

**INSTALLATION  
INSTRUCTIONS**

**J.I. CASE ENGINE HEATER  
3/8 NPT 400 WATTS 120 VOLTS**

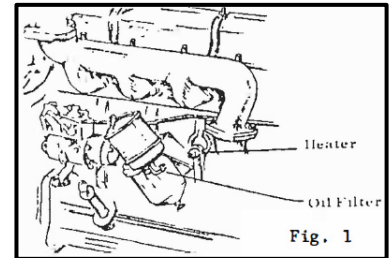
**CAUTION**



DO NOT plug in heater if heating element is not immersed in coolant. If not immersed, element sheath may burst and could result in personal injury.  
DO NOT use heater in coolant system containing any form of stop-leak additive.  
When refilling cooling system, be sure to use a proper mixture of antifreeze and water, (i.e: 60-40 max.). An over concentration of antifreeze may reduce heater performance and shorten heater life.

**HEATER INSTALLATION PROCEDURE**

1. Drain coolant from engine block.
2. Remove fuel filter line and two bottom bolts on filter bracket, loosen top bolt.
3. Rotate filter for clearance for heater (Fig. 1).
4. Remove 3/8" NPT plug in block by filter.
5. Coat threads of heater with permatex or equivalent gasket compound.
6. Insert heater into pipe plug hole and tighten securely.
7. Reassemble filter and filter line. (Fig. 2). Replace and tighten filter bracket bolts.
8. Refill cooling system and operate engine, checking installation for leakage.

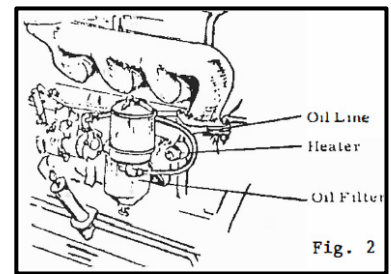


**NOTE**



For optimum heater performance use a 50-50 solution of water and ethylene glycol. Do not use more than a 70% concentration of glycol, as a shortened heater life may result.

9. Fasten power supply cord to suitable portion of tractor to eliminate cord pull and contact with moving parts or exhaust system.



TRACTOR MODEL	ENGINE	CYL.	DISPL.	LOCATION
430	188 D	4	188	3/8 NPT LEFT SIDE

**CAUTION**



DO NOT start engine with heater plugged in. Turbulence and air bubbles can cause hot spots on heating element and can result in element failure.

**RECOMMENDED WIRE GAUGES FOR LONG-LENGTH POWER SUPPLY CORDS**

Use only three wire grounded extension cords.  
400-watt, 120-volt current used, 3.3 amps.

CORD LENGTH	GAUGE WIRE
6-50 ft.	18
50-100 ft.	18
100-150 ft.	16

**WARRANTY**

The Phillips & Temro Industries warranty statement is located on the website at [phillipsandtemro.com/terms](http://phillipsandtemro.com/terms).