Form No. 3395-735 Rev A

TORO®

Count on it.

Operator's Manual

Polar Trac Cab

Groundsmaster® 7200 Series

Model No. 30474—Serial No. 315000001 and Up
Model No. 30675—Serial No. 315000001 and Up

Register at www.Toro.com.
Original Instructions (EN)

CE

3395-735 A

⚠ 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.

This product complies with all relevant European directives. For details, please see the Declaration of Incorporation (DOI) at the back of this publication.

Introduction

This kit transforms a summer ride-on, rotary-blade lawnmower into a winter snow removal machine that is intended to be used by professional, hired operators in commercial applications.

This kit was designed to be used with Cab model 30474. However it can be used with 30371 with minor modifications. Please see your distributor for details.

Read this information carefully to learn how to operate and maintain your product properly and to avoid injury and product damage. You are responsible for operating the product properly and safely.

You may contact Toro directly at www.Toro.com for product safety and operation training materials, accessory information, help finding a dealer, or to register your product.

Whenever you need service, genuine Toro parts, or additional information, contact an Authorized Service Dealer or Toro Customer Service and have the model and serial numbers of your product ready. Figure 1 identifies the location of the model and serial numbers on the product. Write the numbers in the space provided.

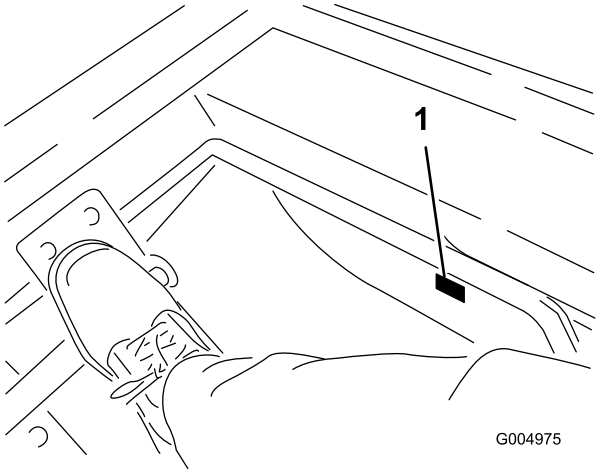


Figure 1

1. Model and serial number location

Model No. _____

Serial No. _____

This manual identifies potential hazards and has safety messages identified by the safety alert symbol (Figure 2), which signals a hazard that may cause serious injury or death if you do not follow the recommended precautions.

Figure 2

1. Safety alert symbol

This manual uses 2 words to highlight information. **Important** calls attention to special mechanical information and **Note** emphasizes general information worthy of special attention.

8111 Lyndale Avenue South
Bloomington, MN 55420

Contents

Safety

Improper use or maintenance by the operator or owner can result in injury. To reduce the potential for injury, comply with these safety instructions and always pay attention to the safety alert symbol, which means Caution, Warning, or Danger—personal safety instruction. Failure to comply with the instruction may result in personal injury or death.

Safe Operating Practices

This product is capable of amputating hands and feet and throwing objects. Always follow all safety instructions to avoid serious injury or death.

Training

- Read the *Operator's Manual* and other training material carefully. Be familiar with the controls, safety signs, and the proper use of the equipment.
- Never allow children or people unfamiliar with these instructions to use the machine. Local regulations can restrict the age of the operator.
- Never operate while people, especially children, or pets are nearby.
- Keep in mind that the operator or user is responsible for accidents or hazards occurring to other people or their property.
- Do not carry passengers.
- All drivers should seek and obtain professional and practical instruction. Such instruction should emphasize:
  - the need for care and concentration when working with ride-on machines;
  - control of a ride-on machine sliding on a slope will not be regained by the application of the control levers. The main reasons for loss of control are:
    - ◊ insufficient track grip, especially on wet grass, ice or snow;
    - ◊ being driven too fast;
    - ◊ the type of machine is unsuitable for its task;
    - ◊ lack of awareness of the effect of ground conditions, especially slopes;
    - ◊ incorrect hitching and load distribution.

Preparation

- While operating, always wear substantial footwear and long trousers. Do not operate the equipment when barefoot or wearing open sandals.
- Thoroughly inspect the area where the equipment is to be used and remove all objects which may be thrown by the machine.

- Replace faulty silencers/mufflers.
- Before using, always visually inspect to see that the attachments are not worn or damaged. Replace worn or damaged components.

Safe Handling of Fuels

- To avoid personal injury or property damage, use extreme care in handling fuel. Fuel is extremely flammable and the vapors are explosive.
- Extinguish all cigarettes, cigars, pipes, and other sources of ignition.
- Use only an approved fuel container.
- Never remove fuel cap or add fuel with the engine running.
- Allow engine to cool before refueling.
- Never refuel the machine indoors.
- Never store the machine or fuel container where there is an open flame, spark, or pilot light such as on a water heater or on other appliances.
- Never fill containers inside a vehicle or on a truck or trailer bed with a plastic liner. Always place containers on the ground away from your vehicle before filling.
- Remove equipment from the truck or trailer and refuel it on the ground. If this is not possible, then refuel such equipment with a portable container, rather than from a fuel dispenser nozzle.
- Keep the nozzle in contact with the rim of the fuel tank or container opening at all times until fueling is complete. Do not use a nozzle lock open device.
- If fuel is spilled on clothing, change clothing immediately.
- Never overfill fuel tank. Replace fuel cap and tighten securely.

Operation

- Holding the attachment control pedals up or down during operation is detrimental to the hydraulic system.
- Be alert, slow down and use caution when making turns. Look behind and to the side before changing directions.
- Engine exhaust contains carbon monoxide, which is an odorless, deadly poison that can kill you. Do not run engine indoors or in an enclosed area where fumes can collect.
- Operate only in daylight or in good artificial light.
- Before attempting to start the engine, disengage all attachment clutches and place in neutral.
- When operating near drop offs or bodies of water, do not use on slopes greater than 15 degrees.
- Use care when pulling loads or using heavy equipment.
  - Use only approved draw bar hitch points.
  - Limit loads to those you can safely control.
  - Do not turn sharply. Use care when reversing.
- This machine is not designed or equipped for on-road use and is a “slow-moving vehicle." If you must cross or travel on a public road, you should be aware of and comply with local regulations, such as required lights, slow moving vehicle signs, and reflectors.
- When using any attachments, never direct discharge of material toward bystanders nor allow anyone near the machine while in operation. Some attachments, such as a snowthrower, are capable of amputating hands and feet and throwing objects
- Never operate the machine with damaged guards, shields, or without safety protective devices in place.
- Do not operate the machine under the influence of alcohol or drugs.
- Lightning can cause severe injury or death. If lightning is seen or thunder is heard in the area, do not operate the machine; seek shelter.
- Do not change the engine governor settings or overspeed the engine. Operating the engine at excessive speed may increase the hazard of personal injury.
- Before leaving the operators position:
  - disengage the power take off and lower the attachments;
  - place in neutral and set the parking brake;
  - stop the engine and remove the key.
- If an attachment should start to vibrate abnormally, stop the machine and check immediately for the cause.
- Disengage drive to attachments, stop the engine, set the parking brake and remove the ignition key:
  - before clearing blockages or unclogging chute;
  - before checking, cleaning or working on the attachment
  - after striking a foreign object. Inspect the attachment for damage and make repairs before restarting and operating the equipment;
  - if the machine starts to vibrate abnormally (check immediately).
- Disengage drive to attachments when transporting, not in use or any time the attachment is in the raised position.
- Stop the engine and disengage drive to attachment:
  - before refuelling;
  - before making height adjustment unless adjustment can be made from the operators position.
- Use only Toro approved attachments.

Slope Operation

- Remember there is no such thing as a safe slope. Travel on slopes requires particular care. To guard against overturning:
  - do not stop or start suddenly when on a slope;

  - use slow speeds on slopes and during tight turns;
  - stay alert for humps and hollows and other hidden hazards;
- Do not operate near drop-offs, ditches, steep banks or water. Tracks dropping over edges can cause roll overs, which may result in serious injury, death or drowning.
- Do not operate on slopes where slippery conditions could reduce traction and could cause sliding and loss of control.
- Do not make sudden turns or rapid speed changes.
- Reduce speed and use extreme caution on slopes.
- Remove or mark obstacles such as rocks, tree limbs, etc. from the operating area. Tall grass can hide obstacles.
- Watch for ditches, holes, rocks, dips, and rises that change the operating angle, as rough terrain could overturn the machine.
- Avoid sudden starts when operating uphill because the machine may tip backwards.
- Do not operate on ice incapable of supporting the weight of this machine.

Maintenance and Storage

- Keep all nuts, bolts and screws tight to be sure the equipment is in safe working condition.
- Never store the equipment with fuel in the tank inside a building where fumes may reach an open flame or spark.
- Allow the engine to cool before storing in any enclosure.
- To reduce the fire hazard, keep the engine, silencer/muffler, battery compartment and fuel storage area free of grass, leaves, or excessive grease.
- Replace worn or damaged parts for safety.
- If the fuel tank has to be drained, do this outdoors.
- When machine is to be parked, stored or left unattended, lower the attachment unless a positive mechanical lock is used.
- Use only genuine Toro replacement parts to ensure that original standards are maintained.

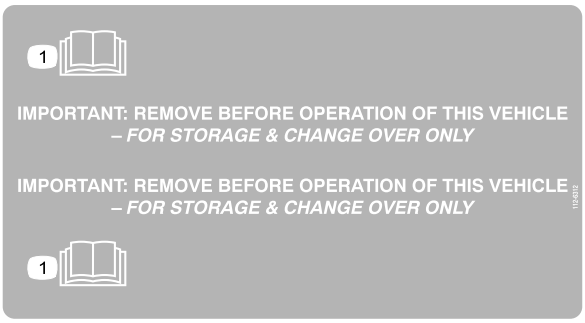
Hauling

- Use care when loading or unloading the machine into a trailer or truck.
- Use full width ramps for loading machine into trailer or truck.
- Tie the machine down securely using straps, chains, cable, or ropes. Both front and rear straps should be directed down and outward from the machine

Safety and Instructional Decals

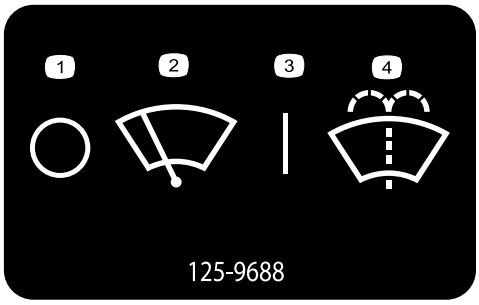
Safety decals and instructions are easily visible to the operator and are located near any area of potential danger. Replace any decal that is damaged or lost.

The following instructional decal is applied to components supplied with this kit and is used in the conversion process.



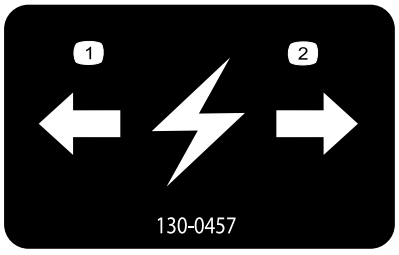
112-6312

1. Read the *Operator's Manual.*



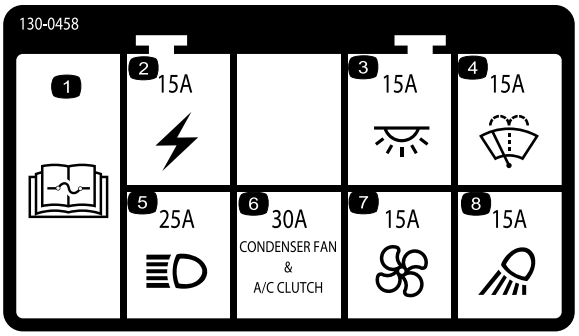
125-9688

1. Windshield wipers—off
2. Windshield wipers
3. Windshield wipers—on
4. Spray windshield washer fluid



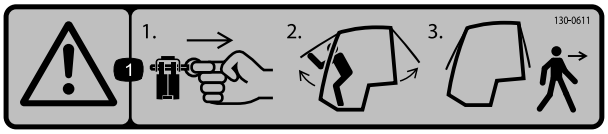
130-0457

1. Left
2. Right



130-0458

1. Read the *Operator's Manual* for more information on fuses
2. Electrical power accessory—15A
3. Dome light—15A
4. Windshield wiper fluid—15A
5. Head lights—25A
6. Condenser fan and A/C clutch—30A
7. Fan—15A
8. Work light—15A

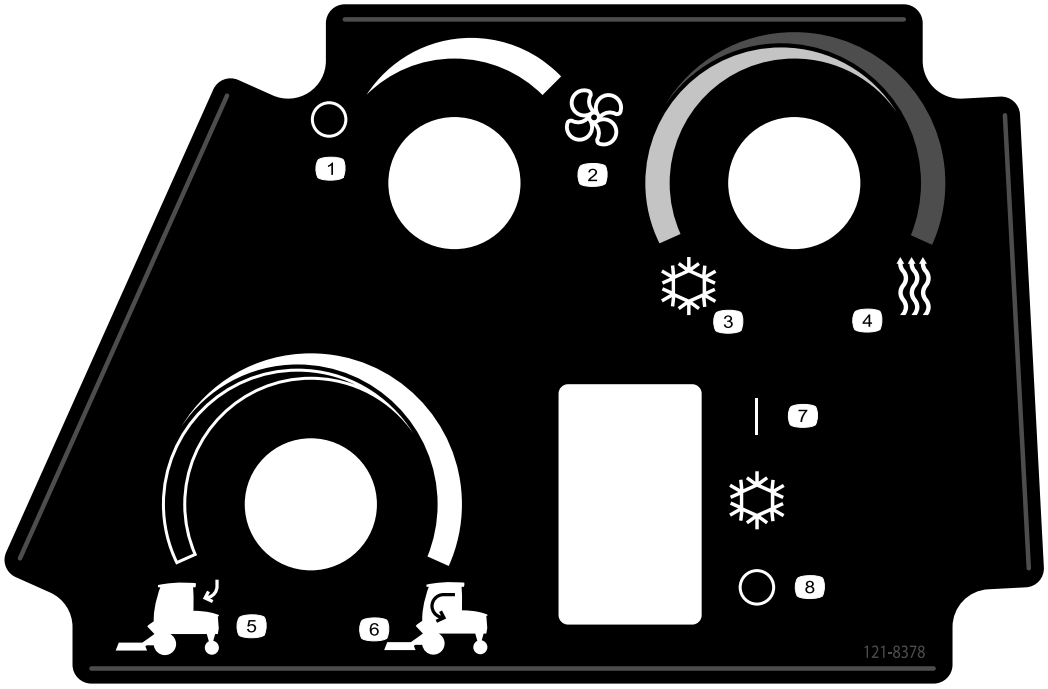


130-0611

1. Warning—1) Remove the pin; 2) Raise the doors; 3) Exit the cab

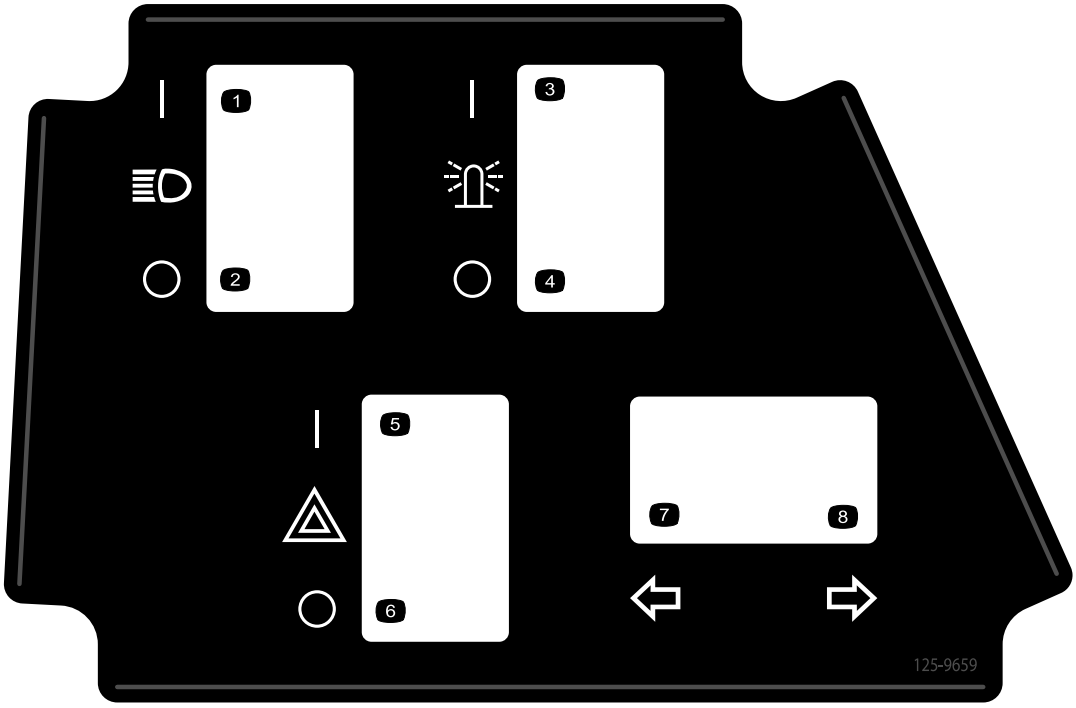
130-5361

1. Warning—read the *Operator's Manual*; only operate from the driver's seat; wear a seatbelt; wear hearing protection.



121-8378

1. Fan—off
2. Fan—on full
3. Cold air
4. Hot air
5. External air
6. Internal air
7. Air conditioner—off
8. Air conditioner—on



125-9659

1. Head light—on
2. Head light—off
3. Cab light—on
4. Cab light—off
5. Hazard light—on
6. Hazard light-off
7. Left-hand turn signal
8. Right-hand turn signal

Setup

Loose Parts

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

Procedure	Description	Qty.	Use
1	Heat shield—rear panel Heat shield—seat Rubber grommet	1 1 3	Install the heat shields.
2	Cab assembly (supplied with cab model 30474) Nipple coupler Quick disconnect coupler Hose clamp Tee fitting Hose clamp—large Hose clamp—small Hose-adapter fitting Bulkhead bracket Self-tapping screw (5/16 inch) Dust plug Dust cap Dual contact switch	1 2 2 4 1 2 2 1 1 2 1 1 1	Prepare the engine cooling system.
3	No parts required	–	Connect the pressure line.
4	Hose adapter fitting Hose clamp	1 1	Connect the pressure line.
5	Cab harness Power harness Cable tie Cable tie	1 1 2 4	Prepare the electrical system.
6	Washer bottle Nut Bolt Carriage bolt Bracket	1 5 2 3 1	Install the washer bottle.
7	Skid plate Flange-head bolt (3/8 x 1-3/4 inches) Flange nut (3/8 inch) Bolt (3/8 x 1 inch)	1 2 4 2	Install the skid plate.
8	Vertical tube support assembly Conversion bracket, Left Conversion bracket, Right Clevis pin Self-tapping screw (1/4 inch) Screw (3/8 x 2–1/4 inch) Flange nut (3/8 inch) Hose plug Self tapping screws (3/8 inch) Hairpin	2 1 1 2 2 6 6 2 4 2	Remove the mower deck.

Procedure	Description	Qty.	Use
9	Hose cover	2	Install the winter frame assembly.
	Cable tie	4	
	Winter frame assembly	1	
	Wheel and tire assembly	6	
	Lug nut	20	
	Coupler pin	2	
	Tracks	2	
10	No parts required	–	Install the cab mount supports.
11	Bulb seal	2	Install the panels.
12	Rear foam piece (supplied with cab model 30474)	1	Install the foam seals to the cab.
	Right, rear foam piece (supplied with cab model 30474)	1	
	Left, rear foam piece (supplied with cab model 30474)	1	
	Right, middle foam piece (supplied with cab model 30474)	1	
	Left middle foam piece (supplied with cab model 30474)	1	
	Right tank foam piece (supplied with cab model 30474)	1	
	Side, front foam piece (supplied with cab model 30474)	2	
	Front foam piece (supplied with cab model 30474)	1	
	Left, side foam piece (supplied with cab model 30474)	1	
	Right, side foam piece (supplied with cab model 30474)	1	
13	Rubber cab mount (supplied with cab model 30474)	4	Mount the cab.
	Bolt (1/2 x 3 inches) (supplied with cab model 30474)	4	
	Steel washer (supplied with cab model 30474)	4	
	Rubber washer (supplied with cab model 30474)	4	
	Nut (1/2 inch) (supplied with cab model 30474)	4	
	Corner mat (supplied with cab model 30474)	2	
	Power Point Shield	1	
15	Operator's Manual	1	Read the manuals before operating the machine and use the jacking tube for seasonal conversion.
	Parts Catalog	1	
	Pre-delivery Inspection Sheet	1	
	Certificate of Quality	1	
	Jacking tube	1	
	Jacking tube bolts	2	
	Eyelet	1	
	Spacer	1	
	Flange nut (1/4 inch)	1	

Note: All references to the installation or operation of the cab refer to Cab Model 30474 only.

Important: The fasteners on the covers of this machine are designed to remain on the cover after removal. Loosen all of the fasteners on each cover a few turns so that the cover is loose but still attached, then go back and loosen them until the cover comes free. This will prevent you from accidentally stripping the bolts free of the retainers.

1

Installing the Heat Shields

Parts needed for this procedure:

1	Heat shield—rear panel
1	Heat shield—seat
3	Rubber grommet

Procedure

Note: To gain additional access to the engine area, the hood may be removed by removing the hair pin cotter securing the hood to the pivot brackets.

1. Start the machine and lower the mower deck to the lowest height of cut.
2. Position the machine on a level surface so that the mower deck frame can be rolled away and replaced with the winter frame.
3. Move the seat to the fully forward position. Release the seat latch and tip the seat forward.
4. Remove the 3 quick release latches securing the rear panel to the frame and remove the rear panel (Figure 3).

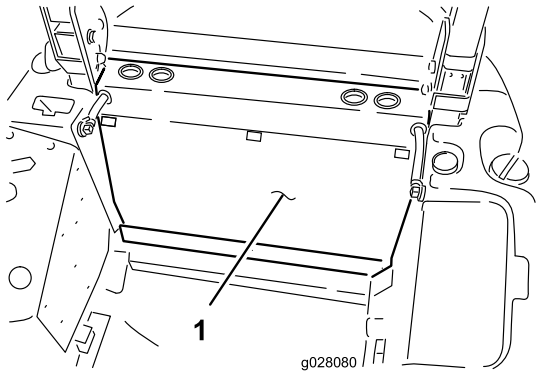


Figure 3

1. Rear panel

5. Clean the engine side of the rear panel.

   Note: Make sure that all grease and/or oil is removed from the panel to assure proper adhesion.

6. Remove the backing and affix the self-adhesive heat-shield material to the engine side of the rear panel, positioning as shown in Figure 4.

   Note: Do not install the panel at this time.

   Note: The heat-shield material must be affixed so that the rear panel must be installed to the frame without pinching the heat shield material.

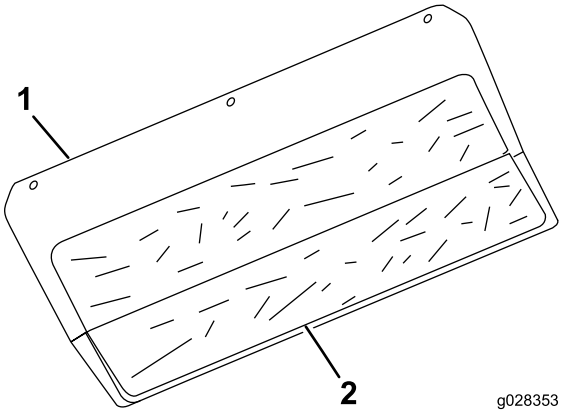


Figure 4

1. Rear panel
2. Heat-shield material

7. Unplug the seat-switch wiring harness from the bottom of the seat (Figure 5).

   Note: Use a cable tie and 2 small cuts to the heat shield to further secure the seat switch-harness connector to the bottom of the seat.

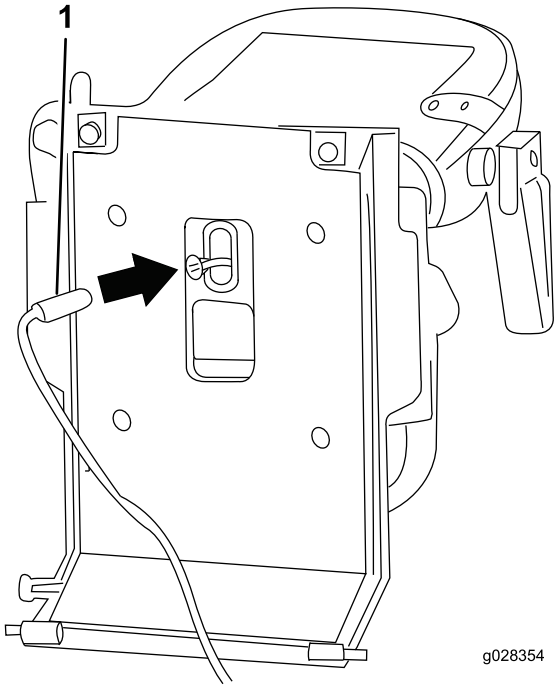


Figure 5

1. Seat-switch-harness connector

8. Clean the bottom of the seat mount plate.

Note: Make sure that all grease and/or oil is removed from the seat plate to assure proper adhesion.

