

LUBRICATION ORDER
26 JANUARY 1996

ARMY LO 9-2320-386-12
AIR FORCE TO 36A12-1B-1121LC-1

2-1/2 TON, 6X6, M44A3
ESP VEHICLES:
TRUCK, CARGO, FIXED SIDE: M35A3;
TRUCK, CARGO, DROPSIDE: M35A3C;
TRUCK, CARGO, LONG WHEELBASE: M36A3

REFERENCE: TM 9-2320-209-10-HR, TM 9-2320-386-10, TM 9-2320-386-24

This Lubrication Order is for crew (C) and unit (U) maintenance and provides the lubrication requirements needed to support components of the Extended Service Program vehicles. Included are fluid capacities, locations, intervals, and proper materials needed for lubricating the vehicles under normal and unusual conditions.

Service Intervals Under Normal Conditions. Service intervals are for normal operation of the vehicle in moderate temperatures, humidity, and atmospheric conditions. The intervals are hard-time intervals which are performed in accordance with the vehicle's age, calendar, or usage such as rating time or mileage. The hard-time intervals shown in this LO are based on mileage and calendar times. An example of mileage and calendar intervals is: 3/S; 3 stands for 3,000 miles (4,827 km), and S stands for semiannually (every six months). The lubrication for the vehicle is to be performed at whichever interval occurs first.

For equipment under manufacturer's warranty, hard-time oil service intervals shall be followed. Hard-time intervals may be shortened if your lubricants are contaminated, or if your vehicle has

been operated under adverse conditions, including longer-than-usual operating hours. Hard-time intervals may be extended during periods of low activity, although adequate preservation precautions must be taken. Hard-time intervals will be applied in the event AOAP laboratory support is not available.

Service Intervals Under Unusual Conditions. Increase the frequency of lubricating service when operating under abnormal conditions, such as high or low temperatures, prolonged high-speed driving; or extended cross-country operations. Such operations can diminish a lubricant's protective quality.

Arctic Conditions. Refer to FM 9-207, Operation and Maintenance of Ordnance Materiel in Cold Weather (0° to -65°F) (-18° to -54°C), or table II, Fluid Capacities and Lubricant Requirements, page 3.

REPORTING ERRORS AND RECOMMENDING IMPROVEMENTS

You can help improve this Lubrication Order. 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) should be mailed directly to: Commander, U.S. Arm Tank-Automotive and Armaments Command, ATTN: AMSTA-IM-MTP, Warren, MI 48090. A reply will be furnished directly to you.

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Corrosion Prevention and Control (CPC). Corrosion prevention and control (CPC) of Army materiel is a continuing concern. It is important that corrosion problems are reported so they can be corrected and improvements can be made to prevent future problems.

While corrosion is typically associated with rusting of metals, it can also include deterioration of other materials, such as rubber and plastic. Unusual cracking, softening, swelling, or breaking of these materials may be a corrosion problem.

If a corrosion problem is identified, it can be reported using Standard Form 368, Product Quality Deficiency Report. Use of key words such as corrosion, rust, deterioration, or cracking will ensure that the information is identified as a CPC problem.

The form should be submitted to the address specified in DA PAM 738-750.

Oil Filters. Oil filters shall be serviced/cleaned/changed/ as applicable, when:

1. They are known to be contaminated or clogged;
2. Service is recommended by AOAP laboratory analysis, or
3. Prescribed hard-time intervals are reached.

AOAP Requirements. Sample oil from all oil-wet components every 60 days or 1,000 miles (1,609 km). Reserve and National Guard units should perform oil sampling every 120 days or 1,000 miles (1,609 km). In the event AOAP laboratory support is not available, on-condition (OC) hard-time intervals may be applied.

WARNING

- Drycleaning solvent is flammable and will not be used near open flame. Use only in well-ventilated places. Failure to do so may result in injury to personnel.
- Keep all lubricants in a closed container and store in a clean, dry place, away from extreme heat. Failure to do so may result in injury to personnel.

