Form No. 3378-127 Rev A

Block Heater Kit

RT1200 Trencher

Model No. 25468

Model No. 25468E

Installation Instructions

Installation

⚠ WARNING

CALIFORNIA
Proposition 65 Warning

This product contains a chemical or chemicals known to the State of California to cause cancer, birth defects, or reproductive harm.

1

Preparing to Install the Block Heater

No Parts Required

Draining the Coolant

⚠ WARNING

Coolant is toxic.

- **Keep coolant away from children and pets.**
- **If not reused, dispose of coolant in accordance with local government regulations.**

⚠ WARNING

Heated coolant spray or steam can cause personal injury.

- **Do not remove the recovery tank cap when the engine is hot.**
- **Wait until the coolant temperature is below 50° C (120° F) before removing the recovery tank cap.**

Important: Do not pour coolant onto the ground or into an unapproved container that can leak.

1. Move the machine to a level surface, shut off the engine, and remove the key from the key switch.
2. Allow the engine and cooling system to cool.
3. Remove the left and right side panels; refer to *Operator's Manual* for the machine.
4. Remove the recovery-tank cap from the tank (Figure 1).

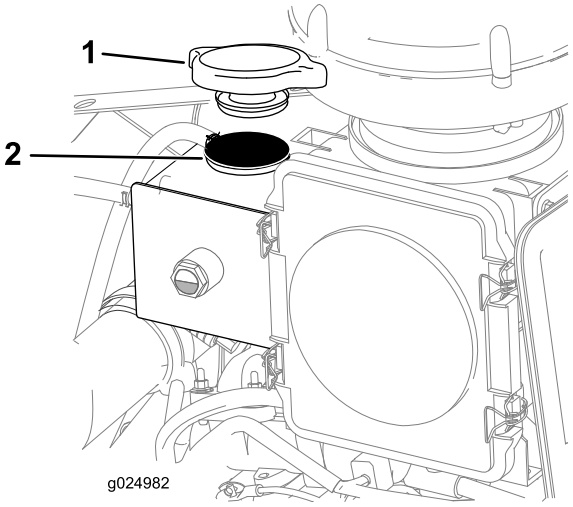

Figure 1

1. Recovery-tank cap
2. Filler neck

5. Place a drain pan with a minimum capacity of 23 L (6 US gallons) under the open end of the drain hose (Figure 3).

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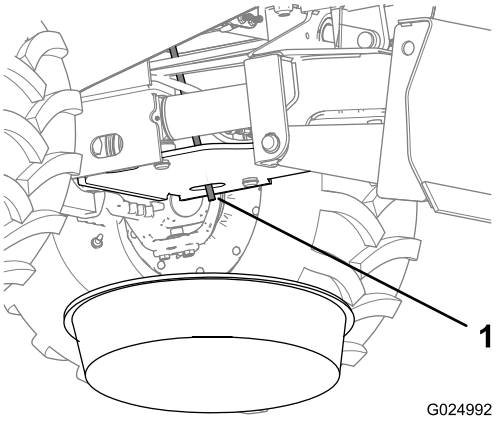

Figure 2

1. Drain hose

6. Open the drain valve on the radiator and allow the coolant to drain completely.

   Note: Dispose of the used coolant properly according to local codes.

