

800 GPM DED MAINLINE PUMPS
HOT WEATHER/DESERT OPERATION

This abbreviated checklist is not to be used as a replacement for the -10 series Tech Manuals or any other PMCS guide

FM 90-3, DESERT OPERATIONS contains detailed instructions for living and working in the desert. The **TM 10-4320-307-10** contains detailed PMCS instructions for proper maintenance and operation.

NOTE: A very high standard of maintenance is essential to long term operation under conditions of extreme heat. High temperature can cause early failure of systems. Constant checking is necessary to prevent failures.

OPERATE ENGINE

1. Inspect radiator cooling fins for excessive dirt buildup and carefully clean as necessary.
2. Inspect radiator for bent cooling fins. Have mechanic carefully straighten bent fins.
3. Inspect cooling system air flow passages often for any obstructions.
4. Check engine coolant level often.
5. Check fan belt often. Check that it is properly adjusted and drives the cooling fan without slipping. Contact unit maintenance if fan belt needs to be serviced.
6. Keep engine oil fill cap tight and dipstick seated to prevent contamination.
7. Wipe spilled lubricants from assembly to avoid collecting dust and sand.
8. Use care when servicing fuel tank to prevent sand and dirt entering the fuel system. Keep fuel tank fill cap tight.

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ENGINE OPERATION (continued)

9. Fill the fuel tank at the end of each day of operation in order to prevent an accumulation of vapor in the fuel tank. However, do not overfill. Allow room for fuel expansion.
10. Keep stores of fuel and oil tightly sealed to prevent contamination.
11. Check air filter and air filter service indicator often. Replace air filter elements as necessary.
12. Watch engine oil pressure and engine temperature gauges closely.
13. If any warning messages or oil levels are ignored, damage may result.
14. Check oil levels frequently.
15. Follow proper engine cool down and shutdown procedures.
16. Run engine at idle for about 2 minutes before shutting down.
17. Idling will cool the engine faster than a quick shutdown and may prevent damage from remaining engine heat.
18. Check all hoses and fittings frequently to insure proper fit.
19. Start up pumps regularly to prevent discharge of batteries.

OPERATE PUMP

1. Close control panel cover whenever possible to limit damage to gage faces from blowing sand or grit.
2. Check pump speed increaser oil level often. Contact unit maintenance if the pump speed increaser oil level is low or needs to be serviced.
3. Check pump oil levels often. Contact unit maintenance if the pump oil level is low or needs to be serviced.
4. If suction and/or discharge hoses are not connect to the pump, be sure that the suction and discharge port dust caps and plugs are securely installed in the ports.

MAINTAIN BATTERIES

1. Battery specific gravity must be changed to adjust for heat.
2. Watch ELECTRICAL SYSTEM ammeter closely.
3. Keep batteries full, but do not overfill.

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OTHER DESERT OPERATION PMCS

1. Reduce sand ingestion by stretching nylon stockings over air cleaners.
2. Use high-grade 20W-50 oil: it serves well under desert conditions.
3. Check lubrication orders and TM's for the correct viscosity of lubricants for higher temperatures.
4. Clean sand and dirt away from pump.