

**TORO**<sup>®</sup>

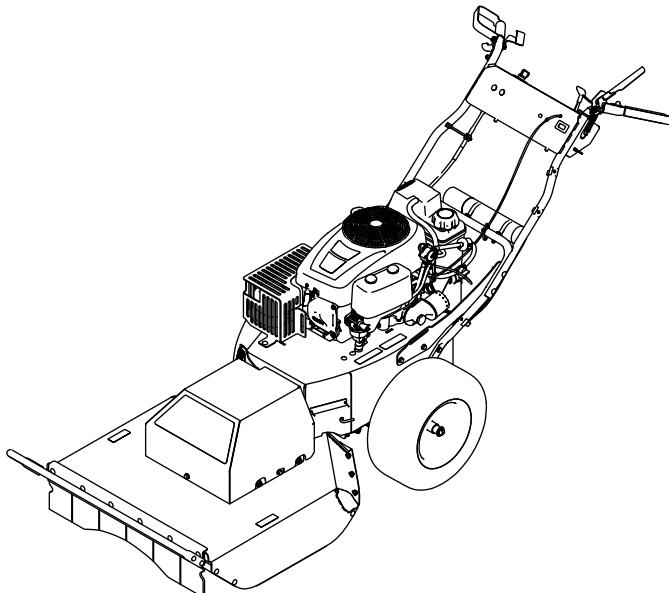
**Count on it.**

# Operator's Manual

## Brush Cutter

Model No. 23522—Serial No. 402263122 and Up

Model No. 33522—Serial No. 402263122 and Up



This product complies with all relevant European directives; for details, please see the separate product specific Declaration of Conformity (DOC) sheet.

Because in some areas there are local, state, or federal regulations requiring that a spark arrester be used on the engine of this machine, a spark arrester is available as an option. If you require a spark arrester, contact your Authorized Toro Service Dealer.

Genuine Toro spark arresters are approved by the USDA Forestry Service.

It is a violation of California Public Resource Code Section 4442 or 4443 to use or operate the engine on any forest-covered, brush-covered, or grass-covered land unless the engine is equipped with a spark arrester, as defined in Section 4442, maintained in effective working order or the engine is constructed, equipped, and maintained for the prevention of fire.

## ⚠ WARNING

### CALIFORNIA Proposition 65 Warning

**The engine exhaust from this product contains chemicals known to the State of California to cause cancer, birth defects, or other reproductive harm.**

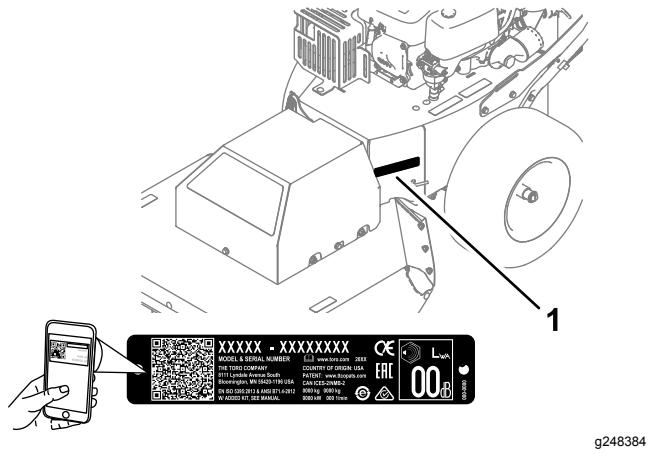
**Battery posts, terminals, and related accessories contain lead and lead compounds, chemicals known to the State of California to cause cancer and reproductive harm. Wash hands after handling.**

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

accessory information, help finding a dealer, or to register your product.

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

**Important:** With your mobile device, you can scan the QR code (if equipped) on the serial number decal to access warranty, parts, and other product information.



**Figure 1**

1. Model and serial number location

Model No. \_\_\_\_\_

Serial No. \_\_\_\_\_

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



**Figure 2**

1. Safety-alert symbol

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

# Introduction

This machine is designed to level brush, tall weeds, saplings, and small trees and heavy vegetation up to 1.8 m (6 feet) tall and 5.1 cm (2 inches) in diameter.

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](http://www.Toro.com) for product safety and operation training materials,

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# Safety

This machine has been designed in accordance with EN 12733.

## General Safety

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

Using this product for purposes other than its intended use could prove dangerous to you and bystanders.

- Read, understand, and follow the instructions and warnings in this *Operator's Manual* and on the machine and attachments before starting the engine.
- Use your full attention while operating the machine. Do not engage in any activity that causes distractions; otherwise, injury or property damage may occur.
- Do not put your hands or feet near moving parts of or under the machine. Keep clear of any discharge opening.

- Do not operate the machine without all guards and other safety protective devices in place and working on the machine.
- Keep bystanders and children a safe distance away from the machine. Do not allow children to operate the machine. Allow only people who are responsible, trained, familiar with the instructions, and physically capable to operate the machine.
- Stop the machine, shut off the engine, remove the electric-start key (if equipped), and wait for all moving parts to stop before servicing, fueling, or unclogging the machine.

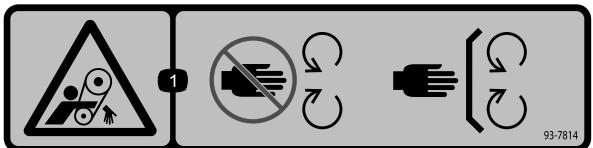
Improperly using or maintaining this machine can result in injury. To reduce the potential for injury, comply with these safety instructions and always pay attention to the safety-alert symbol, which means Caution, Warning, or Danger—personal safety instruction. Failure to comply with these instructions may result in personal injury or death.

You can find additional safety information where needed throughout this manual.

## Safety and Instructional Decals



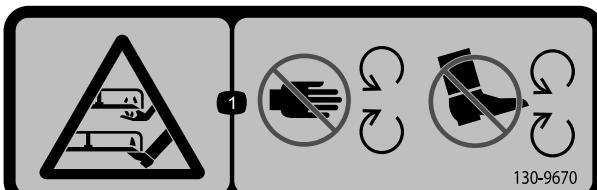
Safety decals and instructions are easily visible to the operator and are located near any area of potential danger. Replace any decal that is damaged or missing.



93-7814

93-7814

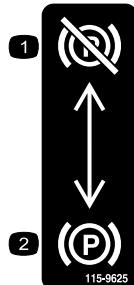
1. Entanglement hazard, belt—stay away from moving parts; keep all guards and shields in place.



130-9670

decal130-9670

1. Severing hazard of hand or foot; mower blade—keep away from moving parts.



115-9625

decal115-9625

1. Parking brake—disengaged

2. Parking brake—engaged

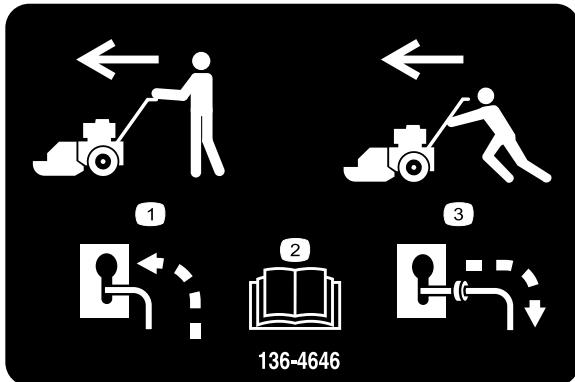
**WARNING:** This product can expose you to chemicals including gasoline engine exhaust, which is known to the State of California to cause cancer, and carbon monoxide, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov). For more information, please visit [www.toro.com/CAProp65](http://www.toro.com/CAProp65).

### CALIFORNIA SPARK ARRESTER WARNING

Operation of this equipment may create sparks that can start fires around dry vegetation. A spark arrester may be required. The operator should contact local fire agencies for laws or regulations relating to fire prevention requirements.

133-5619

decal133-5619



136-4646

decal136-4646

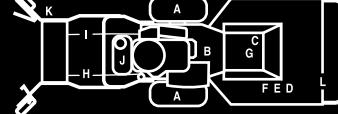
**136-4646**

1. When the machine has power, disengage the bypass and transport the machine normally.
2. Read the *Operator's Manual*.
3. When the machine has no power, engage the bypass and push the machine to transport it.

## BRUSH CUTTER BRC-28    QUICK REFERENCE AID

### CHECK/SERVICE (DAILY)

1. OIL LEVEL
2. AIR FILTER
3. TIRE PRESSURE
4. CUTTING BLADES
5. CLEAN MACHINE



### FLUID SPECIFICATION / CHANGE INTERVALS

SEE OPERATOR'S MANUAL FOR INITIAL CHANGE	FLUID TYPE	CAPACITY	CHANGE INTERVALS	PART NO.
ENGINE OIL	10W30	1.4 LITERS	100 HRS. 100 HRS.	
FUEL SYSTEM	87 OCTANE MAX 10% ETHANOL			
AIR FILTER			50 HRS.	127-9193

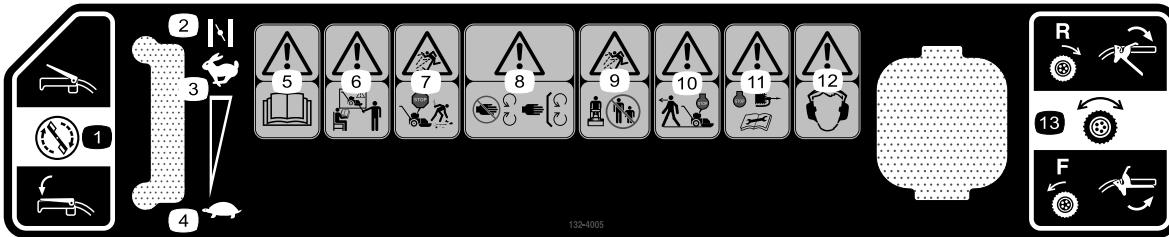
### SERVICE PARTS

PART NO.	DESCRIPTION	QTY	LOCATION	PART NO.
132-7001	TIRE ASM	2	A	136-4622 KIT-BLADE, FLAIL 1 F
707081	V-BELT	1	B	132-7047 BELT-DECK 1 G
132-4088	SPINDLE BEARING	2	C	136-1442 CABLE THROTTLE 1 H
132-7036-03	BLADE BRUSH	1	D	132-4095 CABLE TRACTION 1 I
136-4623	FLAIL ENDS KIT	1	E	105-1692 BATTERY 1 J
				133-4654 PLUNGER SWITCH 1 K
				136-4599 FRONT FLAP 1 L

137-0653

decal137-0653

1. Read the *Operator's Manual*.



**132-4005**

decal132-4005

1. Cutting blade control
2. Choke
3. Fast engine speed
4. Slow engine speed
5. Warning—read the *Operator's Manual*.
6. Warning—train all operators before they operate the machine.
7. Thrown object hazard—shut off the engine and pick up debris before operating.
8. Warning—keep away from moving parts; keep all guards and covers in place.
9. Thrown object hazard—keep bystanders a safe distance from the machine.
10. Warning—shut off the engine before leaving the operator position.
11. Warning—shut off the engine, disconnect the spark plug, and read the *Operator's Manual* before performing maintenance.
12. Warning—wear hearing protection.
13. Traction drive control

# Setup

## Loose Parts

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

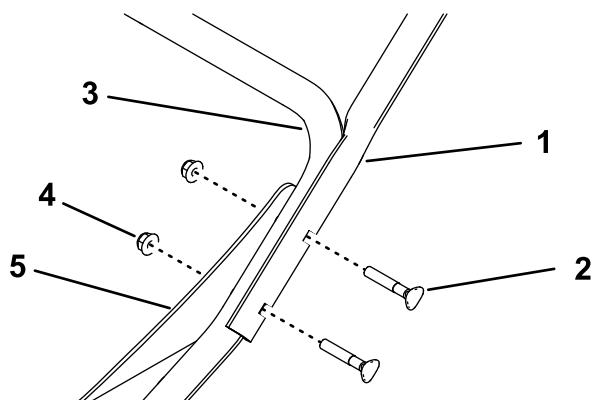
Procedure	Description	Qty.	Use
1	Cable tie Handle bolt Nut (5/16 inch) Slotted-head bolt (#10) Locknut (#10)	1 4 4 2 2	Install the handle.
2	No parts required	—	Connect the negative battery cable.

