

LUBRICATION ORDER

5 July 1984

(Supersedes LO 5-3805-240-12-1, 22 DECEMBER 1969, -2, 25 JULY 1969, AND -3, 22 DECEMBER 1969)

**DITCHING MACHINE, DIESEL ENGINE DRIVEN;
WHEEL MTD, LADDER-TYPE 6 FT DEPTH
OF CUT, 24-INCH WIDTH OF CUT
(PARSON MODEL 624 VL) (NSN 3805-00-050-4638)**

Reference: TM 5-3805-240-12 and FEDERAL SUPPLY CATALOG C9100-IL.

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 services prescribed for a particular interval. On condition (OC) oil sample intervals shall be applied unless changed by the Army Oil Analysis Program (AOAP) 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 AOAP 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 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.

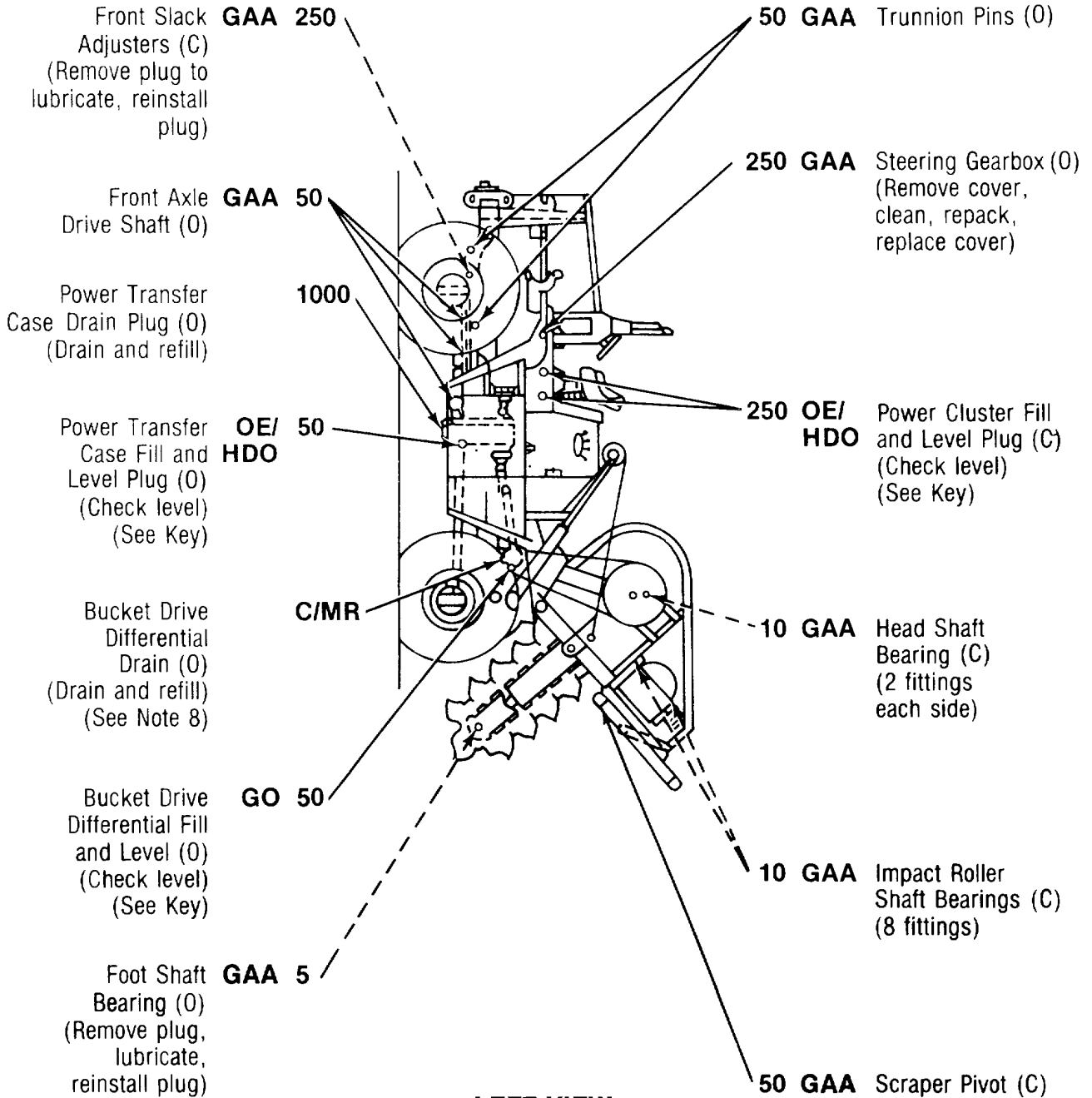
*The time specified is the time required to perform all services at the particular interval (on-condition or hard times).

