Intervals (on-condition or hard time) 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 service prescribed for a particular interval. On-condition (OC) oil sample intervals shall be applied unless changed by Joint Oil Analysis Program (JOAP) 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 JOAP laboratory support is not available.

**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.

Clean fittings before lubricating. Clean parts and around filler holes with dry-cleaning SOLVENT (SD), type II or equivalent. Dry before lubricating.

Lubricate points indicated by dotted arrow shaft on both sides of equipment.

Lubricate after washing.

Normally drain crankcase when hot. Fill and check level.

The lowest level of maintenance authorized to lubricate a point is indicated by one of the following: (C) Operator/Crew, (0) Unit Maintenance, or (F) Intermediate Direct Support Maintenance.

You can help improve this publication. If you find any mistakes or if you know of a way to improve the procedures, please let us know.

Your letter or DA Form 2028 (Recommended Changes to Publications and Blank Forms) should be mailed directly to: Commander, US Army Troop Support Command, ATTN: AMSTR-MCTS, 4300 Goodfellow Blvd, St. Louis, MO 63120-1798. A reply will be furnished to you.

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<table>
<thead>
<tr>
<th>INTERVAL</th>
<th>MAN-HR</th>
<th>INTERVAL</th>
<th>MAN-HR</th>
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<tr>
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<td>S</td>
<td>0.2</td>
</tr>
<tr>
<td>M</td>
<td>2.0</td>
<td>B</td>
<td>10.0</td>
</tr>
<tr>
<td>Q</td>
<td>1.5</td>
<td></td>
<td></td>
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</tbody>
</table>

Card 1 of 7
LUBRICANT • INTERVAL

Engine Oil Dipstick Gage (C) (1 each engine.) (Check and maintain to high level mark.)

Engine Crankcase Fill (O) (1 each engine.) (Add oil as needed to maintain at high level mark.)

Engine Crankcase Drain (O) (1 each engine.) (Open drain valve and drain oil.) (See notes 3, 4, and 5.)

Reverser Air Cylinder (O) GPS (See note 10.)

Reverser (O) (Apply few drops lubricant to oilite bushings.)

Battery Terminals (O) GAA (Clean off corrosion and apply light coat of grease.)

Truck Centerplates (F) DD (1 each truck) (see note 6.)
LUBRICANT • INTERVAL

Brake Slack Adjusters (0) GAA
(4 fittings each truck.)
(Apply few drops to exposed threads.)

Door Hinges (0) OE/HDO
(See note 2.)

Handbrake Chain Roller Guides (0)
(2 points.) (Apply 2 or 3 drops each point.)

Handbrake and Sheaves (0)
(3 points.) (Apply 2 to 3 drops each point.)

Truck Journal Pedestal Liners (0)
(4 pair each truck.) (Apply several drops at top of each liner as needed.)

Roller Bearings (0)
(See note 9.)

Left Side

Card 3 of 7
INTERVAL • LUBRICANT

OC or Q

OE/ HDO
Engine Oil Filters (0)
(Two each engine.)
(See note 3.)

AA
Brake Rigging (0)
(Apply few drops to pins and bushings.)

AA
Brake Cylinder Lever (0)
(Two each truck.) (Apply few drops to pins.)

CC
Brake Cups (F)
(Coat grease on brake cup and inside of brake cylinder in accordance with AAR Regulations.)

GG-1
Coupler Carrier and Striker Plate (0)
(1 each end.) (Apply light coat of grease as needed.)

GAA
Knuckle and Knuckle Pin and Locking Head and Pin (0)
(Apply light coat of grease as needed.)

Right Side

Card 4 of 7
INTERVAL • LUBRICANT

Air Compressor (O)
(1 each end.) (See note 7.)
(See detail A.)

Bell Ringer (O)
(Apply few drops to fulcrum pin.)

Main Generator Armature bearing (O)
(1 generator each end.)
(1 point.) (Apply 1 or 2 pumps from grease gun.)

Traction Motor Gears (O)
(2 motors each truck.)
(Check and maintain oil level within 1/4 inch of bottom of level plug opening.) (See note B.)
## LUBRICANT • INTERVAL

**- KEY -**

<table>
<thead>
<tr>
<th>INTERVAL</th>
<th>LUBRICANT</th>
<th>EXPECTED TEMPERATURES</th>
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<tbody>
<tr>
<td></td>
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<td>ABOVE +32°F (ABOVE 0°C)</td>
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<tr>
<td>D-Daily (10 hr)</td>
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</tr>
<tr>
<td>M-Monthly (100 hr)</td>
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<td></td>
</tr>
<tr>
<td>Q-Quarterly (3 months)</td>
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<td>S-Semiannually (6 months)</td>
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<td>A-Annually (12 months)</td>
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<td>B-Biennially (24 months)</td>
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<tr>
<td></td>
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<td>(24 months)</td>
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For arctic operation, refer to FM 9-207