9. Remove the backing and affix the self-adhesive heat shield to the bottom of the seat-mount plate (Figure 6).

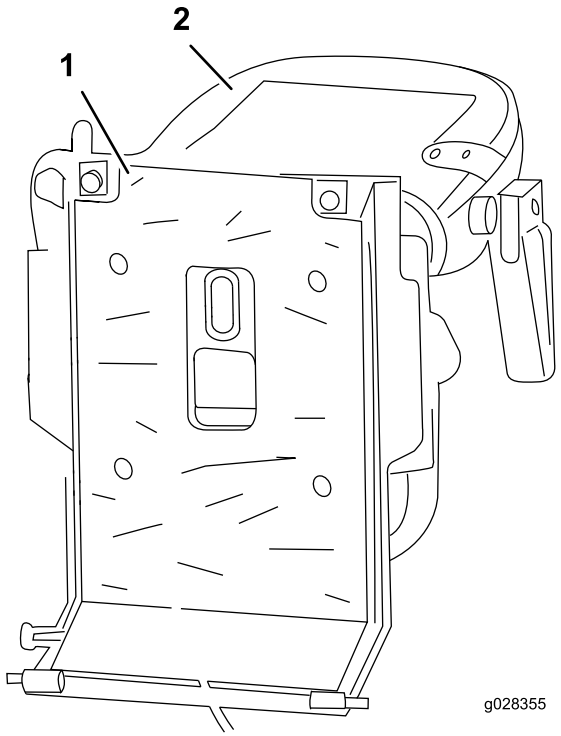


Figure 6

1. Heat shield
2. Seat

10. Insert the seat wiring harness through the slit in the heat shield.
11. Install rubber grommets into the 3 holes in the rear frame mount as shown in Figure 7.

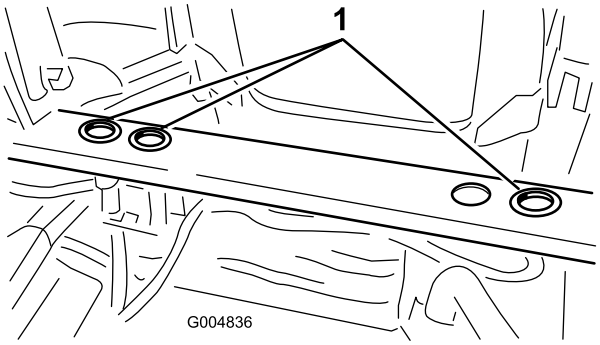


Figure 7

1. Rubber grommets

2

Preparing the Engine Cooling System

Parts needed for this procedure:

1	Cab assembly (supplied with cab model 30474)
2	Nipple coupler
2	Quick disconnect coupler
4	Hose clamp
1	Tee fitting
2	Hose clamp—large
2	Hose clamp—small
1	Hose-adapter fitting
1	Bulkhead bracket
2	Self-tapping screw (5/16 inch)
1	Dust plug
1	Dust cap
1	Dual contact switch

Procedure

1. Locate the 2 mounting holes in the left side of the rear frame mount (Figure 8).

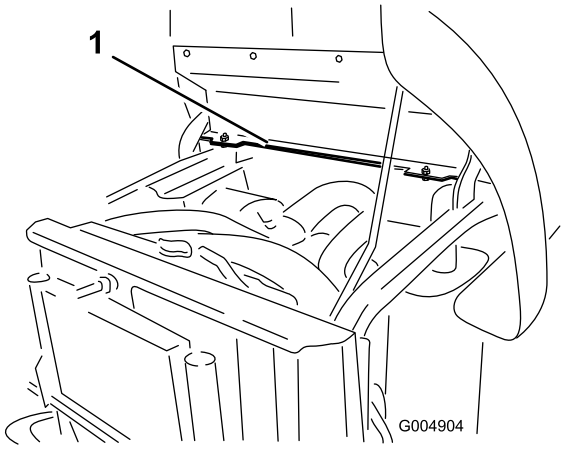


Figure 8

1. Rear frame mount

2. Install the bulkhead bracket to the left rear frame mount with 2 self-tapping screws (5/16 inch) (Figure 9).

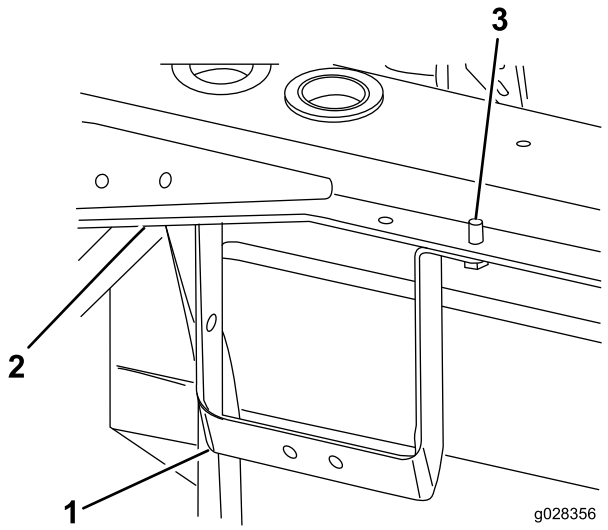


Figure 9

1. Bulkhead bracket
2. Left, rear frame mount
3. Self tapping screw

3. Locate the 4 heater hoses, the male and female quick disconnect fittings, the 2 straight nipple couplers, the 2 R clamps, 2 hose clamps, the dust cap, and the dust plugs.
4. Assemble the male quick disconnect fitting, the dust cap, and a straight nipple coupler to the correct heater hose using a hose clamp.

   Note: For machines with Yanmar engine use the 86.3 cm (34 inch) hose. For machines with Kubota engines use the 57.1 cm (22.5 inch) heater hose. This is the pressure hose.
5. Assemble the pressure hose onto the bulkhead bracket in the left position using an R-clamp, a carriage bolt (1/4 inch), and a nut (1/4 inch) (Figure 10)
6. Assemble the female quick disconnect fitting, the dust plug, and a straight nipple coupler to the correct heater hose using a hose clamp.

   Note: For machines with a Yanmar engine use the 86.3 cm (34 inch) heater hose. For machines with Kubota engines us the 132 cm (52 inch) heater hose. This is the return hose.
7. Assemble the return hose onto the bulkhead bracket in the right position using an R-clamp, a carriage bolt (1/4 inch), and a nut (1/4 inch) (Figure 10).

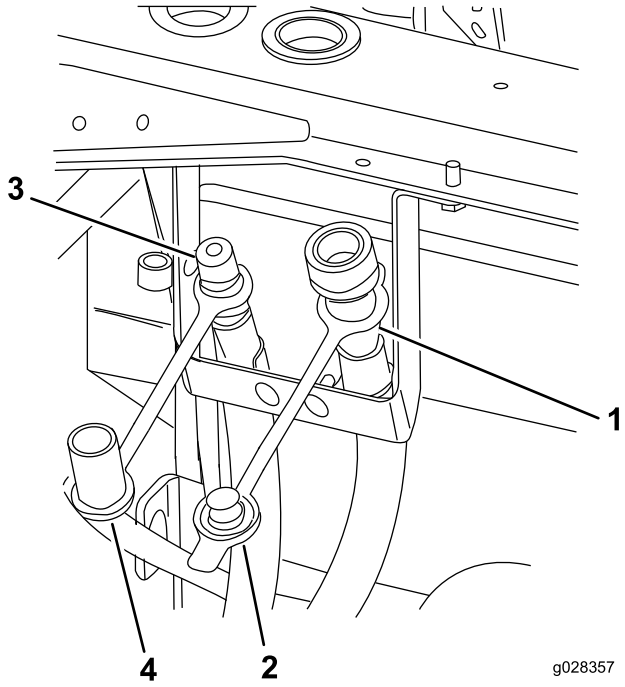


Figure 10

1. Quick-disconnect coupler
2. Dust plug
3. Nipple coupler
4. Dust cap

8. Place a suitable drain pan under the radiator and drain the radiator.
9. Cut the lower radiator hose in half on the white line as shown in Figure 11.

   Note: For Kubota machines the hose is located on the right side of the machine. For Yanmar machines, it is located on the left.

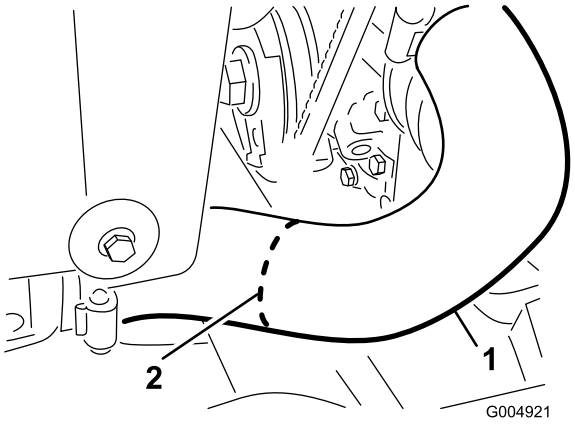


Figure 11

1. Lower radiator hose
2. White line

10. Install the tee fitting into the hoses and secure with hose clamps as shown in Figure 12 and Figure 13.

    Note: For machines with Kubota engines, the hose barb is to point rearward toward the radiator fan shroud.

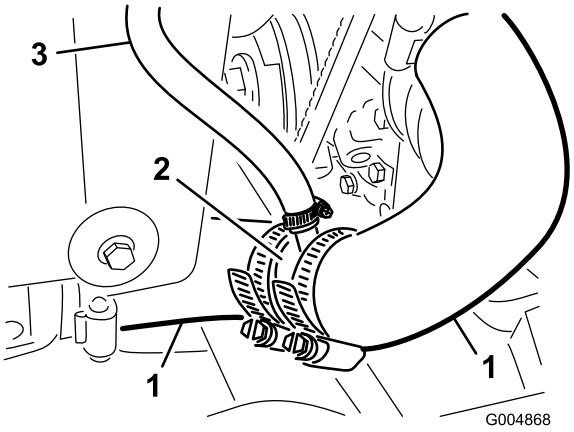


Figure 12
Kubota engine

1. Radiator hose
2. Tee fitting
3. Return hose

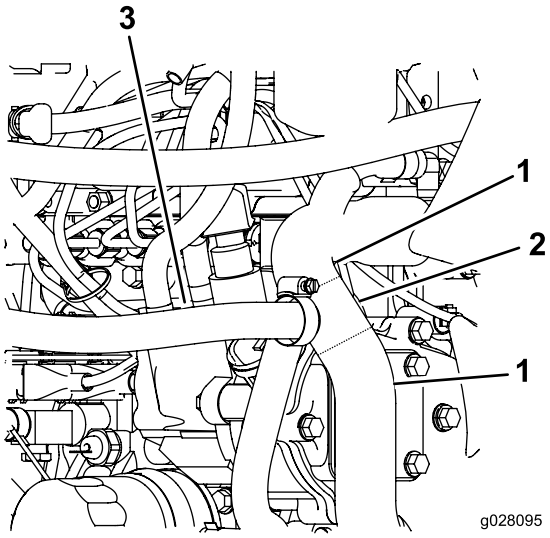


Figure 13
Yanmar engine

1. Radiator hose
2. Tee fitting
3. Return hose

11. Connect the loose end of the return hose to the new tee fitting in the radiator hose (Figure 12).
12. Secure the hose to the tee fitting with a hose clamp (Figure 14).

3

Connecting the Pressure Line (for Machines with Kubota Engines)

No Parts Required

Procedure

1. Route the hose behind the radiator over flow tank, up the right side of the radiator, across the top of the radiator to the left side and under the air cleaner as shown in Figure 14.

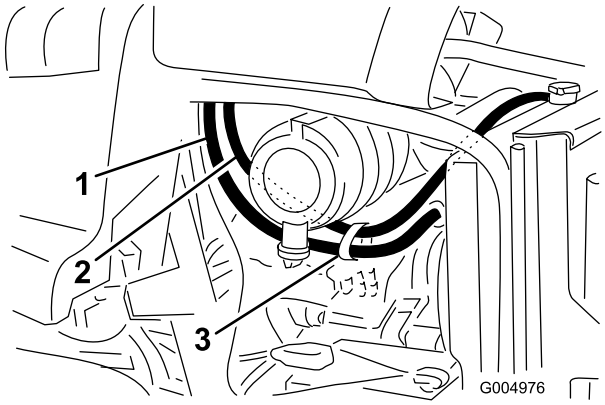


Figure 14

1. Pressure hose
2. Return hose
3. Cable tie

2. Disconnect the wire and remove the thermo-switch from the left side of the engine thermostat housing (Figure 15). Discard the switch.

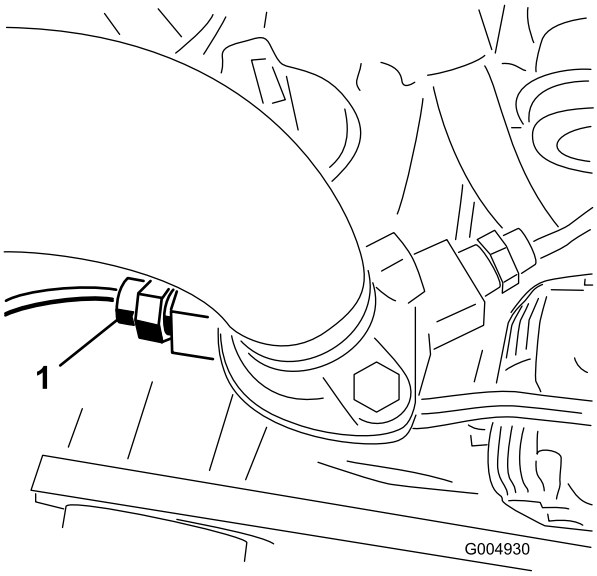


Figure 15

1. Thermo-switch

3. Install the hose adapter fitting into the engine thermostat housing (Figure 16).

   Note: Apply pipe sealant to the male-pipe thread of all switches and adapters prior to installation.

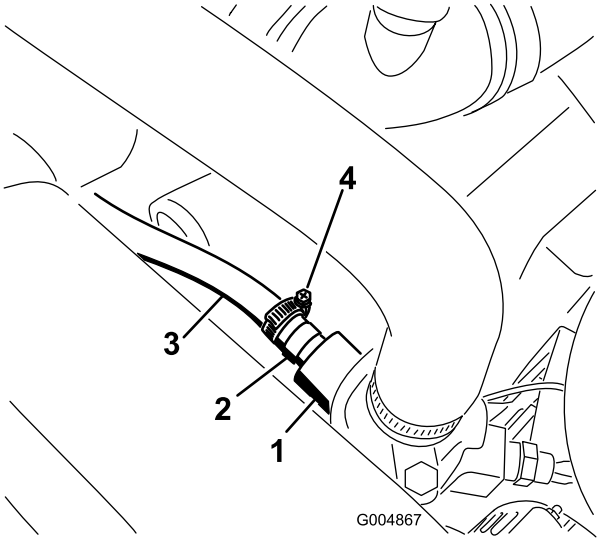


Figure 16

1. Engine-thermostat housing
2. Hose-adapter fitting
3. Pressure hose
4. Hose clamp

4. Connect the loose end of the pressure hose to the engine thermostat-housing-adapter fitting (Figure 16).

   Note: Secure the hose to the adapter fitting with a hose clamp. Route the hose under the air cleaner as shown in Figure 16.

   Note: Route the hoses away from any hot, rotating or sharp objects. Secure the 2 coupler hoses together with a cable tie as shown in Figure 16.

5. Disconnect the wire and remove the switch from the right side of the engine-thermostat housing (Figure 17).

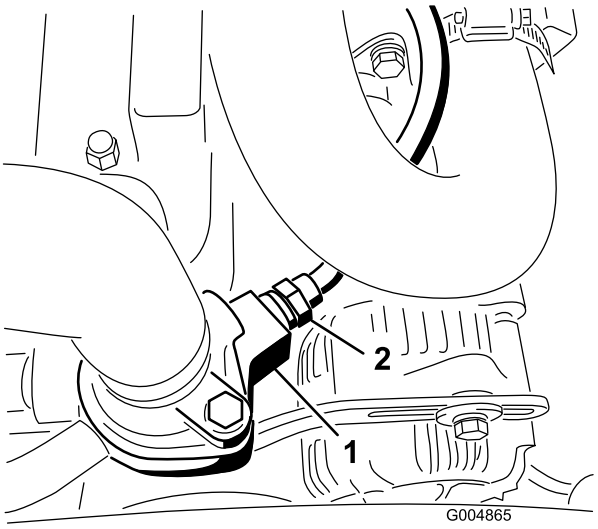


Figure 17

1. Engine-thermostat housing
2. Switch

6. Install the new dual contact switch to the right side of the engine-thermostat housing (Figure 18).

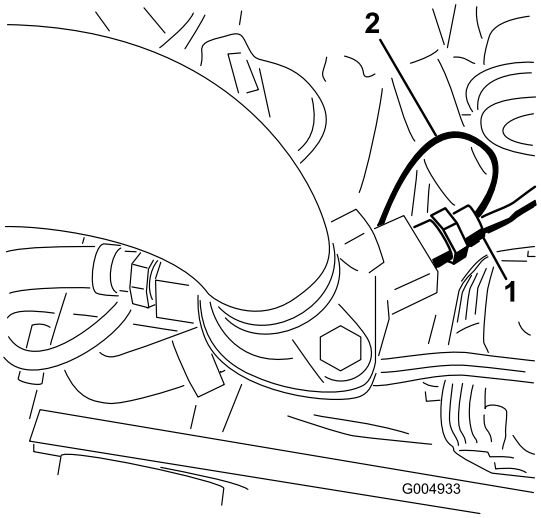


Figure 18

1. Dual-contact switch
2. Wire from old left switch

7. Secure the wire, previously connected to the right side switch, to the male spade terminal.
8. Connect the wire, previously connected to the left side switch, to the lead on the new switch.

4

Connecting the Pressure Line for Machines with Yanmar Engines

Parts needed for this procedure:

1	Hose adapter fitting
1	Hose clamp

Procedure

1. Route the hose across the engine (Figure 19).

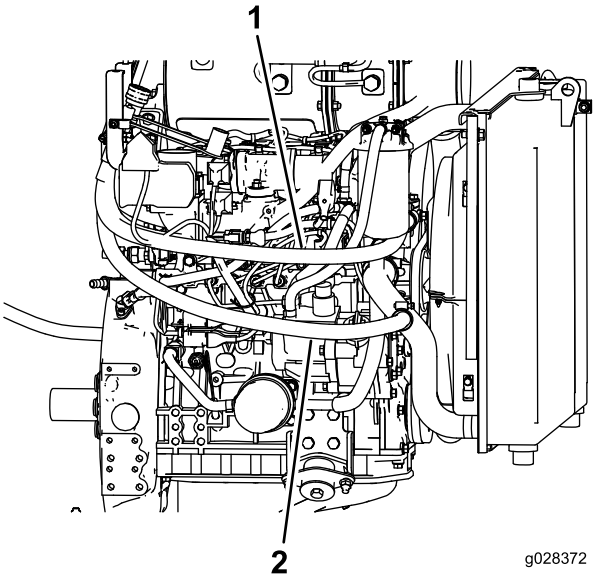


Figure 19

1. Pessure hose
2. Return hose

2. Disconnect the wires and remove the thermo-switch from the left side of the engine-thermostat housing (Figure 20).

   Note: Keep the switch for summer use.

   Note: Cable tie the 2 loose wires to the engine harness and ensure that they are free from the engine fan.

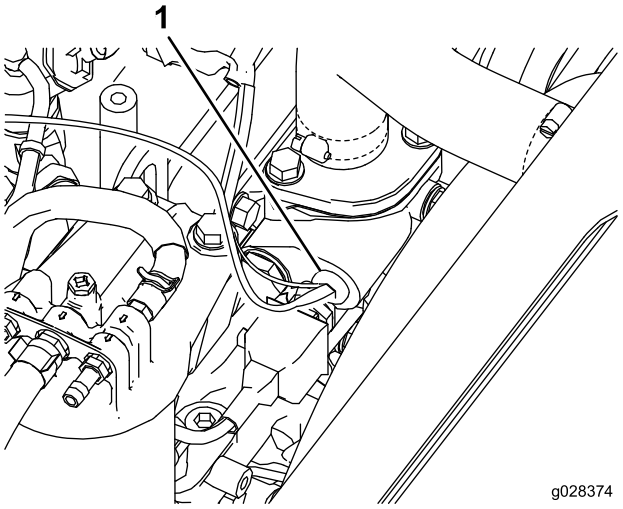


Figure 20

1. Thermo-switch

3. Install the hose adapter fitting into the engine-thermostat housing (Figure 21).

   Note: Apply pipe sealant to the male-pipe thread of all switches and adapters prior to installation.

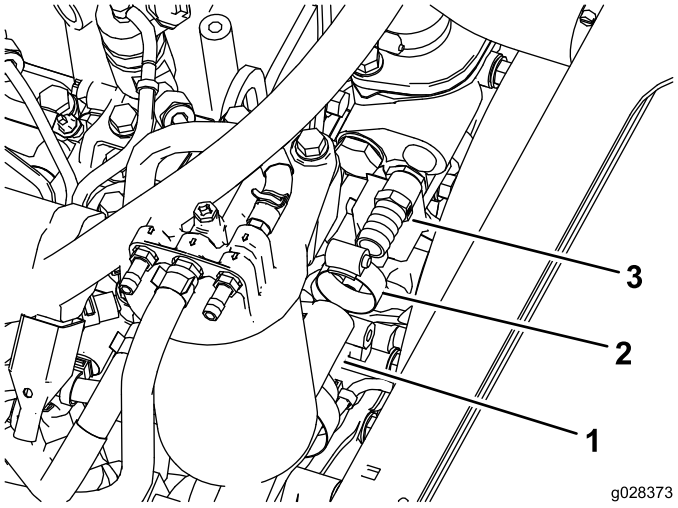


Figure 21

1. Pressure hose
2. Hose clamp
3. Hose-adapter fitting

4. Connect the loose end of the pressure hose to the engine-thermostat-housing-adapter fitting (Figure 21).
5. Secure the hose to the adapter fitting with a hose clamp.
6. Route the hose under the air cleaner as shown in Figure 21.

   Note: Route the hoses away from any hot, rotating or sharp objects.

5

Preparing the Electrical System

Parts needed for this procedure:

1	Cab harness
1	Power harness
2	Cable tie
4	Cable tie

Procedure

Route and secure the cab harness and power harness as follows:

1. Insert the wires from the large-harness connector down through the right grommet in the rear frame mount.
2. Unlatch the control-panel cover and lay it to the side (Figure 22).

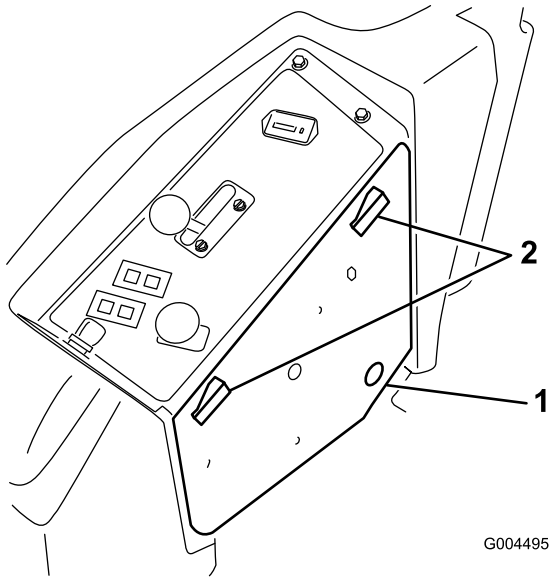


Figure 22

1. Control-panel cover
2. Latches

3. From the same end of the harness as the large connector, route the long cab wire (with 3 connectors), down the ROPS post, under the rear panel frame member and up through the hole in the bottom of the control panel (Figure 23).

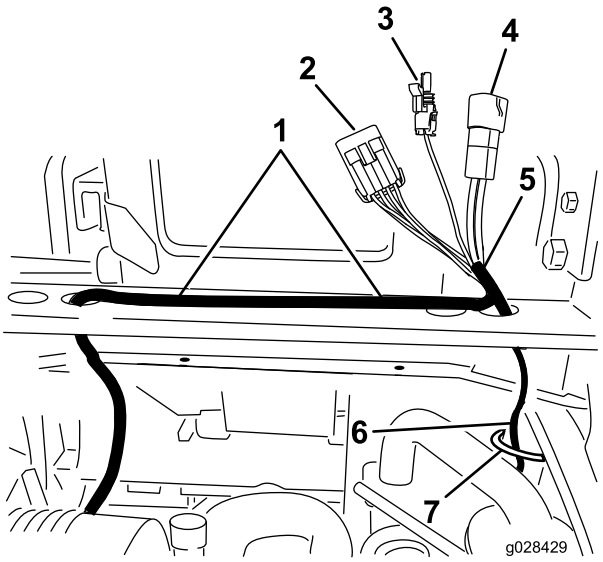


Figure 23

1. Harness-wire clips
2. Connector
3. Connector
4. Connector
5. Harness
6. Long cab wire (orange)
7. Cable tie

4. Secure the long wire to the lower ROPS post with a cable tie.
5. Inside the control panel, locate the pink wire with the connector enclosed in a plastic bubble (Figure 24).

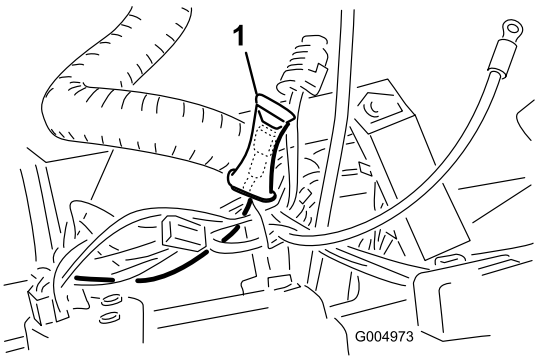


Figure 24

1. Pink wire with plastic bubble (cut off the end of the plastic bubble)

6. Carefully cut off the end of the plastic bubble and plug the appropriate wire connector into it.
7. Close and latch the control-panel cover.