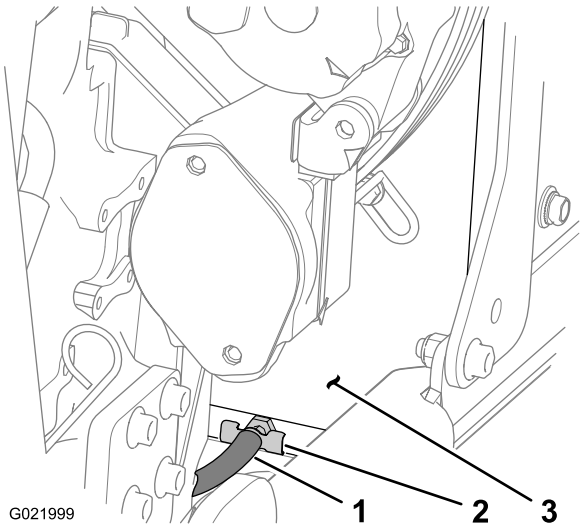

Figure 3

1. Drain valve

7. Close the drain valve (Figure 3).

Removing the Freeze Plug

1. Locate the forward freeze plug at the right side of the engine.

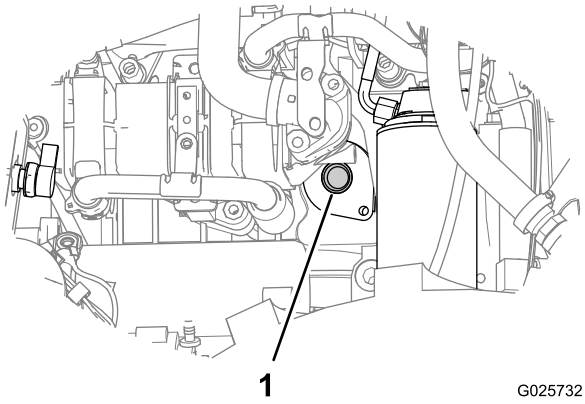

Figure 4

1. Freeze plug (right side of engine)

2. Remove the freeze plug.

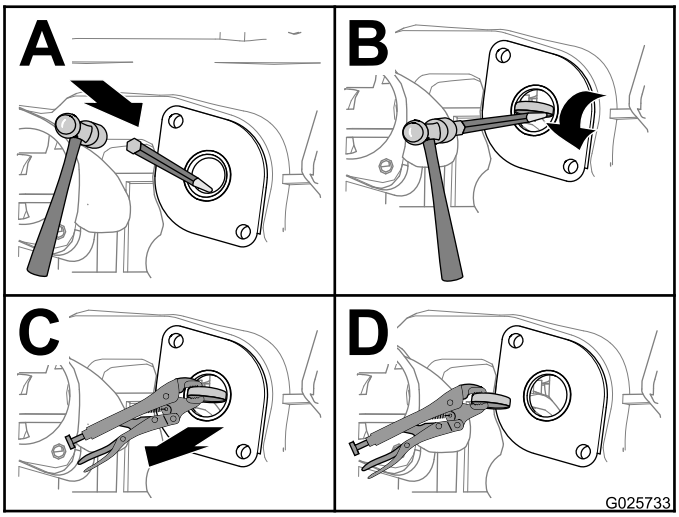

Figure 5

3. Thoroughly clean the hole in the engine block with a rag.

   Note: Ensure that there are no burrs, metal shavings, or sharp edges that can cut the O-ring.

2

Installing the Block Heater Kit

Parts needed for this procedure:

1	Block heater
2	Flanged-head bolts (8 x 16 mm)
1	Heater-electrical cord
1	Cable tie

Procedure

1. Lubricate the O-ring on the block heater with 15W-40 engine oil.
2. Insert the block heater into the hole in the engine block with the element of the heater pointing down (Figure 6).

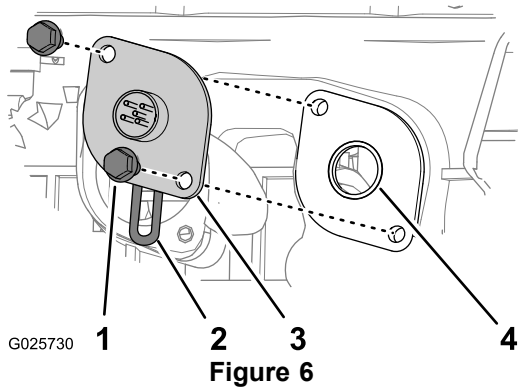

Figure 6

1. Flanged-head bolts (8 x 16 mm)
2. Heater element
3. Block heater
4. Hole (engine block)

3. Align the hole in the block heater with the hole in the engine block (Figure 6).
4. Secure the block heater to the block (Figure 6) with the 2 flanged-head bolts (8 x 16 mm).
5. Torque the bolts to 24 N-m (212 in-lb).
6. Connect the connector of the heater-electrical cord to the connector of the block heater (Figure 7).

