



# 22in Recycler® Lawn Mower

Model No. 20370—Serial No. 316000001 and Up

Model No. 20371—Serial No. 316000001 and Up

Model No. 20377—Serial No. 316000001 and Up

Model No. 20378—Serial No. 316000001 and Up

## Operator's Manual

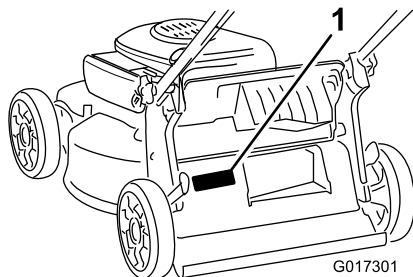
Replacement parts are available from an Authorized Service Dealer or at [www.shoptoro.com](http://www.shoptoro.com).

## Introduction

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 and 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.



**Figure 1**

1. Model and serial number plate

Write the product model and serial numbers in the space below:

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.

<p><b>WARNING</b></p> <p><b>CALIFORNIA</b></p> <p><b>Proposition 65 Warning</b></p> <p><b>The engine exhaust from this product contains chemicals known to the State of California to cause cancer, birth defects, or other reproductive harm.</b></p>
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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.

This spark ignition system complies with Canadian ICES-002.

The enclosed *Engine Owner's Manual* is supplied for information regarding the US Environmental Protection Agency (EPA) and the California Emission Control Regulation of emission systems, maintenance, and warranty. Replacements may be ordered through the engine manufacturer.

For models with stated engine horsepower, the gross horsepower of the engine was laboratory rated by the engine manufacturer in accordance with SAE J1940. As configured to meet safety, emission, and operating requirements, the actual engine horsepower on this class of lawn mower will be significantly lower.



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# Safety

This machine has been designed in accordance with EN ISO 5395:2013 and ANSI B71.1-2012.

## 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.

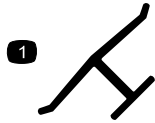
- Read and understand the contents of this *Operator's Manual* before you start the engine. Ensure that everyone using this product knows how to use it and understands the warnings.
- Do not put your hands or feet near moving components of the machine.
- Do not operate the machine without all guards and other safety protective devices in place and working on the machine.
- Keep clear of any discharge opening. Keep bystanders a safe distance from the machine.
- Keep children out of the operating area. Never allow children to operate the machine.
- Stop the machine and shut off the engine before servicing, fueling, or unlogging 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 items of safety information in their respective sections throughout this manual.

# Safety and Instructional Decals

**Important:** Safety and instruction decals are located near areas of potential danger. Replace damaged decals.



**Manufacturer's Mark**

1. Indicates the blade is identified as a part from the original machine manufacturer.

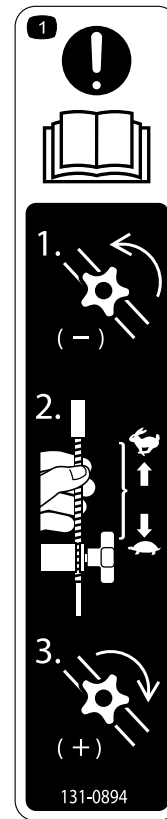


**94-8072**



**112-8867**

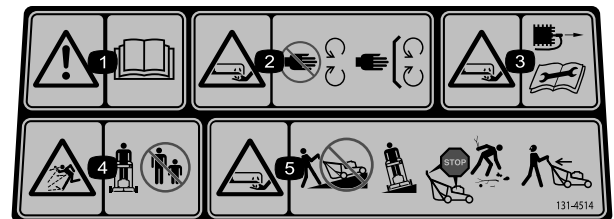
1. Lock
2. Unlock



**131-0894**

**Traction Adjustment**

1. Attention; read the *Operator's Manual*—1) Loosen the knob by turning it counter clockwise; 2) Pull the cable(s) away from the engine to decrease the traction, or push the cable(s) toward the engine to increase the traction; 3) Tighten the knob by turning it clockwise.



**131-4514**

1. Warning—read the *Operator's Manual*.
2. Cutting/dismemberment hazard of hand or foot, mower blade—stay away from moving parts; keep all guards and shields in place.
3. Cutting/dismemberment hazard of hand or foot, mower blade—disconnect the spark-plug wire and read the instructions before servicing or performing maintenance.
4. Thrown object hazard—keep bystanders a safe distance from the machine.
5. Cutting/dismemberment hazard of hand or foot, mower blade—do not operate up and down slopes; operate side to side on slopes; stop the engine before leaving the operating position; and look behind you when backing up.

# Setup

**Important:** Remove and discard the protective plastic sheet that covers the engine.

## 1

### Installing the Handle

No Parts Required

#### Procedure

#### **⚠ WARNING**

Folding or unfolding the handle improperly can damage the cables, causing an unsafe operating condition.

- Do not damage the cables when folding or unfolding the handle.
- If a cable is damaged, contact an Authorized Service Dealer.

1. Remove the handle knobs from the machine housing (Figure 3).

**Important:** Route the cables to the outside of the handle knobs as you install the handle.

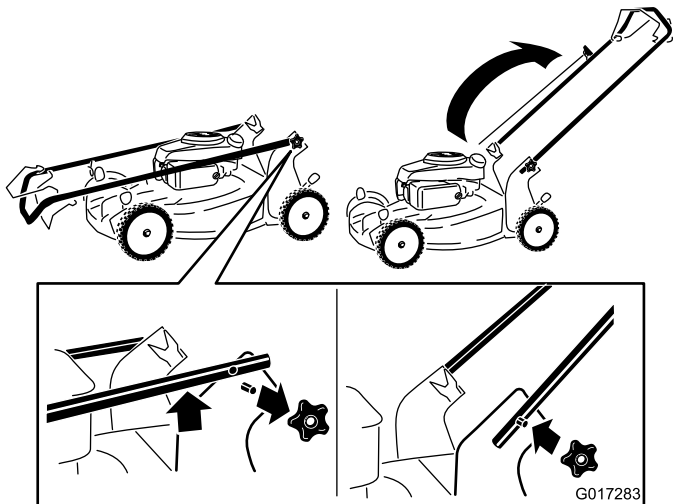


Figure 3

2. Move the handle to the operating position.
3. Install and tighten the handle knobs that you removed in step 1 (Figure 3).

## 2

### Installing the Recoil-Starter Rope in the Rope Guide

No Parts Required

#### Procedure

**Important:** To start the engine safely and easily whenever you use the machine, install the recoil-starter rope in the rope guide.

