

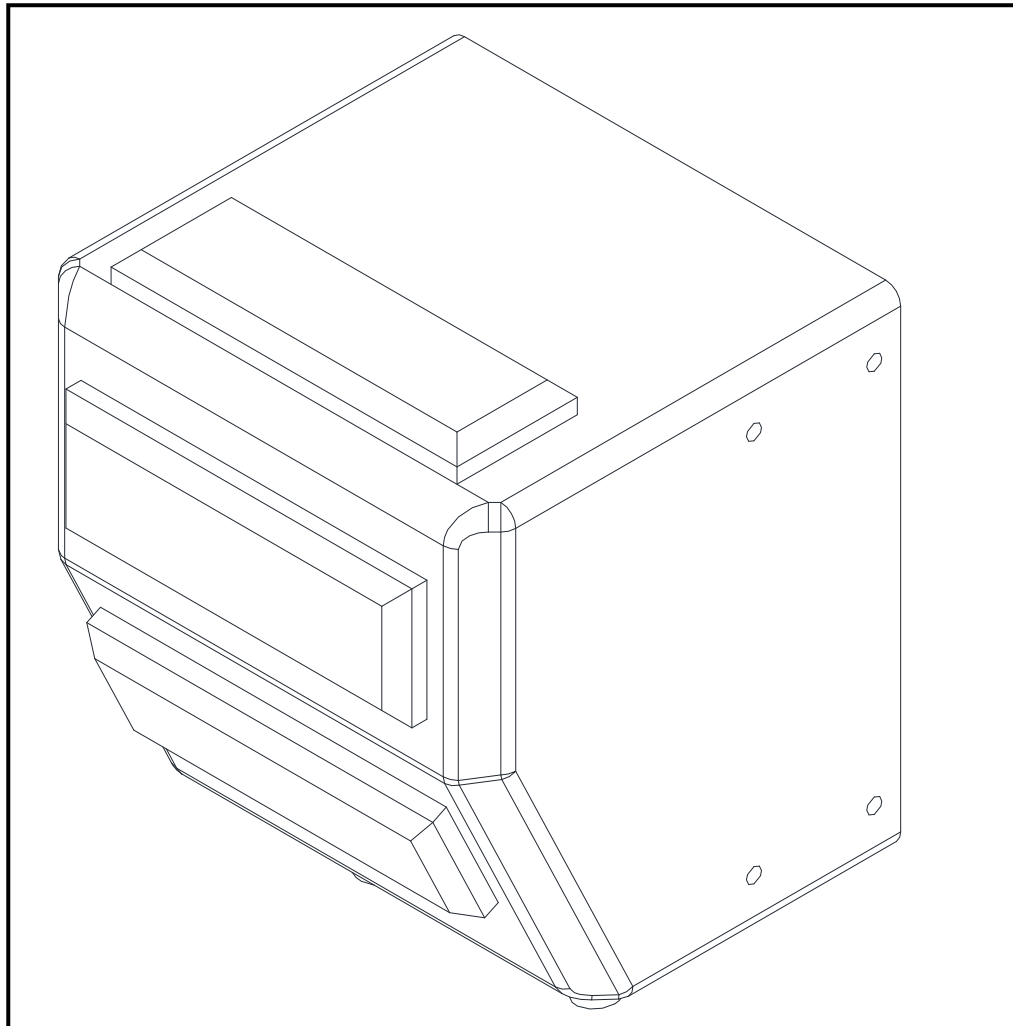


**YANMAR SA-424
HEATER KIT
P/N 9PH20S55
FITS SA-424 TRACTORS WITH 4 POST ROPS**

The contents of this envelope are the property of the owner.
Be sure to leave with the owner when installation is complete.

APPROXIMATE INSTALLATION TIME: 1 HOUR

IMPORTANT!
WINDSHIELD KIT MUST BE INSTALLED
PRIOR TO INSTALLING HEATER



(revised: 1/20/2015)

p/n: IM-9PH20S55

BEFORE YOU START

HELPFUL REMINDERS:

- A. Read and understand all instructions before beginning.
- B. To avoid injury caused by hot engine coolant, make sure the engine is completely cooled down before beginning installation of heater

TOOLS REQUIRED:

Set of standard and metric sockets
Set of standard and metric open end wrenches

Scissors
Phillip's head screwdriver

Drain Pan
Teflon Tape

STEP 1: VEHICLE PREP

- 1.1 Using vehicle manufacturer's recommended procedure, drain the cooling system.
- 1.2 Remove sending unit wire from sending unit by gently pulling on bullet connector at end until it detaches. **Do not pull on wire to reduce risk of damaging sending unit or internal wiring.**
- 1.3 Remove the sending unit and sealing washer from the left side of the thermostat housing. Install the sending unit and sealing washer in the end of the sending unit adaptor. Install a small nylon washer onto the other end of the sending unit adaptor and install the hex bushing onto the adaptor. Install the assembly, with a large nylon washer, into the engine block where the sending unit and sealing washer were removed . If the sending unit adaptor does not tighten so that the port on the side for the 3/8" NPT nipple orients up as shown in Figure 1.3, then remove it and install another nylon washer and try again.



Fig. 1.3

STEP 2: HEATER

- 2.1 Remove plugs (if equipped) from heater hose ports.
- 2.2 Orient heater as shown in Figure 2.2 and fasten to right leg bracket using hardware provided on heater.