# 1

## Installing the Handle

Parts needed for this procedure:

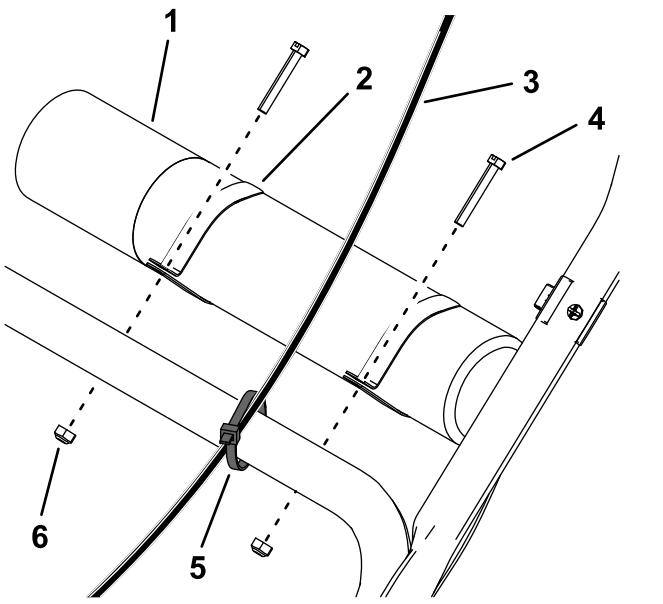
1	Cable tie
4	Handle bolt
4	Nut (5/16 inch)
2	Slotted-head bolt (#10)
2	Locknut (#10)



**Figure 3**  
Left side shown

## Procedure

1. Install the upper handle tubes to the lower handle and braces using 2 handle bolts and 2 nuts (5/16 inch) on both sides of the machine (Figure 3).
2. Secure the throttle cable over the lower handle using a cable tie (Figure 4).



**Figure 4**

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1. Operator's Manual tube
2. Clamp (2)
3. Throttle cable
4. Slotted-head bolt (2)
5. Cable tie
6. Locknut (2)

3. Slide the clamps onto the *Operator's Manual* tube and install it on top of the lower handle using 2 slotted-head bolts and 2 locknuts (Figure 4).

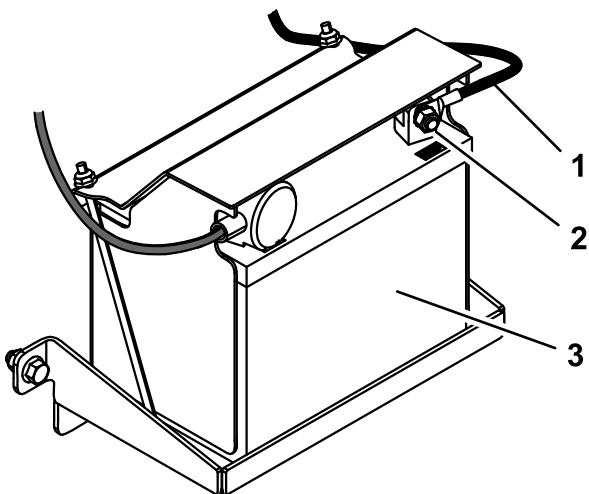
## 2

# Connecting the Negative Battery Cable

No Parts Required

## Procedure

1. Remove the plastic cap from the negative battery terminal.
2. Connect the negative battery cable to the negative (-) battery post using the bolt and nut attached to the cable (Figure 5).



**Figure 5**

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1. Negative battery cable
2. Bolt and nut
3. Battery

# Product Overview

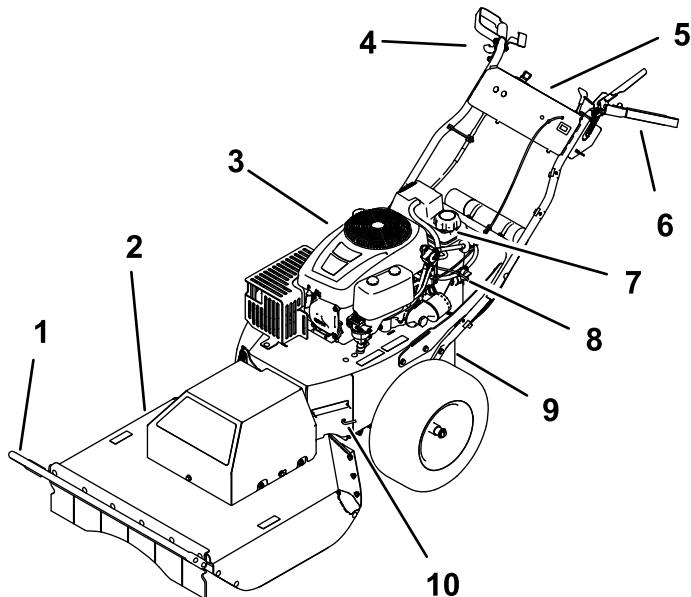


Figure 6

g186623

1. Brush bar	4. Right hand grip and traction control	7. Fuel-tank cap	10. Bypass lever
2. Cutter deck	5. Control panel	8. Fuel-shutoff valve	
3. Engine	6. Left hand grip and blade-control clutch	9. Parking brake	

## Controls

Become familiar with all the controls (Figure 6 and Figure 7) before you start the engine and operate the machine.

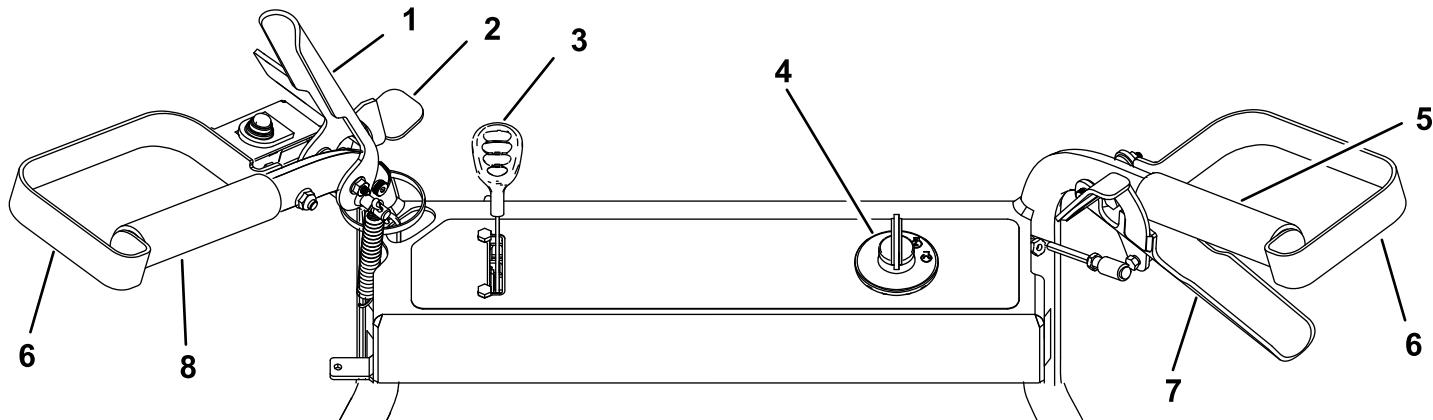


Figure 7

g186771

1. Blade-control clutch	3. Throttle/choke control	5. Right hand grip	7. Traction control
2. Safety latch	4. Ignition switch	6. Hand guard	8. Left hand grip

## Blade-Control Clutch

Use the blade-control clutch to engage and disengage the mower blade.

## Ignition Switch

The ignition switch has 3 positions: OFF, RUN, and START. The key turns to START and moves back to RUN upon release. Turning the key to the OFF ("STOP") position shuts off the engine; however, always remove the key from the ignition switch when leaving the machine to prevent someone from accidentally starting the engine and to prevent the battery from inadvertently draining (Figure 8).

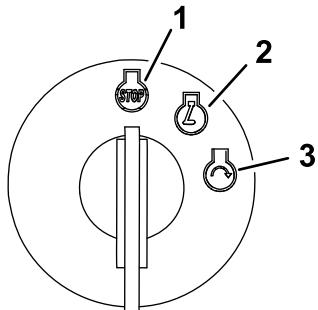
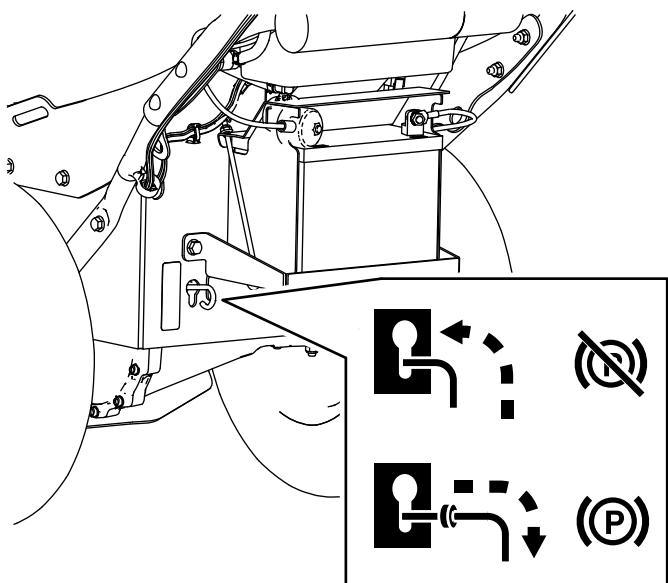


Figure 8

- 1. Off position
- 2. Run position
- 3. Start position

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(Figure 9). Disengage the parking brake by lifting the lever and push it inward through the keyhole.

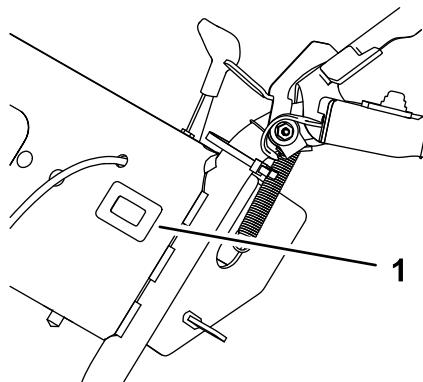


g195543

Figure 9

## Hour Meter

The hour meter displays the number of hours of operation logged on the machine (Figure 10).



g186773

Figure 10

- 1. Hour meter

## Throttle/Choke Lever

1 lever controls both the throttle and the choke. The throttle controls the engine speed and has a continuous-variable setting from SLOW to FAST. Engage the choke by moving the lever past the FAST setting until it stops

## Traction Control

Use the traction control to move the machine forward and rearward with continuously variable speed.

