LUBRICATION ORDER

LO 10-3930-634-12

15 DECEMBER 83 (Supersedes LO 10-3930-634-12-1, and -2, 30 JANUARY 1976)

TRUCK, LIFT, FORK, DIESEL ENGINE, PNEUMATIC TIRED WHEELS, 6000 LB CAPACITY, 24 INCH LOAD CENTER, (ANTHONY MODEL MLT 6-2) (ARMY MODEL MHE 230) (NSN 3930-00- 327-1575)

Reference: TM 10-3930-634-12 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 he 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 (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: 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**
10	0.4	250	0.4
50	0.4	500	1.3
100	1.0	1000	1.3

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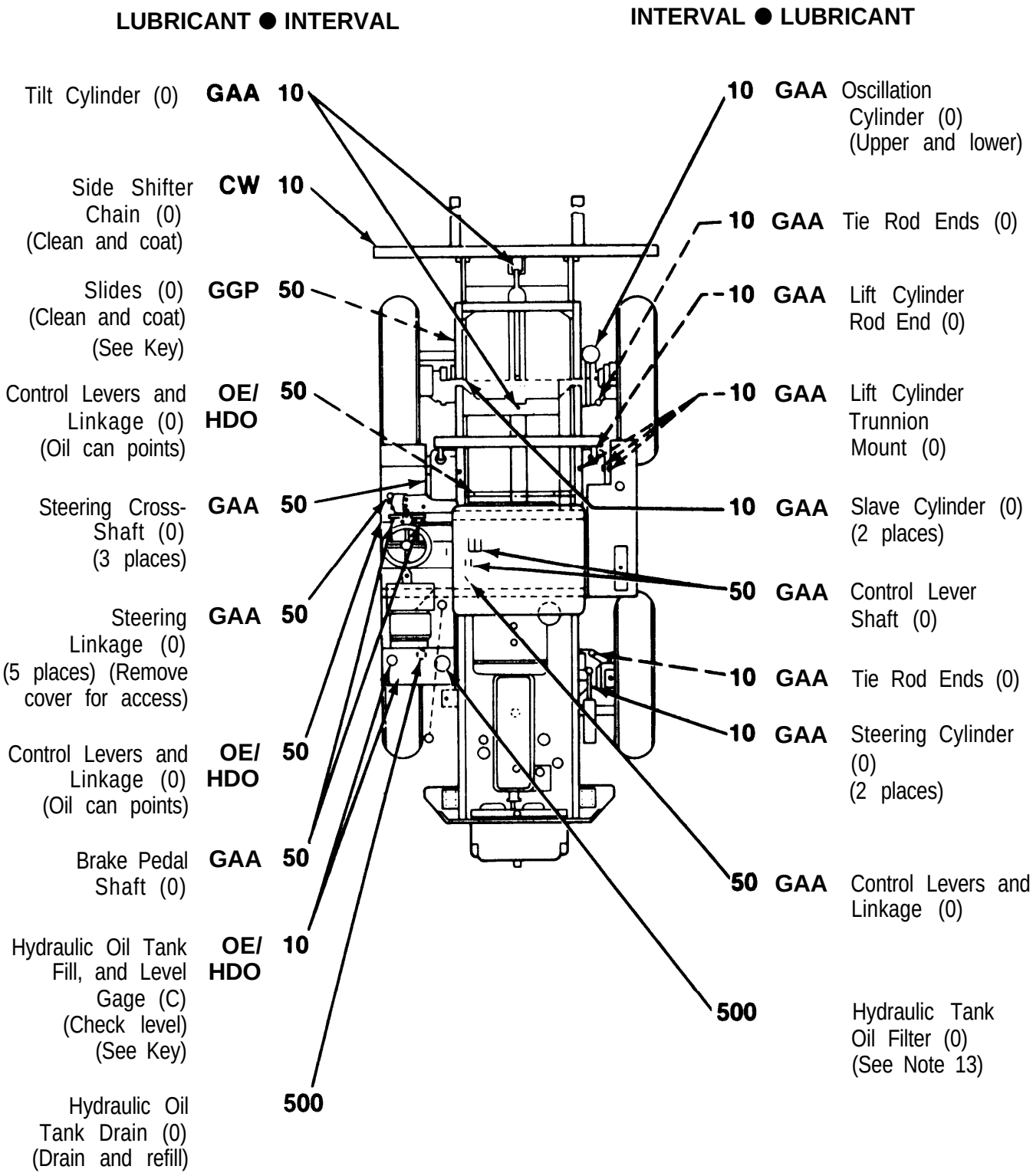

