



# 55cm Recycler® Lawn Mower

Model No. 20954—Serial No. 40000000 and Up

## Operator's Manual

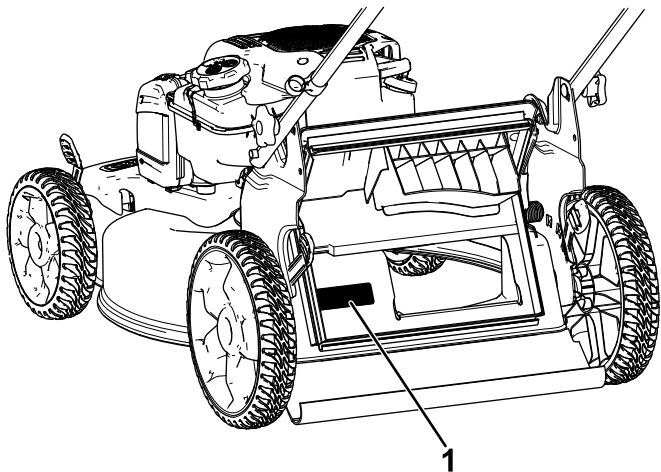
### Introduction

This rotary-blade, walk-behind lawn mower is intended to be used by residential homeowners. It is designed primarily for cutting grass on well-maintained lawns on residential properties. It is not designed for cutting brush or for agricultural uses.

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**

g192008

- 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.



g000502

**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.

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

**Net Torque:** The gross or net torque of this engine was laboratory rated by the engine manufacturer in accordance with the Society of Automotive Engineers (SAE) J1940. As configured to meet safety, emission, and operating requirements, the actual engine torque on this class of mower will be significantly lower. Go to [www.Toro.com](http://www.Toro.com) to view specifications on your mower model.

### Contents

- Introduction ..... 1
- Safety ..... 2
  - General Safety..... 2
  - Safety and Instructional Decals ..... 3
- Setup ..... 4
  - 1 Assembling and Unfolding the Handle ..... 4
  - 2 Installing the Recoil-starter Rope in the Rope Guide..... 5
  - 3 Filling the Engine with Oil..... 6
  - 4 Assembling the Grass Bag ..... 6
- Product Overview ..... 7
- Operation ..... 8
  - Before Operation ..... 8
    - Before Operation Safety..... 8
    - Filling the Fuel Tank ..... 8
    - Checking the Engine-Oil Level..... 9
    - Adjusting the Handle Height..... 9
    - Adjusting the Cutting Height ..... 9
  - During Operation ..... 10
  - During Operating Safety..... 10



# Safety

This machine has been designed in accordance with EN ISO 5395:2013

## 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 starting the engine.
- 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 away 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 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.

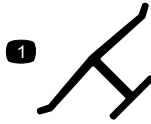
You can find additional items of safety information in their respective sections throughout this manual.

Starting the Engine .....	10
Using the Self-Propel Drive .....	10
Shutting Off the Engine .....	11
Recycling the Clippings .....	11
Bagging the Clippings .....	11
Side-Discharging the Clippings.....	11
Operating Tips .....	12
After Operation .....	13
After Operating Safety .....	13
Cleaning under the Machine.....	13
Folding the Handle.....	13
Maintenance .....	15
Recommended Maintenance Schedule(s) .....	15
Maintenance Safety.....	15
Preparing for Maintenance.....	15
Servicing the Air Filter .....	16
Changing the Engine Oil .....	16
Replacing the Blade .....	17
Adjusting the Self-Propel Drive .....	18
Storage .....	18
Preparing the Machine for Storage .....	18
Removing the Machine from Storage.....	18

# Safety and Instructional Decals



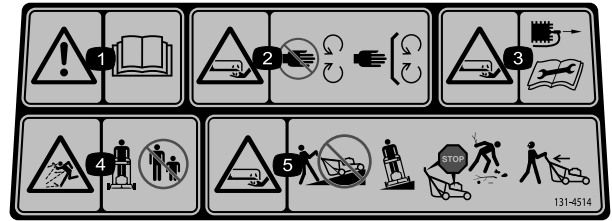
Safety decals and instructions are easily visible to the operator and are located near any area of potential danger. Replace any decal that is damaged or missing.



**Manufacturer's Mark**

decalocemmark

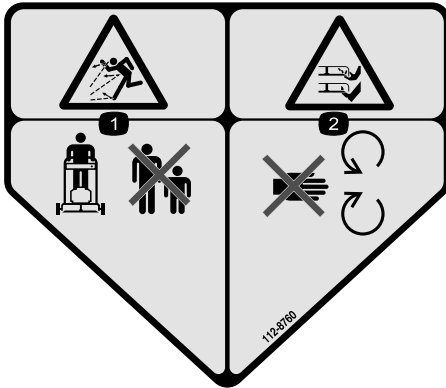
1. Indicates the blade is identified as a part from the original machine manufacturer.



decal131-4514

**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 away 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.



decal112-8760

**112-8760**

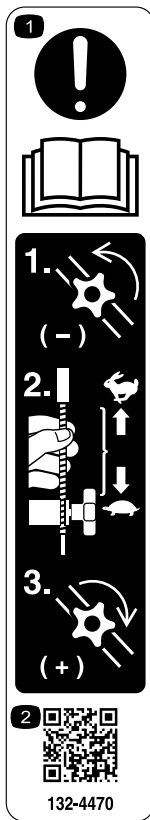
1. Thrown object hazard—keep bystanders a safe distance away from the machine.
2. Cutting/dismemberment of hand or foot—stay away from moving parts.



decal112-8867

**112-8867**

1. Lock
2. Unlock



132-4470

### Traction Adjustment

1. Attention; read the *Operator's Manual*—1) Loosen the knob by turning it counterclockwise; 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.
2. Scan the QR code for more information on traction adjustment.

decal132-4470

# Setup

**Important:** Remove and discard the protective plastic sheet that covers the engine and any other plastic or wrapping on the machine.

