



# 53cm Mulching/Rear Bagging/Side Discharging Lawn Mower

Model No. 21750—Serial No. 400000000 and Up

Model No. 21751—Serial No. 400000000 and Up

## Operator's Manual

## Introduction

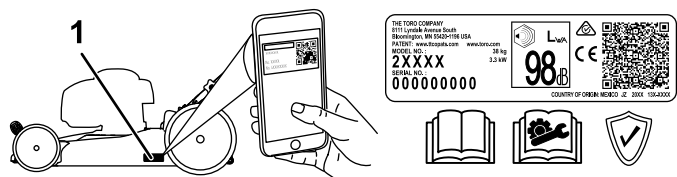
This rotary-blade, walk-behind lawn mower is intended to be used by residential homeowners. It is designed primarily for cutting grass on well-maintained lawns on residential properties. Using this product for purposes other than its intended use could prove dangerous to you and bystanders.

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.

Visit [www.Toro.com](http://www.Toro.com) for more information, including safety tips, training materials, accessory information, help finding a dealer, or to register your product.

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

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



**Figure 1**

1. Model and serial number location

Model No. _____
Serial No. _____

This manual identifies potential hazards and has safety messages identified by the safety-alert symbol (**Figure 2**), which signals a hazard that may cause

serious injury or death if you do not follow the recommended precautions.



**Figure 2**  
Safety-alert symbol

g000502

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.

**Gross or 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 or J2723. As configured to meet safety, emission, and operating requirements, the actual engine torque on this class of mower will be significantly lower. Please refer to the engine manufacturer's information included with the machine.

Do not tamper with or disable safety devices on the machine, and check their proper operation regularly. Do not attempt to adjust or tamper with the engine speed control; doing so may create an unsafe operating condition, resulting in personal injury.



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# Safety

This machine has been designed in accordance with EN ISO 5395.

## 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.

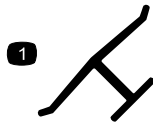
- Read, understand, and follow the instructions and warnings in this *Operator's Manual* and on the machine and attachments before starting the engine.
- Do not put your hands or feet near moving parts or under the machine. Keep clear of any discharge opening.
- Do not operate the machine without all guards and other safety protective devices in place and functioning properly on the machine.
- Keep bystanders and children out of the operating area. Do not allow children to operate the machine. Allow only people who are responsible, trained, familiar with the instructions, and physically capable to operate the machine.
- Stop the machine, shut off the engine, remove the ignition key (if equipped), and wait for all moving parts to stop before servicing, fueling, or unclogging the machine.

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

# Safety and Instructional Decals



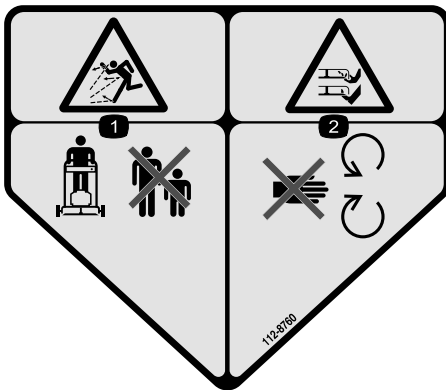
Safety decals and instructions are easily visible to the operator and are located near any area of potential danger. Replace any decal that is damaged or missing.



decal0emmark

## Manufacturer's Mark

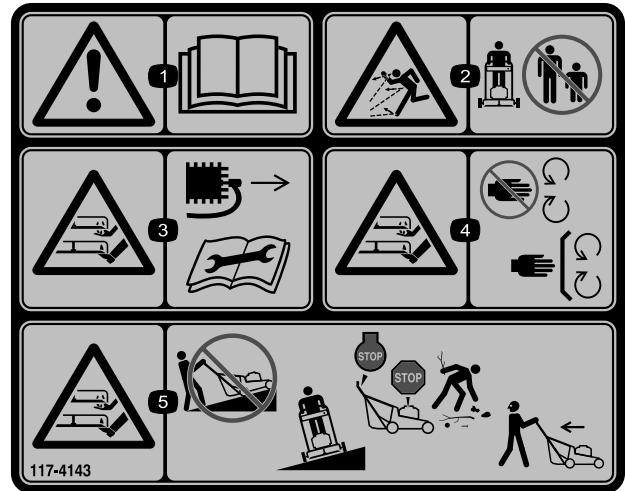
1. This mark indicates that the blade is identified as a part from the original machine manufacturer.



decal112-8760

## 112-8760

1. Thrown object hazard—keep bystanders away.
2. Cutting/dismemberment hazard of hand or foot, mower blade—stay away from moving parts.

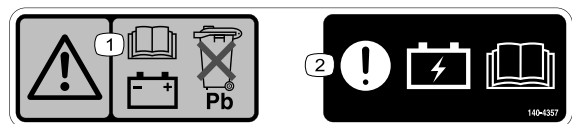


decal117-4143

## 117-4143

1. Warning—read the *Operator's Manual*.
2. Thrown object hazard—keep bystanders away.
3. Cutting/dismemberment hazard of hand or foot, mower blade—disconnect the spark-plug wire and read the *Operator's Manual* before performing maintenance.
4. Cutting/dismemberment hazard of hand or foot, mower blade—stay away from moving parts; keep all guards and shields in place.
5. Cutting/dismemberment hazard of hand or foot, mower blade—do not operate up and down slopes; only operate across slopes; shut off the engine and wait for all moving parts to stop before leaving the machine; pick up debris before mowing; look behind and down when moving in reverse.

## Electric-start model only



decal140-4357

## 140-4357

1. Warning—read the *Operator's Manual* for battery information; do not discard the lead battery.
2. Attention—read the *Operator's Manual* for battery charging information.

# Setup

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

**Important:** To prevent accidental starting, do not insert the key into the electric-start ignition (if equipped) until you are ready to start 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 and corresponding bolts from the lower handles (A of [Figure 3](#)).
  2. Position the upper handle on the lower handles and then unfold the handle (B of [Figure 3](#)).
  3. Ensure that the cables are routed to the outside of the handle (C of [Figure 3](#)).
  4. Install the handle knobs with the corresponding bolts and tighten them firmly by hand (D of [Figure 3](#)).