## Fuel-Shutoff Valve

Close the fuel-shutoff valve for transport, maintenance, and storage.

Ensure that the fuel-shutoff valve is open when starting the engine.

## Parking Brake

The parking brake is located near the battery. To engage the parking brake, pull the lever outward through the keyhole and down to lock it in place

# Specifications

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

Length	227 cm (89 inches)
Width	88 cm (35 inches)
Height	101 cm (40 inches)
Weight	171 kg (376 lb)
Cutting width	71 cm (28 inches)

## 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](http://www.Toro.com) for a list of all approved attachments and accessories.

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.

# Operation

## Before Operation

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

## Before Operation Safety

### General Safety

- Become familiar with the safe operation of the equipment, operator controls, and safety signs.
- Check that all guards and safety devices, such as deflectors and/or grass catcher, are in place and working properly.
- Always inspect the machine to ensure that the blades, blade bolts, and cutting assembly are not worn or damaged.
- Inspect the area where you will use the machine, and remove all objects that could interfere with the operation of the machine or that the machine could throw.

### Fuel Safety

- Fuel is extremely flammable and highly explosive. A fire or explosion from fuel can burn you and others and can damage property.
  - To prevent a static charge from igniting the fuel, place the container and/or machine directly on the ground before filling, not in a vehicle or on an object.
  - Fill the fuel tank outdoors, in an open area, when the engine is cold. Wipe up any fuel that spills.
  - Do not handle fuel when smoking or around an open flame or sparks.
  - Do not remove the fuel cap or add fuel to the tank while the engine is running or hot.
  - If you spill fuel, do not attempt to start the engine. Avoid creating a source of ignition until the fuel vapors have dissipated.
  - Store fuel in an approved container and keep it out of the reach of children.
- Fuel is harmful or fatal if swallowed. Long-term exposure to vapors can cause serious injury and illness.
  - Avoid prolonged breathing of vapors.
  - Keep your hands and face away from the nozzle and the fuel-tank opening.
  - Keep fuel away from your eyes and skin.

# Fuel Specification

Petroleum fuel	Use unleaded gasoline with an octane rating of 87 or higher ((R+M)/2 rating method).
Ethanol blended fuel	Use an unleaded-gasoline blend 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.

**Important: For best results, use only clean, fresh fuel (less than 30 days old).**

- 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.

## Using Stabilizer/Conditioner

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

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

Add the correct amount of fuel stabilizer/conditioner to the gasoline.

**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. Park the machine on a level surface and shut off the engine.
2. Allow the engine to cool.
3. Clean around the fuel-tank cap and remove it ([Figure 6](#)).
4. Add fuel to the fuel tank until the level of fuel is at the bottom of the filler neck.
5. Install the fuel-tank cap securely.
6. Wipe up any fuel 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 \(page 17\)](#).

## During Operation

## During Operating Safety

### General Safety

- Wear appropriate clothing including eye protection; hearing protection; protective gloves; long pants; and substantial, slip-resistant footwear. Tie back long hair, secure loose clothing, and do not wear loose jewelry.
- Do not operate the machine while ill, tired, or under the influence of alcohol or drugs.
- The blade is sharp; contacting the blade can result in serious personal injury. Shut off the engine, remove the ignition key (if equipped), and wait for all moving parts to stop before leaving the operating position.
- Keep bystanders, especially small children, out of the operating area. Stop the machine if anyone enters the area.
- Always look down and behind you before moving the machine in reverse.
- Operate the machine only in good visibility and appropriate weather conditions. Do not operate the machine when there is the risk of lighting.
- Wet grass or leaves can cause serious injury if you slip and contact the blade. Avoid mowing in wet conditions.
- Use extreme care when approaching blind corners, shrubs, trees, or other objects that may block your view.
- Watch for holes, ruts, bumps, rocks, or other hidden objects. Uneven terrain could cause the machine to overturn or cause you to lose your balance or footing.
- If the machine strikes an object or starts to vibrate, immediately release the blade-control clutch, shut off the engine, remove the key, wait for all moving parts to stop, and disconnect the wire from the spark plug before examining the machine for damage. Make all necessary repairs before resuming operation.
- Before leaving the operating position, shut off the engine, remove the ignition key, and wait for all moving parts to stop.

- If the engine has been running the muffler will be hot and can severely burn you. Keep away from the hot muffler.
- Check the rear deck flap frequently for any wear or deterioration and replace them with the manufacturer's recommended parts when necessary.
- Use accessories and attachments approved by The Toro® Company only.

## Slope Safety

- Slopes are a major factor related to loss of control and rollover accidents, which can result in severe injury or death. The operator is responsible for safe slope operation. Operating the machine on any slope requires extra caution. Before using the machine on a slope, the operator must:
  - Review and understand the slope instructions in the manual and on the machine.
  - Evaluate the site conditions of the day to determine if the slope is safe for machine operation. Use common sense and good judgment when performing this evaluation. Changes in the terrain, such as moisture, can quickly affect the operation of the machine on a slope.
- Operate across slopes, never up and down. Avoid operation on excessively steep or wet slopes. Poor footing could cause a slip and fall accident.
- Identify hazards at the base of the slope. Do not operate the machine near drop-offs, ditches, embankments, water or other hazards. The machine could suddenly roll over if a wheel goes over the edge or the edge collapses. Keep a safe distance between the machine and any hazard. Use a hand held tool to work in these areas.
- Avoid starting, stopping, or turning the machine on slopes. Avoid making sudden changes in speed or direction; turn slowly and gradually.
- Do not operate a machine under any conditions where traction, steering or stability is in question. Be aware that operating the machine on wet grass, across slopes or downhill may cause the machine to lose traction. Loss of traction to the drive wheels may result in sliding and a loss of braking and steering. The machine can slide even if the drive wheels are stopped.
- Remove or mark obstacles such as ditches, holes, ruts, bumps, rocks or other hidden hazards. Tall grass can hide obstacles. Uneven terrain could overturn the machine.

- If you lose control of the machine, step away from the direction of travel of the machine.
- Use the traction control to slow the machine when going down slopes. Do not fully engage the traction control downhill.

## Starting and Shutting Off the Engine

### Starting the Engine

**Note:** You may need multiple attempts to start the engine when you start it the first time or after the engine has run out of fuel completely.

1. Move the throttle lever forward past the FAST position and hold it against the forward stop to activate the choke.
2. Turn the ignition key to the START position (Figure 11).

**Important:** Do not engage the starter for more than 5 seconds at a time. If the engine fails to start, wait 15 seconds between attempts. Failure to follow these instructions can burn out the starter motor.



Figure 11

3. When the engine starts, release the key and move the throttle lever back to the FAST position.

### Shutting Off the Engine

1. Release the blade-control clutch to disengage the blade.
2. Turn the ignition key to the STOP position to shut off the engine and remove the key.

# Operating the Traction Control

To move the machine forward, squeeze the traction control toward the hand grip (Figure 12).

To move the machine rearward, push the thumb pad down to move the traction control away from the hand grip (Figure 12).

The more you move the traction control in either direction, the faster the machine moves in that direction.

To disengage the traction drive, release the traction control.

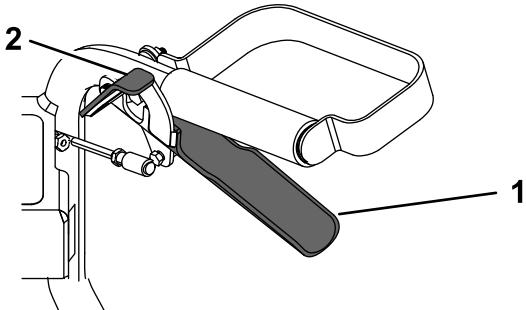


Figure 12

1. Traction control

2. Thumb pad

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# Operating the Blade-Control Clutch

This machine is capable of cutting brush and saplings up to 1.8 m (6 feet) tall and 5.1 cm (2 inches) in diameter. The cutting deck pivots to follow the contour of the ground as you move the machine.

To engage the blade, use your right hand to open the safety latch and then use your left hand to squeeze the blade-control clutch to the left handle (Figure 12).

To disengage the blade, release the blade-control clutch.

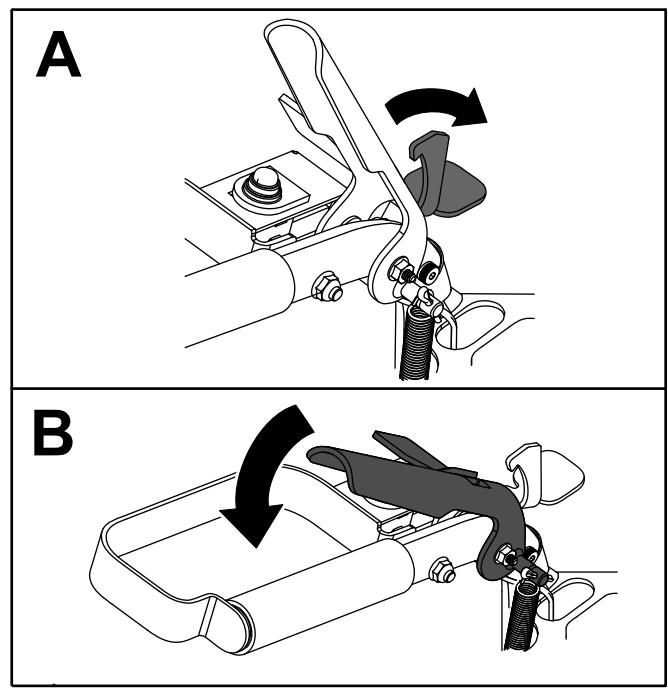


Figure 13

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# After Operation

## After Operation Safety

### General Safety

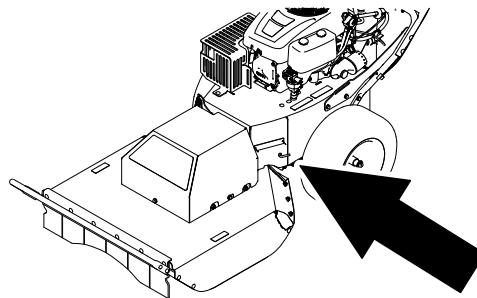
- Clean grass and debris from the machine to help prevent fires. Clean up oil or fuel spills.
- Shut off the engine, and remove the key. Wait for all movement to stop and allow the machine to cool before cleaning, adjusting, repairing, or storing the machine in any enclosure.
- Never store the machine or fuel container where there is an open flame, spark, or pilot light, such as on a water heater or on other appliances.

### Hauling Safety

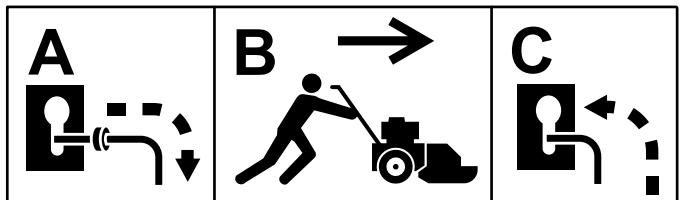
- Remove the ignition key (if equipped) before loading the machine for hauling.
- Use care when loading or unloading the machine.
- Secure the machine from rolling.