Hold the blade-control bar to the upper handle and pull the recoil-starter rope through the rope guide on the handle (Figure 4).

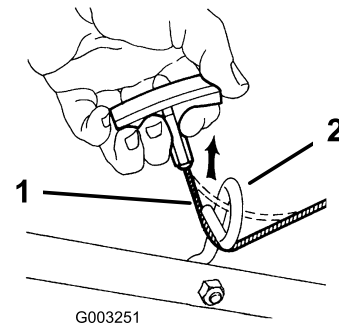


Figure 4

1. Recoil-starter rope
2. Rope guide

# 3

## Filling the Engine with Oil

No Parts Required

### Procedure

Your machine does not come with oil in the engine.

1. Remove the dipstick (Figure 5).

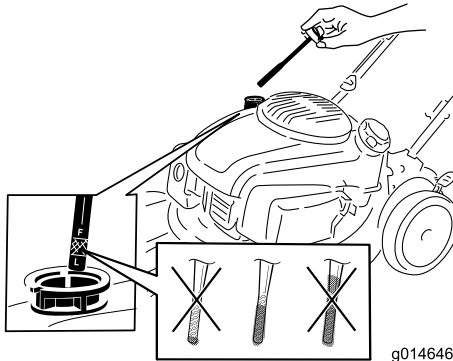


Figure 5

2. **Slowly** pour oil into the oil-fill tube until the oil level reaches the Full line on the dipstick (Figure 5). **Do not overfill.** (Max. fill: 0.53 L (18 oz), type: 10W-30 or SAE 30 detergent oil with an API service classification of SJ or higher.)

**Note:** Each time you check the oil level, remove the dipstick and wipe it clean, insert it into the oil filler neck (but **do not** screw it in), then remove it again and check the level (Figure 5).

**Note:** If you overfill the engine, pour some oil out of it; refer to [Changing the Engine Oil](#) (page 13).

3. Install the dipstick securely.

**Important:** *Change the engine oil after the first 5 operating hours; change it yearly thereafter.* Refer to [Changing the Engine Oil](#) (page 13).

# 4

## Assembling the Grass Bag

No Parts Required

### Procedure

1. Slip the grass bag over the frame as shown in Figure 6.

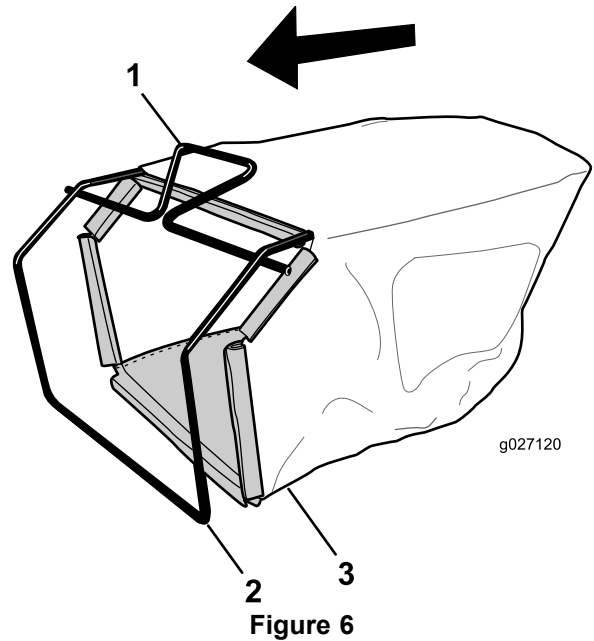


Figure 6

1. Handle
2. Frame
3. Grass bag

**Note:** Do not slip the bag over the handle (Figure 6).

2. Hook the bottom channel of the bag onto the bottom of the frame (Figure 7).

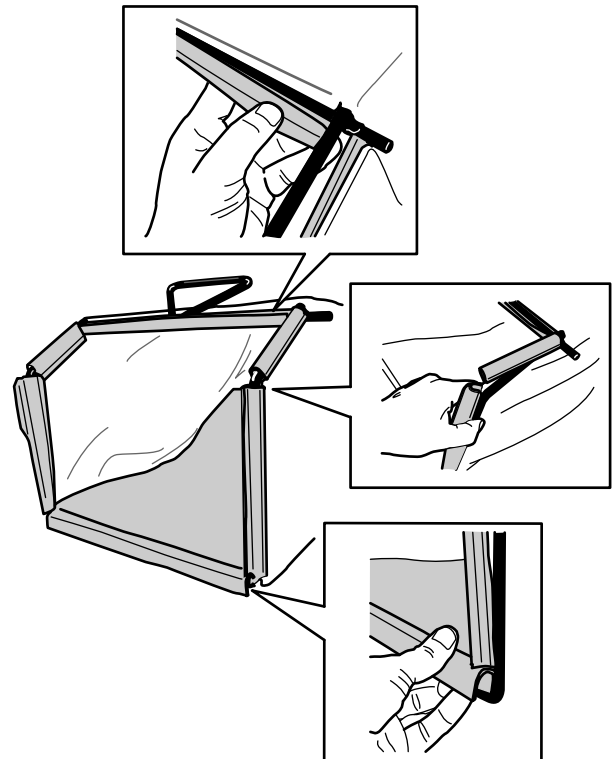
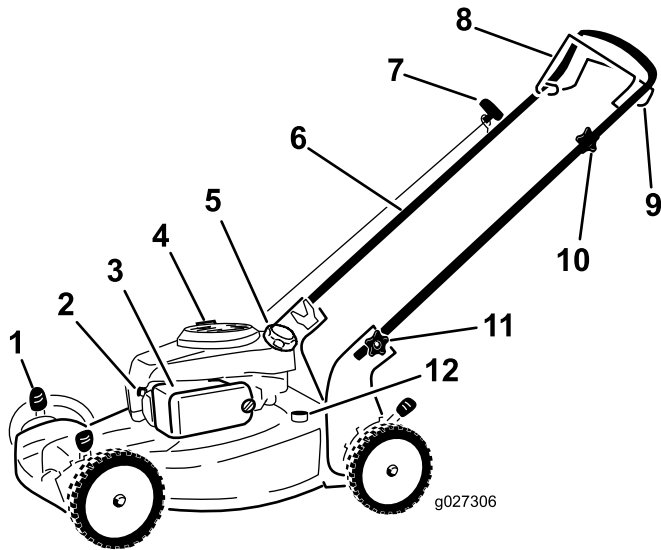