CAUTION

Keep container covers clean and allow no dust, dirt, or other foreign material to mix with lubricants. Keep, all lubrication equipment clean and ready to use.

NOTE

Man hours have not been established.

Cleaning. Keep all external parts of equipment not requiring lubrication free of lubricants. Before lubricating equipment, clean fittings. Use drycleaning solvent, Type II (SD-2) (P-D-680) biodegradable, to wipe all lubrication points free of dirt and grease. Dry before lubricating. After servicing lubrication points, wipe off excess lubricants to prevent accumulation of foreign matter.

Table I. Interval and Lubrication Key.

The following is a list of service intervals, abbreviations, and keys, appearing in this LO.

OC	On-Condition, unless changed by the Army Oil Analysis Program (AOAP)
C/MR	Change gear lubricant only when required by maintenance repair action or if contaminated
D	Daily
W	Weekly
M	Monthly
S	Semiannually (6 months)
A	Annually (12 months)
B	Biennially (24 months)
1	1,000 mi (1,609 km)
3	3,000 mi (4,827 km)
6	6,000 mi (9,654 km)
12	12,000 mi (19,308 km)
24	24,000 mi (38,616 km)

The following is a list of lubricants and abbreviations for this LO.

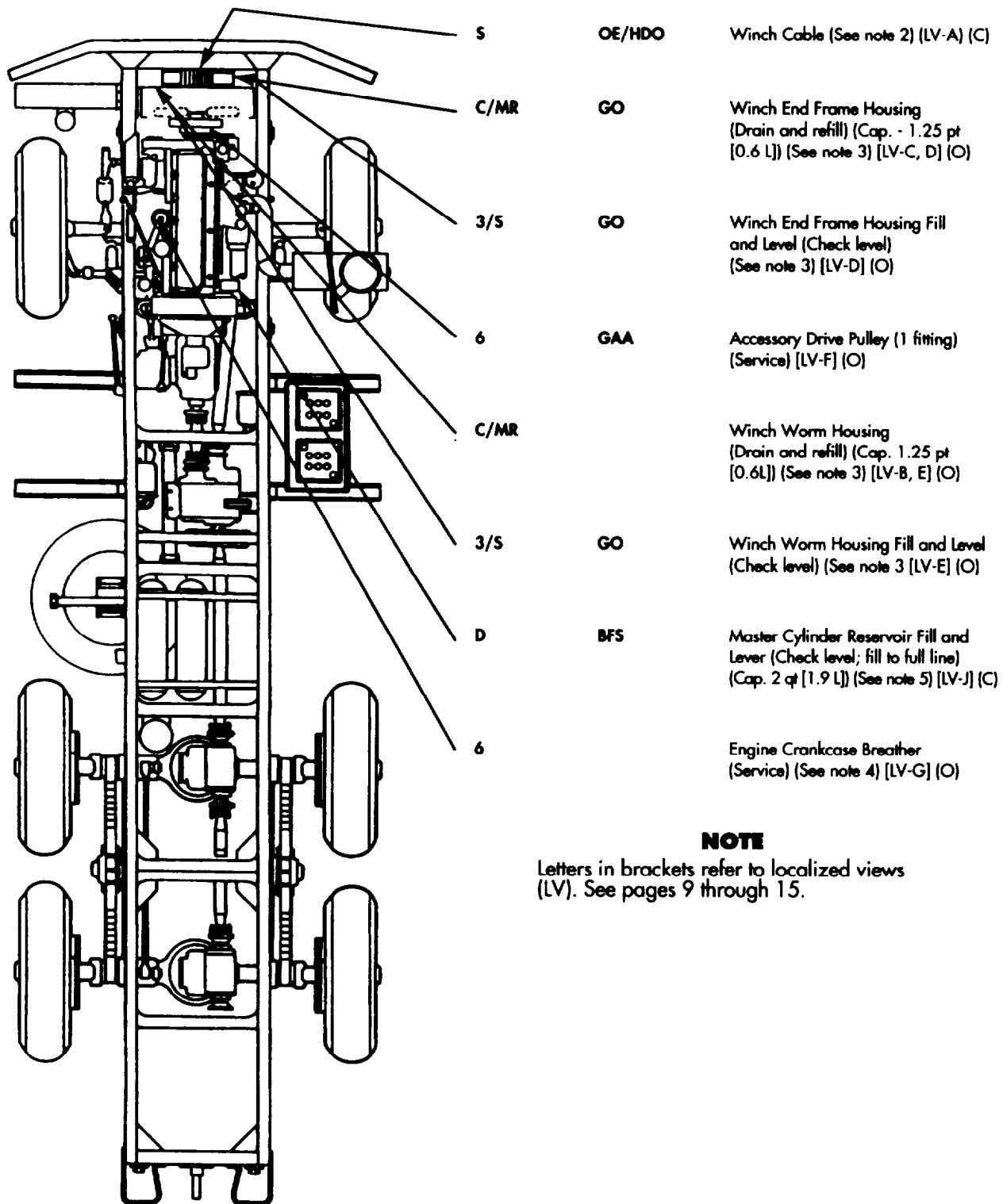
OE/HDO	Lubricating oil, combustion engine, tactical (MIL-L-2104)
G o	Lubricating oil, gear, multi-purpose (MIL-L-2105)
BFS	Brake fluid, silicone (MIL-B-46176)
GAA	Grease, automotive and artillery (MIL-G-10924)
OEA	Lubricating oil, internal combustion engine, arctic (MIL-L-46167)
CW	Lubricating oil, chain, exposed gear, and wire rope (VV-L-751)

