

15 OCTOBER 1992

(SUPERSEDES LO 5-4610-240-12, 15 November 1991)

**WATER PURIFICATION UNIT, REVERSE OSMOSIS
600 GPH, TRAILER MOUNTED, FLATBED CARGO,
5 TON, 4 WHEEL TANDEM ROWPU
MODEL WPES-1, NSN 4610-01-295-2720
AND
600 GPH SKID MOUNTED ROWPU
MODEL WPES-2, NSN 4610-01-300-0918
MODEL WPES-3, NSN 4610-01-295-2719
References: TM 104610-240-10 and
Federal Supply Catalog C9100-IL.**

Approved for public release; Distribution is unlimited

REPORTING OF ERRORS

You can improve this publication by calling attention to errors and by recommending improvements and by stating your reasons for the recommendations. Your letter or DA Form 2028, Recommended Changes to Publications and Forms, should be mailed directly to: Commander, U. S. Army Troop Support Command, ATTN: AMSTR-MMTS, 4300 Goodfellow Blvd., St. Louis, MO 63120-1798.

Marine Corps users submit NAVMC 10772 form to: Commanding General (Code 850), Marine Corps Logistics Base, Albany, GA 31704-5000.

Air Force personnel submit AFTO FORM 22 in accordance with T.O. 005-1.

This LO is for operator/crew (C) or unit (O) maintenance. Lube intervals (on-condition or hard time) are based on normal operation. Lube during constant use, and less during inactive periods. The task-hour specified is the time you need to do all the services prescribed for a particular interval. Use correct grade of lubricant for seal temperature expected.

For equipment under manufacturers warranty, hard time oil service intervals shall be followed. Intervals shall be shortened if lubricants are known to be contaminated or if operation is under adverse conditions (such as longer than usual operating hours, extended idling periods, extreme dust).

Chemical feed pump and R.O. pump oils must be sampled at 100 hour intervals as prescribed by TB 43-106. On-condition (OC) oil sample intervals shall be applied unless changed by the Army Oil Analysis Program (AOAP) laboratory.

Ensure ROWPU is level before checking oil levels in chemical feed pump and R.O. pump. Drain oils while they are warm.

Lubricate trailer immediately after fording, or as soon after unit movement permits. Dry equipment before lubricating.

On the picture, a dashed line (--) means there are lubrication points on both sides of the equipment.

Before you start lubrication:

ALWAYS

- Clean dirt from grease fittings using a clean wiping rag.
- Use the lubrication order as your guide.
- After lubrication, wipe excess grease from fittings to prevent build up of dirt, grit, and contaminants.

NEVER

- Use wrong type/grade of grease.
- Use too much lubricant.
- Use any type of solvent to clean trailer trunnion axle grease fittings.

Table 1. Lubricant Table for R.O. Pump.

Temperature Range	Lubricant Mil Symbol (NATO Code) Specification	Capacity	Interval Hour	Task
Above +32°F (0°C)	OE/HDO 15/40 (O-1236) MIL-L-2104	3.5 Quarts	750 hrs	1.0
+40°F to 10°F (+4°C to -12°C)	OE/HDO 15/40 (O-1236) MIL-L-2104	3.5 Quarts	750 hrs	1.0
+0°F to -65°F (-17°C to -54°C) (For arctic operation, refer to TM 9-207)	OEA (O-183) MIL-L-46167	3.5 Quarts	750 hrs	1.0