Note: If an Auxiliary Power Kit is installed on the machine, proceed as follows:

A. Unplug the pink wire from the auxiliary power kit connector.

B. Plug the pink wire connector into the appropriate connector on the new harness.

C. Plug the other harness connector into the auxiliary power kit connector.

8. Route the other end of the harness under the rear frame mount toward the left side of the machine while inserting the harness wire clips into the holes in the underside of the rear frame mount (Figure 24).

   Note: Make sure to route the wires away from any hot, rotating or sharp objects. Secure the wires with cable ties.

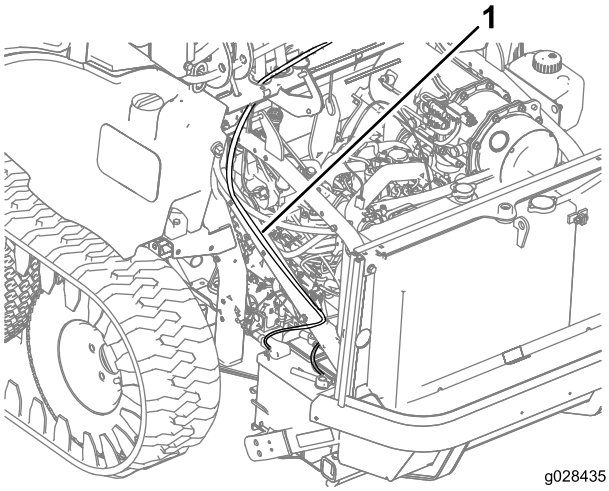


Figure 25

1. Wiring harness

9. Connect the red harness wire to the power harness.
10. Insert the power harness connector through the rubber boot on the positive battery cable.
11. Connect the power harness to the positive battery post (Figure 26).
12. Connect the black wire to the negative battery post (Figure 26).

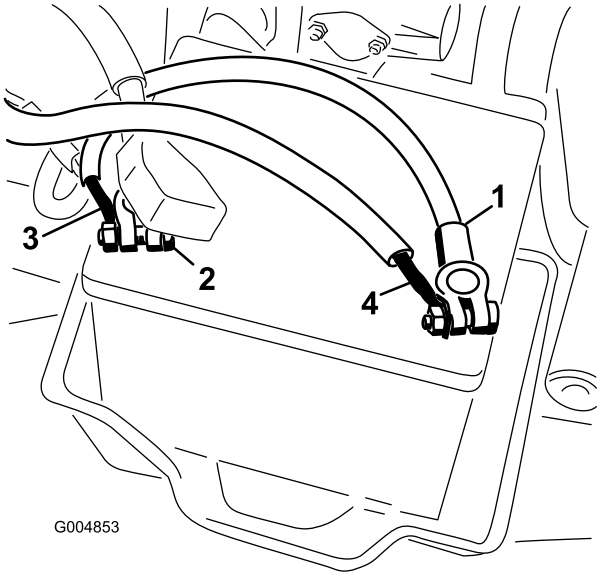


Figure 26

1. Negative battery cable (-)
2. Positive battery cable (+)
3. Power harness
4. Black wire

13. Secure the wires to the cables with cable ties.

6

Installing the Washer Bottle

Parts needed for this procedure:

1	Washer bottle
5	Nut
2	Bolt
3	Carriage bolt
1	Bracket

Procedure

For a machine with a Kubota engine: Install the bracket and mount the washer bottle into the frame by mounting the washer bottle to the bracket and the bracket to the frame of machine using the nuts and bolts provided (Figure 27).

Note: The bracket and washer bottle go on the left side of the frame.

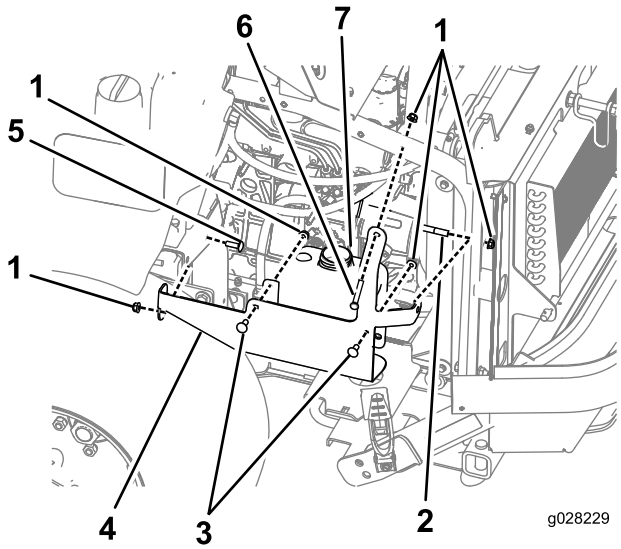


Figure 27
Kubota models

1. Nut
2. Bolt
3. Carriage bolt
4. Bracket
5. Carriage bolt
6. Bolt
7. Washer bottle

For a machine with a Yanmar engine: Install the bracket and mount the washer bottle onto the frame by mounting the bracket to the right side of the machine above an existing tank, and then mount the washer bottle onto the bracket (Figure 28).

Note: Remove the existing hardware on the existing tank to secure the washer bottle to the bracket.

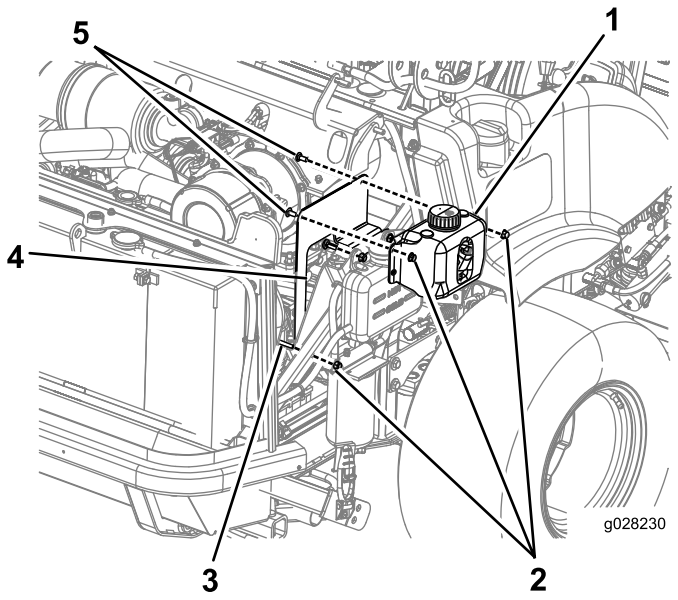


Figure 28
Yanmar Models

1. Washer bottle
2. Nut
3. Bolt
4. Bracket
5. Carriage bolt

7

Installing the Skid Plate (Required for Machines with a Kubota Engine)

Parts needed for this procedure:

1	Skid plate
2	Flange-head bolt (3/8 x 1-3/4 inches)
4	Flange nut (3/8 inch)
2	Bolt (3/8 x 1 inch)

Procedure

1. Position a suitable floor jack under the rear bumper tube, raise the rear of the machine, and support it with a jack stands (Figure 29).

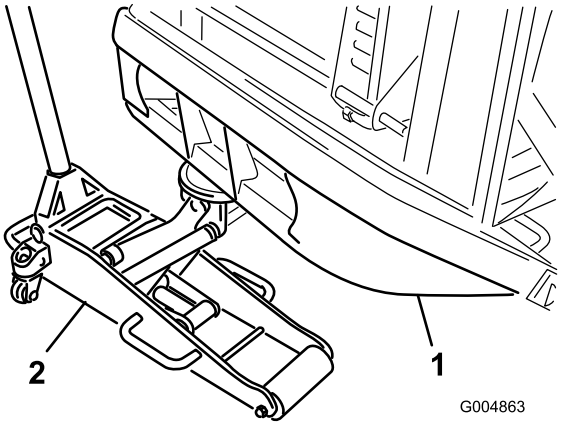


Figure 29

1. Rear-bumper tube
2. Floor jack

2. Install the skid plate (Figure 30) to the frame below the engine as follows:
   A. Mount the front of the skid plate to the skid mounting plate with 2 flange-head bolts (3/8 x 1-3/4 inches) and flange nuts (3/8 inch) (Figure 30).
   B. Mount the rear of the skid plate to the frame cross member with 2 bolts (3/8 x 1 inch) and flange nuts (3/8 inch) (Figure 30). Install the rear bolts from the top.

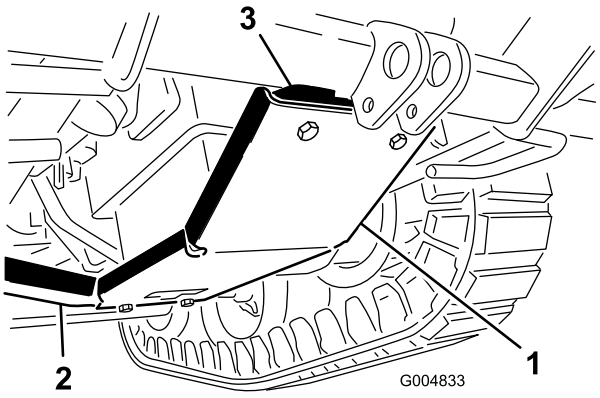


Figure 30

1. Skid plate
2. Frame-cross member
3. Skid-mounting plate

8

Removing the Mower Deck

Parts needed for this procedure:

2	Vertical tube support assembly
1	Conversion bracket, Left
1	Conversion bracket, Right
2	Clevis pin
2	Self-tapping screw (1/4 inch)
6	Screw (3/8 x 2–1/4 inch)
6	Flange nut (3/8 inch)
2	Hose plug
4	Self tapping screws (3/8 inch)
2	Hairpin

Procedure

1. Position a suitable floor jack under the rear bumper tube and raise the rear tires off the ground (Figure 31).

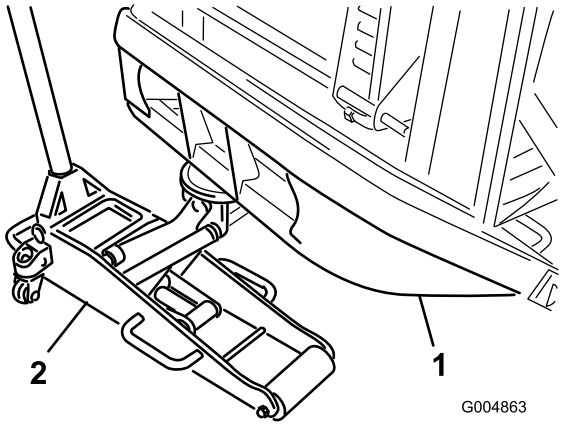


Figure 31

1. Rear bumper tube
2. Floor jack

2. On traction units that have a serial number prior to 312999999, install the vertical tube support assembly to each rear corner of the deck frame with a clevis pin and a 1/4 inch self-tapping screw (Figure 32)

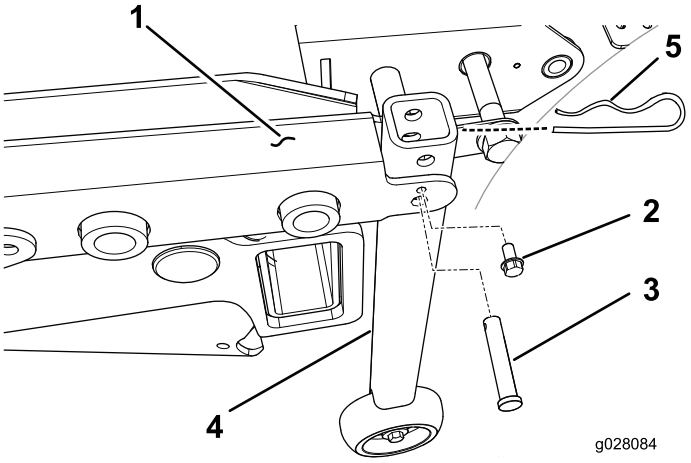


Figure 32

1. Deck frame
2. Self-tapping screw
3. Clevis pin
4. Vertical-tube-support assembly
5. Hairpin

3. On traction units that have a serial number greater than 313000001, install a conversion bracket (right or left hand) to the under side of the appropriate rear corner of the deck frame with a 3/8 x 5/8 inch self-tapping screw (Figure 33).

Note: Point the bracket toward the end of the rear frame.

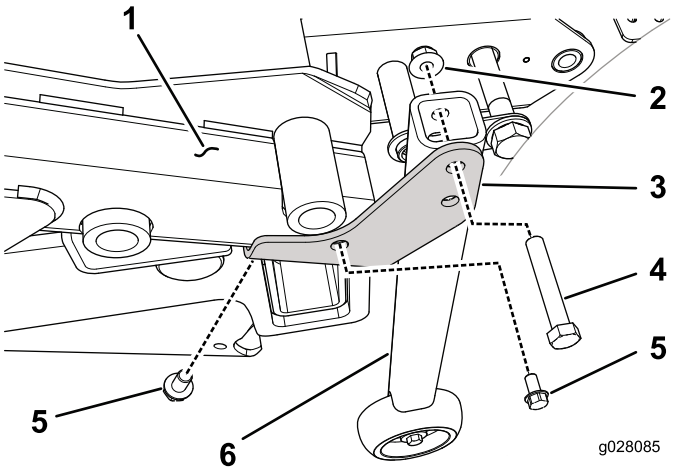


Figure 33

1. Deck frame
2. Flange nut
3. Conversion bracket (left side shown)
4. Bolt
5. Self-tapping screw
6. Vertical tube support assembly

4. Install the vertical-tube-support assembly to the conversion bracket (right or left hand) on each corner

of the deck frame with a screw (3/8 x 2–1/4 inch)and flange nut (3/8 inch) (Figure 33).

5. Disconnect the floor plate from the seat plate by removing the 2 pivot pins connecting them.
6. Connect the seat plate to the frame by installing the pivot pins (Figure 34).

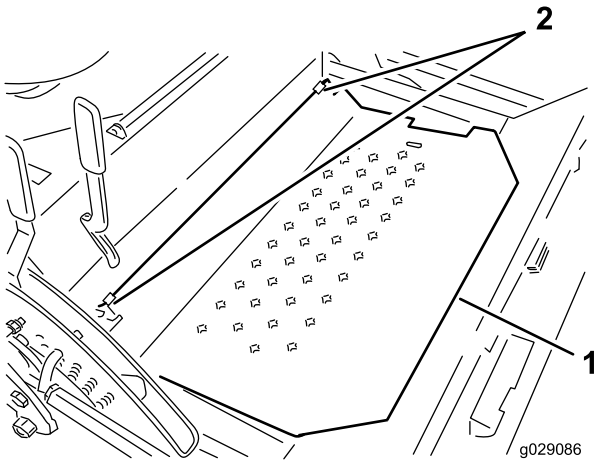


Figure 34

1. Floor plate
2. Pivot pins

7. Loosen the PTO drive shaft bolts and nuts.
8. Remove the roll pin and pull the drive shaft off the gearbox shaft (Figure 35).

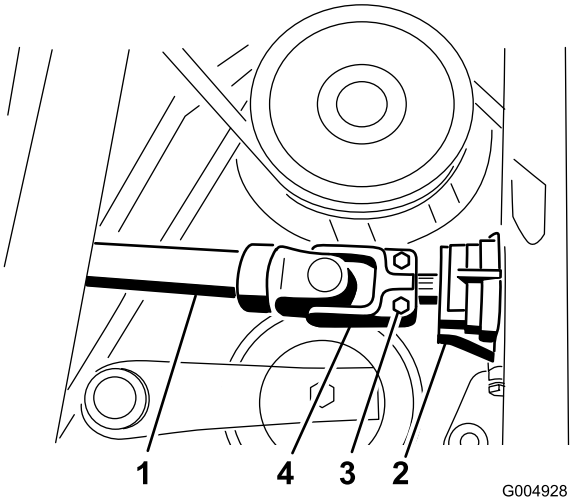


Figure 35

1. Drive shaft
2. Gear box
3. Bolts
4. Roll pin

9. Remove the retaining ring securing the rear of the deck lift cylinder to the pivot pin (Figure 36).

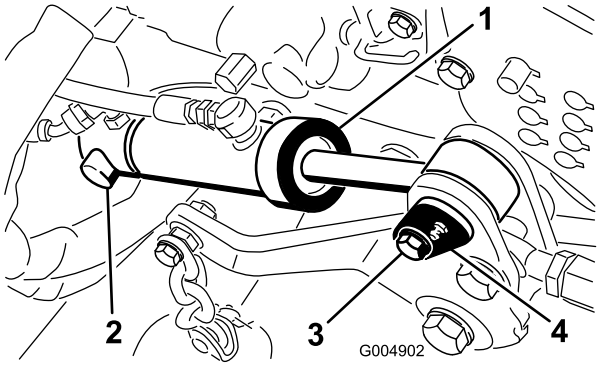


Figure 36

1. Deck-lift cylinder
2. Retaining ring
3. Screw
4. Cylinder pin

10. Remove the screw securing the front-cylinder pivot pin to the mower frame (Figure 36).

Note: Remove the cable tie securing the pressure and tank hoses.

Note: Remove the front pivot pin.

11. Disconnect the tank hose from the control valve (Figure 37).

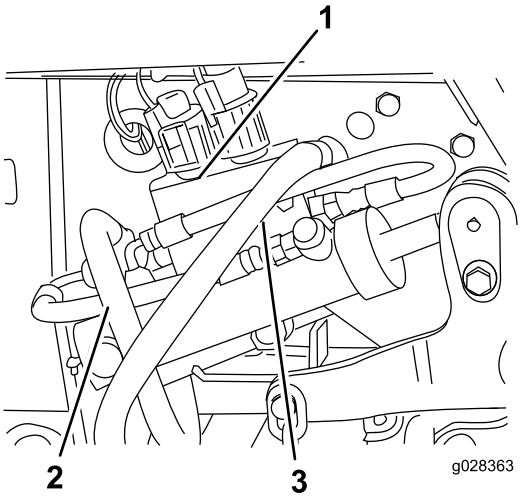


Figure 37

1. Control valve
2. Tank hose
3. Pressure hose

12. Install the cap from the winter kit valve into the control valve fitting and plug the hose with the plug supplied.
13. Lower the floor jack until the deck vertical support assemblies are supporting the rear of the deck frame and the rear bumper is lightly supported.
14. Pivot the front of the cylinder up to gain access to the frame bolts.
15. Carefully remove the bolts (3/4 inch), washers and nuts that secure the deck frame to the rear frame (3 on the left side and 2 on the right side) (Figure 38 and Figure 39).

Note: Retain 4 of the bolts for installation and store the remaining bolts, washers, and nuts for the summer changeover.

Note: The floor jack can be raised or lowered to ease removal of the bolts. Lower the floor jack completely once you remove the bolts.

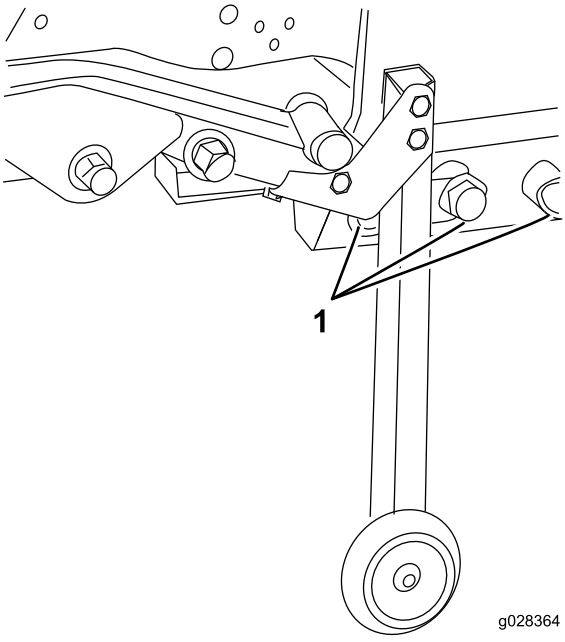


Figure 38

1. 3 mounting bolts (3/4 inch) washers and nuts (left side)

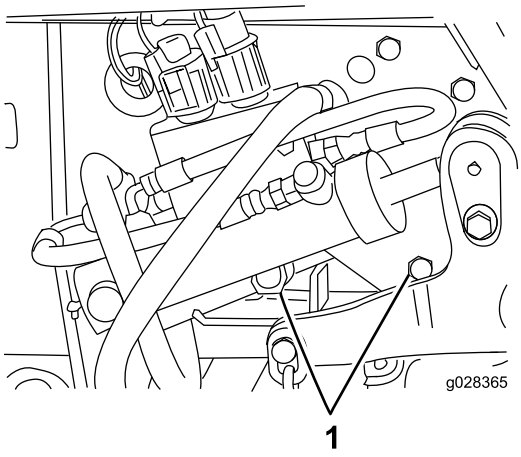


Figure 39

1. 2 mounting bolts (3/4 inch), washers and nuts (right side)

16. Pull the mower deck and the frame from the traction unit and roll it forward out of the way.
17. Loosely install the cylinder pin for storage.

9

Installing the Winter-Frame Assembly

Parts needed for this procedure:

2	Hose cover
4	Cable tie
1	Winter frame assembly
6	Wheel and tire assembly
20	Lug nut
2	Coupler pin
2	Tracks

Procedure

1. Remove the 2 screws securing each side access cover and remove the covers (Figure 40).

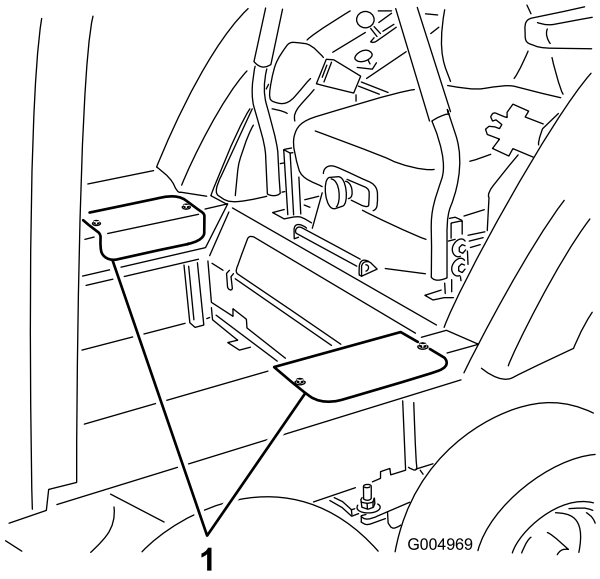


Figure 40

1. Access covers

2. Remove the flat washer (1/2 inch) and nut (1/2 inch) installed on the stud on each bogie pivot (Figure 41).

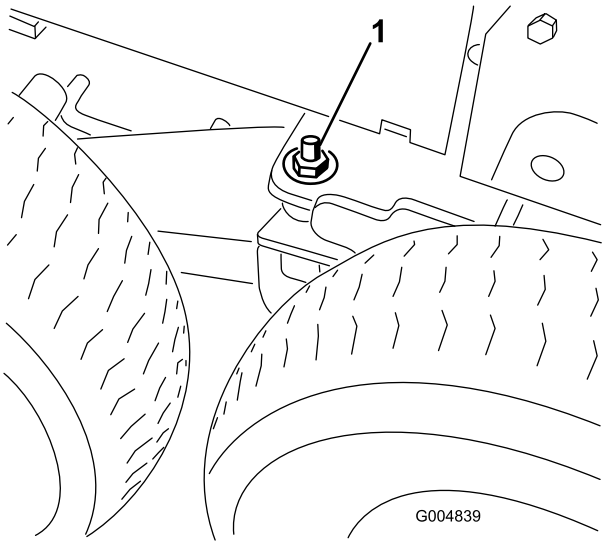


Figure 41

1. Washer and nut on the bogie pivot stud (2)

3. Insert a block of wood between the front bogie stop and the frame to tilt the winter frame toward the rear (Figure 42).

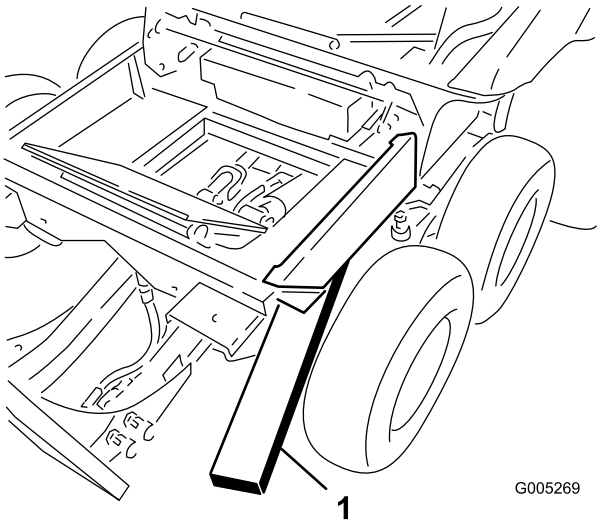


Figure 42

1. Block of wood

4. On the traction unit, install hose covers onto the loose hydraulic pressure and tank hoses and secure them with 2 cable ties each.

5. Loosen the pressure-hose fitting at the pump and rotate the fitting 45 degrees toward the front of the machine (Figure 43).

   Note: Figure 43 is shown as viewed from under the traction unit.

