

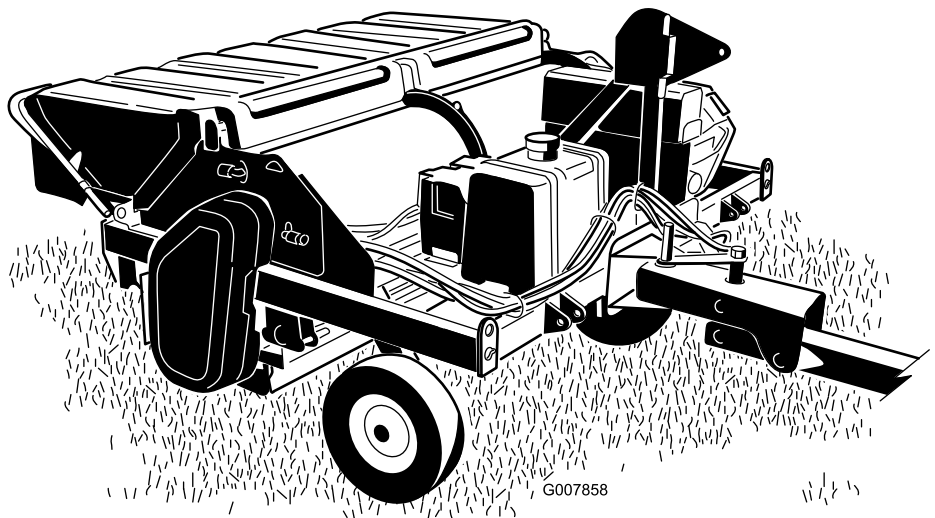


Count on it.

Operator's Manual

ProCore® Processor

Model No. 09749—Serial No. 315000001 and Up



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

This spark ignition system complies with Canadian ICES-002.



Figure 2

1. Safety-alert symbol

Introduction

This machine is intended to be used by professional, hired operators in commercial applications. The primary function of the machine is to sweep, process, and disperse aeration cores in one operation.

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 and accessory information, help finding an Authorized Toro 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.

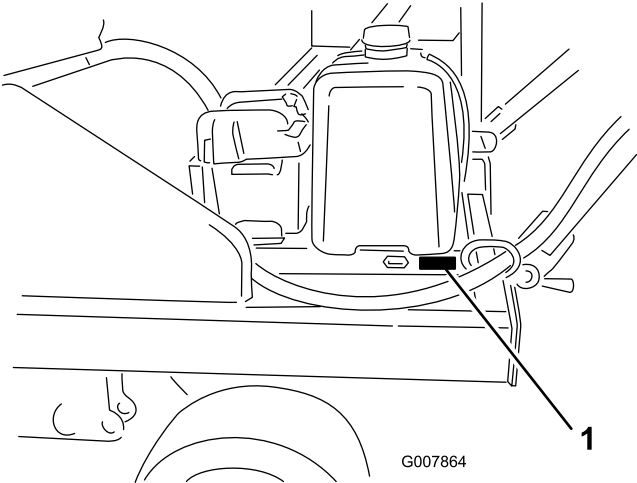


Figure 1

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.

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

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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 those in the traction unit *Operator's Manual*. 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.

To ensure optimum performance and continued safety certification of the machine, use only genuine Toro replacement parts and accessories. Replacement parts and accessories made by other manufacturers could be dangerous, and such use could void the product warranty.

Training

- Read the *Operator's Manual* and other training material carefully. Be familiar with the controls, safety signs, and proper use of equipment.
- Never allow children or people unfamiliar with these instructions to use or service the machine. Local regulations may restrict the age of the operator.
- Know how to stop the engine quickly.
- Keep all shields, safety devices, and decals in place. If a shield, safety device, or decal becomes damaged, illegible, or is malfunctioning, repair or replace it before operation is commenced. Also, tighten loose nuts and bolts to ensure that the machine is in safe operating condition.
- While operating the machine, always wear substantial, slip-resistant footwear, long trousers, hard hat, safety glasses, and ear protection. Long hair, loose clothing, or jewelry may get tangled in moving parts. Do not operate the equipment when barefoot or wearing open sandals.
- Wear safety glasses, safety shoes, long pants, and a helmet. It is required by some local ordinances and insurance regulations.
- Do not alter this equipment in any manner which may cause hazardous conditions.

Safe Handling of Fuels

- To avoid personal injury or property damage, use extreme care when handling gasoline. Gasoline is extremely flammable and the vapors are explosive.
- Extinguish all cigarettes, cigars, pipes, and other sources of ignition.
- Only use 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 the fuel cap and tighten securely.

While Operating

- Rotating parts can cause serious personal injury. Keep hands, feet, hair, and clothing away from all moving parts to prevent injury. Never operate the machine with covers, shrouds, or guards removed.
- Never operate the machine while under the influence of drugs or alcohol.
- Stop the core processor when a person or pet comes into operating area. Careless operation, combined with terrain angles, ricochets, or missing or damaged guards, can lead to thrown object injuries. Do not resume operation until area is cleared.
- Never carry passengers.
- If the tow vehicle engine stalls or the machine loses headway and cannot make it to the top of a slope, do not turn machine around. Always back slowly straight down the slope.
- To prevent loss of control, do the following:
 - Operate only in daylight or when there is good artificial light.
 - Drive slowly.
 - Watch for holes in the terrain or other hazards.
 - Use care when backing machine.
 - Do not drive close to a sand trap, ditch, creek, drop off, or other hazards.
 - Reduce speed when making sharp turns. Avoid sudden stops and starts.
 - Avoid turning the core processor on a hill side or embankment.
 - Do not go from reverse to forward nor forward to reverse without coming to a complete stop first.
 - When near or crossing roads, always yield the right-of-way.
- Do not operate this machine unless you are skilled in and trained on how to drive on hillsides. Failure to use caution

on slopes or hills may cause loss of control, possibly resulting in personal injury or death.

- Do not run the engine in a confined area without adequate ventilation. Exhaust fumes are hazardous and could possibly be deadly.
- 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.
- When using a Workman as a tow vehicle, it is recommended to put 227 kg (500 lb) of weight into the vehicle bed when operating on any slopes.

Maintenance

- Park machine on level ground. Never allow untrained personnel to service the machine.
- Use jack stands to support components when required. Performing maintenance on a machine not properly supported may cause the machine to fall and could cause injury.
- Carefully release pressure from components with stored energy.
- Disconnect battery or remove spark-plug wires before making any repairs. Disconnect the negative terminal first and the positive last. Reconnect positive first and negative last.
- Remove the key from the ignition switch to prevent accidental starting of the engine when servicing, adjusting, or storing the machine.
- To reduce a potential fire hazard, keep the engine free of excessive grease, grass, leaves, and accumulations of dirt. Never wash a warm engine or any electrical parts with water.
- Be sure that the machine is in safe operating condition by keeping nuts, bolts, and screws tight. Check the chopper shaft bearing mounting bolts and nuts frequently to be sure that they are tightened to specification.
- If the engine must be running to perform a maintenance adjustment, keep hands, feet, clothing, and other parts of the body away from the chopper and other moving parts.
- Do not overspeed the engine by changing the governor settings. To be sure of safety and accuracy, have your Toro Distributor check the maximum engine speed with a tachometer.
- The engine must be shutoff before checking the oil or adding oil to the crankcase.
- Keep hands and feet away from moving parts. If possible, do not make adjustments with the engine running.
- Charge batteries in an open well ventilated area, away from spark and flames. Unplug charger before connecting or disconnecting from battery. Wear protective clothing and use insulated tools.

- Keep all parts in good working condition and all hardware tightened. Replace all worn or damaged decals.
- Use only Toro approved attachments. Warranty may be voided if used with unapproved attachments.
- Hydraulic fluid escaping under pressure can penetrate skin and do serious damage. Keep body and hands away from pin hole leaks or nozzles that eject high pressure hydraulic fluid. Use cardboard or paper to find hydraulic leaks. Fluid accidentally injected into the skin must be surgically removed within a few hours by a doctor familiar with this form of injury or gangrene may result.
- Perform only those maintenance instructions described in this manual. If major repairs are ever needed or assistance desired, contact your Toro Distributor.
- Make sure that all hydraulic line connectors are tight, and all hydraulic hoses and lines are in good condition before applying pressure to the system.
- To ensure that the optimum performance is being met and for continued safety certification of the machine, use only genuine Toro replacement parts and accessories. Replacement parts and accessories made by other manufacturers could be dangerous, and such use could void the product warranty.

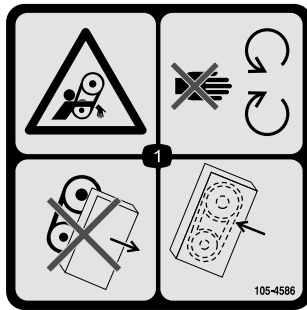
Hauling

- 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

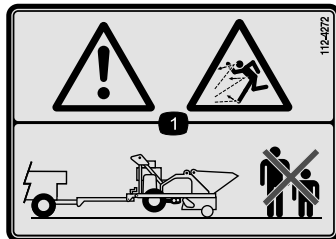


Safety decals and instructions are easily visible to the operator and are located near any area of potential danger. Replace any decal that is damaged or lost.



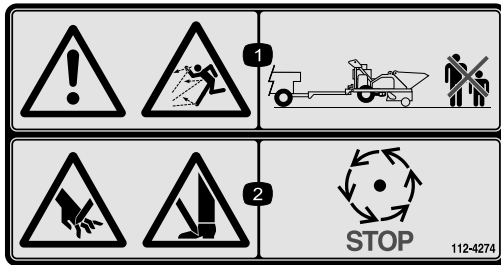
105-4586

1. Entanglement hazard, belt—stay away from moving parts. Do not operate the machine with the shields or guards removed; keep the shields and guards in place.



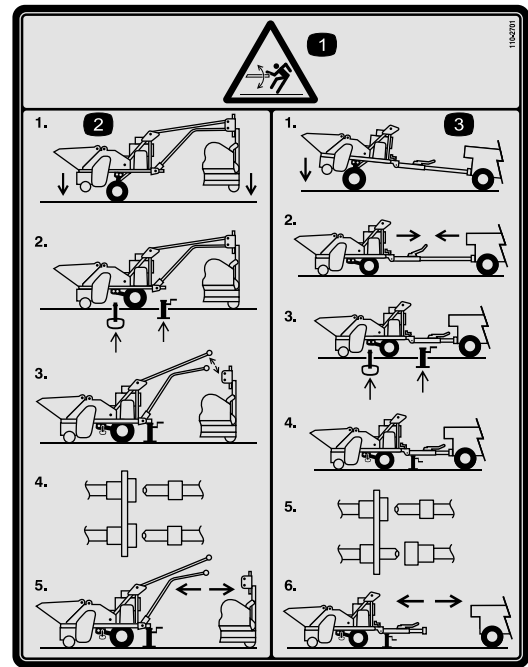
112-4272

1. Warning; thrown object hazard, bystanders—keep bystanders away from the machine.



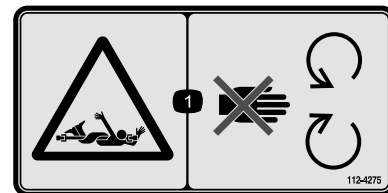
112-4274

1. Warning; thrown object hazard, bystanders—keep bystanders away from the machine.
2. Cutting hazard, hand and foot—wait for moving parts to stop.



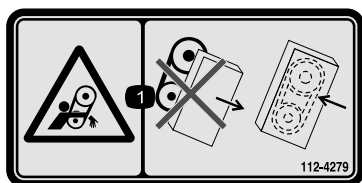
110-2701

1. Warning—stored energy hazard.
2. To disconnect the machine linked to an aerator, lower processor and aerator to the ground, engage the storage pin in the front hole and support the machine with a jackstand, disconnect the mechanical linkage from the aerator, disconnect the hydraulic lines, before driving away.
3. To disconnect the machine linked to a tow vehicle, lower processor to the ground, retract the tongue, engage the storage pin in the front hole and support the machine with a jackstand, disconnect the mechanical linkage from the tow vehicle, disconnect the hydraulic lines, before driving away.



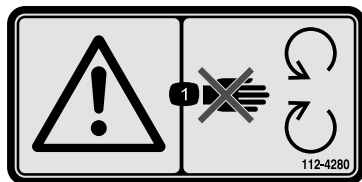
112-4275

1. Entanglement hazard, shaft—stay away from moving parts.



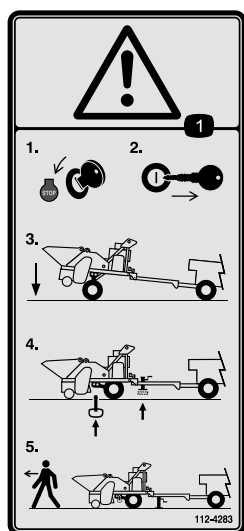
112-4279

1. Entanglement hazard, belt—keep all guards in place.



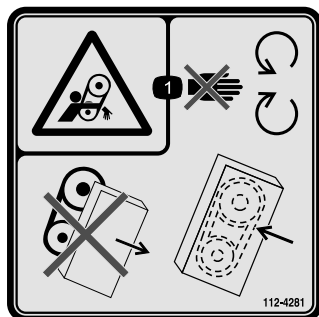
112-4280

1. Warning—stay away from moving parts.



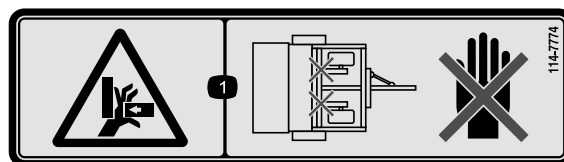
112-4283

1. Warning—stop the engine, remove the key, lower the machine, engage the storage pin in the front hole and use the jackstand before leaving the machine.



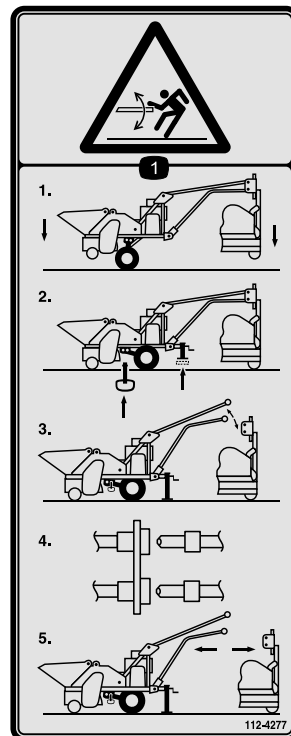
112-4281

1. Entanglement hazard, belt—stay away from moving parts; do not operate with guards removed; keep all guards in place.



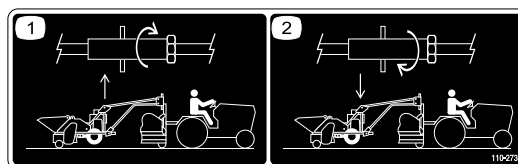
114-7774

1. Crushing hazard, hand—pinch point; keep hands away.



112-4277

1. Stored energy hazard—to disconnect the machine linked to an aerator, lower processor and aerator to the ground, engage the storage pin in the front hole and support the machine with a jackstand, disconnect the mechanical linkage from the aerator, disconnect the hydraulic lines, before driving away.



