

LO 10A4610-229-12 Logcther with TM 104610-229-10 supcrscdcs TM 5-4610-229-10, datcd 14 April 1986.

**WATER PURIFICATION UNIT, REVERSE OSMOSIS
150, 000 GPD, SKID-MOUNTED, MODEL PD81146
NSN 4610-01-121-0161**

Approved for public release; distribution is unlimited

Reference TM 10-4610-229-10 and
TM 10-4610-229-24

Intervals and the related task hour times are based on normal operation. The task hour time specified is the time you need to do all the services prescribed for a particular interval. Change the interval if your lubricants are contaminated or if you are operating the equipment under adverse operating conditions, including longer- than-usual operating hours. You may extend the interval during periods of low activity, but you must take adequate preservation precautions.

Lubricate immediately after fording, or as soon after as unit movement permits.

Clean fittings before lubricating. Clean parts with solvent, dry cleaning P-D-680 or an approved solvent. Dry fitting before lubricating.

Level of maintenance. 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).

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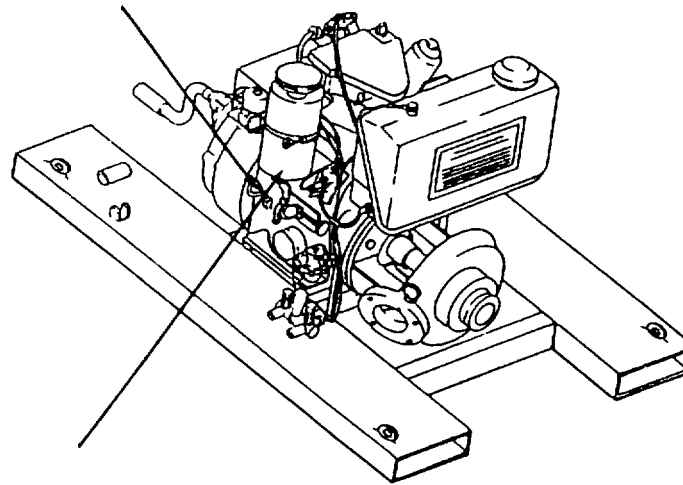
REVERSE OSMOSIS WATER PURIFICATION UNIT
(4610-01-121-0161)

Reference: TM 10-4610-229-10; TM 10-4610-229-24

MAINTENANCE LEVEL

C ENGINE OIL LEVEL AND FILL (See Note 1)

C AIR FILTER OIL BATH FILL AND SERVICE (See Note 2)



RAW WATER PUMP

LUBRICANT USED TO PERFORM OPERATIONS ON THIS PAGE:

OE/HDO (See Key)

TOTAL WORK-HRS. for lube points

1.5

KEY

LUBRICANT/COMPONENTS	Refill Capacity	EXPECTED TEMPERATURES*		
		Above +32°F (Above 0°C)	+40°F to -10°F (+4°C to -23°C)	0°F to -65°F (-17°C to -53°C)
	As Required	ALL TEMPERATURES		
Engine	As Required			
OE/HDO: OIL, ICE, Tactical MIL-L-2104/MIL-L-46002		OE/HDO-30	OE/HDO-10	OEA
AIR CLEANER (oil bath)	As Required			

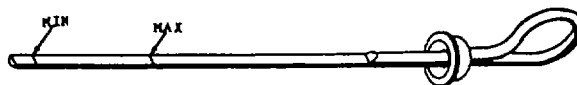
NOTES:

1. ENGINE OIL LEVEL AND FILL

Check engine oil level daily after operating the engine. The engine must be on level ground to obtain an accurate oil level reading.

Checking Procedure:

1. Engine stopped. Check oil level. If oil level is between MAX and MIN hashmarks, the engine is safe to operate.



CAUTION

Do not add oil pass MAX level. Engine damage could occur.

