

LUBRICATION ORDER

LO 10 3930 632 12

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(Supersedes LO 10-3930-632-12, 25 FEBRUARY 1982)

**TRUCK, LIFT, FORK; GASOLINE ENGINE DRIVEN, SOLID RUBBER TIRED, 127-INCH LIFT;
2, 000 LB CAPACITY (CLARK EQUIPMENT MODEL 2329397, ARMY MODEL MHE-229) (NSN
3930-00-315-9699)**

Reference :TM 10-3930-632-12 and FEDERAL SUPPLY CATALOG C9100-IL.

Hard time intervals 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.

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.

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 requires to perform all services at the particular interval.

*TOTAL MAN-HOURS*TOTAL MAN-HOURS INTERVALMAN-HOURSINTERVALMAN-HOURS 100.15002.1 500.11000
3.5 2501.7 TA 219940 LO 10-3930-632-12*CARD 1 OF 5

TA219940

LUBRICANT · INTERVAL

INTERVAL · LUBRICANT

Uprights (Clean (0) and coat surfaces) **GAA 250**

Transmission, Torque Converter and Differential Level Gage and Fill Cap (C) (Check level) (See Key) (See Note 7) **ATF 10**

Transmission and Differential Drain Plugs (0) (Drain and refill) (See Key) (See Note 7) **1000**

Transmission Oil Filter (0) (Change filter) (See Note 8) **1000**

Spindle Pins (0) (2 fittings) **GAA 250**

Tie Rod Ends (0) **GAA 250**

Crankcase Drain Plug (0) (Drain and refill) (See Note 4) **250**

250 GAA Tilt Cylinder Pins (0)

1000 Hydraulic Reservoir Drain Plug (0) (Drain and refill) (See Note 9)

500 OE/ HDO Hydraulic Reservoir Fill, Breather Cap, and Level Check (C) (Check level) (See Note 9)

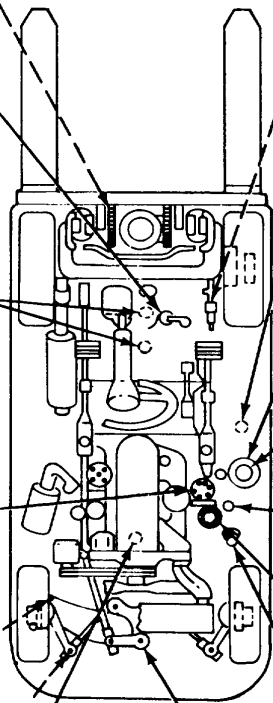
1000 Hydraulic System Oil Filter (0) (See Note 9)

10 Crankcase Oil Level Gage (C) (Check level) (See Note 3)

250 Engine Oil Filter (0) (Change cartridge) (See Note 5)

50 OE/ HDO Crankcase Breather and Crankcase Fill Cap (0) (See Key and Note 6)

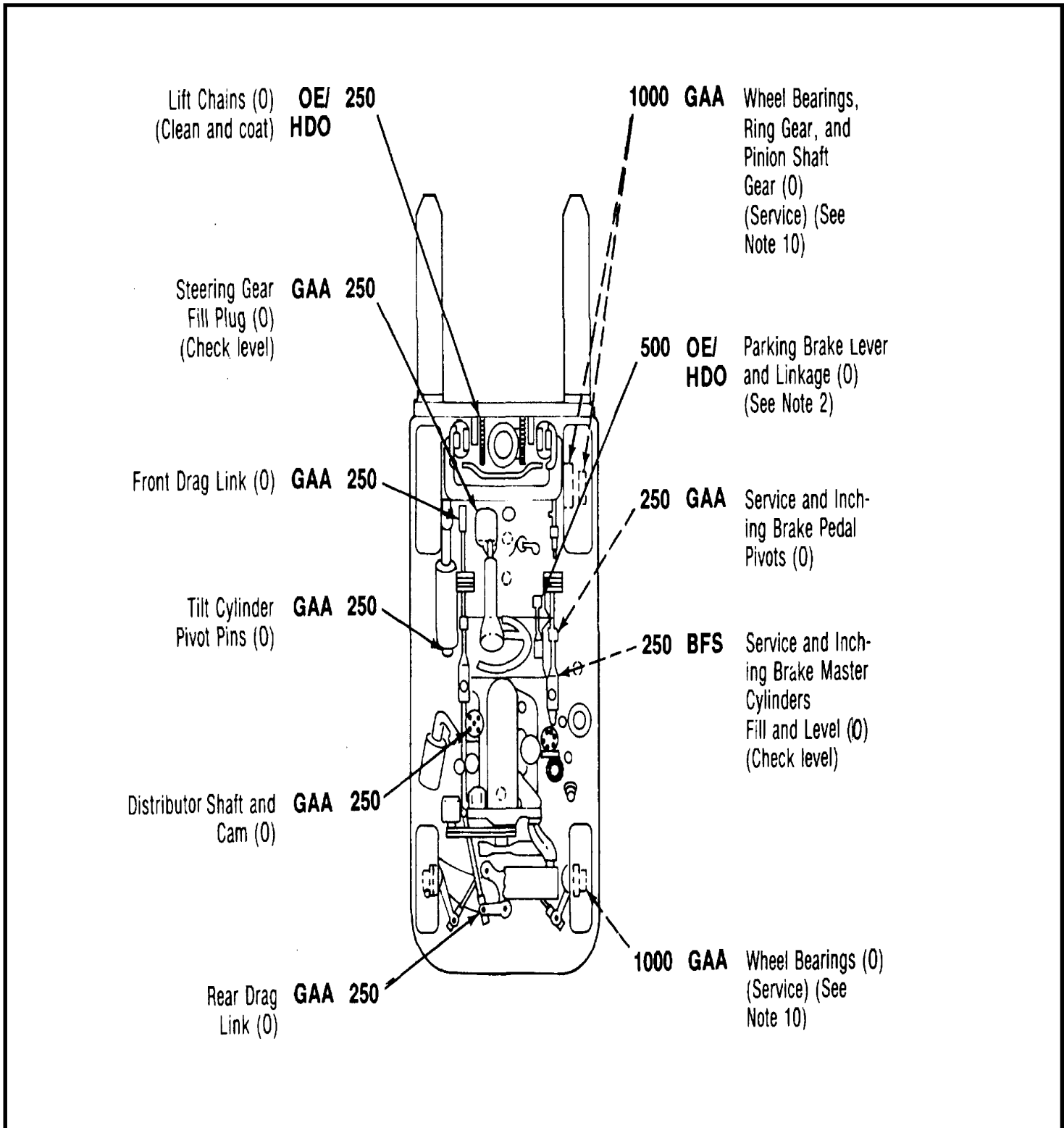
250 GAA Bellcrank Bearing (0)