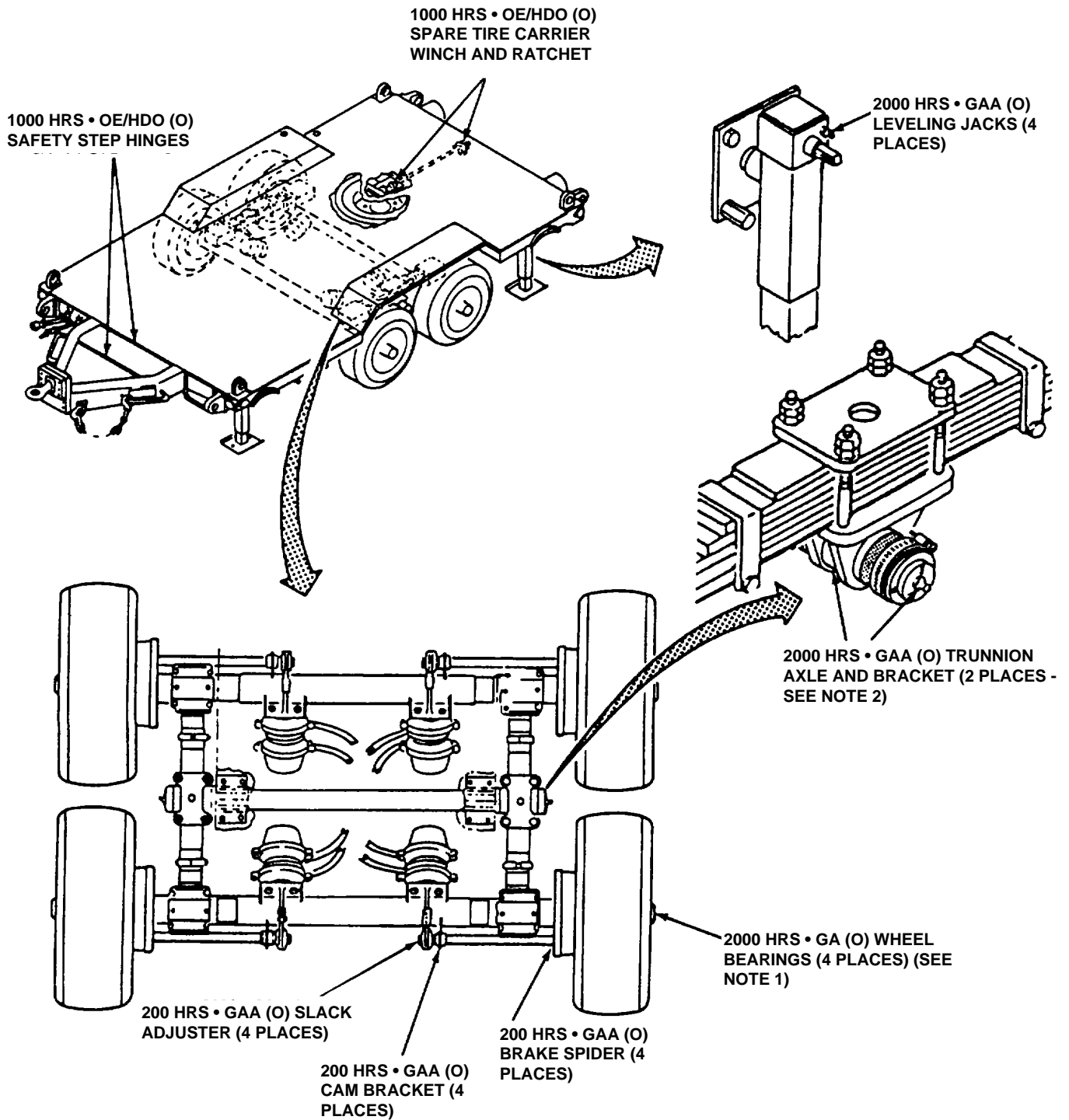
Table 2. Lubricant Table for Chemical Feed Pump.

Temperature Range	Lubricant Mil Symbol (NATO Code) Specification	Capacity	Interval	Task Hour
Above +32°F (0°C)	GO-80/90 (O-226) MIL-L-2105	4.75 Quarts	4000 hrs	1.0
+40°F to 10°F (+4°C to -12°C)	GO-80/90 (O-226) MIL-L-2105	3.5 Quarts	4000 hrs	1.0
+0°F to -65°F (-17°C to -54°C) (For arctic operation, refer to TM 9-207)	GO-75 (O-186) MIL-L-2105	3.5 Quarts	4000 hrs	1.0

Table 3. (Model WPES-1) Trailer Lubricant Table.

Lube Point (All Temperatures)	Lubricant Mil Symbol (Rev) (NATO Code) Specification	Capacity	Interval	Task Hour
Wheel Bearings (See Note 1)	GAA* (G-403) MIL-G-10924	As required	2000 hrs	1.0
Brake Spider (See Note 1)	GAA* (G-403) MIL-G-10924	As required	2000 hrs	0.5
Slack Adjuster (See Note 1)	GAA* (G-403) MIL-G-10924	As required	2000 hrs	0.3
Cam Bracket (See Note 1)	GAA* (G-403) MIL-G-10924	As required	2000 hrs	0.3
Trunnion Axle (See Note 2)	GAA* (G-403) MIL-G-10924	As required	2000 hrs	0.5
Trunnion Bracket (See Note 2)	GAA* (G-403) MIL-G-10924	As required	2000 hrs	0.5
Leveling Jacks	GAA* (G-403) MIL-G-10924	As required	2000 hrs	0.3
Safety Step Hinges	OE/HDO-15/40 (O-1236) MIL-L-2104	As required	1000 hrs	0.3
Spare Tire Carrier and Ratchet	OE/HDO-15/40 (O-1236) MIL-L-2104	As required	1000 hrs	0.3

*Where GAA is specified, use only MIL-G-10924, Revision F or later.



