

D7G TRACTOR
COLD WEATHER OPERATIONS

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

References: FM 9-207, Operations and Maintenance of Ordinances Materiel in Cold Weather; FM 31-70, Basic Cold Weather Manual; FM 31-71, Northern Operations; TM 5-2410-237-10 (detailed PMCS instructions)

1. **Preparations.** Extensive preparation of mechanical equipment is required when extreme cold weather is anticipated. The following steps will help protect the tractor against sub-freezing temperatures.

a. Contact Field Maintenance to prepare the cooling system by draining and then refilling with antifreeze. Run the engine until operating temperature is reached to mix the solution.

b. Contact Field Maintenance to change the engine lubricating oil to the proper grade for cold weather operation.

WARNING

Ether is poisonous and flammable. Do not store replacement cylinders in living areas, in the operator's compartment, or in direct sunlight. Do not smoke while changing ether cylinders. Avoid breathing of the vapors or repeated contact of ether with skin. Discard cylinders in a safe place; do not puncture or burn cylinders.

c. Contact Field Maintenance to install ether canister.

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2. Starting the Engine.

a. Try starting the engine using the procedure found in Section III, Operation Under Usual Conditions in the -10.

CAUTION

Do not use excessive starting fluid during starting or after the engine is running. Engine damage can result.

b. If engine does not start, push the starting aid button while cranking the engine, and hold for three seconds (time required to fill the chamber). Ether is injected when aid switch is released. Use additional starting fluid once every two seconds until engine runs smoothly.

c. If oil pressure does not register within first 15 seconds, stop engine immediately and investigate. If oil pressure is normal, proceed to step d.

CAUTION

Low idling speeds during extremely cold temperatures can result in incomplete combustion and heavy deposit formation on the valves. These deposits can cause burned valves, bent pushrods, or other damage to valve components.

d. Run engine at reduced speed only long enough to circulate the oil through the engine, then increase speed and warm up the engine.

e. Cover the radiator if necessary to bring engine up to operating temperature.

3. At Halt or Parking.

a. To avoid water condensation in the fuel tank, completely fill the fuel tank after each operating period.

b. Park the tractor in sheltered place if possible. Cover to protect engine, accessories, and controls from ice and snow.

c. Wet mud or snow should be cleaned from engine compartment, hydraulic cylinders, and all track components before it freezes.

d. In extremely cold weather remove the batteries and store them in a moderately warm place. Reinstall batteries just prior to starting.

CAUTION

Do NOT attempt to break tracks loose under engine power. Do NOT move tractor with large frozen lumps of material in tracks. Failure to follow this caution may cause damage to equipment.