2. If oil level is below MIN hashmark, add oil as necessary to bring the level to the MAX hashmark.

2. AIR FILTER OIL BATH FILL AND SERVICES

1. Remove filter monthly (TM 10-4610-229-1 0, para 3-3).

CAUTION

Too much oil in filter will cause engine to smoke and possibly overspeed. DO NOT overfill.

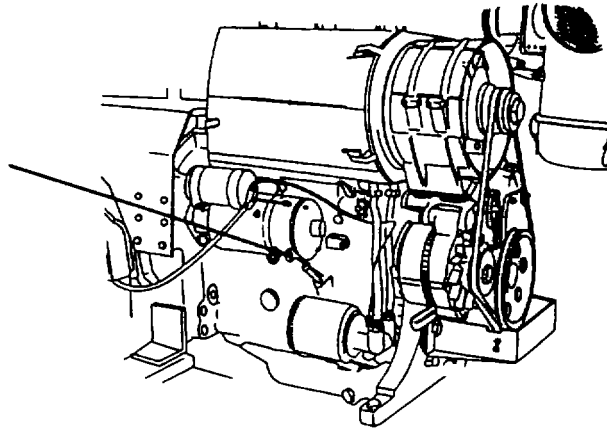
2. Fill bottom housing with engine oil to line.

REVERSE OSMOSIS WATER PURIFICATION UNIT
(4610-01-121-0161)

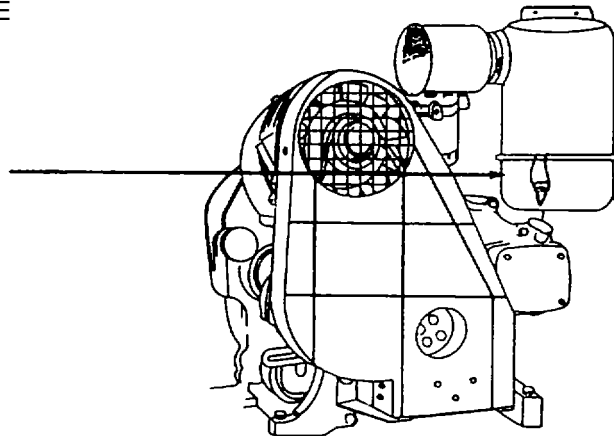
Reference: TM 10-4610-229-10; TM 10-4610-229-24

**MAINTENANCE
LEVEL**

C ENGINE OIL LEVEL
AND FILL
(See Note 3)



C AIR FILTER OIL BATH
FILL AND SERVICE
(See Note 4)



BOOST PUMP

LUBRICANT USED TO PERFORM OPERATIONS
ON THIS PAGE:

OE/HDO (See Key)

TOTAL WORK-HRS.
for lube points

1.5

KEY

LUBRICANT/COMPONENTS	Refill Capacity	EXPECTED TEMPERATURES*		
		Above +32°F (Above 0°C)	+40°F to -10°F (+4°C to -23°C)	0°F to -65°F (-17°C to -53°C)
	As Required	ALL TEMPERATURES		
Engine	As Required			
OE/HDO: OIL, ICE, Tactical MIL-L-2104/MIL-L-46002		OE/HDO-30	OE/HDO-10	OEA
AIR CLEANER (oil bath)	As Required			

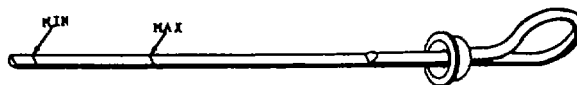
NOTES:

3. ENGINE OIL LEVEL AND FILL

Check engine oil level daily after operating the engine. The engine must be on level ground to obtain an accurate oil level reading.

Checking Procedure

1. Engine stopped. Check oil level. If oil level is between MAX and MIN hashmarks, the engine is safe to operate.



CAUTION

Do not add oil pass MAX level. Engine damage could occur.