110-2737

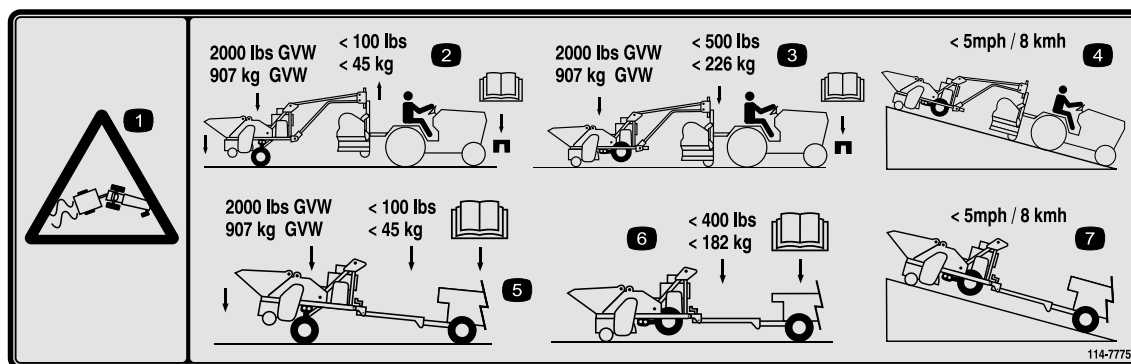
On One Pass Hitch, Model 09753

1. Rotation direction to raise the machine.
2. Rotation direction to lower the machine.



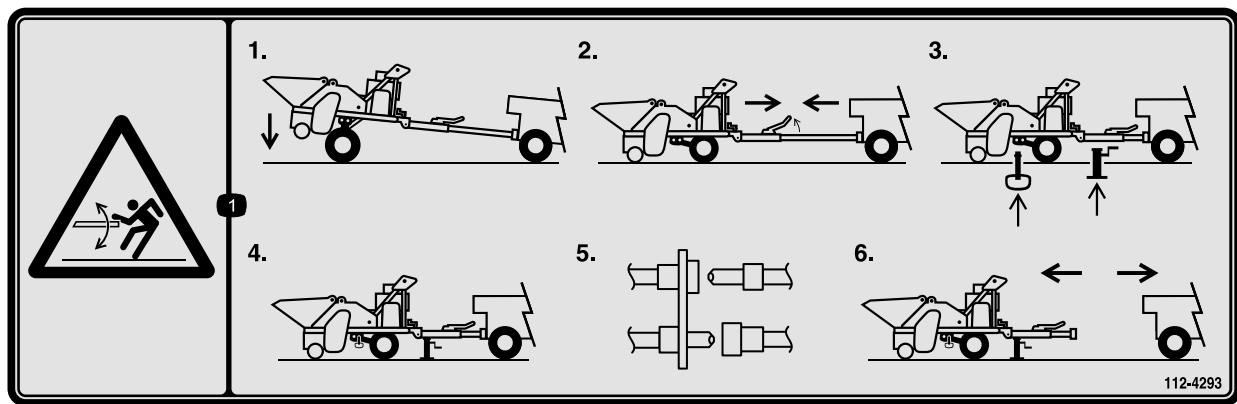
112-4276

1. Warning—read the *Operator's Manual*.
2. Warning—do not operate this machine unless you are trained.
3. Falling, crushing hazard, bystanders—no riders on machine.
4. Warning—stay away from moving parts; do not operate with guards removed, keep all guards in place.
5. Warning—keep hands and feet out of the sweeper brush.
6. Warning—keep bystanders away from the machine.
7. Warning—do not exceed 24 km/h (12 mph) when transporting the machine.



114-7775

1. Warning—sliding and loss of control hazard.
2. A core processor linked to an aerator and being towed has a gross vehicle weight of 907 kg (2000 lb) and a negative tongue weight of less than 45 kg (100 lb), read the tractor *Operator's Manual* to choose the correct weight kit.
3. A core processor linked to an aerator in operation has a gross vehicle weight of 907 kg (2000 lb) and a positive tongue weight of less than 226 kg (500 lb), read the tractor *Operator's Manual* to choose the correct weight kit.
4. Do not exceed 8 km/h (5 mph) on slopes when towing the core processor linked to an aerator.
5. A core processor linked to a tow vehicle has a gross vehicle weight of 907 kg (2000 lb) and a positive tongue weight of less than 45 kg (100 lb), read the *Operator's Manual* to choose the correct weight kit.
6. A core processor linked to a tow vehicle has a positive tongue weight of less than 182 kg (400 lb), read the tow vehicle *Operator's Manual* to choose the correct weight kit.
7. Do not exceed 8 km/h (5 mph) on slopes when towing the core processor linked directly to a vehicle.



112-4293

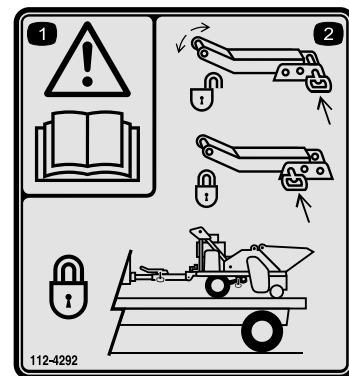
1. Stored energy hazard—lower processor to the ground, release tension by moving the tow vehicle closer to the machine, engage the storage pin in the front hole and support the machine with a jackstand, disconnect the mechanical linkage from the workman, disconnect the hydraulic lines, before driving away.



115-2999

On Tow Hitch, Model 09750

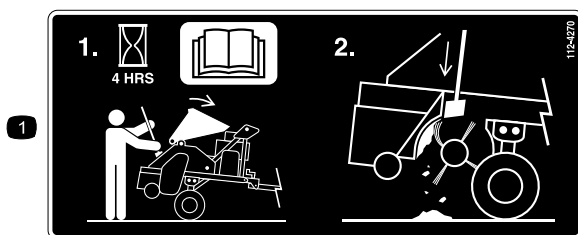
1. Crushing hazard, hand—pinch point; keep hands away.



112-4292

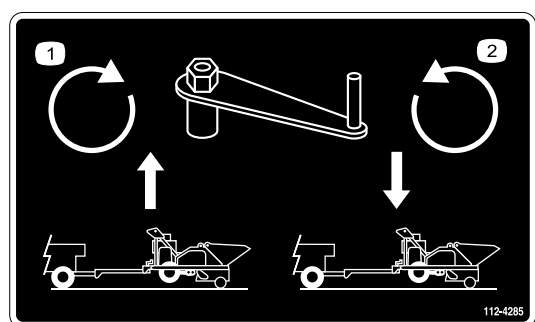
On Tow Hitch, Model 09750

1. Warning—read the *Operator's Manual*.
2. Move the pin out of the arm to unlock the tow hitch; move the pin into the arm to lock the tow hitch; lock the tow hitch whenever transporting the machine.



112-4270

1. Check the brush housing every 4 hours; read the *Operator's Manual*; raise brush cover and clean the brush housing.



112-4285

On Tow Hitch, Model 09750

1. Turn the crank clockwise to raise the machine.
2. Turn the crank counter clockwise to lower the machine.

Setup

Loose Parts

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

Procedure	Description	Qty.	Use
1	Electrolyte (not supplied)	A/R	Charge the battery.
2	Petroleum jelly (not supplied)	A/R	Install the battery.
3	Jack stand Jack-stand tube	1 1	Mount the jack stand.
4	Storage pin	2	Position the storage pins.
5	Hitch pin (included with the one-pass hitch) Lynch pin (included with the one-pass hitch) Hitch pin (included with the one-pass hitch) Lynch pin (included with the one-pass hitch) Cable tie	1 1 2 2 5	Mount the core processor to the tow vehicle.
6	No parts required	–	Disconnect the core processor from the tow vehicle.
7	Hitch pin (included with the tow hitch) Lynch pin (included with the tow hitch) Cable tie	1 1 12	Mount the core processor to the vehicle.
8	No parts required	–	Disconnect the core processor from the vehicle.
9	No parts required	–	Adjust the brush height.
10	No parts required	–	Level the core processor.

Media and Additional Parts

Description	Qty.	Use
Belt Tensioner Tool	1	Use to tension belts
Allen Wrench and Torque Gauge	1	Use to adjust bearings
Operator's Manual	1	Read prior to operating the machine
Engine Operator's Manual	1	Use for reference to engine operation
Parts Catalog	1	Use for reference to part numbers
Certificate of Conformity	1	CE compliance
Operator Training Material	1	View prior to operating the machine

Important: Refer to [Special Instructions for Workman and other utility tow vehicles \(tractors\)](#) (page 21) for special operating instructions for the Workman and other utility tow vehicles (tractors).

1

Removing, Activating, and Charging the Battery

Parts needed for this procedure:

A/R	Electrolyte (not supplied)
-----	----------------------------

Procedure

1. If the battery is not filled with electrolyte or activated, bulk electrolyte with 1.260 specific gravity must be purchased from a battery supplier and added to the battery.

⚠ DANGER

Battery electrolyte contains sulfuric acid which is a deadly poison and causes severe burns.

- Do not drink electrolyte and avoid contact with skin, eyes or clothing. Wear safety glasses to shield your eyes and rubber gloves to protect your hands.
- Fill the battery where clean water is always available for flushing the skin.

2. Remove the strap securing the battery cover to the battery box ([Figure 3](#)).

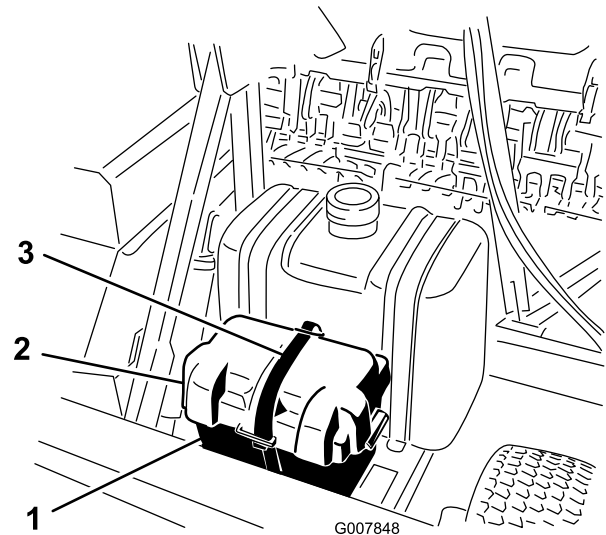


Figure 3

1. Battery box
2. Battery cover
3. Strap

3. Remove the cover and lift the battery out of the battery box.
4. Clean the top of the battery and remove the vent caps ([Figure 4](#)).

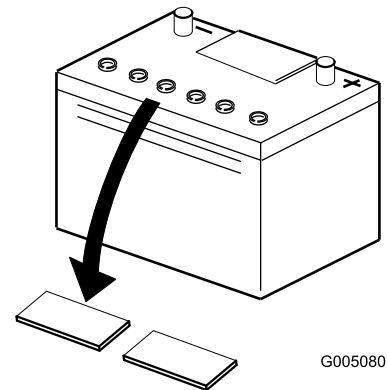


Figure 4

5. Carefully fill each cell with electrolyte until the plates are covered with about 6 mm (1/4 inch) of fluid ([Figure 5](#)).

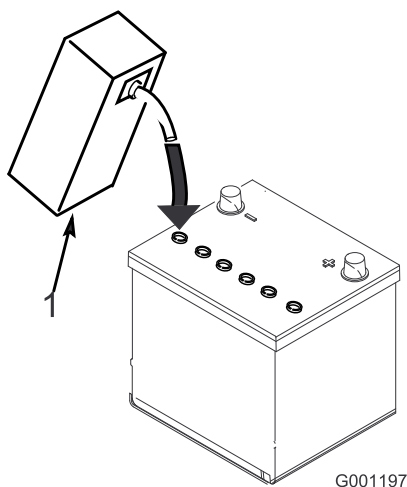


Figure 5

1. Electrolyte

Important: Do not overfill the battery as this allows electrolytes to overflow onto other parts of the machine and cause severe corrosion and deterioration.

6. Replace the vent caps.
7. Connect a 3 to 4 A battery charger to the battery posts (Figure 6). Charge the battery at a rate of 3 to 4 A for 4 to 8 hours.

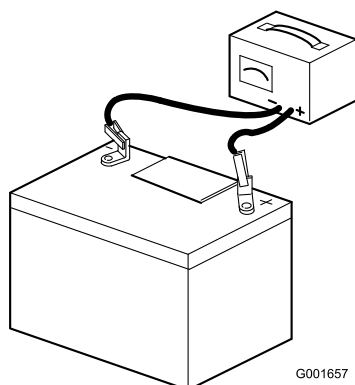


Figure 6

⚠ WARNING

Charging the battery produces gasses that can explode.

Never smoke near the battery and keep sparks and flames away from battery.

8. When the battery is charged, disconnect the charger from the electrical outlet and the battery posts. Allow the battery to sit for 5 to 10 minutes before proceeding to the next step.

2

Installing the Battery

Parts needed for this procedure:

A/R	Petroleum jelly (not supplied)
-----	--------------------------------

Procedure

1. Slide the battery into the battery box with the terminals facing rearward.

⚠ WARNING

Battery terminals or metal tools could short against metal processor components causing sparks. Sparks can cause the battery gasses to explode, resulting in personal injury.

- When removing or installing the battery, do not allow the battery terminals to touch any metal parts of the tractor.
- Do not allow metal tools to short between terminals and metal parts of the tractor.

2. Attach the negative (black) cable to the negative (-) terminal of the battery.

⚠ WARNING

Incorrect battery cable routing could damage the processor and cables causing sparks. Sparks can cause the battery gasses to explode, resulting in personal injury.

- Always disconnect the negative (black) battery cable before disconnecting the positive (red) cable.
- Always connect the positive (red) battery cable before connecting the negative (black) cable.

3. Attach the positive (red) cable to the positive (+) terminal.
4. Coat the terminals and mounting fasteners with petroleum jelly to prevent corrosion.
5. Install the battery cover and secure with the strap.

3

Mounting the Jack Stand

Parts needed for this procedure:

1	Jack stand
1	Jack-stand tube

Procedure

One-Pass Hitch

1. Remove the bolt and nut securing the tow bar to the front of the core processor (Figure 7).
2. Remove the tow bar.

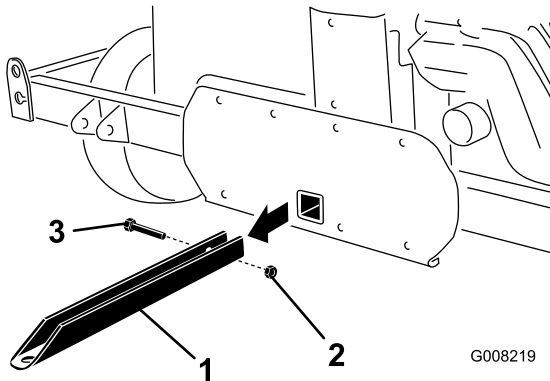


Figure 7

1. Tow bar
2. Bolt
3. Nut

3. Insert the jack-stand tube into the tow bar mounting hole (Figure 8).

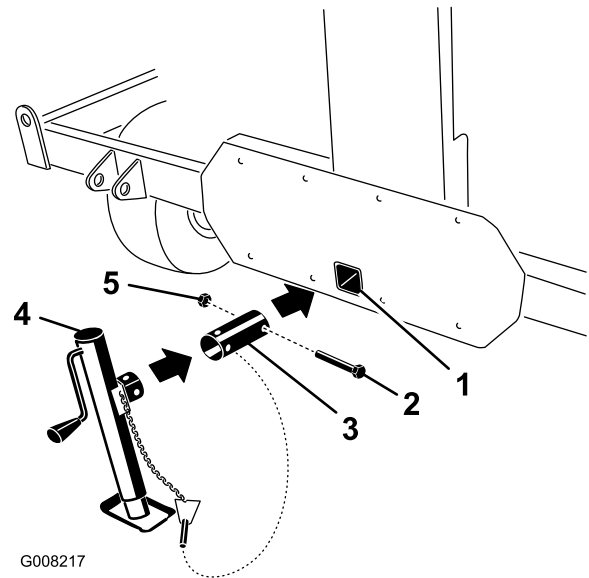


Figure 8

1. Tow bar mounting hole
2. Bolt
3. Jack-stand tube
4. Jack stand
5. Nut

4. Rotate the tube until the holes line up with the holes in the core processor.
5. Using the bolt and nut previously removed, secure the tube to the core processor (Figure 8).
6. Slide the jack stand onto the jack tube, align the mounting holes, and secure with the lynch pin (Figure 8 and Figure 9).

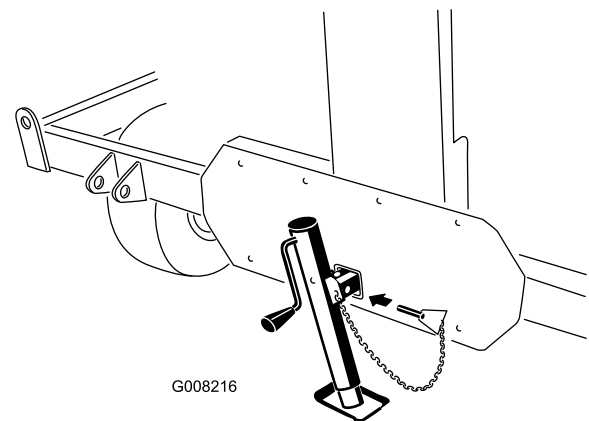


Figure 9

Workman Tow Hitch

- 1. On the side of the tow hitch, slide the jack onto the jack tube (Figure 10).

