LUBRICATION ORDER

GRADER, HEAVY, ROAD, MOTORIZED
(CATERPILLAR MODEL 130G)
(NSN 3805-01-150-4795)

Approved for public release; distribution unlimited.

Reference: TM 53805-261-10

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NOTE

This LO is divided into lubrication intervals. For example, when performing a daily lube, refer to page 4 through 5. Weekly, Monthly, Quarterly, Semi-Annual, Annual and irregular interval instructions are given on the following pages. These intervals are based on normal operation. You should lube more during constant use. You should also lube more if operating in harsh weather, like arctic cold or desert heat and sand. You must lube after water fording.

On the lubrication point location pictures a dash line (-----) means there are lube points on both sides of the vehicle.

Clean parts with SOLVENT, Dry Cleaning (P-D-680, SD-II),

Before you start your lube service, observe the following:

NEVER

a. Use wrong type lubricant.
b. Use too much lubricant.

ALWAYS

a. Clean grease fittings before lubrication.
b. Use the lubrication order as your guide.
c. Lubricate after water fording.
d. Make sure vehicle is level when checking oil levels. If it isn't, you'll get Incorrect readings on dipsticks, gages, and eight gages.
Level of Maintenance will be shown in parenthesis after paragraph heading, as follows:

Operator/Crew (C)
Organizational Maintenance (O)

<table>
<thead>
<tr>
<th>INTERVAL</th>
<th>MAN-HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td>D</td>
<td>0.4</td>
</tr>
<tr>
<td>W</td>
<td>2.5</td>
</tr>
<tr>
<td>M</td>
<td>3.5</td>
</tr>
<tr>
<td>Q</td>
<td>4.0</td>
</tr>
<tr>
<td>S</td>
<td>4.5</td>
</tr>
<tr>
<td>A</td>
<td>5.0</td>
</tr>
</tbody>
</table>

**TOTAL MAN-HOURS**

**KEY**

OE/HDO Lubricating Oil, Internal Combustion Engine (MIL-L-2104)

<table>
<thead>
<tr>
<th>COMPONENT</th>
<th>CAPACITIES</th>
<th>ABOVE +32°F (Above 0°C)</th>
<th>+400°F to -100°F (4°C to -23°C)</th>
<th>0°F to -65°F (-18°C to -54°C)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGINE CRANKCASE (Add one additional quart for filter)</td>
<td>5 Gals. (19 L.)</td>
<td>OE/HDO 30 OR 15WAO</td>
<td>OE/HDO 10</td>
<td>OEA</td>
</tr>
<tr>
<td>HYDRAULIC SYSTEM</td>
<td>8 Gals. (30 L.)</td>
<td>OE/HDO 30W</td>
<td>OE/HDO 10W</td>
<td>OEA</td>
</tr>
<tr>
<td>TANDEM DRIVE HOUSING (each)</td>
<td>17 Gals. (64 L.1)</td>
<td>OE/HDO 30W</td>
<td>OE/HDO 10W</td>
<td>OEA</td>
</tr>
<tr>
<td>TRANSMISSION, TRANSFER AND DIFFERENTIAL HOUSING</td>
<td>24 Gals. (91 L.1)</td>
<td>OE/HDO 30W</td>
<td>OE/HDO 10W</td>
<td>OEA</td>
</tr>
<tr>
<td>CIRCLE DRIVE HOUSING</td>
<td>2 Gals. (7 L.)</td>
<td>OE/HDO 30W</td>
<td>OE/HDO 10W</td>
<td>OEA</td>
</tr>
<tr>
<td>FRONT WHEEL SPINDLE BEARING HOUSING (each)</td>
<td>1 Pt. (.5 L.)</td>
<td>OE/HDO 30W</td>
<td>OE/HDO 10W</td>
<td>OEA</td>
</tr>
</tbody>
</table>

**EXPECTED TEMPERATURES**

OE/HDO Lubricating Oil, Internal Combustion Engine, subzero (MIL-L-46167)

OHT Hydraulic Fluid (MIL-L-2104) or (MIL-L-46152)

SD-II Solvent, Dry Cleaning (P-D-680)

GO Lubricating Oil, Gear, Multi-Purpose

GGP Grease, General Purpose

MPG Grease, Multi-purpose type

PL-s Lubricating Oil, General Purpose

LSA Semifluid Lubricating Oil

CT Corrosion Preventive Compound

GAA Grease, Automotive and Artillery (MIL-G-10924)
Perform the following procedures each day before you operate the equipment.
1. ENGINE CRANKCASE (C)

The engine oil level can be checked with engine stopped, or engine running. If oil level is checked with engine stopped, read ENGINE STOPPED side of the dipstick (1). If engine is running, read ENGINE RUNNING side of dipstick.

The crankcase oil filler cap (2) is in the engine compartment. Stop engine and remove filler cap to add Oil, if necessary. Clean and install filler cap (2). Then check crankcase oil level on dipstick (1) again.

NOTE

Do not lubricate circle guide shoes (3).
Perform the following procedures weekly when you operate the equipment.

- **Lean Bar Bearings**
  - (See Note 5)
  - W MPG

- **Wheel Lean Bearings**
  - (See Note 4)
  - W MPG

- **King Pin Bearings**
  - (See Note 8)
  - W MPG

- **Upper Articulation Pivot**
  - (See Note 11)
  - W MPG

- **Cylinder Lean Bearings**
  - (See Note 6)
  - W MPG

- **Cylinder Pivot Bearings**
  - (See Note 7)
  - W MPG

- **Hydraulic System**
  - (See Note 10)
  - W OZ/HDO

- **Drawbar Ball and Socket**
  - (See Note 9)
  - W MPG

- **Front Mounted Scarifier**
  - (See Note 2)
  - W MPG