2. If oil level is below MIN hashmark, add oil as necessary to bring the level to the MAX hashmark.

4. AIR FILTER OIL BATH FILL AND SERVICE

1. Remove filter monthly (TM 10-4610-229-10, para 3-4).

CAUTION

Too much oil in filter will cause engine to smoke and possibly overspeed. DO NOT overfill.

2. Fill bottom housing with engine oil to line.

REVERSE OSMOSIS WATER PURIFICATION UNIT
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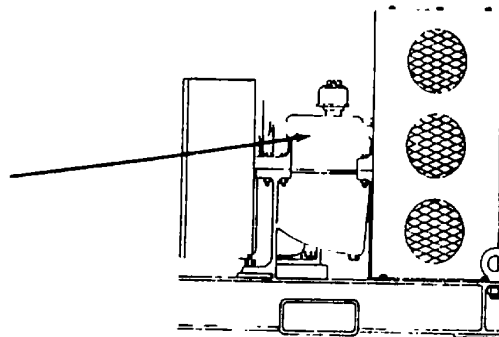
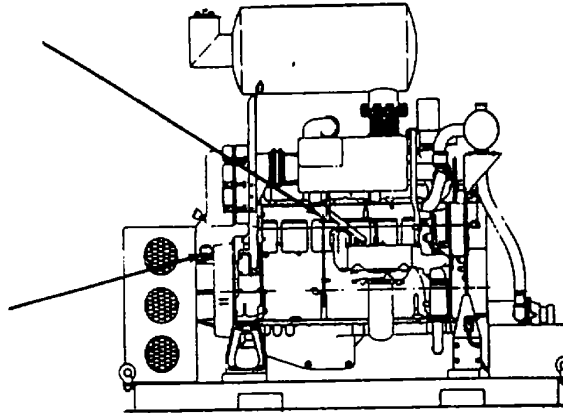
Reference: TM 10-4610-229-10; TM 10-4610-229-24

MAINTENANCE LEVEL

C ENGINE OIL LEVEL AND FILL
(See Note 5)

C PTO OIL LEVEL AND FILL
See Note 6)

C PUMP OIL LEVEL AND FILL
(See Note 7)



HIGH PRESSURE PUMP

LUBRICANT USED TO PERFORM OPERATIONS ON THIS PAGE:

OE/HDO (See Key)

TOTAL WORK-HRS. for lube points

1.5

KEY

LUBRICANT/COMPONENTS	Refill Capacity	EXPECTED TEMPERATURES*		
		Above +32°F (Above 0°C)	+40°F to -10°F (+4°C to -23°C)	0°F to -65°F (-17°C to -53°C)
	As Required	ALL TEMPERATURES		
Engine	As Required			
OE/HDO: OIL, ICE, Tactical MIL-L-2104/MIL-L-46002		OE/HDO-30	OE/HDO-10	OEA
AIR CLEANER (oil bath)	As Required			

NOTES:

5. ENGINE OIL LEVEL AND FILL

Check engine oil level daily after operating the engine. The engine must be on level ground to obtain an accurate oil level reading.

Checking Procedure:

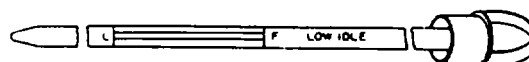
1. Engine stopped. Check oil level. If oil level is between F hashmark and L hashmark, the engine is safe to operate.



CAUTION

Do not add oil pass F hashmark. Engine damage could occur.

2. Oil level below L hashmark. Add oil as necessary to bring the level between the L hashmark and F hashmark. DO NOT overfill.
3. Engine running at LOW IDLE. Check oil level after engine is at normal operating temperature. If oil level is between F hashmark and L hashmark the engine is safe to operate.