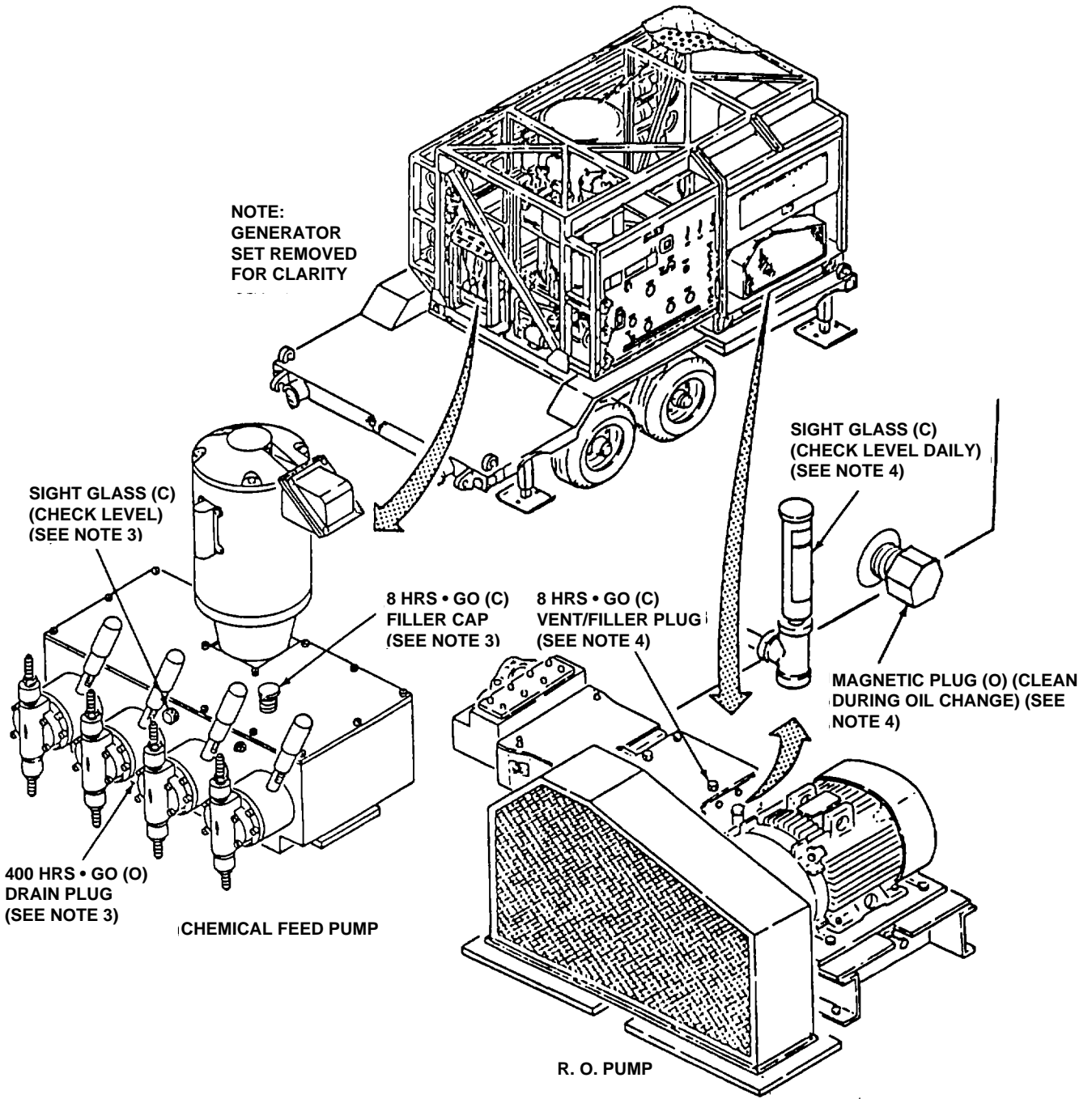


Table 4. Task Summary

TOTAL TASK-HR	
INTERVAL	TASK-HR
750	1.0
1000	0.6
2000	3.4
4000	1.0

NOTES:

1. WHEEL BEARINGS (MODEL WPES-1).

CAUTION

To prevent premature failure of wheel bearings when operating in extremely dusty conditions, repack wheel bearings after 125 hours or 3, 000 miles, whichever comes first.