*TOTAL MAN-HOURS		*TOTAL MAN-HOURS	
INTERVAL	MAN-HOURS	INTERVAL	MAN-HOURS
5	0.2	250	2.0
10	1.2	1000	0.8
50	3.2		

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LUBRICANT • INTERVAL

INTERVAL • LUBRICANT



TA221857

LEFT VIEW

LUBRICANT • INTERVAL

INTERVAL • LUBRICANT

Ball and Socket Joint (0)

GAA 50

50 GAA

Control Shift Levers (C)

Front Differential Fill and Level Plug (0)
(Check level)
(See Key)

GO 50

50 CW-11

Boom Cable (C)
(Clean and coat)

Front Differential Drain Plug (0)
(Drain and refill)
(See Note 9)

C/MR

10 GAA

Drive Chain Idler Sprocket (0)

Steering Drag Link (0)

GAA 50

10 OE/HDO

Bucket Line Drive Chain (0)
(Clean and coat)

Bucket Line Drive Shaft Universal and Slip Joint (0)

GAA 10

10 GAA

End Drum Shaft Bearing (0)

Rear Differential Drain Plug (0)
(Drain and refill)
(See Note 9)

C/MR

Rear Differential Fill and Level Plug (0)
(Check level)
(See Key)

GO 50

50 GAA

Scraper Cylinder Pivot Pins (C)

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LEFT VIEW

LUBRICANT • INTERVAL

INTERVAL • LUBRICANT

Transmission Drive Shaft Universal Joint (O) **GAA 50**

Rear Axle Drive Shaft (C) **GAA 50**

Rear Slack Adjuster (C) (Remove plug to lubricate, reinstall plug) **GAA 250**

Boom Guide Pivots (C) **GAA 50**

Hoist Cylinder Pivots (C) **GAA 50**

Adjusting Screws (C) **OE/ HDO 10**

50 GAA Front Wheel Axle Bearings (O)

OC or 1000 Transmission and Torque Converter Oil Strainer (O) (Clean)

50 OE/ HDO Accelerator Pedal Pivot (C)

50 GAA Boom Lock Pin (C)

50 GAA Rack Gear Shaft Bearings (C) (4 fittings)

LEFT VIEW

Boom Hoist Pivot (C) **GAA 50**

Boom Hoist Sheave Bearing (O) **GAA 50**

Bucket Line Drive Sprockets (O) **GAA 50**

Idler Shaft Bearings (C) (2 fittings) **GAA 50**

50 GAA Brake Shaft (C) (Sparingly)

50 GAA Tie Rod Bearing (C)

10 Hydraulic Tank Level (C) (Check level)

OE/ HDO Hydraulic Tank Fill Cap (C) (See Key)

