



Radiator Service Kit

Reelmaster® 3100-D Traction Unit

Model No. 121-3657

Installation Instructions

▲ WARNING

CALIFORNIA Proposition 65 Warning

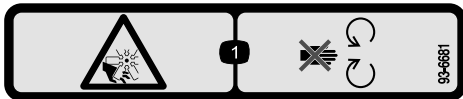
Use of this product may cause exposure to chemicals known to the State of California to cause cancer, birth defects, or other reproductive harm.

Safety

Safety and Instructional Decals



Safety decals and instructions are easily visible to the operator and are located near any area of potential danger. Replace any decal that is damaged or missing.



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1. Cutting/dismemberment hazard, fan—stay away from moving parts.

Loose Parts

Use the chart below to verify that all parts have been shipped.

Procedure	Description	Qty.	Use
1	No parts required	–	Prepare the machine.
2	No parts required	–	Access the machine.
3	No parts required	–	Drain the radiator and the oil cooler.
4	No parts required	–	Remove the hydraulic fluid cooler.
5	No parts required	–	Remove the radiator hoses.



Procedure	Description	Qty.	Use
6	No parts required	–	Remove the radiator.
7	Radiator/oil cooler Foam seal Flange head screw (1/4 x 3/4 inch) Carriage bolt (5/16 x 3/4 inch) Serrated-flange nut (5/16 inch)	1 2 2 4 4	Prepare the radiator.
8	Straight fitting (-8 O-ring face seal / 3/4 inch SAE) 90° fitting (-8 O-ring face seal / 3/4 inch SAE) Straight fitting (-8 O-ring face seal / 1-1/16 inch SAE) Hose—30 cm (11-3/4 inches)	1 1 1 1	Assemble the radiator/oil cooler to the machine.
9	Bottom fan shroud Support clamp Oil-inlet tube Self-tapping screw (1/4 x 3/4 inch) Top fan shroud Flange-head screw (1/4 x 1/2 inch) Serrated-flange nut (1/4 inch) Lower radiator hose Hose clamp Reservoir bracket Hose—8 x 254 mm (5/16 x 10 inches) Small hose clamp Upper radiator hose	1 2 1 6 1 4 4 1 2 1 1 1 1 1	Install the fan shrouds and oil cooler tube.
10	Hose 90 cm (35-1/4 inches) Straight barb fitting Hose clamp	1 1 2	Replacing the oil cooler return hose.
11	No parts required	–	Assemble the glow-plug relay.
12	Small hose clamp	1	Install the coolant reservoir tank.
13	No parts required	–	Install the console cover and operator's seat.
14	No parts required	–	Add coolant and hydraulic fluid.
15	No parts required	–	Install the hood.

1

Preparing the Machine

No Parts Required

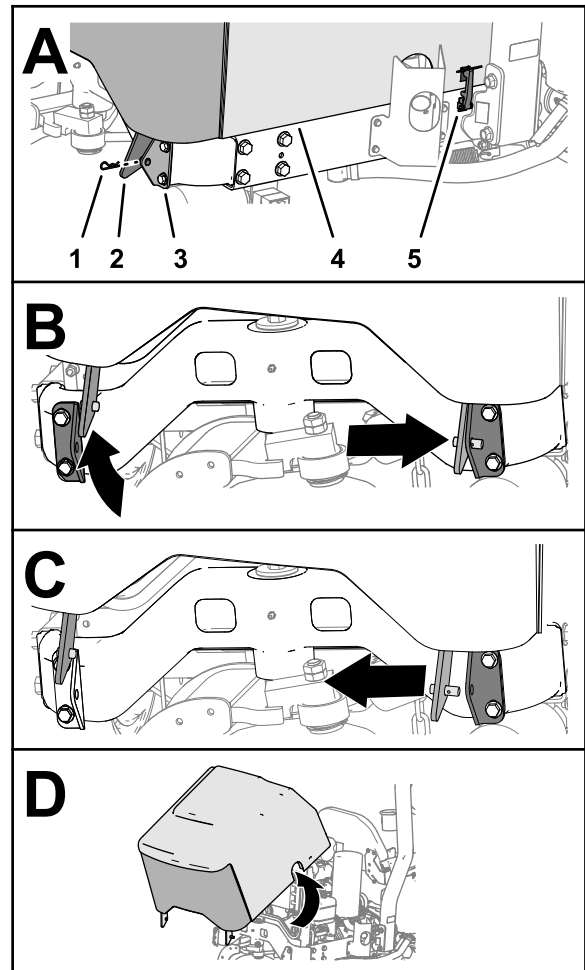
Procedure

⚠ CAUTION

If you leave the key in the switch, someone could accidentally start the engine and seriously injure you or other bystanders.

Remove the key from the switch before you perform any maintenance.

1. Park the machine on a level surface, engage the parking brake, lower the cutting units, shut off the engine, remove the key, and wait for all movement to stop before leaving the operator's seat.
2. Unlatch and open the hood.
3. Allow the engine and radiator to cool completely.



g267307

Figure 1

- | | |
|-----------------------|----------|
| 1. Hairpin | 4. Hood |
| 2. Hood-pivot bracket | 5. Latch |
| 3. Hood support | |

2

Accessing the Machine

No Parts Required

Removing the Hood

1. Close the hood, but do not secure the latches (Figure 1).

2. Remove the hairpin from the pin of the right hood-pivot bracket (Figure 1).
3. Move the hood to the right, from the left hood support, and raise the left hood-pivot bracket (Figure 1).
4. Move the hood to the left, from the right hood support, and raise the right hood-pivot bracket (Figure 1).
5. Remove the hood from the machine (Figure 1).

Removing the Operator's Seat

1. At the back of the operator's seat, remove the 2 flange-head capscrews that secure the heat shield and seat straps cross tube, and remove the heat shield (Figure 2).

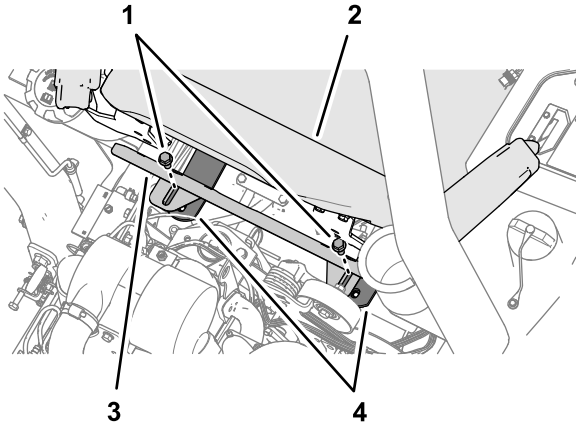


Figure 2

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1. Flange-head capscrews
2. Seat
3. Heat shield
4. Seat straps

2. Remove the 2 flange-head capscrews that secure the seat straps to the support channel (Figure 3).

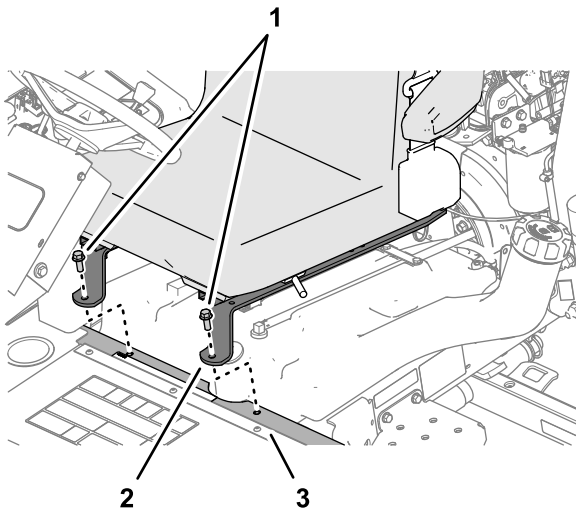


Figure 3

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1. Flange-head capscrews
2. Seat strap
3. Support channel

3. Tip the seat forward to access the bottom of the seat.
4. Remove the 2-socket connector from the terminals for the seat switch (Figure 4).

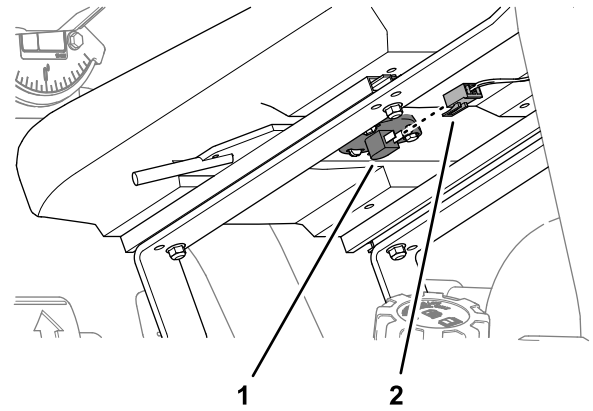


Figure 4

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1. Seat switch
2. 2-socket connector (machine-wire harness)

5. Remove the seat from the machine.

Removing the Console Cover

Lift the console cover from the console control panel (Figure 5).

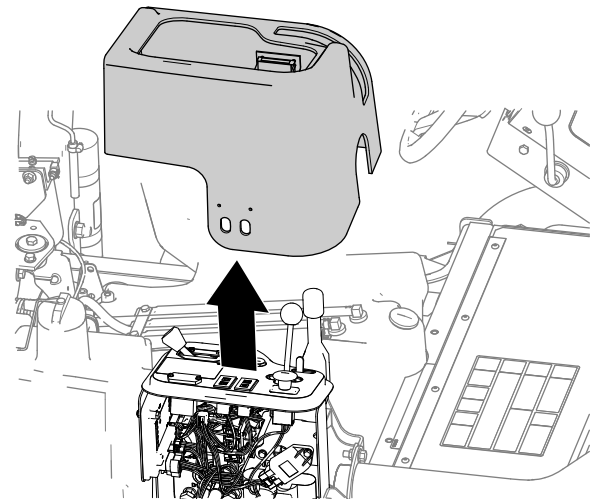


Figure 5

g267311

3

Draining the Coolant and the Hydraulic Fluid

No Parts Required

Draining the Radiator

Drain pan capacity: 7 quarts or more.

1. Remove the radiator cap from the radiator filler neck (Figure 6).

You no longer need the radiator cap.

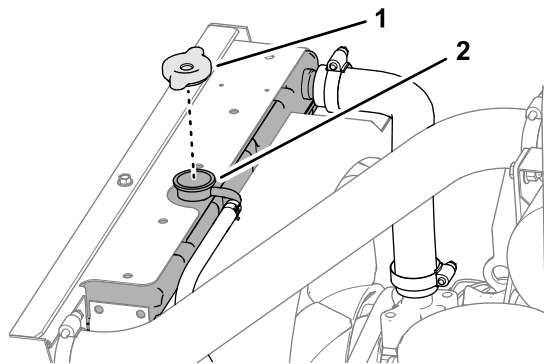


Figure 6

g267314

1. Radiator cap
2. Radiator filler neck

2. Align a drain pan of the specified capacity below the radiator drain valve and open the valve (Figure 7).

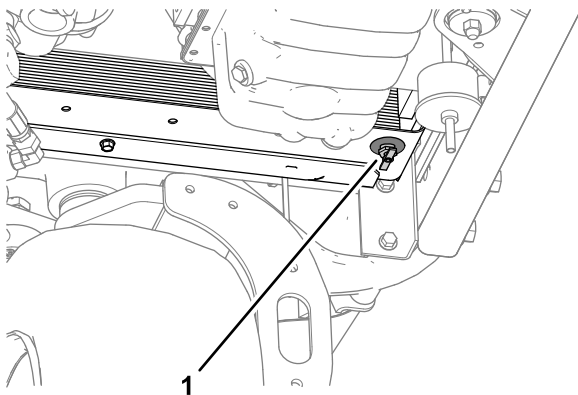


Figure 7

g267313

1. Radiator drain valve

3. Allow the radiator to drain the coolant completely.
4. Close the drain valve (Figure 7).

5. Dispose of used coolant at a certified recycling center, hazardous waste facility, or according to your state and local regulations.

