

**INSTALLATION
INSTRUCTIONS****1" NPT SWIVEL ENGINE HEATER
DEERE 300 SERIES ENGINE****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.

USE a 50/50 solution of ethylene glycol antifreeze and water for optimum heater performance.

DO NOT use more than 65% concentration of antifreeze, as a shortened heater life will result.

DO NOT use heater in coolant system containing any form of stop-leak additive.

HEATER INSTALLATION PROCEDURE

1. Drain engine coolant. Flush system if necessary.
2. Remove 1" pipe plug located at upper left rear face of engine. This plug is located above the bell housing and may not be accessible in all applications. Clean threads and surface of block opening thoroughly.
3. Assemble heater by installing O-ring into groove on heater adapter. Lubricate O-ring and slide heater assembly into special pipe bushing from threaded end. Start nut on heater adapter (2 to 3 turns) to prevent assembly from slipping out of bushing.
4. Coat 1" pipe threads with thread sealant or teflon tape and install heater so that heating element and electrical pins are in vertical position.

**NOTE**

The element has an offset which should be positioned to the outside of the block to clear internal obstructions.

5. Tighten 1" pipe bushing into engine, while holding the heater from turning.
6. The casting boss in the water cavity might contact heating element. If so, turn heater to the right until it touches, and then left until it touches. Position heater about halfway between these two points. Tighten heater nut securely (20 ft-lbs) while holding heater to prevent it from turning.
7. Insert cord connector into heater socket, being careful to align pins with sockets of connector on cord. Press plug firmly into socket. Tighten strain relief nut by hand.
8. Route cord to location for easy connection to properly grounded outlet. Fasten cord where necessary to prevent contact with hot engine surfaces and moving parts. Allow slack for engine vibration.
9. Fill cooling system completely with good grade permanent antifreeze solution. See CAUTION note above.

**CAUTION**

Before applying power to heater, remove all trapped air by running engine for 5-10 minutes after the thermostat opens (normal operating temperature).

10. Connect only to grounded outlet. If an extension cord is used it must be of the three-wire grounded type.

WARRANTY

The Phillips & Temro Industries warranty statement is located on the website at phillipsandtemro.com/terms.