50 GAA Spreader Arm Bearing (C)

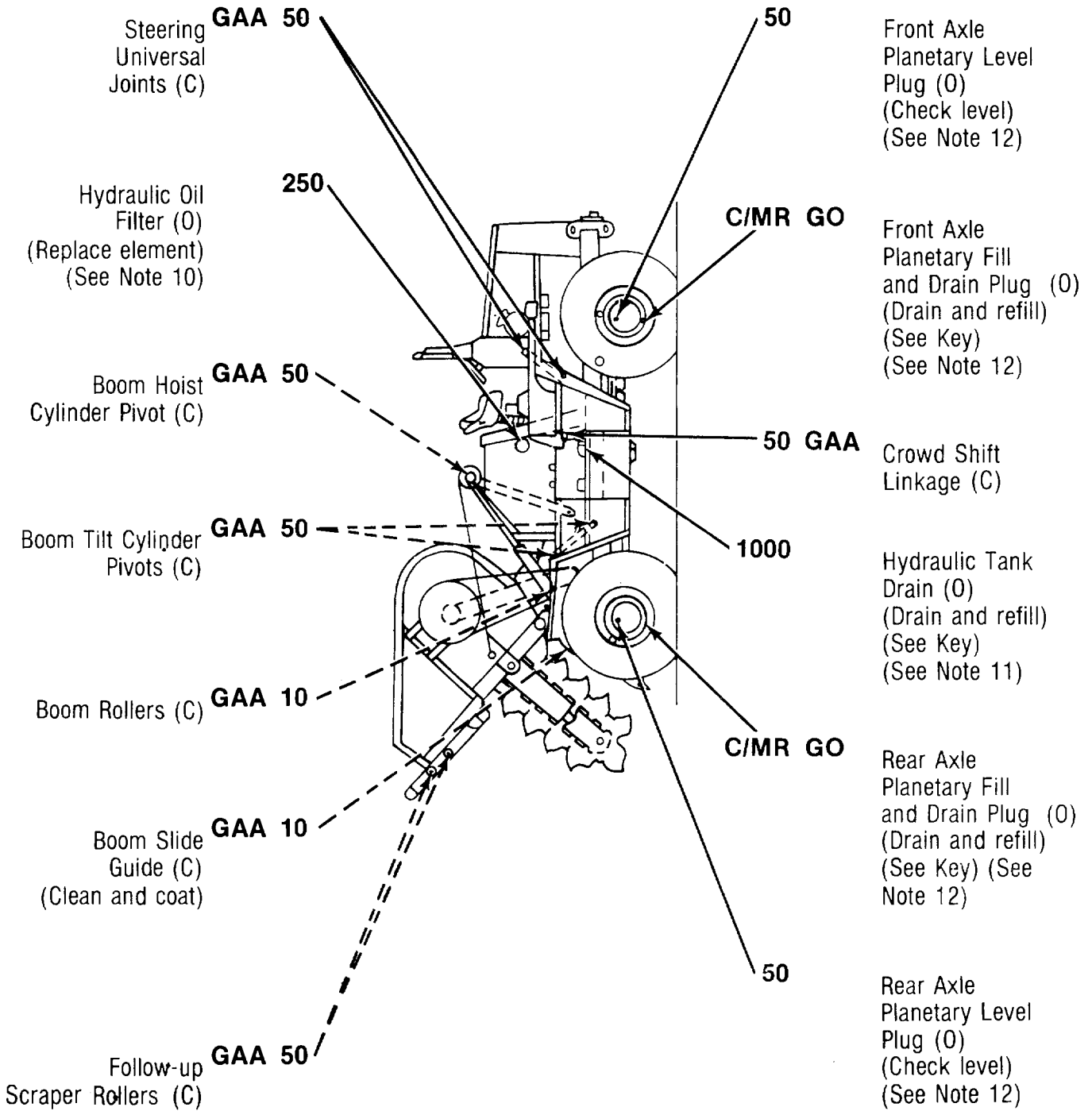
50 GAA Brake Shaft (C) (Sparingly)

RIGHT VIEW

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LUBRICANT • INTERVAL

INTERVAL • LUBRICANT



RIGHT VIEW

TA221860

LUBRICANT • INTERVAL

INTERVAL • LUBRICANT

- Engine Emergency Shutoff Valve Pivot (O)
- Crankcase Level Gage (C) (Check level) (See Note 4)
CAUTION: When OEA oil is used the level will be checked more often.
- Crankcase Fill Cap (C) (See Key)
- Starter (O) (Remove plug, lubricate sparingly, reinstall plug)
- Tachometer Drive (O)
- Transmission and Torque Converter Drain Plug (O) (Drain and refill) (See Notes 1 and 7)