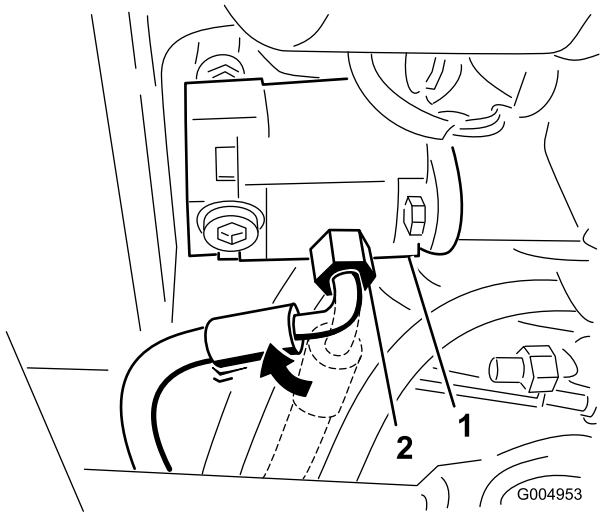


Figure 43

1. Pump
2. Pressure hosed fitting (rotated 45 degrees)

6. Remove the 2 screws securing the floor plate cover to the floor and remove the plate (Figure 44).

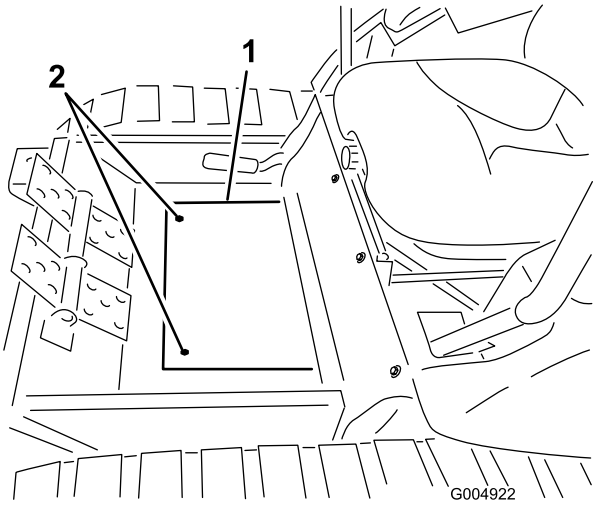


Figure 44

1. Floor plate cover
2. Mounting screws

7. Carefully roll the winter-frame assembly into position while routing the drive shaft through the frame tube (Figure 45).

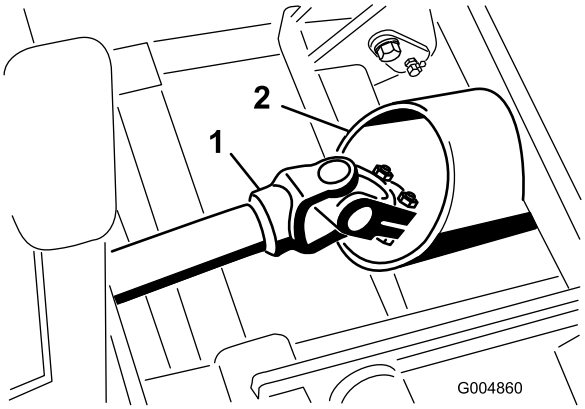


Figure 45

1. Drive shaft
2. Frame tube

8. Route the hoses as follows:
   - Route the pressure hose under the lift cylinder and between the cylinder mounting brackets to the valve (Figure 46).
   - Route the tank hose along side the PTO shaft to the valve (Figure 46).

   Note: To emphasize the hose routing, the hoses are shown without the hose covers installed.

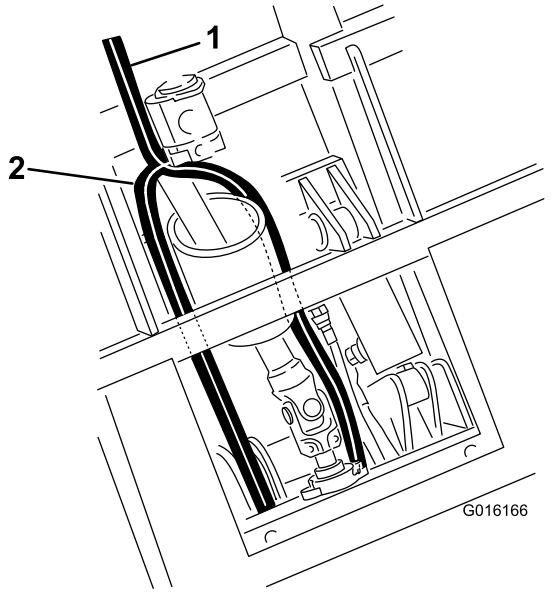


Figure 46

1. Tank hose
2. Pressure hose

9. Connect the drive shaft to the gear box shaft in the winter frame and torque the bolts (5/16 inch) to 20 to 25 N-m (175-225 in-lb).
10. Install the roll pin (Figure 47).

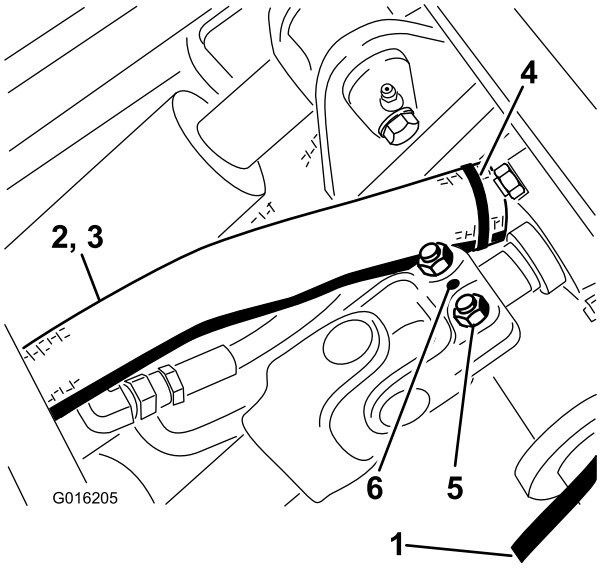


Figure 47

1. Pressure hose
2. Tank hose
3. Hose cover
4. Cable tie
5. Bolts
6. Roll pin

11. With the winter frame against the rear frame, raise the floor jack enough to remove the summer drive tires (Figure 48).

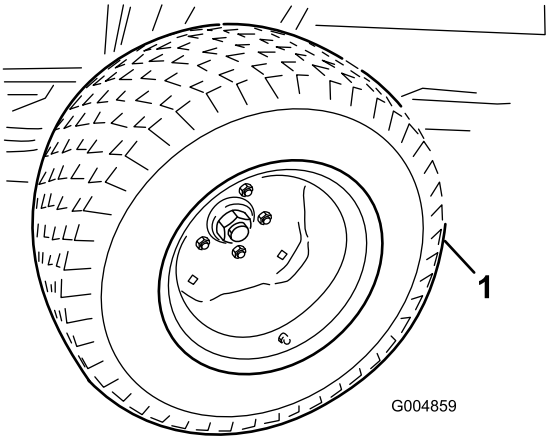


Figure 48

1. Summer-drive tire

12. Install the winter tires with 2 lug nuts per side.
13. Adjust the floor jack to line up the 2.5 cm (1-inch) holes in the frame and install a coupler pin on each side (Figure 49).

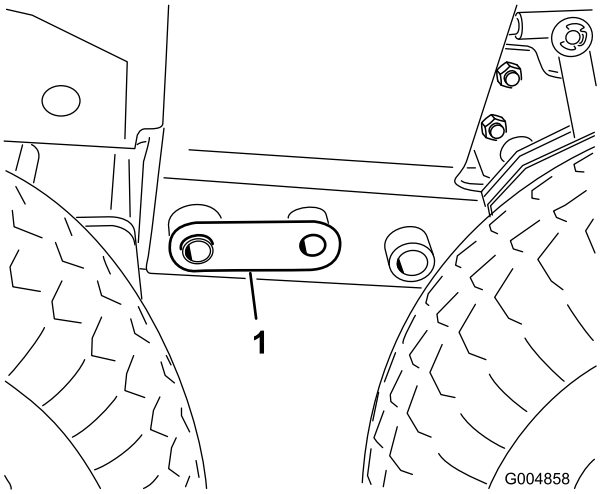


Figure 49

1. Coupler pin

14. Adjust the floor jack as required to install the bolts (3/4 inch) on each side (Figure 50).

    Note: Torque the bolts to 359 N-m (265 ft-lb).

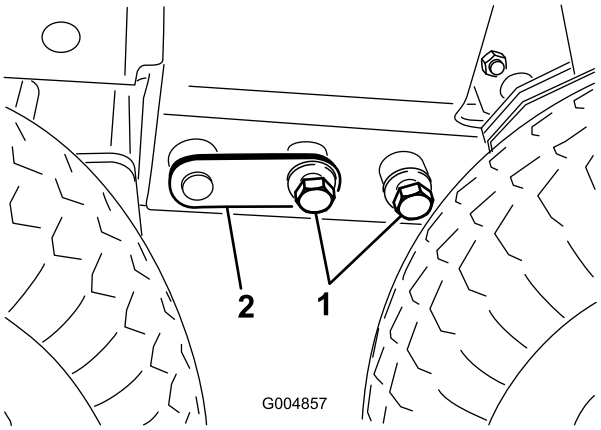


Figure 50

1. 3/4 inch bolts
2. Coupler pin

    Note: The rear tires will need to be removed to torque the rear bolts (3/4 inch). After torquing the frame bolts, install the rear tires and torque lug nuts to 88 to 115 N-m (65 to 85 ft-lb).

15. Connect the hydraulic pressure hose to the valve hard line and tank hose to the valve (Figure 51).

    Note: Retain the hose plugs for the summer change over.

    Note: Make sure that the hoses are not kinked or are not rubbing against any sharp edges or moving parts.

    Note: Adjust the angle of the fittings to accommodate the routing of the hoses.

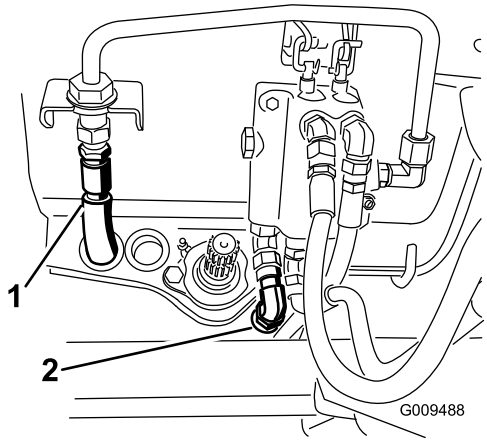


Figure 51

1. Pressure hose
2. Tank hose

16. Raise the rear of the machine until 2 jack stands can be positioned under the rear tube at a height that supports the rear tires 2.5 to 7.5 cm (1 to 3 inches) off the ground.
17. Lower the floor jack so the rear frame rests on the jack stands.
18. Position the floor jack under the center of the front lift arm pivot tube.
19. Raise the floor jack until the front tires are off the ground high enough to install the track beneath them and support the frame with jack stands.
20. Remove the front and center tires from the winter assembly (Figure 52).

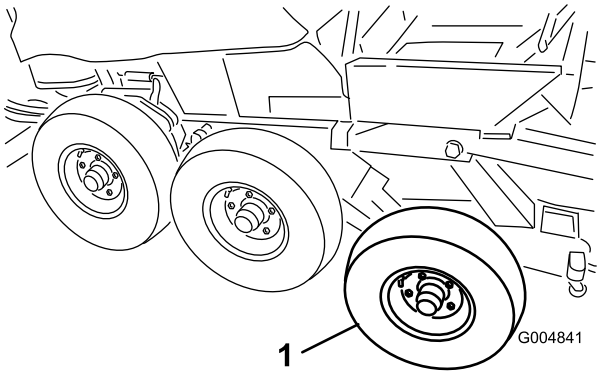


Figure 52

1. Front tire

21. Remove the block of wood from between the frame and the front bogie stop.
22. Carefully lift the tracks over the rear wheel and front hubs.

    Note: The direction of the track rotation is printed on the track. The V design in the rubber track must point forward.

⚠ CAUTION

The track guides have many pinch points. Coming into contact with one of these pinch points could cause severe personal injury.

Carefully grasp the rubber track on the outer edges outboard of the steel guides when moving the track.

23. Adjust the floor jack to a suitable height to install the front tire.
24. With a helper, lift the front of the track enough to carefully install the front tires (Figure 53).

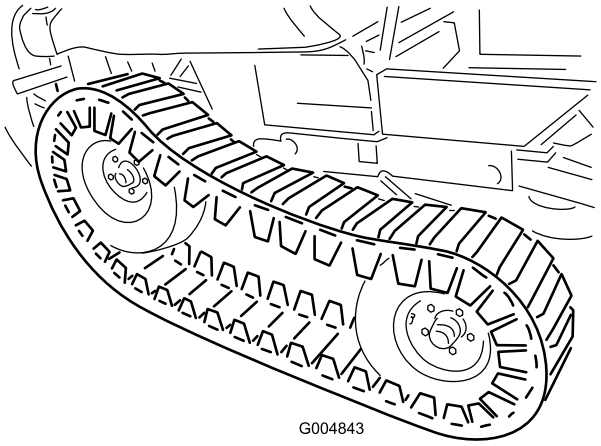


Figure 53

25. Adjust the floor jack to a suitable height to install the center tire. Lift the center of the track enough to install the center tire. .

Note: Torque the lug nuts to 88 to 115 N-m (65 to 85 ft-lb)

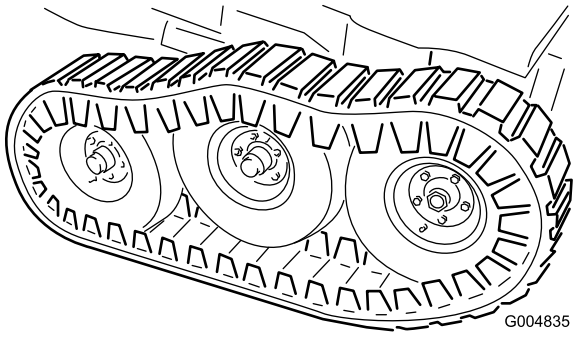


Figure 54

26. Lower the floor jack until the front wheels support the frame. Install the flat washers (1/2 inch) and locknuts on the bogie pivot stud (Figure 54) and torque to 102 N-m (75 ft-lb).

Note: You may need to move the floor jack to the rear bumper to raise the rear of the machine high enough to install the flat washer and locknut.

27. Install the side access covers with the screws previously removed (Figure 55).

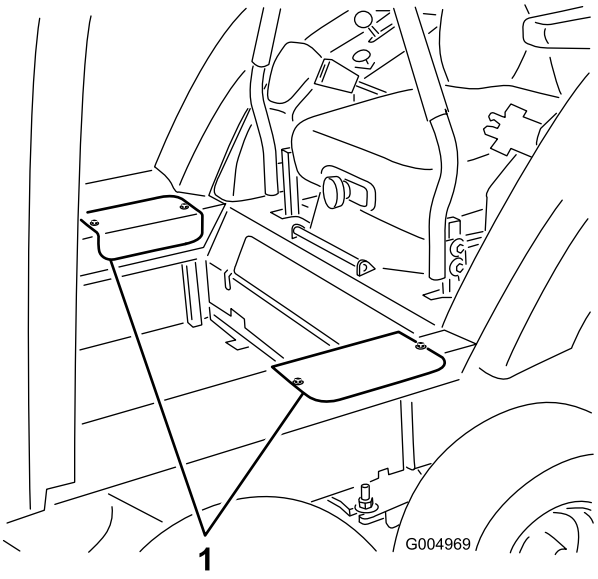


Figure 55

1. Access covers

10

Removing the Summer ROPS

No Parts Required

Procedure

Remove the bolt, nut, hair pin cotter and pin securing each ROPS assembly to the ROPS posts (Figure 56). Remove the ROPS assembly.

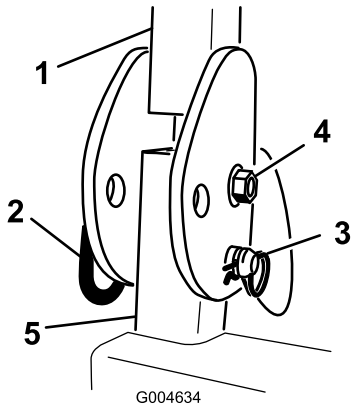


Figure 56

1. ROPS
2. Pin
3. Cotter pin
4. Bolt and nut
5. ROPS post

11

Installing the Panels

Parts needed for this procedure:

2	Bulb seal

Procedure

1. Install the large bulb seal on each side of the real panel.
2. Place the rear panel into position and align the top mounting holes with the holes in the frame cross member (Figure 57).

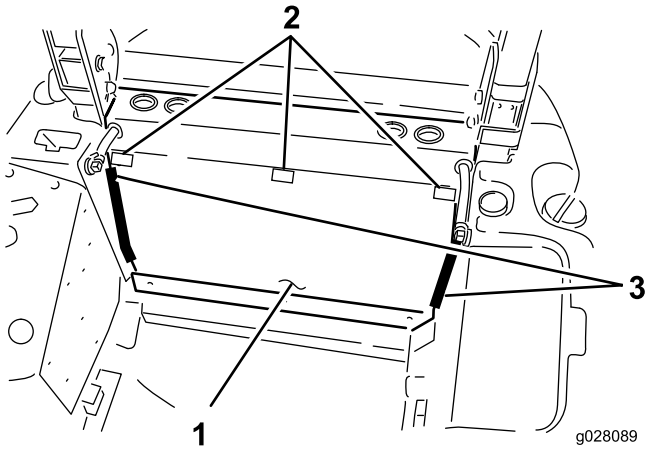


Figure 57

1. Rear panel
2. Quick-release latch
3. Bulb seal

3. Secure the top of the panel to the cross member with 3 screws previously removed.
4. Install the floor plate cover (Figure 58).

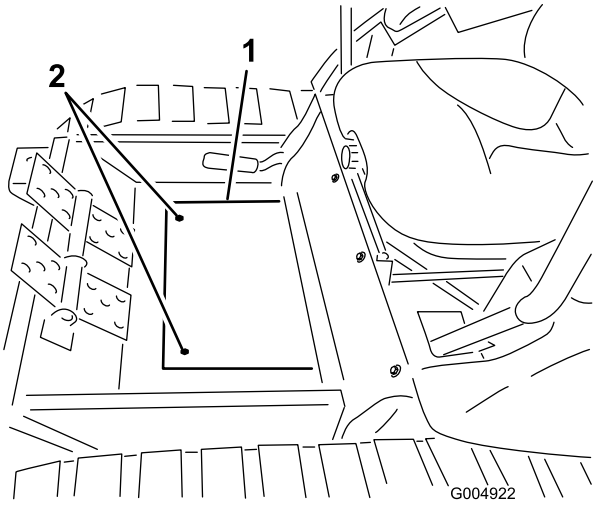


Figure 58

1. Floor-plate cover
2. Mounting screws

5. Install the hood.

12

Installing the Foam Seals to the Cab

Parts needed for this procedure:

1	Rear foam piece (supplied with cab model 30474)
1	Right, rear foam piece (supplied with cab model 30474)
1	Left, rear foam piece (supplied with cab model 30474)
1	Right, middle foam piece (supplied with cab model 30474)
1	Left middle foam piece (supplied with cab model 30474)
1	Right tank foam piece (supplied with cab model 30474)
2	Side, front foam piece (supplied with cab model 30474)
1	Front foam piece (supplied with cab model 30474)
1	Left, side foam piece (supplied with cab model 30474)
1	Right, side foam piece (supplied with cab model 30474)

Procedure

1. Center the rear piece on the most rearward lower edge of the center panel (Figure 59).
2. Install the left, rear and right, rear foam pieces to the inner corners of the rear panel outer tabs Figure 59).

Note: The inner edge of the forward legs of the foam pieces should be approximately 0.32 cm (1/8 inch) away from the inner edge of the side-sealing panels of the cab frame.

3. Align the innermost edges of the left, middle and right, middle foam pieces with the left, rear and right, rear foam pieces and interlock the tabs (Figure 59).

Note: The inner edge of the forward legs of the foam pieces should be approximately 0.32 cm (1/8 inch) away from the inner edge of the side-sealing panels of the cab frame.

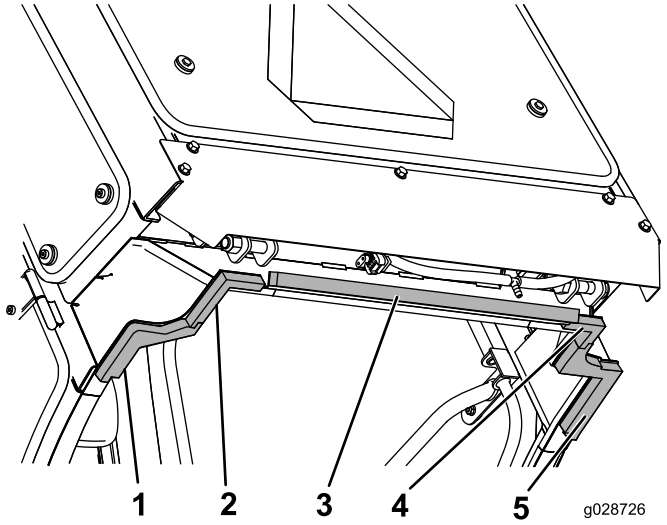


Figure 59
Rear end of the cab

1. Left, middle foam piece
2. Left, rear foam piece
3. Rear, foam piece
4. Right, rear foam piece
5. Right, middle foam piece

4. Align the innermost edges of the left, tank and right, tank foam pieces with the left and right middle foam pieces and interlock the tabs (Figure 60).

Note: The inner edge of the forward legs of the foam pieces should be approximately 0.32 cm (1/8 inch) away from the inner edge of the side-sealing panels of the cab frame.

5. Press the forward edge of the left, side and right, side foam pieces against the channel and interlock the angled rear edge of the side foam pieces with the tank foam pieces (Figure 60).

Note: There may be a small gap between the tank foam pieces and the angled edge of the side foam pieces.

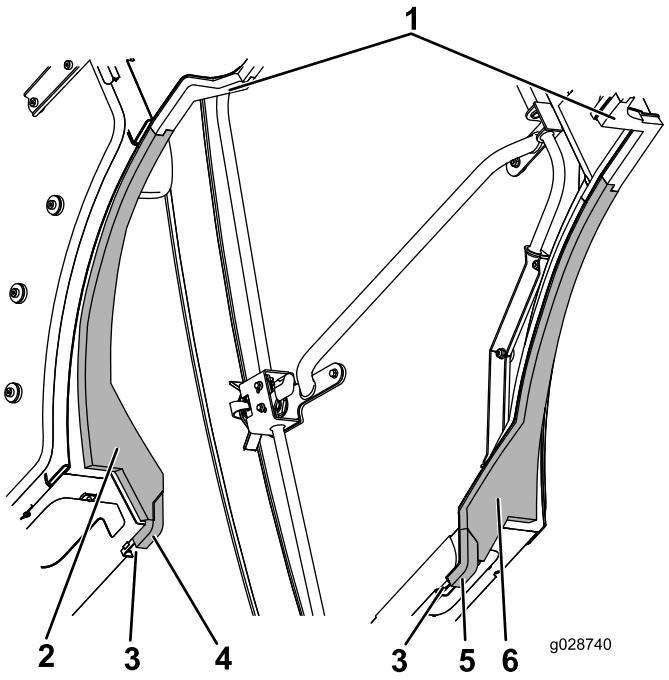


Figure 60

1. Middle foam piece
2. Left, tank foam piece
3. Channel
4. Left, side foam piece
5. Right, side foam piece
6. Right, tank foam piece

6. Center the front foam piece on the front panel (Figure 61).

Note: The back edge of the front foam piece should be aligned to the rearmost edge of the front panel of the cab frame.

7. Press the forward edge of the side front foam pieces into the front foam piece and align the inner edges of the foam pieces with the inner edges of the sealing panels of the cab frame (Figure 61).

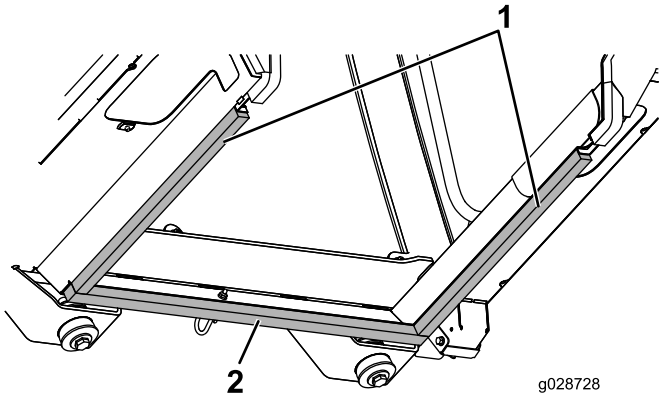


Figure 61
Front end of the cab

1. Side, front foam piece
2. Front foam piece

13

Mounting the Cab

Parts needed for this procedure:

4	Rubber cab mount (supplied with cab model 30474)
4	Bolt (1/2 x 3 inches) (supplied with cab model 30474)
4	Steel washer (supplied with cab model 30474)
4	Rubber washer (supplied with cab model 30474)
4	Nut (1/2 inch) (supplied with cab model 30474)
2	Corner mat (supplied with cab model 30474)
1	Power Point Shield

Procedure

1. Remove the clip securing the door closer socket to the door bracket ball (Figure 62).

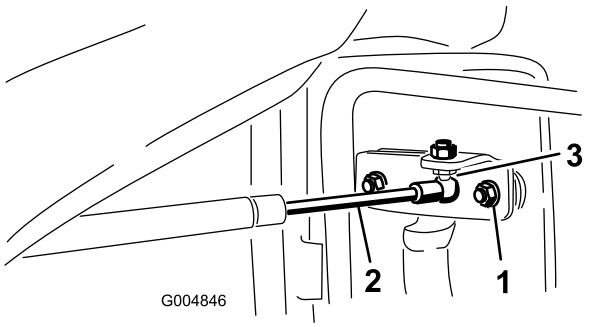


Figure 62

1. Cab-door bracket
2. Door closer
3. Clip

Note: You may remove the cab doors and windows to ease installation, decrease the lifting weight, and prevent damage.