# Moving a Nonfunctioning Machine

1. Park the machine on a level surface and disengage the blade-control clutch.
2. Engage the parking brake, shut off the engine, remove the key, and wait for all moving parts to stop.
3. Move the bypass lever outward through the keyhole and down to lock it in place.
4. Disengage the parking brake.
5. Push the machine as required.
6. Engage the parking brake.
7. Move the bypass lever up and inward through the keyhole to disengage the bypass.



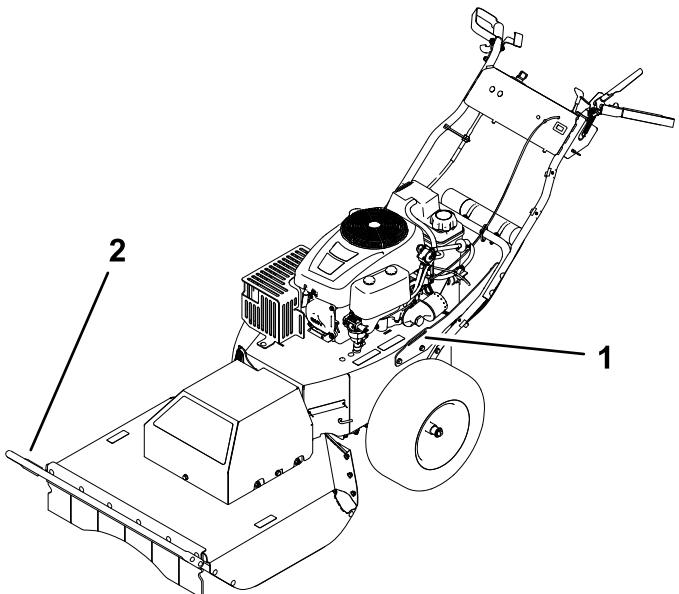
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g188887

Figure 14

trailer or truck with straps, chains, cable, or ropes (Figure 15).



g188889

Figure 15

1. Left tie-down loop      2. Brush bar

## Transporting the Machine

Use a heavy-duty trailer or truck to transport the machine. Ensure that the trailer or truck has all necessary brakes, lighting, and marking as required by law. Please carefully read all the safety instructions. Knowing this information could help you, your family, pets, or bystanders avoid injury.

1. If using a trailer, connect it to the towing vehicle and connect the safety chains.
2. If applicable, connect the trailer brakes.
3. Load the machine onto the trailer or truck.
4. Shut off the engine, remove the key, engage the parking brake, and close the fuel valve.
5. Use the brush bar and 2 tie-down loops on the machine to securely fasten the machine to the

# Maintenance

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

## Recommended Maintenance Schedule(s)

Maintenance Service Interval	Maintenance Procedure
After the first 5 hours	<ul style="list-style-type: none"><li>Change the engine oil and filter.</li></ul>
Before each use or daily	<ul style="list-style-type: none"><li>Clean and check the air-cleaner foam and paper elements.</li><li>Check the engine-oil level.</li><li>Inspect the condition of the tires.</li><li>Clean the engine air-intake screen.</li><li>Inspect the blade.</li><li>Remove debris from the machine.</li></ul>
Every 25 hours	<ul style="list-style-type: none"><li>Check tire pressure.</li><li>Check the belts for wear/cracks.</li></ul>
Every 50 hours	<ul style="list-style-type: none"><li>Replace the air-cleaner foam and paper elements.</li><li>Check the spark plug.</li></ul>
Every 100 hours	<ul style="list-style-type: none"><li>Change the engine oil and filter (change it more often under a heavy load or in high temperatures).</li><li>Replace the spark plug.</li><li>Replace the in-line fuel filter.</li><li>Clean the engine-cooling fins and shrouds.</li></ul>
Before storage	<ul style="list-style-type: none"><li>Charge the battery and disconnect battery cables.</li><li>Change the engine oil and filter.</li><li>Service the air cleaner.</li><li>Empty the fuel tank.</li><li>Lubricate inside the engine cylinder.</li></ul>

### **⚠ CAUTION**

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

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

## Maintenance Safety

- Disconnect the spark-plug wire from the spark plug before performing any maintenance procedure.
- Wear gloves and eye protection when servicing the machine.
- The blade is sharp; contacting the blade can result in serious personal injury. Wear gloves when servicing the blade.
- Never tamper with safety devices. Check their proper operation regularly.
- Tipping the machine may cause the fuel to leak. Fuel is flammable and explosive, and can cause personal injury. Run the engine dry or remove the fuel with a hand pump; never siphon the fuel.

# Engine Maintenance

## Engine Safety

Shut off the engine before checking the oil or adding oil to the crankcase.

## Servicing the Air Cleaner

**Service Interval:** Before each use or daily—Clean and check the air-cleaner foam and paper elements.

Every 50 hours—Replace the air-cleaner foam and paper elements.

**Note:** Service the air cleaner more frequently if the operating conditions are extremely dusty or sandy.

### Removing the Foam and Paper Elements

1. Park the machine on a level surface, shut off the engine, wait for all moving parts to stop, and remove the key from the ignition switch before leaving the operating position.
2. Clean around the air cleaner to prevent dirt from getting into the engine and causing damage.
3. Remove the air-cleaner cover by unscrewing the 2 knobs (Figure 16).

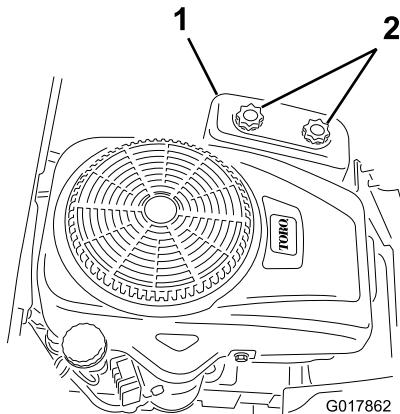


Figure 16

1. Air-cleaner cover      2. Knobs

4. Remove the 2 nuts securing the filter assembly to the housing (Figure 17).

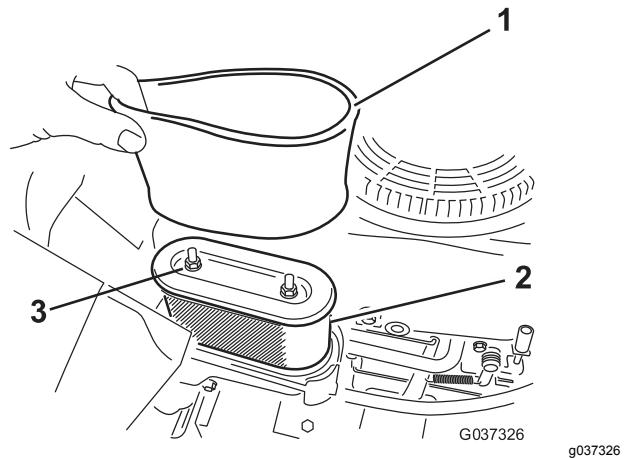


Figure 17

1. Foam element
2. Paper element
3. Nuts
5. Carefully remove the foam and paper-filter elements from the air-cleaner housing.
6. Separate the foam and paper elements.

### Cleaning the Foam and Paper Elements

#### Foam Element:

1. Wash the foam element in liquid soap and warm water.
2. When the element is clean, rinse it thoroughly.
3. Dry the element by squeezing it in a clean cloth.

**Note:** Do not oil the element.

**Important:** Replace the foam element if it is torn or worn.

4. Install the foam element onto a clean paper element.

#### Paper Element:

1. Tap the paper element on a solid, flat surface, and blow it out from the inside with compressed air to remove dust and dirt.
2. Inspect the element for tears, an oily film, and damage to the rubber seal.

**Important:** Do not clean the paper element with liquids, such as solvents, gasoline, or kerosene. Replace the paper element if it is damaged or cannot be cleaned thoroughly.

3. Clean the inside of the air-cleaner cover of all dirt, dust, and debris.

# Installing the Foam and Paper Elements

**Important:** To prevent engine damage, always operate the engine with the complete foam and paper-air cleaner assembly installed.

1. Install the foam filter onto the paper filter (Figure 17).
2. Install the foam and paper filter into the air-cleaner housing.
3. Secure the filter assembly to the housing using the 2 nuts (Figure 17).
4. Install the air-cleaner cover and tighten the 2 knobs (Figure 16).

# Servicing the Engine Oil

## Engine Oil Specification

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

**Crankcase Capacity:** 1.4 L (48 fl oz) when you change the filter.

**Viscosity:** See the table below.

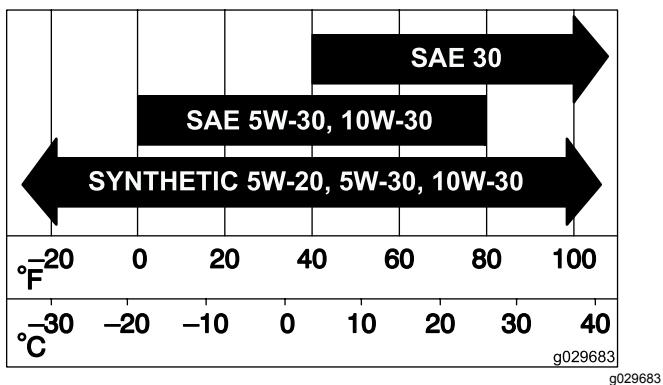


Figure 18

## Checking the Engine-Oil Level

**Service Interval:** Before each use or daily

**Note:** Check the oil when the engine is cold.

### ⚠ WARNING

Contact with hot surfaces may cause personal injury.

Keep hands, feet, face, clothing, and other body parts away the muffler and other hot surfaces.

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

1. Park the machine on a level surface, shut off the engine, wait for all moving parts to stop, and remove the key from the ignition switch before leaving the operating position.
2. Check the engine-oil level (Figure 19).