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### LUBRICANTS

<table>
<thead>
<tr>
<th>LUBRICANTS</th>
<th>CAPACITY</th>
<th>EXPECTED TEMPERATURES</th>
</tr>
</thead>
<tbody>
<tr>
<td>OE/HDO (MIL-L-2104D)</td>
<td>LUBRICATING OIL, Engine</td>
<td>Engine Crankcase 10.5 gal (39.7 L)</td>
</tr>
<tr>
<td>OE/HDO (MIL-L-2104D)</td>
<td>Air Compressor Crankcase</td>
<td>7.5 qt (7.1 L)</td>
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<tr>
<td>OEA (MIL-H-46167)</td>
<td>LUBRICATING OIL, Engine (Arctic)</td>
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<tr>
<td>GO (MIL-L-2105)</td>
<td>LUBRICATING OIL, Gear, Multipurpose</td>
<td>Traction Motor Gearcase 22 qt (20.8 L)</td>
</tr>
<tr>
<td>GAA (MIL-G-10924)</td>
<td>GREASE, Automotive and Artillery</td>
<td></td>
</tr>
<tr>
<td>CC (AAR-M-914-70)</td>
<td>GREASE, Brake Cylinder</td>
<td></td>
</tr>
<tr>
<td>GG-1 (VV-G-671)</td>
<td>GREASE, Graphite</td>
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</tr>
<tr>
<td>GPS (MIL-G-4343)</td>
<td>GREASE, Pneumatic System</td>
<td></td>
</tr>
<tr>
<td>BB (Shell-RA 71005)</td>
<td>GREASE, Roller and Ball Bearing</td>
<td></td>
</tr>
<tr>
<td>DD (Shell 72777)</td>
<td>LUBRICANT, Graphite</td>
<td></td>
</tr>
<tr>
<td>LO (VV-L-820)</td>
<td>LUBRICATING OIL, General-Purpose</td>
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<tr>
<td>AA (TEXHO 57-40W)</td>
<td>LUBRICATING OIL, Railway Car</td>
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</tbody>
</table>

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For arctic operation, refer to FM 9-207

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### INTERVALS

Intervals given are for normal operation

<table>
<thead>
<tr>
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<tr>
<td>B-Biennially (24 months)</td>
<td></td>
</tr>
</tbody>
</table>
NOTES:

1. FOR OPERATION OF EQUIPMENT IN PROTRACTED COLD TEMPERATURES BELOW -4°F (-20°C). Remove lubricants prescribed in the key for temperatures above -4°F (-20°C). Clean parts with dry-cleaning SOLVENT. Lubricate with lubricants specified in the key for temperatures 0 to -65°F (-18 to -54°C).

2. OIL CAN POINTS. Monthly lubricate all exterior hinges, latches, pins, clevises, springs, and exposed threaded surfaces with OE/HDO oil, excepting similar parts requiring other lubrication as shown on charts.

3. ENGINE OIL FILTERS, ORAINS, AND STRAINERS. Oil filter replacement interval shall aline with on-condition JOAP or hard time oil change requirements. See notes 4 and 5. At oil change, drain and clean engine lube oil filters, strainers, housings, sump pans, and interior of crankcase. Drain and dry parts. Replace filter elements and replenish oil supply with approximately 10.5 gallons of engine oil OE/HDO. Fill to high level mark on dipstick. Check engine oil drains, filters, valve covers, and filter strainer housing seals for tightness. Start and run engine. Replenish oil supply to high level mark.

4. ENGINE OIL. A sample of the oil shall be sent to a JOAP laboratory for analysis at an interval of 25 hours or 30 days. Refer to AR 700-132 for sampling requirements.

5. JOAP LABORATORY SUPPORT. When JOAP laboratory support is not available, drain and refill crankcase oil at 500 hours.

6. TRUCK CENTERPLATE. When condition of graphite lubricant indicates, replace lubricator.

7. AIR COMPRESSOR. Semi-annually drain and refill. Bring to FULL mark on compressor oil level dipstick gage. Operate compressor for 5 minutes, check for leaks, recheck oil level, and bring to proper level. Clean strainer.

8. TRACTION MOTOR GEARS. Annually drain oil from gear unit, remove oil pan, and clean out oil and sludge. Fill with GO oil to within 1/4 inch of oil level plug.

9. ROLLER BEARINGS. No field lubrication. If end cap is equipped with a lubricant fitting, remove and replace with a nonremovable plug.

10. REVERSER AIR CYLINDERS (2 Cylinders). Remove pistons annually, clean, apply a light coat of grease GPS to cylinder walls and piston packing cup.

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:

CARL E. VUONO
General, United States Army
OFFICIAL:
R. L. DILWORTH
Brigadier General, United States Army
The Adjutant General
DISTRIBUTION:
To be distributed in accordance with DA Form 12-25A, Operator and Unit Maintenance Requirements for Locomotive, 80-Ton, Mode 1 112-5708

Card 7 of 7
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</tr>
</thead>
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IN THIS SPACE, TELL WHAT IS WRONG AND WHAT SHOULD BE DONE ABOUT IT.

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DA FORM 1 JUL 79 2028-2

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