Figure 7

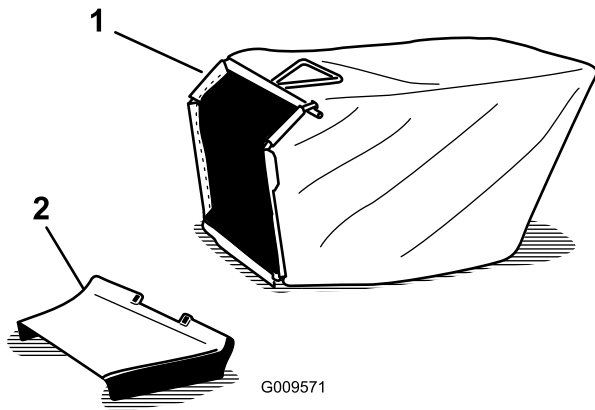
3. Hook the top and side channels of the bag onto the top and sides of the frame, respectively (Figure 7).

# Product Overview



**Figure 8**

- |                             |   |
|-----------------------------|---|
| 1. Cutting-height lever (4) | 7. Recoil-start handle                        |
| 2. Spark plug               | 8. Blade-control bar                          |
| 3. Air filter (not shown)   | 9. Self-propel-drive bar                      |
| 4. Oil fill/dipstick        | 10. Adjustment knob for the self-propel drive |
| 5. Fuel-tank cap            | 11. Handle knob (2)                           |
| 6. Handle                   | 12. Washout port                              |



**Figure 9**

- |              |                         |
|--------------|-------------------------|
| 1. Grass bag | 2. Side-discharge chute |
|--------------|-------------------------|

# Operation

## Before Operation

### 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 the machine could throw.
- Adjusting the cutting height may bring you into contact with the moving blade, causing serious injury.
  - Shut off the engine and wait for all moving parts to stop.
  - Do not put your fingers under the housing when adjusting the cutting height.

#### Fuel Safety

##### **⚠ DANGER**

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.
- Store fuel in an approved container and keep it out of the reach of children.

##### **⚠ WARNING**

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.

# Filling the Fuel Tank

- 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).
- Oxygenated fuel with up to 10% ethanol or 15% MTBE by volume is acceptable.
- **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 in fuel containers over the winter unless a fuel stabilizer is used.
- **Do not** add oil to gasoline.

Fill the fuel tank with fresh unleaded regular gasoline from a major name-brand service station (Figure 10).

**Important:** To reduce starting problems, add fuel stabilizer to the fuel all season, mixing it with gasoline less than 30 days old.

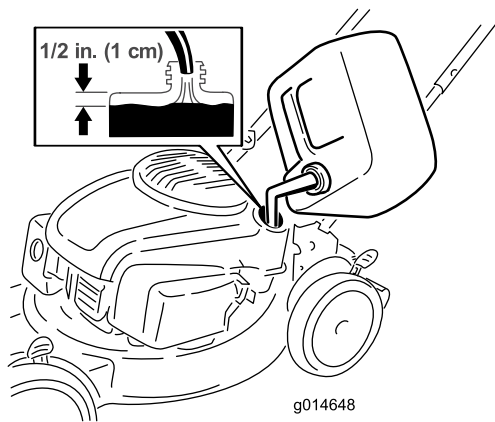


Figure 10

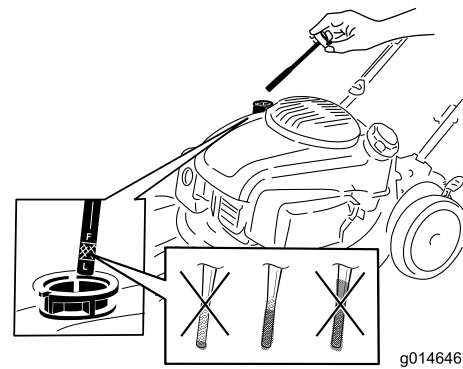


Figure 11

2. Remove the dipstick and check the oil level (Figure 11). If the oil level is below the Add mark on the dipstick, **slowly** pour oil into the oil-fill tube to raise the oil level to the Full mark on the dipstick. **Do not overfill.** (Max. fill: 0.53 L (18 oz), type: 10W-30 or SAE 30 detergent oil with an API service classification of SJ or higher.)

**Note:** If you overfill the engine, pour some oil out of it as directed in [Changing the Engine Oil](#) (page 13).

3. Install the dipstick securely.

# Adjusting the Cutting Height

Adjust the cutting height as desired. Set the front wheels to the same height as the rear wheels.

**Note:** To raise the machine, move all the cutting-height levers rearward. To lower the machine, move all the cutting-height levers forward (Figure 12).

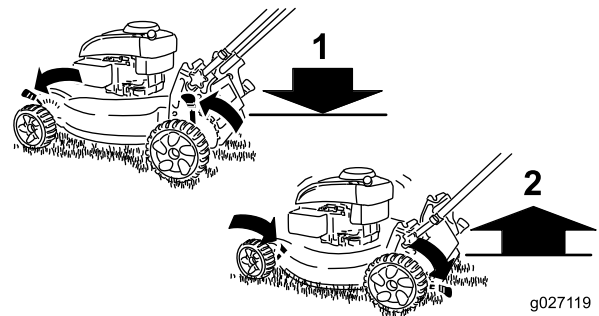


Figure 12

1. Lower the machine
2. Raise the machine

# Checking the Engine-Oil Level

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

1. Remove the dipstick, wipe it clean, and insert it into the oil-filler neck, but **do not** screw it in (Figure 11).

**Note:** The cutting-height settings are 25 mm (1 inch); 35 mm (1-3/8 inches); 44 mm (1-3/4 inches); 54 mm (2-1/8 inches); 64 mm (2-1/2 inches); 73 mm (2-7/8 inches); 83 mm (3-1/4 inches); 92 mm (3-5/8 inches); and 102 mm (4 inches).