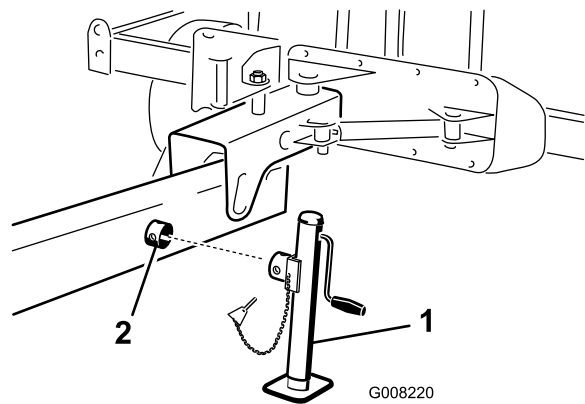


Figure 10

- 1. Jack stand
- 2. Jack-stand tube

- 2. Rotate the jack stand to align the holes and secure with the lynch pin (Figure 10).

4

Positioning the Storage Pins

Parts needed for this procedure:

2	Storage pin
---	-------------

Procedure

The storage pins (Figure 11) are to be inserted into the front or rear holes of the core processor.

Front Hole Position

When the storage pins are inserted into the front holes, the core processor can safely be disconnected and removed from the tow vehicle (Figure 11).

Rear Hole Position

After the core processor is connected to the tow vehicle, insert the storage pins into the rear holes (Figure 11).

Important: The core processor can only be operated when the pins are in the rear position

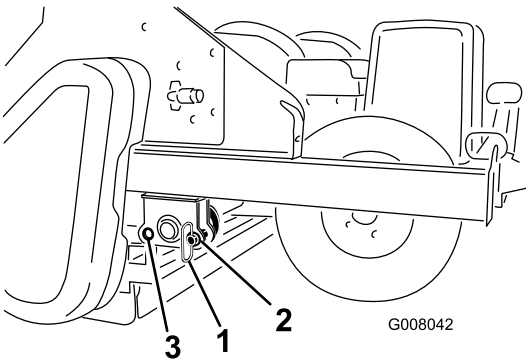


Figure 11

- 1. Storage pin
- 2. Front hole (core processor disconnected from tow vehicle)
- 3. Rear hole (core processor connected to tow vehicle)

5

Mounting the Core Processor for One-Pass Operation

Parts needed for this procedure:

1	Hitch pin (included with the one-pass hitch)
1	Lynch pin (included with the one-pass hitch)
2	Hitch pin (included with the one-pass hitch)
2	Lynch pin (included with the one-pass hitch)
5	Cable tie

Procedure

Note: The core processor must be equipped with the One Pass Hitch Kit (Model 09753) before it can be mounted to the aerator.

- 1. Make sure that the processor brush is set for correct height of cut.
- 2. Using a tie down or rope, secure the tow-arm hitch plate to the frame hitch pivot while raising the tow-arm for installation (Figure 12).

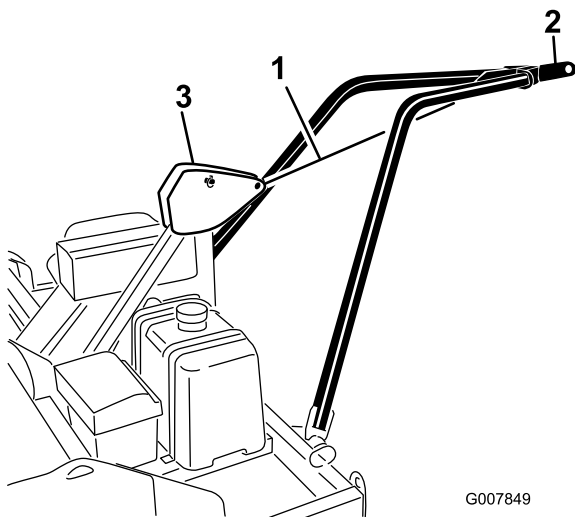


Figure 12

1. Tie down or rope
2. Tow-arm-hitch plate
3. Frame hitch pivot

3. Back the tractor/aerator into position in front of the core processor.
4. Remove the tie down or rope and lower the tow-arm-hitch plate into the aerator hitch pivot (Figure 13).

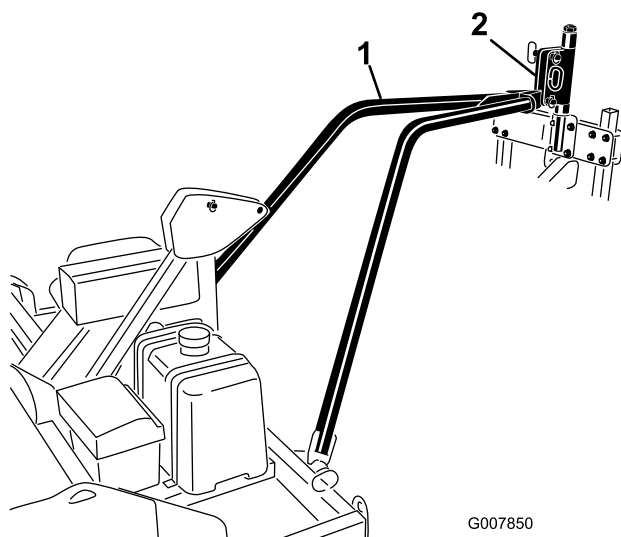


Figure 13

1. Tow-arm-hitch plate
2. Aerator hitch pivot

5. Align the hole in the tow arm hitch plate with the lower holes in the aerator hitch pivot (Figure 14).
6. Secure the tow-arm-hitch plate to the aerator hitch pivot with a hitch pin and lynch pin.
7. Lower the aerator to the ground
8. Secure the pitch control link to the top holes in the aerator hitch pivot and the frame hitch pivot with hitch pins and lynch pins (Figure 14).

- Connect the control link to the front holes in the frame hitch pivot when operating ProCore 864 and 880 aerators.
- Connect the control link to the rear holes in the frame hitch pivot when operating a ProCore 660 aerator.

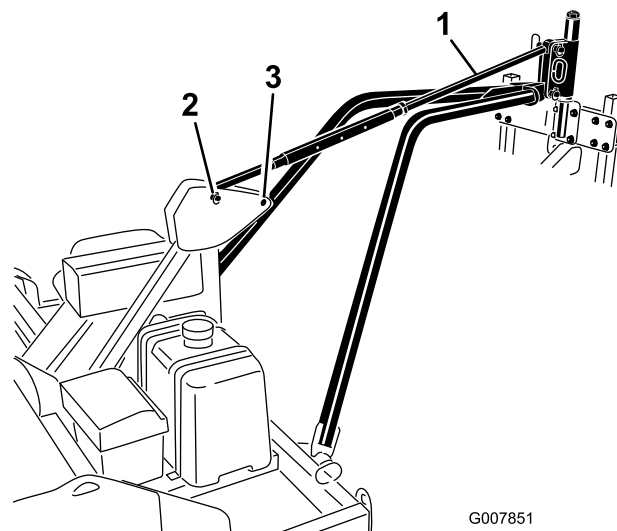


Figure 14

1. Pitch-control link
2. Front mounting holes (ProCore 880 and 864 Aerators)
3. Rear mounting holes (ProCore Aerator)

9. Route the hydraulic hoses to the tractor and connect to the quick couplers.
10. Make sure that the hydraulic hoses are properly connected to the processor and the tractor.
11. Route the control harness to the tractor operators position.
12. Secure the hydraulic hoses and the wire harness to the tow-arms with cable ties.

Important: When turning the tractor to the right or left, make sure that the hydraulic hoses or control harness do not become disconnected or damaged.

13. Operate the core processor and check the hydraulic fluid level in the tow vehicle. Replenish as required.
14. Remove the storage pins from the front hole position and insert them into the rear hole position during operation (Figure 15).

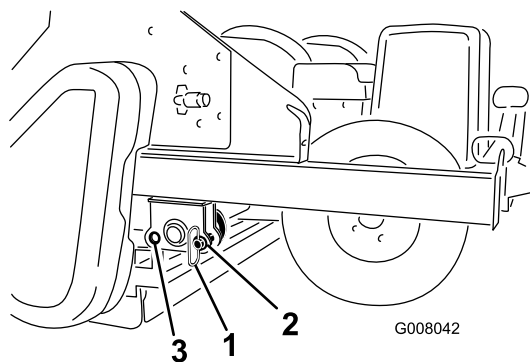


Figure 15

1. Storage pin
2. Front hole (core processor disconnected from tow vehicle)
3. Rear hole (core processor connected to tow vehicle)

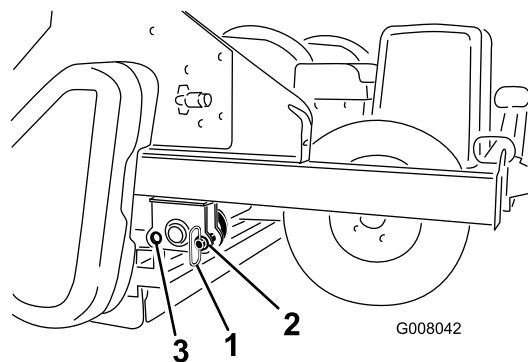


Figure 16

1. Storage pin
2. Front hole (core processor disconnected from tow vehicle)
3. Rear hole (core processor connected to tow vehicle)

Important: When changing tow vehicles or tractors, make sure that the hydraulic fluids are compatible with the core processors. If the fluids are not compatible, remove any fluid remaining in the core processor.

6

Disconnecting the Core Processor from the Tow Vehicle

No Parts Required

Procedure

1. Remove the storage pins from the rear hole position (Figure 16).
2. Slowly lower the processor until it comes to rest on the rear roller and tires.
3. Install the storage pins into the front hole position (Figure 16).
4. After the storage pins are installed, turn off the tow vehicle.

5. Lower the jack to the ground to stabilize the machine (Figure 17).

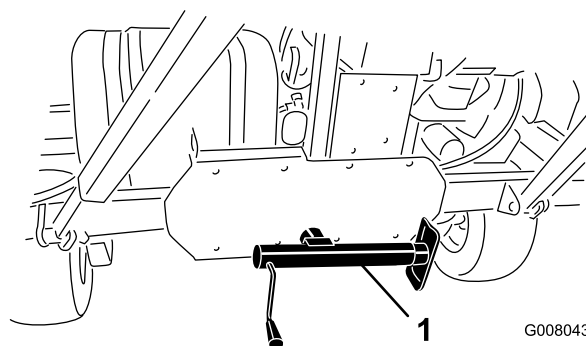


Figure 17

1. Jack
6. Move the hydraulic-lift lever back and forth to remove pressure from hydraulic lines.
7. Disconnect the hydraulic hoses from the tractor.
8. Remove the remote control from the vehicle.
9. Wind the hoses and cable onto the harness mount for storage.
10. Remove the lynch pin and hitch pins securing the pitch control link.
11. Remove the pitch control link.
12. Remove the lynch pin and hitch pins securing the tow-arms to the aerator.

Note: You may need to slightly raise the aerator to remove the hitch pins.

Note: You may need to slightly raise the aerator to remove the hitch pins.

7

Mounting the Core Processor to the Workman Vehicle

Parts needed for this procedure:

1	Hitch pin (included with the tow hitch)
1	Lynch pin (included with the tow hitch)
12	Cable tie

Procedure

Note: The core processor must be equipped with the Tow Hitch Kit (Model 09750) before it can be mounted to the vehicle.

1. Back the vehicle into position in front of the core processor. Make sure that the processor brush is set for the correct height of cut.
2. Adjust the processor hitch tongue to the same level as the vehicle hitch (Figure 18).

Note: The core processor frame should be level with the ground when it is on the rear roller.

3. Connect the processor hitch to the vehicle hitch with a hitch pin and lynch pin (Figure 18).

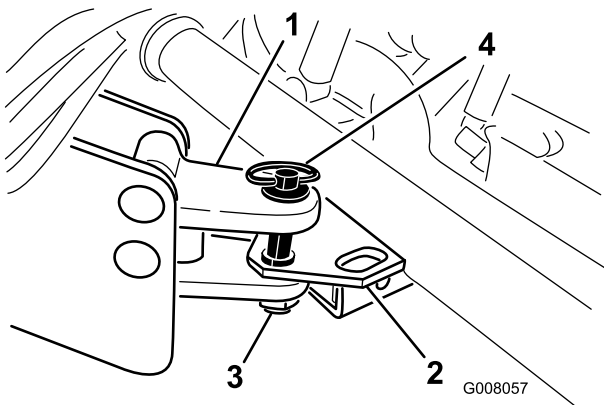


Figure 18

1. Processor hitch
2. Tow vehicle hitch
3. Lynch pin
4. Hitch pin

4. Raise the jack and secure it in the storage position (Figure 19).

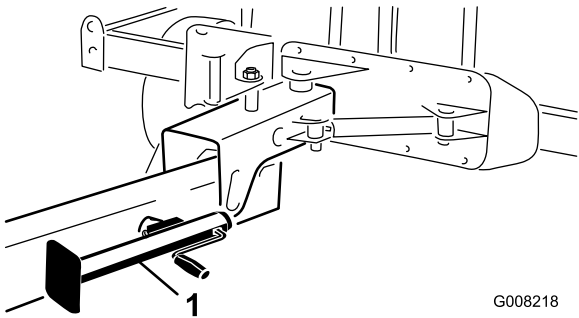


Figure 19

1. Jack

5. Connect the hydraulic hoses to the vehicle quick couplers. Make sure that the hydraulic hoses are properly connected to the processor and the vehicle.
6. Route the control harness over the bed of the vehicle to the operators position.

Important: Make sure that the hoses and control harness are not kinked and that they bend freely during operation.

7. Remove the storage pins from the front hole position and insert into the rear hole position during operation (Figure 20).

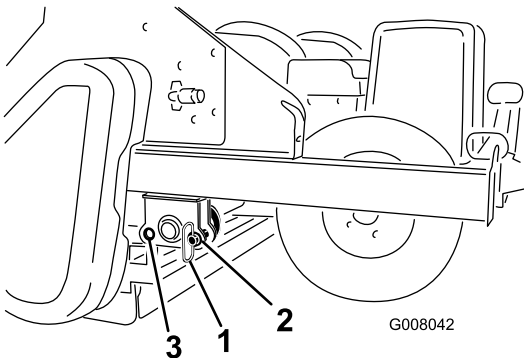


Figure 20

1. Storage pin
2. Front hole (core processor disconnected from tow vehicle)
3. Rear hole (core processor connected to tow vehicle)

8. To extend the tow hitch, proceed as follows:
 - A. Make sure that the latch-handle pin is in the unlocked (rear) position (Figure 21).

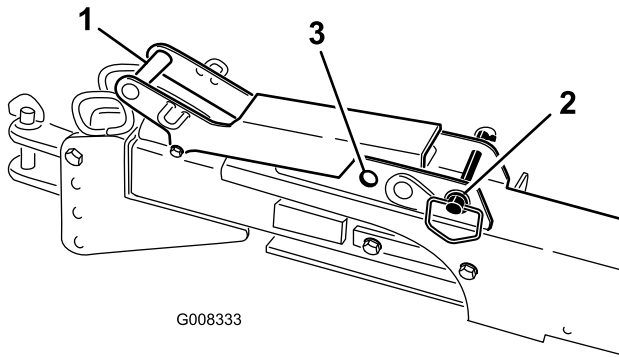


Figure 21

1. Latch handle
2. Latch-handle pin in the unlocked position
3. Locked position

B. Lift up on the latch handle (Figure 22).

C. Slowly drive the vehicle forward until the hitch assembly locks into place (Figure 22).

Note: Lock the hitch assembly in the extended position by moving the latch handle pin to the forward (locked) position (Figure 21).