- a. Remove tire and wheel assembly (TM 10-4610-240-10/TO 40W4-13-31/LI 08580C-12).
- b. Disassemble, clean, lubricate and assemble wheel bearings (TM 10-4610-240-10/TO 40W4-13-31/LI 08580C-12).

CAUTION

To Prevent grease from contaminating brake shoes, do not over lubricate brake spider.

- c. Lubricate brake spider, cam bracket and slack adjuster fittings while tire and wheel assembly are removed.
- d. Install tire and wheel assembly (TM 10-4610-240-10/TO 40W4-13-31/LI 08580C-12).
- e. Repeat steps a. through d. for remaining wheel bearings.

2. TRUNNION AXLE

- a. Using leveling jacks, raise trailer wheels clear of ground (TM 10-4610-240-10/TO 40W4-13-31/LI 08580C-12).

CAUTION

To prevent premature failure of suspension assembly, use only grease conforming to MIL-G-10924, Revision F or later to lubricate trunnion axle and trunnion brackets. Use of other type grease can result in damage trunnion axle bearing surfaces and will void the warranty.

- b. Pump grease into fittings at both ends of trunnion axle until lubricant comes out from under grease seals.

NOTES - cont:

- c. Pump grease into fittings on bottom of both trunnion brackets until lubricant comes out from under grease seals.
- d. Pivot suspension back and forth against stops (at least four times) to distribute lubricant.
- e. Using clean wiping rag, remove excess lubricant from grease seals, trunnion brackets and trunnion axle.
- f. Lower leveling jacks until trailer wheels are firmly on ground (TM 10-4610-240-10/TO 40W4-13-31/LI 08580C-12).

3. CHEMICAL FEED PUMP

- a. Check oil level in sight glass daily. Oil level should be in center of sight glass. If required, add oil through filler cap. Do not overfill.

CAUTION

To prevent premature failure of wheel bearings when operating in extremely dusty conditions, repack wheel bearings after 125 hours or 3, 000 miles, whichever comes first.

- b. On new chemical feed pumps, drain and refill chemical feed pump oil after 700 hours of operation (TM 10-4610-240-24/TO 40W4-13-31/LI 08580C-12). Then, change oil every 4,000 hours.

4. R.O. PUMP.

CAUTION

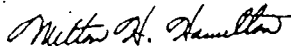
The R.O. pump must not be operated on preservative oil, or oil that has had preservative added to it. Damage to the pump can result. Using preservative oil will void warranty. If in doubt, drain and refill with fresh oil.

- a. Check oil level in sight glass daily. Oil level should be at red indicator mark on sight glass. If required, add oil through vent/filler plug on pump housing. Do not overfill.
- b. On new R.O. pumps, drain and refill oil after 100 hours of use (TM 10-4610-240-24/TO 40W4-13-31/LI 08580C-12). Then, change oil every 700 hours. Remove magnetic drain plug from pump and clean metal particles from plug after draining oil. Reinstall plug before filling pump with oil.

LO 10-4610-240-12 (ARMY)
LI 08580C-12 (MARINE CORPS)
TO 40W4-13-31 (AIR FORCE)

By Order of the Secretaries of the Army, Air Force, and Navy (Including the Marine Corps):

Official:



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

02994

GORDON R. SULLIVAN
*General, United States Army
Chief of Staff*

MERRILL A. McPEAK
*General, USAF
Chief of Staff*

Official:

RONALD W. YATES
*General, USAF
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Commander
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RONALD D. ELLIOT
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DISTRIBUTION:

To be distributed in accordance with DA Form 12-25E, qty rqr block no. 5407, requirements for TM 10-4610-240-12.

Copy of this lubrication order will remain with the equipment at all times: instructions contained herein are mandatory.