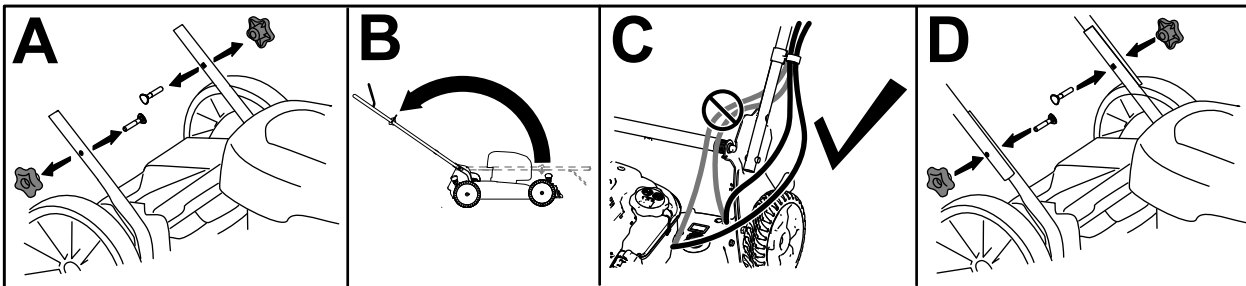


Figure 3

g305902

# 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.

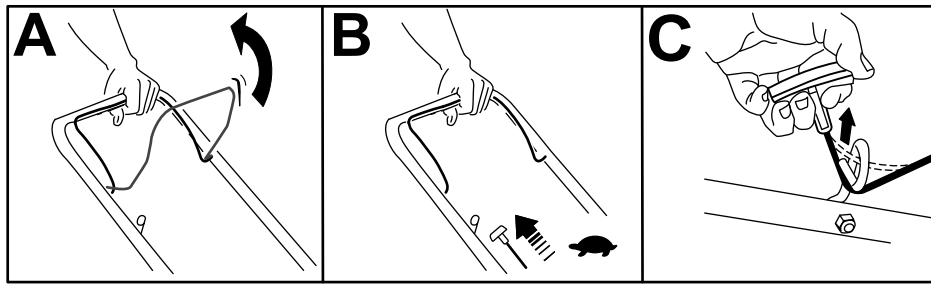


Figure 4

g228152

# 3

## Adding Oil to the Engine

No Parts Required

### Procedure

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

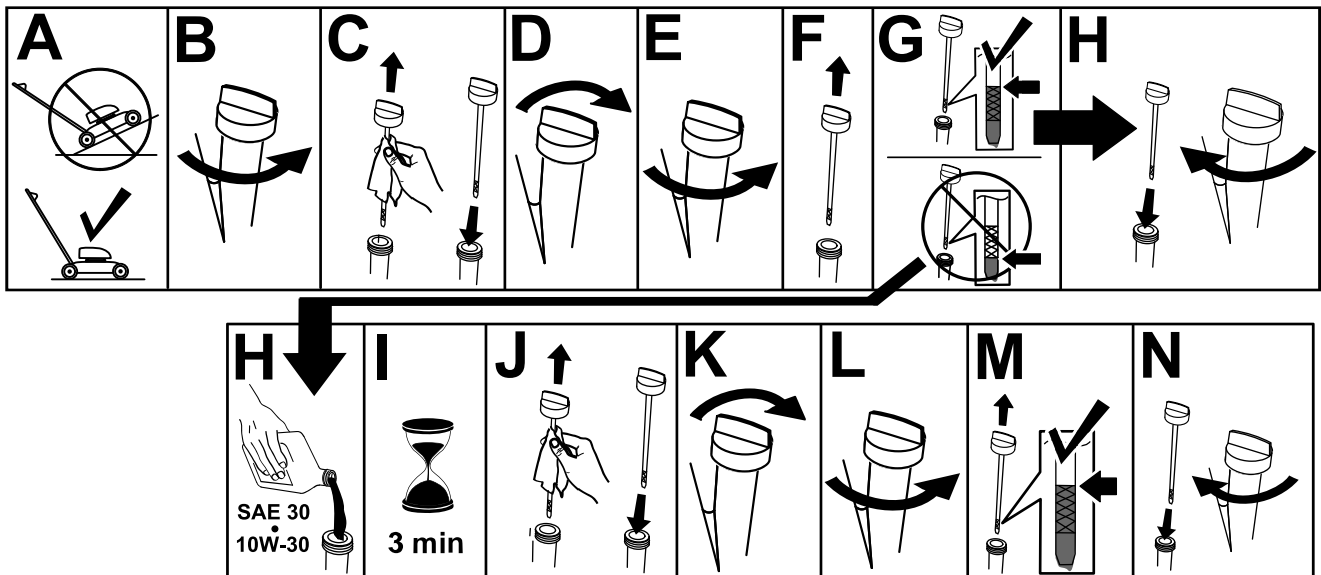


Figure 5

g222533

# 4

## Assembling the Grass Bag

No Parts Required

### Procedure

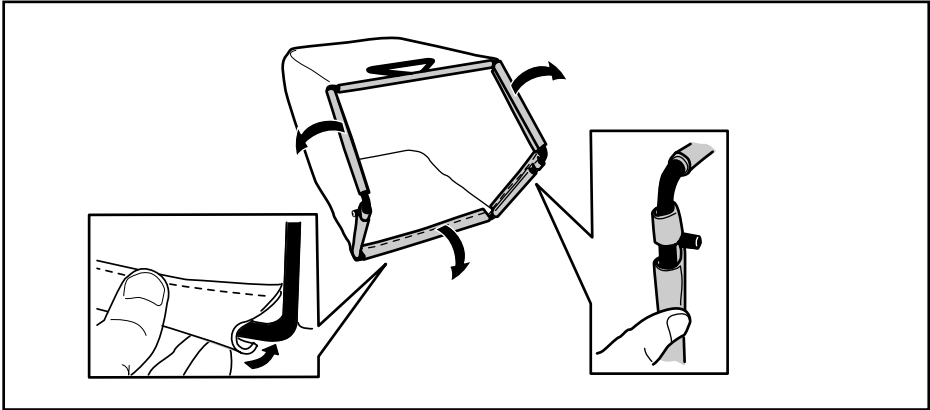


Figure 6

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# 5

## Charging the Battery

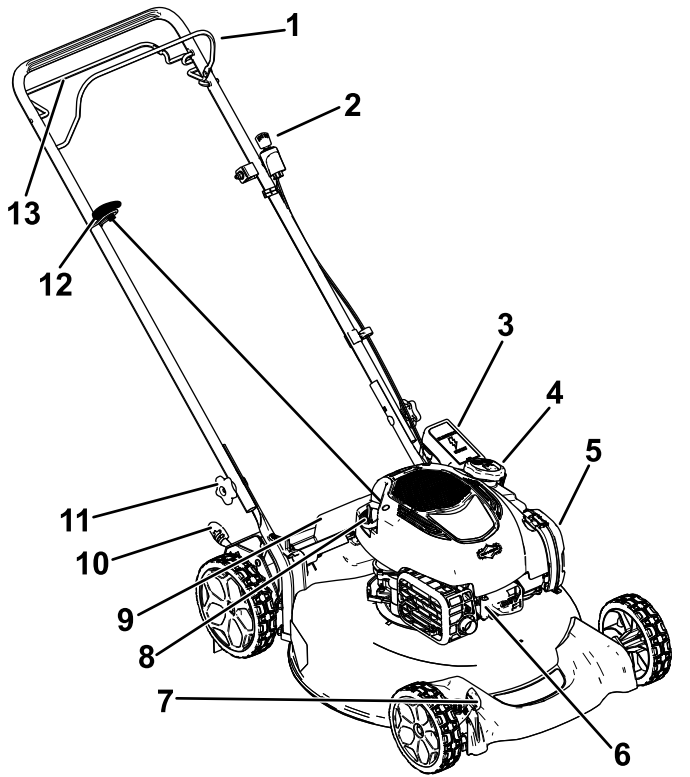
No Parts Required

### Procedure

Electric-Start Model Only

Refer to [Charging the Battery \(page 18\)](#).

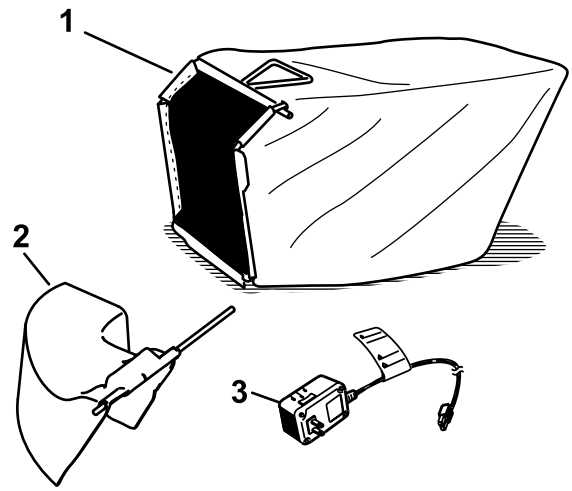
# Product Overview



**Figure 7**

Electric-start model shown

- |   |                               |
|---|-------------------------------|
| 1. Blade-control bar                        | 8. Oil fill/dipstick          |
| 2. Ignition key (electric-start model only) | 9. Rear deflector             |
| 3. Battery (electric-start model only)      | 10. Rear cutting-height lever |
| 4. Fuel-tank cap                            | 11. Handle knob (2)           |
| 5. Air filter                               | 12. Recoil-start handle       |
| 6. Spark plug                               | 13. Self-propel drive bar     |
| 7. Front cutting-height lever               |                               |



**Figure 8**

- |   |  |
|---|--|
| 1. Grass bag                              | 3. Battery charger (electric-start model only) |
| 2. Side-discharge chute (sold separately) |  |

g197496

## Specifications

Model	Weight	Length	Width	Height
21750	30 kg (67 lb)	145 cm (57 inches)	56 cm (22 inches)	97 cm (38 inches)
21751	34 kg (76 lb)			