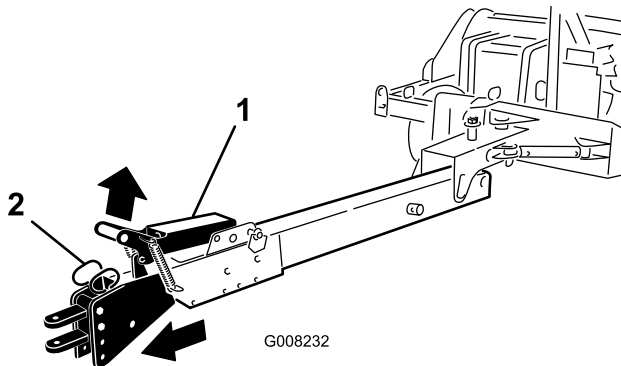


Figure 22

1. Latch handle
2. Hitch assembly

9. Operate the core processor and check the hydraulic fluid level in the vehicle. Replenish as required.

8

Disconnecting the Core Processor from the Workman Vehicle

No Parts Required

Procedure

1. Remove the storage pins from the rear hole position (Figure 23).

2. Slowly lower the processor until it comes to rest on the rear roller and tires.
3. Install the storage pins in the front hole position (Figure 23).
4. After the storage pins are installed, turn the tractor to the OFF position.

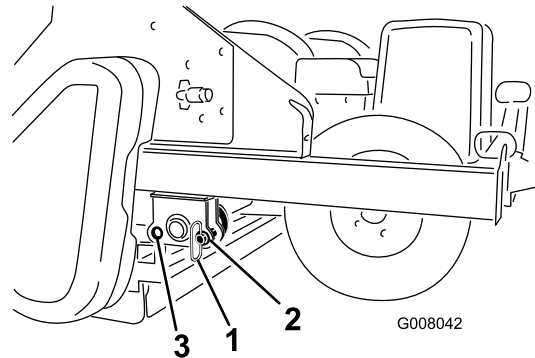


Figure 23

1. Storage pin
2. Front hole (core processor disconnected from tow vehicle)
3. Rear hole (core processor connected to tow vehicle)

5. Disconnect the hydraulic hoses.
6. Remove the remote control from the vehicle.
7. Wind the hoses and cable onto the harness mount for storage.
8. To retract the tow hitch, lift up on the latch handle and slowly back up the vehicle until the hitch assembly locks into place (Figure 22).
9. Lower the jack to the ground to stabilize the machine (Figure 24).

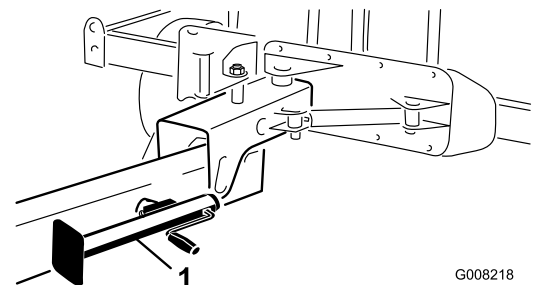


Figure 24

1. Jack

Important: Make sure that the tongue assembly is retracted before disconnecting the processor hitch tongue from the vehicle hitch.

10. Remove the lynch pin and hitch pin securing the processor hitch tongue to the vehicle hitch.

9

Adjusting the Brush Height

No Parts Required

Procedure

Refer to [Adjusting the Brush Height \(page 23\)](#).

10

Leveling the Core Processor

No Parts Required

Procedure

Refer to [Leveling the Core Processor \(page 24\)](#).

Product Overview

Controls

Brush/Chopper

Note: There are no controls to turn the brush/chopper ON or OFF. The brush/chopper engages when you increase the engine speed; it decreases when you move the throttle to low idle or you stop the engine.

Lift/Offset Controls

The lift/offset functions run off the tow vehicle hydraulic system. Refer to the tow vehicle *Operator's Manual* for hydraulic system control information.

Note: The lift/offset control only functions when the core processor engine switch is in the ON position.

Lift/offset switch

The lift/offset switch (Figure 25) allows tow vehicle hydraulic system to operate in the lift or offset mode.

Engine Stop Switch

Press the switch to stop the engine (Figure 25).

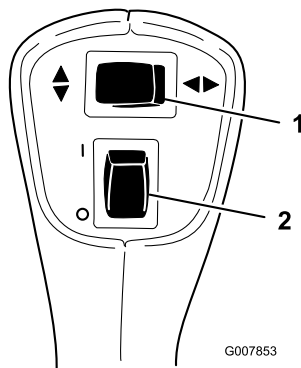


Figure 25

1. Lift/offset switch
2. Engine stop switch

Important: If you need to stop quickly, lift the aerator and then stop the tractor. If you stop the tractor before you lift the aerator, the turf will be damaged.

Choke Control

To start a cold engine, pull choke-control lever (Figure 26) out to the ON position.

Ignition Switch

The ignition switch (Figure 26) which is used to start and stop the engine, has 3 positions: OFF, RUN and START. Turn the key to the START position to engage the starter motor. Release the key when the engine starts. The key moves automatically to the ON position. To shut engine off, move throttle control to the SLOW position and wait for the engine to decelerate and then turn the key to the OFF position.

Throttle Control

The throttle (Figure 26) is used to operate engine at various speeds. To increase the engine speed, move the throttle lever to the FAST position. To decrease the engine speed, move the throttle lever to the SLOW position. Always run the engine at full throttle.

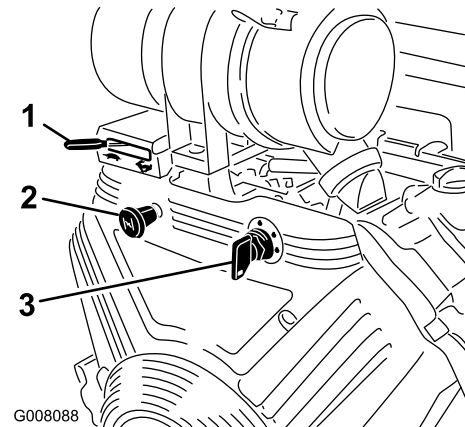


Figure 26

1. Throttle control
2. Choke control
3. Ignition switch

Hour Meter

The hour meter (Figure 27) indicates the total hours of machine operation.

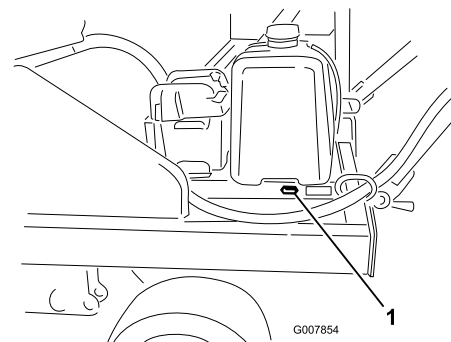


Figure 27

1. Hour meter

Specifications

Note: Specifications and design are subject to change without notice.

Overall width	224 cm (88 inches)
Brush width	178 cm (70 inches)
Chopper width	178 cm (70 inches)
Length with out tow hitch	178 cm (70 inches)
Length with 3 point tow hitch	338 cm (133 inches)
Length with offset hitch	404 cm (159 inches)
Transport height ground clearance	30 cm (12 inches)
Wheel base width	175 cm (69 inches)
Net weight	903 kg (1990 lb)

Special Instructions for Workman and other utility tow vehicles (tractors)

- The Toro core processor can be towed by most utility tractors equipped with hydraulics producing 26 to 30 L/min (7 to 8 gpm) at 13790 kPa (2000 psi). The tractor must have adequate brakes and drawbar hitch capacity to handle a 907 kg (2000 lb) trailer. Refer to the tractor *Operator's Manual* for towing instruction and precautions.
- Workman vehicles, Serial Number 280000001 and up, come equipped for use with the core processor. All other workman vehicles, must be equipped with remote hydraulics producing 11 to 19 L/min (3 to 4 gpm) at 12411 kPa (1800 psi) and the Heavy Duty Drawbar (Model 44212 or 44213). (The 4 wheel drive model is the best for hilly or bermed greens). Also, add 227 kg (500 lb) of weight to the vehicle bed.

Tow Vehicle	Minimum Flow	Maximum Flow	Relief Pressure
Workman Vehicle	3 gpm	4 gpm	12411 kPa (1800 psi)
Tractor	7 gpm	8 gpm	13790 kPa (2000 psi)

- The core processor is not equipped with trailer brakes. Maximum transport speed must not exceed 24 km/h (15 mph).

Attachments/Accessories

A selection of Toro approved attachments and accessories is available for use with the machine to enhance and expand its capabilities. Contact your Authorized Service Dealer or Distributor or go to www.Toro.com for a list of all approved attachments and accessories.

To best protect your investment and maintain optimal performance of your Toro equipment, count on Toro genuine parts. When it comes to reliability, Toro delivers replacement parts designed to the exact engineering specification of our equipment. For peace of mind, insist on Toro genuine parts.

Operation

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

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 prevents you from accidentally stripping the bolts free of the retainers.

Adding Fuel

- **Fuel tank capacity:** 37.9 L (10 US gallons)
 - For best results, use only clean, fresh (less than 30 days old), unleaded gasoline with an octane rating of 87 or higher (R+M)/2 rating method).
 - Ethanol: Gasoline with up to 10% ethanol (gasohol) or 15% MTBE (methyl tertiary butyl ether) by volume is acceptable. Ethanol and MTBE are not the same. Gasoline with 15% ethanol (E15) by volume is not approved for use. Never use gasoline that contains more than 10% ethanol by volume, such as E15 (contains 15% ethanol), E20 (contains 20% ethanol), or E85 (contains up to 85% ethanol). Using unapproved gasoline may cause performance problems and/or engine damage, which may not be covered under warranty.
 - Do not use gasoline containing methanol.
 - Do not store fuel either in the fuel tank or fuel containers over the winter, unless you use a fuel stabilizer.
 - Do not add oil to gasoline.

Important: Do not use fuel additives other than a fuel stabilizer/conditioner. Do not use fuel stabilizers with an alcohol base, such as ethanol, methanol, or isopropanol.

DANGER

In certain conditions, gasoline is extremely flammable and highly explosive. A fire or explosion from gasoline can burn you and others and can damage property.

- Fill the fuel tank outdoors, in an open area, when the engine is cold. Wipe up any gasoline that spills.
- Never fill the fuel tank inside an enclosed trailer.
- Do not fill the fuel tank completely full. Add gasoline to the fuel tank until the level is 6 to 13 mm (1/4 to 1/2 inch) below the bottom of the filler neck. This empty space in the tank allows gasoline to expand.
- Never smoke when handling gasoline, and stay away from an open flame or where gasoline fumes may be ignited by a spark.
- Store gasoline in an approved container and keep it out of the reach of children. Never buy more than a 30-day supply of gasoline.
- Do not operate without entire exhaust system in place and in proper working condition.

DANGER

In certain conditions during fueling, static electricity can be released causing a spark which can ignite the gasoline vapors. A fire or explosion from gasoline can burn you and others and can damage property.

- Always place gasoline containers on the ground away from your vehicle before filling.
- Do not fill gasoline containers inside a vehicle or on a truck or trailer bed because interior carpets or plastic truck bed liners may insulate the container and slow the loss of any static charge.
- When practical, remove gas-powered equipment from the truck or trailer and refuel the equipment with its wheels on the ground.
- If this is not possible, then refuel such equipment on a truck or trailer from a portable container, rather than from a gasoline dispenser nozzle.
- If a gasoline dispenser nozzle must be used, keep the nozzle in contact with the rim of the fuel tank or container opening at all times until fueling is complete.

⚠ WARNING

Gasoline is harmful and can be fatal if swallowed. Long-term exposure to vapors can cause serious injury and illness.

- Avoid prolonged breathing of vapors.
- Keep face away from nozzle and gas tank or conditioner opening.
- Keep gas away from eyes and skin.

Using Stabilizer/Conditioner

Use a fuel stabilizer/conditioner in the machine to provide the following benefits:

- Keeps gasoline fresh during storage of 90 days or less. For longer storage it is recommended that the fuel tank be drained.
- Cleans the engine while it runs
- Eliminates gum-like varnish buildup in the fuel system, which causes hard starting

Important: Do not use fuel additives containing methanol or ethanol.

Add the correct amount of gas stabilizer/conditioner to the gas.

Note: A fuel stabilizer/conditioner is most effective when mixed with fresh gasoline. To minimize the chance of varnish deposits in the fuel system, use fuel stabilizer at all times.

Filling the Fuel Tank

1. Turn the key in the ignition switch to the OFF position and set the parking brake.
2. Clean around the fuel-tank cap and remove the cap (Figure 28).

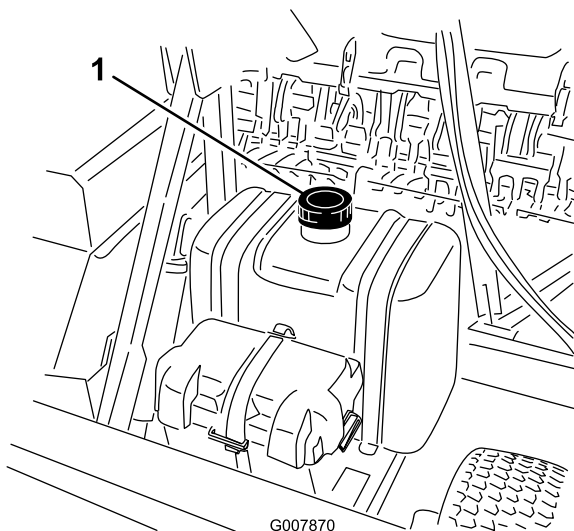


Figure 28

1. Fuel-tank cap

3. Add unleaded regular gasoline to both fuel tanks, until the level is 6 mm to 13 mm (1/4 to 1/2 inch) below the bottom of the filler neck.

This space in the tank allows gasoline to expand. Do not fill the fuel tanks completely full.

4. Install fuel-tank caps securely.
5. Wipe up any gasoline that may have spilled.

Checking the Engine-Oil Level

Before you start the engine and use the machine, check the oil level in the engine crankcase; refer to [Checking the Engine-Oil Level \(page 36\)](#).

Hydraulic Fluid

Important: When changing tow vehicles or tractors, make sure that the hydraulic fluid are compatible with the core processors. If the fluids are not compatible, any fluid remaining in the core processor must be removed.

Adjusting the Brush Height

The core processor should be adjusted so the brush tips slightly touch the surface but do not penetrate the turf. If the brush tips do penetrate the turf, improper processing and turf damage could result.

1. Position the core processor on a level surface.
2. Loosen the locknut on the height adjustment key (Figure 29) so it can be pulled out approximately 13 mm (1/2 inch).
3. Loosen the roller-height-adjustment locknuts (Figure 29).
4. Pull out the height-adjustment key and move the rear roller up or down by sliding the roller-height-adjusting plate to the desired height (Figure 29).

Note: Each notch on the height adjusting plate represents 6 mm (1/4 inch) rear roller adjustment.

5. Tighten the locknuts securing the adjustment.
6. Repeat the procedure the opposite end of the brush. Make sure that the adjustments are the same.

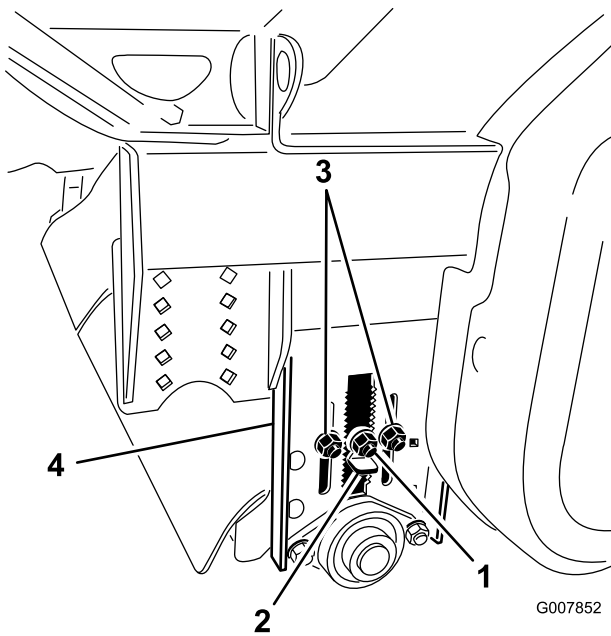


Figure 29

- | | |
|-------------------------|----------------------------------|
| 1. Locknut | 3. Roller-height-adjusting nuts |
| 2. Height-adjusting key | 4. Roller-height-adjusting plate |

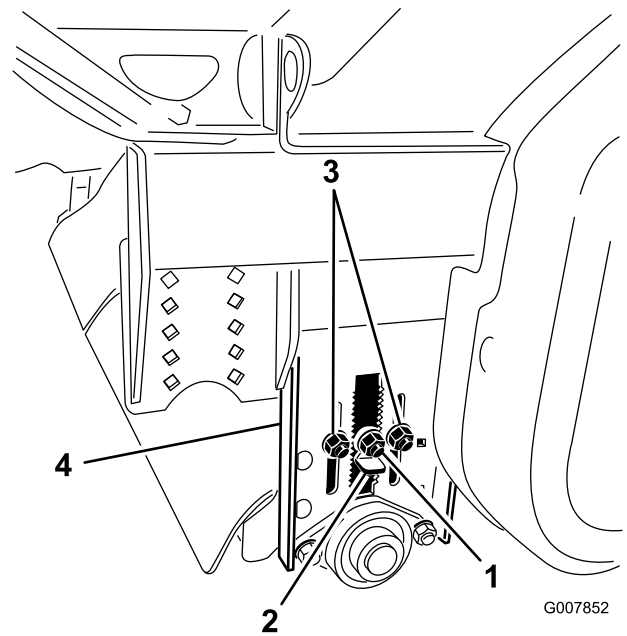


Figure 30

- | | |
|-------------------------|----------------------------------|
| 1. Locknut | 3. Roller-height-adjusting nuts |
| 2. Height-adjusting key | 4. Roller-height-adjusting plate |

Leveling the Core Processor

- Before leveling the core processor, make sure that the pickup brush and the rear roller height are adjusted to the correct height of cut ([Figure 30](#)). If the core processor is equipped with a new brush, reference the Rear Roller Adjustment Table to set the rear roller for proper grass height-of-cut.