Removing the Coolant Reservoir Tank

1. Remove the hose clamp that secures the hose to the radiator overflow fitting, and remove the hose from the fitting (Figure 8).

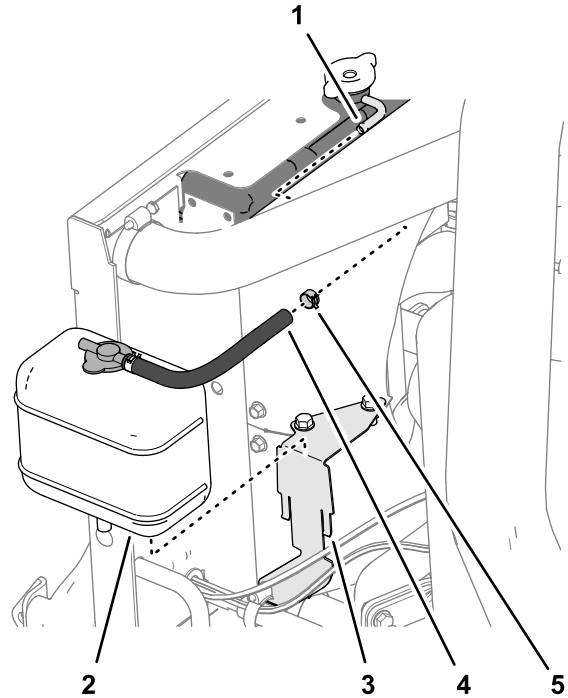


Figure 8

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1. Radiator overflow fitting
2. Coolant reservoir tank
3. Reservoir bracket
4. Hose
5. Hose clamp

2. Lift the reservoir from the reservoir bracket and remove the reservoir from the machine (Figure 8).
3. Drain the coolant reservoir tank.
4. Remove the hose clamp that secures the hose to the cap fitting of the coolant reservoir tank, and remove the hose.

Retain the coolant reservoir tank for installation later. Discard the hose and hose clamps.

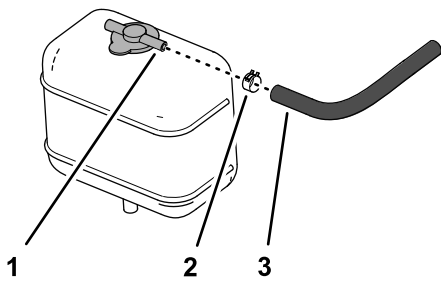


Figure 9

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1. Cap fitting (coolant reservoir tank)
2. Hose clamp
3. Hose

4

Removing the Hydraulic Fluid Cooler

No Parts Required

Procedure

1. Remove the 4-blade connector of the machine wire harness from the glow-plug relay ([Figure 11](#)).

Draining the Oil Cooler

Drain pan capacity: 4 quarts or more.

1. Remove the hose clamp that secures the tank-return hose to the barbed fitting of the hydraulic filter head ([Figure 10](#)).

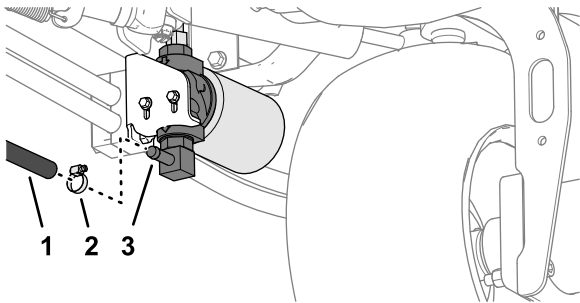


Figure 10

g267350

1. Tank-return hose
2. Hose clamp
3. Barbed fitting (filter head—hydraulic)

2. Remove the tank-return hose and allow the hydraulic fluid to fully drain from the filter head and hose ([Figure 10](#)).
3. Assemble the tank-return hose and hose clamp to the barbed fitting and tighten the clamp ([Figure 10](#)).

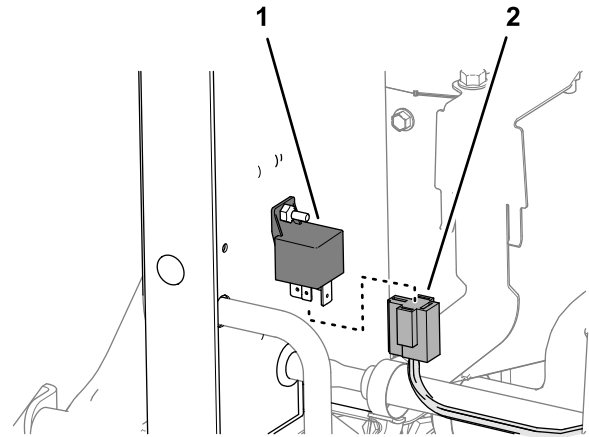


Figure 11

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1. Glow-plug relay
2. 4-blade connector (machine wire harness)

2. Remove the hose clamp that secures the hydraulic cooler-inlet hose to the inlet hydraulic tube, and separate the hose from the tube ([Figure 12](#)).

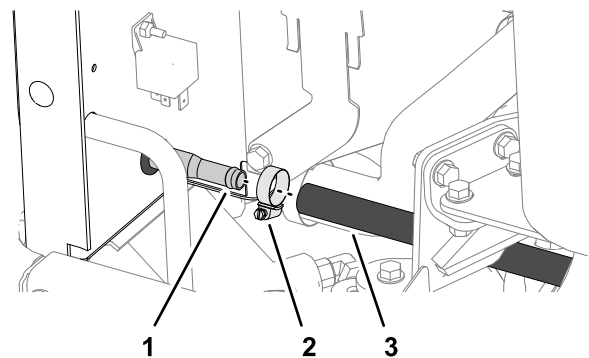


Figure 12

g267357

1. Inlet hydraulic tube
2. Hose clamp
3. Hydraulic cooler-inlet hose

3. Disconnect the hydraulic cooler-outlet tube from the fitting at the top of the hydraulic filter head (Figure 13).

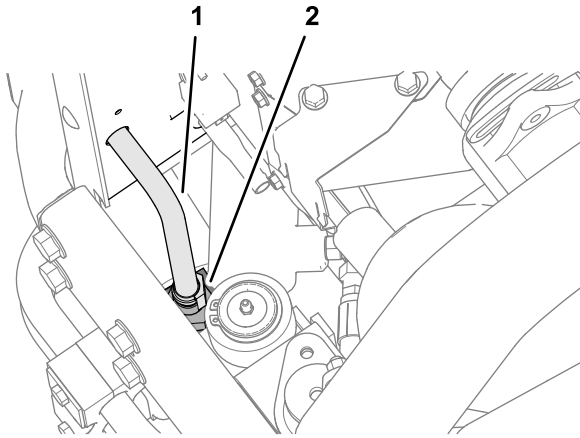


Figure 13

g267402

- | | |
|---------------------------------|------------------------------------|
| 1. Hydraulic cooler-outlet tube | 2. Fitting (hydraulic filter head) |
|---------------------------------|------------------------------------|

4. Pull the top of the hydraulic fluid cooler rearward and out of the 2 gripper clips (Figure 14).

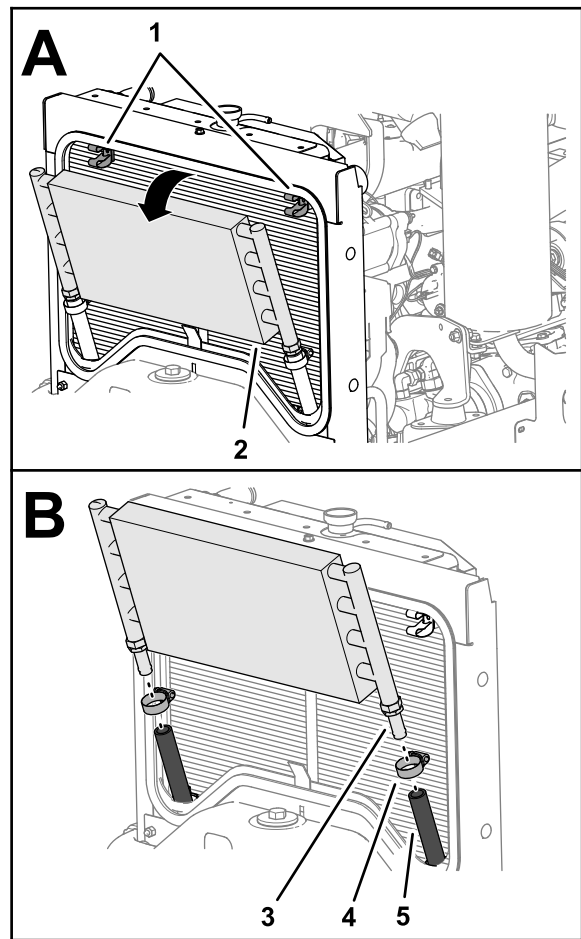


Figure 14

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- | | |
|---------------------------|---------------|
| 1. Gripper clips | 4. Hose clamp |
| 2. Hydraulic fluid cooler | 5. Hose |
| 3. Barbed fitting | |

5. Remove the 2 hose clamps that secure the hoses to the barbed fittings at the bottom of the hydraulic fluid cooler (Figure 14).
6. Separate the cooler from the hoses and remove the cooler from the machine (Figure 14).

5

Removing the Radiator Hoses

No Parts Required

Procedure

1. Remove the hose clamp that secures the lower radiator hose to the outlet of the radiator, and separate the hose from the radiator (Figure 15).

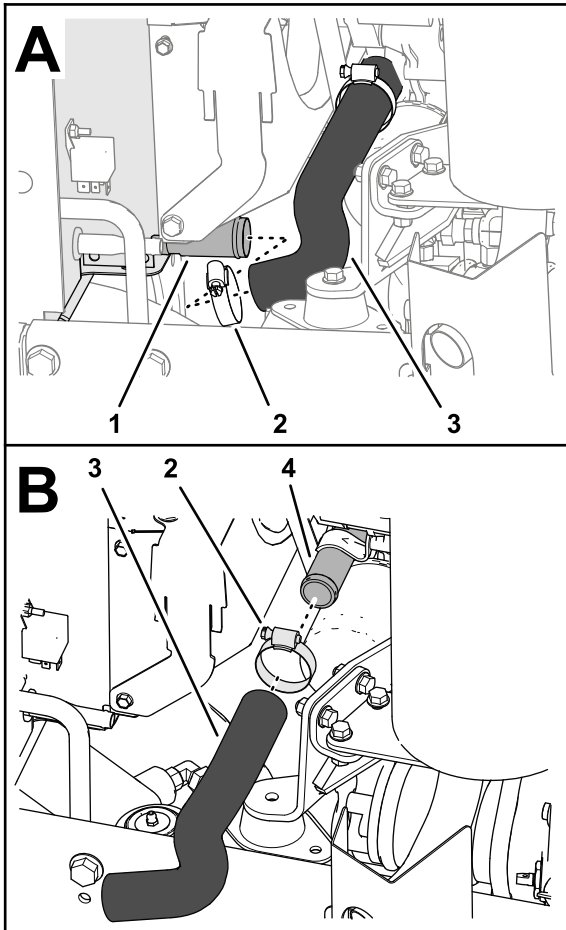


Figure 15

g267352

1. Outlet (radiator)
2. Hose clamp
3. Lower radiator hose
4. Inlet (engine)

2. Remove the hose clamp that secures the lower radiator hose to the inlet of the engine, and remove the hose from engine (Figure 15).