PLAN VIEW

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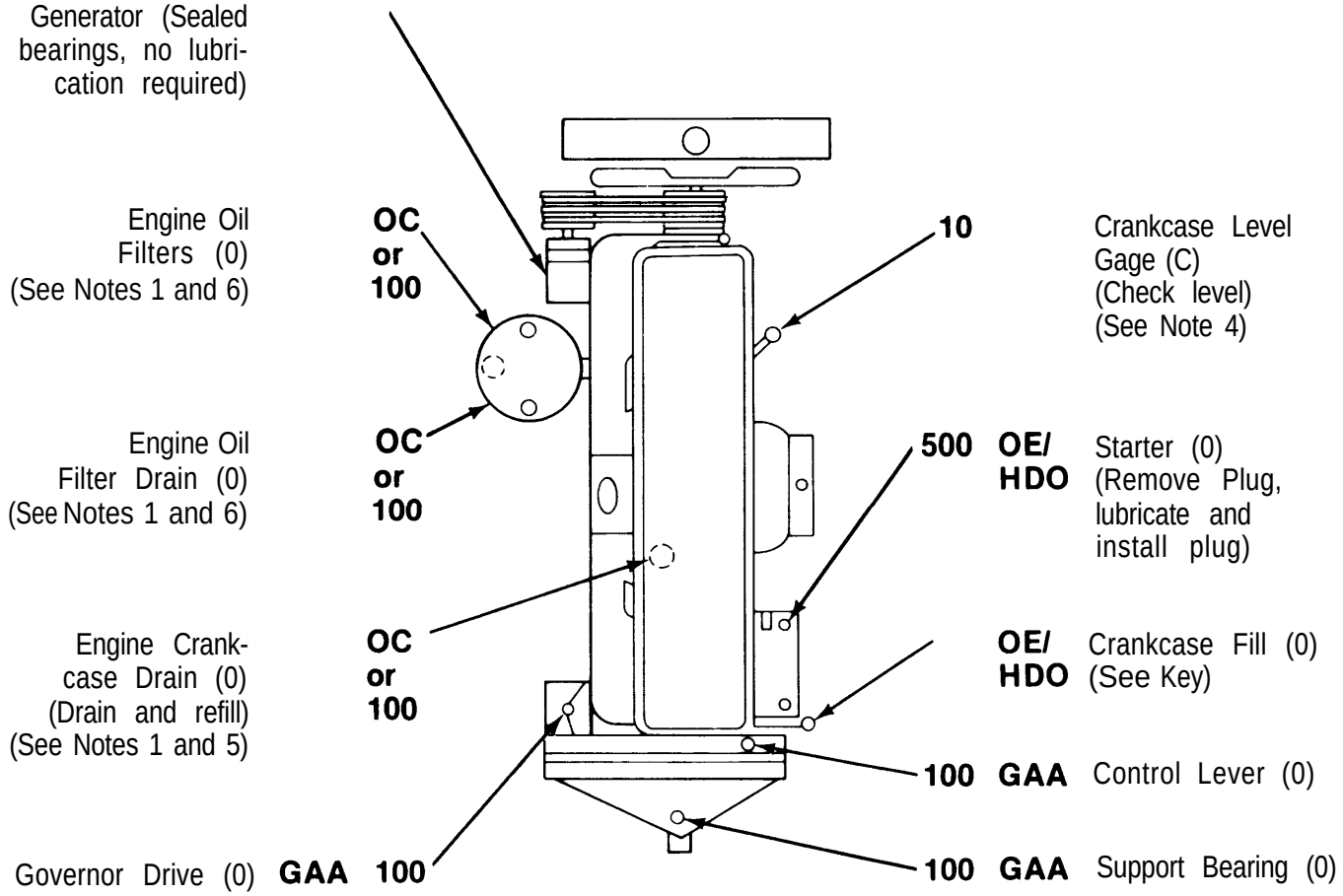
LUBRICANT ● INTERVAL **INTERVAL ● LUBRICANT**