Note: At the factory the rear roller is set at 3 mm (1/8 inch) brush clearance from the ground.

Note: The table has made accommodations for 2.5 cm (1 inch) of brush wear. Replace the brush if worn more than 2.5 cm (1 inch).

- Adjust the roller as follows:
 - Check the brush height on a hard surface so you can determine which direction you may have to adjust the rear roller.
 - Loosen the three bolts on each roller side plate.
 - Loosen the center nut so the adjustment key can be pulled out.
 - Hold rear roller up, pull adjustment key out, and move roller to desired height. Both sides must be at the same height.

Note: Each notch is 6 mm (1/4 inch) of adjustment.

- After rear roller is adjusted check the core processor frame to be sure it is parallel to the ground.
- Recheck brush height.

Note: You may have to adjust the rear roller if you can not get the main frame parallel to the ground.

Rear Roller Adjustment Table		
Open Notches	New Brush Height	Height of Cut
18	9.2 cm (3-5/8 inches)	9.5 to 7.6 cm (3-3/4 to 3 inches)
17	8.5 cm (3-3/8 inches)	
16	7.9 cm (3-1/8 inches)	
15	7.3 cm (2-7/8 inches)	7.6 to 5.7 cm (3 to 2-1/4 inches)
14	6.6 cm (2-5/8 inches)	
13	6.0 cm (2-3/8 inches)	
12	5.4 cm (2-1/8 inches)	5.7 to 3.8 cm (2-1/4 to 1-1/2 inches)
11	4.7 cm (1-7/8 inches)	
10	4.1 cm (1-5/8 inches)	
9	3.4 cm (1-3/8 inches)	3.8 to 1.9 cm (1-1/2 to 3/4 inches)
8	2.8 cm (1-1/8 inches)	
7	2.2 cm (7/8 inch)	
6	1.5 cm (5/8 inch)	1.9 to 0 cm (3/4 to 0 inch)
5	0.9 cm (3/8 inch)	
4	0.3 cm (1/8 inch)	
3	-0.3 cm (-1/8 inch)	Brush Wear
2	-0.9 cm (-3/8 inch)	
1	-1.5 cm (-5/8 inch)	
0	-2.2 cm (-7/8 inch)	

3. Raise the lift wheels to lower the processor onto the rear roller.
4. Make sure that the main frame is parallel to the ground with a level. If the main frame is not parallel to the ground, proceed as follows:

One-Pass Hitch

- A. If the front of the frame is lower, lengthen the connecting link.
- B. If the front of the frame is higher, shorten the connecting link.

Note: If the connecting link is difficult to rotate, lower the transport wheels on the core processor to relieve some of the pressure on the connecting link.

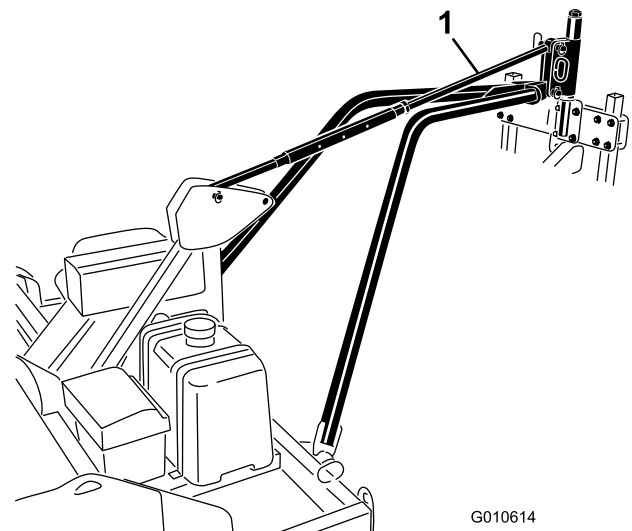


Figure 31

1. Connecting link

Tow Hitch

- A. If the front of the frame is lower, turn the leveling crank clockwise to raise the frame.
- B. If the front of the frame is higher, turn the leveling crank counter clockwise to lower the frame.

Note: When turning the leveling crank, make sure that it does not contact the hydraulic hoses. When done leveling, make sure that the crank is

positioned to the **left** side of the tow hitch so that it does not interfere with the hoses.

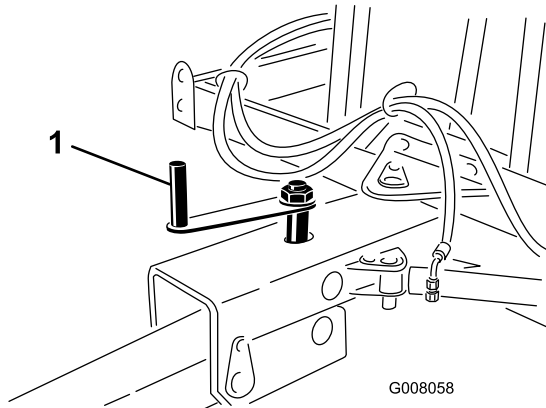


Figure 32

1. Leveling crank

Note: If the leveling crank is difficult to turn, lower the transport wheels on the core processor to relieve some of the pressure on the crank.

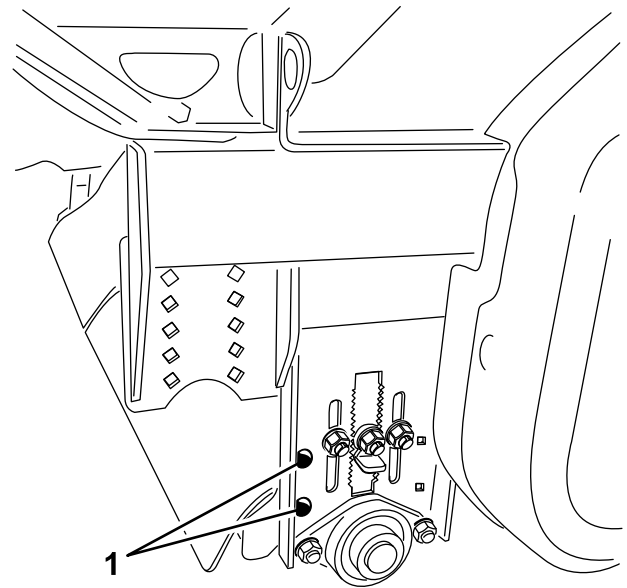


Figure 33

1. Roller scraper adjusting fasteners

Adjusting the Brush Height in the Field

When operating the core processor, the frame should be level to the ground or the front of the frame should be slightly higher. Adjust the brush downward until it just begins to pick up cores.

One-Pass Hitch

To lower the brush, shorten the connecting link.

To raise the brush, lengthen the connecting link.

Tow Hitch

To lower the brush, rotate the leveling crank clockwise.

To rise the brush, rotate the leveling crank counter clockwise.

Note: Be careful not to engage the brush too far into the grass as it can cause premature wear or damage to the brush and turf damage.

Adjusting the Roller Scraper

1. Loosen the roller scraper adjusting fasteners (Figure 33).
2. Position the roller scraper so there is 0.15 cm (1/16 inch) clearance between the scraper and the roller.
3. Tighten the roller scraper adjusting fasteners.

Checking the Tire Pressure

Check the tire pressure (Figure 34).

The correct tire pressure is 248 kPa (36 psi).

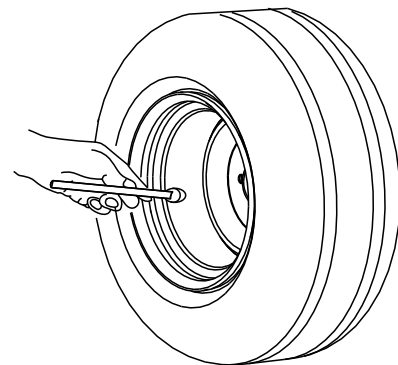


Figure 34

Checking the Torque of the Wheel Nuts

Service Interval: After the first 8 hours

After the first 10 hours

⚠ WARNING

Failure to maintain proper torque could result in failure or loss of wheel and could result in personal injury. Torque wheel lug nuts to 61 to 75 N-m (45 to 55 ft-lb).

Starting the Machine

⚠ WARNING

Rotating parts can cause serious personal injury.

- Keep hands and feet away from core processor reel while machine is running.
- Keep hands, feet, hair, and clothing away from all moving parts.
- Never operate the machine with covers, shrouds, or guards removed.

Note: Before starting the unit, make sure that the chopper rotates freely.

1. Move throttle lever midway between the SLOW and FAST positions.
2. Move choke lever to the ON position.

Note: Choke may not be required when starting a warm engine.

3. Insert the key into the ignition switch and turn it to the START position. Release key when engine starts. Regulate the choke to keep engine running smoothly.

Important: To prevent overheating of the starter motor, do not engage starter longer than 10 seconds. After 10 seconds of continuous cranking, wait 60 seconds before engaging starter motor again.

4. Move throttle lever to FULL engine speed.

Note: Do not allow the core processor to stand still while engaged as turf damage may occur.

Stopping the Machine

Note: When operating in the one pass configuration, always lift the aerator from the ground before stopping the core processor.

1. Before stopping the core processor, run the chopper rotator for 1 to 2 minutes to clear excess soil.
2. Move throttle lever to the SLOW position and wait for the engine to decelerate before turning the key in the ignition switch to the OFF position.
3. Remove the key from the ignition switch to prevent accidental starting.

Important: To stop operation in an emergency, move the remote control switch to the OFF position.

Operating the Core Processor

- Make sure that the core processor is clean, especially the brush and chopper housings.
- Set the brush height slightly higher above the height of cut (ex. Height of cut equals 19 mm (3/4 inch) then the brush setting is 22 mm (7/8 inch).
- Start the core processor first. Start at a low engine speed.
- Once the engine starts, increase the engine speed slowly to the maximum speed.
- Always operate the core processor at the maximum speed.

Note: If soil builds up on the inside of the brush or chopper housing, scrape clean using the scraper, located at the front of the machine.

One Pass Operation

Starting

1. Put tractor into gear and start tractor moving.
2. Lower the core processor to the ground.
3. Engage the PTO to the tractor.
4. Lower the aerator to the ground.

Stopping

1. Lift the aerator from the ground.

Note: Only raise the aerator and the core processor enough to disengage the operation.

2. Disengage the PTO to the tractor.
3. Lift the core processor from the ground.

Note: The core processor may not have to be raised if there is adequate turf for turning.

4. Turn the key in the ignition switch to the OFF position.

Tow Hitch Operation

The recommended maximum towing speed is 5 km/h (3 mph) (1st gear low range high idle for the Workman Vehicle)

1. To avoid driving over the cores, offset the core processor before moving forward.
2. Lower the core processor to start processing.
3. At the end of the pass, raise the core processor.

Note: The core processor may not have to be raised if there is adequate turf for turning.

Operating Tips

- The core processor leaves a variety of finished results depending on the conditions. In general, if the conditions are good for aeration, they are good for processing. Soil moisture, surface moisture or dew, soil composition, and amount of soil processed can affect the finished appearance.

- The amount of soil processed can be influenced by the tine size, hole depth, and hole spacing of the aerator. Smaller tine size and wider spacing leaves less soil on the surface and require less post processing. Some soil moisture is necessary for good aeration.
- Proper height adjustment is relatively easy to attain but critical to a successful operation. The brush should be set at or slightly above the height of cut of the turf to be processed. Fine tune the brush height using the top link on the one pass system, or adjustment handle on the tow hitch. If the brush is too aggressive, the processor uses excessive horsepower and prematurely wear the brush. If the brush is not aggressive enough, some cores are missed.
- Finalize your height adjustment on a remote area of the property before using on critical areas.
- Before starting operation, survey the area to determine the best direction to work.
- Do not make sharp turns when using the core processor as damage to turf may occur.
- Always try to make a long, continuous run with a slight overlap on the return run.

Note: To maintain a straight line when operating, sight an object in the foreground.

While Operating

⚠ DANGER

Tipping over can cause serious injury or death.

- Never operate on steep slopes.
- Operate on slopes up and down, never across the face.
- When going uphill or downhill, do not stop or start suddenly.
- Stay alert for holes in the terrain or other hidden hazards. To avoid tipping or loss of control, do not drive close to a ditch, creek, or drop off.
- If machine stops going uphill, disengage aerator and back slowly downhill. Do not attempt to turn.
- Check the condition of the processor tip after the completion of each fairway or sports field. Replace any broken or loose tips.

Transporting

1. Insert the storage pins in the rear hole position.
2. Make sure that you raise the core processor.
3. Do not exceed 24 km/h(15 mph).

4. If using the tow hitch, reposition the core processor behind the vehicle, retract the tow hitch and move the latch-handle pin to the locked position (Figure 35).

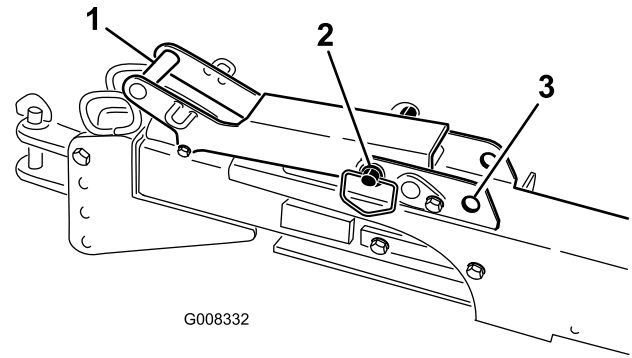


Figure 35

1. Latch handle
2. Latch-handle pin in the locked position
3. Unlocked position

Soil Moisture

Soil moisture levels beyond the saturation point makes processing difficult. Surface moisture tends to mix with the processed material and creates some buildup and clumping on the rear discharge area and rear roller scraper. When possible, drier cores process better. Be aware that in wet conditions, buildup occurs in the brush housing that requires thorough clean out.

Soil Moisture Chart

This chart is to be used as a guideline for determining soil moisture. Core processing in conditions that fall into the shaded area of the chart may give less than desirable results.

	Sand	Sandy Loam	Clay Loam	Clay
Soil Moisture	<i>Gritty when moist, almost like beach sand</i>	<i>Gritty when moist; dirties fingers; contains silt and clay</i>	<i>Sticky and plastic when moist</i>	<i>Very sticky when moist; behaves like modeling clay</i>
<div><div>Dry</div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div>Saturated</div></div>	Dry, loose, single-grained; flows through fingers	Dry, loose; flows through fingers	Dry clods that break down into powdery condition	Hard, baked, cracked surface; hard clods difficult to break; sometimes has loose crumbs on surface
	Still appears to be dry; does not form a ball with pressure	Still appears to be dry; does not form a ball	Somewhat crumbly; does not hold together with pressure	Somewhat pliable; balls under pressure
	Appears to be moist; does not form a ball with pressure	Tends to form a ball under pressure; seldom holds together	Forms a ball; somewhat plastic; sometimes stick slightly together with pressure	Forms a ball; ribbons out between thumb and forefinger
	Appears to be moist; tends to stick together slightly; sometimes forms a very weak ball under pressure	For a weak ball; breaks easily	Forms a ball and is very pliable; becomes slick readily if high in clay	
	Free water appears when squeezed but moisture is left on hand	Forms a ball and is very pliable; is very sticky		
	Free water appears when soil is bounced in hand			100% Saturated

Inspecting and Cleaning the Brush/Chopper Housing

Service Interval: Every 4 hours —Clean more often in high soil moisture conditions.