TA219942

LUBRICANT*INTERVAL

INTERVAL* LUBRICANT



Lift Chains (0)
(Clean and coat) **OE/ HDO 250**

Steering Gear
Fill Plug (0)
(Check level) **GAA 250**

Front Drag Link (0) **GAA 250**

Tilt Cylinder
Pivot Pins (0) **GAA 250**

Distributor Shaft and
Cam (0) **GAA 250**

Rear Drag
Link (0) **GAA 250**

1000 GAA Wheel Bearings,
Ring Gear, and
Pinion Shaft
Gear (0)
(Service) (See
Note 10)

500 OE/ HDO Parking Brake Lever
and Linkage (0)
(See Note 2)

250 GAA Service and Inching
Brake Pedal
Pivots (0)

250 BFS Service and Inching
Brake Master
Cylinders
Fill and Level (0)
(Check level)

1000 GAA Wheel Bearings (0)
(Service) (See
Note 10)

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)	
OE/ HDO - Lubricating Oil, Internal Combustion Engine, Tactical Service OEA - Lubricating Oil, Internal Combustion, Arctic - Engine Crankcase - Oil Can Points (See Note 2)	4 qts. (3.8 L)	OE/HDO 30	OE/HDO 10	OEA (See Note 1)	Intervals given are in hours of normal operation.
- Hydraulic Tank	18 qts. (17 L)				
ATF - Automatic Transmission Fluid Type A Suffix A - Transmission and Differential	16 qts. (15.1 L)	ALL TEMPERATURES			
BFS - Brake Fluid, Silicone, Automotive, - Master Cylinder	1 pt. (0.5 L)	ALL TEMPERATURES			
GAA - Grease, Automotive and Artillery		ALL TEMPERATURES			

For Arctic operation refer to FM 9-207

*SEE NOTE 11 for lubricant specification number

NOTES:

1. FOR OPERATION OF EQUIPMENT IN PROTRACTED COLD TEMPERATURES BELOW -150F (-260C). Remove lubricants prescribed in Key for temperatures above -150F (-260C). Relubricate with lubricants specified in Key for temperatures below -150F (-260C). If OEA lubricant is required to meet the temperature ranges prescrib-

ed 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.
 2. OIL CAN POINTS. Each 500 hours clean and lightly coat hood hinges, latch, carburetor and accelerator linkage, and parking brake lever and linkage with OE/HDO 10.

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NOTES - CONTINUED:

3. 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).
4. ENGINE. Oil is to be changed each 250 hours. Drain when lubricant is warm.
5. ENGINE OIL FILTER. Each 250 hours, remove filter cartridge, clean housing and install new filter cartridge. After installing new filter cartridge, fill crankcase, operate engine for 5 minutes, check housing for leaks, check crankcase oil level and bring to "FULL" mark.
6. CRANKCASE BREATHER AND CRANKCASE FILL CAP. Each 50 hours remove cap, and clean breather.
7. TRANSMISSION CONVERTER AND DIFFERENTIAL. Check level each 10 hours with engine running at idle speed, oil at operating temperature and transmission in neutral. Maintain oil at "FULL" mark. Change oil each 1000 hours. Fill transmission to "LOW" mark and run engine at idle speed to fill converter and lines. With engine running at idle speed, oil at operating temperature and transmission in neutral, add oil to bring to "FULL" mark. Operate for 5 minutes and check for leaks.
8. TRANSMISSION EXTERNAL OIL FILTER. Each 1000 hours, remove filter cartridge, clean housing and install new filter cartridge. With engine running at idle speed, oil at operating temperature and transmission in neutral, add oil to bring to "FULL" mark. Operate for 5 minutes and check for leaks.
9. HYDRAULIC RESERVOIR. Each 500 hours check level and bring to "FULL" mark. Each 1000 hours, drain reservoir,

- remove filter element, clean housing, Install new element and refill with OE/HDO. Operate hydraulic system for 5 minutes, check for leaks, check level and bring to "FULL" mark.
10. WHEEL BEARINGS. Each 1000 hours, remove wheels, clean and inspect all parts, replace damaged or worn parts, repack bearings, and assemble.
 11. LUBRICANTS. The following is a list of lubricants with military symbols and applicable specification numbers.

E/HDO	MIL-L-2104
GAA	MIL-G-10924
OEA	MIL-L-46167
BFS	MIL-B-46176
(SD), Type II	P-D-680
ATF	Type A Suffix A
	NSN 9150-00-698-2382

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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P.S.—IF YOUR OUTFIT WANTS TO KNOW ABOUT YOUR RECOMMENDATION MAKE A CARBON COPY OF THIS AND GIVE IT TO YOUR HEADQUARTERS.

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