OE/ HDO 10

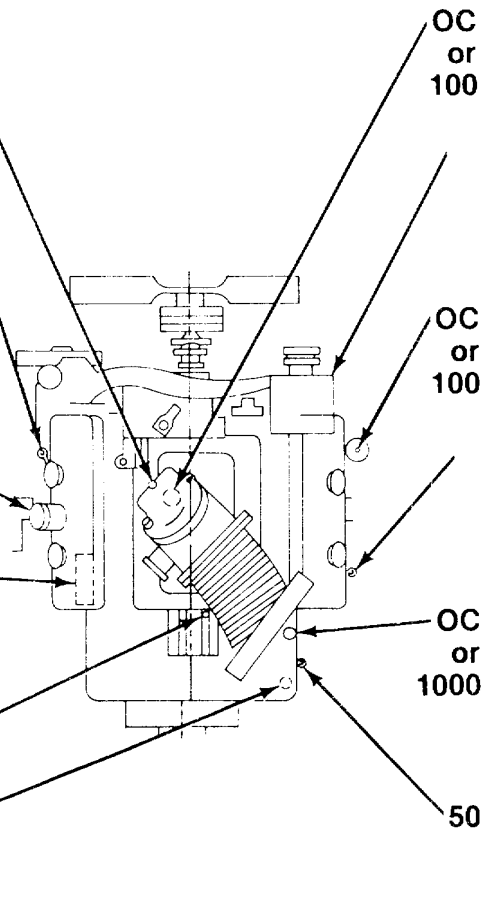
10

OE/ HDO

OE/ HDO 250

GAA 100

OC or 1000



- Crankcase Drain (O) (Drain and refill) (See Notes 1 and 5)
- Generator (Sealed bearings, no lubrication required)
- Engine Oil Filter (O) (Replace element) (See Notes 1 and 6)
- Transmission and Torque Converter Fill Cap (O) (See Key)
- Transmission and Torque Converter Oil Filter (O) (Replace element) (See Notes 1 and 7)
- Transmission and Torque Converter Level Plug (O) (Check level)

ENGINE

-KEY -

LUBRICANTS	CAPACITY	EXPECTED TEMPERATURES			INTERVALS
		Above +15°F (Above -9°C)	+ 40°F to -15°F (+ 4° to -26°C)	+40°F to -65°F (+4° to -54°C)	
OE/ - HDO - Lubricating Oil, Internal Combustion Engine, Tactical Service OEA - Lubricating Oil, Internal Combustion Arctic - Engine Crankcase - Oil Can Points (See Note 3)	22 qts. (20.8 L)	OE/HDO 30	OE/HDO 10	OEA (See Note 2)	For Arctic operation refer to FM 9-207 C/MR-Condition Monitor OC - On Condition (AOAP) Intervals given are in hours of normal operation

*See Note 13 for lubricant specification number.

- KEY -

LUBRICANTS	CAPACITY	EXPECTED TEMPERATURES			INTERVALS
		Above +15°F (Above -9°C)	+ 40°F to -15°F (+ 4° to -26°C)	+40°F to -65°F (+4° to -54°C)	
- Transmission and Torque Converter - Power Cluster	14 qts. (13.24 L)				For Arctic operation refer to FM 9-207 C/MR - Condition Monitor OC - On Condition (AOAP) Intervals given are in hours of normal operation
- Hydraulic System	176 qts. (166.5 L)	OE/HDO 10			
- Power Transfer Case	10 qts. (9.46 L)	OE/HDO 50	OE/HDO 30		
GO - Lubricating Oil, Gear, Multipurpose		GO 80W/90	GO 80W/90	GO 75W	
- Bucket Drive Differential	8 qts. (7.56 L)				
- Front Axle Planetary	2 qts. ea (1.9 L)				
- Rear Axle Planetary	2 qts. ea (1.9 L)				
- Front Differential	10 qts. (9.46 L)				
- Rear Differential	8 qts. (7.6 L)				
CW - Lubricating Oil, Chain, Wire Rope, Exposed Gear		ALL TEMPERATURES			
GAA -Grease, Automotive and Artillery		ALL TEMPERATURES			

*See Note 13 for lubricant specification number.