LUBRICATION TABLES

Table II. Fluid Capacities and Lubricant Requirements.

COMPONENT	CAPACITIES	EXPECTED TEMPERATURES		LUBRICANT MIL. SYMBOL (NATO CODE) SPECIFICATION
		°F	°C	
Engine	Crankcase Dry 21 qt (19.9 L)	-4 to +122	-20 to +50	SAE 15W40 (O-1236) MIL-L-2104
	W/filter 19 qt (18 L) W/o filter 18 qt (17 L)	-50 to -4	-46 to -20	OEA (O-183) MIL-L-46167
Transmission	Dry 21 qt (19.9 L)	+10 to +122	-12 to +50	SAE 15W40 (O-1236) MIL-L-2104
	Drain and refill 10 qt (9.5 L) After rebuild 16 qt (15.2 L)	-50 to +10	-46 to -12	OEA (O-183) MIL-L-46167
Winch Gear Case	2.75 pt (1.3 L)	-4 to +122	-20 to +50	GO 80/90 (O-226) MIL-L-2105
Winch End Frame Housing	1.25 pt (0.6 L)	-50 to -4	-46 to -20	GO 75 (O-186) MIL-L-2105
Winch Hydraulic System	Dry 42 qt (39.7 L)	-4 to +122	-20 to +50	SAE 15W40 (O-1236) MIL-L-2104
	Drain and refill 39 qt (36.9 L)	-50 to -4	-46 to -20	OEA (O-183) MIL-L-46167
Master Cylinder Reservoir	2 qt (1.9 L)	All Temperatures		BFS (H-547) MIL-B-46176
Front and Rear Axle Differentials	6 qt (5.7 L)	-4 to +122	-20 to +50	GO 80/90 (O-226) MIL-L-2105
		-50 to -4	-46 to -20	GO 75 (O-186) MIL-L-2105
Transfer Case	7 qt (6.6 L)	-4 to +122	-20 to +50	GO 80/90 (O-226) MIL-L-2105
		-50 to -4	-46 to -20	GO 75 (O-186) MIL-L-2105
Steering Gear	3.13 pt (1.48 L)	-4 to +122	-20 to +50	GO 80/90 (O-226) MIL-L-2105

INTERVAL • LUBRICANT

**NOTE**

Letters in brackets refer to localized views (LV). See pages 9 through 15.

CHASSIS - M35A3, M35A3C, M36A3