MODEL: CURTIS - MASSEY FERGUSON MODEL GC1700
OPTIONAL AUXILIARY HEATER INSTALLATION (P/N 9PH20S54)

HEATER INSTALLATION:

A. Install the heater to the heater bracket, using the 1/4" screws located on the side of the heater.
B. The location for the of the heater bracket on the left unitized side frame.
C. Remove plugs (if equipped) from heater inlet and outlet tubes.

HEATER PLUMBING:

***** CAUTION *** To avoid injury caused by hot engine coolant, make sure the engine is completely cooled down before beginning installation of auxiliary heater.**

A. Using vehicle manufacturer's recommended procedure, drain the cooling system. Remove OEM clamp from the tube as shown in Fig. A-1, remove the radiator cap and let coolant drain thoroughly. Remove the strap from the air filter housing and tuck it and the intake hose out of the way. Loosen the hose clamp from the bypass hose. Remove the bypass hose from the thermostat housing. Lastly, remove the sending unit (See Fig. A-2 & A-3).

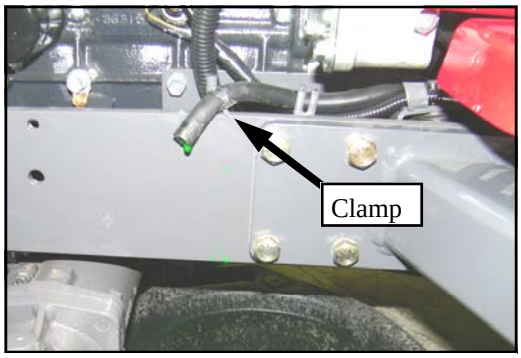


Fig. A-1 View From Left Side of Vehicle Under Hood

B. For the return line from the heater, cut the lower radiator hose in the location shown in Fig. B-1 and install the enclosed T fitting with large hose clamps provided. Run the supplied heater hose from the T fitting down to the bottom of the left side engine cover. **CAUTION: Make sure hose does not interfere or rub against the throttle linkage or any moving parts.** Cut Trim-Lok to length & apply to edges as shown in Fig. B-1. Remove the plastic plugs from the left side of the cowl and replace with the plastic bushings from the heater kit. Route the hose through the bottom bushing. Cut the hose 6" past the bushing. Using hose clamps, attach the return line to a 90 degree elbow. Using a second length of hose (3.25") & two (2) additional hose clamps, connect the elbow to one of the two heater ports (See Figure B-2).

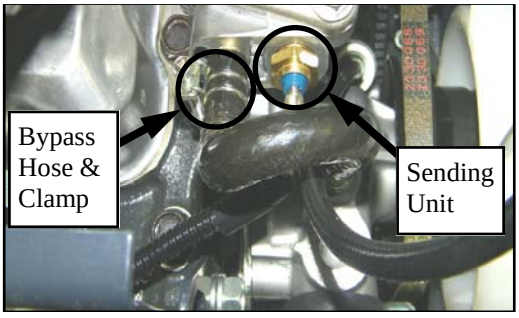


Fig. A-2 By-Pass Hose & Sending Unit

C. For the supply line to the heater, install the sending unit in the end of the sending unit adaptor. Install one to two small plastic washers onto the opposite end of the sending unit adaptor and install the hex bushing. One to two large washers will be needed on the end of the hex bushing to properly position the adaptor as detailed in the next step.


Fig. A-3 Components Removed

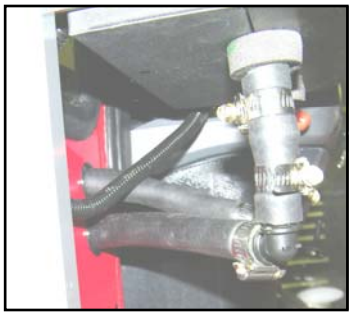


Fig. B-2 Heater Port Connection

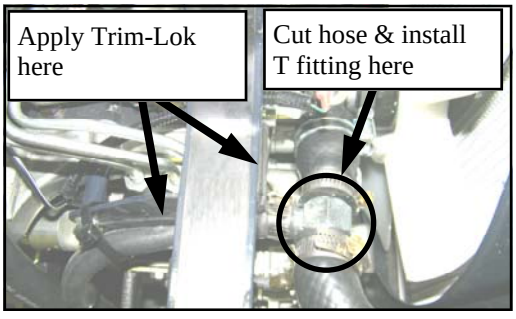


Fig. B-1 Return Line Installation

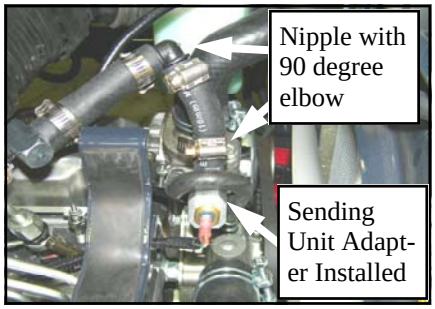


Fig. D-1 Adapter Installation

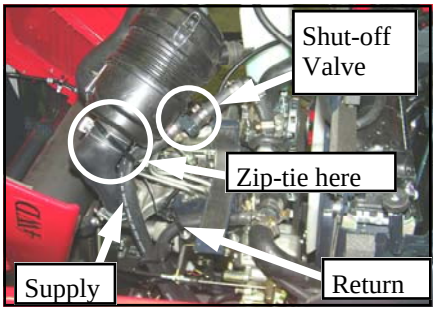


Fig. E-1 Supply & Return Routing

D. Install the adaptor to the thermostat housing and install nylon washers so that the side port of the adaptor points up as shown. Using Teflon tape, install the 3/8" NPT nipple to the side of the adaptor as shown in Fig D-1. Reconnect sending unit wire. **NOTE:** If a single washer will not aim the side nipple correctly, remove the adaptor and install an additional washer. If nipple is still not aimed correctly, repeat the process using an additional small nylon washer between the hex bushing and the adapter. Reconnect the bypass hose routing it under the adaptor as shown.