## 1

### Assembling and Unfolding the Handle

No Parts Required

#### Procedure

1. Remove and save the 2 handle knobs and 2 carriage bolts from the handle brackets ([Figure 3](#)).

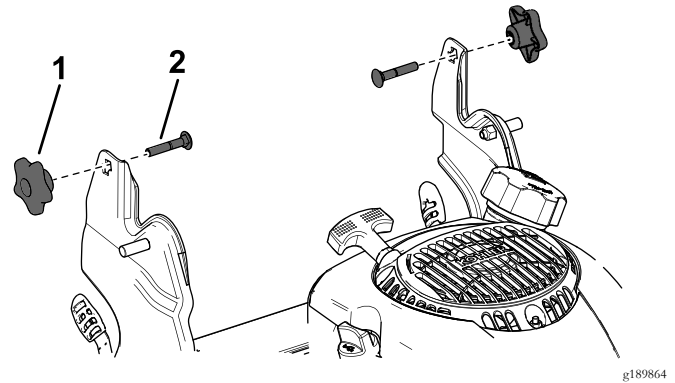


Figure 3

1. Handle knob (2)
2. Carriage bolt (2)

2. Install the handle ends onto the mower housing so that the pin attached to each handle bracket is in the lower hole of its related handle end ([Figure 4](#)).

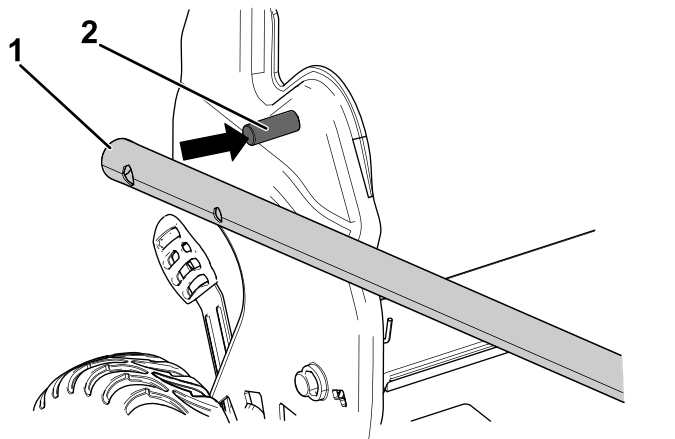
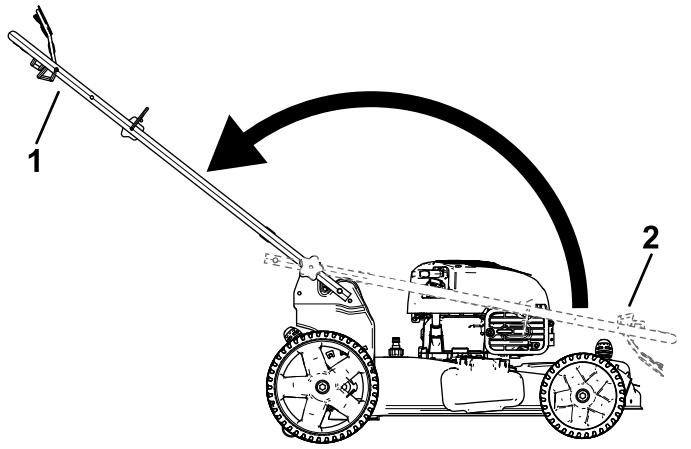


Figure 4

1. Pin
2. Handle end

**Note:** The pins do not show through the holes in the handle ends when the handle is in the folded position.

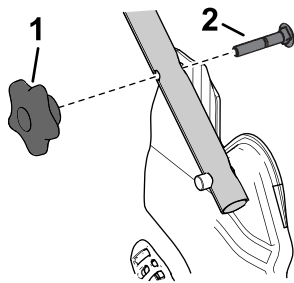
3. Unfold the handle to the operating position by rotating it rearward (Figure 5).



**Figure 5**

1. Operating position
2. Folded position

4. Insert the carriage bolt (with the bolt head toward the inside) through the upper or lower square hole in handle bracket and the upper hole in the handle end (Figure 6).



**Figure 6**

1. Handle knob
2. Carriage bolt

5. Loosely install the handle knobs onto the carriage bolts.
6. Refer to steps 3 through 5 of [Adjusting the Handle Height \(page 9\)](#).

## 2

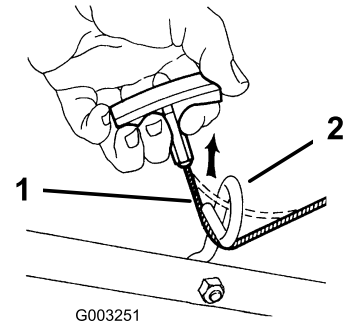
### Installing the Recoil-starter Rope in the Rope Guide

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 7).



**Figure 7**

1. Recoil-starter rope
2. Rope guide

# 3

## Filling the Engine with Oil

### No Parts Required

### Procedure

**Important:** Your machine does not come with oil in the engine. Before starting the engine, fill the engine with oil.

**Engine oil capacity:** 0.47 L (16 oz)

**Oil viscosity:** SAE 30 or SAE 10W-30 detergent oil

**API service classification:** SJ or higher

1. Move the machine to a level surface.
2. Remove the dipstick by rotating the cap counterclockwise and pulling it out (Figure 8).

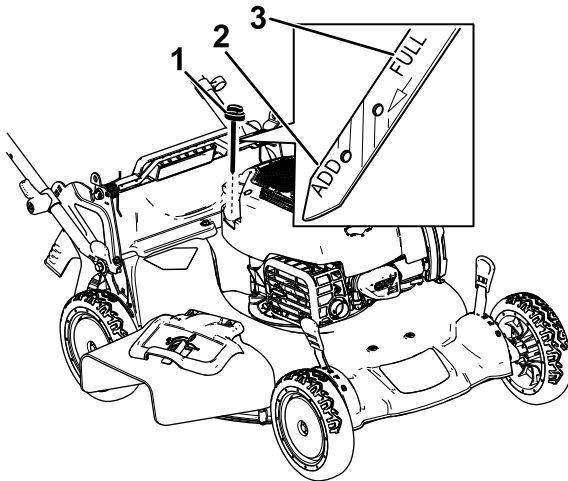


Figure 8

g187518

1. Dipstick
2. Add
3. Full

3. Carefully pour about 3/4 of the engine capacity of oil into the oil-fill tube.
4. Wipe the dipstick clean with a clean cloth.
5. Insert the dipstick into the oil-fill tube, then remove the dipstick.
6. Read the oil level on the dipstick (Figure 8).
  - If the oil level is below the Add mark on the dipstick, carefully pour a small amount of oil into the oil-fill tube, wait 3 minutes, and repeat steps 3 through 5 until the oil level is at the Full mark on the dipstick.
  - If the oil level is above the Full mark on the dipstick, drain the excess oil until the oil level is at

the Full mark on the dipstick; refer to [Changing the Engine Oil \(page 16\)](#).

