

15 September 1997

Supersedes LO 10-4610-241-12, 15 September 1992

**WATER PURIFICATION UNIT, 600 GPH TRAILER MOUNTED,
FLATBED CARGO, 5 TON 4 WHEEL TANDEM ROWPU,
MODEL WPES-10 NSN 4610-01-341-6289
AND MODEL H-9518-1 NSN 4610-01-420-7547
AND 600 GPH SKID MOUNTED MODELS
WPES-20 NSN 4610-01-341-6288
AND H-9518-2 NSN 4610-01-420-7546
AND WPES30 NSN 4610-01-341-6287
AND H-9518-3 NSN 4610-01-420-7548**

References: TM 10-4610-241-10/TO 4OW4-13-41, TM 10-4610-241-24/TO 4OW4-13-42

REPORTING OF ERRORS

You can help improve this bulletin. If you find any mistakes or if you know of a way to improve the procedures, please let us know. Mail your letter, DA Form 2028(Recommended Changes to Publications and Blank Forms) or DA Form 2028-2 located in the back of this manual directly to Commander, U. S. Tank-Automotive and Armaments Command, Attn:AMSTA-AC-NML, Rock Island, IL 61299-7630. You may also submit your recommended changes by E-mail directly to amsta-ac-nml@ria-emh2.army.mil, or fax number 309/782-0726/DSN 793-0726. A reply will be finished directly to you. Instructions for sending an electronic 2028 may be found at the back of this manual immediately preceding the hard copy 2028.

Approved for public release, distribution is unlimited.

This LO is for operator/crew (C) or unit (O) maintenance. Lube intervals (on-condition or hard time) are based on normal operation. Lube more 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 seasonal 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 (all models) and R.O. pump oils (only on Models WPES-10, WPES-20 and WPES-30) must be sampled at 100 hour intervals as prescribed by TB 43-0106. 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 (on all models) and R.O. pump (only on Models WPES-10, WPES-20 and WPES-30). 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.

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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 (only on Models WPES-10, WPES-20 and WPES-30).

Temperature Range	Lubricant Mil Symbol (NATO Code) Specification	Capacity	Interval	Task Hour
0°F and Above (- 18°C and Above)	OD/HDO-15/40 (O-1236) MIL-L-2104	3.5 Quarts 3.3 Liters	750 Hrs	1.0
+40°F to -65°F (+4° to -54°C)	OEA (O-183) MIL-L-46167	3.5 Quarts 3.3 Liters	750 Hrs	1.0

Table 2. Lubricant Table for Chemical Feed Pump.