The brush/chopper housings will buildup with mud more rapidly when used in grass longer than 25 mm (1 inch) height of cut, clay and loam soil, or in early morning dew. If the brush housing is not cleaned, premature wear to the brush will occur. With proper maintenance the brush should last approximately 100 hours.

To clean the housings, do the following:

1. Raise the processor onto the transport wheels.
2. Loosen and remove the rear cover mounting bolts. Pivot the cover forward.
3. Using the scraper, located at the front of the machine, thoroughly clean the housing of mud.
4. Pivot the cover down and secure with the mounting bolts.

2. Turn the key in the ignition switch to the ON position and increase speed until the chopper rotator is engaged.
3. Stand to 1 side at rear of machine and spray water into spinning chopper until clean.
4. After cleaning, inspect the machine for possible damage to mechanical components.

Note: This assures that the machine is going to perform satisfactorily during next operation.

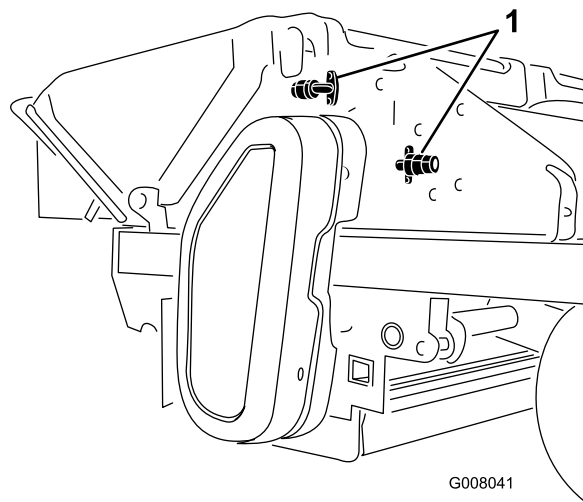


Figure 36

Inspecting and Cleaning the Machine after Operation

1. When operation has been completed, use the washout ports (Figure 36) or spray the chopper area.

1. Washout ports

Important: When cleaning the chopper area, stand clear of the output chute to avoid injury from thrown objects.

Inspecting the Chopper Tips

Upon completion of each fairway or sports field, inspect the chopper tips for damage and replace any retaining bolts which may have been sheared.

Note: The chopper tips have been designed so that if an item such as a rock is picked up, 1 of the retaining bolts is going to shear thus preventing damage to critical components.

To remove a sheared bolt end from the chopper tip:

1. Remove the non sheared bolt securing the chopper tip to the blade (Figure 37). Remove the chopper tip from the blade.

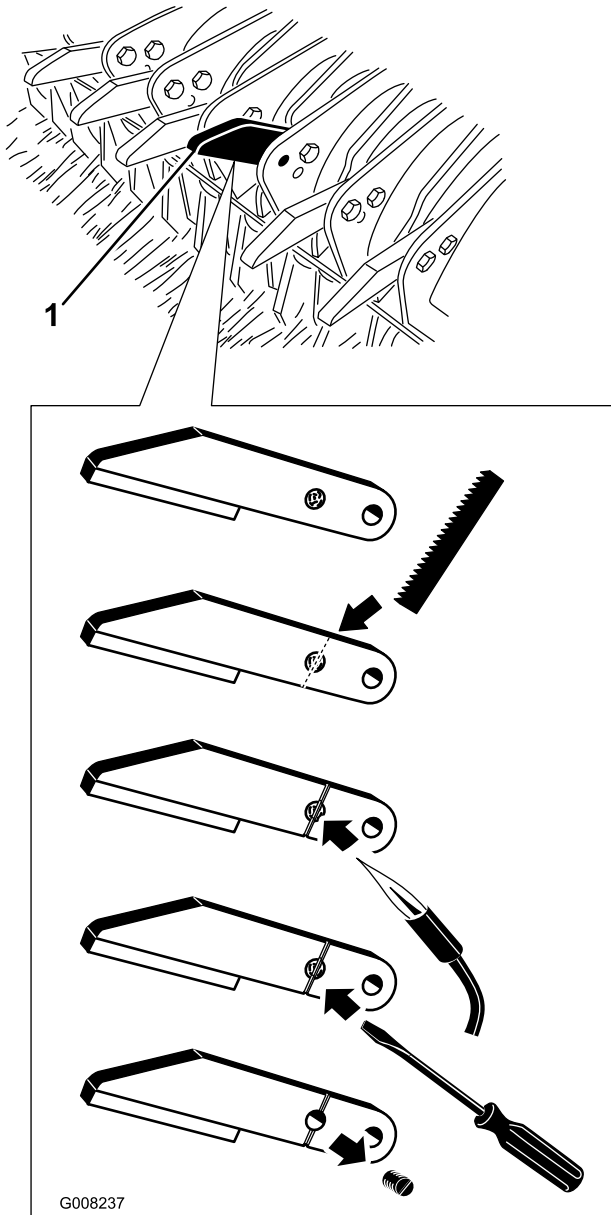


Figure 37

1. Chopper tip

2. Using a hack saw, cut a slot in the sheared end of the bolt and into the chopper tip (Figure 37).
3. Make sure that the slot is deep enough to engage a straight bladed screwdriver.
4. After completing the slot, heat the sheared bolt with a torch to soften the thread locking adhesive (Figure 37).
5. Once the thread locking adhesive is softened, thread the sheared bolt out of chopper tip (Figure 37).

Note: When installing used or new chopper tips, always use new bolts with a patch lock feature or treat the bolt threads with thread-locking adhesive.

Operating the Machine at High Altitude

When operating in high altitudes, the carburetor jets may have to be changed to obtain optimum engine performance. Use the chart below to determine which carburetor jet is required for the operating altitude. Order the carburetor jets from your Briggs and Stratton Dealer.

Carburetor Jet Size		
Altitude	Left Carburetor Jet	Right Carburetor Jet
Standard 274 m (900 ft)	150	156
1524 m (5000 ft)	146	152
1981 m (6500 ft)	144	150
2743 m (9000 ft)	140	146

Maintenance

Recommended Maintenance Schedule(s)

Maintenance Service Interval	Maintenance Procedure
After the first 8 hours	<ul style="list-style-type: none">• Check the torque of the wheel nuts.• Change the engine oil.• Check the condition and tension of the belts.
After the first 10 hours	<ul style="list-style-type: none">• Check the torque of the wheel nuts.
Before each use or daily	<ul style="list-style-type: none">• Check the engine oil level.• Clean the engine screen and the oil cooler.• Check the hydraulic lines and hoses.• Check the chopper tips.• Check the brush wear.• Clean the brush/chopper housing.
Every 4 hours	<ul style="list-style-type: none">• Inspect and clean the brush/chopper housings —Clean more often in high soil moisture conditions.
Every 50 hours	<ul style="list-style-type: none">• Grease the bearings and bushings.• Check the condition and tension of the belts.
Every 100 hours	<ul style="list-style-type: none">• Change the engine oil.• Check the battery electrolyte level.• Clean the engine.
Every 200 hours	<ul style="list-style-type: none">• Check and/or replace the primary air filter.• Replace the oil filter.• Check the spark plugs.
Every 600 hours	<ul style="list-style-type: none">• Replace the safety air filter.• Replace the fuel filter.

Important: Refer to your *Engine Operator's Manual* for additional maintenance procedures.

Note: If you need a schematic, go to www.Toro.com and search for your machine from the Manuals link on the home page.

Daily Maintenance Checklist

Duplicate this page for routine use.

Maintenance Check Item	For the week of:						
	Mon.	Tues.	Wed.	Thurs.	Fri.	Sat.	Sun.
Check the engine oil and fuel level.							
Check the air cleaner							
Check unusual operating noises.							
Check hydraulic hoses for damage.							
Check for fluid leaks.							
Check the tire pressure.							
Check the instrument operation.							
Lubricate all grease fittings. ¹							
Touch-up damaged paint.							

1. Lubricate the chopper, rear roller and rotating corner bearings immediately after every washing, regardless of the interval listed.

Premaintenance Procedures

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 prevents you from accidentally stripping the bolts free of the retainers.

Lubrication

Greasing the Bearings and Bushings

Service Interval: Every 50 hours

Lubricate the 18 core processor grease fittings regularly with No. 2 lithium grease. Lubricate the chopper, rear roller and rotating corner bearings immediately after every washing.

1. Lubricate the following grease fittings:
 - Tow frame (2); refer to [Figure 39](#).
 - Lift cylinder (2); refer to [Figure 38](#) and [Figure 41](#).
 - Lift axle (2); refer to [Figure 38](#).
 - Jack shaft (2); refer to [Figure 41](#).
 - Chopper assembly (2) [Figure 42](#) and [Figure 40](#).
 - Rotating corner (2) [Figure 42](#) and [Figure 40](#).
 - Pickup brush (2) [Figure 42](#) and [Figure 40](#).
 - Rear roller (2) [Figure 40](#).

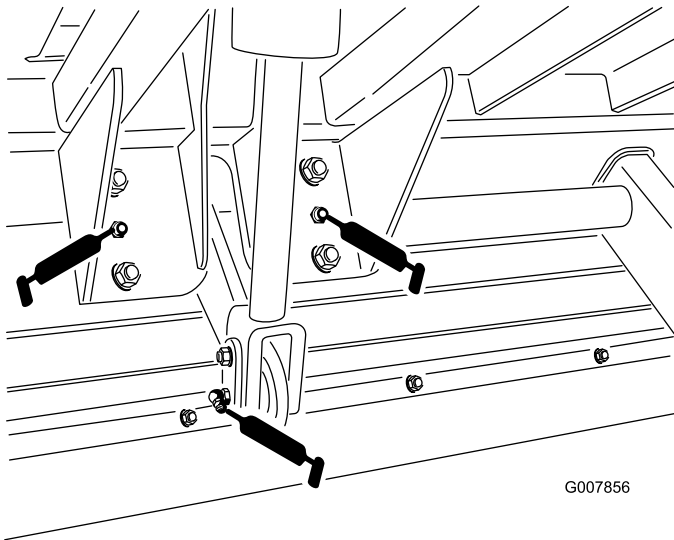


Figure 38

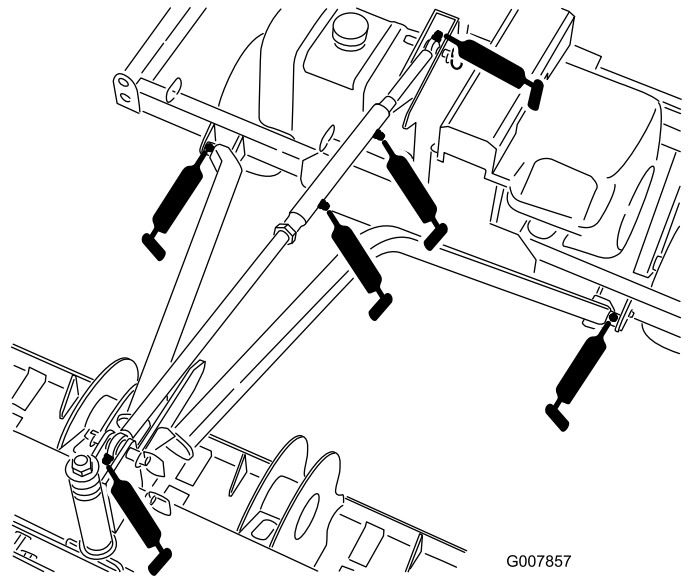


Figure 39

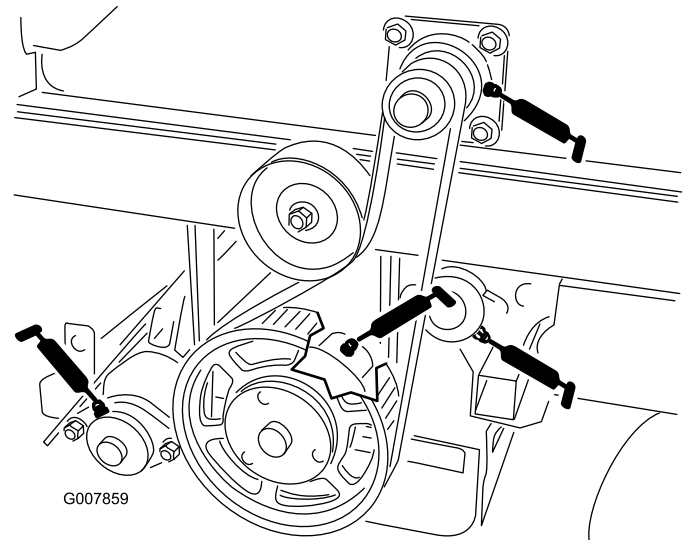


Figure 40

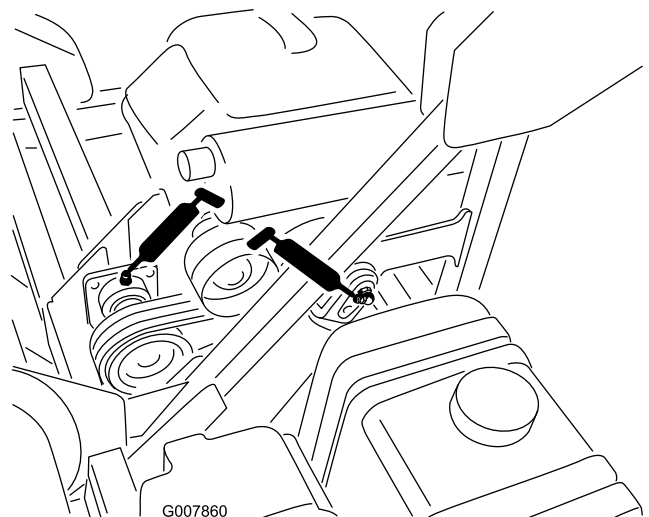


Figure 41

Engine Maintenance

Servicing the Air Cleaner

Note: Service the air cleaner filter only when the service indicator (Figure 43) requires it. Changing the air filter before it is necessary only increases the chance of dirt entering the engine when you remove the filter.

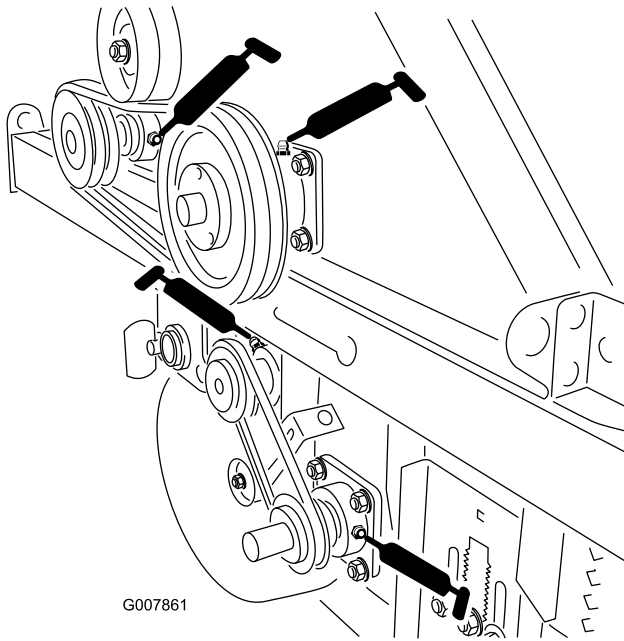


Figure 42

2. Wipe grease fittings clean so that foreign matter cannot be forced into the bearing or bushing.
3. Pump grease into the bearing or bushing.
4. Wipe up excess grease.