2. Remove the fasteners securing the cab to the shipping pallet.
3. Insert a rubber cab mount at the front mounting locations (Figure 67).
4. Using a suitable overhead hoist, carefully lift the cab into position on the machine.

Note: Use caution not to damage cab roof, controls, hoses or electrical connectors.

5. Locate the front and rear mounting points on the cab (Figure 63 and Figure 64).

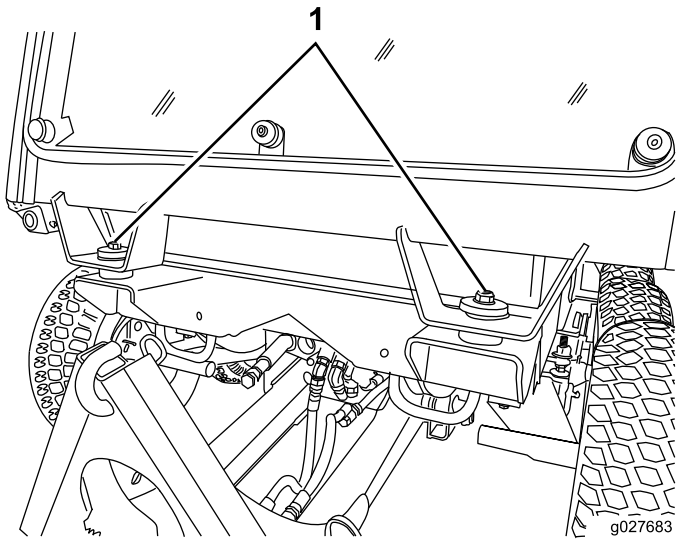


Figure 63
Outside view

1. Front mounting points

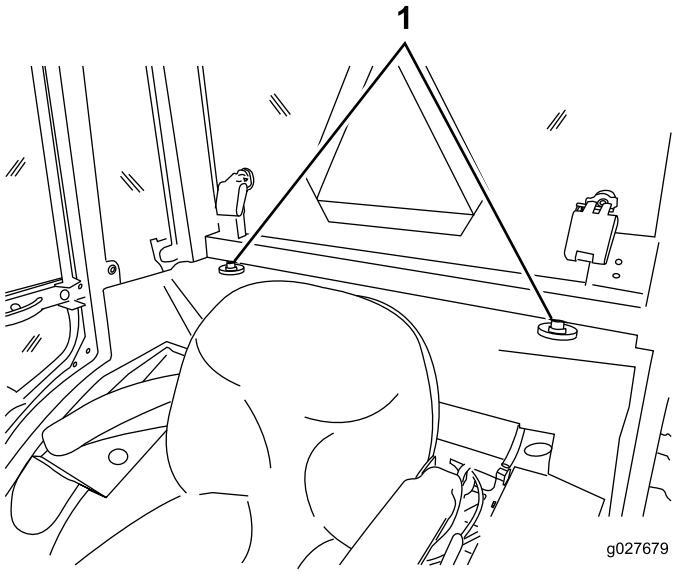


Figure 64
Inside view

1. Rear mounting points

6. Loosely install the rear rubber mounts and the cab mount supports to each side of the rear mounts of the cab. (Figure 65).

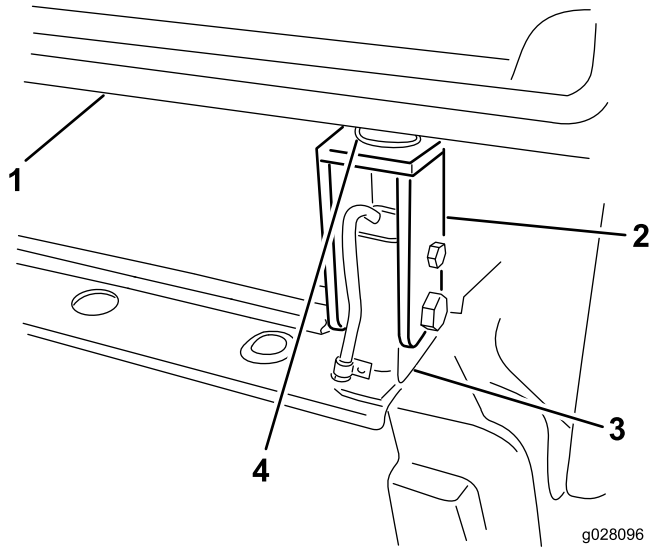


Figure 65

1. Cab
2. Cab mount
3. Machine frame
4. Rubber mount

7. At each mounting point, secure the cab to the machine with a bolt (1/2 x 3 inch), steel washer, rubber washer, and nut (1/2 inch) (Figure 66).

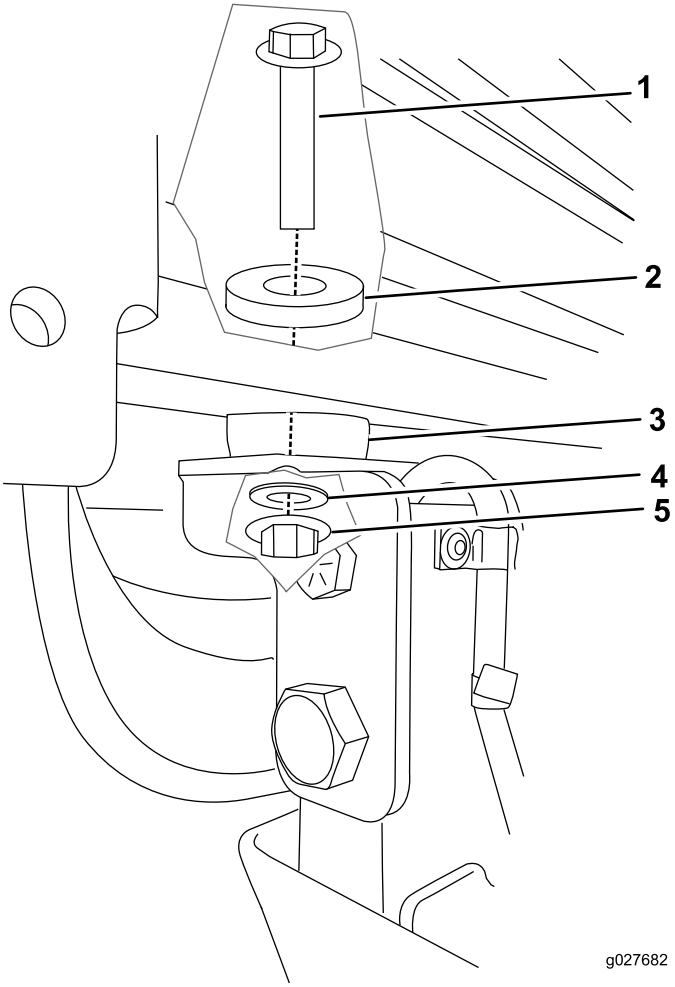


Figure 66

1. Bolt
2. Rubber washer
3. Center-bonded mount
4. Steel washer
5. Nut

8. Tighten the bolts until the rubber mounts are compressed to a thickness of 2.2 cm (7/8 inch).

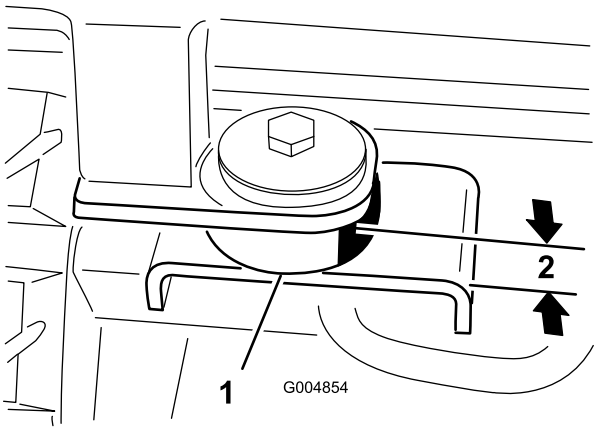


Figure 67

1. Rubber mount
2. 2.2 cm (7/8 inch)

14

Making the Final Connections and Checking the Operation

No Parts Required

Procedure

1. Tighten the bolts and nuts securing the cab mount supports to the ROPS posts.
2. Connect the cab pressure and return heater hoses to the quick couplers on the rear frame mount (Figure 68).

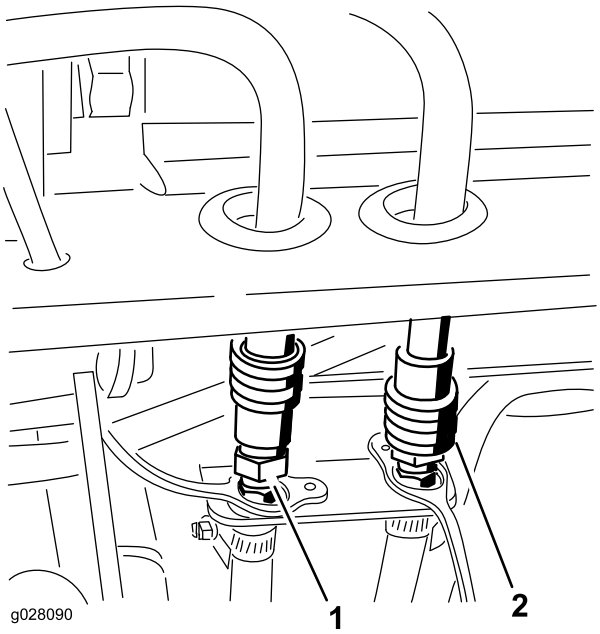


Figure 68

1. Pressure hose
2. Return hose

3. Install the back panel to the cab.

   Note: Install the doors and windows (if removed) and secure door closer to the cab door bracket.
4. Fill the radiator. Refer to the *Operator's Manual* for fluid specifications.
5. Check the hydraulic fluid level and replenish as required. Refer to the *Operator's Manual* for fluid specifications.
6. Route the washer fluid line from the cab, through one of the holes and connect it to the pump on the washer fluid bottle.

   Note: Ensure that it is clear of any hot or moving parts. Fill washer fluid bottle.
7. Connect the washer pump connector to the pump located on the bottle.
8. Start the machine. Run the lift arm up and down and check for hydraulic leaks.
9. Check the hydraulic fluid and radiator levels and replenish as required.

15

Reading the Manuals

Parts needed for this procedure:

1	*Operator's Manual*
1	*Parts Catalog*
1	Pre-delivery Inspection Sheet
1	Certificate of Quality
1	Jacking tube
2	Jacking tube bolts
1	Eyelet
1	Spacer
1	Flange nut (1/4 inch)

Procedure

1. Read the manuals.
2. Store the documentation in a safe place.
3. Use the jacking tube and jacking tube bolts for seasonal conversion.
4. Mount the eyelet to the cab when using a snowthrower attachment.

Product Overview

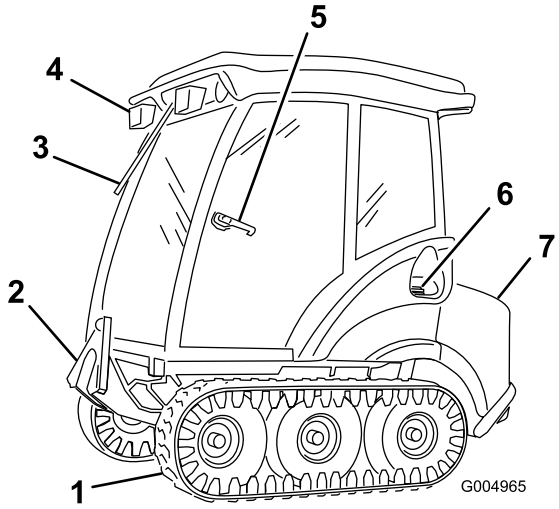


Figure 69

1. Track
2. Front lift arm
3. Windshield wiper
4. Work lights
5. Door latch
6. Fuel tank cap
7. Hood

Controls

Become familiar with all the controls before you start the engine and operate the machine.

Refer to the manual supplied with the cab for operating instructions.

Operation

Note: Determine the left and right sides of the machine from the normal operating position.

Putting Safety First

Please read all safety instructions and symbols in the safety section. Knowing this information could help you or bystanders avoid injury.

⚠ DANGER

Operating on wet grass, ice or slippery steep slopes can cause sliding and loss of control.

Tracks dropping over edges can cause roll overs, which may result in serious injury, death or drowning.

Read and follow the rollover protection instructions and warnings.

To avoid loss of control and possibility of rollover:

- **Do not operate near drop-offs or near water.**
- **Reduce speed and use extreme caution on slopes.**
- **Avoid sudden turns or rapid speed changes. Always use seat belts**

⚠ CAUTION

This machine produces sound levels in excess of 85 dBA at the operators ear and can cause hearing loss through extended periods of exposure.

Wear hearing protection when operating this machine.

The use of protective equipment for eyes, ears, feet and head is recommended.

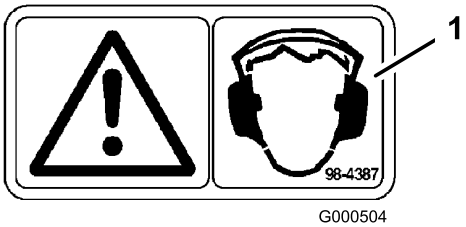


Figure 70

1. Warning— wear hearing protection

Using the Attachments

Read the *Operator's Manual* supplied with the attachment before operating.

Make sure that the hydraulic quick couplers are free of any contaminates before connecting.

Keep output shaft oiled to prevent rust.

Never operate the PTO with attachment in the raised position. Noise from the PTO drive line will be evident.

Install the attachment as follows:

1. Remove any attachment from the machine.
2. Drive the machine into position behind the attachment adapter. Raise the machine adapter into the attachment adapter.
3. Secure the adapters together with the attachment pin and hairpin cotter as shown in Figure 71.

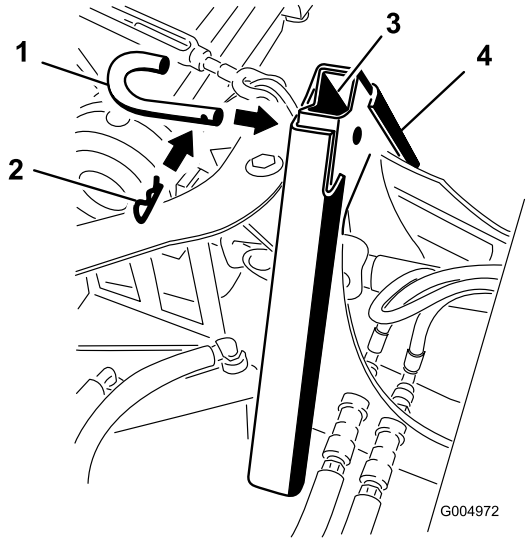


Figure 71

1. Attachment pin
2. Cotter pin

Routing the Snowthrower Wire Eyelet

Route the snowthrower wires from the cab, through the eyelet and to the snowthrower.

Converting the Machine from Winter to Summer Operation

1. Start the machine and remove any attachments.

   Note: Position the machine so the winter frame can be rolled away and replaced with the summer frame and the rear of the machine can be raised with a floor jack. (Cab door and side window can be removed if space is limited). Store the attachment per the instructions in the manufacturers *Operator's Manual*.

2. Make sure that the lift arm A-frame is lowered all the way.
3. Remove the 2 bolts securing the floor-plate cover and remove the cover (Figure 72).

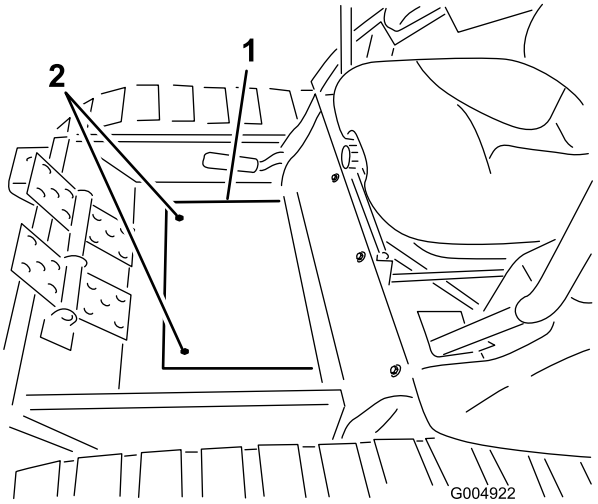


Figure 72

1. Floor plate cover
2. Mounting screws

4. Remove the roll pin and loosen the 2 bolts securing the drive shaft to the gearbox shaft (Figure 73). Slide the drive shaft off the gearbox shaft.

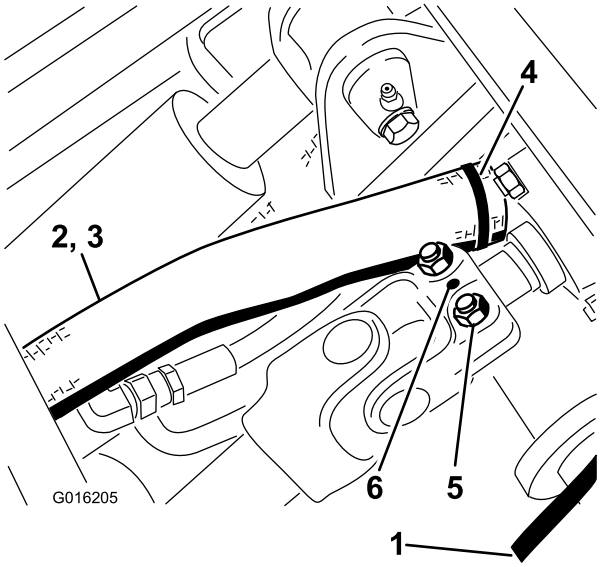


Figure 73

1. Pressure hose
2. Tank hose
3. Hose cover
4. Cable tie
5. Bolts
6. Roll pin

5. Position 2 jack stands under the rear bumper tube at a height so that they contact or nearly contact the bumper.
6. Remove the 2 screws securing each side access cover and remove the covers (Figure 74).

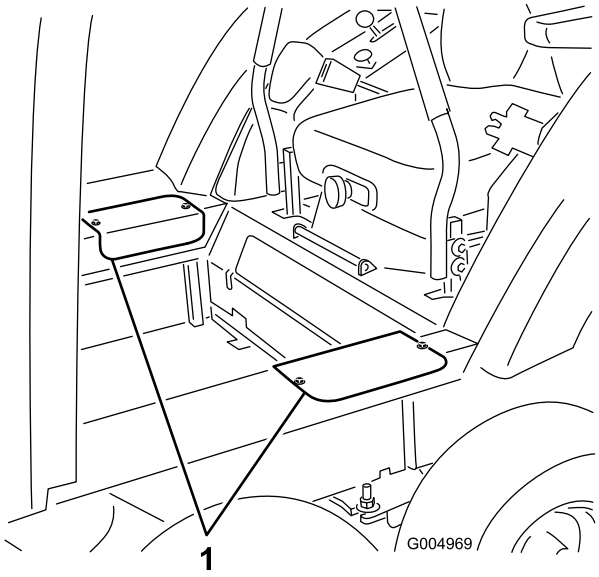


Figure 74

1. Access covers

7. Remove the 1/2 inch locknut and flat washer from the left and right bogie pivot weldment to unlatch the pivot (Figure 75).

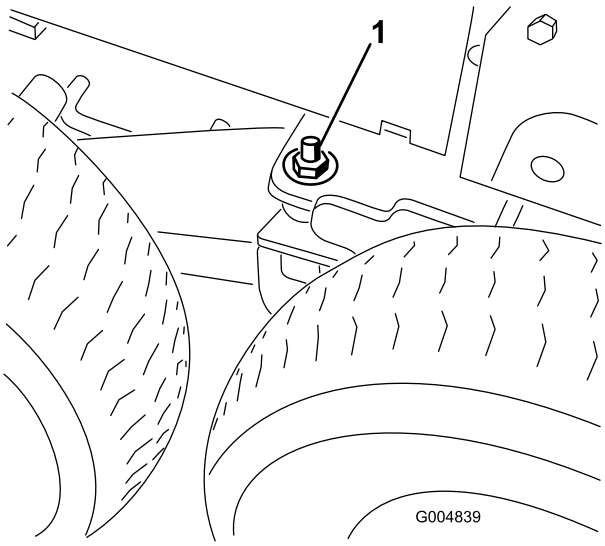


Figure 75

1. Washer and nut on the bogie-pivot stud

8. Position a suitable floor jack under the center of the front lift-arm pivot tube.
9. Raise the floor jack until the rear of the machine is supported on the jack stands and the center tire swings back and nearly contacts the rear tire.
10. Remove the center and rear wheels from each side.
11. Lower the floor jack until the bogie-pivot weldment moves enough so that the 1/2 inch flat washer and locknut can be installed on the stud and threaded finger tight on both sides of the machine (Figure 75).
12. Raise the floor jack high enough so that the track can be slid off the front tire.

⚠ CAUTION

The track guides have many pinch points. Coming into contact with one of these pinch points could cause severe personal injury.

Carefully grasp the rubber track on the outer edges outboard of the steel guides when moving the track.

13. Repeat the procedure on the other side of the machine.
14. Move the tracks away from the machine.
15. Place an additional jack stand under front of machine.
16. Place a drain pan under the control valve.
17. Disconnect the tank hose from the control valve hard line (Figure 76).

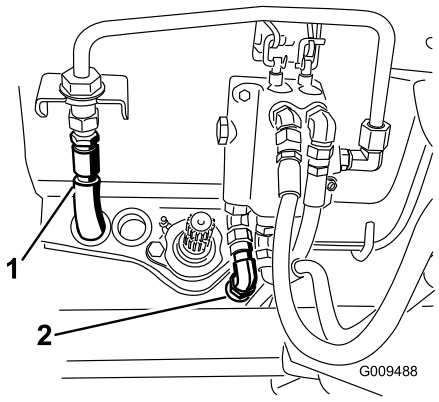


Figure 76

1. Pressure hose
2. Tank hose

18. Cap the hose and fitting. Pull the tank hose back toward the rear of the frame.
19. Disconnect the pressure hose from the control valve (Figure 76).
20. Cap the hose and fitting.
21. Pull the hose back toward the rear of the frame.
22. Unplug the cab harness connectors, tie down the loose cables, and install the cap onto the connector.
23. Disconnect the pressure and return quick coupler hoses from the cab (Figure 77).

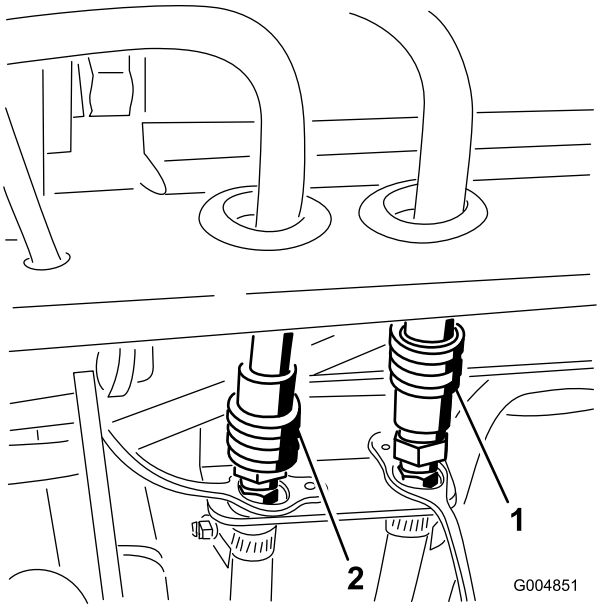


Figure 77

1. Pressure hose
2. Return hose

24. Plug the couplers into each other to keep clean.
25. Install the cap and dust covers onto the quick couplers on the machine.

    Note: Make sure that all connectors are clean before making connections.
26. Remove the 2 bolts (3/4-inch diameter) that attach the front frame to the rear frame ahead of the drive tire from each side of the frame (Figure 78).

    Note: Do not remove the coupler pin at this time.

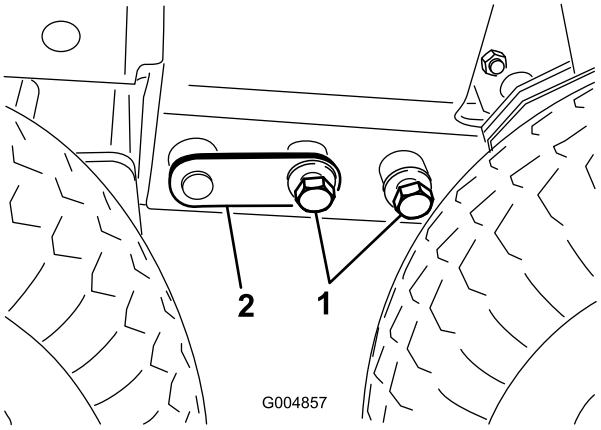


Figure 78

1. 3/4 inch bolts
2. Coupler pin

27. Install the summer drive tires with 2 nuts per tire (Figure 79).

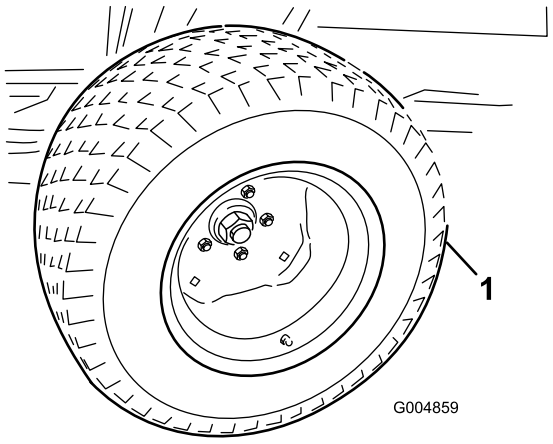


Figure 79

1. Summer drive tire

28. Install the center tires on the winter frame.
29. Install the cab jack tube into the cutouts in the cab floor (Figure 80).