# During Operation

## During Operating Safety

### General Safety

- Wear appropriate clothing, including eye protection; slip-resistant, substantial footwear; and hearing protection. Tie back long hair, secure loose clothing, and do not wear 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 and wait for all moving parts to stop before leaving the operating position.
- When you release the blade-control bar, the engine should shut off and the blade should stop within 3 seconds. If not, stop using your machine immediately and contact an Authorized Service Dealer.
- Operate the machine only in good visibility and appropriate weather conditions. Do not operate the machine when there is the risk of lightning.
- Wet grass or leaves can cause serious injury if you slip and contact the blade. Mow only in dry 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 a slip-and-fall accident.
- Stop the machine and inspect the blades after striking an object or if there is an abnormal vibration in the machine. Make all necessary repairs before resuming operation.
- Before leaving the operating position, shut off the engine, remove the 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 grass catcher components and the discharge guard frequently and replace them with the manufacturer's recommended parts when necessary.
- Use accessories and attachments approved by the The Toro® Company only.

### Slope Safety

- Mow across the face of slopes; never up and down. Use extreme caution when changing direction on slopes.
- Do not mow on excessively steep slopes. Poor footing could cause a slip-and-fall accident.
- Do not mow near drop-offs, ditches, or embankments. You could lose your footing or balance.

# Starting the Engine

1. Hold the blade-control bar against the handle (Figure 13).

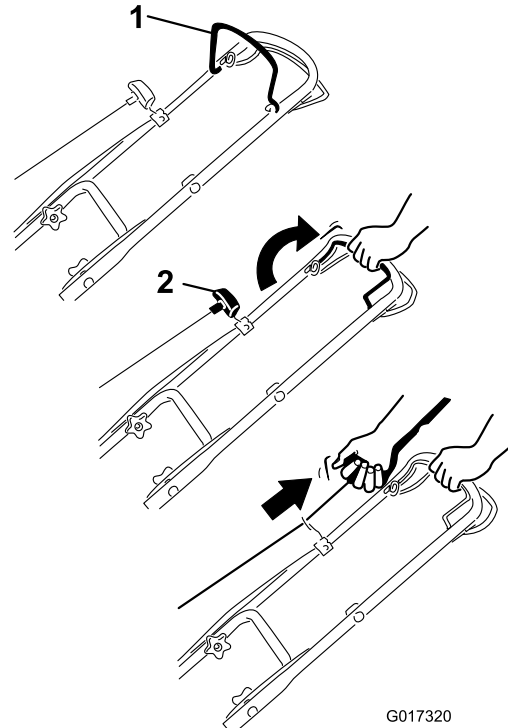


Figure 13

1. Blade-control bar
2. Recoil-start handle

2. Pull the recoil-start handle lightly until you feel resistance, then pull it sharply. Allow the rope to return to the handle slowly (Figure 13).

**Note:** If the machine does not start after several attempts, contact an Authorized Service Dealer.

## Using the Self-Propel Drive

To operate the self-propel drive, squeeze the self-propel-drive bar (Figure 14) toward the handle and hold it.

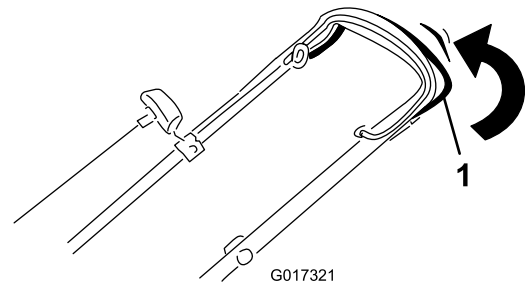


Figure 14

1. Self-propel-drive bar

To disengage the self-propel drive, release the self-propel-drive bar.

**Note:** The maximum self-propel ground speed is fixed. To reduce the ground speed, increase the space between the self-propel-drive bar and the handle.

## Stopping the Engine

To stop the engine, release the blade-control bar.

**Important:** When you release the blade-control bar, both the engine and blade should stop within 3 seconds. If they do not stop properly, stop using your machine immediately and contact an Authorized Service Dealer.

## Recycling the Clippings

Your machine comes from the factory ready to recycle the grass and leaf clippings back into the lawn.

If the grass bag is on the machine, remove it; refer to [Removing the Grass Bag \(page 9\)](#) before recycling the clippings. If the side-discharge chute is on the machine, remove it; refer to [Removing the Side-Discharge Chute \(page 10\)](#) before recycling the clippings.

## Bagging the Clippings

Use the grass bag when you want to collect grass and leaf clippings from the lawn.

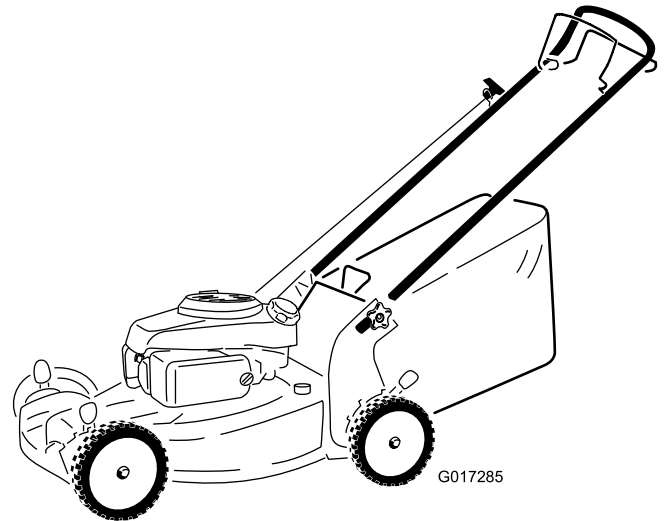
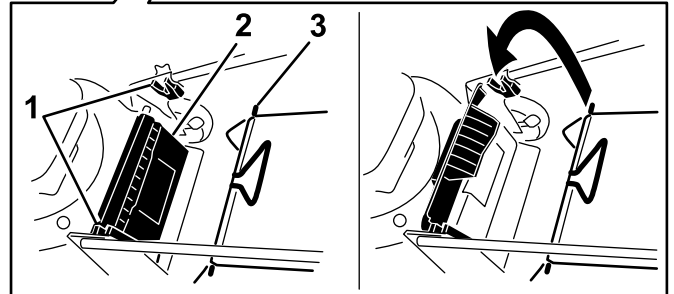
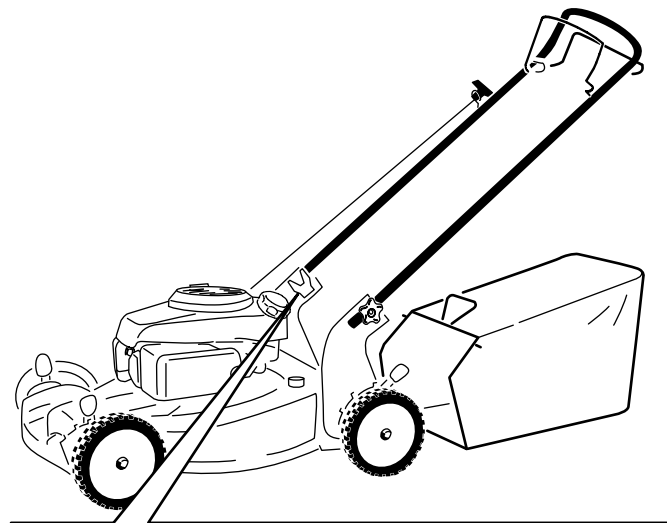
**Note:** Ensure the bag is seated in the correct position.