ENGINE PLAN VIEW

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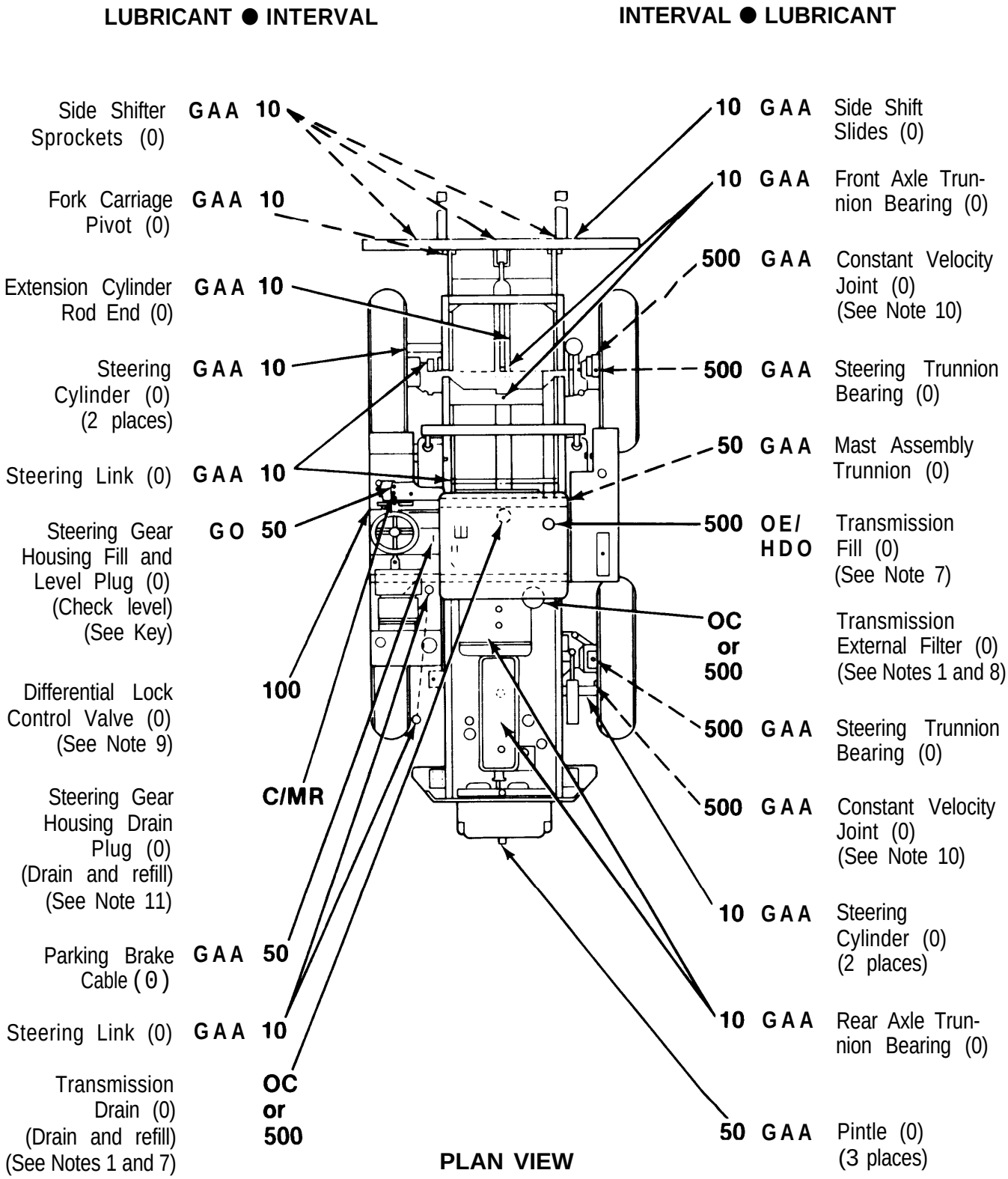
LUBRICANT ● INTERVAL
INTERVAL ● LUBRICANT
Side Shifter Sprockets (0) GAA 10
Fork Carriage Pivot (0) GAA 10
Extension Cylinder Rod End (0) GAA 10
Steering Cylinder (0) (2 places) GAA 10
Steering Link (0) GAA 10
Steering Gear Housing Fill and Level Plug (0) (Check level) (See Key) GO 50
Differential Lock Control Valve (0) (See Note 9) 100
Steering Gear Housing Drain Plug (0) (Drain and refill) (See Note 11) C/MR
Parking Brake Cable (0) GAA 50
Steering Link (0) GAA 10
Transmission Drain (0) (Drain and refill) (See Notes 1 and 7) OC or 500
10 GAA Side Shift Slides (0)
10 GAA Front Axle Trunnion Bearing (0)
500 GAA Constant Velocity Joint (0) (See Note 10)
500 GAA Steering Trunnion Bearing (0)
50 GAA Mast Assembly Trunnion (0)
500 OE/HDO Transmission Fill (0) (See Note 7)
OC or 500 Transmission External Filter (0) (See Notes 1 and 8)
500 GAA Steering Trunnion Bearing (0)
500 GAA Constant Velocity Joint (0) (See Note 10)
10 GAA Steering Cylinder (0) (2 places)
10 GAA Rear Axle Trunnion Bearing (0)
50 GAA Pintle (0) (3 places)
PLAN VIEW