E. Using hose clamps and a short length of hose (3.25"), attach the nipple to a 90 degree elbow. Attach the supply line to the other end of the elbow and route the heater hose, as shown in Fig E-1, making sure it is kept a safe distance from the muffler. Connect the hose to the heater in the same manner as the return hose. Splice into the heater supply line and install the in-line shut-off valve. Secure hoses with the hose clamps and wire ties. **NOTE:** The in-line shut-off valve quickly converts the heater into a summer time blower by preventing hot water from flowing to the heater core.

F. Reconnect the bypass hose, the drain hose and the air filter system. Refill the cooling system. Start the tractor and inspect system for leaks.

ELECTRICAL CONNECTIONS:

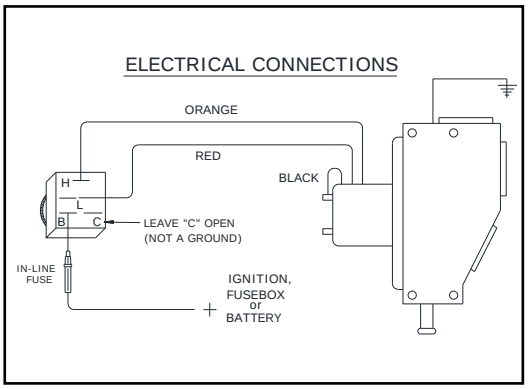
A. At the installer's discretion, mount the two speed rotary heater switch in desired location.

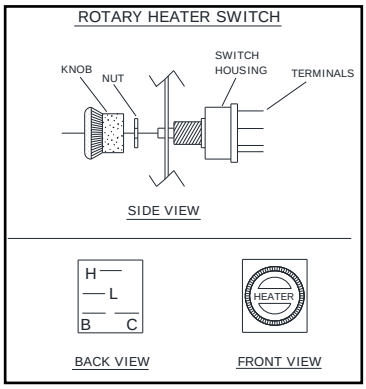
B. Using the bullet connectors on the supplied 16 gauge wires, connect the wires to the orange and red wires on the heater. Route the wires to the switch location and cut to length. Connect the lead from the orange motor wire to the "H" terminal of the switch and the lead from the red motor wire to the "L" terminal using female push-on connectors.

C. Install a female push-on connector to one end of the remaining 16 gauge red wire. Connect the female push-on connector to the "B" terminal on the back of the rotary switch. Route the other end of this wire to a positive feed (through the ignition or fuse box is recommended). Attach to the in-line fuse with a butt connector. Attach the other end of the in-line fuse to the power source.

NOTE: If so desired, the switch may be installed on the heater box itself. To do so, remove the plastic front face of the heater box by removing the 4 screws that hold the two halves together & **carefully** separate the front half from the back. Once this is done, **carefully** drill a 7/16" hole 3.5" down from the top of the box & 2.375" in from the **front** side of the heater. (opposite from the now open end of the plastic half) Once this is completed, mount the switch into the hole, as described previously & route the red & orange wires, from inside of the box, directly to the switch. Cut each wire to length, so that they will not interfere with the operation of the vents & attach to the switch using the female push-on connectors provided. Connect a female push-on connector to the "B" terminal on the back of the rotary switch. Route the other end of this wire through the rubber grommet & to a positive feed. Attach to the in-line fuse with a butt connector. Attach the other end of the in-line fuse to the power source. If needed, extend the ground wire, using the remaining wire & butt connectors, so that the ring terminal reaches the ground terminal of the battery **without** interfering with normal operation of the hood of the vehicle. Loom & wire tie as desired.

WARNING * LEAVE the "C" switch terminal OPEN. This is NOT a ground connection.**





FINISHING TOUCHES:

A. Check heater hoses and make sure they get warm. If not, remove the heater from it's mount and let hang from hoses as low as possible. Temporarily put a clamp on the upper radiator hose to force coolant through the heater. As soon as heater gets warm remove the clamp.

HEATER COMPONENTS

QTY.	DESCRIPTION	P/N
1	20,000 BTU HEATER	9PH20
1	HEATER MANUAL	IM-9PH20S54
1	ROTARY HEATER SWITCH	9HR0046
1	HEATER SWITCH KNOB	9HR0046-A
1	HEATER WIRE KIT	9PWKH
1	20' HEATER HOSE	9HR0061
12	1" HOSE CLAMPS	9HR0060-1.0
2	1-1/2" HOSE CLAMPS	9HR0060-1.5
1	1" X 1" X 5/8" TEE	9HR0042
1	SENDING UNIT ADAPTOR WITH HEX BUSHING	9HR0051MF1
1	3/8" NPT NIPPLE	9HR0045
4	16 MM NYLON WASHERS	71-39-0025
5	12 MM NYLON WASHER	71-39-0024
12	TRIM-LOK	9PR01
1	IN-LINE SHUT OFF VALVE	9HR0044
3	5/8" HEATER ELBOW 90°	9HR0039