If the side discharge chute is on the machine, remove it; refer to [Removing the Side-Discharge Chute \(page 10\)](#) before bagging the clippings.

## Installing the Grass Bag

**Note:** Ensure the bag is seated in the correct position.

1. Raise and hold up the rear deflector ([Figure 15](#)).



**Figure 15**

1. Notches
2. Rear deflector
3. Grass bag pin (2)

2. Install the grass bag, ensuring that the pins on the bag rest in the notches on the handle ([Figure 15](#)).
3. Lower the rear deflector.

## Removing the Grass Bag

To remove the bag, reverse the steps above.

## Side-Discharging the Clippings

Use the side discharge for cutting very tall grass.

If the bag is on the machine, remove it before side-discharging the clippings.

### Installing the Side-Discharge Chute

Lift up the side deflector and install the side-discharge chute (Figure 16).



Figure 16

### Removing the Side-Discharge Chute

To remove the side-discharge chute, lift up the side deflector, remove the side-discharge chute, and lower the side-discharge deflector.

## Operating Tips

### General Mowing Tips

- Clear the area of sticks, stones, wire, branches, and other debris that the blade could hit.
- Avoid striking solid objects with the blade. Never deliberately mow over any object.
- If the machine strikes an object or starts to vibrate, immediately stop the engine, disconnect the wire from the spark plug, and examine the machine for damage.
- For best performance, install a new blade before the cutting season begins.
- Replace the blade when necessary with a Toro replacement blade.

### Cutting Grass

- Cut only about a third of the grass blade at a time. Do not cut below the 54 mm (2-1/8-inch) setting unless the grass is sparse or it is late fall when grass growth begins to slow down. Refer to [Adjusting the Cutting Height \(page 7\)](#).
- When cutting grass over 15 cm (6 inches) tall, mow at the highest cutting height setting and walk slower; then mow again at a lower setting for the best lawn appearance. If the grass is too long, the machine may plug and cause the engine to stall.
- Mow only dry grass or leaves. Wet grass and leaves tend to clump on the yard and can cause the machine to plug or the engine to stall.
- Be aware of a potential fire hazard in very dry conditions, follow all local fire warnings, and keep the machine free of dry grass and leaf debris.
- Alternate the mowing direction. This helps disperse the clippings over the lawn for even fertilization.
- If the finished lawn appearance is unsatisfactory, try 1 or more of the following:
  - Replace the blade or have it sharpened.
  - Walk at a slower pace while mowing.
  - Raise the cutting height on your machine.
  - Cut the grass more frequently.
  - Overlap cutting swaths instead of cutting a full swath with each pass.
  - Set the cutting height on the front wheels a notch lower than the rear wheels. For example, set the front wheels at 54 mm (2-1/8-inches) and the rear wheels at 64 mm (2-1/2 inches).

### Cutting Leaves

- After cutting the lawn, ensure that half of the lawn shows through the cut leaf cover. You may need to make more than a single pass over the leaves.

- If there are more than 13 cm (5 inches) of leaves on the lawn, set the front cutting height 1 or 2 notches higher than the rear cutting height.
- Slow down your mowing speed if the machine does not cut the leaves finely enough.

## After Operation

### After Operating Safety

#### General Safety

- Clean grass and debris from the machine to help prevent fires. Clean up oil or fuel spills.
- Allow the engine to cool before 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

- Use care when loading or unloading the machine into a trailer or truck.
- Use full-width ramps for loading the machine into a trailer or truck. Do not exceed a 15° angle between the ramp and the 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.

### Folding the Handle

#### ⚠ WARNING

Folding or unfolding the handle improperly can damage the cables, causing an unsafe operating condition.

- Do not damage the cables when folding or unfolding the handle.
- If a cable is damaged, contact an Authorized Service Dealer.

1. Loosen the handle knobs until you can move the upper handle freely.
2. Fold the upper handle forward as shown in [Figure 17](#).

**Important:** Route the cables to the outside of the handle knobs as you fold the handle.

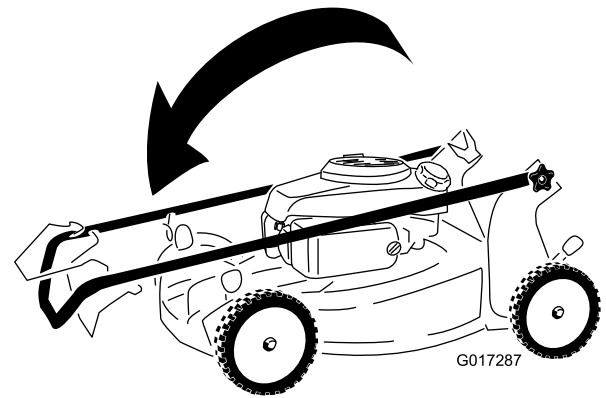


Figure 17

3. To unfold the handle, reverse the steps above.

# 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.</li> </ul>
Before each use or daily	<ul style="list-style-type: none"> <li>Check the engine-oil level.</li> <li>Ensure that the engine stops within 3 seconds after releasing the blade-control bar.</li> <li>Clean grass clippings and dirt from under the machine.</li> </ul>
Every 25 hours	<ul style="list-style-type: none"> <li>Check the air cleaner for dirty, loose, or damaged parts, and clean or replace them if necessary.</li> </ul>
Every 50 hours	<ul style="list-style-type: none"> <li>Change the engine oil.</li> </ul>
Every 100 hours	<ul style="list-style-type: none"> <li>Replace the air cleaner element (more frequently when operating the machine in dusty or dirty operating conditions).</li> </ul>
Before storage	<ul style="list-style-type: none"> <li>Empty the fuel tank before repairs as directed and before annual storage.</li> </ul>
Yearly	<ul style="list-style-type: none"> <li>Replace the blade or have it sharpened; replace or sharpen it more frequently if the edge dulls quickly.</li> <li>Clean the air cooling system; clean it more frequently in dusty operating conditions. Refer to your engine owner's manual.</li> <li>Refer to your engine owner's manual for any additional yearly maintenance procedures.</li> </ul>