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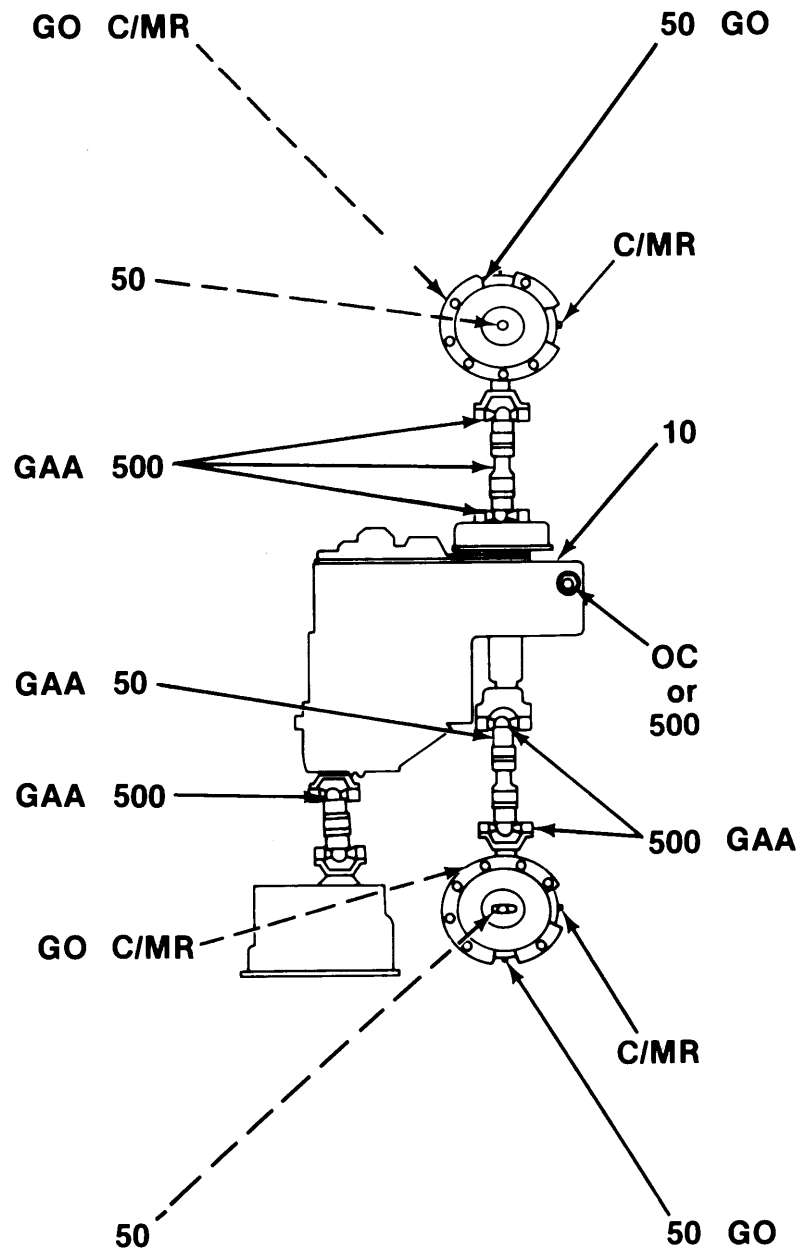
LUBRICANT ● INTERVAL