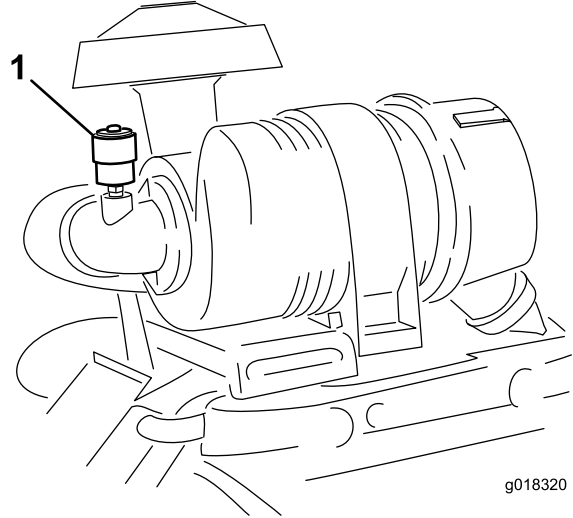


Figure 43

1. Air-cleaner indicator

1. Check the air-cleaner housing for damage which could cause an air leak.
2. Replace air-cleaner housing if it is damaged.
3. Check the entire intake system for leaks, damage, or loose hose clamps.

Removing the Air Filters

1. Turn the key in the ignition switch to the OFF position, remove the key, and wait for all moving parts to stop before leaving the operating position.
2. Pull the latch outward and rotate the air-cleaner cover counterclockwise (Figure 44).
3. Remove the air-cleaner cover from the air cleaner housing (Figure 44).

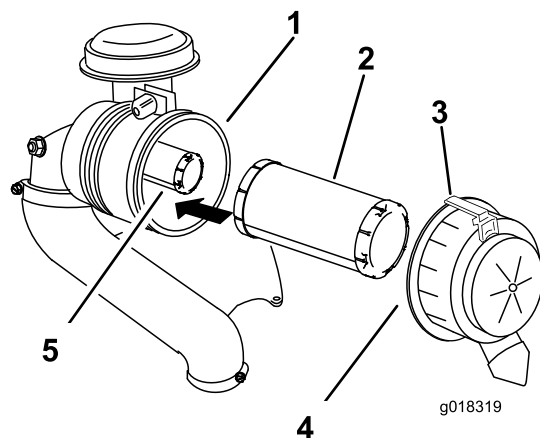


Figure 44

1. Air-cleaner housing
2. Primary filter
3. Latch
4. Air-cleaner cover
5. Safety filter

4. Clean the inside of the air-cleaner cover with compressed air.
5. Gently slide the primary filter out of the air-cleaner housing (Figure 44).
6. Remove the safety filter only if you intend to replace it.

Note: Avoid knocking the filter into the side of the housing.

Important: Never attempt to clean the safety filter. If the safety filter is dirty, then the primary filter is damaged. Replace both filters.

7. Inspect the primary filter for damage by looking into the filter while shining a bright light on the outside of the filter.

Note: Holes in the filter appear as bright spots.

8. If the filter is damaged, discard it.

Servicing the Primary Air Filter

Service Interval: Every 200 hours

- Replace the primary air filter if it is dirty, bent, or damaged.
- Do not clean the primary air filter.

Servicing the Safety Air Filter

Service Interval: Every 600 hours

Important: Never attempt to clean the safety air filter. If the safety air filter is dirty, then the primary air filter is damaged. Replace both filters.

Installing the Filters

Important: To prevent engine damage, always operate the engine with both air filters and cover installed.

1. Check each filter for shipping damage. Do not damaged filters.
2. Carefully slide the safety filter into the filter body (Figure 44).
3. Carefully slide the primary filter over the safety filter (Figure 44).

Note: Ensure that the primary filter is fully seated by pushing on its outer rim while installing it.

Important: Do not press on the soft inside area of the filter.

4. Clean the dirt ejection port located in the removable cover. Remove the rubber outlet valve from the cover, clean the cavity, and replace the outlet valve.
5. Install the air cleaner cover with the side indicated as UP facing upward and secure the latch (Figure 44).
6. Reset the indicator (Figure 43) if it shows red.

Servicing the Engine Oil

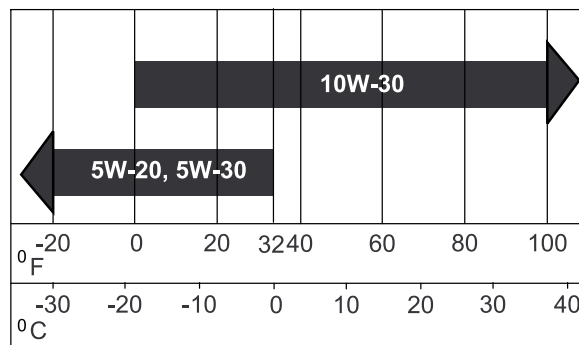
Note: Change the oil more frequently when the operating conditions are extremely dusty or sandy.

Oil Type: Detergent oil (API service SG, SH, SJ or higher)

Crankcase Capacity: with filter, 2 L (67 oz)

Viscosity: Refer to Figure 45

USE THESE SAE VISCOSITY OILS



G000238

Figure 45

Checking the Engine-Oil Level

Service Interval: Before each use or daily

Note: The best time to check the engine oil is when the engine is cool before it has been started for the day. If it has already been run, allow the oil to drain back down to the sump for at least 10 minutes before checking. If the oil level is at or below the ADD mark on the dipstick, add oil to bring the oil level to the FULL mark. Do not overfill. If the oil level is between the FULL and ADD marks, no additional oil is needed.

1. Park the machine on a level surface.

2. Turn the key in the ignition switch to the OFF position, and remove the key.
3. Wait for all moving parts to stop before leaving the operating position.
4. Clean around the oil dipstick (Figure 46) so that dirt cannot fall into the filler hole and damage the engine.

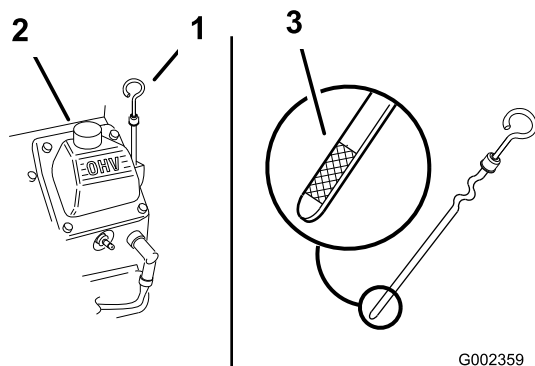


Figure 46

1. Oil dipstick
2. Filler tube

5. Remove the oil dipstick and wipe the end clean (Figure 46).
6. Slide the oil dipstick fully into the filler tube (Figure 46).
7. Pull the dipstick out and look at the end. If the oil level is low, slowly pour only enough oil into the filler tube to raise the level to the FULL mark.

Important: Do not overfill the crankcase with oil and run the engine; engine damage can result.

Changing the Oil

Service Interval: After the first 8 hours

Every 100 hours

1. Turn the key in the ignition switch to the ON position and let it run for 5 minutes.
- Note:** Letting the machine run allows the oil to warm so that it drains better.
2. Park the machine so that the drain side is slightly lower than the opposite side to ensure that the oil drains completely.
 3. Turn the key in the ignition switch to the OFF position, remove the key, and wait for all moving parts to stop before leaving the operating position.
 4. Place a pan below the drain plug (Figure 47).
 5. Remove the oil drain plug allowing the oil to drain into the pan.
 6. When oil has drained completely, install the drain plug.

Note: Dispose of the used oil at a recycling center.

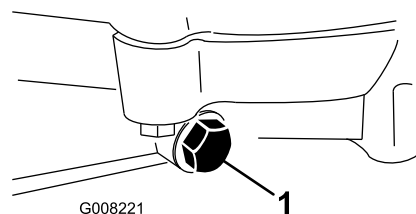


Figure 47

1. Oil drain plug
-
7. Slowly pour approximately 80% of the specified oil into the filler tube (Figure 46).
 8. Check the oil level; refer to [Checking the Engine-Oil Level](#) (page 36).
 9. Slowly add the additional oil until it reaches the **Full** mark.

Changing the Oil Filter

Service Interval: Every 200 hours

Note: Change the oil filter more frequently when the operating conditions are extremely dusty or sandy.

1. Drain the oil from the engine; refer to [Changing the Oil](#) (page 37).
2. Remove the old filter and wipe the surface of the filter-adapter gasket (Figure 48).

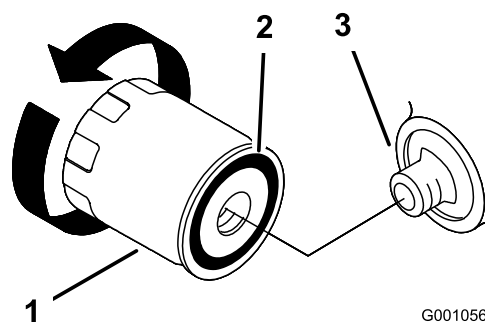


Figure 48

1. Oil filter
 2. Adapter gasket
 3. Adapter
-
3. Pour new oil in through the center hole of the filter unit it reaches the bottom of the threads inside.
 4. Allow the filter material to absorb the new oil for 1 to 2 minutes.
 5. Apply a thin coat of new oil to the rubber gasket on the replacement filter (Figure 48).
 6. Install the replacement oil filter to the filter adapter, turn the oil filter clockwise until the rubber gasket

contacts the filter adapter, then tighten the filter an additional 2/3 to 1 turn (Figure 48).

7. Fill the crankcase with the proper type of new oil; refer to [Servicing the Engine Oil](#) (page 36).
8. Run the engine for about 3 minutes, turn the key in the ignition switch to the OFF position, and check for oil leaks around the oil filter.
9. Check the engine oil level and add oil if needed.

Servicing the Spark Plugs

Ensure that the air gap between the center and side electrodes is correct before installing the spark plug. Use a spark-plug wrench for removing and installing the spark plugs and a gapping tool/feeler gauge to check and adjust the air gap. Install a new spark plug if necessary.

Type: Champion® RC12YC, Champion® Platinum 3071 or equivalent

Air Gap: 0.760 mm (0.030 inch)

Checking the Spark Plugs

Service Interval: Every 200 hours

1. Look at the center of the spark plugs (Figure 49). Light brown or gray on the insulator, indicates that the engine is operating properly. Black on the insulator indicates that the air cleaner is dirty.

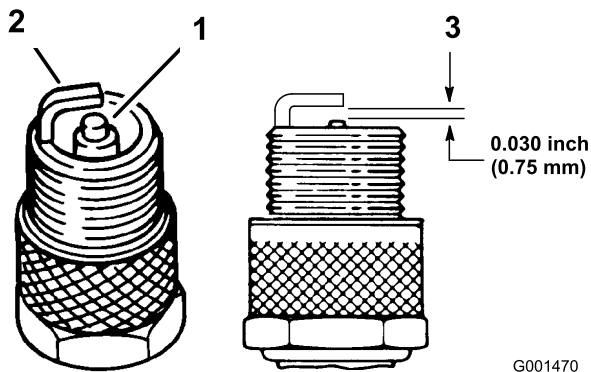


Figure 49

1. Center electrode insulator
2. Side electrode
3. Air gap (not to scale)

Important: Always replace the spark plugs when they have a black coating, worn electrodes, an oily film, or cracks.

2. Check the gap between the center and side electrodes (Figure 49).
3. If the gap is not correct, bend the side electrode (Figure 49).

Removing the Spark Plugs

1. Turn the key in the ignition switch to the OFF position, remove the key, and wait for all moving parts to stop before leaving the operating position.
2. Disconnect the wires from the spark plugs (Figure 50).

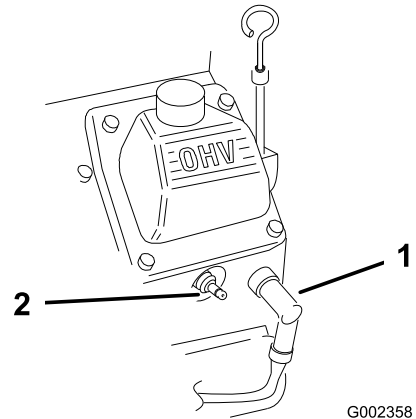


Figure 50

1. Spark-plug wire
2. Spark plug

3. Clean around the spark plugs to prevent dirt from falling into the engine and potentially causing damage.
4. Remove the spark plugs and the metal washers.

Installing the Spark Plugs

1. Install the spark plugs and the metal washer. Ensure that the air gap is set correctly.
2. Torque the spark plugs to 24.4 to 29.8 N-m (18 to 22 ft-lb).
3. Connect the wires to the spark plugs (Figure 49).

Fuel System Maintenance

Replacing the Fuel Filter

Service Interval: Every 600 hours

1. Turn the key in the ignition switch to the OFF position, remove the key, and wait for all moving parts to stop before leaving the operating position.
2. Allow the machine to cool down.
3. Loosen the hose clamps and slide them away from the filter (Figure 51).

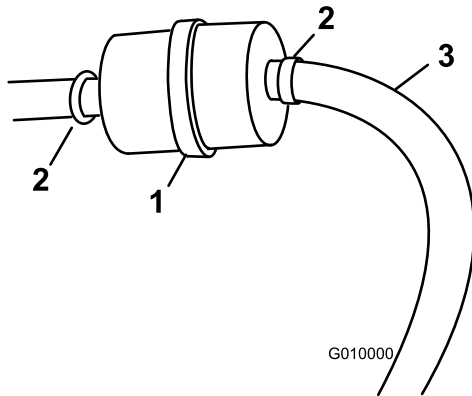


Figure 51

- | | |
|----------------|--------------|
| 1. Fuel filter | 3. Fuel line |
| 2. Hose clamp | |

3. Loosen the hose clamp at the fuel filter and slide it up the fuel line away from the fuel filter (Figure 51).
4. Disconnect the fuel line from the fuel filter (Figure 51).

Note: Allow gasoline to drain into a fuel container can or drain pan (Figure 51).

Note: This is the best time to install a new fuel filter because the fuel tank is empty.

5. Install the fuel line onto the fuel filter.
6. Slide the hose clamp close to the fuel filter to secure the fuel line (Figure 51).

-
4. Remove the filter from the fuel lines.
 5. Install a new filter to the hoses and secure the hose clamps (Figure 51).

Servicing the Fuel Tank

⚠ DANGER

In certain conditions, gasoline is extremely flammable and highly explosive. A fire or explosion from gasoline can burn you and others and can damage property.

- Drain gasoline from the fuel tank outdoors when the engine is cold. Wipe up any gasoline that spills.
 - Never smoke when draining gasoline and stay away from an open flame or where a spark may ignite the gasoline fumes.
1. Park the machine on a level surface to ensure that the fuel tanks drain completely.
 2. Turn the key in the ignition switch to the OFF position and remove the key.

Electrical System Maintenance

Servicing the Battery

Service Interval: Every 100 hours

- Battery electrolyte level must be properly maintained and the top of the battery kept clean. If the machine is stored in a location where temperatures are extremely high, the battery runs down more rapidly than if the machine is stored in a location where temperatures are cool.

⚠ DANGER

Battery electrolyte contains sulfuric acid which is a deadly poison and causes severe burns.

- **Do not drink electrolyte and avoid contact with skin, eyes or clothing. Wear safety glasses to shield your eyes and rubber gloves to protect your hands.**
- **Fill the battery where clean water is always available for flushing the skin.**
- Keep top of battery clean by washing periodically with a brush dipped in ammonia or bicarbonate of soda solution. Flush the top surface with water after cleaning. Do not remove the fill cap while cleaning.
- Battery cables must be tight on terminals to provide good electrical contact.
- If corrosion occurs at terminals, disconnect cables, negative (-) cable first and scrape clamps and terminals separately. Reconnect cables, positive (+) cable first and coat terminals with petroleum jelly.
- Check the electrolyte level every 25 operating hours or, if machine is in storage, every 30 days.
- Maintain cell level with distilled or demineralized water. Do not fill cells above fill line.
- If you are storing for more than 30 days, remove the battery and charge it fully. Leave the cables disconnected if stored on the machine. Store the battery in a cool atmosphere to avoid quick deterioration of the charge in the battery. To prevent battery from freezing, make sure that it is fully charged. The specific gravity of a fully charged battery is 1.250.

⚠ WARNING

Charging the battery produces gasses that can explode.

Never smoke near the battery and keep sparks and flames away from the battery.

⚠ WARNING

Battery terminals or metal tools could short against metal tractor components causing sparks. Sparks can cause the battery gasses to explode, resulting in personal injury.

- **When removing or installing the battery, do not allow the battery terminals to touch any metal parts of the tractor.**
- **Do not allow metal tools to short between the battery terminals and metal parts of the tractor.**

Cooling System Maintenance

Cleaning the Engine Screen and the Oil Cooler

Service Interval: Before each use or daily

Remove any buildup of grass, dirt, or other debris from the oil cooler screen and engine screen (Figure 52).