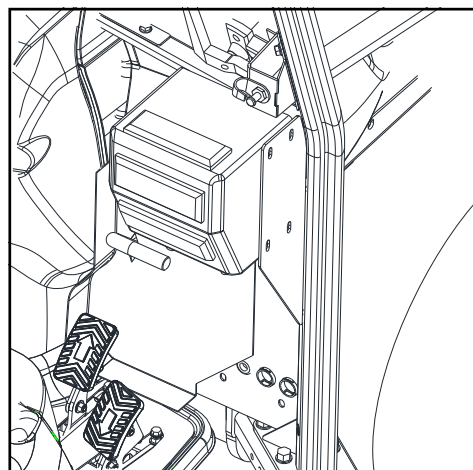


Fig. 2.2

STEP 3: ROUTING

- 3.1 Install snap bushings as shown in Figure 3.1.
- 3.2 From outside the cab, push heater hose through outboard snap bushing and connect to heater using a 1" hose clamp as shown in Figure 3.2.

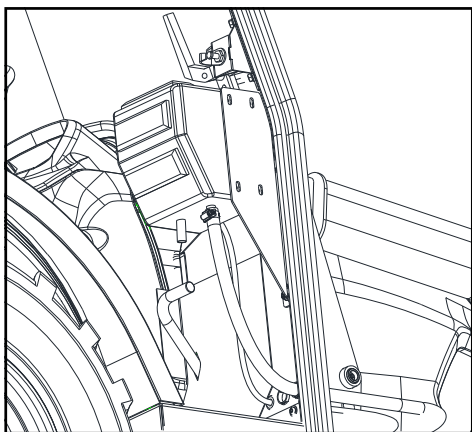


Fig. 3.2

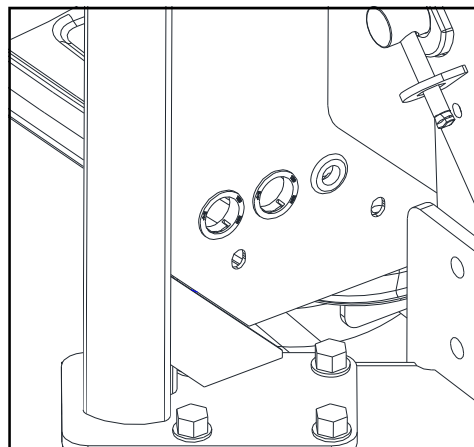


Fig. 3.1 (View from outside)

STEP 3 CONTINUED

3.3 For the return line, cut the lower radiator hose in the location shown in figure 3.3 and install the included T-fitting with 1.5" hose clamps provided, route the heater hose installed in step 3.2 from the snap bushing to the appropriate T-fitting nipple, cut to length and attach using a 1" hose clamp.

CAUTION: Make sure hose does not interfere or rub against the throttle linkage, hood, or any moving parts.

3.4 For the supply line, use Teflon tape to install the 3/8" elbow onto the top of the previously installed sending unit adapter.

3.5 Using Teflon tape, install the included 3/8" nipple onto the opposite end of the elbow and attach the remaining length of heater hose to the nipple using a 1" hose clamp, as shown in Figure 3.5.

3.6 Route the heater hose from the nipple through the open snap bushing and to the open heater port. Fasten with 1" hose clamp.

3.7 Cut and splice the in-line shut-off valve into the supply line, attaching using two (2) 1" hose clamps, as shown in Figure 3.7. **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.

3.8 Secure hoses with spiral wrap and wire ties as necessary. Per fig. 3.8, pay particular attention to secure hoses such that they cannot be damaged by the hood edge.

3.9 Using manufacturer's recommended procedure, refill the cooling system.



Fig. 3.3



Fig. 3.5



Fig. 3.7



Fig. 3.8

STEP 4: ELECTRICAL WIRING

- 4.1 Route wire harness from heater through right front leg. Install grommet on harness in leg.
- 4.2 Attach harness ground to ground on vehicle battery using the attached ring terminal. Leave negative terminal disconnected.
- 4.3 Using the attached bullet terminals, attach the glass fuse harness to the main heater wire harness and carefully attach the other end to the positive terminal on the battery, as shown in Figure 4.3.
- 4.4 Secure heater hose and wire harness with wire ties as necessary.
- 4.5 Re-install negative terminal to battery.



Fig. 4.3

STEP 5: FINISHING TOUCHES

- 5.1 Check heater hoses and make sure they get warm. If not, remove the heater from its 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. **Warning: To avoid engine damage, as soon as heater gets warm, remove the clamp.**

REPLACEMENT PARTS

<u>QTY.</u>	<u>DESCRIPTION</u>	<u>P/N</u>
1	TUCK-AWAY HEATER	9PH20-SA424
1	HEATER MANUAL	IM-9PH20S55
1	ROTARY HEATER SWITCH	9HR0046
1	HEATER SWITCH KNOB	9HR0046-A
1	8' HEATER HOSE	9HR0061
6	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	9HR0051MF
1	3/8" NPT NIPPLE	9HR0045
2	16 MM NYLON WASHERS	71-39-0025
2	12 MM NYLON WASHER	71-39-0024
1	16" SPIRAL WRAP	1TBP129
1	IN-LINE SHUT OFF VALVE	9HR0044
3	3/8" STREET ELBOW 90°	9HR0049
1	WIRE HARNESS HEATER 1	WH-HTR1
1	RUBBER GROMMET	9HR05
6	WIRE TIE 11"	WTHD11B
1	GLASS FUSE HARNESS	WH-GF

NOTE: All service parts are sold in kits. As service parts are frequently updated to best serve our customer's needs, please visit www.curtisindustries.net or call 1-800-343-7676 for up-to-date information.