## Attachments/Accessories

A selection of Toro approved attachments and accessories is available for use with the machine to enhance and expand its capabilities. Contact your Authorized Service Dealer or authorized Toro distributor or go to [www.Toro.com](http://www.Toro.com) for a list of all approved attachments and accessories.

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

# Operation

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

## Before Operation

### Before Operation Safety

#### General Safety

- Always shut off the machine, remove the ignition key (if equipped), wait for all moving parts to stop, and allow the machine to cool before adjusting, servicing, cleaning, or storing it.
- 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 functioning properly.
- Always inspect the machine to ensure that the blades and blade bolts are not worn or damaged.
- Inspect the area where you will use the machine, and remove all objects that could interfere with the operation of the machine or that the machine could throw.
- Contact with the moving blade will cause serious injury. Do not put your fingers under the housing when adjusting the cutting height.

#### Fuel Safety

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

- Avoid prolonged breathing of vapors.
- Keep your hands and face away from the nozzle and the fuel-tank opening.
- Keep fuel away from your eyes and skin.

### 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).
- Oxygenated fuel with up to 10% ethanol or 15% MTBE by volume is acceptable.
- **Do not** use ethanol blends of gasoline, such as E15 or E85, with more than 10% ethanol by volume. Performance problems and/or engine damage may result, 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.

Fill the fuel tank with fresh unleaded regular gasoline from a major name-brand service station (Figure 9).

**Important:** To reduce starting problems, add fuel stabilizer/conditioner to fresh fuel as directed by the fuel-stabilizer manufacturer.

Refer to your engine owner's manual for additional information.

