

**INSTALLATION
INSTRUCTIONS**

VOLVO D70F, TD70F, (6 CYL., INLINE)

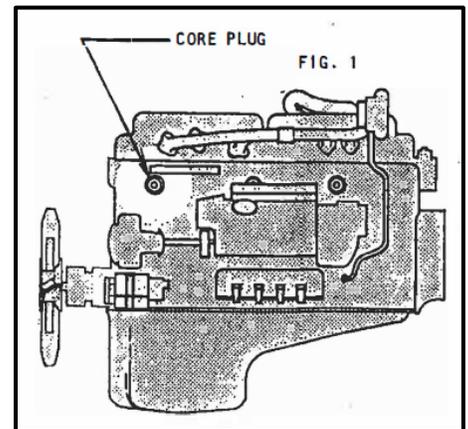
CAUTION



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 (ie: 60-40 max). An over-concentration of antifreeze may reduce heater performance and shorten heater life.

HEATER INSTALLATION PROCEDURE

1. Drain cooling system. Clean if necessary.
2. Remove threaded core plug (over governor housing) on left front (driver's) side of the engine. (See Fig. 1). The intake piping may have to be loosened and/or removed to gain adequate access to the core plug.
3. Clean threads and surface of block opening.
4. Grease O-ring.
5. Install heater assembly (see Fig. 2). The heater can be disassembled for installation. During installation, point the element at 4-5 o'clock. Insert element with light pressure, working element back and forth. When in place, the element will rotate freely approximately 30°. Reassemble heater if disassembled.

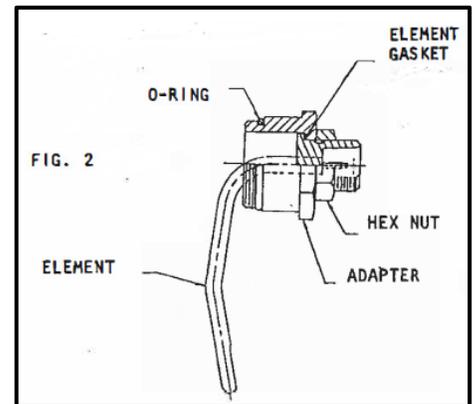


CAUTION



The element gasket is required. See Fig. 2. The 1 1/4" hex nut should be loose until adapter is tightened. Thread adapter into the block. Do not allow the element to turn while the adapter is being tightened.

6. Position the heating element approximately at midpoint of the back and forth rotation. Tighten hex nut on element assembly unit to 20 to 30 foot lbs. torque. DO NOT allow element to turn while tightening.
7. Insert power cord connected into socket, being careful to align pins with sockets of connector on cord. Press plug firmly into socket. Tighten strain relief nut securely by hand.
8. Allow slack for engine vibration and protect cord from excessive heat and also from possible chafing or mechanical damage.



CAUTION



Fill cooling system completely with good grade permanent antifreeze and operate engine until all trapped air is removed before turning heater power on.

NOTE



Due to impurities found in most cooling systems, Phillips and Temro recommends the installation of an adequate water filtration system.

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.

WARRANTY

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