**Important:** Refer to your engine owner's manual for additional maintenance procedures.

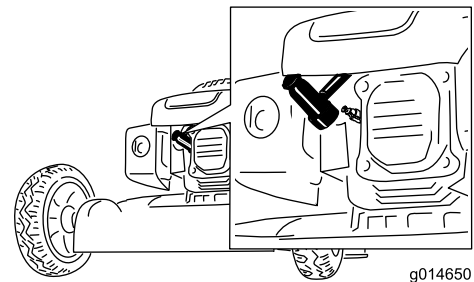
**Note:** Replacement parts are available from an Authorized Service Dealer (go to [www.toro.com](http://www.toro.com) to find the nearest dealer) or at [www.shoptoro.com](http://www.shoptoro.com).

## 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 to remove the fuel with a hand pump; never siphon the fuel.

## Preparing for Maintenance

- Stop the engine and wait for all moving parts to stop.
- Disconnect the spark-plug wire from the spark plug (Figure 18) before performing any maintenance procedure.



**Figure 18**

- Spark plug wire
- After performing the maintenance procedure(s), connect the spark-plug wire to the spark plug.

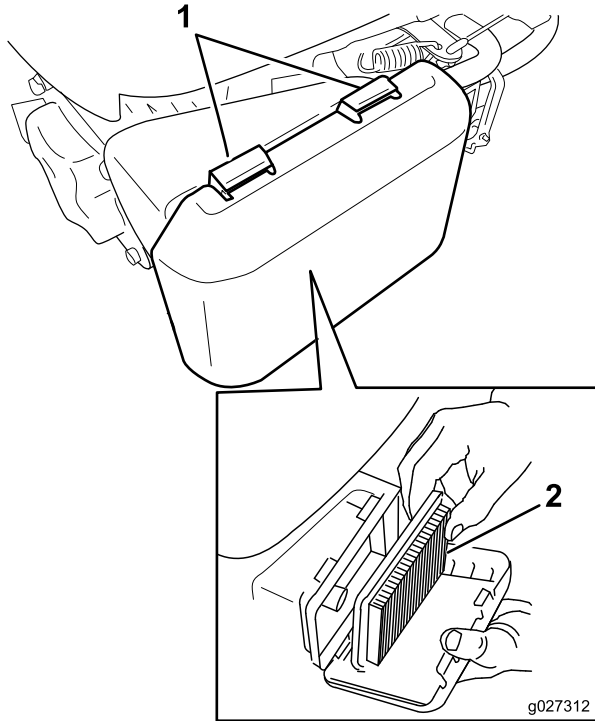
**Important:** Before tipping the machine to change the oil or replace the blade, allow the fuel tank to run dry through normal usage. If you must tip the machine prior to running out of fuel, use a hand fuel pump to remove the fuel. Always tip the machine onto its side with the dipstick down.

# Servicing the Air Cleaner

**Service Interval:** Every 25 hours/Yearly (whichever comes first)—Check the air cleaner for dirty, loose, or damaged parts, and clean or replace them if necessary.

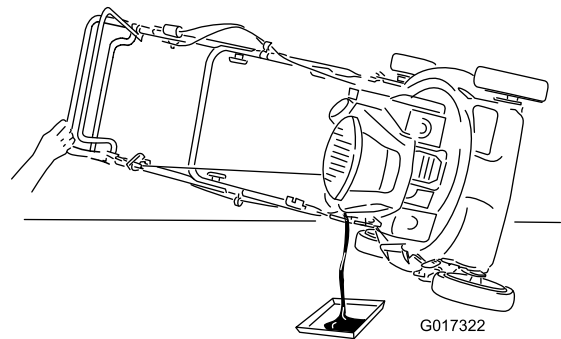
Every 100 hours/Yearly (whichever comes first)—Replace the air cleaner element (more frequently when operating the machine in dusty or dirty operating conditions).

1. Perform the pre-maintenance procedures; refer to [Preparing for Maintenance \(page 12\)](#).
2. Press down on the latch tabs on top of the air-cleaner cover ([Figure 19](#)).



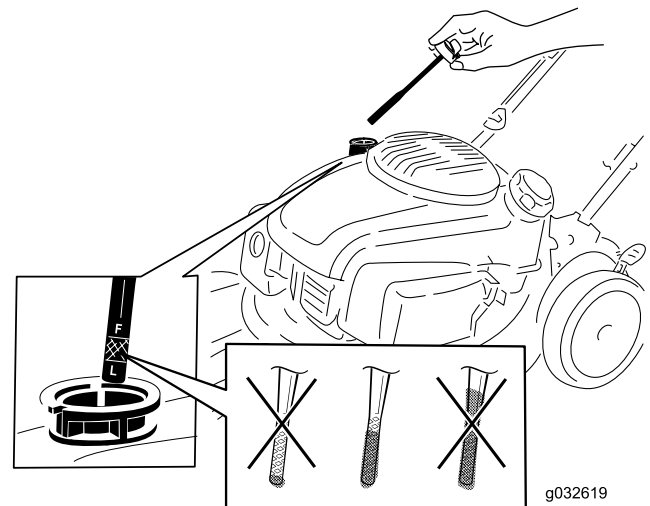
**Figure 19**

1. Latch tabs
2. Air-cleaner element



**Figure 20**

3. After draining the used oil, return the machine to the normal operating position.
4. **Slowly** pour oil into the oil-fill tube until the oil level reaches the Full line on the dipstick ([Figure 21](#)). **Do not overfill.** (Max. fill: 0.53 L (18 oz), type: 10W-30 or SAE 30 detergent oil with an API service classification of SJ or higher.)



**Figure 21**

**Note:** Each time you check the oil level, remove the dipstick and wipe it clean, insert it into the oil-filler neck (but **do not** screw it in), then remove it again and check the level of the dipstick.

**Note:** If you overfill the engine, drain some of the oil out of the engine crankcase.

5. Install the dipstick securely.
6. Dispose of the used oil properly at a local recycling center.

# Changing the Engine Oil

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

Every 50 hours/Yearly (whichever comes first)

Run the engine a few minutes before changing the oil to warm it. Warm oil flows better and carries more contaminants.

