



55cm Recycler[®] Lawn Mower with SmartStow[®]

Model No. 20961—Serial No. 40000000 and Up

Form No. 3408-418 Rev B

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 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.

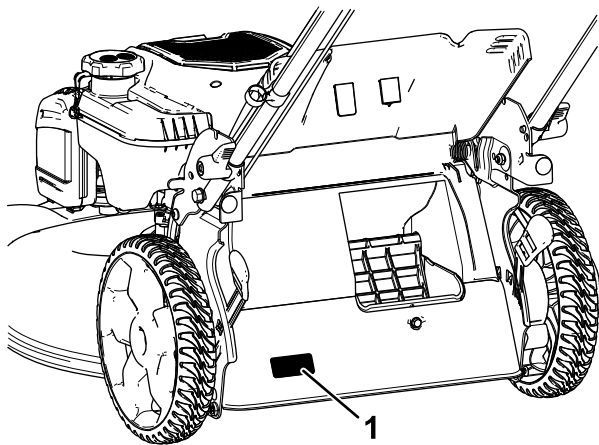


Figure 1

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

g000502

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.

▲ WARNING

CALIFORNIA Proposition 65 Warning

This product contains a chemical or chemicals known to the State of California to cause cancer, birth defects, or reproductive harm.

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

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.

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 to view specifications on your mower model.

Contents

Introduction	1
Safety	2
General Safety.....	2
Safety and Instructional Decals	3
Setup	4
1 Unfolding the Handle.....	4
2 Installing the Recoil-starter Rope in the Rope Guide.....	5
3 Filling the Engine with Oil.....	5
4 Assembling the Grass Bag.....	6
Product Overview	7
Specifications	8
Operation	8
Before Operation	8
Before Operation Safety	8
Filling the Fuel Tank	8
Checking the Engine-Oil Level.....	9
Adjusting the Cutting Height	9
During Operation	9
During Operating Safety.....	9
Starting the Engine.....	10
Using the Self-Propel Drive	11
Shutting Off the Engine	11
Recycling the Clippings	11
Bagging the Clippings	11
Operating the Bag-on-Demand Lever	11
Side-Discharging the Clippings.....	12
Storing the Machine in the Vertical-Stow Position.....	12
Operating Tips	14
After Operation	14
After Operating Safety	14
Cleaning under the Machine.....	15
Folding the Handle	15
Maintenance	16
Recommended Maintenance Schedule(s)	16
Maintenance Safety.....	16
Preparing for Maintenance.....	16
Servicing the Air Filter	17
Changing the Engine Oil	17
Replacing the Blade	18
Adjusting the Self-Propel Drive	19
Storage	20
Preparing the Machine for Storage	20
Removing the Machine from Storage.....	20

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.

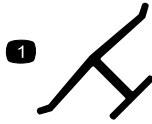
Improperly using or maintaining this machine can result in injury. To reduce the potential for injury, comply with these safety instructions and always pay attention to the safety-alert symbol, which means Caution, Warning, or Danger—personal safety instruction. Failure to comply with these instructions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

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

Safety and Instructional Decals



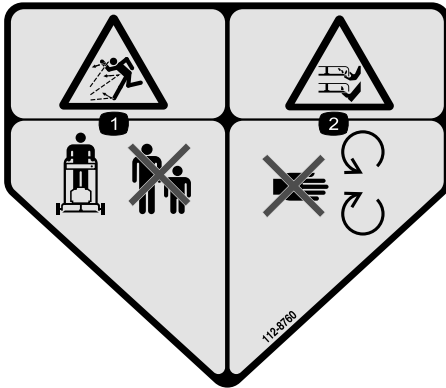
Safety decals and instructions are easily visible to the operator and are located near any area of potential danger. Replace any decal that is damaged or missing.



decalocemmark

Manufacturer's Mark

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



decal112-8760

112-8760

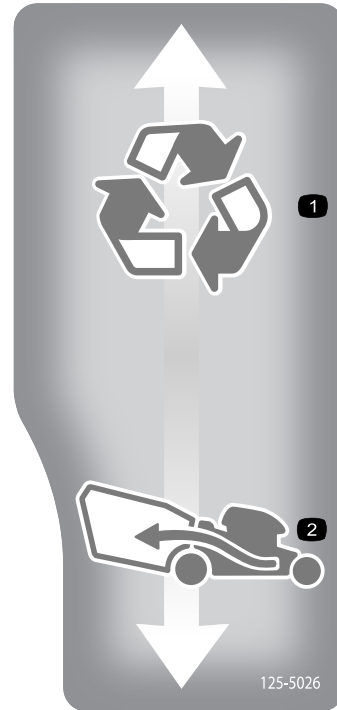
1. Thrown object hazard—keep bystanders a safe distance away from the machine.
2. Cutting/dismemberment of hand or foot—stay away from moving parts.