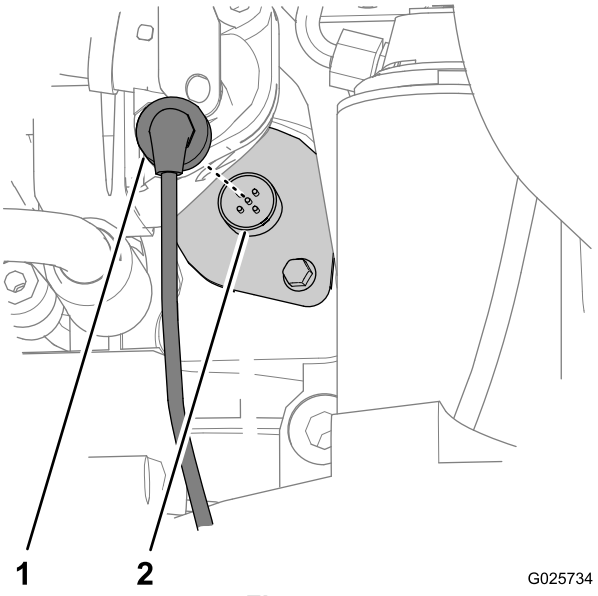

Figure 7

1. Connector (electrical cord)
2. Connector (block heater)

7. Route the cord over the top of the right-frame channel of the machine (Figure 8).

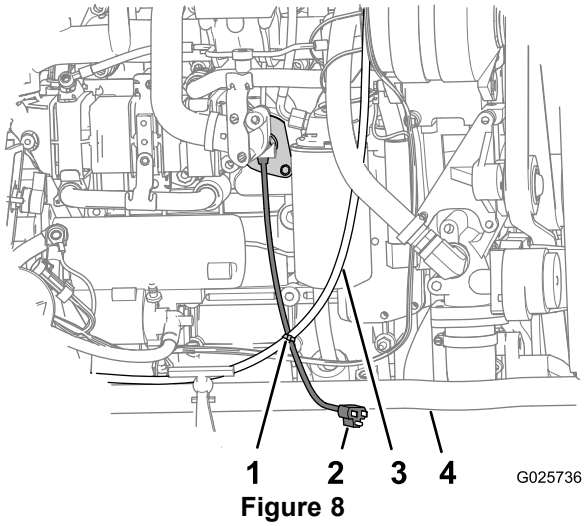

Figure 8

1. Cable tie
2. Plug (electrical cord for the block heater)
3. Charge cable (alternator)
4. Right-frame channel

8. Secure the electrical cord of the block heater to the charge cable of the alternator with a cable tie (Figure 8)

3

Filling the Cooling System with Antifreeze

No Parts Required

Procedure

The coolant capacity of the engine and the radiator: 18.5 L (19.5 US qt).

Important: Fill the cooling system properly to prevent air locks in the cooling passages. Failing to vent the cooling system properly can damage both the engine and the cooling system.

Important: Never use sealing additive to stop leaks in the cooling system. This can result in the cooling system plugging and inadequate coolant flow, causing the engine to overheat.

1. Remove the radiator cap from the recovery tank (Figure 1).
2. Fill the cooling system with the specified coolant mixture (Figure 9) until the fluid level is up to the midpoint in the sight gauge (Figure 9).

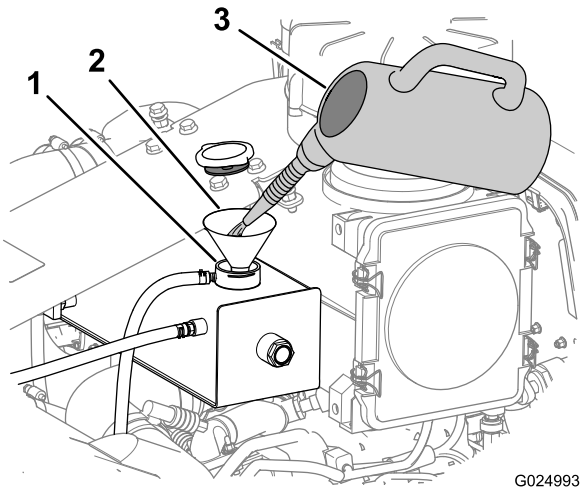

Figure 9

1. Coolant level (midpoint in the sight gauge)
2. Funnel
3. Coolant (a mixture of 50% ethylene glycol and 50% water)

3. Install the recovery-tank cap (Figure 1).
4. Start the engine and run it at half throttle for 5 minutes.
5. Stop the engine and remove the key.
6. Wait 30 minutes, then check the fluid level in the recovery tank.