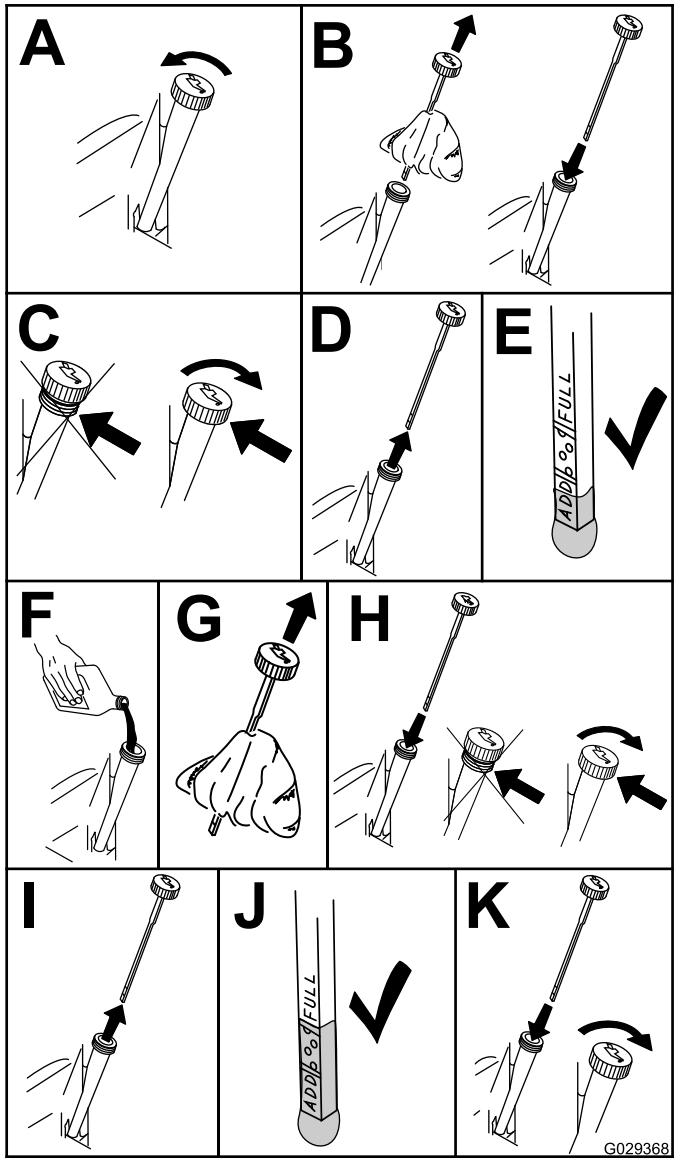


Figure 19

## Changing the Engine Oil and Filter

**Service Interval:** After the first 5 hours

Every 100 hours (change it more often under a heavy load or in high temperatures).

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

1. Park the machine on a level surface, shut off the engine, wait for all moving parts to stop, and remove the key from the ignition switch before leaving the operating position.

2. Drain the oil from the engine (Figure 20).

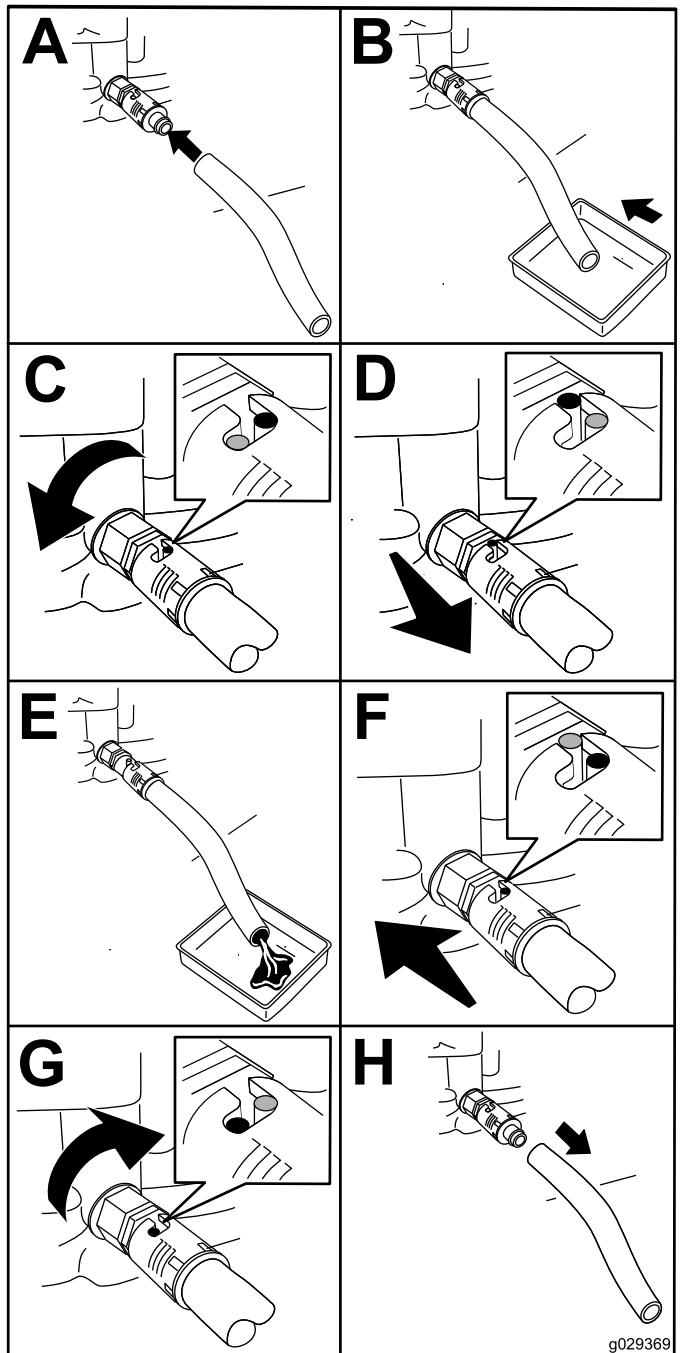


Figure 20

3. Remove the engine-oil filter (Figure 21). After the oil is drained, install a new oil filter.

**Note:** Ensure that the new oil-filter gasket touches the engine, and then tighten the filter an extra 3/4 turn.

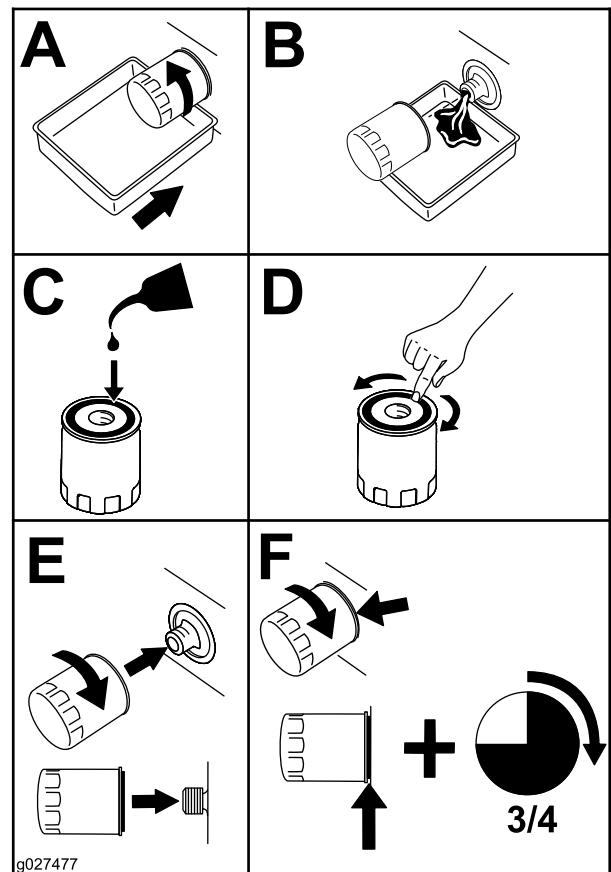


Figure 21

4. Slowly pour approximately 80% of the specified amount of oil into the fill hole (Figure 22).
5. Allow 3 to 5 minutes for the oil to settle, then check the oil level (Figure 22).

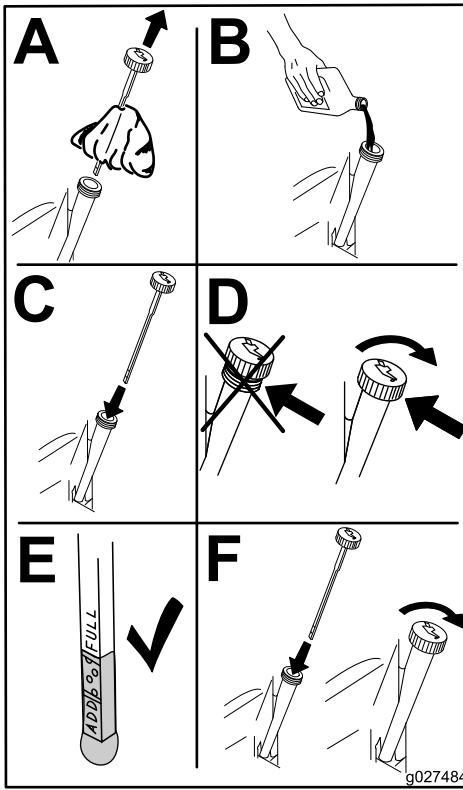


Figure 22

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6. Add oil to the machine so that the oil level reaches the "Full" mark on the dipstick.

## Servicing the Spark Plug

**Service Interval:** Every 50 hours—Check the spark plug.

Every 100 hours—Replace the spark plug.

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 plug and a gapping tool or feeler gauge to check and adjust the air gap. Install a new spark plug if necessary.

## Spark Plug Specification

**Type:** Champion® RC12YC, Autolite® 3924, or NGK® BPR6ES

**Air Gap:** 0.76 mm (0.030 inch)

## Removing the Spark Plug

1. Park the machine on a level surface, shut off the engine, and remove the key from the ignition switch.
2. Before removing the spark plug(s), clean the area around the base of the plug to keep dirt and debris out of the engine.
3. Remove the spark plug (Figure 23).

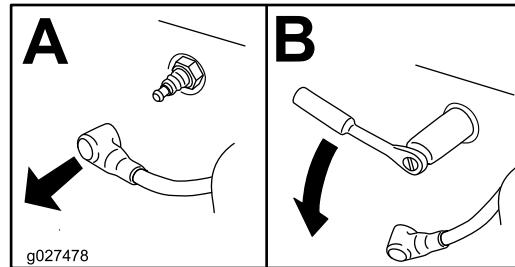


Figure 23

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## Checking the Spark Plug

**Important:** Do not clean the spark plug(s). Always replace the spark plug(s) when it has: a black coating, worn electrodes, an oily film, or cracks.

**Note:** If you see light brown or gray on the insulator, the engine is operating properly. A black coating on the insulator usually means the air cleaner is dirty.

Set the gap to 0.76 mm (0.030 inch).

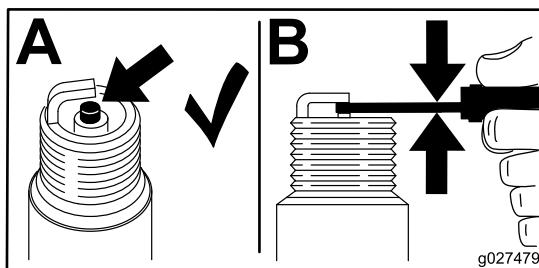


Figure 24

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## Installing the Spark Plug

Tighten the spark plug to 20 N·m (15 ft-lb).

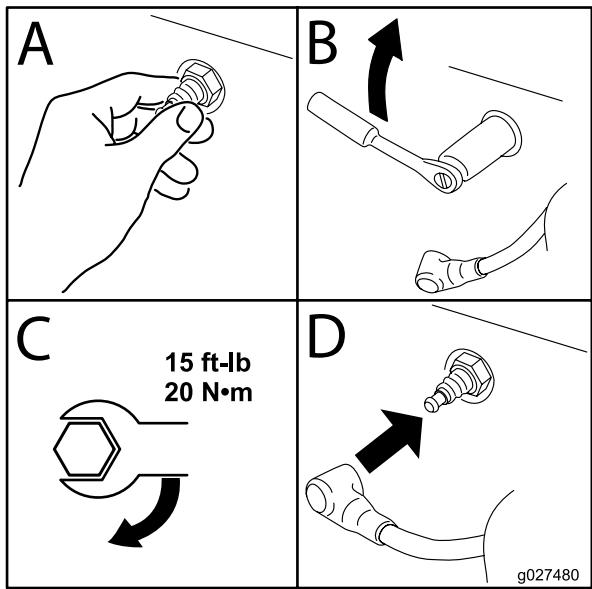


Figure 25

## Fuel System Maintenance

### ⚠ DANGER

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

- Perform any fuel-related maintenance when the engine is cold. Do this outdoors in an open area. 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.