**Important:** If the oil level in the engine is too low or too high and you run the engine, you may damage the engine.

7. Install the dipstick securely.

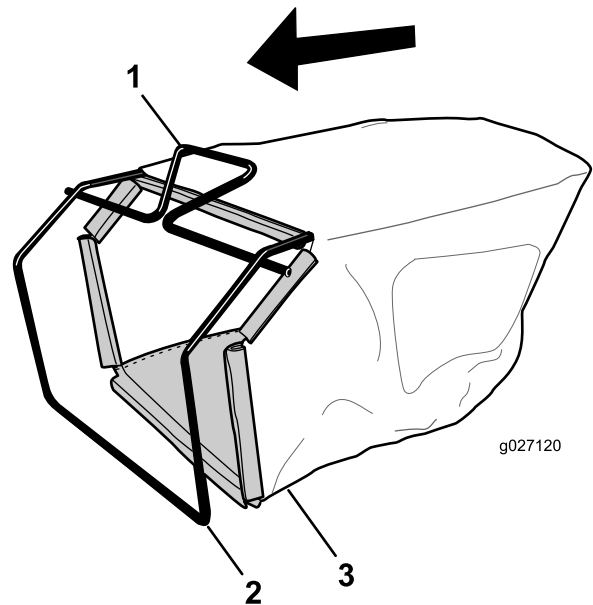
# 4

## Assembling the Grass Bag

### No Parts Required

### Procedure

1. Slip the grass bag over the frame as shown in Figure 9.



g027120

Figure 9

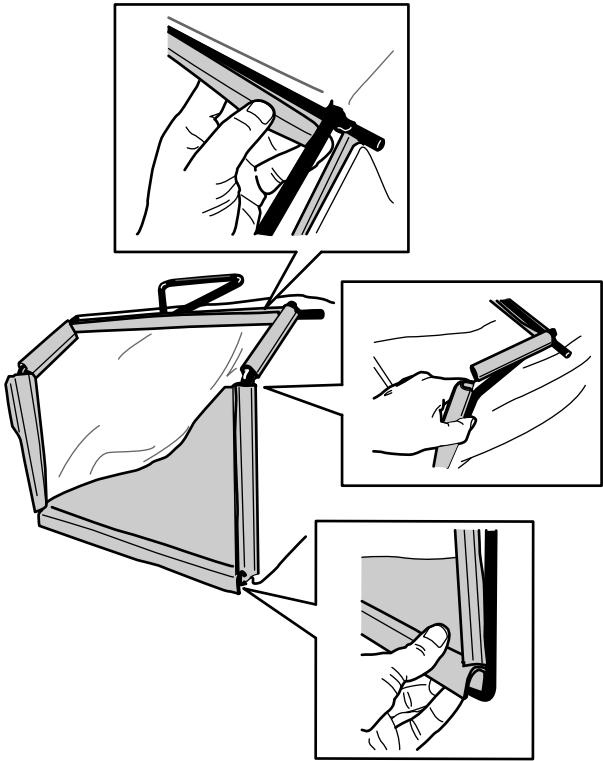
g027120

1. Handle
2. Frame
3. Grass bag

**Note:** Do not slip the bag over the handle (Figure 9).

2. Hook the bottom channel of the bag onto the bottom of the frame (Figure 10).

# Product Overview

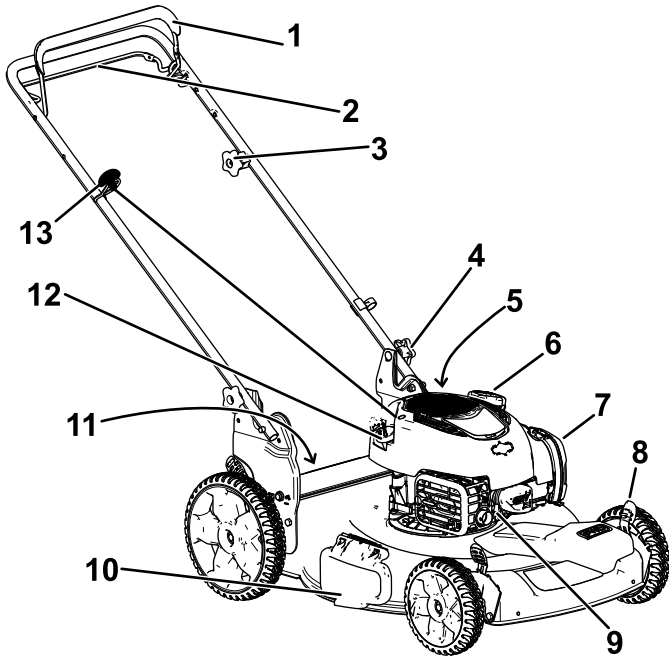


**Figure 10**

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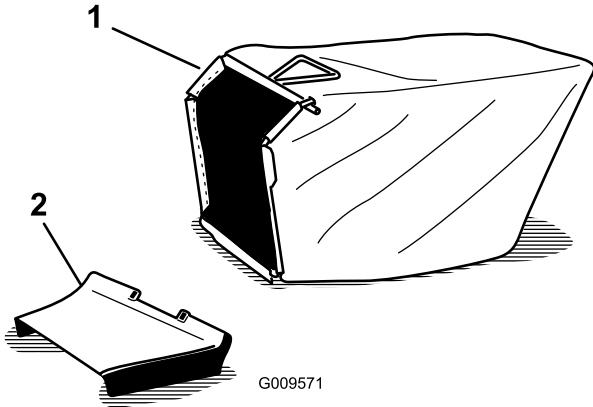
3. Hook the top and side channels of the bag onto the top and sides of the frame, respectively (Figure 10).