1. Perform the pre-maintenance procedures; refer to [Preparing for Maintenance \(page 12\)](#).
2. Tip the machine onto its side, with the air filter up, then remove the dipstick to drain the used oil out through the oil-fill tube ([Figure 20](#)).

# Replacing the Blade

Service Interval: Yearly

**Important:** You will need a torque wrench to install the blade properly. If you do not have a torque wrench or are uncomfortable performing this procedure, contact an Authorized Service Dealer.

Examine the blade whenever you run out of gasoline. If the blade is damaged or cracked, replace it immediately. If the blade edge is dull or nicked, have it sharpened and balanced, or replace it.

1. Refer to [Preparing for Maintenance](#) (page 12).
2. Tip the machine onto its side with the air filter up.
3. Use a block of wood to hold the blade steady ([Figure 22](#)).

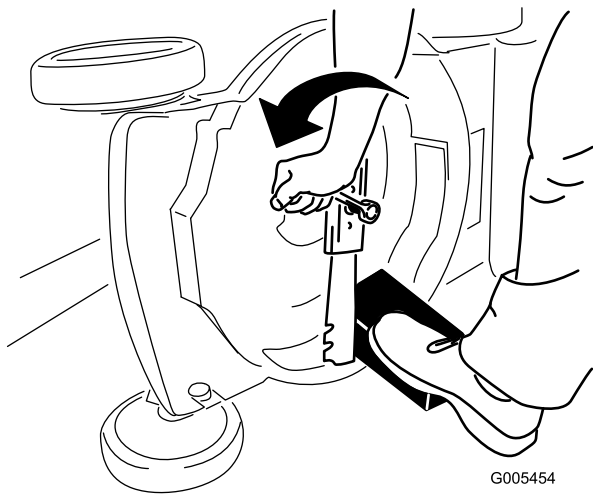


Figure 22

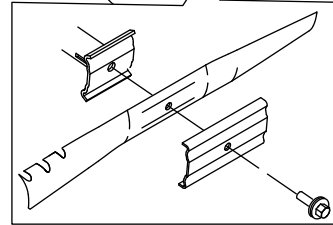
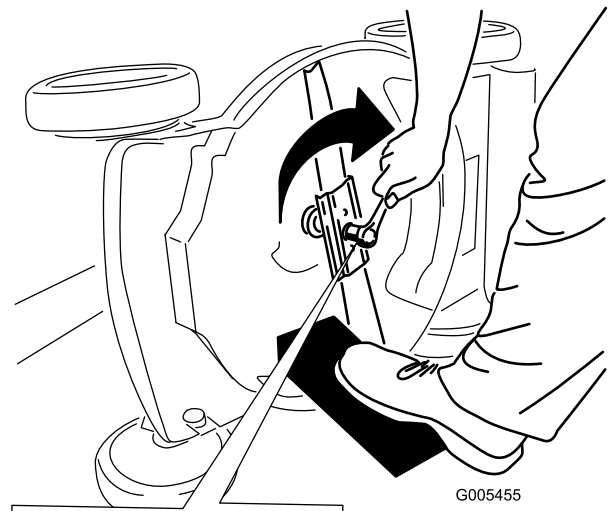


Figure 23

**Important:** Position the curved ends of the blade to point toward the machine housing.

6. Use a torque wrench to tighten the blade bolt to 82 N-m (60 ft-lb).

**Important:** A bolt torqued to 82 N-m (60 ft-lb) is very tight. While holding the blade with a block of wood, put your weight behind the ratchet or wrench and tighten the bolt securely. This bolt is very difficult to overtighten.

4. Remove the blade, saving all mounting hardware ([Figure 22](#)).
5. Install the new blade and all mounting hardware ([Figure 23](#)).

# Adjusting the Self-Propel Drive

Whenever you install a new self-propel cable or if the self-propel drive is out of adjustment, adjust the self-propel drive.

1. Turn the adjustment knob counterclockwise to loosen the cable adjustment (Figure 24).

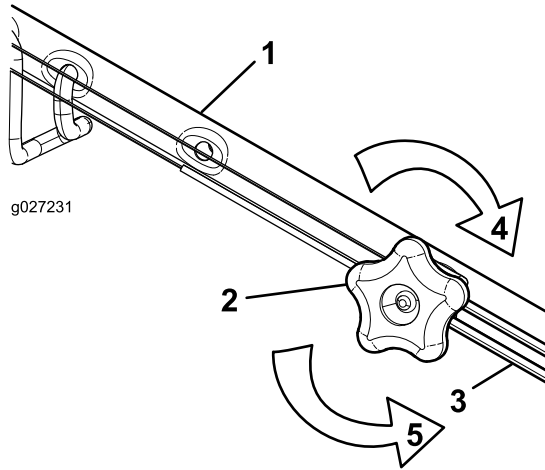


Figure 24

- |                            |   |
|----------------------------|---|
| 1. Handle (left side)      | 4. Turn the knob clockwise to tighten the adjustment.       |
| 2. Adjustment knob         | 5. Turn the knob counterclockwise to loosen the adjustment. |
| 3. Self-propel-drive cable |   |

2. Adjust the tension on the cable (Figure 24) by pulling it back or pushing it forward and holding that position.

**Note:** Push the cable toward the engine to increase the traction; pull the cable away from the engine to decrease the traction.

3. Turn the adjustment knob clockwise to tighten the adjustment of the cable.

**Note:** Tighten the knob firmly by hand.

# Cleaning under the Machine

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

For best results, clean the machine soon after you have completed mowing.

1. Lower the machine to the lowest cutting height setting. Refer to [Adjusting the Cutting Height \(page 7\)](#).
2. Move the machine onto a flat paved surface.
3. Wash out the area under the rear deflector where the clippings go from the underside of the machine to the grass bag.

**Note:** Wash out the area with the bag-on-demand in both the fully forward and fully rearward positions.

4. Attach a garden hose that is connected to a water supply to the washout port on the machine (Figure 25).

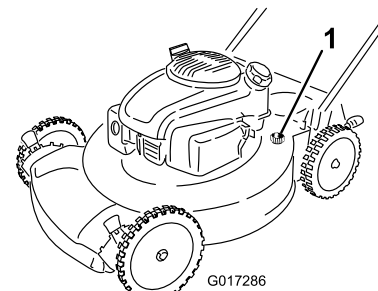


Figure 25

1. Washout port

5. Turn the water on.
6. Start the engine and run it until there are no more clippings that come out from under the machine.
7. Stop the engine.
8. Shut off the water and disconnect the garden hose from the machine.
9. Start the engine and run it for a few minutes to dry the underside of the machine to prevent it from rusting.
10. Allow the engine to cool before storing the machine in an enclosed area.