## Replacing the In-Line Fuel Filter

**Service Interval:** Every 100 hours—Replace the in-line fuel filter.

Never install a dirty filter if it is removed from the fuel line.

1. Park the machine on a level surface, shut off the engine, and remove the key from the ignition switch.
2. Close the fuel-shutoff valve.
3. Replace the in-line filter (Figure 26).

# Electrical System Maintenance

## Electrical System Safety

- Disconnect the battery before repairing the machine. Disconnect the negative terminal first and the positive last. Connect the positive terminal first and the negative last.
- Charge the battery in an open, well-ventilated area, away from sparks and flames. Unplug the charger before connecting or disconnecting the battery.
- Wear protective clothing and use insulated tools.

## Removing the Battery

### ⚠ WARNING

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

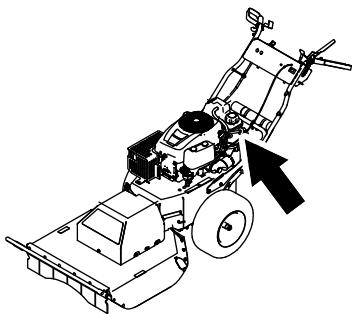
- When removing or installing the battery, do not allow the battery terminals to touch any metal parts of the machine.
- Do not allow metal tools to short between the battery terminals and metal parts of the machine.

### ⚠ WARNING

**Incorrect battery-cable routing could damage the machine 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.

1. Park the machine on a level surface, shut off the engine, and remove the key from the ignition switch.
2. Disconnect the negative (black) battery cable from the battery.
3. Disconnect the positive (red) battery cable from the battery.



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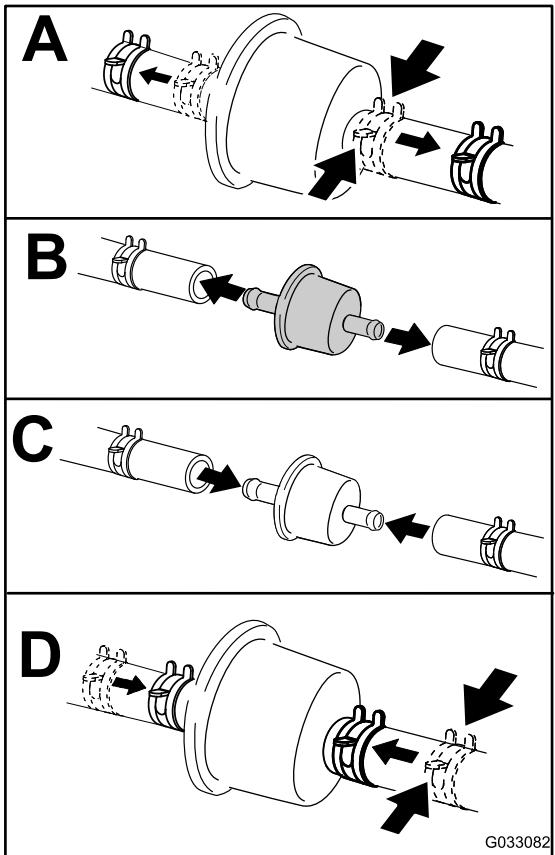


Figure 26

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4. Remove the nuts and securing rods from both sides of the battery, battery cover, and battery tray.

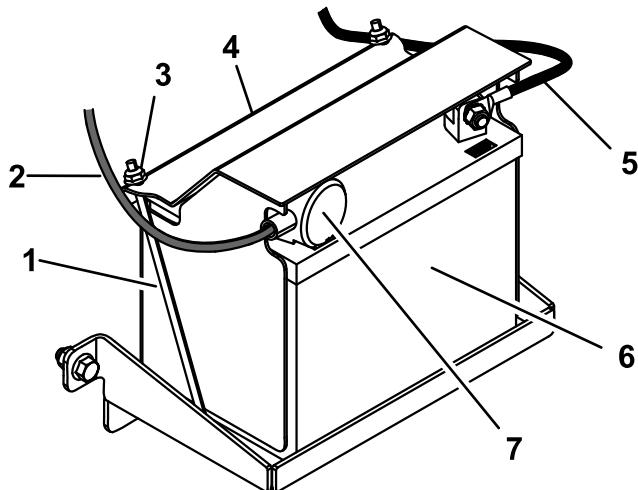


Figure 27

1. Securing rod (2)	5. Negative battery cable
2. Positive battery cable	6. Battery
3. Nut (2)	7. Red terminal boot
4. Battery cover	

## Charging the Battery

**Service Interval:** Before storage—Charge the battery and disconnect battery cables.

1. Remove the battery from the chassis; refer to [Removing the Battery \(page 21\)](#).
2. Charge the battery for a minimum of 1 hour at 6 to 10 amps.
3. When the battery is fully charged, unplug the charger from the electrical outlet, then disconnect the charger leads from the battery posts ([Figure 28](#)).

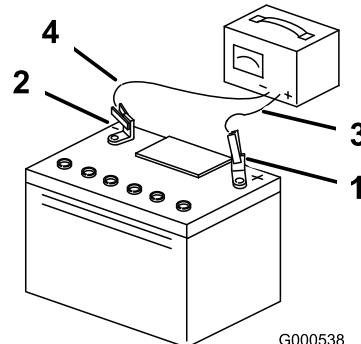


Figure 28

1. Positive (+) battery post	3. Red (+) charger lead
2. Negative (-) battery post	4. Black (-) charger lead

## Installing the Battery

1. Place the battery on the tray and secure it using the battery cover, 2 securing rods, and 2 nuts ([Figure 27](#)).
2. Install the positive battery cable to the positive (+) battery post.
3. Install the negative battery cable to the negative (-) battery post.
4. Slide the red terminal boot onto the positive battery post ([Figure 27](#)).

## Servicing a Replacement Battery

The original battery is maintenance-free and does not require service. For servicing a replacement battery, refer to the battery manufacturer's instructions.

## Drive System Maintenance

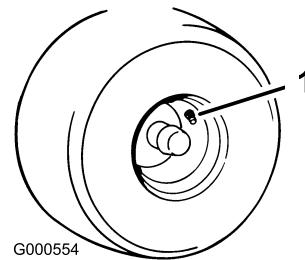
### Checking the Tire Pressure

**Service Interval:** Before each use or daily

Every 25 hours—Check tire pressure.

Maintain the air pressure in the tires as specified. Check the pressure at the valve stem (Figure 29). Check the tires when they are cold to get the most accurate pressure reading.

Inflate the tires to 97 kPa (14 psi).



**Figure 29**

1. Valve stem

# Cooling System Maintenance

## Cleaning the Engine Screen

**Service Interval:** Before each use or daily—Clean the engine air-intake screen.

To ensure proper cooling, ensure that the air-intake screen, cooling fins, and other external surfaces of the engine are kept clean at all times.

Use a dry brush to clean accumulated debris from the air-intake screen and around the engine.

**Important:** To prevent contaminating the fuel system, do not use water to clean the engine.

## Cleaning the Engine-Cooling Fins and Shrouds

**Service Interval:** Every 100 hours—Clean the engine-cooling fins and shrouds.

1. Park the machine on a level surface, shut off the engine, and remove the key from the ignition switch.
2. Remove the air-intake screen and cooling shrouds.
3. Clean the debris and grass from the engine parts.
4. Install the air-intake screen and cooling shrouds.

# Belt Maintenance

## Inspecting the Belts

**Service Interval:** Every 25 hours—Check the belts for wear/cracks.

Check the belts for cracks, frayed edges, burn marks, or any other damage. Replace damaged belts.

## Replacing the Transmission Belt

1. Park the machine on a level surface, disengage the blade, and engage the parking brake.
2. Turn the ignition key to the OFF position, remove the key, and disconnect the spark plug wire from the spark plug.
3. Use lifting equipment to raise the machine and support it with jack stands.
4. Remove the extension spring from the tension arm (Figure 30).

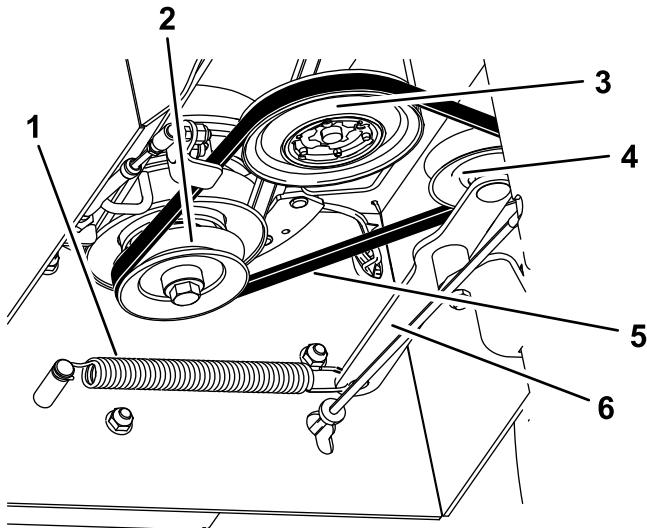


Figure 30  
Transmission not shown

1. Extension spring
2. Clutch pulley
3. Transmission pulley
4. Tension pulley
5. Belt
6. Tension arm

---

5. Remove the transmission belt from the pulleys.
6. Wrap the new transmission belt around the clutch, transmission, and tension pulleys (Figure 30).
7. Install the extension spring onto the tension arm.

# Replacing the Mower Belt

1. Park the machine on a level surface, disengage the blade, and engage the parking brake.
2. Turn the ignition key to the OFF position, remove the key, and disconnect the spark plug wire from the spark plug.
3. Use lifting equipment to raise the machine and support it with jack stands.
4. Remove the transmission belt; refer to [Replacing the Transmission Belt \(page 24\)](#).
5. Loosen the left and right side bolts a few turns and loosen the front bolt until the cover is loose ([Figure 31](#)).

**Note:** Do not remove the bolts.

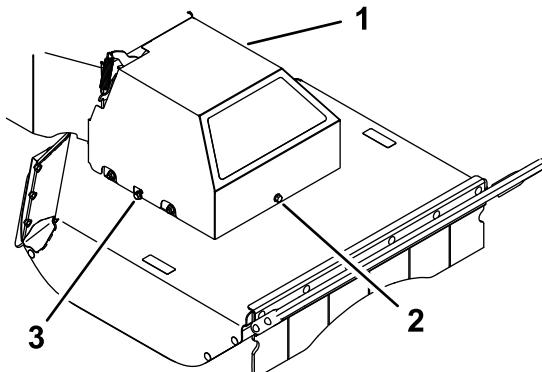


Figure 31

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1. Belt cover
2. Front bolt
3. Right side bolt

---

6. Lift the cover upward to remove it.
7. Detach the extension spring ([Figure 32](#)).

## ⚠ CAUTION

The spring is under tension when installed and can cause personal injury.