4. Oil level below L hashmark. Repeat step 2.

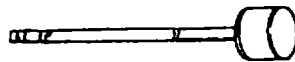
KEY

LUBRICANT/COMPONENTS	Refill Capacity	EXPECTED TEMPERATURES*		
		Above +32°F (Above 0°C)	+40°F to -10°F (+4°C to -23°C)	0°F to -65°F (-17°C to -53°C)
	As Required	ALL TEMPERATURES		
Engine	As Required			
OE/HDO: OIL, ICE, Tactical MIL-L-2104		OE/HDO-30	OE/HDO-10	OEA
AIR CLEANER (oil bath)	As Required			

NOTES:

6. PTO OIL LEVEL AND FILL

1. Engine stopped check oil level daily. If oil level is between LOW and FULL hashmarks the PTO is safe to operate.



2. Oil level below LOW hashmark, add oil as necessary to bring level between LOW and FULL hashmarks. DO NOT overfill.

7. PUMP OIL LEVEL AND FILL

1. Engine stopped. Check oil level daily. If oil level is between MIN and MAX at sight glass, PUMP is safe to operate.



2. Oil level below MIN at sight glass. Add oil as necessary to bring level between MIN and MAX. DO NOT overfill.

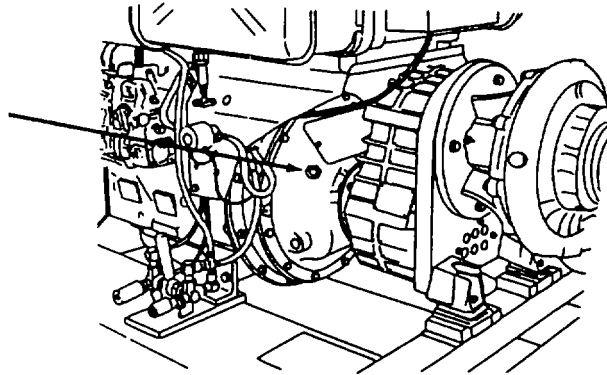
LUBRICATION ORDER

REVERSE OSMOSIS WATER PURIFICATION UNIT
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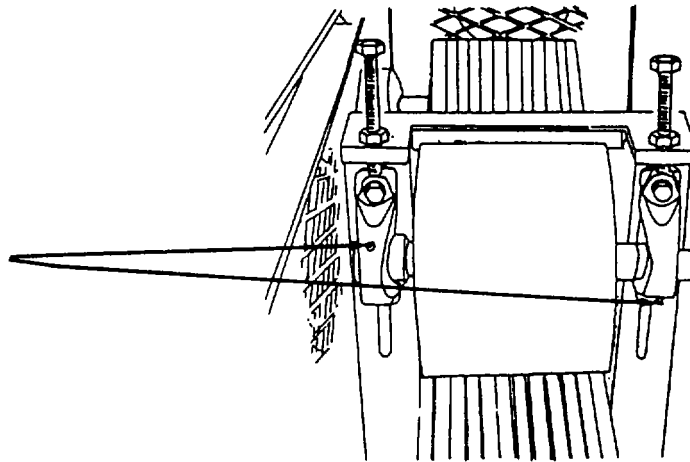
Reference: TM 10-4610-229-10; TM 10-4610-229-24

MAINTENANCE LEVEL

C BELT TENSIONER BEARINGS
(See Note 9)



C PTO BEARINGS
(See Note 8)



HIGH PRPSSURP PUMP

LUBRICANT USED TO PERFORM OPERATIONS ON THIS PAGE:
GAA (See Key)

TOTAL WORK-HRS. for lube points
1.0

KEY

LUBRICANT/COMPONENTS	Refill Capacity	EXPECTED TEMPERATURES*		
		Above +32°F (Above 0°C)	+40°F to -10°F (+4°C to -23°C)	0°F to -65°F (-17°C to -53°C)
GAA: Grease, Automotive and Artillery MIL-G-10924	As Required	ALL TEMPERATURES		
PTO Bearings Belt Tensioner Bearings	As Required			
		OE/HDO-30	OE/HDO-10	
	As Required			

NOTES:

8. PTO BEARINGS

Clean grease from fitting using a clean, lint-free, dry cloth (TM 10-4610-229-10, appendix D, item 9). Using a hand pump grease gun, pump handle three times.