Retain the hose clamps for installation later. Discard the lower radiator hose.

3. Remove the hose clamp that secures the air-intake hose to the outlet at the top radiator bracket (Figure 16).

Retain the clamp for installation later. You do not need to remove the air-intake hose from the engine air cleaner.

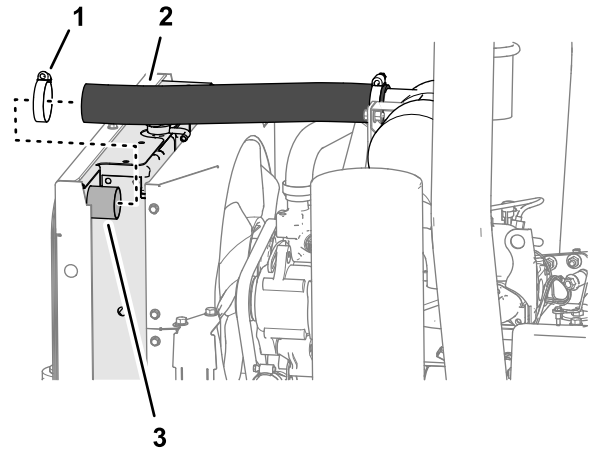


Figure 16

g267351

1. Hose clamp
2. Air-intake hose
3. Outlet (top radiator bracket)

4. Remove the hose clamp that secures the upper radiator hose to the inlet of the radiator, and separate the hose from the radiator (Figure 17).

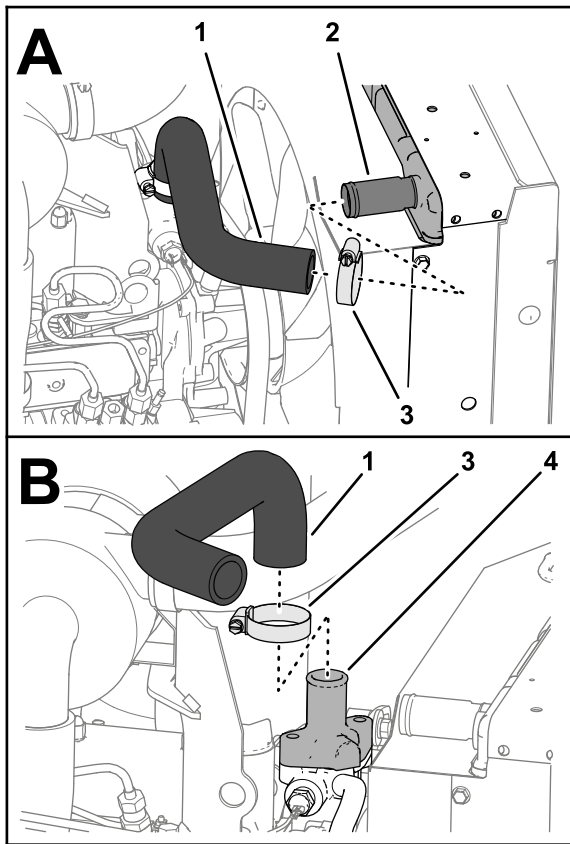


Figure 17

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1. Upper radiator hose
2. Inlet (radiator)
3. Hose clamp
4. Thermostat housing (engine)

5. Remove the hose clamp that secures the upper radiator hose to the thermostat housing of the engine, and remove the hose from the engine (Figure 17).

Retain the 2 hose clamps for installation later. Discard the upper radiator hose.

6

Removing the Radiator

No Parts Required

Removing the Radiator Shrouds

1. Remove the 4 flange head screws (1/4 x 1/2 inch) that secure the upper fan shroud to the flange of the radiator, and remove the shroud from the machine (Figure 18).

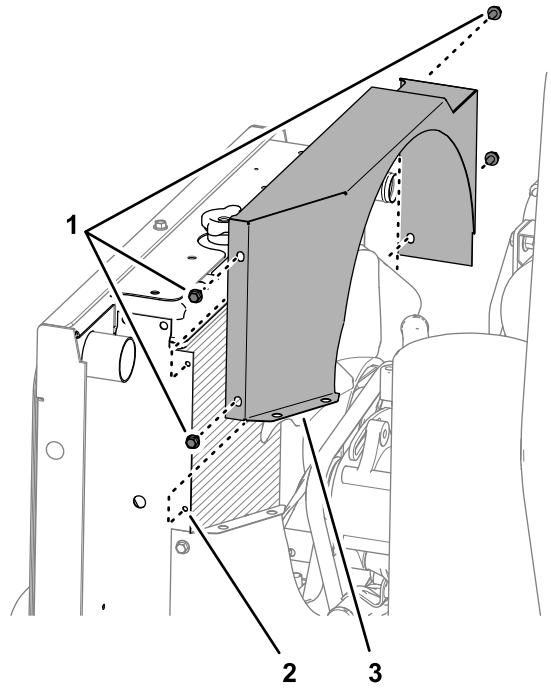


Figure 18

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1. Flange head screws (1/4 x 1/2 inch)
2. Flange (radiator)
3. Upper fan shroud

2. Remove the 4 flange head screws (1/4 x 1/2 inch) that secure the lower fan shroud to the flange of the radiator, and remove the shroud from the machine (Figure 19).

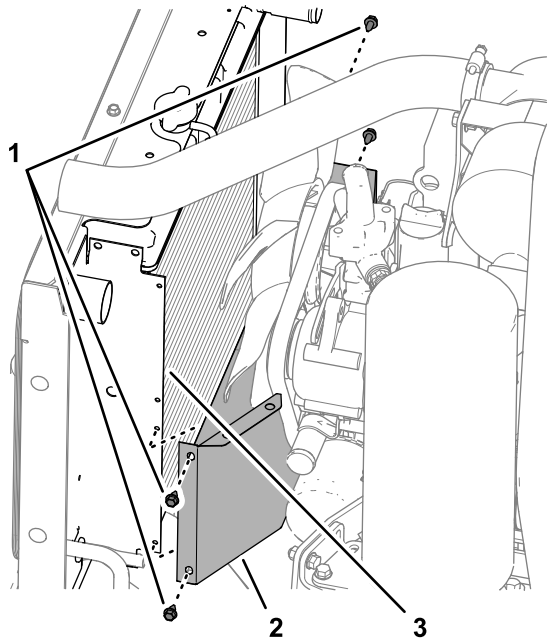


Figure 19

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1. Flange head screws (1/4 x 1/2 inch)
2. Lower fan shroud
3. Flange (radiator)

Removing the Radiator from the Machine

1. At the forward, lower corner of the radiator, remove the 2 flange capscrews (3/8 x 3/4 inch) that secure the radiator bracket to the rear casting of the machine (Figure 20).

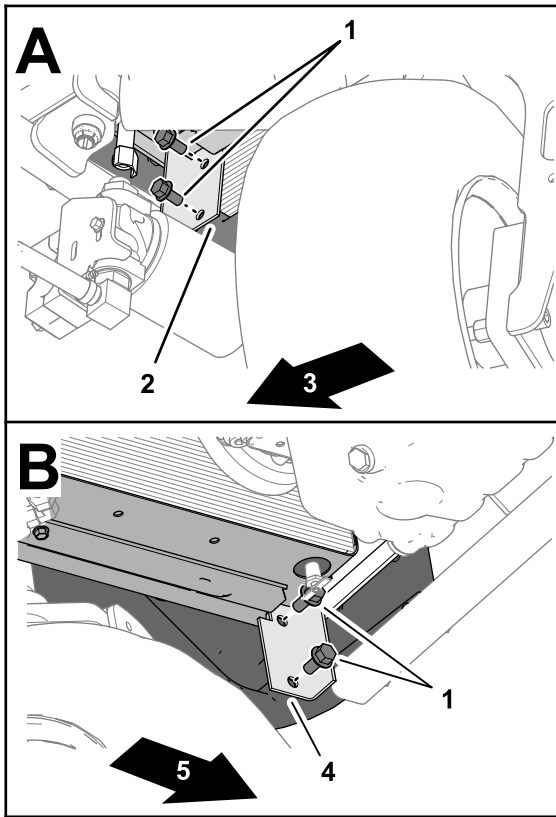


Figure 20

g267592

- | | |
|--------------------------------------|-----------------------------|
| 1. Flange capscrews (3/8 x 3/4 inch) | 4. Left radiator bracket |
| 2. Right radiator bracket | 5. Left side of the machine |
| 3. Right side of the machine | |

2. Remove the 2 flange capscrews (3/8 x 3/4 inch) that secure the radiator bracket to the rear casting of the machine at the other side of the machine (Figure 20).
Retain the flange capscrews for installation later.
3. Lift the radiator out of the machine (Figure 21).

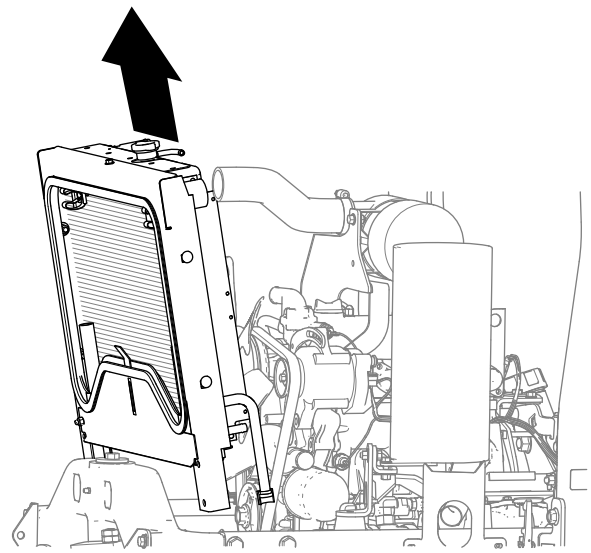


Figure 21

g267591

7

Preparing the Radiator

Parts needed for this procedure:

1	Radiator/oil cooler
2	Foam seal
2	Flange head screw (1/4 x 3/4 inch)
4	Carriage bolt (5/16 x 3/4 inch)
4	Serrated-flange nut (5/16 inch)

Disassembling the Radiator

1. Remove the 2 flange head screws that secure the mounting frame to the radiator (Figure 22).

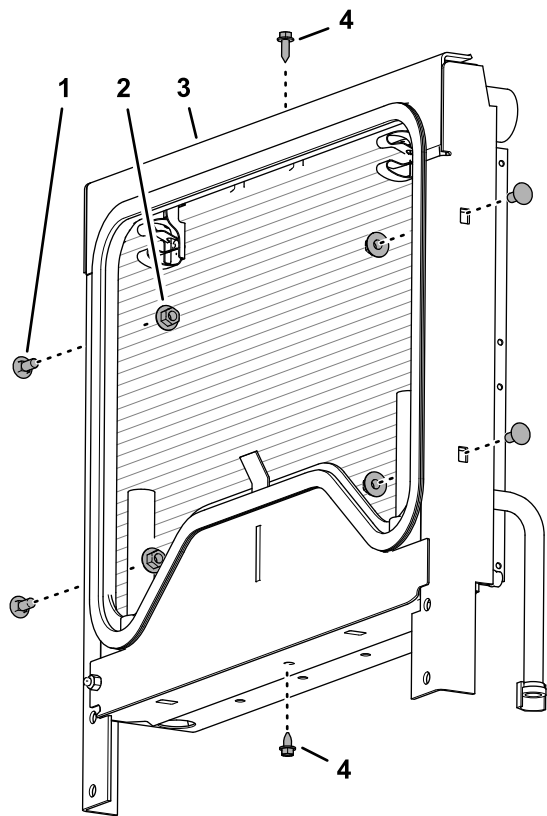


Figure 22

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- | | |
|------------------------|----------------------|
| 1. Carriage bolt | 3. Mounting frame |
| 2. Serrated-flange nut | 4. Flange head screw |

- Remove the 4 carriage bolts and 4 serrated-flange nuts that secure the mounting frame to the radiator (Figure 22). Discard the flange head screws, carriage bolts, and serrated-flange nuts.
- Separate the mounting frame from the radiator (Figure 23).

