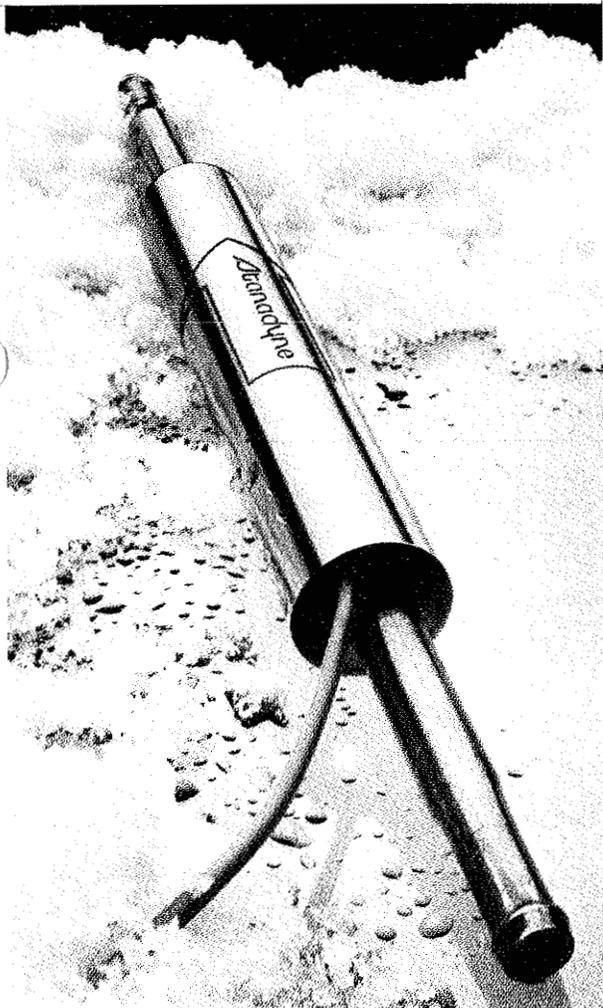


# HEATER

## In-Line Electric Fuel Heater Model 15 general use and specifications.



Stanadyne Automotive Corporation manufacturer of time-proven diesel fuel injection equipment, introduces the In-Line Fuel Heater. The unique electrically powered design extends the low temperature operation of diesel vehicles by reducing fuel filter waxing during cold weather operation. The in-line fuel heater offers the following advantages:

- Starts working the instant the operator turns the key.
- Maintains fuel flow during critical engine warm-up.
- Operates as an integral part of the fuel feed lines.
- Rugged design withstands tough environments.
- Small size and light weight allows easy adaptation to various fuel line configurations.

Diesel fuel contains a waxy constituent which precipitates out as small wax crystals when the fuel temperature drops below its "cloud point". During cold weather operation, these wax crystals can quickly plug the fuel filter, cutting off fuel delivery to the engine.

This is especially noticeable with number 2 diesel fuel, and is expected to become even more prevalent in the future because of fuel grade modifications. The in-line fuel heater can aid in this fuel flow problem.

As an in-line component of the fuel feed system, the heater is positioned close to and upstream of the fuel filter. The heater incorporates a temperature sensing system which operates automatically if the fuel temperature falls below 46°F (8C). The heater warms the fuel as it enters the filter reducing wax build-up.

Unlike other types of fuel heaters, Stanadyne's unique design operates independently of heat build-up in engine coolant. An engine coolant fuel heater requires complex fittings, plumbing, and temperature controls. Because the in-line heater is electrically powered, it can be turned on before starting the engine to allow hot fuel to clear the filter immediately upon start up.

**STANADYNE**  
Automotive

**POWERPRODUCTS**

# In-Line Electric Fuel Heater Design

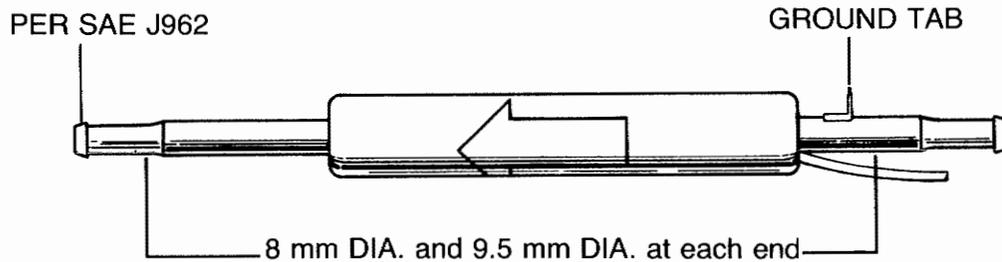
**Operation:** The Fuel Heater has two major functional components: the power control assembly and the heater element.

The Power Control Assembly senses fuel temperatures and responds by closing an electrical circuit to the heater. Fuel temperature is sensed by the thermal fluid carrying tube to a bimetal actuator.

Thermal feedback from the heating element to the bimetal actuator protects the element from burning out if for any reason fuel is not flowing through the fuel heater. Once fuel flows, or the heater has cooled sufficiently, the heater will turn on again.

The Heater Element is a spiral wound ribbon of electrical resistant material, electrically insulated from the steel fuel line.

<b>Model A-15</b>	150 Watt
Heater Length	6.810" (173 mm)
Heater Diameter	.905" (23 mm)
Heater Weight	2.5 oz. (70 g)
Current Draw at 14 Volts DC	10.7 amps



The In-Line Fuel Heater consists of an assembly with tubing or hose which simply replaces the fuel supply line or a convenient section of it. There are no additional seals or joints that could lead to fuel leakage.

## MODEL A-15 IN-LINE FUEL HEATER