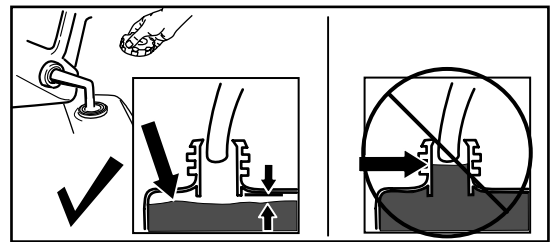


Figure 9

g230458



# Checking the Engine-Oil Level

Service Interval: Before each use or daily

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

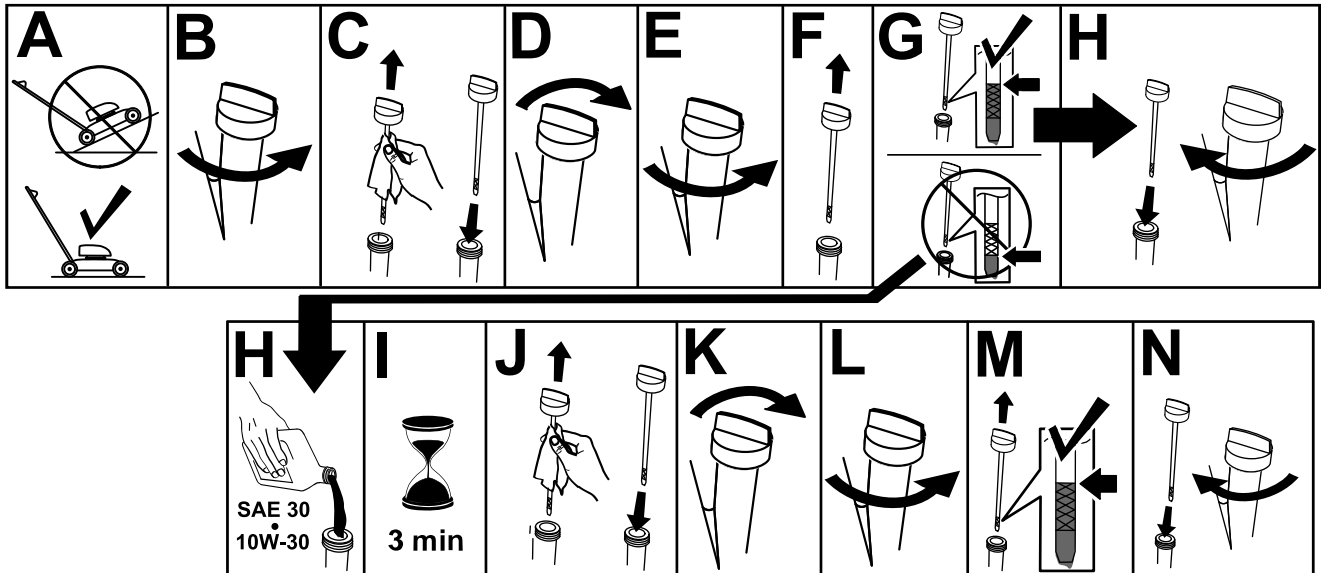


Figure 10

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# 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 wheels to the same cutting height (Figure 11).

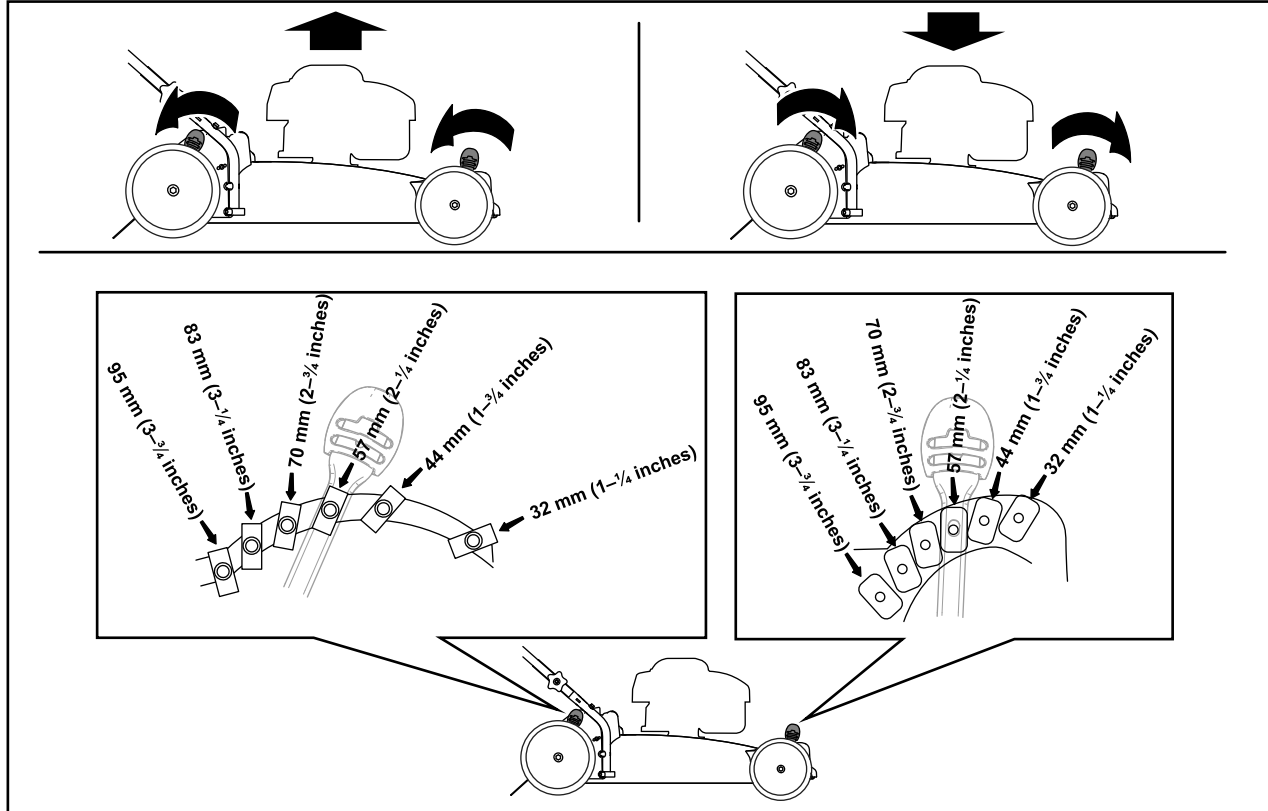


Figure 11

g228410

# ***During Operation***

## **During Operation Safety**

### **General Safety**

- Wear appropriate clothing, including eye protection; long pants; substantial, slip-resistant footwear; and hearing protection. Tie back long hair and do not wear loose clothing or loose jewelry.
- Use your full attention while operating the machine. Do not engage in any activity that causes distractions; otherwise, injury or property damage may occur.
- Do not operate the machine while ill, tired, or under the influence of alcohol or drugs.
- The blade is sharp; contacting the blade can result in serious personal injury. Shut off the engine, remove the ignition key (electric-start model only), 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.
- Keep bystanders out of the operating area. Keep small children out of the operating area and under the watchful care of a responsible adult who is not operating the machine. Stop the machine if anyone enters the area.
- Always look down and behind you before moving the machine in reverse.
- Operate the machine only in good visibility and appropriate weather conditions. Do not operate the machine when there is the risk of 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.
- Do not direct the discharge material toward anyone. Avoid discharging material against a wall or obstruction; material may ricochet toward you. Stop the blade(s) when crossing gravel surfaces.
- Watch for holes, ruts, bumps, rocks, or other hidden objects. Uneven terrain could cause you to lose your balance or footing.
- If the machine strikes an object or starts to vibrate, immediately shut off the engine, remove the ignition key (if equipped), wait for all moving parts

to stop, and disconnect the wire from the spark plug before examining the machine for damage. Make all necessary repairs before resuming operation.