# Storage

Store the machine in a cool, clean, dry place.

## Preparing the Machine for Storage

### **⚠ WARNING**

Gasoline vapors can explode.

- Do not store gasoline more than 30 days.
  - Do not store the machine in an enclosure near an open flame.
  - Allow the engine to cool before storing it.
1. On the last refueling of the year, add fuel stabilizer to the fuel as directed by the engine manufacturer.
  2. Dispose of any unused fuel properly. Recycle it according to local codes, or use it in your automobile.  
**Note:** Old fuel in the fuel tank is the leading cause of hard starting. Do not store fuel without stabilizer more than 30 days, and do not store stabilized fuel more than 90 days.
  3. Run the machine until the engine stops from running out of fuel.
  4. Start the engine again.
  5. Allow the engine to run until it stops. When you can no longer start the engine, it is sufficiently dry.
  6. Disconnect the wire from the spark plug.
  7. Remove the spark plug, add 30 ml (1 oz) of oil through the spark plug hole, and pull the starter rope slowly several times to distribute oil throughout the cylinder to prevent cylinder corrosion during the off-season.
  8. Loosely install the spark plug.
  9. Tighten all nuts, bolts, and screws.

## Removing the Machine from Storage

1. Remove the spark plug and spin the engine rapidly by pulling the recoil start handle to blow the excess oil from the cylinder.
2. Install the spark plug and tighten it with a torque wrench to 20 N-m (15 ft-lb).
3. Connect the wire to the spark plug.

**Notes:**

**Notes:**

**Notes:**



# The Toro Warranty

A 2-Year Full Warranty (45 Day Limited Warranty for Commercial Use)

22 in Recycler®

20 in Mulcher/Bagger

# The Toro GTS Starting Guarantee

A 3-Year Full Warranty (Not Applicable for Commercial Use)

Walk Power Mowers

## Conditions and Products Covered

The Toro Company and its affiliate, Toro Warranty Company, pursuant to an agreement between them, jointly promise to repair the Toro Product listed below if used for residential purposes\*; if it is defective in materials or workmanship or if it stops functioning due to the failure of a component; or if the Toro GTS (Guaranteed to Start) engine will not start on the first or second pull, provided the routine maintenance required in the *Operator's Manual* have been performed.

This warranty covers the cost of parts and labor, but you must pay transportation costs.

The following time periods apply from the original date of purchase:

Products	Warranty Period
22 in Recycler and 20 in Mulcher/Bagger and Attachments	2 - year full warranty
GTS (Guaranteed to Start)	3 - year full warranty
Engine	3 - year full warranty
Battery	1 - year full warranty

## Limited Warranty for Commercial Use\*

Gas-powered Toro Products used for commercial, institutional, or rental use, are warranted for 45 days against defects in materials or workmanship. Components failing due to normal wear are not covered by this warranty.

The Toro GTS (Guaranteed to Start) Starting Guarantee does not apply when the product is used commercially\*.

## Instructions for Obtaining Warranty Service

If you think that your Toro Product contains a defect in materials or workmanship, or if a normal, able-bodied adult can no longer start your product's engine in one or two pulls, follow this procedure:

1. Contact any Authorized Toro Service Dealer to arrange service at their dealership. To locate a dealer convenient to you, access our web site at [www.Toro.com](http://www.Toro.com). You may also call the numbers listed in item #3 to use the 24-hour Toro Dealer locator system.
2. Bring the product and your proof of purchase (sales receipt) to the Service Dealer. The dealer will diagnose the problem and determine if it is covered under warranty.
3. If for any reason you are dissatisfied with the Service Dealer's analysis or with the assistance provided, contact us at:

The Toro Company  
 Customer Care Department, RLC Division  
 8111 Lyndale Avenue South  
 Bloomington, MN 55420-1196  
 Toll free at 866-214-9807 (U.S. customers)  
 Toll free at 866-214-9808 (Canadian customers)

## Owner Responsibilities

You must maintain your Toro Product by following the maintenance procedures described in the *Operator's Manual*. Such routine maintenance, whether performed by a dealer or by you, is at your expense.

## Countries Other than the United States or Canada

This warranty is not valid in Mexico. 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.

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

\*Residential purposes means use of the product on the same lot as your home. Use at more than one location, or institutional or rental use, is considered commercial use, and the commercial use warranty would apply.

## Items and Conditions Not Covered

There is no other express warranty except for special emission system coverage and engine warranty coverage on some products. This express warranty does not cover the following:

- Cost of regular maintenance service or parts, such as filters, fuel, lubricants, oil changes, spark plugs, air filters blade sharpening or worn blades, cable/linkage adjustments, or brake and clutch adjustments
- Any product or part which has been altered or misused or neglected or requires replacement or repair due to accidents or lack of proper maintenance
- Pickup and delivery charges
- Repairs or attempted repairs by anyone other than an Authorized Toro Service Dealer
- Repairs necessary due to failure to follow recommended fuel procedure (consult *Operator's Manual* for more details)
  - Removing contaminants from the fuel system is not covered
  - Use of old fuel (more than one month old) or fuel which contains more than 10% ethanol or more than 15% MTBE
  - Failure to drain the fuel system prior to any period of non-use over one month
- Repairs or adjustments to correct starting difficulties due to the following:
  - Failure to follow proper maintenance procedures or recommended fuel procedure
  - Rotary mower blade striking an object
- Special operational conditions where starting may require more than two pulls:
  - First time starts after extended period of non-use over three months or seasonal storage
  - Cool temperature starts such as those found in early spring and late autumn
  - Improper starting procedures - if you are having difficulty starting your unit, please check the *Operator's Manual* to ensure that you are using the correct starting procedures. This can save an unnecessary visit to an Authorized Toro Service Dealer.

## General Conditions

All repairs covered by these warranties must be performed by an Authorized Toro Service Dealer using Toro-approved replacement parts. Repair by an Authorized Toro Service 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 these warranties, including any cost or expense of providing substitute equipment or service during reasonable periods of malfunction or non-use pending completion of repairs under these warranties.**

Some states do not allow exclusions of incidental or consequential damages, so the above exclusions 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.