**Figure 11**

g192021

- |  |                             |
|--|-----------------------------|
| 1. Blade-control bar                         | 8. Cutting-height lever (4) |
| 2. Self-propel-drive bar                     | 9. Spark-plug wire          |
| 3. Adjustment knob for the self-propel drive | 10. Side-discharge door     |
| 4. Handle knob (2)                           | 11. Rear door (not shown)   |
| 5. Washout port (not shown)                  | 12. Oil fill/dipstick       |
| 6. Fuel-tank cap                             | 13. Recoil-start handle     |
| 7. Air filter                                |                             |



G009571

**Figure 12**

g009571

- |              |                         |
|--------------|-------------------------|
| 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 doors and/or grass catchers, 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, unleaded gasoline with an octane rating of 87 or higher ((R+M)/2 rating method).
- **ETHANOL:** Gasoline with up to 10% ethanol (gasohol) or 15% MTBE (methyl tertiary butyl ether) by volume is acceptable. Ethanol and MTBE are not the same. Gasoline with 15% ethanol (E15) by volume is not approved for use. **Never use** gasoline that contains more than 10% ethanol by volume, such as E15 (contains 15% ethanol), E20 (contains 20% ethanol), or E85 (contains up to 85% ethanol). Using unapproved gasoline may cause performance problems and/or engine damage which may not be covered under warranty.
- **Do not** use gasoline containing methanol.
- **Do not** store fuel either in the fuel tank or in fuel containers over the winter unless fuel stabilizer has been added to the fuel.
- **Do not** add oil to gasoline.

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

Refer to your engine manual for additional information.

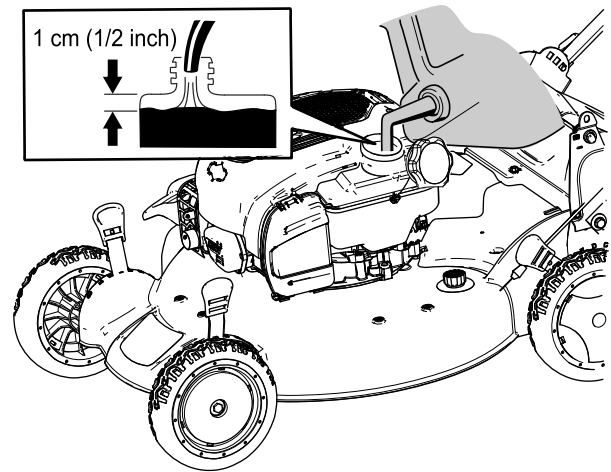


Figure 13

g187574



# Checking the Engine-Oil Level

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

1. Move the machine to a level surface.
2. Remove the dipstick by rotating the cap counterclockwise and pulling it out (Figure 14).

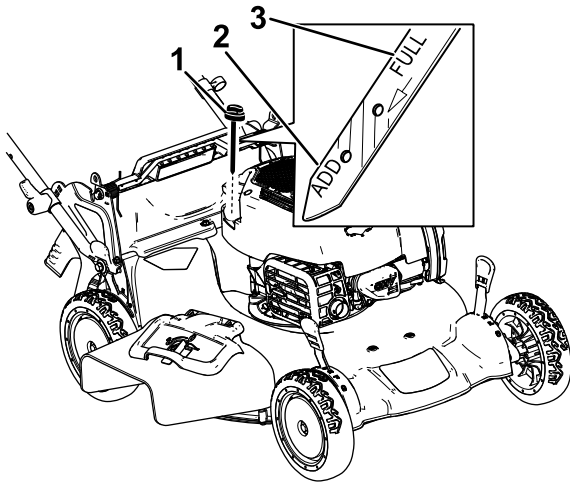


Figure 14

g187518

1. Dipstick
  2. Add
  3. Full
3. Wipe the dipstick clean with a clean cloth.
  4. Insert the dipstick into the oil-fill tube, then remove the dipstick.
  5. Read the oil level on the dipstick (Figure 14).
    - If the oil is below the Add mark on the dipstick, slowly pour a small amount of oil into the oil-fill tube, wait 3 minutes, and then repeat steps 3 through 5 until the oil level is at the Full mark on the dipstick.
    - If the oil is above the Full mark on the dipstick, drain the excess oil until the oil level is at the Full mark on the dipstick. To drain the excess oil, refer to [Changing the Engine Oil](#) (page 16).
  6. Install the dipstick into the oil-fill tube securely.

**Important:** If the oil level in the crankcase is too low or too high and you run the engine, you may damage the engine.

## Adjusting the Handle Height

You can raise or lower the handle in 1 of 2 positions that is more comfortable for you (Figure 15).

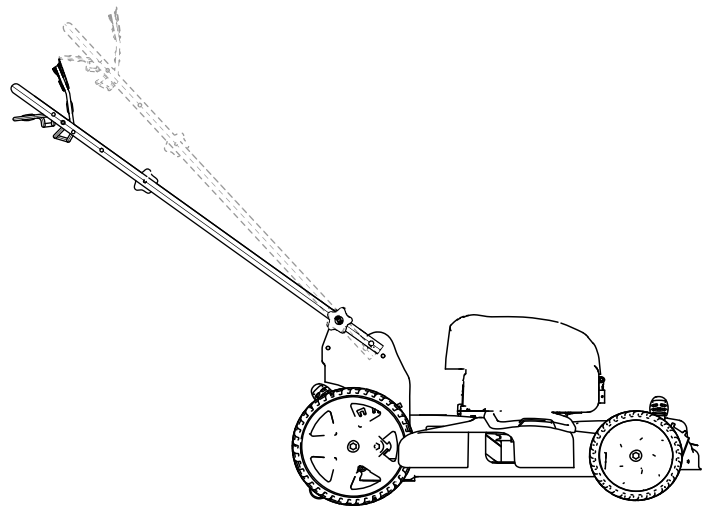


Figure 15

1. Loosen both handle knobs until you can push the square edges of the carriage bolts out of the square holes in the handle brackets.
2. Push the knobs until they are loose.
3. Move the handle to the upper or lower height position.
4. Pull the knobs until the square edges of each carriage bolt fits into its related square hole.
5. Tighten the handle knobs as tight as you can.

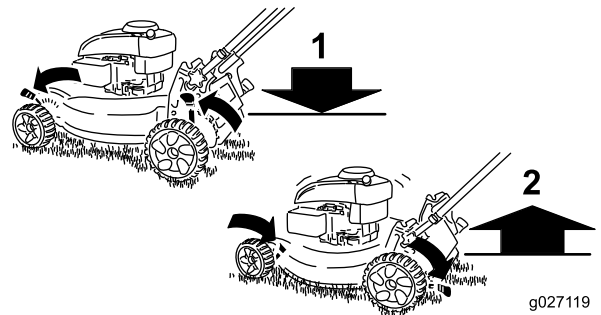
## Adjusting the Cutting Height

### ⚠ CAUTION

If the engine has been running, the muffler will be hot and can severely burn you.

Keep away from the hot muffler.