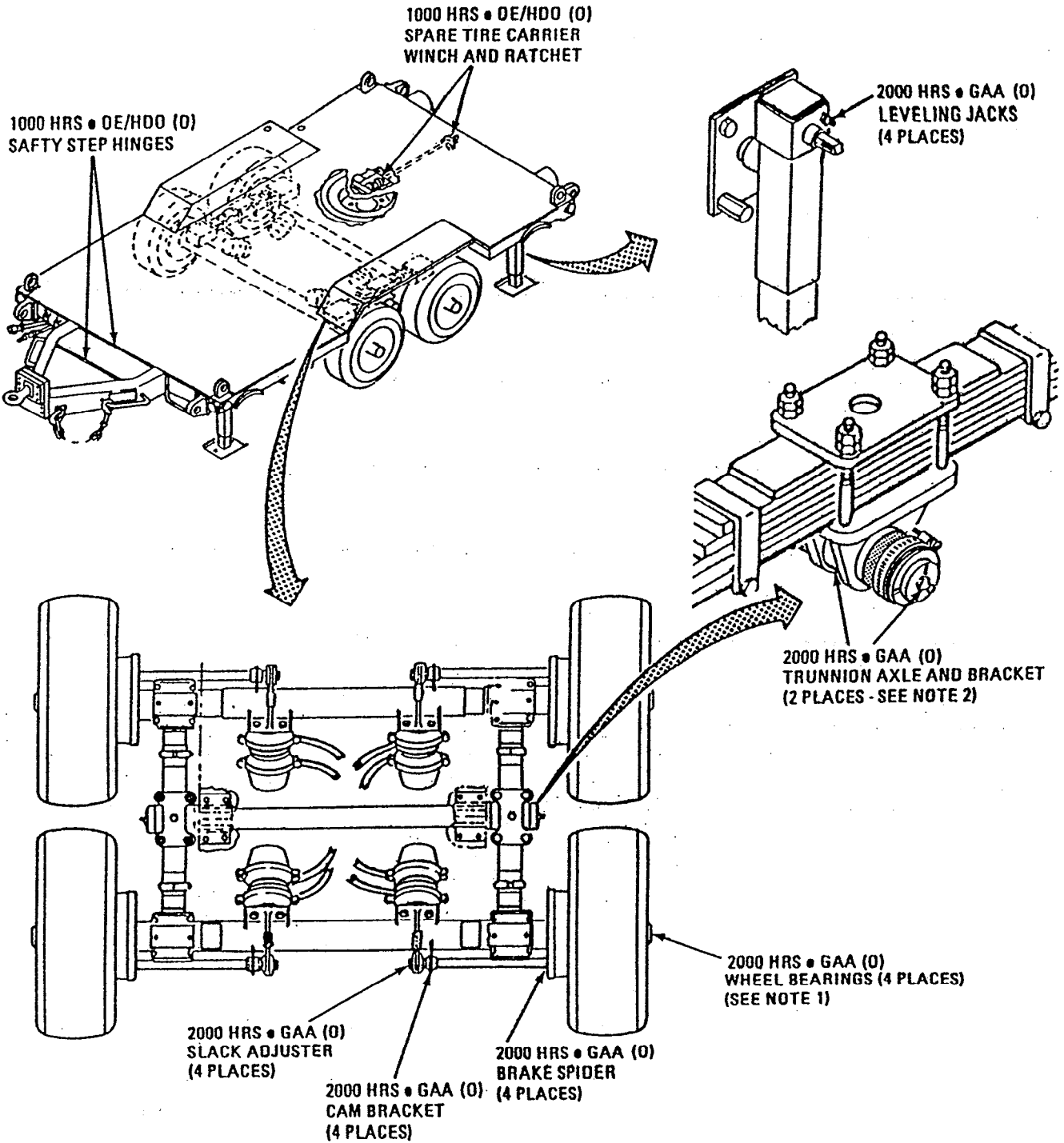
Temperature Range	Lubricant Mil Symbol (NATO Code) Specification	Capacity	Interval	Task Hour
- 10°F and Above (-23°C and Above)	GO-80/90 (O-226) MIL-PRF-2105	4.75 Quarts 4.5 Liters	4000 Hrs	1.0
+50°F to -65°F (+ 10° to -54°C)	GO-75 (O-186) MIL-PRF-2105	4.75 Quarts 4.5 Liters	4000 Hrs	1.0

Table 3. Trailer Lubricant Table (Model WPES-10 and Model H-9518-1).