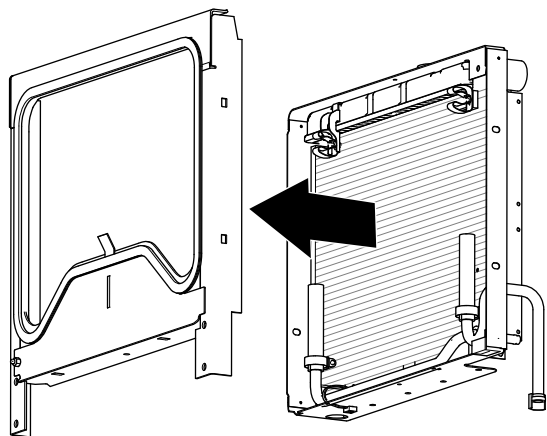


Figure 23

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- Remove the flange-head screw (#10 x 3/4 inch) and locknut (#10) that secure the glow plug relay to the radiator, and remove the relay (Figure 24).

Retain the mounting frame, screw, locknut, and relay. Discard the radiator and attached hoses, tubes, and clamps.

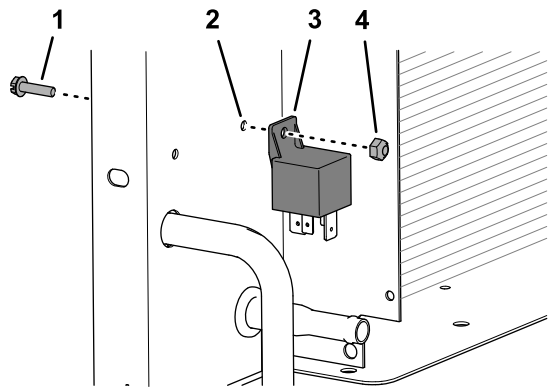


Figure 24

g268219

- | | |
|---------------------------------------|--------------------|
| 1. Flange-head screw (#10 x 3/4 inch) | 3. Glow plug relay |
| 2. Radiator | 4. Locknut (#10) |

Replacing the Foam Seals

- Remove the 2 foam seals at the lower, inside corners of the mounting frame (Figure 25).

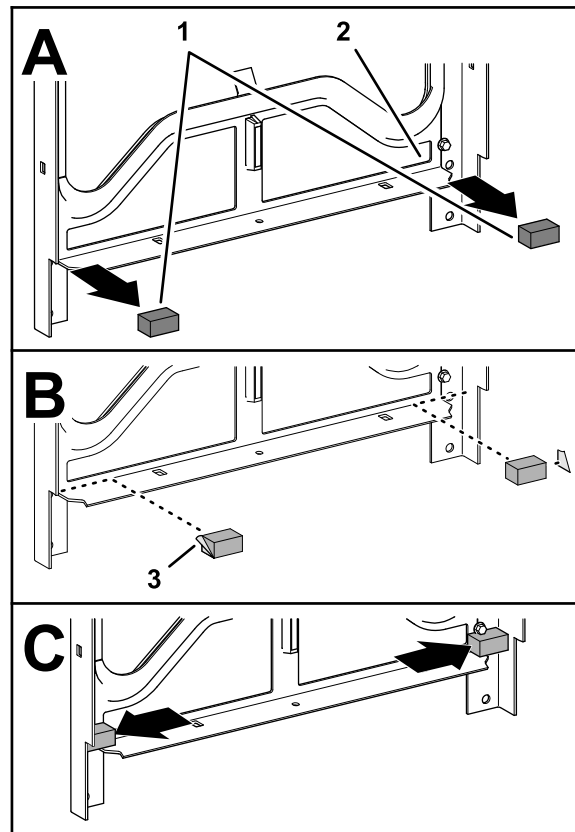


Figure 25

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- | | |
|---------------------|---------------------|
| 1. Foam seals (old) | 3. Foam seals (new) |
| 2. Mounting frame | |

2. Clean the surface of the frame where you removed the seals ([Figure 25](#)).
3. Remove the backing from the new foam seals ([Figure 25](#)).
4. Assemble the foam seals as shown in [Figure 25](#).

Assembling the Mounting Frame from the Radiator/Oil Cooler

1. Align the holes in the mounting frame to the holes in the radiator/oil cooler ([Figure 26](#)).

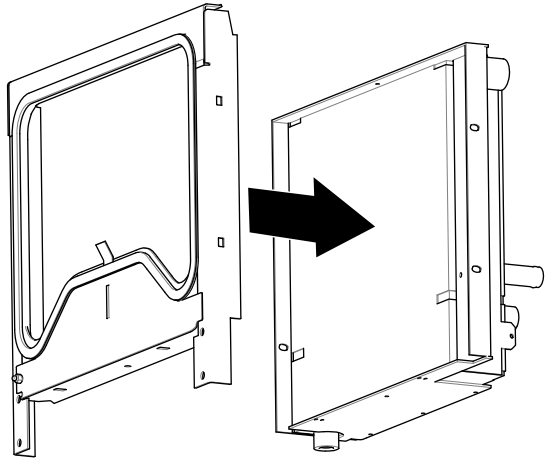


Figure 26

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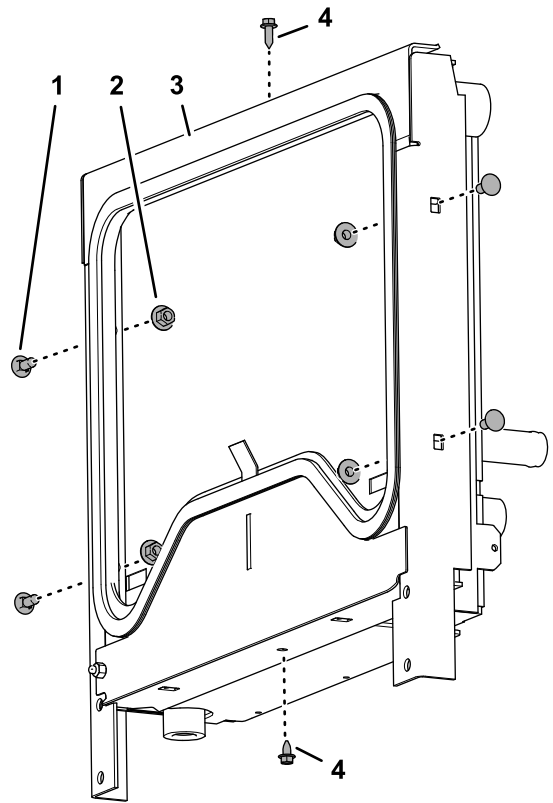


Figure 27

g267665

- | | |
|------------------------------------|---------------------------------------|
| 1. Carriage bolt (5/16 x 3/4 inch) | 3. Mounting frame |
| 2. Serrated-flange nut (5/16 inch) | 4. Flange head screw (1/4 x 3/4 inch) |
3. Assemble the mounting frame to the radiator/oil cooler ([Figure 27](#)) with the 4 carriage bolts (5/16 x 3/4 inch) and 4 serrated-flange nuts (5/16 inch).

Tighten the serrated-flange nuts and the flange head screws.

2. Loosely assemble the mounting frame to the radiator/oil cooler ([Figure 27](#)) with the 2 flange head screws (1/4 x 3/4 inch).

8

Assembling the Radiator/Oil Cooler to the Machine

Parts needed for this procedure:

1	Straight fitting (-8 O-ring face seal / 3/4 inch SAE)
1	90° fitting (-8 O-ring face seal / 3/4 inch SAE)
1	Straight fitting (-8 O-ring face seal / 1-1/16 inch SAE)
1	Hose—30 cm (11-3/4 inches)

Assembling the Radiator Bracket to the Rear Casting

- At the forward, lower corner of the radiator, loosely assemble the radiator bracket to the rear casting of the machine (Figure 28) with the 2 flange capscrews (3/8 x 3/4 inch) that you removed in [Removing the Radiator from the Machine](#) (page 10).

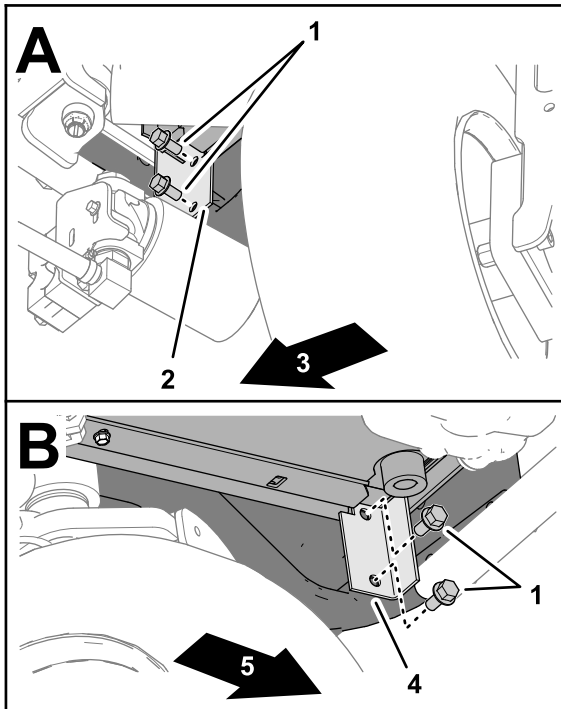


Figure 28

- Flange capscrews (3/8 x 3/4 inch)
- Right radiator bracket
- Right side of the machine
- Left radiator bracket
- Left side of the machine

- At the other side of the machine, loosely assemble the radiator bracket to the rear casting (Figure 28) with the 2 flange capscrews (3/8 x 3/4 inch).
- Tighten the 4 flange capscrews.

Assembling the Oil Cooler Fittings and Outlet Hose

- At the forward, lower corner of the radiator, assemble the 90° fitting (-8 O-ring face seal / 3/4 inch SAE) into the oil-cooler outlet as shown in Figure 29, and tighten the fitting nut.

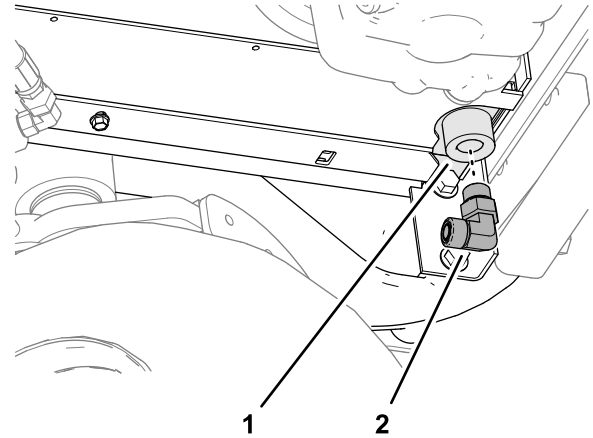


Figure 29

- Oil-cooler outlet
- 90° fitting (-8 O-ring face seal / 3/4 inch SAE)

- Assemble the straight fitting (-8 O-ring face seal / 3/4 inch SAE) into the oil-cooler outlet of the radiator/oil cooler, and tighten the fitting (Figure 30).

