Note 7)
Universal Joint Front (O)
Differential Fill and Level (O) (Check level and fill) (See Key)
Universal Joint Rear (O)
Drop Gear Case Drain (O) (Drain and refill) (See Note 12)
Drop Gear Case Fill and Level (O) (Check level and fill) (See Key)

TA 220489
<table>
<thead>
<tr>
<th>LUBRICANTS</th>
<th>CAPACITY</th>
<th>EXPECTED TEMPERATURES</th>
<th>INTERVALS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Above +15°F (Above -9°C)</td>
<td>+40°F to -15°F (+4°F to -26°C)</td>
</tr>
<tr>
<td>OE/HDO</td>
<td></td>
<td>OE/HDO 30</td>
<td>OE/HDO 10</td>
</tr>
<tr>
<td>OE/A</td>
<td>Lubricating Oil, Internal Combustion Engine, Tactical Service</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Crankcase W/Filter</td>
<td>6 qts. (5.67 L)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Oil Can Points (See Note 2)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Transmission and Converter</td>
<td>8 qts. (7.56 L)</td>
<td></td>
</tr>
<tr>
<td>GO</td>
<td>Lubricating Oil, Gear, Multipurpose</td>
<td>GO 85W/140</td>
<td>GO 80W/90</td>
</tr>
<tr>
<td></td>
<td>- Front Differential</td>
<td>9-1/2 pts. (4.5 L)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Drop Gear Case</td>
<td>1-1/2 pts. (0.8 L)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Steering Gear Housing</td>
<td>3/4 pt. (0.355 L)</td>
<td></td>
</tr>
<tr>
<td>BFS</td>
<td>Brake Fluid, Silicone, Automotive,</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Brake Master Cylinder</td>
<td>5/16 qt. (0.3 L)</td>
<td></td>
</tr>
<tr>
<td>GAA</td>
<td>Grease, Automotive and Artillery</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*See Note 13 for lubricant specification number.

For Arctic operation refer to FM 9-207

Intervals given are in hours of normal operation.
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.

<table>
<thead>
<tr>
<th>OE/HDO</th>
<th>MIL-L-2104</th>
</tr>
</thead>
<tbody>
<tr>
<td>GO</td>
<td>MIL-L-2105</td>
</tr>
<tr>
<td>GAA</td>
<td>MIL-G-10924</td>
</tr>
<tr>
<td>OEA</td>
<td>MIL-L-46167</td>
</tr>
<tr>
<td>BFS</td>
<td>MIL-B-46176</td>
</tr>
<tr>
<td>(SD), Type II</td>
<td>P-D-680</td>
</tr>
</tbody>
</table>

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

DISTRIBUTION:

To be distributed in accordance with DA Form 12-25A, Operator and Organizational maintenance requirements for Tractors.
This fine document...

Was brought to you by me:

Liberated Manuals -- free army and government manuals

Why do I do it? I am tired of sleazy CD-ROM sellers, who take publicly available information, slap “watermarks” and other junk on it, and sell it. Those masters of search engine manipulation make sure that their sites that sell free information, come up first in search engines. They did not create it... They did not even scan it... Why should they get your money? Why are not letting you give those free manuals to your friends?

I am setting this document FREE. This document was made by the US Government and is NOT protected by Copyright. Feel free to share, republish, sell and so on.

I am not asking you for donations, fees or handouts. If you can, please provide a link to liberatedmanuals.com, so that free manuals come up first in search engines:

<A HREF=http://www.liberatedmanuals.com/>Free Military and Government Manuals</A>

– Sincerely
Igor Chudov
http://igor.chudov.com/