Adjust the cutting height as desired. Set all the cutting-height levers to the same height. To raise and lower the machine, refer to Figure 16.



g027119

g027119

Figure 16

1. Lower the machine
2. Raise the machine

**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).

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. 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 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, 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.
- Mow with caution near drop-offs, ditches, or embankments.

## Starting the Engine

1. Hold the blade-control bar against the handle (Figure 17).

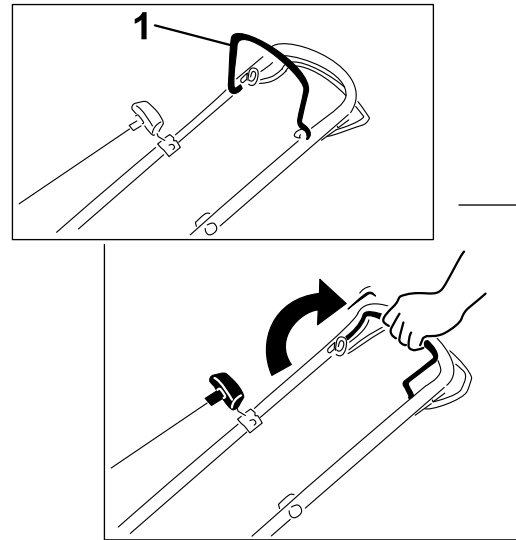


Figure 17

g188706

1. Blade-control bar

2. Pull the recoil-start handle (Figure 18) lightly until you feel resistance, then pull it sharply, and allow it to return to the rope guide on the handle slowly.

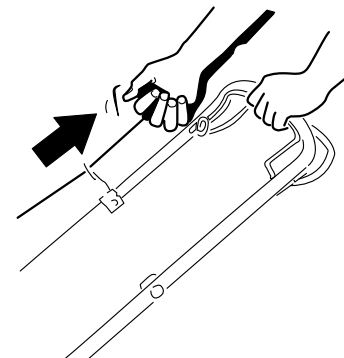


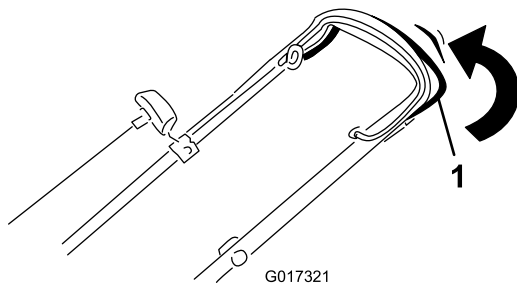
Figure 18

g188707

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

## Using the Self-Propel Drive

- **To engage the self-propel drive:** Squeeze the self-propel-drive bar against the handle and hold it (Figure 19).



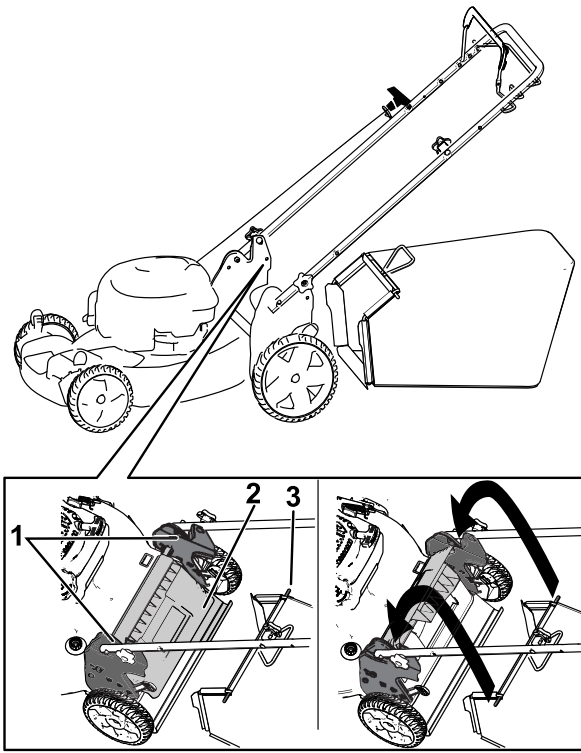
**Figure 19**

1. Self-propel-drive bar

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

- **To disengage the self-propel-drive:** release the self-propel-drive bar.

**Note:** The machine comes with freewheeling clutches that make it easier to pull the machine rearward. To disengage the clutches, you may need to push the machine forward about 2.5 cm (1 inch) or more after you release the self-propel-drive bar.



**Figure 20**

1. Notches
2. Rear door
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 20).
3. Lower the rear door.

## Shutting Off the Engine

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

To shut off 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 11). If the side-discharge chute is on the machine, remove it; refer to [Removing the Side-Discharge Chute](#) (page 12).

## Bagging the Clippings

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

If the side-discharge chute is on the machine, remove it; refer to [Removing the Grass Bag](#) (page 11).

## Installing the Grass Bag

1. Raise and hold up the rear door (Figure 20).

## Removing the Grass Bag

To remove the bag, reverse the steps above.

## Side-Discharging the Clippings

Use side discharging for cutting very tall grass.

If the grass bag is on the machine, remove it; refer to [Removing the Grass Bag](#) (page 11).

## Installing the Side-Discharge Chute

Lift up the side door and install the side-discharge chute (Figure 21).



**Figure 21**

g009537

- Avoid striking solid objects with the blade. Never deliberately mow over any object.
- If the machine strikes an object or starts to vibrate, immediately shut off 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 \(page 9\)](#).
- 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.
- Wet grass and leaves tend to clump on the yard and can cause the machine to plug or the engine to stall. Avoid mowing in wet conditions.
- 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.

## Removing the Side-Discharge Chute

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

## Operating Tips

### General Mowing Tips

- Inspect the area where you will use the machine and remove all objects that the machine could throw.

## 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.
- Secure the machine from rolling.

## Cleaning under the Machine

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

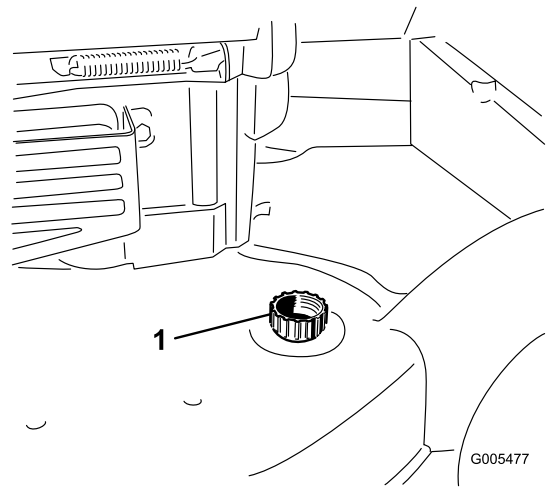
### **⚠ WARNING**

The machine may dislodge material from under the machine.