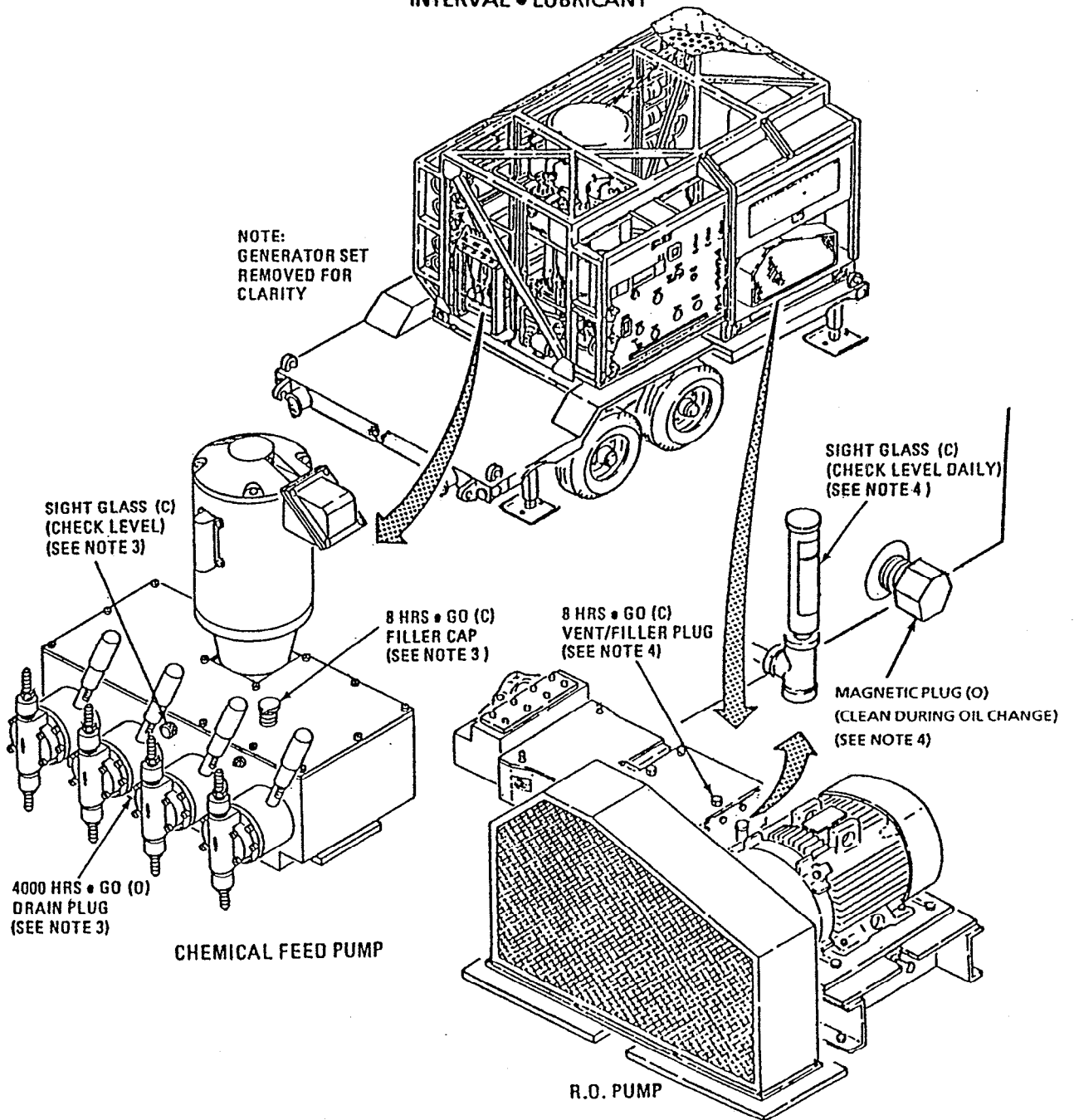
Lube Point (All Temperatures)	Lubricant* Mil Symbol (NATO Code) Specification	Capacity	Interval	Task Hour
Wheel Bearings (See Note 1)	GAA* (G-403) MIL-G-10924	As required	2000 Hrs	1.0
Brake Spider (See Note 1)	GAA* (G-403) MIL-G-10924	As required	2000 hrs	0.5
Slack Adjuster (See Note 1)	G A A * (G-403) MIL-G-10924	As required	2000 hrs	0.3
Cam Bracket (See Note 1)	G A A * (G-403) MIL-G-10924	As required	2000 hrs	0.3
Trunnion Axle (See Note 2)	G A A * (G-403) MIL-G-10924	As required	2000 hrs	0.5
Trunnion Bracket (See Note 2)	G A A * (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.

INTERVAL • LUBRICANT



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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-10 AND MODEL H-9518-1).

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 (TM10-4610-241-10/TO 40W4-13-41).
- b. Disassembly, clean, lubricate and assemble wheel bearings (TM 10-4610-241-24/TO 40W4-13-42).

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 (TM10-4610-241-10/TO 40W4-13-41).
- e. Repeat steps a. through d. for remaining wheel bearings.

2. TRUNNION AXLE

- a. Using leveling jacks, raise trailer wheels clear of ground (TM 10-4610-241-10/TO 40W4-13-41)

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 to trunnion axle bearing surfaces and will void 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 10-4610-241-10/TO 40W4-13-41).

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

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

- b. On new chemical feed pumps, drain and refill chemical feed pump oil after 700 hours of operation (TM 10-4610-241 -24/TO 40W4-13-42). Then, change oil every 4,000 hours.

4. R.O. PUMP (ONLY ON MODELS WPES-10, WPES-20 AND WPES-30)

CAUTION

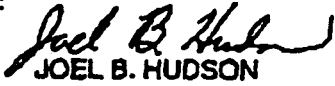
The R.O. pump must not be operated on preservative oil, or oil that has had preservative added to it. Damage to the pump can result. Using preservative oil will void warranty. If in doubt, drain and refill with fresh oil.

- 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-0. pumps, drain and refill pump oil after 100 hours of use (TM 10-4610-241-24/40W4-13-42). 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.

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By Order of the Secretaries of the Army and Air Force:

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DISTRIBUTION:

To be distributed in accordance with the initial distribution requirements for IDN 255960
LO 10-4610-241-12.

★ U.S. GOVERNMENT PRINTING OFFICE: 1998 O - 432-760 (60002)

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