Wear safety glasses and be careful when removing the spring.

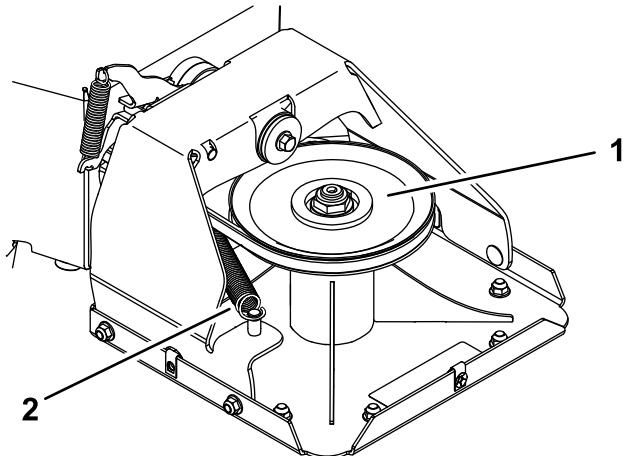


Figure 32

g188940

1. Deck pulley
2. Extension spring
8. Remove the mower belt from the clutch pulley.
9. Route the new belt around the clutch pulley, through the belt guide, along the idler pulley, and around the deck pulley ([Figure 32](#) and [Figure 33](#)).

**Note:** Ensure that the belt is seated correctly on both pulleys, with no twists. The belt needs to be in this position until you install the extension spring.

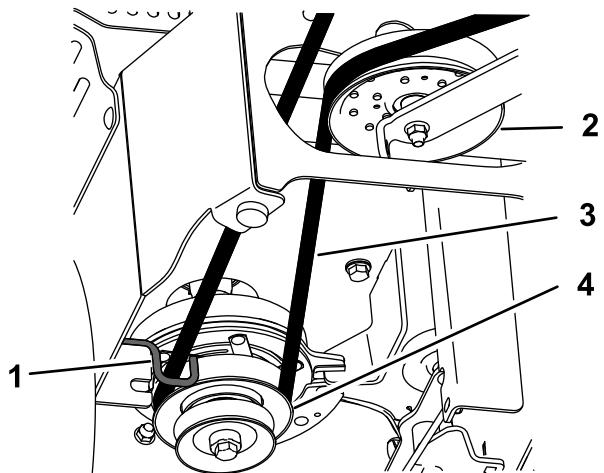


Figure 33

g189063

Transmission not shown

1. Belt guide
2. Idler pulley
3. Mower belt
4. Clutch pulley
10. Install the extension spring ([Figure 32](#)).
11. Lower the belt cover onto the deck, aligning the slots in the cover with the side bolts. Tighten the front bolt, then tighten both side bolts ([Figure 31](#)).
12. Install the transmission belt; refer to [Replacing the Transmission Belt \(page 24\)](#).

# Mower Maintenance

To ensure a superior quality of cut, keep the blade sharp. For convenient sharpening and replacement, you may want to keep extra blades on hand.

## Blade Safety

A worn or damaged blade can break, and a piece of the blade could be thrown at you or bystanders, resulting in serious personal injury or death. Trying to repair a damaged blade may result in discontinued safety certification of the product.

- Inspect the blade periodically for wear or damage.
- Use care when checking the blade. Wrap the blade or wear gloves, and use caution when servicing the blade. Only replace or sharpen the blade; never straighten or weld them.

## Before Inspecting or Servicing the Blade

1. Park the machine on a level surface, disengage the blade, and engage the parking brake.
2. Turn the ignition key to the OFF position, remove the key, and disconnect the spark plug wires from the spark plugs.
3. Tilt the machine so that the deck is off the ground and place wood blocks under the deck to hold it up.

## Inspecting the Blade

**Service Interval:** Before each use or daily

1. Inspect the cutting edges (Figure 34).
2. If the edges are not sharp or have nicks, remove and sharpen the blade; refer to [Sharpening the Blade \(page 27\)](#).
3. Inspect the blade.
4. If you notice any crack or wear, immediately install a new blade (Figure 34).

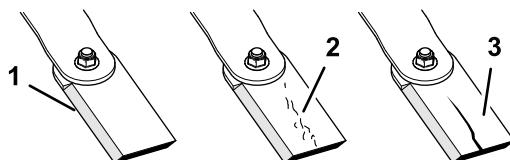


Figure 34

1. Cutting edge
2. Wear
3. Crack

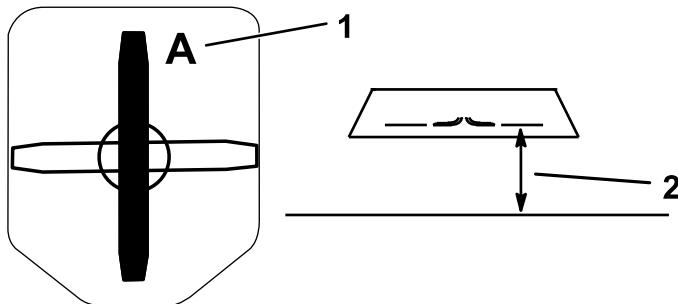
## Checking for a Bent Blade Straight Blade Only

### ⚠ WARNING

A blade that is bent or damaged could break apart and could seriously injure or kill you or bystanders.

- Always replace a bent or damaged blade with a new blade.
- Do not file or create sharp notches in the edges or surfaces of the blade.

1. Rotate the blade until the ends face forward and backward.
2. From a level surface, measure the distance to the cutting edge at position A of the blade (Figure 35).



g189024

Figure 35

1. Position A
2. Measure here from blade to hard surface.

3. Rotate the blade 180°.
4. From a level surface, measure the distance to the cutting edge of the blade at the same position as in step 2.

**Note:** The difference between the dimensions obtained in steps 2 and 4 must not exceed 3 mm (1/8 inch).

**Note:** If this dimension exceeds 3 mm (1/8 inch), the blade is bent and must be replaced.

g248312

# Removing the Blade

Replace the blade if it hits a solid object, if the blade is out of balance, or if a blade is bent. To ensure optimum performance and continued safety conformance of the machine, use genuine Toro replacement blades. Replacement blades made by other manufacturers may result in nonconformance with safety standards.

**Note:** Flail blades are sharpened on 2 sides, so you can turn over a blade when you remove it for a new sharp edge

## Flail Blade Only

1. Hold the blade end using a rag or a thickly padded glove.
2. Remove the blade bolt, the curved washer, and blade from the blade mount on the bottom of the spindle-cup assembly (Figure 36).

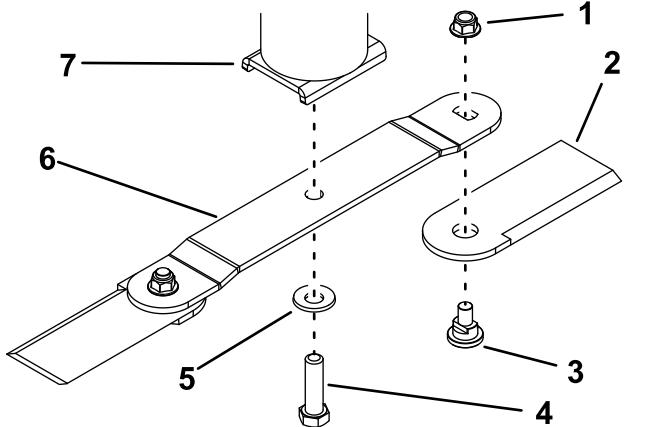


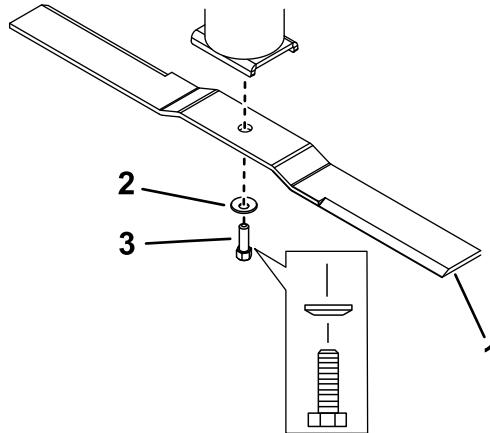
Figure 36

1. Nut	5. Curved washer
2. Flail	6. Blade
3. Flail bolt	7. Spindle-cup assembly
4. Blade bolt	

3. To remove only the flail blades, remove the flails from the blade by removing the flail bolt and nut from each flail.

## Straight Blade Only

1. Hold the blade end using a rag or thickly-padded glove.
2. Remove the blade bolt, curved washer, and blade from the spindle cup assembly (Figure 37).



g189023

Figure 37

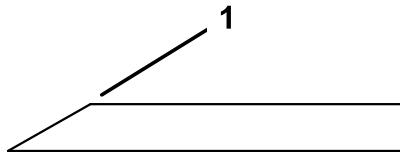
1. Blade	3. Blade bolt
2. Curved washer	

## Sharpening the Blade

1. Use a file to sharpen the cutting edge at both ends of the blade (Figure 38).

**Note:** Maintain the original angle.

**Note:** The blade retains balance if the same amount of material is removed from both cutting edges.



g192119

Figure 38

1. Sharpen at the original angle

2. For straight blades only, check the balance of the blade by putting it on a blade balancer (Figure 39).

If the blade is not balanced, file some metal off the back side of the blade (opposite of the cutting edge) only (Figure 36).

Repeat this procedure until the blade is balanced.

**Note:** If the blade stays in a horizontal position, the blade is balanced.

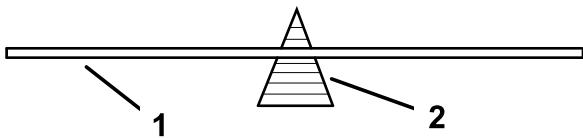


Figure 39

g192120

1. Blade
2. Balancer

## Cleaning

### Removing Debris from the Machine

Regular cleaning and washing increases the lifespan of the machine. Clean the machine directly after use.

Check before cleaning that the fuel tank cap is properly in place to avoid getting water in the tank.

Use care when using a high-pressure sprayer, because it can damage warning decals, instruction signs, and the engine.

## Installing the Blade

### Flail Blade Only

1. Attach the blade to the spindle cup assembly using the blade bolt and curved washer (Figure 36).

**Note:** Ensure that cupped side of the washer faces the blade, and the convex side of the blade faces the spindle cup.

2. Torque the bolt to 136 to 149 N·m (100 to 110 ft-lb).
3. To install only the flail blades, secure the flails to the end of the blade using the flail bolt and a new nut for each flail (Figure 36). Torque the nut to 103 to 127 N·m (76 to 94 ft-lb).

**Note:** Always replace a removed flail nut with a new nut.

**Note:** Secure the flails to the bottom of the blade, not the top.

### Straight Blade Only

1. Install the blade onto the spindle shaft (Figure 37).

**Note:** Ensure that the convex side of the blade faces the spindle cup.

2. Install the curved washer (cupped side toward the blade) and blade bolt (Figure 37).
3. Torque the blade bolt to 136 to 149 N·m (100 to 110 ft-lb).

# Storage

## Storing the Machine

For storage over 30 days, prepare the machine as follows:

1. Park the machine on a level surface, disengage the blade, and engage the parking brake.
2. Turn the ignition key to the OFF position, remove the key, and disconnect the spark plug wire from the spark plug.
3. Remove debris, dirt, and grime from the external parts of the entire machine, especially the engine.