- **Wear eye protection.**
- **Stay in the operating position (behind the handle) when the engine is running.**
- **Do not allow bystanders in the area.**

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 \(page 9\)](#).
2. Move the machine onto a flat paved surface.
3. Wash out the area under the rear door where the clippings go from the underside of the machine to the grass bag.
4. Attach a garden hose that is connected to a water supply to the washout port on the machine ([Figure 22](#)).



**Figure 22**

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. Shut off 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. Shut off the engine and allow it to cool before storing the machine in an enclosed area.

## Folding the Handle

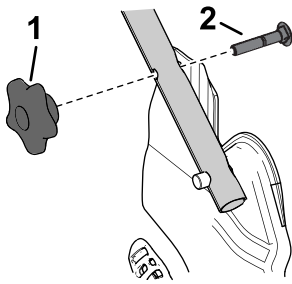
### **⚠ WARNING**

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. Remove and save the 2 handle knobs and 2 carriage bolts from the handle brackets ([Figure 23](#)).

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

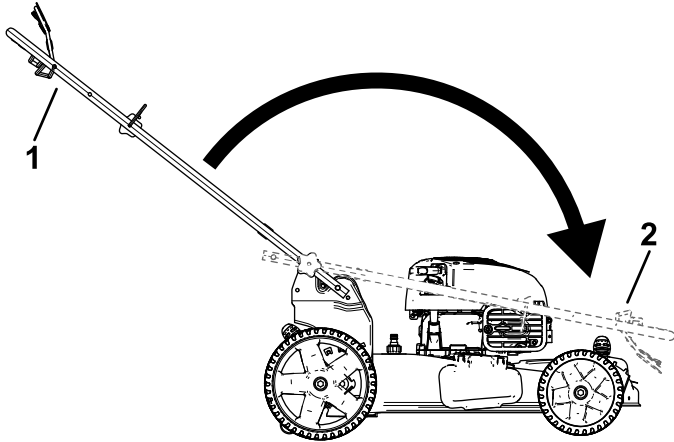


**Figure 23**

g189871

1. Handle knob                      2. Carriage bolt

2. Fold the handle by rotating it forward ([Figure 24](#)).

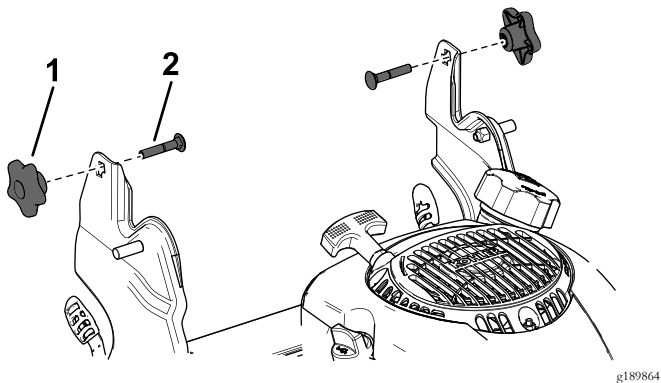


**Figure 24**

g192010

1. Operating position              2. Folded position

3. Insert the carriage bolt (with the bolt head toward the inside) through the handle bracket and the upper hole in the handle end. Ensure that the square edges of each carriage bolt fits into the upper or lower square hole in its related handle bracket ([Figure 25](#)).



**Figure 25**

g189864

1. Handle knob                      2. Carriage bolt

4. Loosely install the handle knobs and carriage bolts on the handle brackets.
5. To unfold the handle, refer to [1 Assembling and Unfolding the Handle](#) (page 4).



# Maintenance

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

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

## Recommended Maintenance Schedule(s)

Maintenance Service Interval	Maintenance Procedure
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>• Service the air filter; service it more frequently in dusty operating conditions.</li></ul>
Yearly	<ul style="list-style-type: none"><li>• Replace the air filter; replace it more frequently in dusty operating conditions.</li><li>• Replace the blade or have it sharpened (more frequently if the edge dulls quickly).</li></ul>
Yearly or before storage	<ul style="list-style-type: none"><li>• Empty the fuel tank before repairs as directed and before yearly storage.</li></ul>

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

## Maintenance Safety

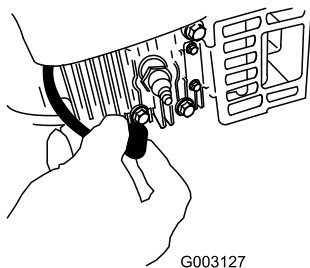
- Disconnect the spark-plug wire from the spark plug before performing any maintenance procedure.
- Wear gloves and eye protection when servicing the machine.
- The blade is sharp; contacting the blade can result in serious personal injury. Wear gloves when servicing the blade.
- Never tamper with safety 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.

3. 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.

## Preparing for Maintenance

1. Shut off the engine and wait for all moving parts to stop.
2. Disconnect the spark-plug wire from the spark plug (Figure 26).