- Before leaving the operating position, shut off the engine, remove the ignition key (electric-start model only), and wait for all moving parts to stop.
- If the engine has been running, it will be hot and can severely burn you. Keep away from the hot engine.
- Operate the engine only in well-ventilated areas. Exhaust gases contain carbon monoxide, which is lethal if inhaled.
- Check the grass catcher components and the discharge chute frequently for any wear or deterioration and replace them with genuine Toro parts when necessary.

### **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 (A of [Figure 12](#)).
2. Pull the recoil-start handle (B of [Figure 12](#)).

**Note:** When you pull the recoil-start handle, pull it lightly until you feel resistance, then pull it sharply. Allow the rope to return to the handle slowly.

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

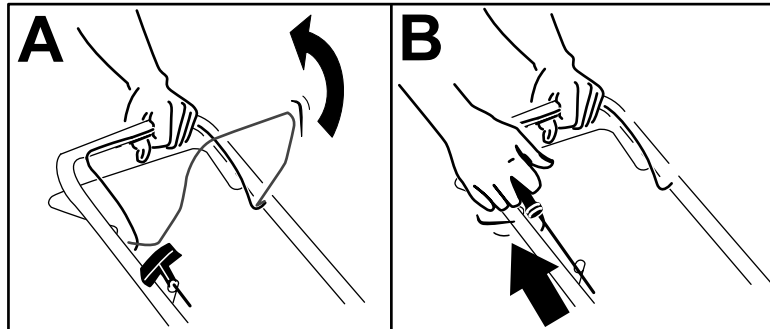


Figure 12

g230255

## Using the Self-Propel Drive

- To engage the self-propel drive, pull the self-propel-drive bar to the handle and hold it ([Figure 13](#)).

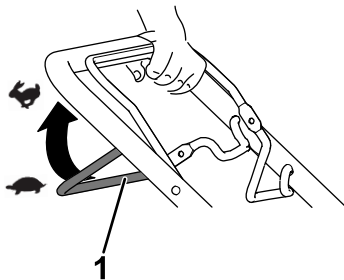


Figure 13

g240765

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:** To reduce the ground speed, increase the space between the self-propel drive bar and the handle.

## Shutting Off the Engine

To shut off the engine, release the blade-control bar.

**Note:** Remove the key (if equipped) from the ignition when you leave the machine.

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

## Mulching the Clippings

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

If the grass bag is on the machine, remove it before mulching the clippings. Refer to [Removing the Grass Bag \(page 13\)](#).

# Bagging the Clippings

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

## **⚠ WARNING**

A worn grass bag could allow small stones and other similar debris to be thrown toward you or bystanders, resulting in serious personal injury or death.

Check the grass bag frequently. If it is damaged, install a new Toro replacement bag.

## **⚠ WARNING**

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.

## Installing the Grass Bag

1. Lift up the rear deflector (A of [Figure 14](#)).
2. Insert the rod ends of the grass bag into the notches in the handle brackets (B of [Figure 14](#)).
3. Allow the rear deflector to rest on the bag.

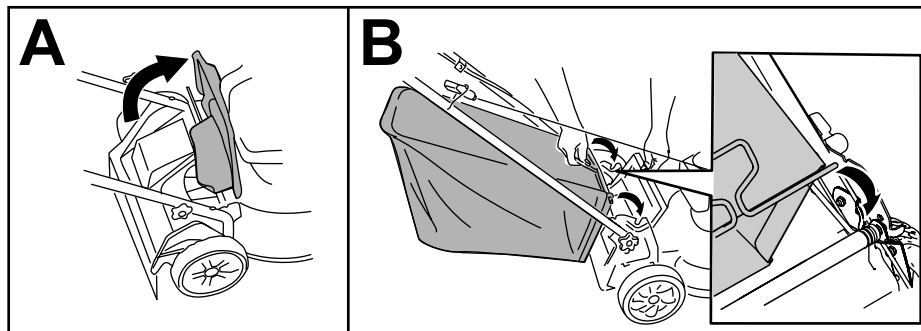


Figure 14

g240796

## Removing the Grass Bag

1. Lift up the rear deflector (A of [Figure 14](#)).
2. Lift the grass-bag handle out from the notches on the handle brackets and remove the bag from the machine.
3. Close the rear deflector.

# Side-Discharging the Clippings

## Installing the Side-Discharge Chute

1. Lift up the rear deflector (Figure 15).

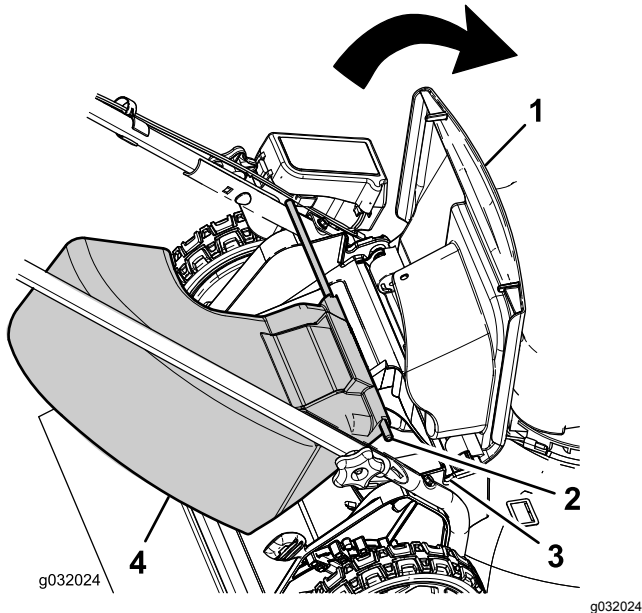


Figure 15

- |                   |                                    |
|-------------------|------------------------------------|
| 1. Rear deflector | 3. Notch in the handle bracket (2) |
| 2. Rod end (2)    | 4. Side-discharge chute            |

**Note:** If the grass bag is on the machine, remove it; refer to [Removing the Grass Bag](#) (page 13).

2. Insert the rod ends of the side-discharge chute into the notches on the handle brackets (Figure 15).
3. Allow the rear deflector to rest on the chute.