***Important: You can wash the machine with mild detergent and water.***

4. Add a petroleum-based stabilizer/conditioner to fuel in the tank. Follow the mixing instructions from the stabilizer manufacturer. (7.8 ml per L or 1 fl oz per US gallon).

**Note:** Fuel stabilizer/conditioner is most effective when mixed with fresh fuel and used at all times.

***Important: Do not use an alcohol-based stabilizer (ethanol or methanol). Do not store stabilizer/conditioned fuel over 90 days.***

5. Run the engine to distribute conditioned fuel through the fuel system (5 minutes).
6. Shut off the engine, allow it to cool, and drain the fuel tank using a pump type siphon. Dispose of fuel properly; recycle as per local codes.
7. Start the engine and run it until it shuts off.
8. Start and run the engine until it does not start again.
9. Service the air cleaner; refer to [Servicing the Air Cleaner \(page 16\)](#).
10. Change the engine crankcase oil; refer to [Changing the Engine Oil and Filter \(page 17\)](#).
11. Remove and charge the battery; refer to [Charging the Battery \(page 22\)](#).
12. Remove the spark plug and check the condition; refer to [Servicing the Spark Plug \(page 19\)](#).
13. With the spark plug removed from the engine, pour 2 tablespoons of engine oil into the spark plug hole. Now use the starter to crank the engine and distribute the oil inside the cylinder. Install the spark plug(s). Do not install the wire on the spark plug(s).
14. Check and tighten all bolts, nuts, and screws. Repair or replace any part that is damaged.

15. Paint all scratched or bare metal surfaces. Paint is available from your Authorized Service Dealer.
16. Store the machine in a clean, dry garage or storage area.
17. Cover the machine to protect it and keep it clean.

# Troubleshooting

Problem	Possible Cause	Corrective Action
The engine overheats.	<ol style="list-style-type: none"> <li>1. The engine load is excessive.</li> <li>2. The oil level in the crankcase is low.</li> <li>3. The cooling fins and air passages under the engine blower housing are plugged.</li> <li>4. The air cleaner is dirty.</li> <li>5. Dirt, water, or stale fuel is in fuel system.</li> </ol>	<ol style="list-style-type: none"> <li>1. Reduce the ground speed.</li> <li>2. Add oil to the crankcase.</li> <li>3. Remove the obstruction from the cooling fins and air passages.</li> <li>4. Clean or replace the air cleaner element.</li> <li>5. Contact an Authorized Service Dealer</li> </ol>
The starter does not crank.	<ol style="list-style-type: none"> <li>1. The blade control switch is engaged.</li> <li>2. The battery is dead.</li> <li>3. The electrical connections are corroded or loose.</li> <li>4. A fuse is blown.</li> <li>5. A relay or switch is damaged.</li> </ol>	<ol style="list-style-type: none"> <li>1. Disengage the blade-control switch.</li> <li>2. Charge the battery. Turn the ignition switch to OFF and remove the key when the machine is not in use to avoid draining the battery.</li> <li>3. Check the electrical connections for good contact.</li> <li>4. Replace the fuse.</li> <li>5. Contact an Authorized Service Dealer.</li> </ol>
The engine does not start, starts hard, or fails to keep running.	<ol style="list-style-type: none"> <li>1. The fuel tank is empty.</li> <li>2. The air cleaner is dirty.</li> <li>3. The spark plug wire(s) is loose or disconnected.</li> <li>4. The spark plug(s) is pitted, fouled, or the gap is incorrect.</li> <li>5. There is dirt in fuel filter.</li> <li>6. Dirt, water, or stale fuel is in fuel system.</li> <li>7. There is incorrect fuel in the fuel tank.</li> <li>8. The oil level in the crankcase is low.</li> </ol>	<ol style="list-style-type: none"> <li>1. Fill the fuel tank.</li> <li>2. Clean or replace the air cleaner element.</li> <li>3. Install the wire(s) on the spark plug.</li> <li>4. Install a new, correctly gapped spark plug(s).</li> <li>5. Replace the fuel filter.</li> <li>6. Contact an Authorized Service Dealer.</li> <li>7. Drain the tank and replace the fuel with the proper type.</li> <li>8. Add oil to the crankcase.</li> </ol>
The engine loses power.	<ol style="list-style-type: none"> <li>1. The engine load is excessive.</li> <li>2. The air cleaner is dirty.</li> <li>3. The oil level in the crankcase is low.</li> <li>4. The cooling fins and air passages under the engine blower housing are plugged.</li> <li>5. The spark plug(s) is pitted, fouled, or the gap is incorrect.</li> <li>6. The fuel tank vent is blocked.</li> <li>7. There is dirt in the fuel filter.</li> <li>8. Dirt, water, or stale fuel is in the fuel system.</li> <li>9. There is incorrect fuel in the fuel tank.</li> </ol>	<ol style="list-style-type: none"> <li>1. Reduce ground speed.</li> <li>2. Clean the air cleaner element.</li> <li>3. Add oil to the crankcase.</li> <li>4. Remove the obstruction from the cooling fins and air passages.</li> <li>5. Install a new, correctly gapped spark plug(s).</li> <li>6. Contact an Authorized Service Dealer.</li> <li>7. Replace the fuel filter.</li> <li>8. Contact an Authorized Service Dealer.</li> <li>9. Drain the tank and replace the fuel with the proper type.</li> </ol>
There is abnormal vibration.	<ol style="list-style-type: none"> <li>1. The engine mounting bolts are loose.</li> <li>2. The engine pulley, idler pulley, or blade pulley is loose.</li> <li>3. The engine pulley is damaged.</li> <li>4. The cutting blade(s) is/are bent or unbalanced.</li> <li>5. A blade mounting bolt is loose.</li> <li>6. A blade spindle is bent.</li> </ol>	<ol style="list-style-type: none"> <li>1. Tighten the engine mounting bolts.</li> <li>2. Tighten the appropriate pulley.</li> <li>3. Contact an Authorized Service Dealer.</li> <li>4. Install a new cutting blade(s).</li> <li>5. Tighten the blade mounting bolt.</li> <li>6. Contact an Authorized Service Dealer.</li> </ol>

Problem	Possible Cause	Corrective Action
The cutting height is uneven.	<ol style="list-style-type: none"> <li>1. The blade(s) is not sharp.</li> <li>2. The cutting blade is bent.</li> <li>3. The underside of the mower is dirty.</li> <li>4. A blade spindle is bent.</li> </ol>	<ol style="list-style-type: none"> <li>1. Sharpen the blade(s).</li> <li>2. Install a new cutting blade.</li> <li>3. Clean the underside of the mower.</li> <li>4. Contact an Authorized Service Dealer.</li> </ol>
The blade does not rotate.	<ol style="list-style-type: none"> <li>1. The mower belt is off the pulley.</li> <li>2. The blade-control clutch is faulty.</li> <li>3. The mower belt is worn, loose, or broken.</li> </ol>	<ol style="list-style-type: none"> <li>1. Install the mower belt.</li> <li>2. Contact an Authorized Service Dealer.</li> <li>3. Install a new mower belt.</li> </ol>
The brush cutter does not move when the traction drive is engaged.	<ol style="list-style-type: none"> <li>1. The transmission belt is off the pulleys.</li> <li>2. The transmission belt is worn, loose, or broken.</li> <li>3. The transmission bypass is engaged.</li> <li>4. The parking brake is engaged.</li> <li>5. The shaft key that drives the wheel is missing or sheared at one or both wheels.</li> <li>6. The transmission is faulty.</li> </ol>	<ol style="list-style-type: none"> <li>1. Install the transmission belt.</li> <li>2. Replace the transmission belt.</li> <li>3. Disengage the transmission bypass.</li> <li>4. Disengage the parking brake.</li> <li>5. Replace the shaft key.</li> <li>6. Contact your Authorized Service Dealer.</li> </ol>
The cutting performance is poor.	<ol style="list-style-type: none"> <li>1. The forward traction speed is too fast.</li> <li>2. The blade is dull.</li> <li>3. The underside of the mower deck is clogged with debris.</li> </ol>	<ol style="list-style-type: none"> <li>1. Reduce the forward speed.</li> <li>2. Sharpen or replace the blade.</li> <li>3. Clean the debris from beneath the deck.</li> </ol>

# Notes:

# Notes:

# California Proposition 65 Warning Information

## What is this warning?

You may see a product for sale that has a warning label like the following:



## What is Prop 65?

Prop 65 applies to any company operating in California, selling products in California, or manufacturing products that may be sold in or brought into California. It mandates that the Governor of California maintain and publish a list of chemicals known to cause cancer, birth defects, and/or other reproductive harm. The list, which is updated annually, includes hundreds of chemicals found in many everyday items. The purpose of Prop 65 is to inform the public about exposure to these chemicals.

Prop 65 does not ban the sale of products containing these chemicals but instead requires warnings on any product, product packaging, or literature with the product. Moreover, a Prop 65 warning does not mean that a product is in violation of any product safety standards or requirements. In fact, the California government has clarified that a Prop 65 warning “is not the same as a regulatory decision that a product is ‘safe’ or ‘unsafe.’” Many of these chemicals have been used in everyday products for years without documented harm. For more information, go to <https://oag.ca.gov/prop65/faqs-view-all>.

A Prop 65 warning means that a company has either (1) evaluated the exposure and has concluded that it exceeds the “no significant risk level”; or (2) has chosen to provide a warning based on its understanding about the presence of a listed chemical without attempting to evaluate the exposure.

## Does this law apply everywhere?

Prop 65 warnings are required under California law only. These warnings are seen throughout California in a wide range of settings, including but not limited to restaurants, grocery stores, hotels, schools, and hospitals, and on a wide variety of products. Additionally, some online and mail order retailers provide Prop 65 warnings on their websites or in catalogs.

## How do the California warnings compare to federal limits?

Prop 65 standards are often more stringent than federal and international standards. There are various substances that require a Prop 65 warning at levels that are far lower than federal action limits. For example, the Prop 65 standard for warnings for lead is 0.5 µg/day, which is well below the federal and international standards.

## Why don't all similar products carry the warning?

- Products sold in California require Prop 65 labelling while similar products sold elsewhere do not.
- A company involved in a Prop 65 lawsuit reaching a settlement may be required to use Prop 65 warnings for its products, but other companies making similar products may have no such requirement.
- The enforcement of Prop 65 is inconsistent.
- Companies may elect not to provide warnings because they conclude that they are not required to do so under Prop 65; a lack of warnings for a product does not mean that the product is free of listed chemicals at similar levels.

## Why does Toro include this warning?

Toro has chosen to provide consumers with as much information as possible so that they can make informed decisions about the products they buy and use. Toro provides warnings in certain cases based on its knowledge of the presence of one or more listed chemicals without evaluating the level of exposure, as not all the listed chemicals provide exposure limit requirements. While the exposure from Toro products may be negligible or well within the “no significant risk” range, out of an abundance of caution, Toro has elected to provide the Prop 65 warnings. Moreover, if Toro does not provide these warnings, it could be sued by the State of California or by private parties seeking to enforce Prop 65 and subject to substantial penalties.

## **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](mailto: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.



**Count on it.**