Note: If the coolant level is low, add coolant to the recovery tank until the fluid level is up to the midpoint of the sight gauge.

7. Install the side panels; refer to *Operator's Manual* for the machine.

Operation

Using the Block Heater

Connecting the Block Heater to Electrical Power

Electrical source specification: 110 to 120 volts AC

Note: To reduce the risk of electric shock, this appliance has a polarized plug (i.e., unique blade shapes and widths). Use only a polarized socket that is compliant with NEMA specifications at the electrical source, and polarized extension cords that are UL-listed (CSA certified in Canada) for outdoor use. A polarized plug of the electrical cord for the block heater will fit in a polarized cord only one way. If you do not have an outlet that is grounded and polarized, contact a qualified electrician to install the proper outlet. Do not modify the electrical cord for the block heater or the extension cord plug in any way.

1. Before parking the machine, move it close to the outlet that will serve as the electrical source for the block heater.
2. Set the parking brake, shut off the engine, and remove the key from the key switch.
3. If the electrical cord for the block heater is inside the engine compartment, remove the right side panel; refer to the *Operator's Manual* for the machine.
4. Plug the electrical cord for the block heater into a grounded-type extension cord (Figure 10).

Important: Use only 3-wire extension cords with terminals and sockets for the live, neutral, and ground circuits.

Use the shortest extension cord possible and in 1 piece.

Note: When using an in-line ground fault circuit interrupter (GFCI) device, locate the GFCI as close to the electrical source as possible.

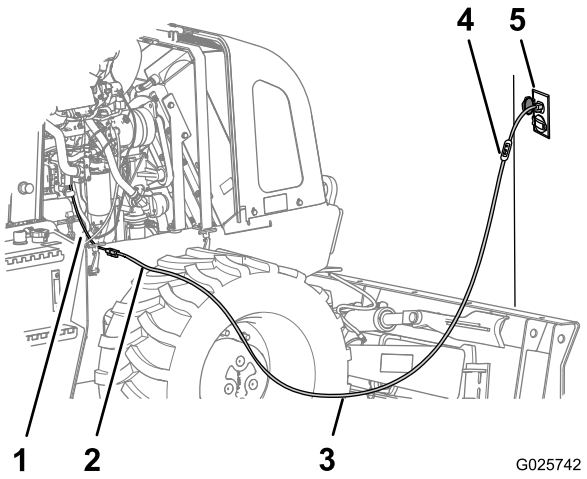

Figure 10

1. Electrical cord (block heater)
2. Extension cord
3. Drip loop
4. In-line GFCI
5. Grounded-electrical outlet

5. Stow the connectors of the block-heater cord and extension cord inside the engine compartment of the machine.
6. Route the extension cord to form a drip loop below the connection at the block-heater cord and extension cord, and the connection at the extension cord and the receptacle for the electrical source (Figure 10).
7. Connect a grounded extension cord into the grounded-electrical outlet that will serve as the electrical source for the block heater (Figure 10).

   Important: Connect the block heater to a 3-pole receptacle with live, neutral, and ground circuits only.

8. Install the right side panel; refer to the *Operator's Manual* for the machine.

Disconnecting the Block Heater from Electrical Power

1. Disconnect the extension cord from the outlet that is serving as the electrical source for the block heater (Figure 10).
2. Remove the right side panel; refer to the *Operator's Manual* for the machine.
3. Disconnect the cord of the block heater cord into the extension cord (Figure 10).
4. Stow the cord of the block heater in the engine compartment, away from moving parts.
5. Install the right side panel; refer to the *Operator's Manual* for the machine.

Notes:

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Count on it.