INTERVAL ● LUBRICANT



Front Wheel Hub Fill and Drain Plug (0) (Drain and refill) (See Notes 11 and 12) (See Key)

Front Wheel Hub Level Plug (0) (Check level) (See Note 12)

Propeller Shafts Splines and Bearings (0) (Sparingly with hand gun)

Disconnect Linkage (0)

Drive Shaft Universal Joints (0) (3 places)

Rear Wheel Hub Fill and Drain Plug (0) (See Key) (Drain and refill) (See Notes 11 and 12)

Rear Wheel Hub Level Plug (0) (Check level) (See Note 12)

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

Front Differential Drain Plug (0) (Drain and refill) (See Note 11)

Transmission Oil Level Indicator (C) (Check level) (See Note 7)

Transmission Sump Screen Assembly (0) (See Notes 1 and 7)

Propeller Shaft Splines and Bearings (0) (Sparingly with hand gun)

Rear Differential Drain Plug (0) (Drain and refill) (See Note 11)

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

RIGHT SIDE VIEW (PANEL REMOVED)

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± KEY –

LUBRICANTS	CAPACITY	EXPECTED TEMPERATURES				INTERVALS
		Above +15°F (Above -9°C)	+40° to -15°F (+4° to -26°C)	+40° to -65°F (+4° to -54°C)	For Arctic operation refer to FM 9-207	
OE/HDO - Lubricating Oil, Internal Combustion Engine, Tactical Service **OEA** - Lubricating Oil, Internal Combustion, Arctic - Crankcase - Oil Can Points (See Note 3)	16 qts. (15.13 L)	OE/HDO 30	OE/HDO 10	**OEA** (See Note 2)		C/MR - Condition Monitor OC - On Condition (AOAP)
- Transmission	32 qts. (30.27 L)	**OE/HDO** 30	**OE/HDO** 10 or **OE/HDO** 30			Intervals given are in hours of normal operation.
- Hydraulic Tank - Differential Lock Control Valve (See Note 9)	200 qts. (189.2 L)	**OE/HDO** 10	**OE/HDO 10**			
GO - Lubricating Oil, Gear Multipurpose - Front and Bear Wheel Hubs - Front and Rear Differentials - Steering Gear Housing	4 qts. ea (3.78 L) ea 10 qts. ea (9.46 L) ea 1 qt. (0.946 L)	**GO** 85W/140	**GO** 80W/90	**GO** 75W		
BFS - Brake Fluid, Silicone, Automotive - Differential Lock Control Valve (See Note 9)		ALL TEMPERATURES				

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*See Note 14 for lubricant specification number.