    Note: Tighten the jacking bolts until the tapered ends go through the hole in the floor plate and just contact the frame.

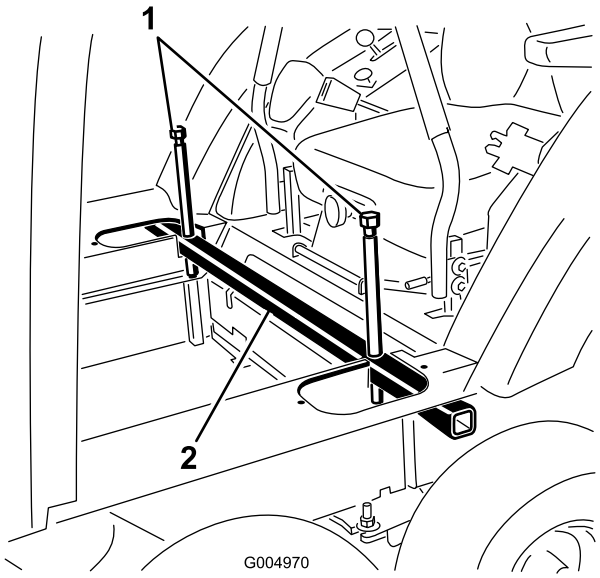


Figure 80

1. Jacking bolts
2. Cab jack tube

30. Remove the front jack stand and lower the front of the machine onto the tires.
31. Move the floor jack to the rear of the machine and lightly support the rear of the machine at the rear bumper.
32. Remove the bolts and nuts securing rear cab mounts to the ROPS posts (Figure 81).

    Note: Adjust the floor jack if the bolts are binding and difficult to remove.

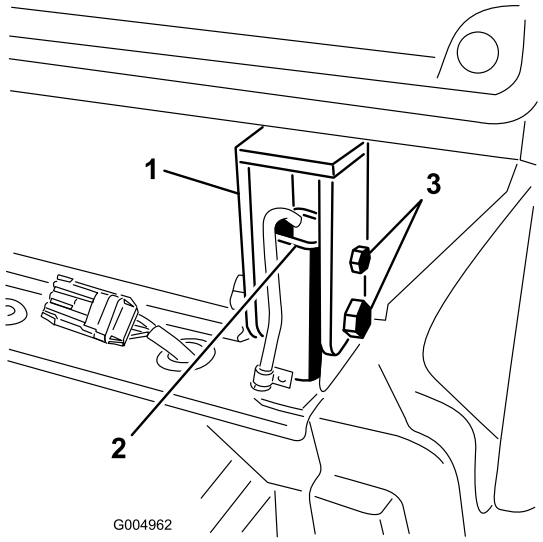


Figure 81

1. Cab mount
2. ROPS post
3. Bolts and nuts
4. ROPS post

33. Loosen the 2 front cab mounting bolts so the cab can pivot freely.

34. Raise the rear of the cab high enough to clear the back of the seat by slowly and evenly tightening the jacking bolts (Figure 82) on each side of the cab jack tube a little at a time.

    Note: Alternate frequently from side to side so that the bolts support the cab evenly and stay in position in the holes in the floor plate.

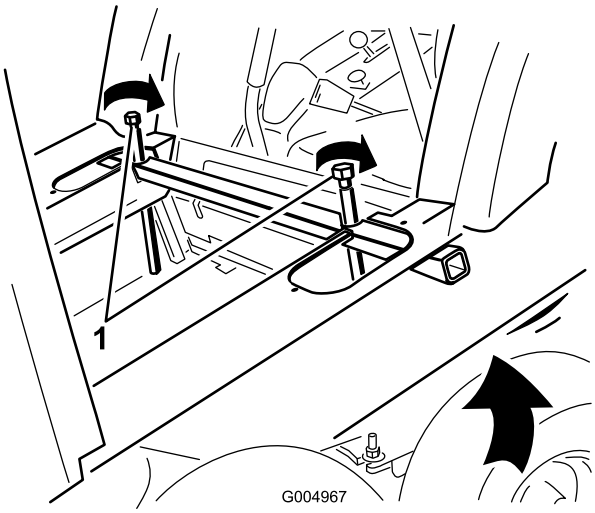


Figure 82

1. Jacking bolts

35. Remove the front jack stand and lower the front of the machine onto the tires until the coupler pins (Figure 83) are loose enough to be removed.

    Note: If the pins are tight, rotate the pins while pulling.

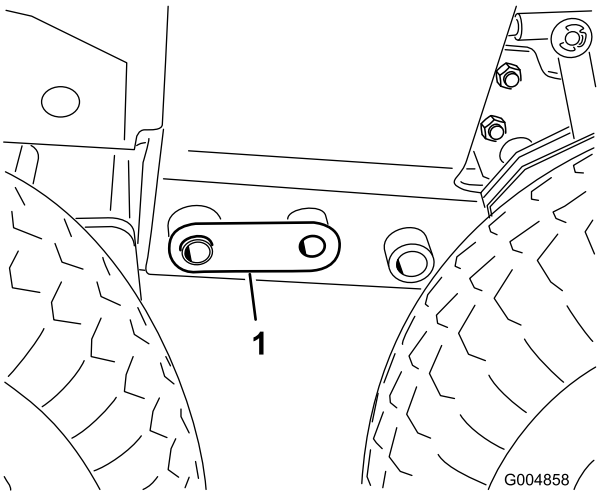


Figure 83

1. Coupler pin

36. Carefully roll the front frame away from the rear frame making sure that the hydraulic hoses and drive shaft are not hanging up.

    Note: Make sure that the rear of the cab clears the seat and control handles. Adjust the position of the floor jack if necessary to gain clearance between the seat and the rear of the cab.

37. Loosen the pressure hose fitting at the pump and rotate the fitting 45 degrees toward the rear of the machine (Figure 84).

    Note: Figure 84 is shown as viewed from under the traction unit.

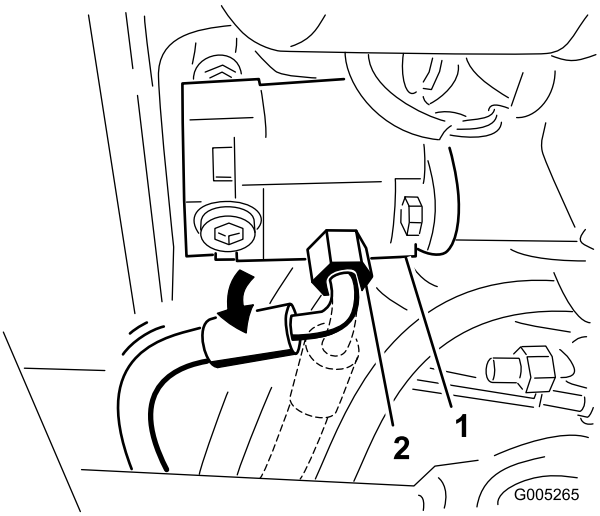


Figure 84

1. Pump
2. Pressure hosed fitting (rotated 45 degrees)

38. Roll the summer deck and frame into position and install the 5 bolts (3/4 inch), washers and nuts that connect the deck frame to the rear frame (Figure 85).

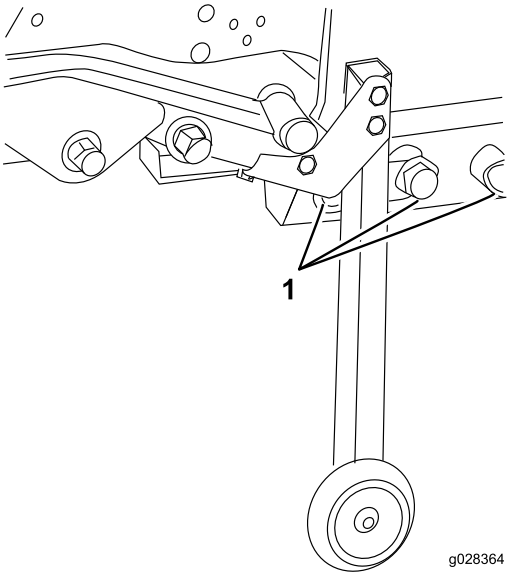


Figure 85

1. 3 mounting bolts (3/4 inch), washers, and nuts (left side)

39. Remove the lift cylinder pins and rear drive tires (if required) to gain access to the bolts on the right hand side.

    Note: Torque the bolts to 360 N-m (265 ft-lbs).

40. Remove the fasteners securing the vertical tube support assemblies to the rear of the deck frame or the conversion brackets.

41. Remove the conversion brackets from the deck frame, if applicable.

42. Pivot open the floor plate (Figure 86).

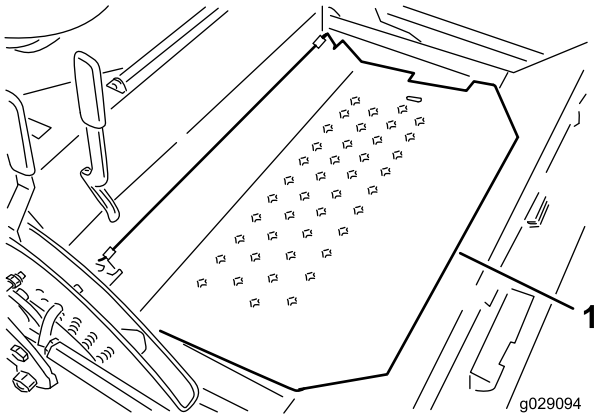


Figure 86

1. Floor plate

43. Slide the drive shaft onto the gearbox shaft (Figure 87). Install the roll pin and torque the bolts to 20 to 25 N-m (175 to 225 in-lb).

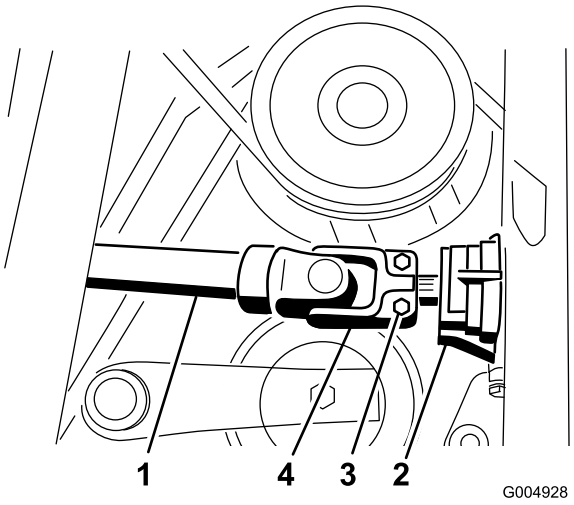


Figure 87

1. Drive shaft
2. Gear box
3. Bolt
4. Roll pin

44. Route and connect the hydraulic pressure and tank hoses to the valve (Figure 88).

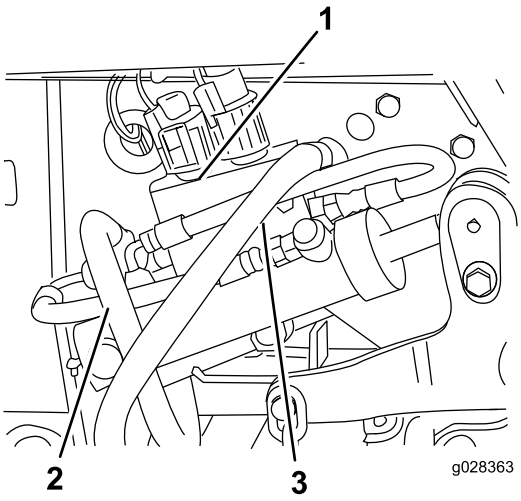


Figure 88

1. Control valve
2. Tank hose
3. Pressure hose

45. Install the rear of the deck lift cylinder onto the pivot pin and secure with the retaining ring (Figure 89).

46. Secure the front of the lift cylinder to the mower frame with the cylinder pin and screw (Figure 89).

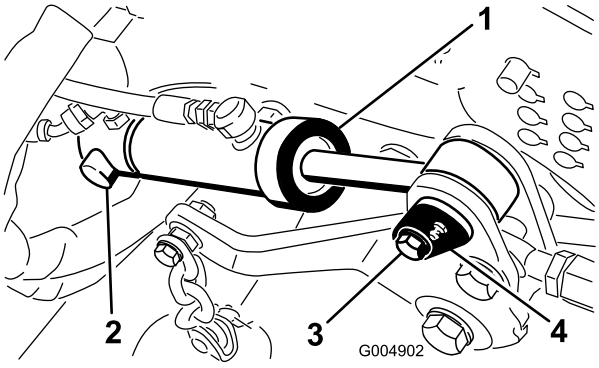


Figure 89

1. Deck-lift cylinder
2. Retaining ring
3. Screw
4. Cylinder pin and screw

47. Remove the bolts and nuts securing the cab-mount supports to the ROPS posts (Figure 90).

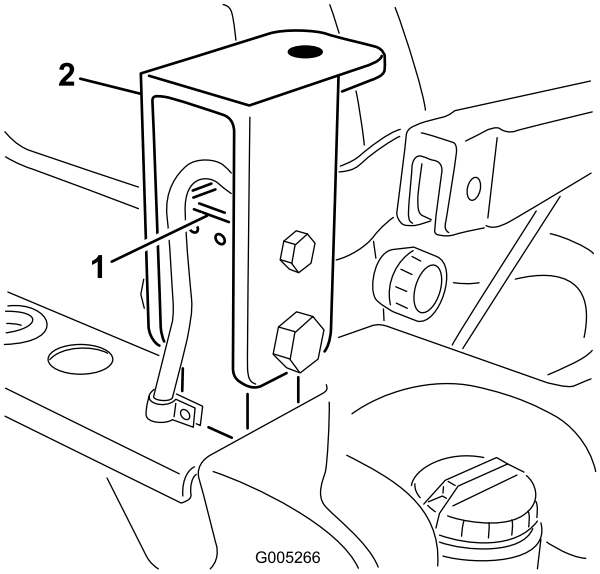


Figure 90

1. ROPS post
2. Cab-mount support

48. Position the ROPS assembly onto the ROPS posts.

49. Install the bolt, nut, hair pin cotter and pin securing each ROPS assembly to the ROPS posts (Figure 91).

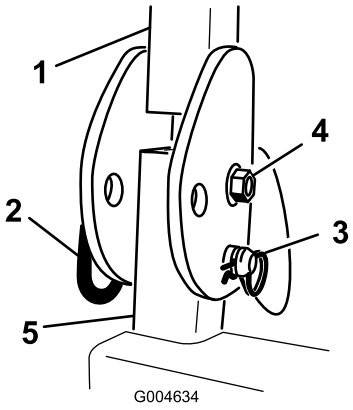


Figure 91

1. ROPS
2. Pin
3. Cotter pin
4. Bolt and nut
5. ROPS post

50. Start the machine, raise and lower the deck.

Note: Check for leaks and make sure that the hoses do not rub against the frame.

Converting the Machine from Summer to Winter Operation

1. Start the machine and lower the mower deck to the lowest height of cut.

Note: Position the machine on a level surface so that the mower deck frame can be rolled away and replaced with the winter frame.

2. Turn the machine off.

3. Remove the bolt, nut, hairpin cotter and pin securing each ROPS assembly to the ROPS posts (Figure 92). Remove the ROPS assembly.

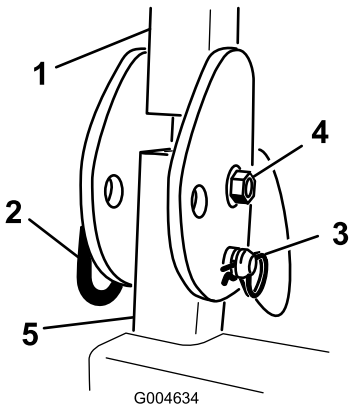


Figure 92

1. ROPS
2. Pin
3. Cotter pin
4. Bolt and nut
5. ROPS post

4. Loosely install a cab mount support to each ROPS post with 2 bolts (1/2 x 3 inches), 2 nuts (1/2 inch), 2 bolts (3/4 x 3–1/2 inch) and 2 nuts (3/4 inch) (Figure 93).

   Note: Make sure that the top plate hole is positioned forward. Do not tighten bolts at this time.

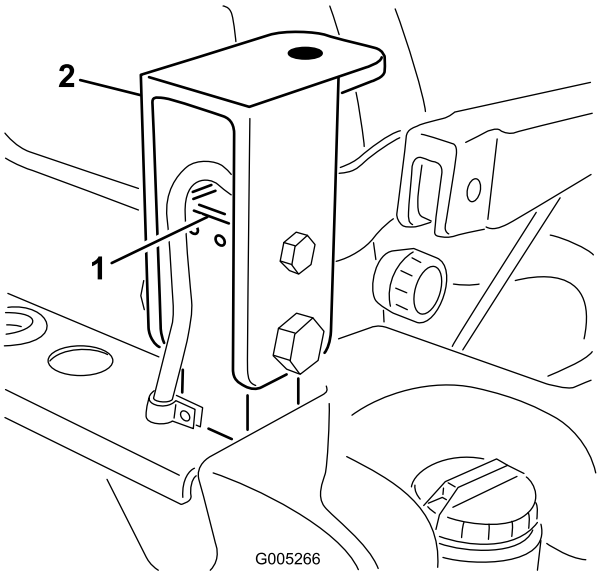


Figure 93

1. ROPS post
2. Cab-mount support

5. Position a suitable floor jack under the rear bumper tube and raise the rear tires off the ground (Figure 94).

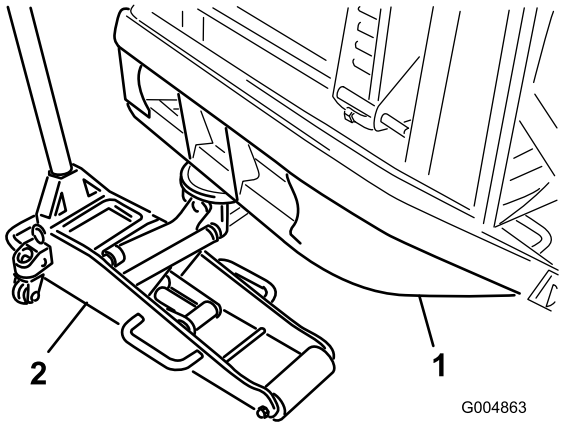


Figure 94

1. Rear bumper tube
2. Floor jack

6. On traction units that have a serial number prior to 312999999, install the vertical tube support assembly to each rear corner of the deck frame with a clevis pin and a self-tapping screw (1/4 inch) (Figure 95).

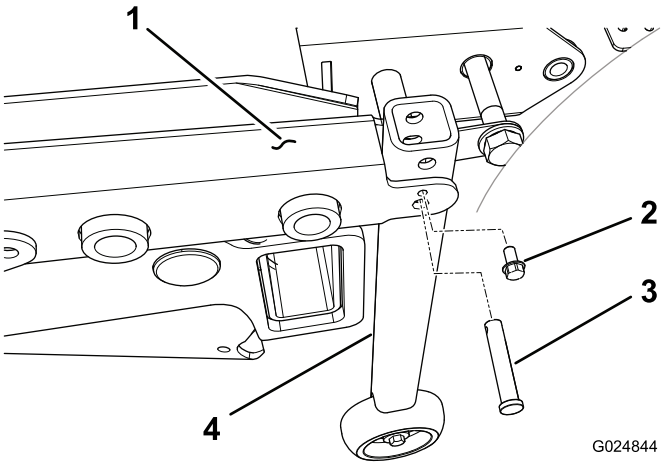


Figure 95

1. Deck frame
2. Self tapping screw
3. Clevis pin
4. Vertical-tube-support assembly

7. On traction units that have a serial number greater than 313000001, install a conversion bracket (right or left hand) to the under-side of the appropriate rear corner of the deck frame with a self-tapping screw (3/8 x 5/8 inch) (Figure 96).

   Note: Point the bracket toward the end of the rear frame.

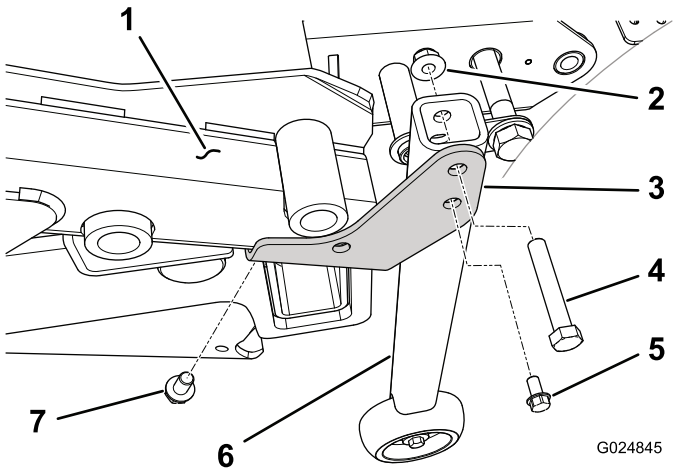


Figure 96

1. Deck frame
2. Flange nut
3. Conversion bracket (left side shown)
4. Screw
5. Self-tapping screw
6. Vertical tube support assembly
7. Self-tapping screw

8. Install the vertical tube support assembly to the conversion bracket (right or left hand) on each corner of the deck frame with a screw (3/8 x 2–1/4 inch) and flange nut (3/8 inch) (Figure 96).
9. Remove the retaining ring securing the rear of the deck lift cylinder to the pivot pin (Figure 97).

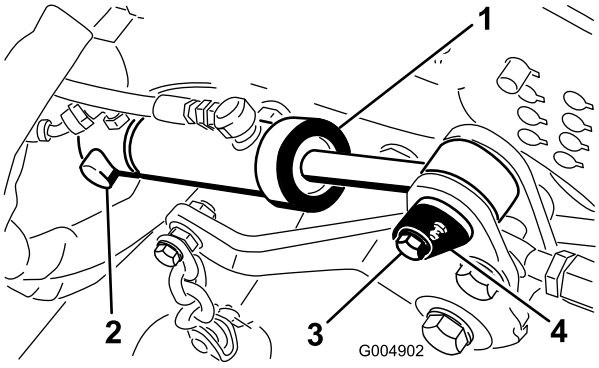


Figure 97

1. Deck-lift cylinder
2. Retaining ring
3. Screw
4. Cylinder pin

10. Remove the screw securing the front cylinder pivot pin to the mower frame (Figure 97).
11. Remove the cable tie securing the pressure and tank hoses.
12. Remove the front pivot pin and slide the cylinder off the rear pin (Figure 97).

    Note: Let the cylinder hang out of the way on the hoses.
13. Pivot open the floor plate (Figure 98) and secure with the prop rod.

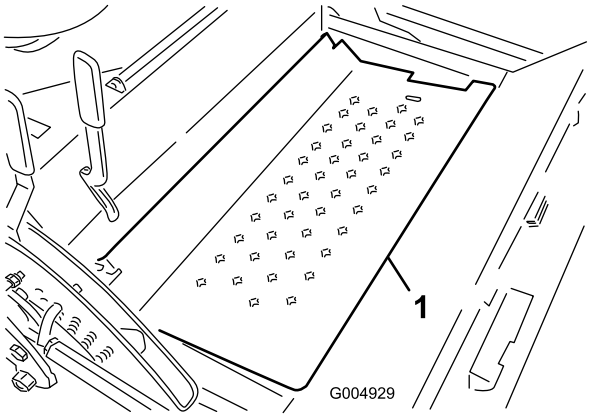


Figure 98

1. Floor plate

14. Remove the roll pin and loosen the 2 capscrews securing the drive shaft to the gearbox shaft (Figure 99).

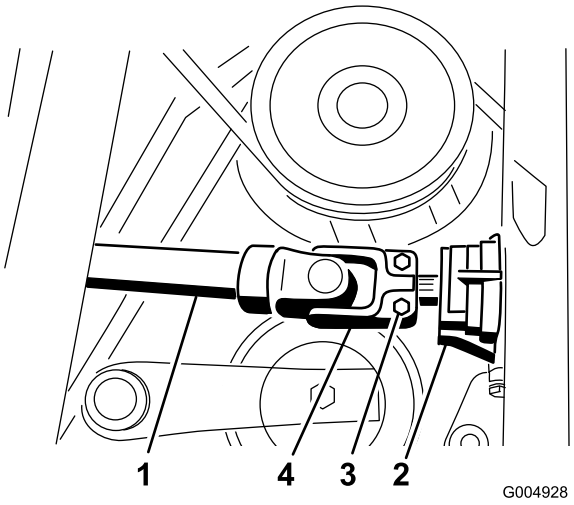


Figure 99

1. Drive shaft
2. Gear box
3. Roll pin
4. Yoke

15. Slide the drive shaft off the gearbox shaft.
16. Disconnect the tank hose from the control valve (Figure 100).

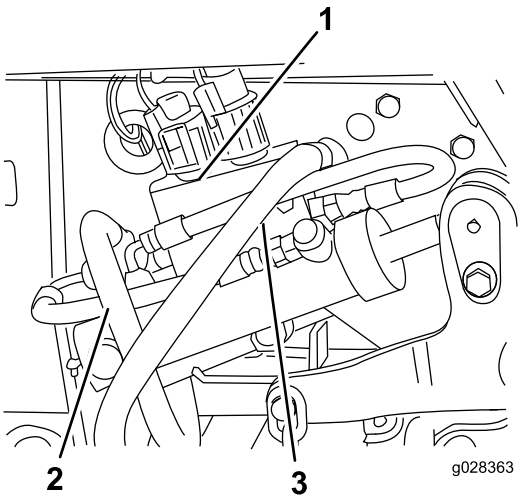


Figure 100

1. Control valve
2. Tank hose
3. Pressure hose

17. Cap the hose and fitting with a cap and plug.
18. Pull the tank hose back toward the rear of the frame.
19. Disconnect the pressure hose from the control valve (Figure 100).
20. Cap the hose and fitting with a cap and plug.
21. Pull the hose back toward the rear of the frame.
22. Lower the floor jack until the deck vertical support assemblies are supporting the rear of the deck frame and the rear bumper is lightly supported.
23. Carefully remove the bolts (3/4 inch), washers and nuts that secure the deck frame to the rear frame (3 on the left side and 2 on the right side) (Figure 101).