9. BELT TENSIONER BEARINGS

Clean grease from fittings using a clean, lint-free, dry cloth (TM 10-4610-229-10, appendix D, item 9). Using a hand pump grease gun, pump handle until grease appears. Wipe off excess grease.

LUBRICATION ORDER

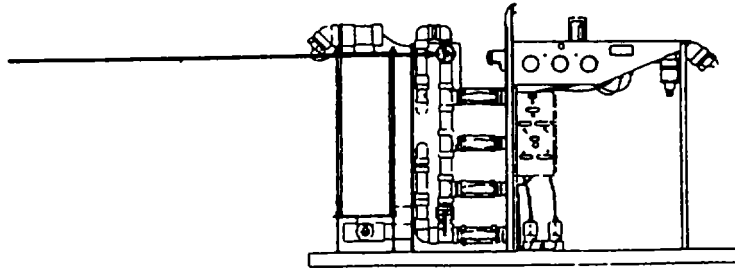
LO 5-4610-229-12

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(4610-01-121-0161)

Reference: TM 10-4610-229-1 0; TM 10-4610-229-24

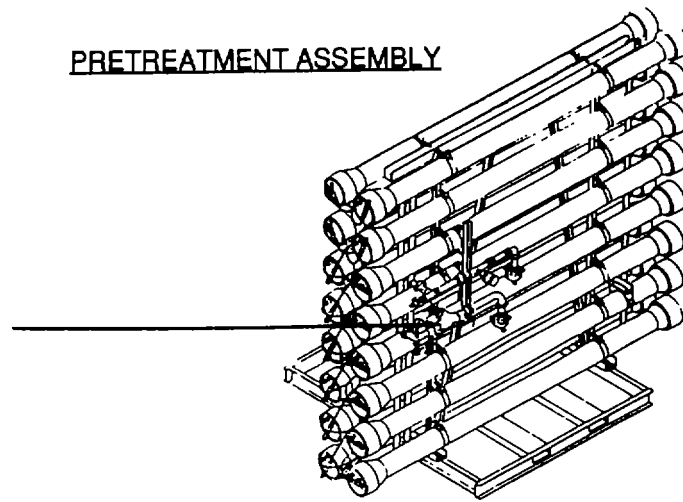
MAINTENANCE LEVEL

C CONTROL VALVE
(See Note 10)



PRETREATMENT ASSEMBLY

C THROTTLING VALVE
(See Note 10)



C OIL CAN POINTS
(See Note 11)

REVERSE OSMOSIS BLOCK ASSEMBLY

LUBRICANT USED TO PERFORM OPERATIONS ON THIS PAGE:

GAA; OE/HDO (See Key)

TOTAL WORK-HRS. for lube points

1.0

KEY

LUBRICANT/COMPONENTS	Refill Capacity	EXPECTED TEMPERATURES*		
		Above +32°F (Above 0°C)	+40°F to -10°F (+4°C to -23°C)	0°F to -65°F (-17°C to -53°C)
GAA: Grease, Automotive and Artillery MIL-G-10924 CONTROL VALVE	As Required	ALL TEMPERATURES		
THROTTLING VALVE	As Required			
OE/HDO: OIL, ICE, Tactical MIL-L-2104		OE/HDO-30	OE/HDO-10	
OIL CAN POINTS	As Required			

NOTES:

10. CONTROL VALVE AND THROTTLING VALVE

Clean grease from fitting using a clean, lint-free, dry cloth (TM 10-4610-229-10, appendix D, item 9). Using a hand pump grease gun, pump handle until grease appears. Wipe off excess grease.

11. OILCANPOINTS

Quarterly lubricate all hinges and latches.

By Order of the Secretary of the Army:

CARL E. VUONO
General, United States Army
Chief of Staff

Official:

PATRICIA P. HICKERSON
Colonel, United States Army
The Adjutant General

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