LUBRICATION ORDER **LO 5-3810-306-12**
25 February 1993

*This Lubrication Order shall be used in place of the lubrication instructions contained in the GROVE Manufacturing Company Commercial Maintenance Manual No. 7-187-000004-2 dated 1 Feb 89 that was originally overpacked with the crane.

CONTAINER CRANE, ROUGH TERRAIN, WHEEL MOUNTED
HYDRAULIC, DIESEL POWERED, DOD MODEL
NSN 3810-01-205-2716

REFERENCE: TM 5-3810-306-20

On-condition (OC) intervals for oil changes shall be determined by the Army Oil Analysis Program (AOAP) laboratory and shall be applied unless otherwise notified.

In the event that the AOAP can not be performed hard time intervals shall apply.

Hard time intervals and the related man-hour times are based on normal operation. The man-hour specified is the time you need to do all the services prescribed for a particular interval. Change the interval if your lubricants are contaminated or if you are operating the equipment under adverse operating conditions, including longer than usual operating hours. The interval may be extended during periods of low activity. If extended, adequate preservation precautions must be taken.

Clean fittings before lubricating. Clean parts with dry cleaning solvent (SD), Type II or equivalent. Dry before lubricating.
Dotted arrow points indicate lubrication on both sides of the equipment.

All oil levels to be checked with the crane parked on a level surface in transport position, and while oil is cold, unless otherwise specified.

The lowest level of maintenance authorized to lubricate a point is Organizational Maintenance (0).

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: (U.S. ARMY TANK-AUTOMOTIVE COMMAND, Warren, MI, 48397-5000). A reply will be furnished to you.

DISTRIBUTION STATEMENT A. Approved for public release, distribution is unlimited.

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NOTES

1. For operation of equipment in protracted cold temperatures below -10°F (-23°C). Remove lubricants prescribed in the key for temperatures above -10°F (-23°C). Clean parts with dry cleaning solvent. Re-lubricate with lubricants specified in the key for temperatures 0°F to -65°F.

2. Check transmission and torque converter with engine running and oil warm. Fill converter/ transmission through the fill pipe until fluid is at the top of the fill pipe. Run the engine two minutes at 500 to 600 rpm to prime the torque converter and hydraulic lines. Recheck the level of oil in the transmission with the engine running at idle (500 to 600 rpm). Add oil as necessary to bring the level above the ADD mark on the dipstick. After the oil temperature reaches 180 to 200°F (82.2 to 93.3°C), add oil to bring the level to the FULL mark on the dipstick.

3. When greasing the lift cylinders and boom pivot shafts, better distribution of grease within the shafts is obtained if the weight of the boom is removed from the shafts.

4. With grease gun, pump grease until some extrusion is visible at the division of the bearing races, then rotate 90 degrees and repeat. Continue until the whole bearing is greased.

CAUTION When checking the gear box oil level. Place the dipstick into the sleeve until the cap is flush with the end of the sleeve. Do not screw the cap onto the sleeve to check the level.

5. Turntable swing gear box and brake. Drain and refill first time after 250 hours. Fill to mark on gear box dipstick. Fill to fill plug on brake.

6. Axle drive units and planetary ends. Make first change after 100 hours of operation.

7. Fill to bottom of level hole in housing with oil level mark horizontal.

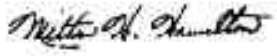
8. Drain at oil pan, fill at oil filler cap.

A 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-

GORDON R SULLIVAN
General, United States Army
Chief of Staff

Official:



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

Distribution: 03483

To be distributed in accordance with DA Form 12-25-E, Block 5978, requirements for LO 5-3810-306-12.

**CONTAINER CRANE, ROUGH TERRAIN, WHEEL MOUNTED
HYDRAULIC, DIESEL POWER, DOD MODEL
NSN 3810-01-205-2716**

LUBRICANTS	CAPACITY	EXPECTED TEMPERATURES				INTERVALS
		Above +32°F (0°C)	+40°F (+4°C) to -10°F (-23°C)	0°F (-17°C) to -65°F (-53°C)		
MPG-Multipurpose Grease (MIL-G-10924)		ALL TEMPERATURES			FOR ARTIC OPERATION REFR TO FM9-207	Intervals given are *in hours* of normal operation
Turntable Gear and Pinion Teeth	Brush on all teeth					
Steer Cylinder Pivot Pins	Until grease extrudes					
Main and Auxiliary Boom Nose Sheaves	Until grease extrudes					
Hook Block Sheaves	Until grease extrudes					
Outrigger Beam Wear Surfaces	Brush on each beam where pads contact					
Driver Shaft Universal Joints and Splines	Until grease extrudes					
Turntable Swing Bearing	Until grease extrudes entire circumference					
Oscillation Lockout Cylinder Pins	Until grease extrudes					
Fifth Wheel Pivot Pins	Until grease extrudes					
Axle Knuckle Bearings and Bushings	Until grease extrudes					
Tie Rod Ends (Both Axles)	Until grease extrudes					
Boom Pivot Shafts	Until grease extrudes					
Lift Cylinder Pivot Shafts	Until grease extrudes					