* KEY –

LUBRICANTS	CAPACITY	EXPECTED TEMPERATURES			For Arctic operation refer to FM 9-207	INTERVALS
		Above +15°F (Above -9°C)	+40° to -15°F (+4° to -26°C)	+40° to -65°F (+4° to -54°C)		
GGP - Grease, General Purpose - Slides		ALL TEMPERATURES				C/M R - Condition Monitor OC - On Condition (AOAP) Intervals given are in hours of normal operation.
CW - Lubricating Oil, Chain, Wire Rope, Exposed Gear - Side Shifter Chain		CW II B	CW II A			
GAA - Grease, Automotive and Artillery		ALL TEMPERATURES				

*See Note 14 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 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 units' 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 accelerator bellcrank, brake, throttle and hydraulic valve linkages, pins and clevises, and all exposed adjusting threads with OE/HDO.

4. 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).

5. ENGINE CRANKCASE. Oil is to be changed each time an engine oil change is directed by AOAP laboratory. When AOAP laboratory support is not available,

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change oil each 100 hours. Drain when lubricant is warm.

6. ENGINE OIL FILTERS. Filters are to be replaced each time an engine oil change is directed by AOAP laboratory. After installing new filter elements, 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 elements each 100 hours.

7. TRANSMISSION AND TORQUE CONVERTER. Check oil level each ten hours with engine running at 500-600 RPM and oil temperature at 150°F (66°C) to 200°F (93°C) with transmission in neutral. Maintain oil level to "FULL" mark. Oil is to be changed each time a transmission oil change is directed by AOAP laboratory. Drain transmission with oil at 150°F (66°C) to 200°F (93°C). Remove sump screen, clean and replace using new gasket. Refill transmission to "FULL" mark. With engine running at 500 to 600 RPM and oil temperature at 150°F (66°C) to 200°F (93°C) and with transmission in neutral, add oil to bring oil level to "FULL" mark. When AOAP laboratory support is not available, change transmission oil each 500 hours.

8. TRANSMISSION EXTERNAL FILTER. Filter is to be replaced each time a transmission oil change is directed by AOAP laboratory. Remove element, clean filter housing, install new element and seal. After replacement, with engine running at fast idle, oil temperature at 150°F (66°C) to 200°F (93°C) and transmission in neutral fill transmission to "FULL" mark. Operate for five minutes and check for leaks. When AOAP laboratory support is not available, install new filter element each 500 hours.

9. DIFFERENTIAL LOCK CONTROL VALVE. Check level each 100 hours. Oil should be within 3/4 inch (19 millimeters) of the top of valve. Drain only when repaired. Bleed lines at the lockout mechanism on the differential. Use BFS Brake Fluid (MIL-B-46176) on (S/N E 1468) and up. Use oil OE/HDO 10 (MIL-L-2104C) for S/N below S/N 1468.

10. CONSTANT VELOCITY JOINT. After operation in sea water remove a bolt (only 1 of 4) from bottom bearing cap, drain off water, inject GAA through top fitting to remove contaminated lube. Replace bearing cap bolt. Relubricate.

11. DIFFERENTIALS/WHEEL HUBS/ STEERING GEAR HOUSING. Check level each 50 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 level plug opening.

12. FRONT WHEEL HUB/REAR WHEEL HUB. To drain, turn wheel until fill and drain plug is at bottom center. Fill housing by turning wheel until fill and drain plug is in an upward position. Check level with arrow pointing straight down. Fill until lubrication extrudes from level plug (lower plug opening).

13. HYDRAULIC TANK OIL FILTER. Each 500 hours change oil filter or when Filter Contamination Indicator shows red, whichever occurs first.

14. 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
OEA	MIL-L-46167
CW	FED-VV-751
BFS	MIL-B-46176
(SD), Type II	P-D-680
GGP	MIL-G-23549

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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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To be distributed in accordance with DA Form 12-25A, Operator and Organizational maintenance requirements for Fork Lift Truck.

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