Note: Retain 4 of the bolts for installation and store the remaining for summer change over.

Note: Raise or lower the floor jack to ease removal of the bolts. Lower the floor jack completely once the bolts are removed.

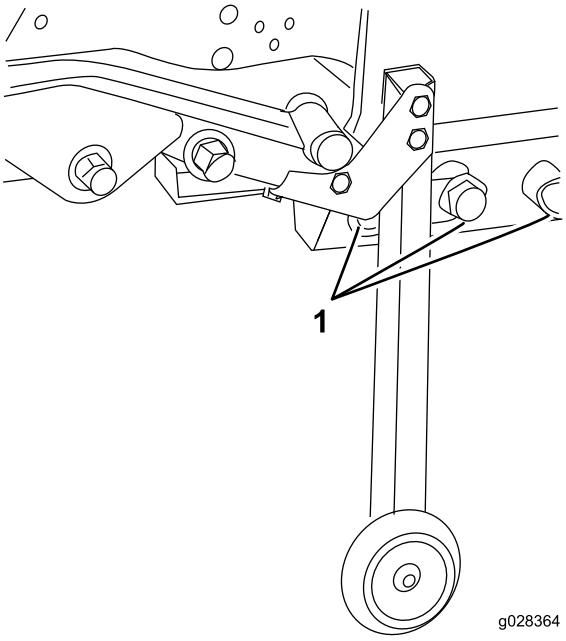


Figure 101

1. 3 mounting bolts (3/4 inch), washers, and nuts (left side)

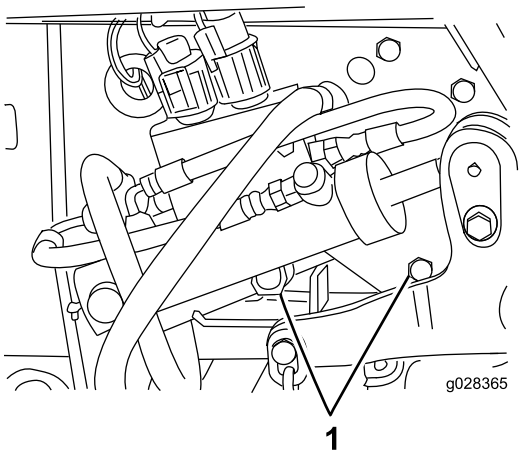


Figure 102

1. 2 mounting bolts (3/4 inch), washers, and nuts (right side)

24. Roll the mower deck and frame forward and out of the way.

25. Loosen the pressure hose fitting at the pump and rotate the fitting 45 degrees toward the front of the machine (Figure 103).

    Note: Figure 103 is shown as viewed from under the traction unit.

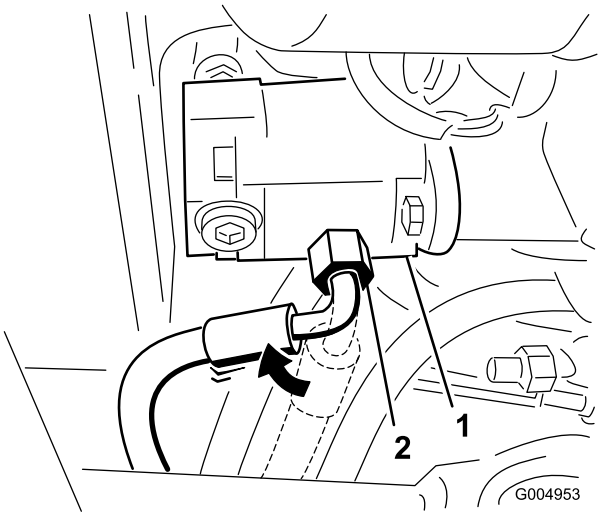


Figure 103

1. Pump
2. Pressure-hose fitting (rotated 45 degrees)

26. Remove the 2 screws securing the winter frame floor plate cover to the floor and remove the plate (Figure 104).

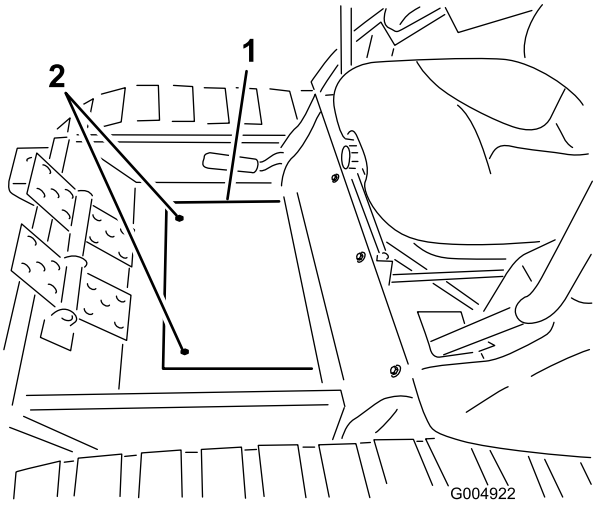


Figure 104

1. Floor-plate cover
2. Mounting screws

27. Carefully roll the winter frame assembly into position while routing the drive shaft through the frame tube (Figure 105).

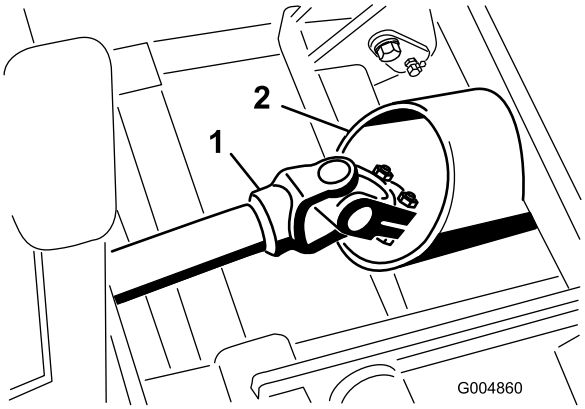


Figure 105

1. Drive shaft
2. Frame tube

Note: If the rear of the cab is not high enough to clear the control handles, evenly tighten the jacking bolts on each side of the cab jack tube to raise the rear of the cab (Figure 106).

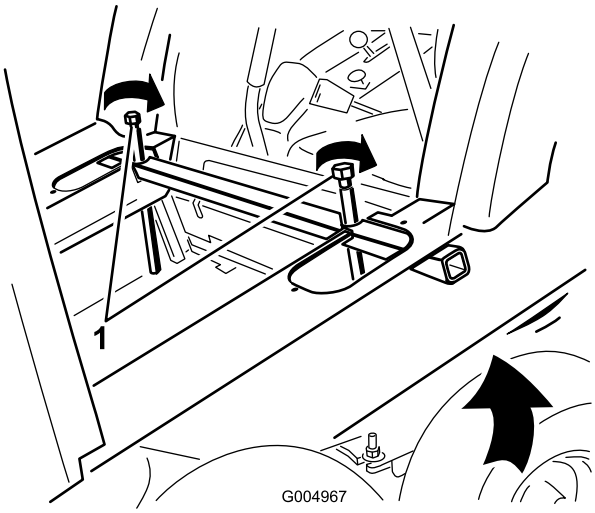


Figure 106

1. Jacking bolts

28. Route the hoses as follows:
    - Route the tank hose under the lift cylinder and between the cylinder mounting brackets to the valve (Figure 107).
    - Route the pressure hose along side the PTO shaft to the valve (Figure 107).

    Note: To emphasis the hose routing, the hoses are shown without the hose covers installed.

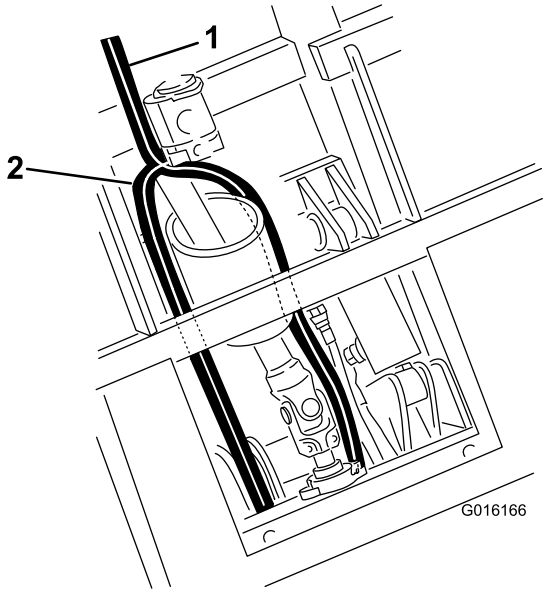


Figure 107

1. Tank hose
2. Pressure hose

29. Connect the drive shaft to the gear box shaft in the winter frame and torque the bolts (5/16 inch) to 20 to 25 N-m (175-225 in-lb).
30. Install the roll pin (Figure 108).

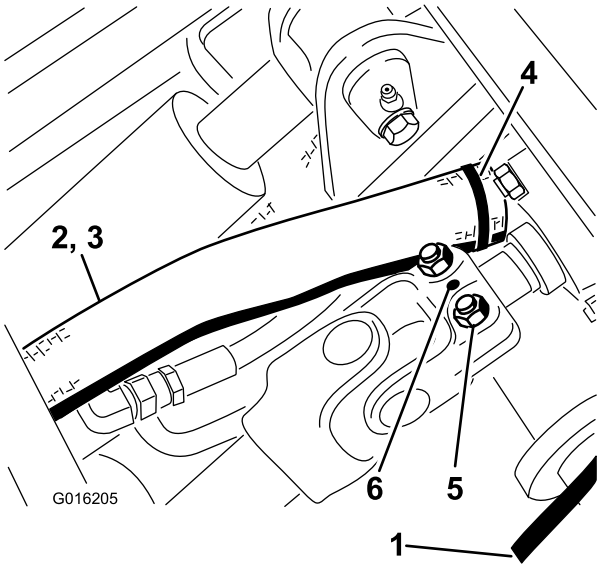


Figure 108

1. Pressure hose
2. Tank hose
3. Hose cover
4. Cable tie
5. Bolts
6. Roll pin

31. With the winter frame against the rear frame, raise the floor jack enough to remove the summer drive tires (Figure 109).

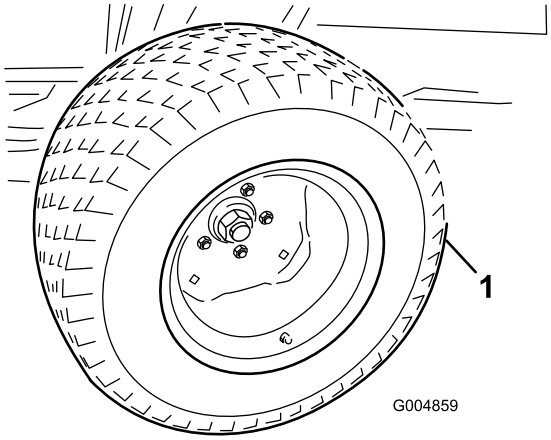


Figure 109

1. Summer drive tire

32. Install the winter tires with 2 lug nuts per side.
33. Adjust the floor jack to line up the 2.5 cm (1 inch) holes in the frame and install a coupler pin on each side (Figure 110).

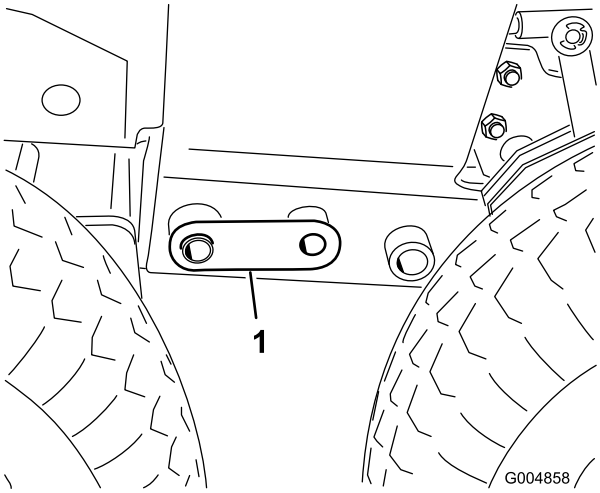


Figure 110

1. Coupler pin

34. Adjust the floor jack or rock the cab with your hands as required to install the bolts (3/4 inch) on each side (Figure 111).

Note: Torque the bolts to 359 N-m (265 ft-lb).

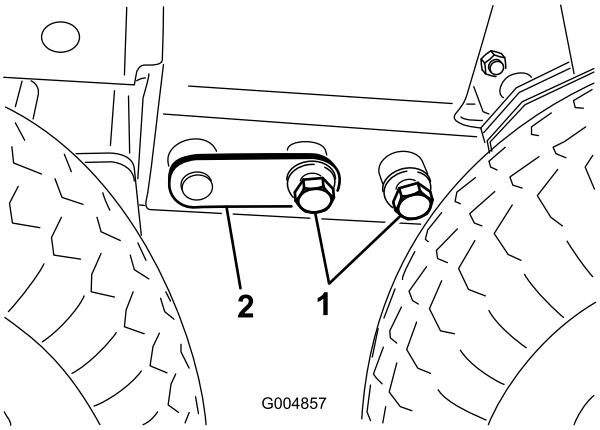


Figure 111

1. 3/4 inch bolts
2. Coupler pin

Note: The rear tires will need to be removed to torque the rear bolts (3/4 inch). After torquing the frame bolts, install the rear tires and torque lug nuts to 88 to 115 N-m (65 to 85 ft-lb).

35. Insert a rubber mount onto each cab mount at the rear mounting locations (Figure 112).

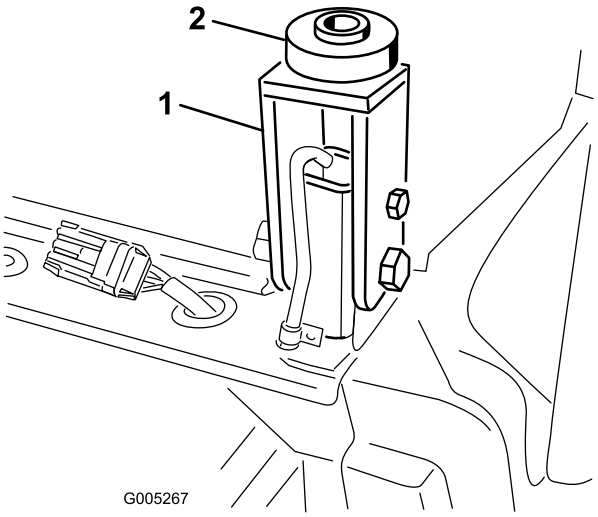


Figure 112

1. Cab mount
2. Rubber mount

36. Lower the cab into position by slowly and evenly loosening the jacking bolts on each end of the jacking tube (Figure 113).

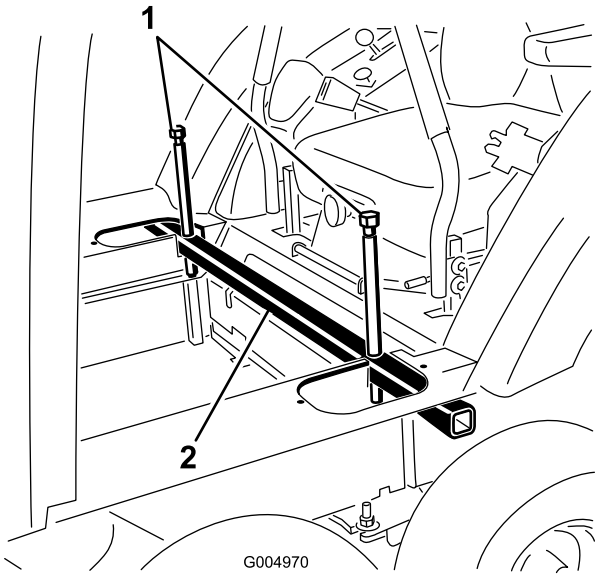


Figure 113

1. Jacking bolts
2. Cab-jack tube

37. At the rear mounting points, secure the cab to the machine with a bolt (1/2 x 3 inches), steel washer (1/2 x 2–1/2 inches), rubber washer (1/2 x 2–1/2 inches) and nut (1/2 inch) (Figure 114).

    Note: Tighten all 4 cab mount bolts until the rubber mounts are compressed to a thickness of 2.2 cm (7/8 inch).

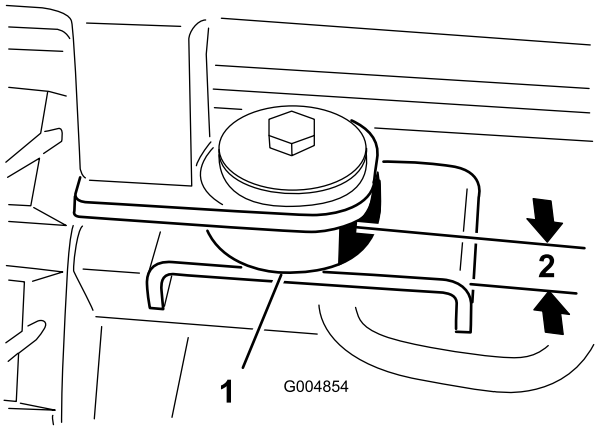


Figure 114

1. Rubber mount
2. 2.2 cm (0.875 inch)

38. Tighten the bolts and nuts securing the rear cab mounts to the ROPS posts (Figure 115).

    Note: Adjust the floor jack if the bolts are binding and difficult to remove.

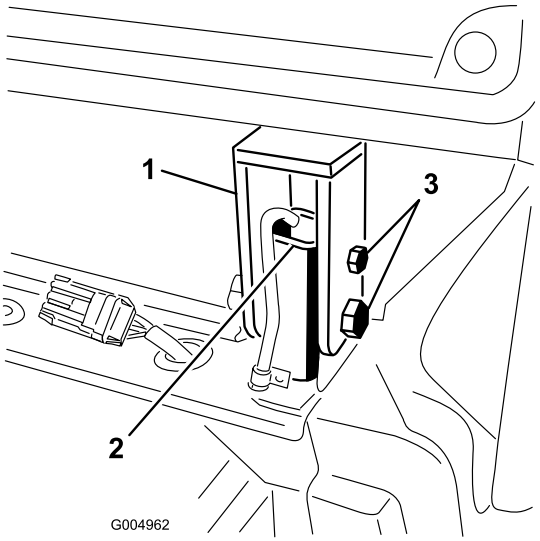


Figure 115

1. Cab mount
2. ROPS post
3. Bolts and nuts
4. ROPS post

39. Loosen the jacking bolts and remove the cab-jack tube from the cutouts in the cab floor (Figure 116).

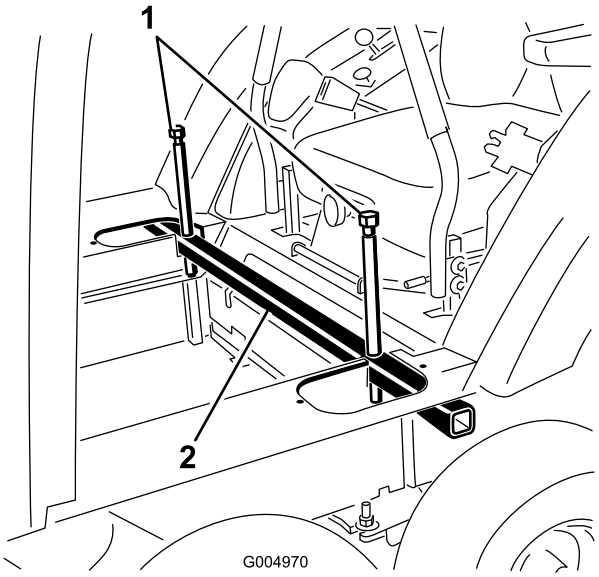


Figure 116

1. Jacking bolts
2. Cab-jack tube

40. Connect the hydraulic pressure hose to the valve hard line and the tank hose to the valve (Figure 117).

    Note: Retain the hose plugs for the summer change over.

    Note: Make sure that the hoses are not kinked or rubbing against any moving parts.

    Note: Adjust the angle of the fittings to accommodate the routing of the hoses.

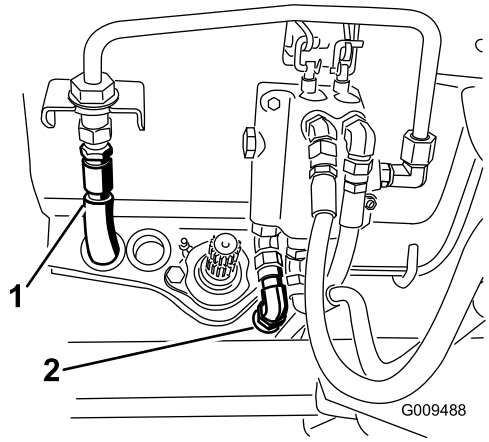


Figure 117

1. Pressure hose
2. Tank hose

41. Raise the rear of the machine until 2 jack stands can be positioned under the rear tube at a height that supports the rear tires 2.5 to 7.5 cm (1 to 3 inches) off the ground.
42. Lower the floor jack so the rear frame rests on the jack stands. Position the floor jack under the center of the front lift arm pivot tube.
43. Remove the flat washer (1/2 inch) and nut (1/2 inch) installed on the stud on the bogie pivot (Figure 118).

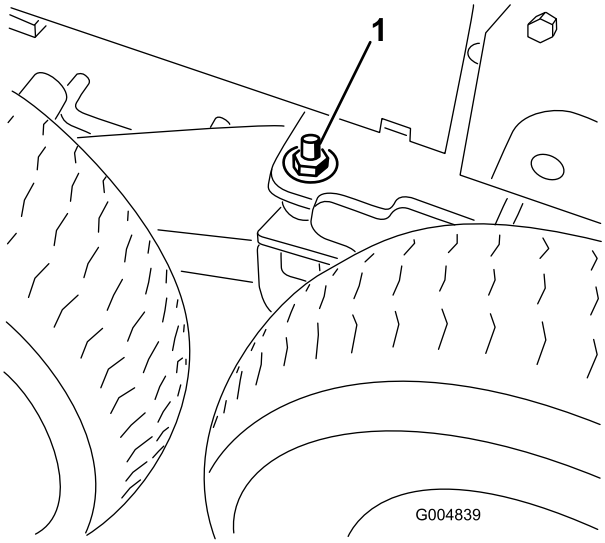


Figure 118

1. Washer and nut on the bogie pivot stud

44. Raise the floor jack until the front tires are off the ground high enough to install the track beneath them and support the frame with jack stands.
45. Remove the front and center tires from the winter assembly (Figure 119).

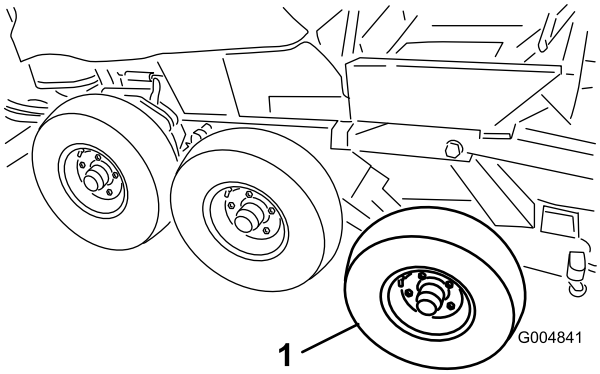


Figure 119

1. Front tire

46. Carefully lift the tracks over the rear wheel and front hubs. The direction of the track rotation is printed on the track. The V design in the rubber track must point forward.

⚠ CAUTION

The track guides have many pinch points. Coming into contact with one of these pinch points could cause severe personal injury.

Carefully grasp the rubber track on the outer edges outboard of the steel guides when moving the track.

47. Adjust the floor jack to a suitable height to install the front tire.
48. With a helper, lift the front of the track enough to carefully install the front tires (Figure 120).

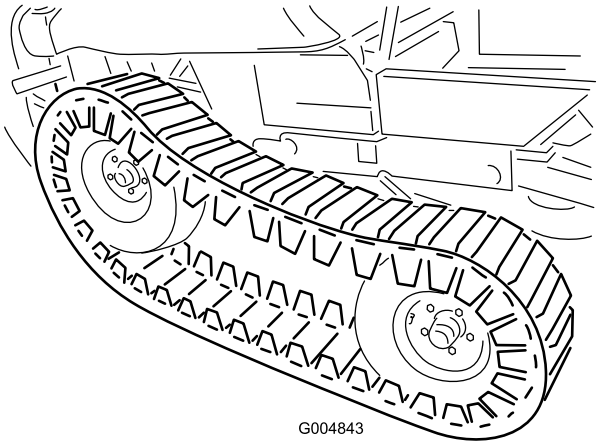


Figure 120

49. Adjust the floor jack to a suitable height to install the center tire. Lift the center of the track enough to install the center tire.