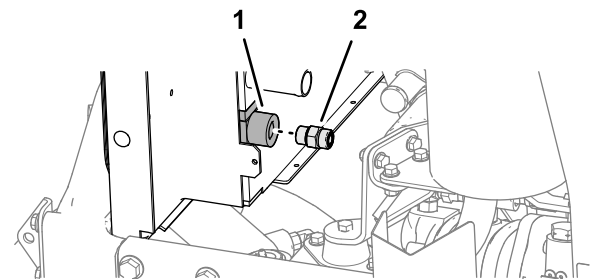
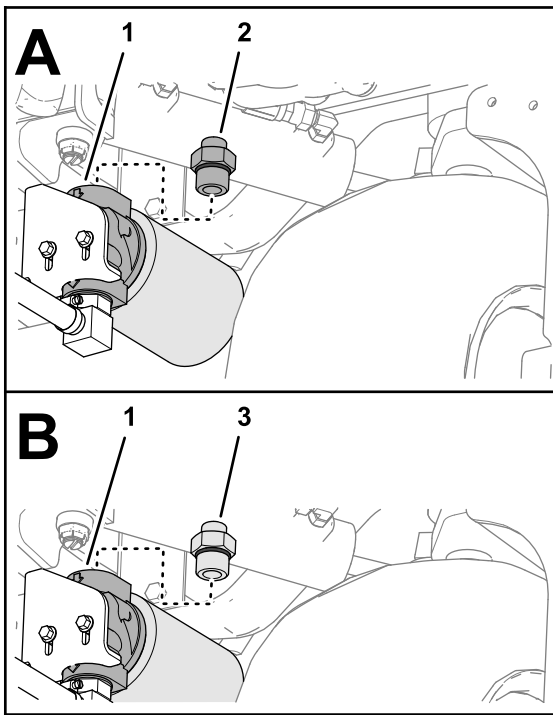


Figure 30

- Oil-cooler outlet
- Straight fitting (-8 O-ring face seal / 3/4 inch SAE)

- Remove the fitting from the top port of the filter head (Figure 31). Discard the fitting.

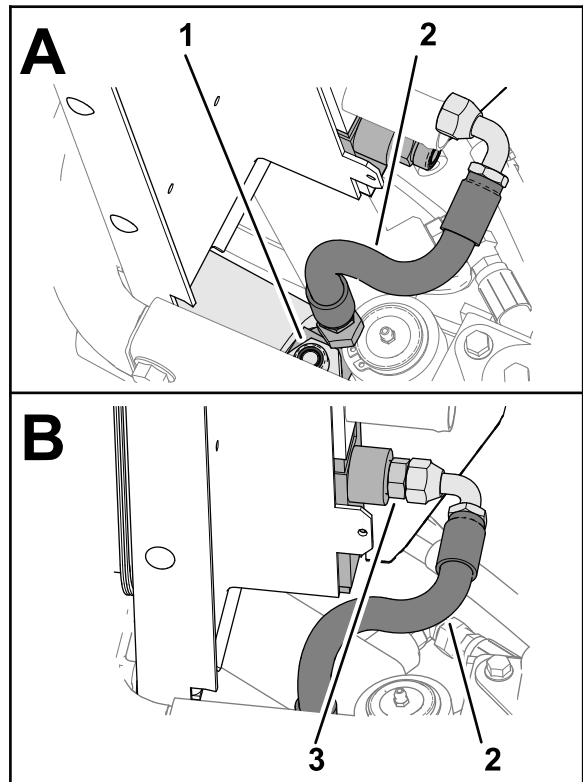


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Figure 31

- 1. Fitting
- 2. Filter head
- 3. Straight fitting (-8 O-ring face seal / 1-1/16 inch SAE)

-
- 4. Install the straight fitting (-8 O-ring face seal / 1-1/16 inch SAE) into the top port of the filter head ([Figure 31](#)).
 - 5. Loosely assemble the straight fitting ([Figure 32](#)) of the hose—30 cm (11-3/4 inches) onto the straight fitting that you installed in step 4.



g267944

Figure 32

- 1. Straight fitting (-8 O-ring face seal / 1-1/16 inch SAE)
- 2. Hose—30 cm (11-3/4 inches)
- 3. Straight fitting (-8 O-ring face seal / 3/4 inch SAE)

-
- 6. Install the 90 fitting ([Figure 32](#)) of the hose onto the straight fitting (-8 O-ring face seal / 3/4 inch SAE) that you installed in step 2.
 - 7. Tighten the hose fittings.

9

Installing the Fan Shrouds, Radiator Hoses, and Oil Cooler Tube

Parts needed for this procedure:

1	Bottom fan shroud
2	Support clamp
1	Oil-inlet tube
6	Self-tapping screw (1/4 x 3/4 inch)
1	Top fan shroud
4	Flange-head screw (1/4 x 1/2 inch)
4	Serrated-flange nut (1/4 inch)
1	Lower radiator hose
2	Hose clamp
1	Reservoir bracket
1	Hose—8 x 254 mm (5/16 x 10 inches)
1	Small hose clamp
1	Upper radiator hose

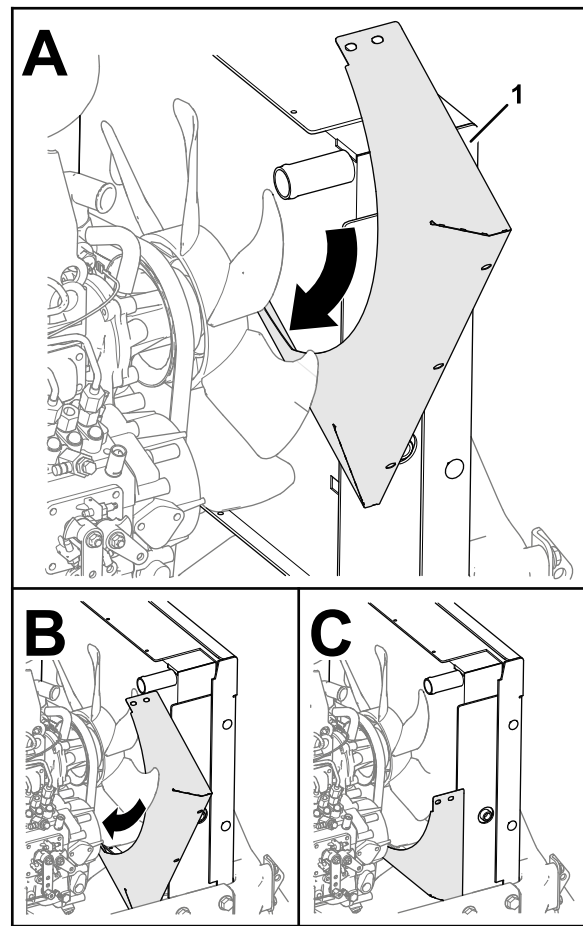


Figure 33

g267881

Assembling the Fan Shrouds to the Radiator/Oil Cooler

1. Align the bottom fan shroud to the machine as shown in [Figure 33](#).

1. Bottom fan shroud

2. Assemble 2 support clamps to the oil-inlet tube ([Figure 34](#)).

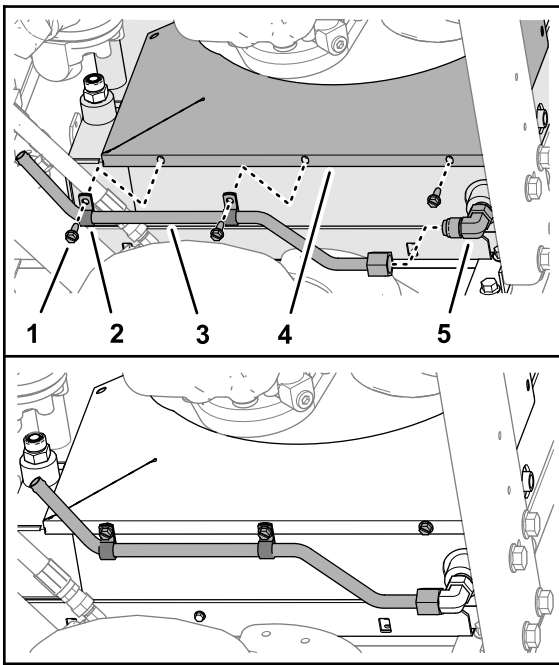


Figure 34

g267884

- | | |
|--|---|
| 1. Self-tapping screw (1/4 x 3/4 inch) | 4. Bottom fan shroud |
| 2. Support clamp | 5. 90° fitting (-8 O-ring face seal / 3/4 inch SAE) |
| 3. Oil-inlet tube | |

3. Thread the swivel nut of the tube onto the 90° fitting ([Figure 34](#)).
4. Secure the clamps, tube, and bottom shroud to the radiator/oil cooler ([Figure 34](#)) with 3 self-tapping screws (1/4 x 3/4 inch).
5. Tighten the swivel nut of the oil-inlet tube.
6. Align the top fan shroud to the machine as shown in [Figure 35](#).

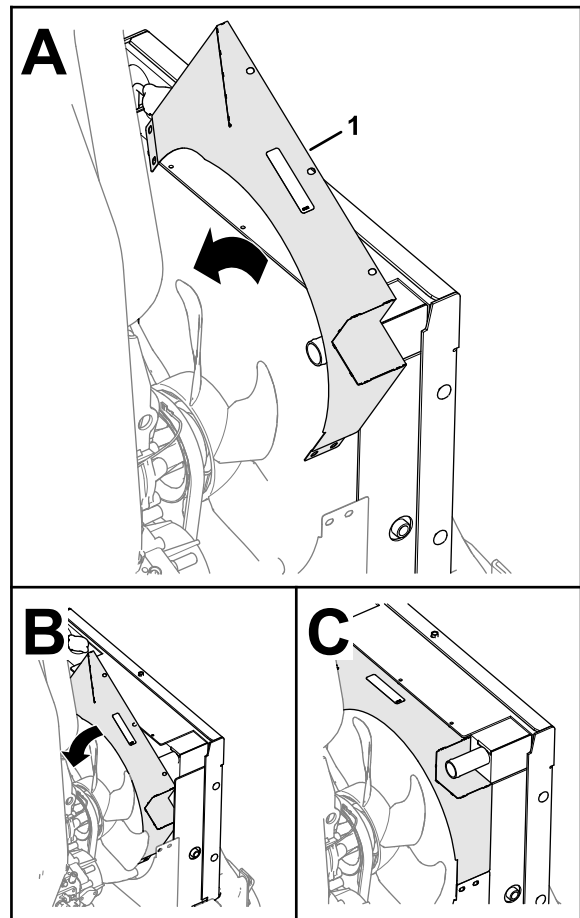


Figure 35

g267882

1. Top fan shroud

7. Secure the top fan shroud to the radiator/oil cooler ([Figure 36](#)) with 3 self-tapping screws (1/4 x 3/4 inch).

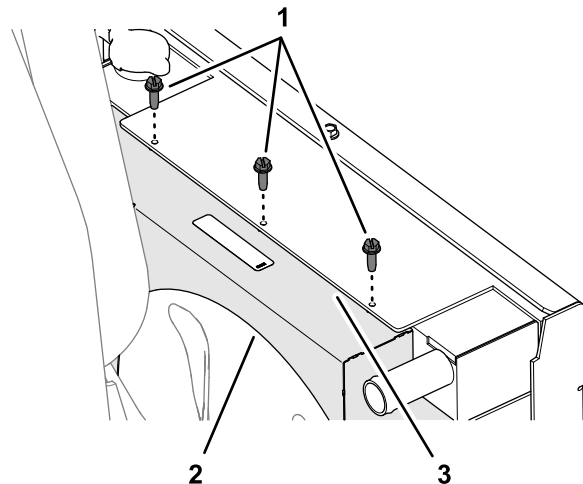


Figure 36

g267887

- | | |
|---|------------------------|
| 1. Self-tapping screws (1/4 x 3/4 inch) | 3. Radiator/oil cooler |
| 2. Top fan shroud | |

- At the left side of the machine, assemble the top and bottom fan shrouds (Figure 37) with 2 flange-head screws (1/4 x 1/2 inch) and 2 serrated-flange nuts (1/4 inch).