## Removing the Side-Discharge Chute

1. Lift up the rear deflector (Figure 15).
2. Lift the side-discharge chute out from the notches on the handle brackets and remove the chute from the machine.
3. Close the rear deflector.

# Operating Tips

## General Mowing Tips

- Inspect the area where you will use the machine and remove all objects that the machine could throw.
- 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, remove the key (if equipped), 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 51 mm (2 inches) unless the grass is sparse or it is late fall when grass growth begins to slow down.
- 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.

## 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, mow at a higher cutting height and then again at the desired cutting height.
- Slow down your mowing speed if the machine does not cut the leaves finely enough.

4. When no more clippings come out, stop the water and move the machine to a dry area.
5. Run the engine for a few minutes to dry the underside of the machine.

## After Operation

### After Operation Safety

#### General Safety

- Always shut off the machine, remove the ignition key (if equipped), wait for all moving parts to stop, and allow the machine to cool before adjusting, servicing, cleaning, or storing it.
- Clean grass and debris from the machine to help prevent fires. Clean up oil or fuel spills.
- Never store the machine or fuel container where there is an open flame, spark, or pilot light, such as on a water heater or on other appliances.

#### Hauling Safety

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

### Cleaning under the Machine

**Service Interval:** After each use

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

1. Lower the machine to its lowest cutting-height setting.
2. Move the machine onto a paved level surface.
3. With the engine running and the blade engaged, spray a stream of water in front of the **right**, rear wheel (Figure 16).

**Note:** The water will splash into the path of the blade, cleaning out the clippings.

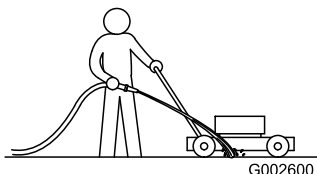


Figure 16

g002600

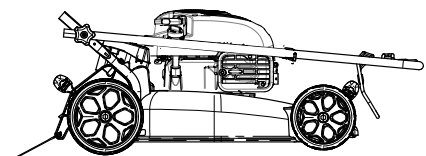
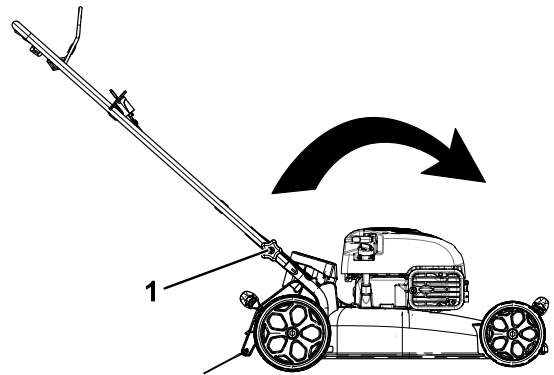
### Folding the Handle

#### ⚠ 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 the ignition key (if equipped).
2. Loosen the handle knobs until you can move the handle freely (Figure 17).



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Figure 17

1. Handle knob (2)

3. Move the handle forward as shown in Figure 17.

# Maintenance

## 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 and add oil as needed.</li><li>• Ensure that the engine shuts off within 3 seconds after releasing the blade-control bar.</li></ul>
After each use	<ul style="list-style-type: none"><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><li>• Charge the battery for 24 hours (if equipped).</li></ul>
Yearly	<ul style="list-style-type: none"><li>• Change the engine oil (if desired).</li><li>• Replace the blade or have it sharpened (more frequently if the edge dulls quickly).</li><li>• Clean the engine by removing dirt and debris from its top and sides; clean it more frequently in dusty operating conditions.</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>

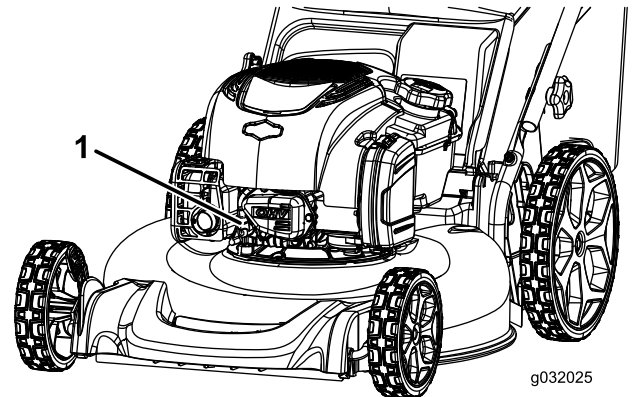
**Important:** Refer to your engine manual for additional maintenance procedures.

## Maintenance Safety

- Disconnect the spark-plug wire from the spark plug and remove the ignition key (electric-start model only) 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. Do not repair or alter the blade(s).
- Never tamper with safety devices. Check their proper operation regularly.
- Tipping the machine may cause the fuel to leak. Fuel is flammable and explosive, and can cause personal injury. Run the engine dry or remove the fuel with a hand pump; never siphon the fuel.
- To ensure optimum performance of the machine, use only genuine Toro replacement parts and accessories. Replacement parts and accessories made by other manufacturers could be dangerous, and such use could void the product warranty.

## Preparing for Maintenance

1. Shut off the engine, remove the ignition key (if equipped), and wait for all moving parts to stop.
2. Disconnect the spark-plug wire from the spark plug (Figure 18).



**Figure 18**

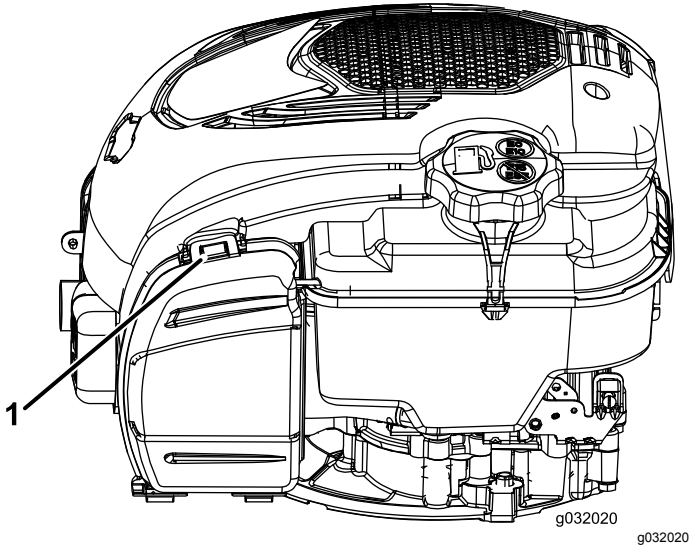
1. Spark-plug wire
- 
3. After performing the maintenance procedure(s), connect the spark-plug wire to the spark plug.



