

Remote Oil Heating System

The Hot Setup -- COMPETITION OIL HEATER uses hot water from **The Hot Setup** -- COMPETITION ENGINE HEATER to heat engine oil. The oil heating system consists of:

1. Dual tube assembly consisting of an inner and an outer tube. The inner tube is ½ in O.D. The outer tube is ¾ in. O.D. and surrounds the inner tube (Photo #2).
2. Positive displacement pump.
3. Water-to-oil heat exchanger.
4. Cabinet to enclose the components.

The pump, using the inner tube of the dual tube assembly, sucks oil from the bottom of the oil tank, pumps it through the heat exchanger, and returns the hot oil to the oil tank through the outer tube of the dual tube assembly.

Due to motor oil's inability to transmit heat efficiently when heated with an electric heater, the oil, which contacts the electric heater's high temperature surface, becomes overheated and burns. Burning the oil degrades the oil's additives and lowers its lubricating ability. It can also cause the oil to carbonize, leaving carbon deposits which can cause major damage to the engine's lubricated surfaces.

The use of hot water to heat oil ensures the oil will not be overheated. In addition, by circulating oil through the highly efficient water to oil heat exchanger, the oil is heated evenly and rapidly. For example, the oil in the oil tank shown below (Photo #1) was heated to 190° F in approx. 5 minutes.

The versatility of the engine heater and oil heater units allows only the car's coolant to be heated, only the engine's oil to be heated, or the coolant and oil to be heated together.



Photo #1

Shows dual tube assembly inserted into midget's oil tank and oil circulating through the engine oil heater. The engine coolant heater supplies hot coolant to the water-to-oil heat exchanger.



Photo #2

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