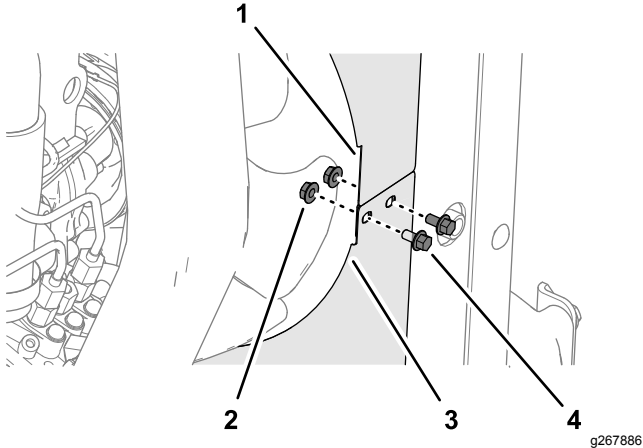


Figure 37

- | | |
|-----------------------------------|---------------------------------------|
| 1. Top fan shroud | 3. Bottom fan shroud |
| 2. Serrated-flange nut (1/4 inch) | 4. Flange-head screw (1/4 x 1/2 inch) |

Installing the Lower Radiator Hose

- Loosely assemble the lower radiator hose to the outlet of the radiator with a hose clamp as shown in Figure 38.

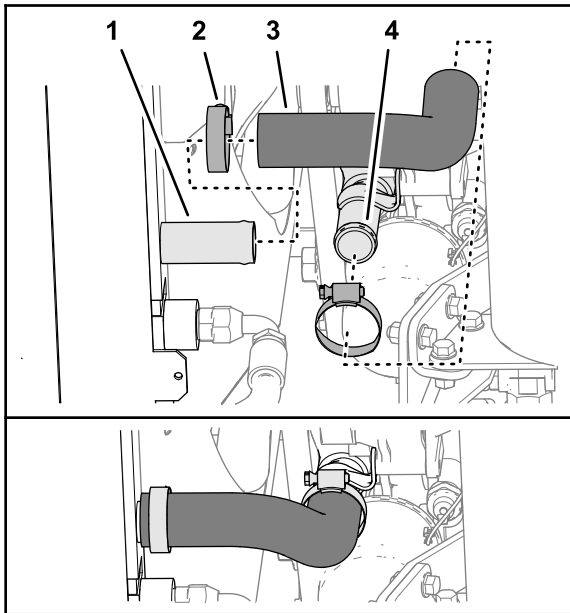


Figure 38

- | | |
|----------------------|------------------------|
| 1. Outlet (radiator) | 3. Lower radiator hose |
| 2. Hose clamp | 4. Inlet (engine) |

- Assemble the other end of the lower radiator hose to the inlet of the engine with a hose clamp (Figure 38).

- Tighten both hose clamps.

Assembling the Coolant Overflow Hose

Assemble the hose—8 x 254 mm (5/16 x 10 inches) onto the radiator overflow fitting and secure the hose to the fitting with a small hose clamp (Figure 39).

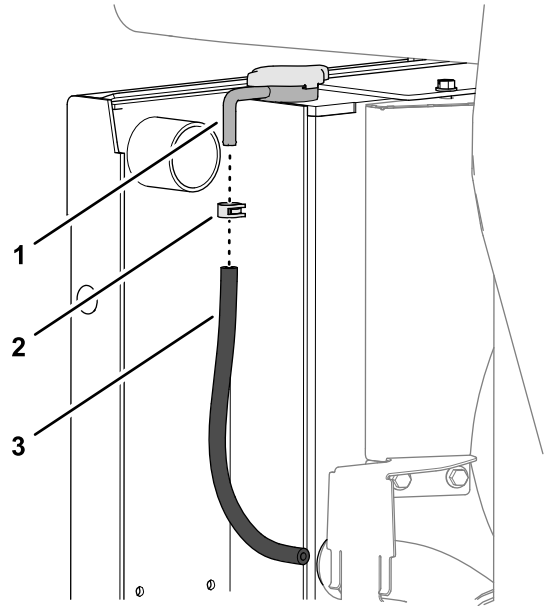


Figure 39

- | | |
|------------------------------|---------------------------------------|
| 1. Radiator overflow fitting | 3. Hose—8 x 254 mm (5/16 x 10 inches) |
| 2. Hose clamp | |

Assembling the Air-Intake Hose

- Assemble the free end of the air-intake hose over the outlet at the top of the radiator (Figure 40).

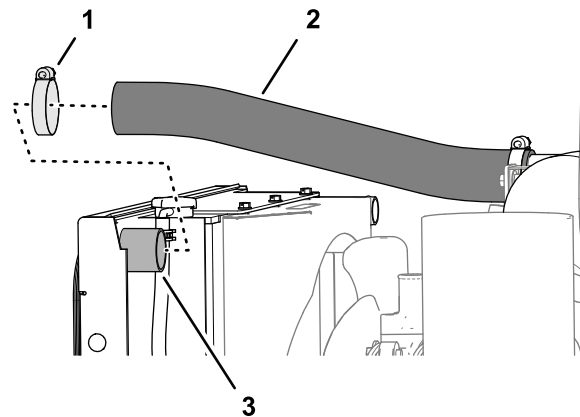


Figure 40

- | | |
|--------------------|----------------------|
| 1. Hose clamp | 3. Outlet (radiator) |
| 2. Air-intake hose | |

- Secure the hose to the outlet with the hose clamp (Figure 40) that you removed in 5 Removing the Radiator Hoses (page 8).

Assembling the Coolant-Reservoir Bracket to the Fan Shrouds

- At the right side of the machine, remove the 2 flange-head screws (5/16 x 1 inch) and 2 serrated-flange nuts (5/16 inch) that secure the engine mount to the engine bracket of the frame (Figure 41).

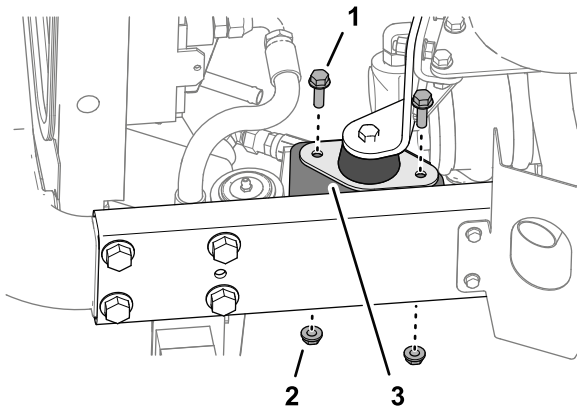


Figure 41

g267888

- Flange-head screw (5/16 x 1 inch)
- Serrated-flange nut (5/16 inch)
- Engine mount

- Align the holes in the coolant reservoir bracket with the holes in the top and bottom fan shrouds, and the holes in the engine mount (Figure 42).

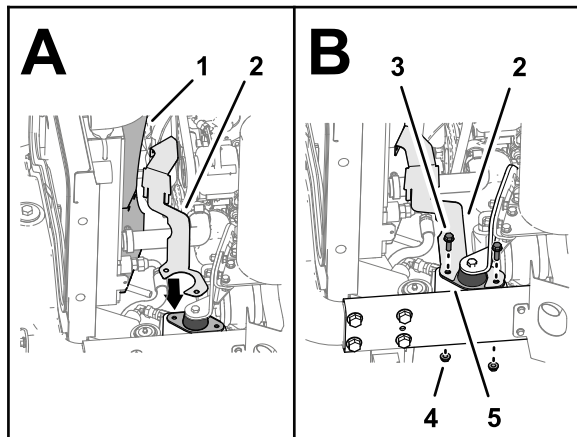


Figure 42

g267883

- Top fan shroud
- Coolant reservoir bracket
- Flange-head screw (5/16 x 1 inch)
- Serrated-flange nut (5/16 inch)
- Engine mount

- Loosely assemble the coolant reservoir bracket to the engine mount (Figure 42) with the 2 flange-head screws (5/16 x 1 inch) and 2 serrated-flange nuts (5/16 inch) that you removed in step 1.
- Assemble the top fan shroud, bottom fan shroud, and coolant reservoir bracket (Figure 43) with 2 flange-head screws (1/4 x 1/2 inch) and 2 serrated-flange nuts (1/4 inch).

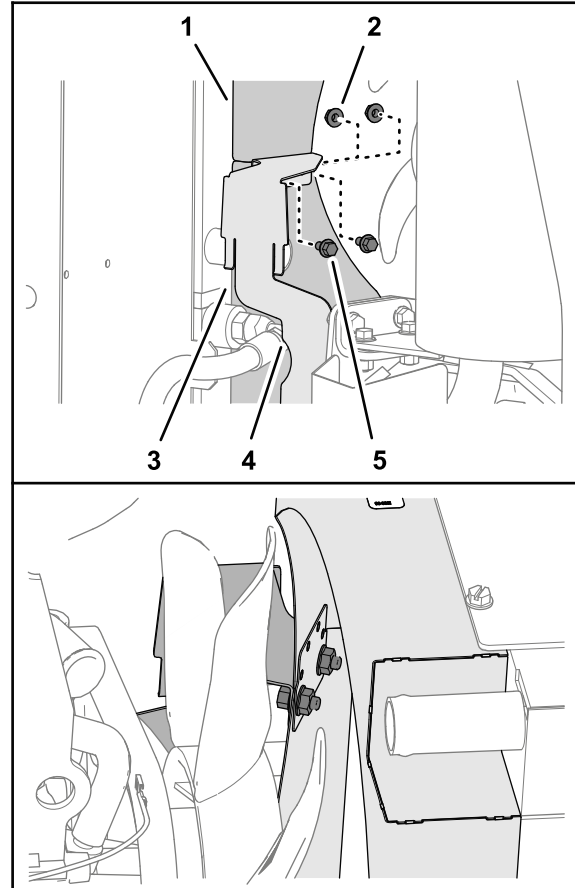


Figure 43

g267885

- Top fan shroud
 - Serrated-flange nut (1/4 inch)
 - Bottom fan shroud
 - Coolant reservoir bracket
 - Flange-head screw (1/4 x 1/2 inch)
- Tighten the flange-head screws (1/4 x 1/2 inch) and (5/16 x 1 inch) and serrated-flange nuts (1/4 inch) and (5/16 inch).

Installing the Upper Radiator Hose

1. Loosely assemble the upper radiator hose to the inlet of the radiator (Figure 44) with a hose clamp that you removed in 5 Removing the Radiator Hoses (page 8).