# Servicing the Air Filter

**Service Interval:** Every 25 hours/Yearly (whichever comes first)

1. Pull the tab to open the air-filter cover ([Figure 19](#)).



**Figure 19**

1. Tab

2. Replace the air filter.
3. Close the air-filter cover.

# Changing the Engine Oil

**Service Interval:** Yearly

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

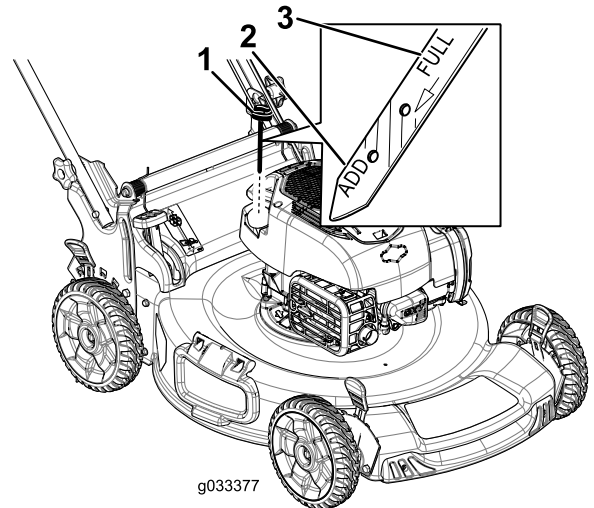
**Note:** Run the engine a few minutes before changing the oil to warm it. Warm oil flows better and carries more contaminants.

## Engine Oil Specifications

<b>Engine oil capacity</b>	0.44 L (15 fl oz)*
<b>Oil viscosity</b>	SAE 30 or SAE 10W-30 detergent oil
<b>API service classification</b>	SJ or higher

\*There is residual oil in the crankcase after you drain the oil. Do not pour the entire capacity of oil into the crankcase. Fill the crankcase with oil as directed in the following steps.

1. Move the machine to a level surface.
2. Refer to [Preparing for Maintenance \(page 16\)](#).
3. Remove the dipstick by rotating the cap counterclockwise and pulling it out ([Figure 20](#)).



**Figure 20**

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 21](#)).

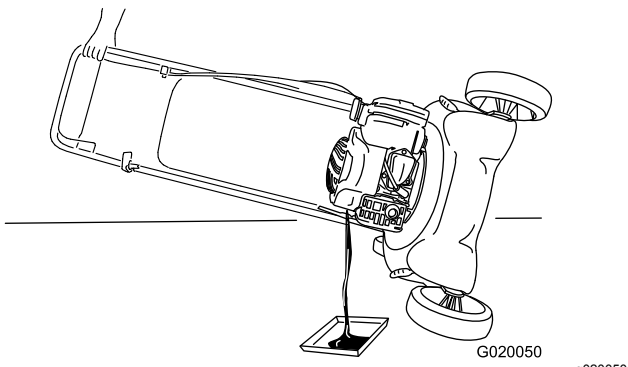


Figure 21

## Charging the Battery

### Electric-Start Model Only

**Service Interval:** Every 25 hours

Charge the battery for 24 hours initially, then monthly (every 25 starts) or as needed. Always use the charger in a sheltered area and charge the battery at room temperature (22°C or 70°F) whenever possible.

1. Connect the charger to the wire harness located below the ignition key (Figure 22).

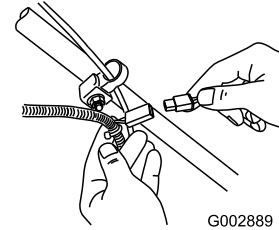


Figure 22

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 3 minutes for the oil to settle in the engine.
  8. Wipe the dipstick clean 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 20).
    - If the oil level on the dipstick is too low, 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 on the dipstick is correct.
    - If the oil level on the dipstick is too high, drain the excess oil until the oil level on the dipstick is correct.
- 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 into the oil-fill tube securely.
  12. Recycle the used oil properly.

2. Plug the charger into a wall outlet.

**Note:** When the battery no longer holds a charge, recycle or dispose of the lead-acid battery according to local codes.

**Note:** Your battery charger may have a 2-color LED display that indicates the following states of charging:

- A red light indicates that the charger is charging the battery.
- A green light indicates that the charger is fully charged or the charger is disconnected from the battery.
- A flashing light that alternates between red and green indicates that the battery is nearly fully charged. This state lasts only a few minutes until the battery is fully charged.

# Replacing the Fuse

## Electric-Start Model Only

If the battery does not charge or the engine does not run with the electric starter, the fuse may be blown. Replace it with a 40 A plug-in type fuse.

1. Unclip the battery cover and remove it (Figure 23).

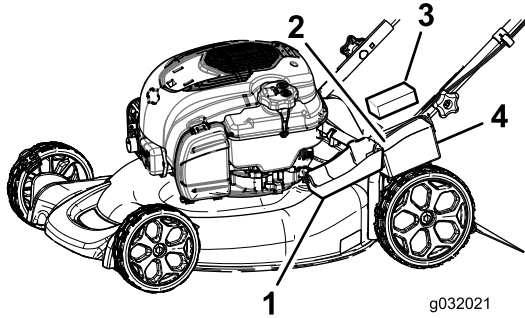


Figure 23

- |                  |                |
|------------------|----------------|
| 1. Battery cover | 3. Battery     |
| 2. Foam          | 4. Fuse holder |

2. Insert the fuse into the fuse holder (Figure 24).

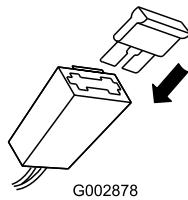


Figure 24

3. Install the battery cover.

# 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 \(page 16\)](#).
2. Tip the machine onto its side with the air filter up.
3. Use a block of wood to hold the blade steady (Figure 25).