Note: Torque the lug nuts to 88 to 115 N-m (65 to 85 ft-lb).

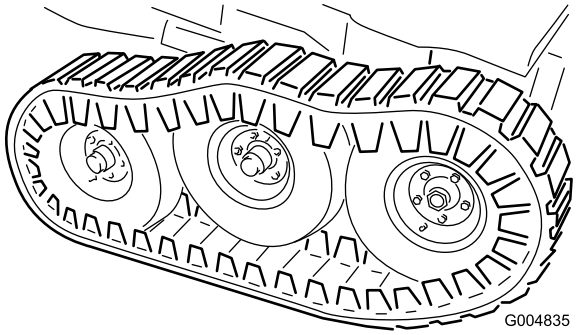


Figure 121

50. Lower the floor jack until the front wheels support the frame.
51. Install the flat washers (1/2 inch) and locknuts on the bogie pivot stud (Figure 121) and torque to 102 N-m (75 ft-lb).

    Note: You may need to move the floor jack to the rear bumper to raise the rear of the machine high enough to install the flat washer and locknut.
52. Install the side-access covers with the screws previously removed (Figure 122).

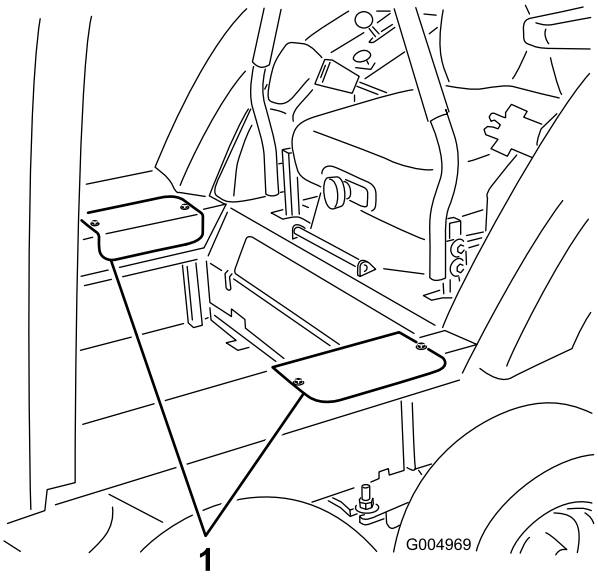


Figure 122

1. Access covers

53. Install the winter frame floor plate cover to the floor with the screws previously removed (Figure 123).

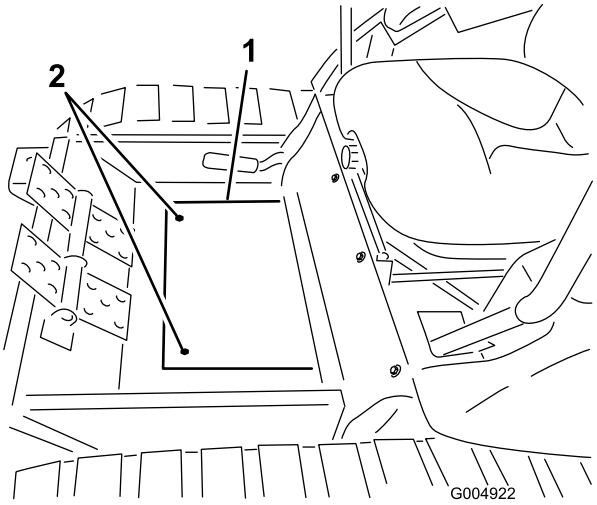


Figure 123

1. Floor-plate cover
2. Mounting screws

54. Connect the cab pressure and return hoses to the quick couplers on the rear-frame mount (Figure 124).

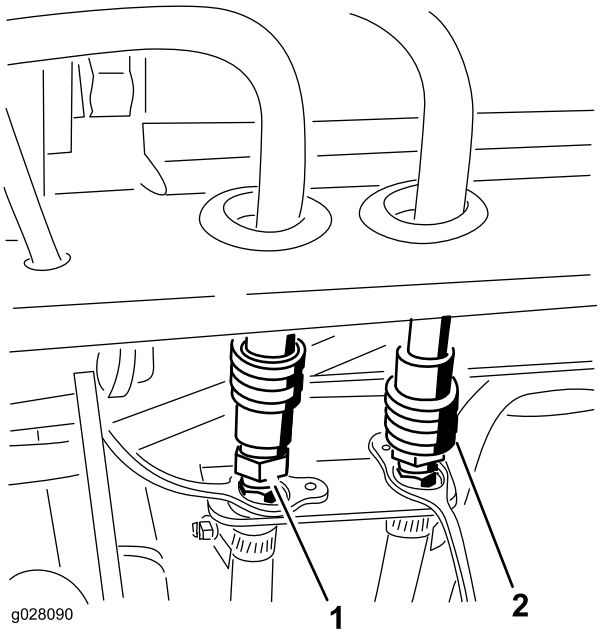


Figure 124

1. Pressure hose
2. Return hose

55. Remove the cap and plug the cab wiring harness connector into the harness on the rear frame mount.
56. Start the machine, run the lift arm up and down, and check for hydraulic leaks.
57. Check the antifreeze level and replenish it as required.

Maintenance

Recommended Maintenance Schedule(s)

Maintenance Service Interval	Maintenance Procedure
After the first 10 hours	• Torque the frame mounting bolts. • Torque wheel lug nuts.
Every 50 hours	• Lubricate grease fittings. • Check the tire pressure.
Every 200 hours	• Torque wheel lug nuts.

⚠ CAUTION

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

Remove the key from the ignition before you do any maintenance.

Lubrication

Greasing and Lubricating the Machine

Lubricate the machine every 50 hours. Grease more frequently when operating conditions are extremely dusty or sandy.

Grease Type: General-purpose grease.

Service Interval: Every 50 hours

1. Disengage the PTO and set the parking brake.
2. Stop the engine, remove the key, and wait for all moving parts to stop before leaving the operating position.
3. Clean the grease fittings with a rag. Make sure to scrape any paint off the front of the fitting(s).
4. Connect a grease gun to the fitting. Pump grease into the fittings until grease begins to ooze out of the bearings.
5. Wipe up any excess grease.

Determining Where to Add Grease

The grease fitting locations and quantities are:

Bogie pivot assembly: 2 (Figure 125)

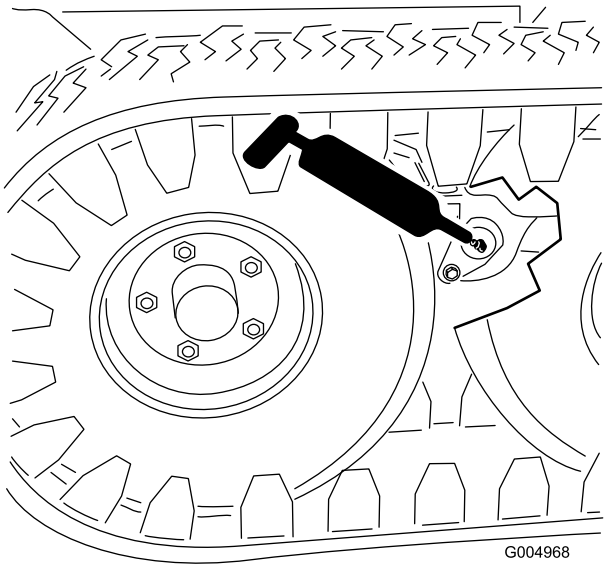


Figure 125

1. Bogie-pivot assembly (2)

PTO shaft bearings: 2 (Figure 126)

Hydraulic-cylinder pivot pins: 2 (Figure 126)

Lift arm pivot: 1 (Figure 126)

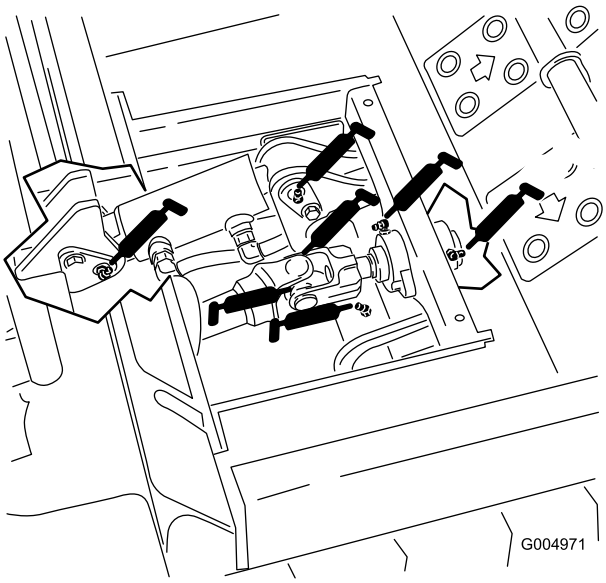


Figure 126

Electrical System Maintenance

Important: Whenever working with the electrical system, always disconnect the battery cables, negative (-) cable first, to prevent possible wiring damage from short-outs.

Checking the Fuses

Refer to the *Operator's Manual* supplied with the cab for instructions on fuses.

If the machine has any electrical system issues, check the fuses. Grasp each fuse and remove them one at a time, checking to see if any are blown. If you need to replace a fuse, always use the **same type and amperage rated fuse** as the 1 you are replacing, **otherwise you could damage the electrical system**

Note: If a fuse blows frequently, you probably have a short in the electrical system and should have it serviced by a qualified service technician.

Drive System Maintenance

Checking the Tire Pressure

Service Interval: Every 50 hours

Check the tire pressure every 50 hours (Figure 127).

Maintain the air pressure in the tires at 240 kPa (35 psi). Uneven tire pressure can cause loss of traction. If a loss of traction occurs, tire pressure may be increased to 344 kPa (50 psi) to increase track tension. Check the tires when they are cold to get the most accurate pressure reading.

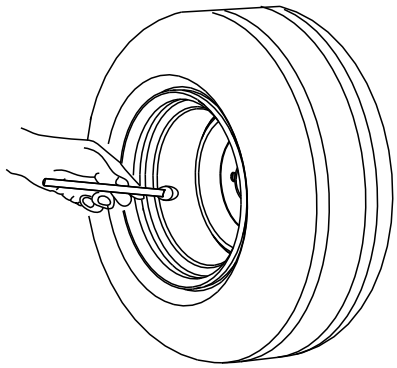


Figure 127

Removing the Rear Wheel

1. Raise the rear of machine until the track is about 2.5 cm (1 inch) off the floor and support it with jack stands.
2. Remove the 2 screws securing each side access cover and remove the covers (Figure 128).

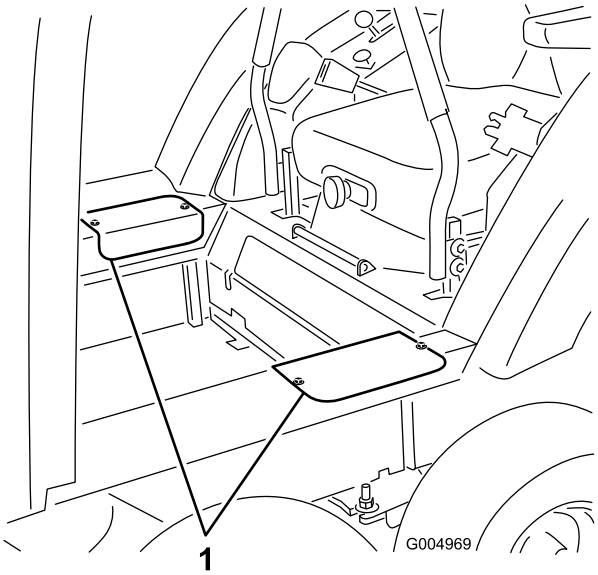


Figure 128

1. Access covers

3. Loosen and remove the locknut and flat washer from the bogie-pivot weldment (Figure 129).

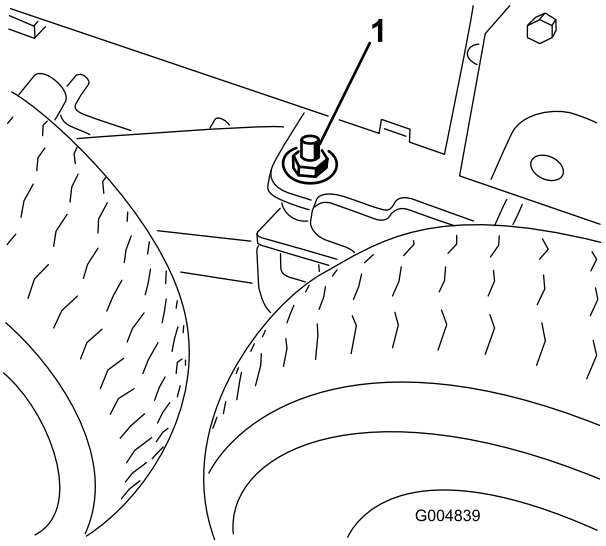


Figure 129

1. Washer and nut on the bogie pivot stud

4. Raise the front of the machine enough to relieve track tension and to allow the removal of the rear tire.

   Note: Support the front of the machine with jack stands.

5. Remove the lug nuts and carefully remove the wheel and tire.
6. Lower the floor jack until the front wheels support the frame.
7. Install the flat washers (1/2 inch) and locknuts on the bogie pivot stud (Figure 129).

   Note: Torque to 102 N-m (75 ft-lb).

   Note: You may need to move the floor jack to the rear bumper to raise the rear of the machine high enough to install the flat washer and locknut.

   Note: The front and center wheels can be removed without raising and supporting the rear of the machine.

Storage

Storing the Machine

1. Thoroughly clean the machine and cab, paying special attention to these areas:
   - PTO shaft assembly
   - All grease fittings and pivot points
   - Oil the spline on the PTO output shaft to prevent rusting
2. Check and adjust tire pressure; refer to Checking the Tire Pressure (page 49).
3. Check all fasteners for looseness and tighten them as necessary. Especially torque the 5 bolts securing the winter frame to the traction unit to 359 N-m (265 ft-lb).
4. Grease or oil all grease fittings and pivot points and wipe off any excess lubricant.
5. Lightly sand and use touch up paint on painted areas that are scratched, chipped or rusted. Repair any dents in the metal body.

Notes:

Notes:

Notes:

Declaration of Incorporation

The Toro Company, 8111 Lyndale Ave. South, Bloomington, MN, USA declares that the following unit(s) conform(s) to the directives listed, when installed in accordance with the accompanying instructions onto certain Toro models as indicated on the relevant Declarations of Conformity.

Model No.	Serial No.	Product Description	Invoice Description	General Description	Directive
30674	315000001 to 315999999 and Up	Polar Trac Cab, Groundsmaster 7200 Series Mower	CAB-POLAR TRAC	Polar Trac Cab	2006/42/EC. 2000/14/EC
30675	315000001 to 315999999 and Up	Polar Trac Kit, Groundsmaster 7200 Series Mower	GM7200 POLAR TRAC KIT FOR TORO CAB	Polar Trac Kit	2006/42/EC. 2000/14/EC

Relevant technical documentation has been compiled as required per Part B of Annex VII of 2006/42/EC.

We will undertake to transmit, in response to requests by national authorities, relevant information on this partly completed machinery. The method of transmission shall be electronic transmittal.

This machinery shall not be put into service until incorporated into approved Toro models as indicated on the associated Declaration of Conformity and in accordance with all instructions, whereby it can be declared in conformity with all relevant Directives.

Certified:

David Klis
Sr. Engineering Manager
8111 Lyndale Ave. South
Bloomington, MN 55420, USA
March 13, 2015

EU Technical Contact:

Peter Tetteroo
Toro Europe NV
B-2260 Oevel-Westerloo
Belgium

Tel. 0032 14 562960
Fax 0032 14 581911

International Distributor List

Distributor:	Country:	Phone Number:	Distributor:	Country:	Phone Number:
Agrolanc Kft	Hungary	36 27 539 640	Maquiver S.A.	Colombia	57 1 236 4079
Balama Prima Engineering Equip.	Hong Kong	852 2155 2163	Maruyama Mfg. Co. Inc.	Japan	81 3 3252 2285
B-Ray Corporation	Korea	82 32 551 2076	Mountfield a.s.	Czech Republic	420 255 704 220
Casco Sales Company	Puerto Rico	787 788 8383	Mountfield a.s.	Slovakia	420 255 704 220
Ceres S.A.	Costa Rica	506 239 1138	Munditol S.A.	Argentina	54 11 4 821 9999
CSSC Turf Equipment (pvt) Ltd.	Sri Lanka	94 11 2746100	Norma Garden	Russia	7 495 411 61 20
Cyril Johnston & Co.	Northern Ireland	44 2890 813 121	Oslinger Turf Equipment SA	Ecuador	593 4 239 6970
Cyril Johnston & Co.	Republic of Ireland	44 2890 813 121	Oy Hako Ground and Garden Ab	Finland	358 987 00733
Equiver	Mexico	52 55 539 95444	Parkland Products Ltd.	New Zealand	64 3 34 93760
Femco S.A.	Guatemala	502 442 3277	Perfetto	Poland	48 61 8 208 416
ForGarder OU	Estonia	372 384 6060	Pratoverde SRL.	Italy	39 049 9128 128
G.Y.K. Company Ltd.	Japan	81 726 325 861	Prochaska & Cie	Austria	43 1 278 5100
Geomechaniki of Athens	Greece	30 10 935 0054	RT Cohen 2004 Ltd.	Israel	972 986 17979
Golf international Turizm	Turkey	90 216 336 5993	Riversa	Spain	34 9 52 83 7500
Guandong Golden Star	China	86 20 876 51338	Lely Turfcare	Denmark	45 66 109 200
Hako Ground and Garden	Sweden	46 35 10 0000	Solvert S.A.S.	France	33 1 30 81 77 00
Hako Ground and Garden	Norway	47 22 90 7760	Spypros Stavrinides Limited	Cyprus	357 22 434131
Hayter Limited (U.K.)	United Kingdom	44 1279 723 444	Surge Systems India Limited	India	91 1 292299901
Hydroturf Int. Co Dubai	United Arab Emirates	97 14 347 9479	T-Markt Logistics Ltd.	Hungary	36 26 525 500
Hydroturf Egypt LLC	Egypt	202 519 4308	Toro Australia	Australia	61 3 9580 7355
Irrimac	Portugal	351 21 238 8260	Toro Europe NV	Belgium	32 14 562 960
Irrigation Products Int'l Pvt Ltd.	India	0091 44 2449 4387	Valtech	Morocco	212 5 3766 3636
Jean Heybroek b.v.	Netherlands	31 30 639 4611	Victus Emak	Poland	48 61 823 8369

European Privacy Notice

The Information Toro Collects
Toro Warranty Company (Toro) respects your privacy. In order to process your warranty claim and contact you in the event of a product recall, we ask you to share certain personal information with us, either directly or through your local Toro company or dealer.

The Toro warranty system is hosted on servers located within the United States where privacy law may not provide the same protection as applies in your country.

BY SHARING YOUR PERSONAL INFORMATION WITH US, YOU ARE CONSENTING TO THE PROCESSING OF YOUR PERSONAL INFORMATION AS DESCRIBED IN THIS PRIVACY NOTICE.

The Way Toro Uses Information
Toro may use your personal information to process warranty claims, to contact you in the event of a product recall and for any other purpose which we tell you about. Toro may share your information with Toro's affiliates, dealers or other business partners in connection with any of these activities. We will not sell your personal information to any other company. We reserve the right to disclose personal information in order to comply with applicable laws and with requests by the appropriate authorities, to operate our systems properly or for our own protection or that of other users.

Retention of your Personal Information
We will keep your personal information as long as we need it for the purposes for which it was originally collected or for other legitimate purposes (such as regulatory compliance), or as required by applicable law.

Toro's Commitment to Security of Your Personal Information
We take reasonable precautions in order to protect the security of your personal information. We also take steps to maintain the accuracy and current status of personal information.

Access and Correction of your Personal Information
If you would like to review or correct your personal information, please contact us by email at legal@toro.com.

Australian Consumer Law

Australian customers will find details relating to the Australian Consumer Law either inside the box or at your local Toro Dealer.

Toro General Commercial Product Warranty

A Two-Year Limited Warranty

Conditions and Products Covered

The Toro Company and its affiliate, Toro Warranty Company, pursuant to an agreement between them, jointly warrant your Toro Commercial product ("Product") to be free from defects in materials or workmanship for two years or 1500 operational hours*, whichever occurs first. This warranty is applicable to all products with the exception of Aerators (refer to separate warranty statements for these products). Where a warrantable condition exists, we will repair the Product at no cost to you including diagnostics, labor, parts, and transportation. This warranty begins on the date the Product is delivered to the original retail purchaser.
* Product equipped with an hour meter.

Instructions for Obtaining Warranty Service

You are responsible for notifying the Commercial Products Distributor or Authorized Commercial Products Dealer from whom you purchased the Product as soon as you believe a warrantable condition exists. If you need help locating a Commercial Products Distributor or Authorized Dealer, or if you have questions regarding your warranty rights or responsibilities, you may contact us at:

Toro Commercial Products Service Department
Toro Warranty Company
8111 Lyndale Avenue South
Bloomington, MN 55420-1196

952–888–8801 or 800–952–2740
E-mail: commercial.warranty@toro.com

Owner Responsibilities

As the Product owner, you are responsible for required maintenance and adjustments stated in your *Operator's Manual*. Failure to perform required maintenance and adjustments can be grounds for disallowing a warranty claim.

Items and Conditions Not Covered

Not all product failures or malfunctions that occur during the warranty period are defects in materials or workmanship. This warranty does not cover the following:

- Product failures which result from the use of non-Toro replacement parts, or from installation and use of add-on, or modified non-Toro branded accessories and products. A separate warranty may be provided by the manufacturer of these items.
- Product failures which result from failure to perform recommended maintenance and/or adjustments. Failure to properly maintain your Toro product per the Recommended Maintenance listed in the *Operator's Manual* can result in claims for warranty being denied.
- Product failures which result from operating the Product in an abusive, negligent, or reckless manner.
- Parts subject to consumption through use unless found to be defective. Examples of parts which are consumed, or used up, during normal Product operation include, but are not limited to, brake pads and linings, clutch linings, blades, reels, rollers and bearings (sealed or greasable), bed knives, spark plugs, castor wheels and bearings, tires, filters, belts, and certain sprayer components such as diaphragms, nozzles, and check valves, etc.
- Failures caused by outside influence. Conditions considered to be outside influence include, but are not limited to, weather, storage practices, contamination, use of unapproved fuels, coolants, lubricants, additives, fertilizers, water, or chemicals, etc.
- Failure or performance issues due to the use of fuels (e.g. gasoline, diesel, or biodiesel) that do not conform to their respective industry standards.
- Normal noise, vibration, wear and tear, and deterioration.
- Normal "wear and tear" includes, but is not limited to, damage to seats due to wear or abrasion, worn painted surfaces, scratched decals or windows, etc.

Parts

Parts scheduled for replacement as required maintenance are warranted for the period of time up to the scheduled replacement time for that part. Parts replaced under this warranty are covered for the duration of the original product warranty and become the property of Toro. Toro will make the final decision whether to repair any existing part or assembly or replace it. Toro may use remanufactured parts for warranty repairs.

Deep Cycle and Lithium-Ion Battery Warranty:

Deep cycle and Lithium-Ion batteries have a specified total number of kilowatt-hours they can deliver during their lifetime. Operating, recharging, and maintenance techniques can extend or reduce total battery life. As the batteries in this product are consumed, the amount of useful work between charging intervals will slowly decrease until the battery is completely worn out. Replacement of worn out batteries, due to normal consumption, is the responsibility of the product owner. Battery replacement may be required during the normal product warranty period at owner's expense. Note: (Lithium-Ion battery only): A Lithium-Ion battery has a part only prorated warranty beginning year 3 through year 5 based on the time in service and kilowatt hours used. Refer to the *Operator's Manual* for additional information.

Maintenance is at Owner's Expense

Engine tune-up, lubrication, cleaning and polishing, replacement of filters, coolant, and completing recommended maintenance are some of the normal services Toro products require that are at the owner's expense.

General Conditions

Repair by an Authorized Toro Distributor or Dealer is your sole remedy under this warranty.

Neither The Toro Company nor Toro Warranty Company is liable for indirect, incidental or consequential damages in connection with the use of the Toro Products covered by this warranty, including any cost or expense of providing substitute equipment or service during reasonable periods of malfunction or non-use pending completion of repairs under this warranty. Except for the Emissions warranty referenced below, if applicable, there is no other express warranty. All implied warranties of merchantability and fitness for use are limited to the duration of this express warranty.

Some states do not allow exclusions of incidental or consequential damages, or limitations on how long an implied warranty lasts, so the above exclusions and limitations may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

Note regarding engine warranty:

The Emissions Control System on your Product may be covered by a separate warranty meeting requirements established by the U.S. Environmental Protection Agency (EPA) and/or the California Air Resources Board (CARB). The hour limitations set forth above do not apply to the Emissions Control System Warranty. Refer to the Engine Emission Control Warranty Statement supplied with your product or contained in the engine manufacturer's documentation for details

Countries Other than the United States or Canada

Customers who have purchased Toro products exported from the United States or Canada should contact their Toro Distributor (Dealer) to obtain guarantee policies for your country, province, or state. If for any reason you are dissatisfied with your Distributor's service or have difficulty obtaining guarantee information, contact the Toro importer.

374-0253 Rev C