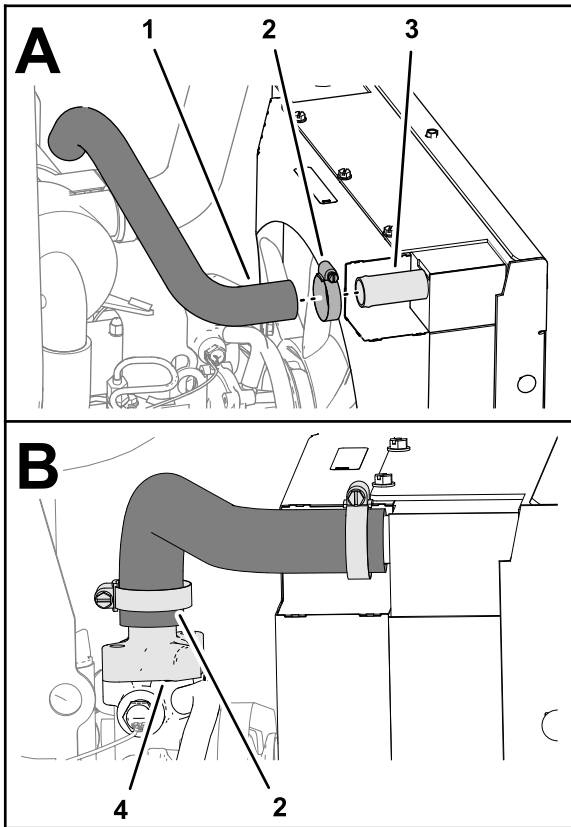


Figure 44

g268195

1. Upper radiator hose
2. Hose clamp
3. Inlet (radiator)
4. Thermostat housing (engine)

2. Assemble the other end of the upper radiator hose to the thermostat housing of the engine (Figure 44) with the other hose clamp that you removed in 5 Removing the Radiator Hoses (page 8).
3. Tighten the hose clamps.

10

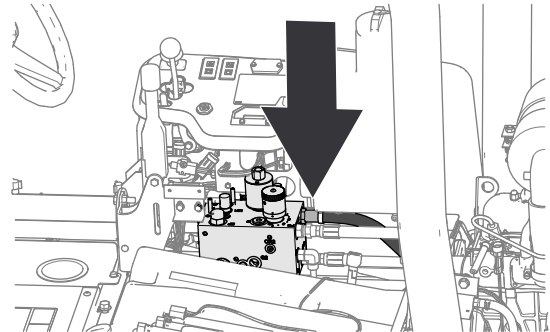
Replacing the Oil Cooler Return Hose

Parts needed for this procedure:

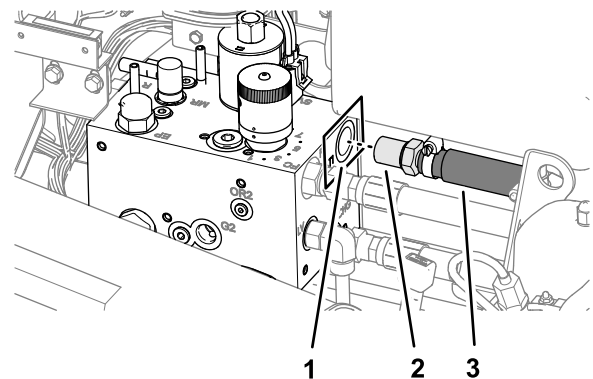
1	Hose 90 cm (35-1/4 inches)
1	Straight barb fitting
2	Hose clamp

Removing the Oil Cooler Return Hose

1. At the reel-drive manifold, remove the straight fitting of the oil cooler return hose from port-T of the manifold (Figure 45).



g268052



g268054

Figure 45

1. Port-T (reel-drive manifold)
2. Straight fitting
3. Oil cooler return hose

2. Remove the oil cooler return hose from the machine (Figure 46).

Discard the oil cooler return hose.

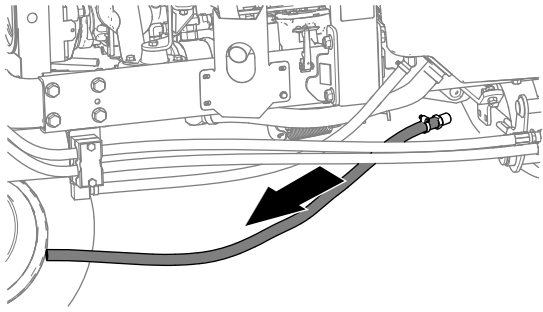


Figure 46

g268053

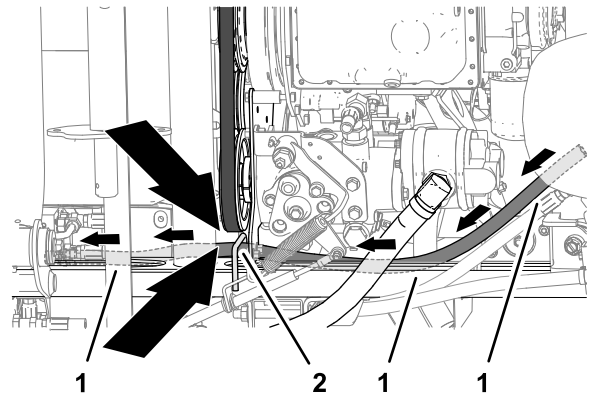


Figure 49

g268129

1. Oil cooler return hose
2. Hose guard

Preparing the Oil Cooler Return Hose

Assemble the hose 90 cm (35-1/4 inches) onto the straight barb fitting and secure the hose with a hose clamp (Figure 47).

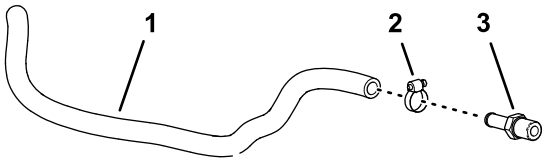


Figure 47

g268127

1. Hose 90 cm (35-1/4 inches)
2. Hose clamp
3. Straight barb fitting

3. Install the straight barb fitting of the hose into port-T of the reel drive manifold (Figure 50).

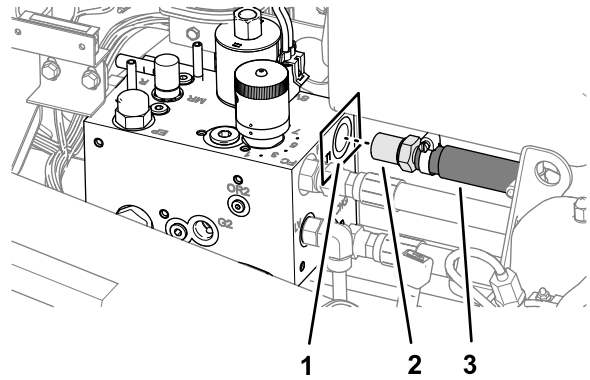


Figure 50

g268054

1. Port-T (reel-drive manifold)
2. Straight fitting
3. Oil cooler return hose

Installing the Oil Cooler Return Hose

1. At the bottom of the machine, align the oil cooler return hose to the right frame channel as shown in Figure 48.

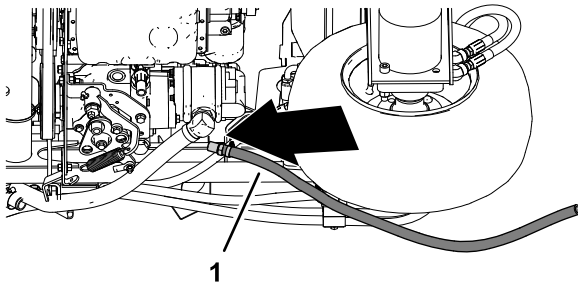


Figure 48

g268128

1. Oil cooler return hose

2. Route the hose along the frame channel toward the control console (Figure 49).

Important: Ensure that the hose routes through the hose guard welded to the frame channel.

4. Assemble the free end of the oil cooler return hose onto the oil-inlet tube and secure the hose with a hose clamp (Figure 51).

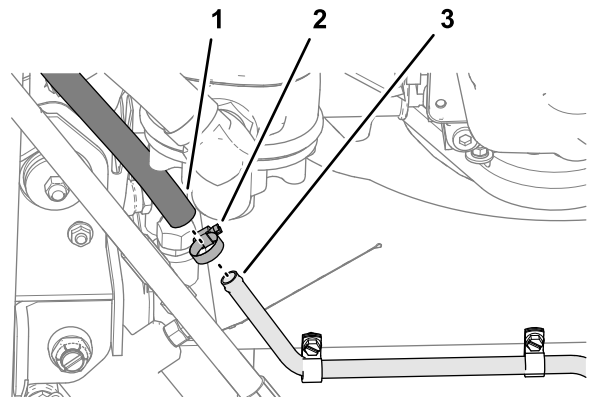


Figure 51

g268126

1. Oil Cooler Return Hose
2. Hose clamp
3. Oil-inlet tube

11

Assembling the Glow-Plug Relay

No Parts Required

Procedure

Assemble the glow-plug relay to the radiator with the flange-head screw (#10 x 3/4 inch) and locknut (#10) that you removed in [Disassembling the Radiator](#) (page 10).

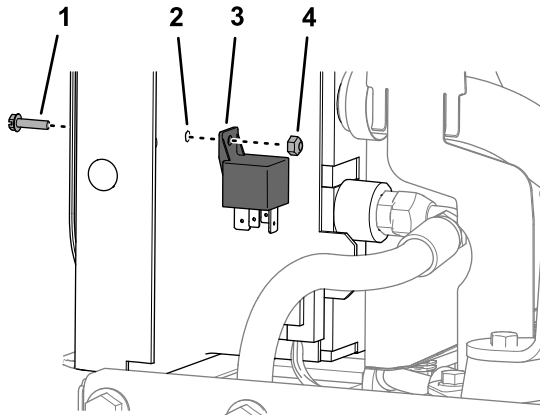


Figure 52

g268197

1. Flange-head screw (#10 x 3/4 inch)
2. Radiator
3. Glow plug relay
4. Locknut (#10)

12

Installing the Coolant Reservoir Tank

Parts needed for this procedure:

1	Small hose clamp
---	------------------

Procedure

1. Assemble the coolant reservoir tank onto the coolant reservoir bracket as shown in [Figure 53](#).

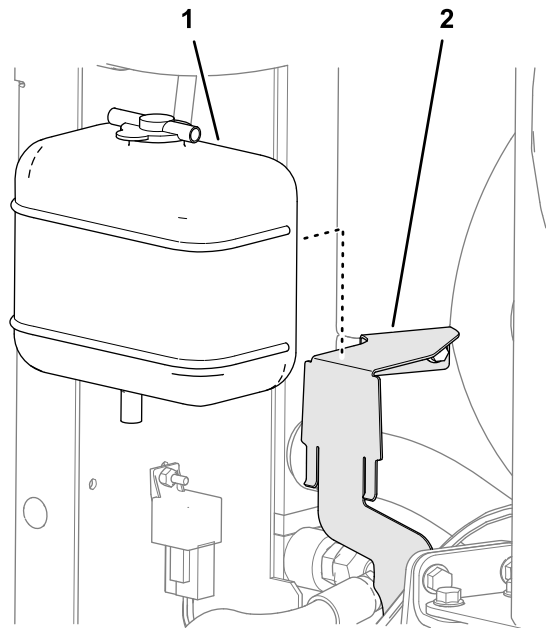


Figure 53

g268231

1. Coolant reservoir tank
2. Coolant reservoir bracket

2. Assemble the hose—8 x 254 mm (5/16 x 10 inches) onto the longer hose barb of the cap for the coolant reservoir tank with a small hose clamp ([Figure 54](#)).