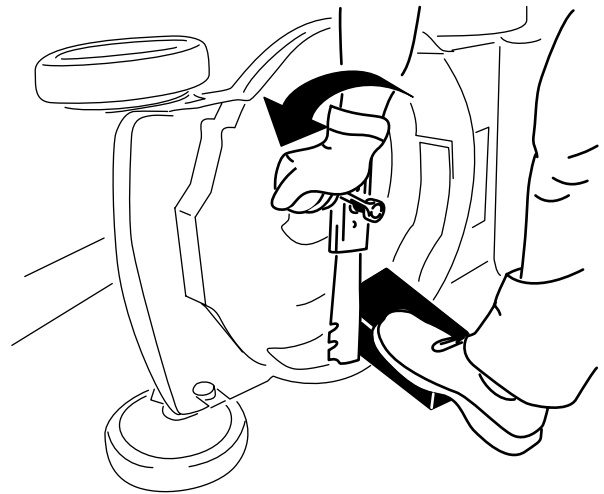


Figure 25

4. Remove the blade, saving all mounting hardware (Figure 25).
5. Install the new blade and all mounting hardware (Figure 26).

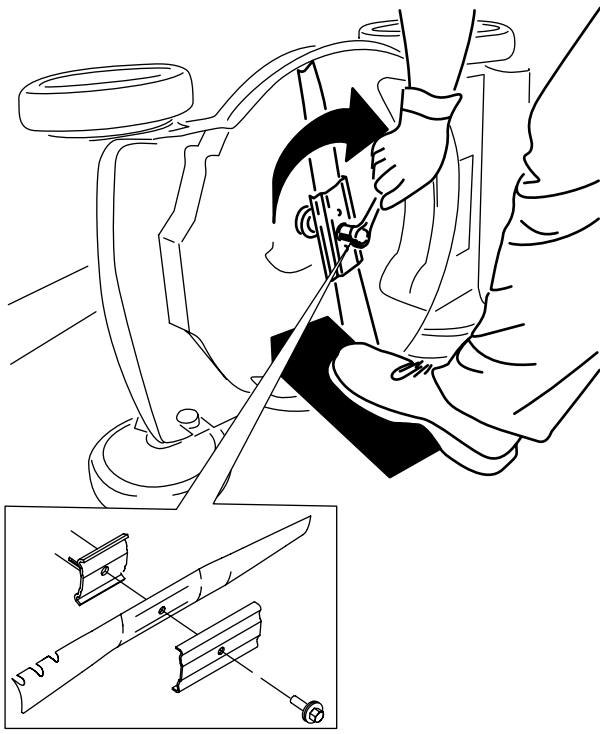


Figure 26

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**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).

## 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 cable.

1. Loosen the cable-support nut (Figure 27).

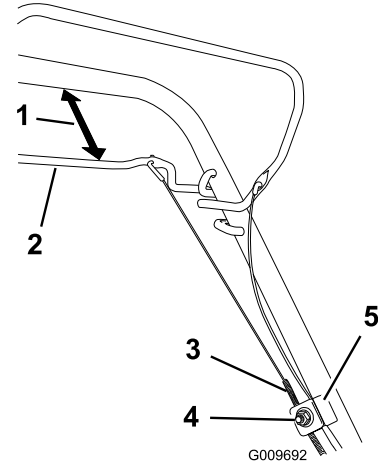


Figure 27

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- |                                    |                      |
|------------------------------------|----------------------|
| 1. 25 to 38 mm (1 to 1-1/2 inches) | 4. Cable-support nut |
| 2. Self-propel-drive bar           | 5. Cable support     |
| 3. Cable jacket                    |                      |

2. Hold the self-propel-drive bar 25 to 38 mm (1 to 1-1/2 inches) from the handle (Figure 27).
3. Pull down the cable jacket (toward the machine) until there is no slack in the cable (Figure 27).
4. Tighten the nut on the cable support.
5. Release the self-propel-drive bar and ensure that the cable is loose.

**Note:** The cable must be loose with the self-propel drive bar in the released position; otherwise, the machine may creep when you disengage the bar.

# Storage

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

## Storage Safety

Always shut off the machine, remove the ignition key (if equipped), wait for all moving parts to stop, and allow the machine to cool before adjusting, servicing, cleaning, or storing it.

## 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 as directed on the label.
2. Dispose of any unused fuel properly. Recycle it according to local codes or use it in your automobile.  
  
***Important:* Old fuel in the fuel tank is the leading cause of hard starting. Do not store the fuel without fuel stabilizer more than 30 days, and do not store stabilized fuel beyond the duration recommended by the fuel-stabilizer manufacturer.**
3. Run the machine until the engine shuts off from running out of fuel.
4. Start the engine again and allow it to run until it shuts off. When you can no longer start the engine, it is sufficiently dry.
5. Disconnect the wire from the spark plug and connect the wire to the retaining post (if equipped) and remove the ignition key (if equipped).
6. Remove the spark plug, add 30 ml (1 fl oz) of engine oil through the spark-plug hole, and pull the recoil-starter rope slowly several times to distribute oil throughout the cylinder to prevent cylinder corrosion during the off-season.
7. Loosely install the spark plug.
8. Tighten all nuts, bolts, and screws.
9. **Electric-start models only:** Charge the battery for 24 hours, then unplug the battery charger and store the machine in an unheated area. If you must store the machine in a heated area, you must charge the battery every 90 days. Refer to [Charging the Battery \(page 18\)](#).

## Removing the Machine from Storage

1. **Electric-start models only:** Charge the battery for 24 hours; refer to [5 Charging the Battery \(page 6\)](#).
2. Check and tighten all fasteners.
3. Remove the spark plug and spin the engine rapidly by pulling the recoil-start handle to blow the excess oil from the cylinder.
4. Install the spark plug and tighten it with a torque wrench to 20 N·m (15 ft-lb).
5. Perform any maintenance procedures; refer to [Maintenance \(page 16\)](#).
6. Check the engine-oil level; refer to [Checking the Engine-Oil Level \(page 9\)](#).
7. Fill the fuel tank with fresh fuel; refer to [Filling the Fuel Tank \(page 8\)](#).
8. Connect the wire to the spark plug.

**Notes:**

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