**Figure 26**

g003127

1. Spark-plug wire

# Servicing the Air Filter

**Service Interval:** Every 25 hours

Yearly

1. Unclip the top of the air-filter cover (Figure 27).

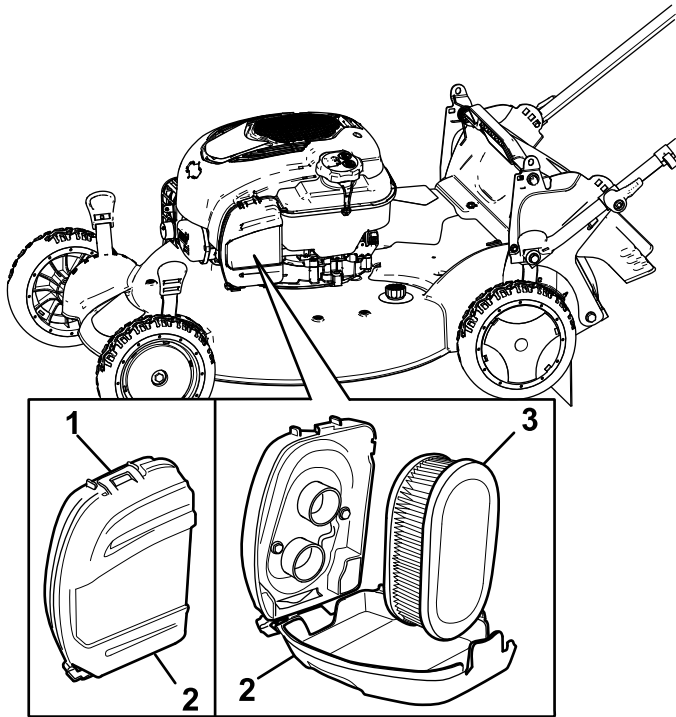


Figure 27

g187602

1. Clip
2. Air-filter cover
3. Air filter

2. Remove the air filter (Figure 27).
3. Inspect the air filter.

**Note:** If the air filter is excessively dirty, replace it with a new filter. Otherwise, gently tap the air filter on a hard surface to loosen debris.

4. Install the air filter.
5. Use the clip to install the air-filter cover.

## Changing the Engine Oil

Changing the engine oil is not required, but if you desire to change the oil, use the following procedure.

**Engine oil capacity:** 0.47 L (16 oz)

**Oil viscosity:** SAE 30 or SAE 10W-30 detergent oil

**API service classification:** SJ or higher

1. Move the machine to a level surface.
2. Refer to [Preparing for Maintenance](#) (page 15).
3. Remove the dipstick by rotating the cap counterclockwise and pulling it out (Figure 28).

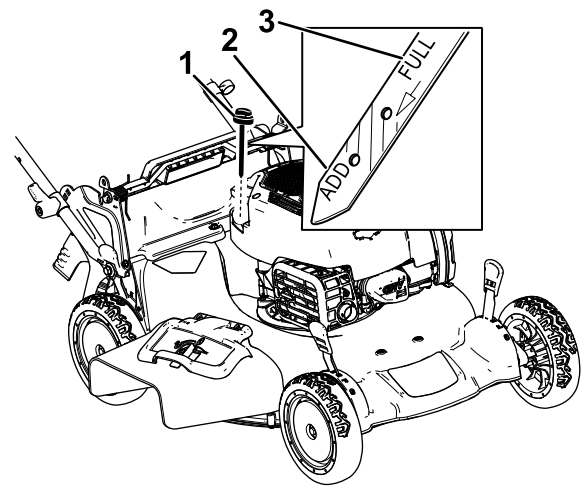


Figure 28

g187518

1. Dipstick
2. Add
3. Full

4. Tip the machine onto its side (so that the air filter is up) to drain the used oil from the oil-fill tube (Figure 29).

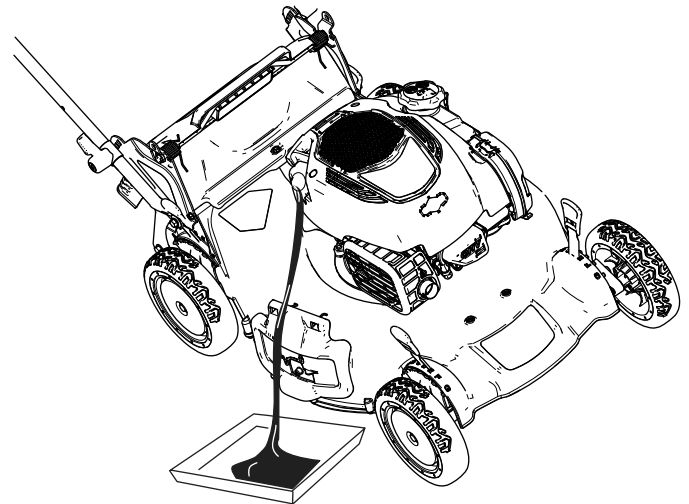


Figure 29

g187603

5. After draining the used oil, return the machine to the operating position.
6. Carefully pour about 3/4 of the engine capacity of oil into the oil-fill tube.
7. Wait about 3 minutes for the oil to settle in the engine.
8. Wipe off the dipstick end with a clean cloth.
9. Insert the dipstick into the oil-fill tube, then remove the dipstick.
10. Read the oil level on the dipstick (Figure 28).
  - If the oil level is below the Add mark on the dipstick, carefully pour a small amount of oil into the oil-fill tube, wait 3 minutes, and repeat steps



8 through 10 until the oil level is at the Full mark on the dipstick.

- If the oil level is above the Full mark on the dipstick, drain the excess oil until the oil level is at the Full mark on the dipstick; refer to [Changing the Engine Oil \(page 16\)](#).

**Important:** If the oil level in the engine is too low or too high and you run the engine, you may damage the engine.

11. Install the dipstick securely.
12. Recycle the used oil properly.

## 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 fuel. 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.

### **⚠ WARNING**

The blade is sharp; contacting the blade can result in serious personal injury.

Wear gloves when servicing the blade.

1. Refer to [Preparing for Maintenance \(page 15\)](#).
2. Tip the machine onto its side with the air filter up.
3. Use a block of wood to hold the blade steady ([Figure 30](#)).