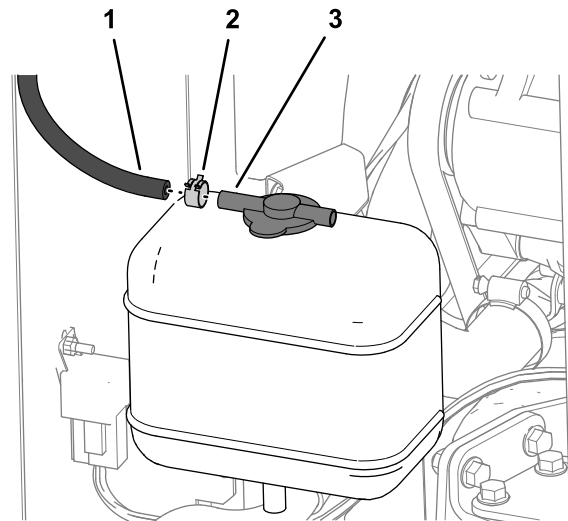


Figure 54

g268232

1. Hose—8 x 254 mm (5/16 x 10 inches)
2. Small hose clamp
3. Long hose barb (cap—coolant reservoir tank)

13

Installing the Console Cover and Operator's Seat

No Parts Required

Installing the Console Cover

1. Align the console cover over the control console and lower the cover (Figure 54).

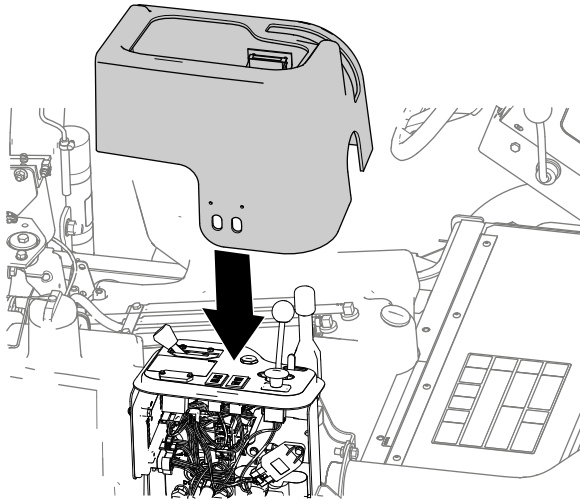


Figure 55

g268233

2. Ensure that the magnetic catches of the console secure the cover.

Installing the Operator's Seat

1. Align the operator's seat over the fuel tank, and tip the seat to access the bottom.
2. Connect the 2-socket connector to the terminals for the seat switch (Figure 56).

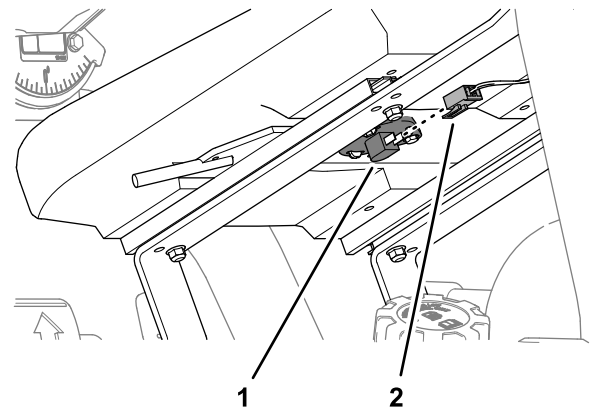


Figure 56

g267308

1. Seat switch
2. 2-socket connector (machine-wire harness)

3. Tilt the seat down and align the front holes in the seat straps with the holes in the support channel (Figure 57).

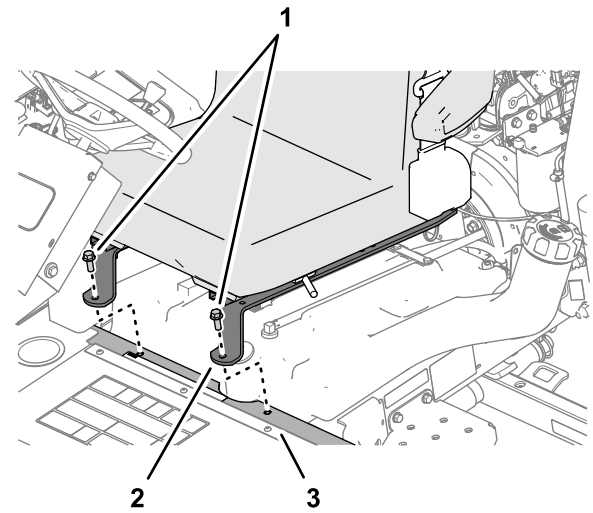


Figure 57

g267309

1. Flange-head capscrews
2. Seat strap
3. Support channel

4. Assemble the seat straps to the support channel (Figure 57) with the 2 flange-head capscrews that you removed in Removing the Operator's Seat (page 4).
5. At the back of the operator's seat, align the slots of the heat shield and the holes in the seat straps with the standoff on the cross tube (Figure 58).

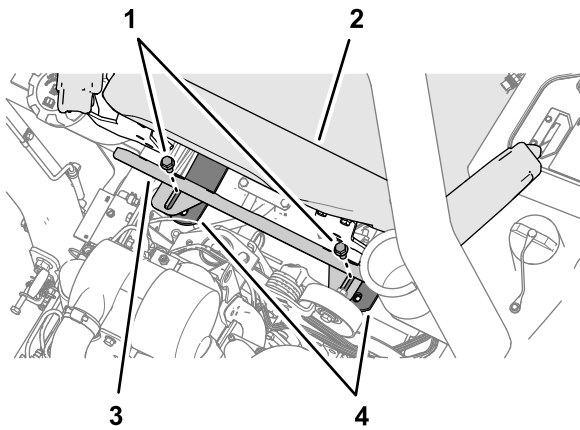


Figure 58

g267310

1. Flange-head cap screws
2. Seat
3. Heat shield
4. Seat straps

6. Secure the heat shield and seat straps to the cross tube with the 2 flange-head cap screws that you removed in [Removing the Operator's Seat \(page 4\)](#).

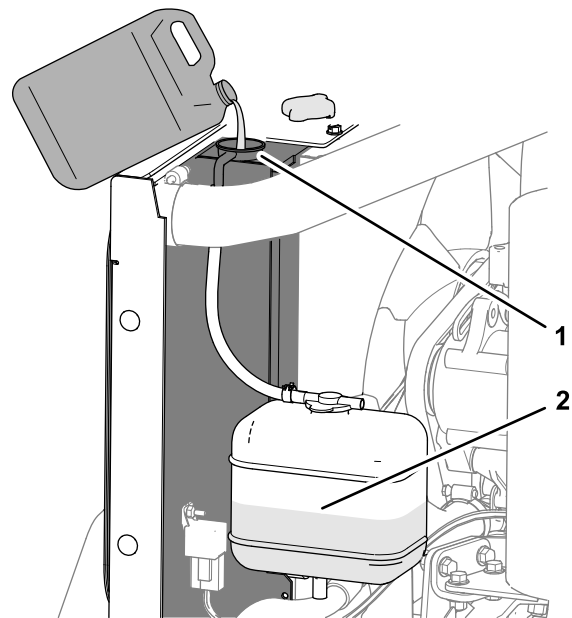


Figure 59

g268302

1. Radiator (fill with coolant)
2. Coolant reservoir tank (1/2 full of coolant)

2. Install the radiator cap ([Figure 59](#)).
3. Remove the cap from the coolant reservoir tank and add the specified coolant until the tank is 1/2 full ([Figure 59](#)).
4. Install the cap onto the coolant reservoir tank ([Figure 59](#)).
5. Check the fluid level in the hydraulic tank ([Figure 60](#)) and add fluid if needed; refer to the Checking the Hydraulic System procedure in the operator's manual for your machine.

14

Adding Coolant and Hydraulic Fluid

No Parts Required

Procedure

Coolant specification: a 50/50 solution of water and permanent ethylene glycol anti-freeze

Coolant capacity: 6.2 L (6-1/2 qt)

Hydraulic fluid specification: refer to the operator's manual for your machine.

Hydraulic fluid quantity: up to 4 quarts

1. Remove the radiator cap and slowly add the specified coolant until the radiator is full ([Figure 59](#)).

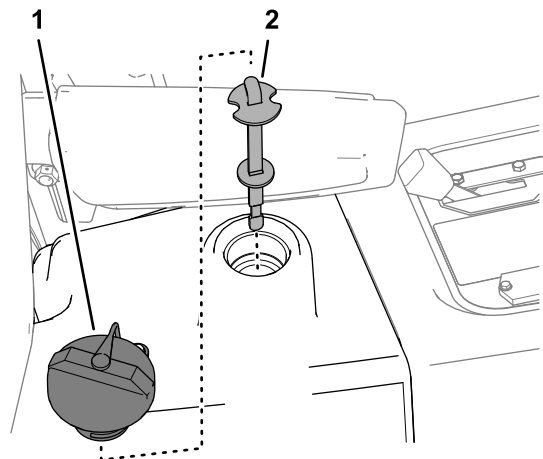


Figure 60

g268303

1. Hydraulic tank cap
2. Dipstick

6. Start the engine, allow the engine to warm, and check for coolant and hydraulic fluid leaks.
Repair all leaks.

7. Shut off the engine and remove the key.

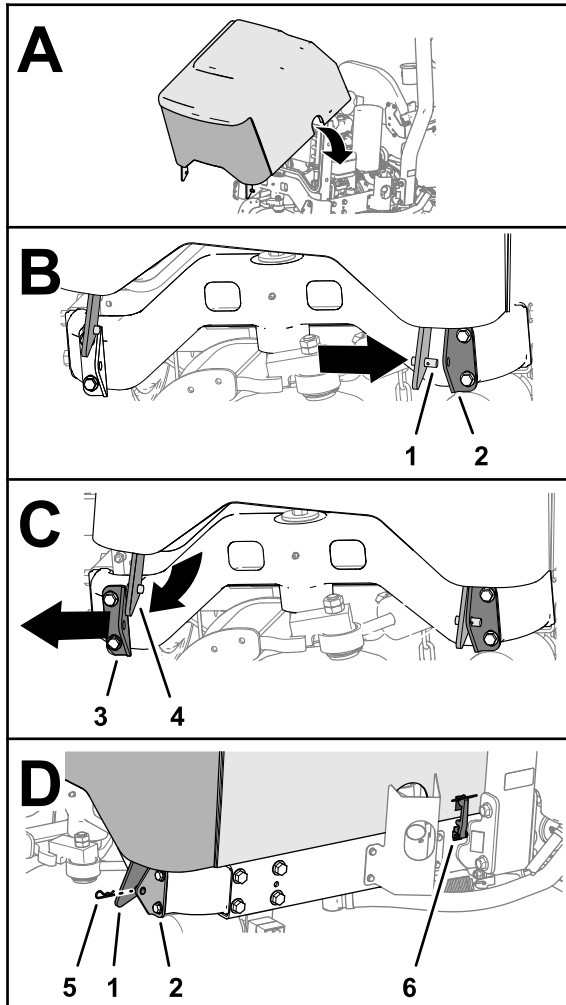
15

Installing the Hood

No Parts Required

Procedure

1. Align the hood over the engine (Figure 61).



g268247

Figure 61

- | | |
|-----------------------------|----------------------------|
| 1. Right hood-pivot bracket | 4. Left hood-pivot bracket |
| 2. Right hood support | 5. Hairpin |
| 3. Left hood support | 6. Latch |

3. Align the pin of the left hood-pivot bracket with the hole in the left hood support, and move the hood left (Figure 61).
4. Install the hairpin into the pin of the right hood-pivot bracket (Figure 61).
5. Secure the hood with the 2 latches (Figure 61).

2. Insert the pin of the right hood-pivot bracket into the hole in the right hood support, and move the hood right (Figure 61).