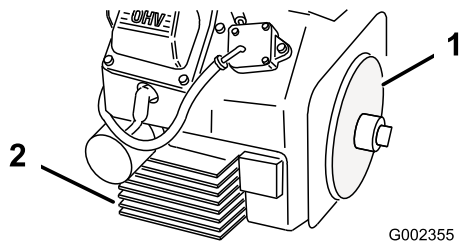


Figure 52

1. Engine screen
2. Oil cooler

Cleaning the Engine

Service Interval: Every 100 hours

Use low pressure compressed air 138 kPa (20 psi) or less to clean around the carburetor, governor levers, and linkage.

Note: Cleaning the engine allows for the engine to cool adequately and reduces the possibility of overheating and mechanical damage.

Belt Maintenance

Adjusting the Belts

Service Interval: After the first 8 hours

Every 50 hours

1. Check the belts for cracks, frayed edges, burn marks, or any other damage.
2. Replace the belts if they are damaged.
3. As required, check the condition and tension of the belts.

Engine Clutch to Jack-Shaft Belt

1. Remove the belt cover (Figure 53).

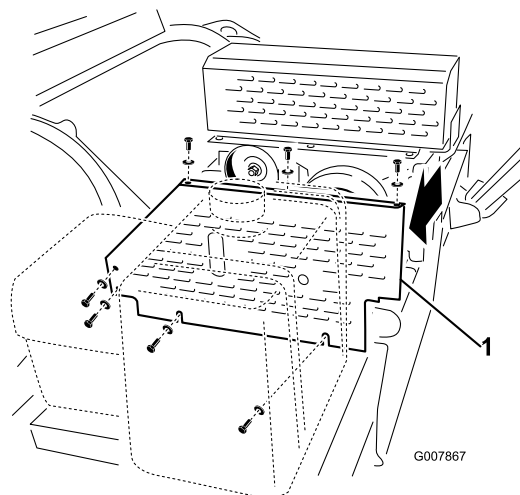


Figure 53

1. Engine clutch to jack-shaft-belt cover

2. Check the condition of the belt (Figure 54).

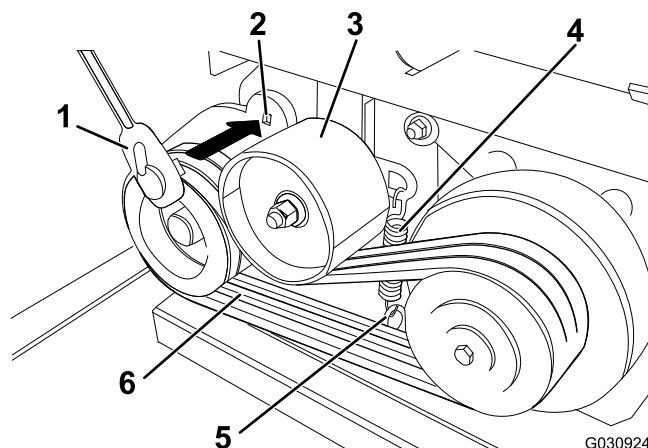


Figure 54

- | | |
|------------------|---------------------|
| 1. Socket wrench | 4. Extension spring |
| 2. Square hole | 5. Eye bolt |
| 3. Idler pulley | 6. Belt |

3. To release the belt tension, do the following:
 - A. Loosen the lower nut on the eye bolt and thread it to the end of the bolt (Figure 55).

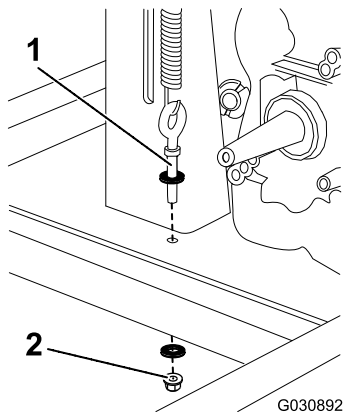


Figure 55

1. Eye bolt
2. Lower bolt

- B. Insert a socket wrench into the square hole in the idler arm and rotate the wrench upward (Figure 54).

Important: Do not rotate the wrench upward too far because damage to the idler arm extension spring may occur.

4. Measure the spring from inside loop to inside loop; refer to Figure 56. If the spring stretches to more than 8.9 cm (3.5 inches), replace the spring.

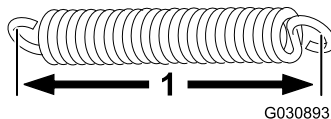


Figure 56

1. 3.5 inches

5. To increase the spring tension thus increasing the belt tension, shorten the eye-bolt height by loosening the top eye bolt nut and tightening the lower nut (Figure 55 and Figure 56).

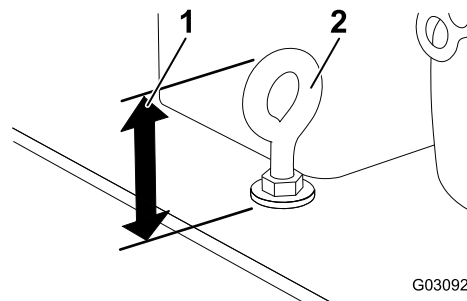


Figure 57

1. Eye-bolt height
2. Eye bolt

6. Install the belt cover.

Jack Shaft to Chopper Belt

1. Remove the belt cover (Figure 58).

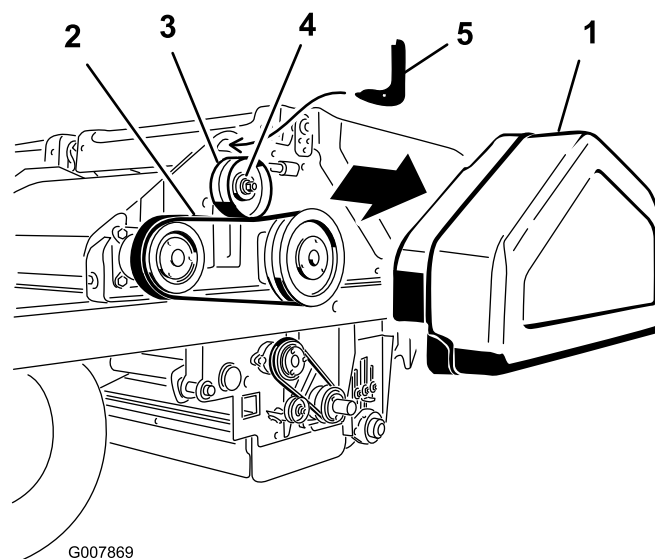


Figure 58

1. Jack shaft to chopper belt cover
2. Jack shaft to chopper belt
3. Idler pulley
4. Nut
5. Belt tensioning tool

2. Loosen the nut on the idler pulley (Figure 58).
3. Insert the hook end of belt tensioning tool into the hole above the idle pulley (Figure 58).
4. Rest the curved bottom of the tool on the idler pulley.
5. Insert the drive of a 1/2 inch torque wrench into the hole in the belt tensioning tool (Figure 58).
6. Rotate the tool toward you until it is torqued to 345 kPa (50 psi), then, while holding the torque, tighten the idler pulley nut (Figure 58).
7. Remove the torque wrench and tensioning tool.

8. Install the belt cover.

Chopper to Brush Belt

To adjust or install the belt, do the following:

1. Remove the belt cover ([Figure 59](#)).

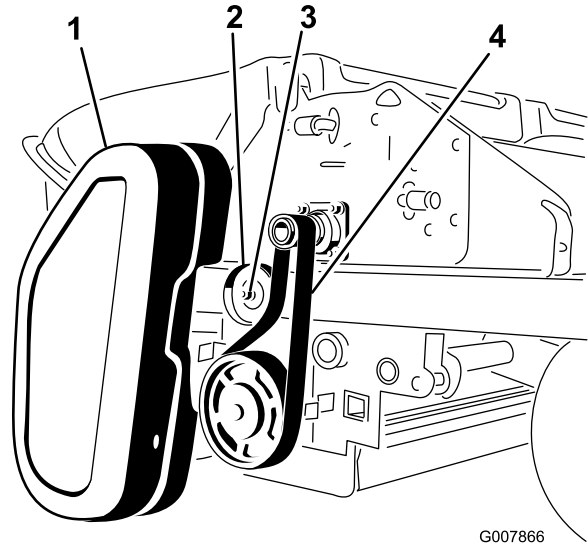


Figure 59

- | | |
|--------------------------------|--------------------------|
| 1. Chopper to brush-belt cover | 3. Nut |
| 2. Idler pulley | 4. Chopper to brush belt |

-
2. Loosen the nut on the idler pulley ([Figure 59](#)).
 3. Slide the belt off of the chopper shaft and brush pulley ([Figure 59](#)).
 4. Rotate the brush pulley until a brush row is aligned with the rotating corner ([Figure 60](#)).

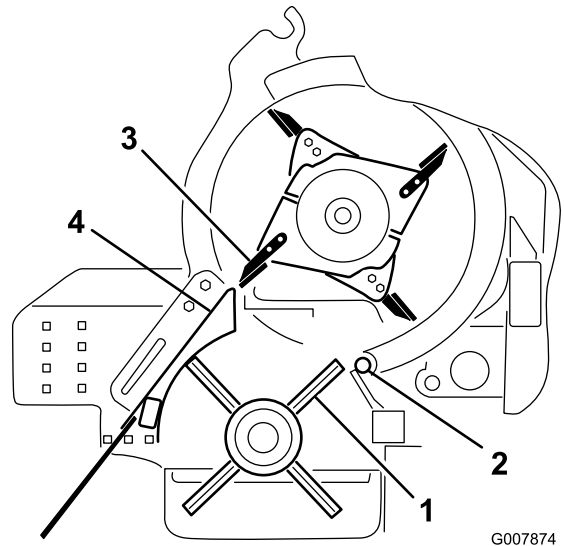


Figure 60

- | | |
|--------------------|------------------|
| 1. Brush row | 3. Blade tip |
| 2. Rotating corner | 4. Brush housing |

-
5. Rotate the chopper until a blade tip is aligned with the outside of the brush housing ([Figure 60](#)).

6. Carefully slide the belt onto the chopper shaft. Do not rotate the chopper shaft.
7. While tensioning the right side of the belt, slide the bottom of the belt into the grooves of the brush pulley. Do not rotate the brush pulley.
8. While pushing the idler pulley into the belt, tighten the nut on the idler pulley.

Brush to Rotating Corner Belt

To tension the belt, do the following:

1. Remove the belt cover (Figure 61)
2. Loosen the nut on the idler pulley (Figure 61).

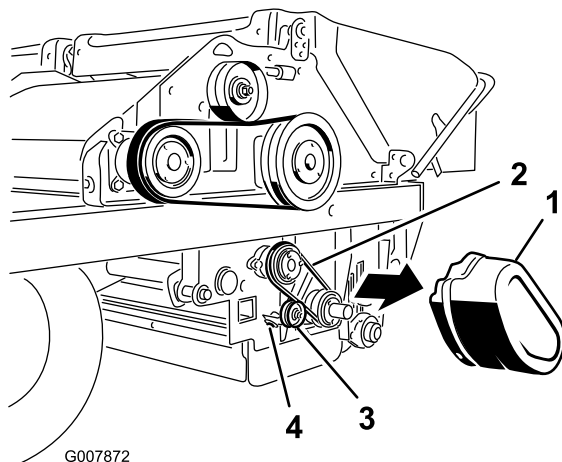


Figure 61

- | | |
|--|-----------------|
| 1. Brush to rotating corner belt cover | 3. Idler pulley |
| 2. Brush to rotating corner belt | 4. Nut |

3. Push the idler pulley into the belt and tighten the idler pulley nut (Figure 61).
4. Install the belt cover.

Hydraulic System Maintenance

Checking the Hydraulic Lines and Hoses

⚠ WARNING

Hydraulic fluid escaping under pressure can penetrate skin and cause injury.

- Make sure that all hydraulic fluid hoses and lines are in good condition and all hydraulic connections and fittings are tight before applying pressure to the hydraulic system.
- Keep your body and hands away from pin hole leaks or nozzles that eject high-pressure hydraulic fluid.
- Use cardboard or paper to find hydraulic leaks.
- Safely relieve all pressure in the hydraulic system before performing any work on the hydraulic system.
- Get immediate medical help if fluid is injected into skin.

Check the hydraulic lines and hoses daily for leaks, kinked lines, loose mounting supports, wear, loose fittings, weather deterioration, and chemical deterioration. Make all necessary repairs before operating the machine.

Storage

Note: Let the engine cool before storing it and do not store it near a flame.

1. Wash the brush housing and chopper with water. Turn the key in the ignition switch to the ON position and increase speed until the Chopper rotator is engaged. Stand to 1 side at rear of machine and spray water into spinning chopper until clean.
2. Check all fasteners and tighten as necessary.
3. Grease all grease fittings and wipe off excess lubricant.
4. Check the condition of the brush and blades and replace as required.
5. Service the air cleaner; refer to [Servicing the Air Cleaner \(page 35\)](#).
6. Grease and oil the machine; refer to [Greasing the Bearings and Bushings \(page 34\)](#).
7. Change the crankcase oil; refer to [Servicing the Engine Oil \(page 36\)](#).
8. Check the tire pressure; refer to [Checking the Tire Pressure \(page 26\)](#).
9. Charge the battery; refer to [Servicing the Battery \(page 40\)](#).
10. Before disconnecting from the tow vehicle, lower the core processor to the ground, install the storage pins in the front holes, and then remove the hydraulic and mechanical connections. This ensures that the core processor remains stable when you disconnect it from the tow vehicle.

Declaration of Incorporation

Model No.	Serial No.	Product Description	Invoice Description	General Description	Directive
09749	315000001 and Up	ProCore Processor	CORE PROCESSOR	Utility Vehicle	2006/42/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
September 29, 2014

EU Technical Contact:

Marc Vermeiren
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
Asian American Industrial (AAI)	Hong Kong	852 2497 7804	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
Brisa Goods LLC	Mexico	1 210 495 2417	Mountfield a.s.	Slovakia	420 255 704 220
Casco Sales Company	Puerto Rico	787 788 8383	Munditol S.A.	Argentina	54 11 4 821 9999
Ceres S.A.	Costa Rica	506 239 1138	Norma Garden	Russia	7 495 411 61 20
CSSC Turf Equipment (pvt) Ltd.	Sri Lanka	94 11 2746100	Oslinger Turf Equipment SA	Ecuador	593 4 239 6970
Cyril Johnston & Co.	Northern Ireland	44 2890 813 121	Oy Hako Ground and Garden Ab	Finland	358 987 00733
Cyril Johnston & Co.	Republic of Ireland	44 2890 813 121	Parkland Products Ltd.	New Zealand	64 3 34 93760
Fat Dragon	China	886 10 80841322	Perfetto	Poland	48 61 8 208 416
Femco S.A.	Guatemala	502 442 3277	Pratoverde SRL.	Italy	39 049 9128 128
FIVEMANS New-Tech Co., Ltd	China	86-10-6381 6136	Prochaska & Cie	Austria	43 1 278 5100
ForGarder OU	Estonia	372 384 6060	RT Cohen 2004 Ltd.	Israel	972 986 17979
G.Y.K. Company Ltd.	Japan	81 726 325 861	Riversa	Spain	34 9 52 83 7500
Geomechaniki of Athens	Greece	30 10 935 0054	Lely Turfcare	Denmark	45 66 109 200
Golf international Turizm	Turkey	90 216 336 5993	Lely (U.K.) Limited	United Kingdom	44 1480 226 800
Hako Ground and Garden	Sweden	46 35 10 0000	Solvart 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 Commercial Aerator Products 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 Hydroject or ProCore Aerator ("Product") to be free from defects in materials or workmanship for two years or 500 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:

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, brakes pads and linings, clutch linings, blades, reels, bed knives, tines, spark plugs, castor wheels, tires, filters, belts, and certain sprayer components such as diaphragms, nozzles, and check valves, etc.

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. If all other remedies fail, you may contact us at Toro Warranty Company.

- Failures caused by outside influence. Items considered to be outside influence include, but are not limited to, weather, storage practices, contamination, use of unapproved coolants, lubricants, additives, fertilizers, water, or chemicals, etc.
- 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.

Maintenance is at Owner's Expense

Engine tune-up, lubrication cleaning and polishing, replacement of Items and Conditions Not Covered, 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 printed in your *Operator's Manual* or contained in the engine manufacturer's documentation for details.