

Fuel and Lubricants

Lubricant / Capacity	Specification / Notes
Fuel 60 gal (227 liters)	Refer to Engine Operation Manual for fuel requirements.
Engine Oil 11.5 qt (10.9 liters) with filter 10 qt (9.5 liters) without filter	Refer to Engine Operation Manual for oil requirements. Check the engine oil level with the machine on a level surface.
Hydraulic Fluid 60 gal (227 liters) NOTE: Do not spill dirt or other contaminants into the reservoir. Filter all fluid through a 10 micron filter before adding. NOTE: Use of any other hydraulic oil without written factory approval will jeopardize warranty NOTE: ISO 68 oils are recommended and should be used for most applications.	ISO 68 Oil -20°C to 40°C (-4°F to 104°F) Vermeer HyPower 68 Shell Tellus T-68 Mobil DTE-16M Drydene #4225 Exxon Univis N 68 Chevron AW MV 68 Amoco Rykon 68 ISO 100 Oil ... -10°C to 50°C (+14°F to 122°F) Vermeer HyPower 100 Shell Tellus T-100 Mobil DTE-18M Drydene #4226 Exxon Univis N 100 Chevron AW MV 100 Amoco Rykon 100
Drive Gearbox Maintain Check Plug Level	Gear oil must meet specifications API GL-5 or MIL-L-2105C. For temperatures of -10°F to 100°F (-23°C to 38°C), use SAE 80W-90 gear lube. For temperatures of 10°F to 120°F (-12°C to 49°C), use SAE 85W-140 gear lube. (continued on next page)

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D40x40 / Navtec Navigator Maintenance

Lubricant / Capacity	Specification / Notes
Grease	<p>EP Grease: Vermeer LF Ultra, Shell Alvania EP2, or equivalent.</p> <p>To minimize condensation in bearings, grease machine after it is shut down for the day.</p> <p>Fittings and grease applicator nozzle must be clean before applying grease. Replace all missing fittings.</p>
General Lubricating Oil as needed	SAE-30 Vermeer Xtra Gold or equivalent.
Drilling Fluid Pump Crankcase SC65 8 qt (7.6 liters)	SAE-40 Vermeer Xtra Gold (ISO VG 150) or equivalent.
Drill Rod Thread Compound as needed	<p>Plusco Thread Compound (#224771-001) or equivalent; must meet requirements of API Bulletin 7A1 (tentative).</p> <p>Compound must contain a zinc base of 40 - 60% by weight to withstand high pressures and remain in the threads.</p>

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