NOTES:

1. ARMY OIL ANALYSIS PROGRAM (AOAP). For Active Army units, obtain samples from engine and automatic transmission every 50 hours of operation or

60 days (whichever comes first). Reserve and National Guard activities will use 50 hours or 120 days as the prescribed sample intervals. Reserve and

NOTES CONTINUED:

National Guard equipment in frequent use during active training period will adhere to the schedule for Active Army units. As a minimum, one sample from each unit's two week active training period will be submitted for each item of equipment. Send these samples to the nearest AOAP laboratory. Refer to TB 43-0210 for sampling instructions. When or if AOAP laboratory support is unavailable, hard time intervals will apply.

NOTE

- **Do not hold oil samples. Submit oil samples as soon as they have been taken.**
- **Seasonal oil changes will be made due to expected temperatures. (See Key.)**

2. 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.

3. OIL CAN POINTS. Each 50 hours lubricate control linkage, latches and hinges, pins and clevises, and all exposed adjusting threads with OE/HDO.

4. CRANKCASE 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).

5. CRANKCASE. Oil is to be changed each time an engine oil change is directed by AOAP laboratory. When AOAP laboratory support is not available, change oil each 100 hours. Drain when lubricant is warm.

6. ENGINE OIL FILTER. Filter element is to be replaced each time an engine oil change is directed by AOAP laboratory. After installing new filter element, fill crankcase, operate engine 5 minutes, check housing for leaks, check crankcase oil level and bring to full mark. When AOAP laboratory support is not available, install new filter element each 100 hours.

7. TRANSMISSION AND TORQUE CONVERTER/ TRANSMISSION AND TORQUE CONVERTER OIL FILTER. Check level each 50 hours with engine running at idle speed, oil at operating temperature and transmission in neutral. Maintain oil level to "FULL" mark. Oil and oil filters are to be changed each time a transmission oil change is directed by AOAP laboratory. Remove filter element, clean filter housing and install new filter element and gasket. After replacement, fill transmission to low mark. With engine running, oil at operating temperature and transmission in neutral (to fill lines and converter) add oil to bring level to "FULL" mark. Operate for 5 minutes and check for leaks. When AOAP laboratory support is not available, change transmission oil and transmission oil filter element each 100 hours.

8. BUCKET DRIVE DIFFERENTIAL. Each 50 hours check level. Change gear lubricant only when required by maintenance repair action, contamination by water, or other foreign material. After refill, operate for 5 minutes, check for leaks and bring oil level to fill and level plug opening.

9. FRONT DIFFERENTIAL/REAR DIFFERENTIAL. Each 50 hours check level. 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.

10. HYDRAULIC OIL FILTER. Each 250 hours, remove element, clean filter shell

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NOTES CONTINUED:

and install new element. After replacement, operate hydraulic system for 5 minutes, check for leaks, check level and bring to "FULL" mark.

11. HYDRAULIC SYSTEM DRAIN. Each 1000 hours, with boom resting on ground, drain tank and filters. Replace filter elements, refill tank partially full with clean oil, and operate engine and controls to fill lines and components. Fill tank and operate engine and controls for 5 minutes. Check for leaks, check level and bring to "FULL" mark.

12. FRONT AXLE PLANETARY/REAR AXLE PLANETARY. Each 50 hours rotate wheel until plug is horizontal with center line of axle. Remove plug, check level and reinstall. Change gear lubricant only when required by maintenance repair action, contamination by water, or other foreign material. To drain rotate wheel until plug is at bottom center, remove plug and drain. Rotate wheel back to level point, fill and reinstall plug. After refill, operate for 5 minutes, check for leaks and bring oil level to level of fill and drain 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
CW	VV-L-751
OEA	MIL-L-46167
(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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