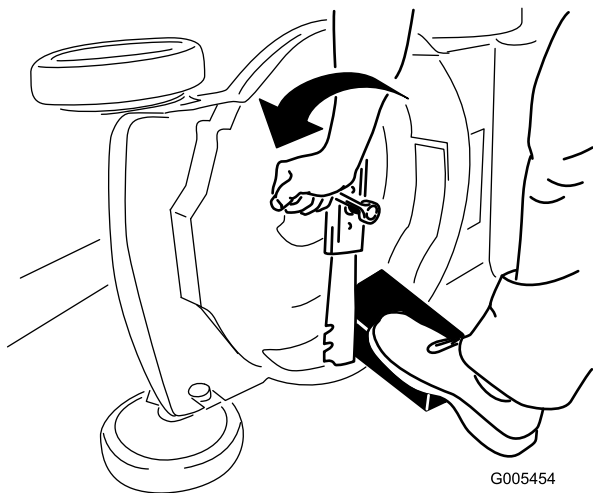


Figure 30

g005454

5. Install the new blade and all mounting hardware ([Figure 31](#)).

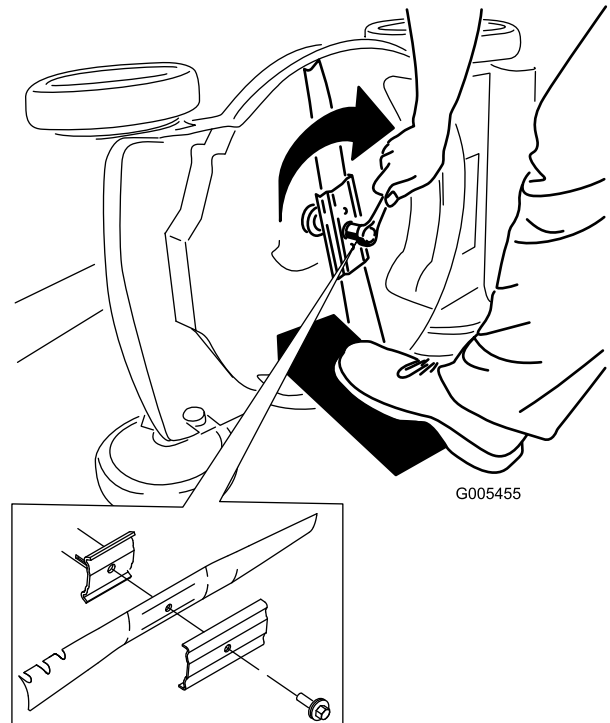


Figure 31

g005455

**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).

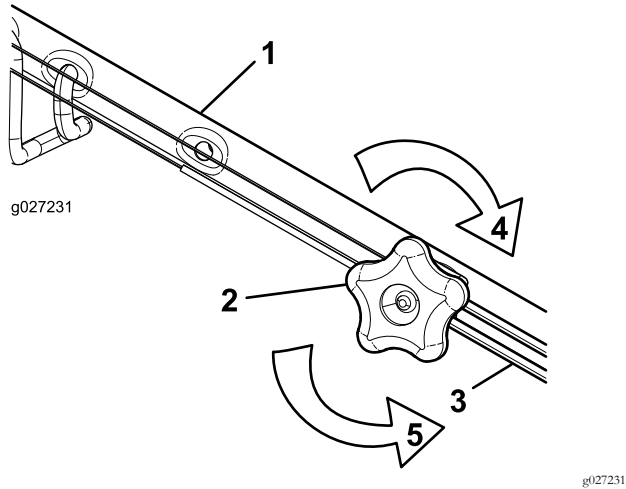
**Important:** A bolt torqued to 82 N·m (60 ft-lb) is very tight. While holding the blade with a block of wood, put your weight behind the ratchet or wrench and tighten the bolt securely. This bolt is very difficult to overtighten.

4. Remove the blade, saving all mounting hardware ([Figure 30](#)).

# 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 32).



**Figure 32**

- |                            |   |
|----------------------------|---|
| 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 32) 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 cable adjustment.

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

# Storage

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

## Preparing the Machine for Storage

1. On the last refueling of the year, add fuel stabilizer (such as Toro Premium Fuel Treatment) to the fuel.
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 shuts off from running out of fuel.
4. Start the engine again.
5. Allow the engine to run until it shuts off. 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 of engine 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. Check and tighten all fasteners.
2. Remove the spark plug and spin the engine rapidly by pulling the recoil-start handle to blow the excess oil from the cylinder.
3. Install the spark plug and tighten it with a torque wrench to 20 N·m.
4. Perform any maintenance procedures; refer to [Maintenance \(page 15\)](#).
5. Check the engine-oil level; refer to [Checking the Engine-Oil Level \(page 9\)](#).
6. Fill the fuel tank with fresh fuel; refer to [Filling the Fuel Tank \(page 8\)](#).
7. Connect the wire to the spark plug.

## **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.



# The Toro Warranty and The Toro GTS Starting Guarantee

Residential Products

## 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 defective in materials or workmanship 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.

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

Products	Warranty Period
Walk Power Mowers	
• Cast Deck	5 years Residential Use <sup>2</sup> 90 Days Commercial Use
—Engine	5 years GTS Guarantee, Residential Use <sup>3</sup>
—Battery	2 years
• Steel Deck	2 years Residential Use <sup>2</sup> 30 Days Commercial Use
—Engine	2 years GTS Guarantee, Residential Use <sup>3</sup>
TimeMaster Mowers	
• Engine	3 years Residential Use <sup>2</sup> 90 Days Commercial Use 3 years GTS Guarantee, Residential Use <sup>3</sup>
• Battery	2 years
Electric Hand Held Products and Walk Power Mowers	2 years Residential Use <sup>2</sup> No Warranty for Commercial Use
All Ride-On Units Below	
• Engine	See engine manufacturer's warranty <sup>4</sup>
• Battery	2 years Residential Use <sup>2</sup>
• Attachments	2 years Residential Use <sup>2</sup>
DH Lawn & Garden Tractors	2 years Residential Use <sup>2</sup> 30 Days Commercial Use
XLS Lawn & Garden Tractors	3 years Residential Use <sup>2</sup> 30 Days Commercial Use
TimeCutter	3 years Residential Use <sup>2</sup> 30 Days Commercial Use

<sup>1</sup>Original Purchaser means the person who originally purchased the Toro Product.

<sup>2</sup>Residential use means use of the product on the same lot as your home. Use at more than one location is considered commercial use and the commercial use warranty would apply.

<sup>3</sup>The Toro GTS Starting Guarantee does not apply when the product is used commercially.

<sup>4</sup>Some engines used on Toro Products are warranted by the engine manufacturer.

Warranty may be denied if the hour meter is disconnected, altered, or shows signs of being tampered with.

## 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.

## Instructions for Obtaining Warranty Service

If you think that your Toro Product contains a defect in materials or workmanship, follow this procedure:

- Contact your seller to arrange service of the product. If for any reason it is impossible for you to contact your seller, you may contact any Toro Authorized Distributor to arrange service. Visit <http://www.toro.com/en-us/locator/pages/default.aspx> to locate a Toro distributor in your area.
- Bring the product and your proof of purchase (sales receipt) to the servicing outlet. If for any reason you are dissatisfied with the servicing outlet's analysis or with the assistance provided, contact us at:

Toro Warranty Company  
Toro Customer Care Department, RLC Division  
8111 Lyndale Avenue South  
Bloomington, MN 55420-1196  
001-952-948-4707

## 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
- Components failing due to normal wear
- Any product or part which has been altered, misused, neglected, 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

The purchaser is covered by the national laws of each country. The rights to which the purchaser is entitled with the support of these laws are not restricted by this warranty.