decal112-8867

112-8867

1. Lock
2. Unlock

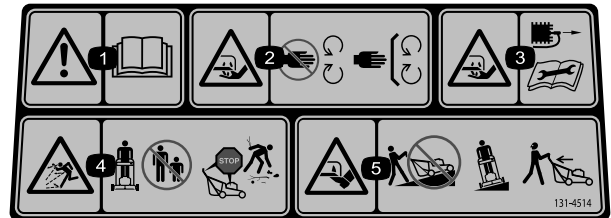


125-5026

125-5026

decal125-5026

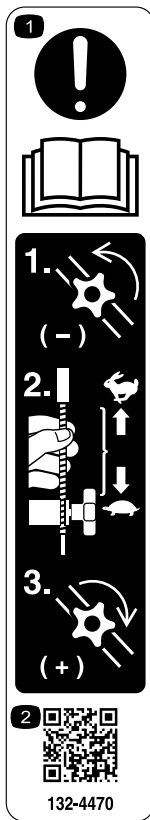
1. Recycling on
2. Bagging on



decal131-4514b

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.

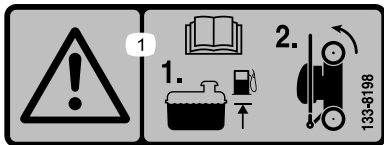


132-4470

Traction Adjustment

decal132-4470

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.



133-8198

decal133-8198

1. Warning—read the *Operator's Manual*; 1) Add fuel up to the indicated level. 2) Tip the mower forward for storage.

Setup

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

1

Unfolding the Handle

No Parts Required

Procedure

⚠ WARNING

Unfolding the handle improperly can damage the cables, causing an unsafe operating condition.

- Do not damage the cable(s) when folding or unfolding the handle.
 - Ensure that the cable(s) are routed to the outside of the handle.
 - If a cable is damaged, contact an Authorized Service Dealer.
1. Disengage the handle locks (Figure 3).
 2. Move the handle rearward to the operating position (Figure 3).

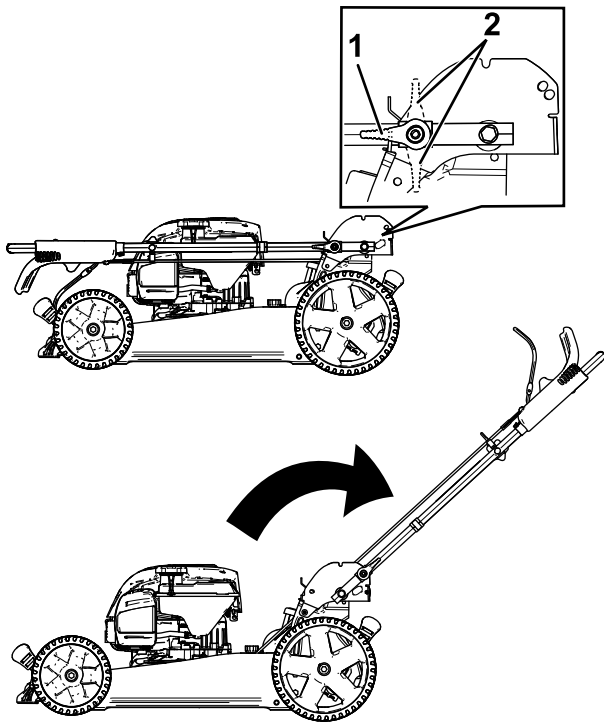


Figure 3

g188439

1. Handle lock engaged position
2. Handle lock disengaged positions

3. Set the handle lock in 1 of the 2 positions (Figure 4) until the pin clicks in place to lock the handle into the operating position.

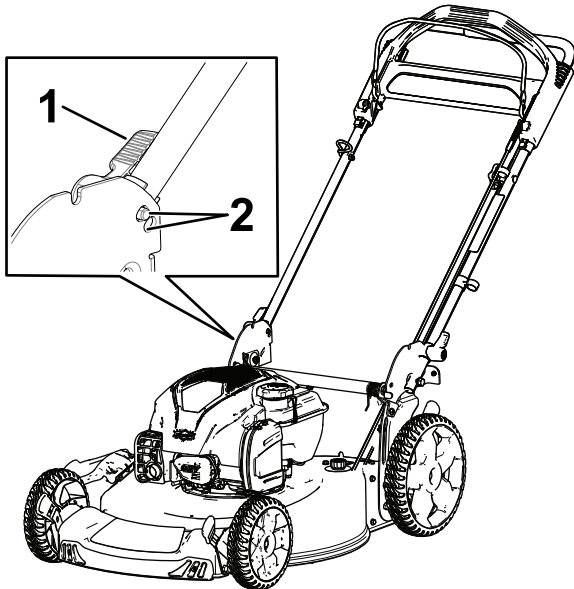


Figure 4

g185991

1. Handle lock
2. Pin positions

2

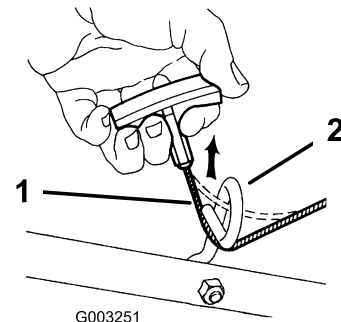
Installing the Recoil-starter Rope in the Rope Guide

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 5).



G003251

g003251

Figure 5

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 fl 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 6).

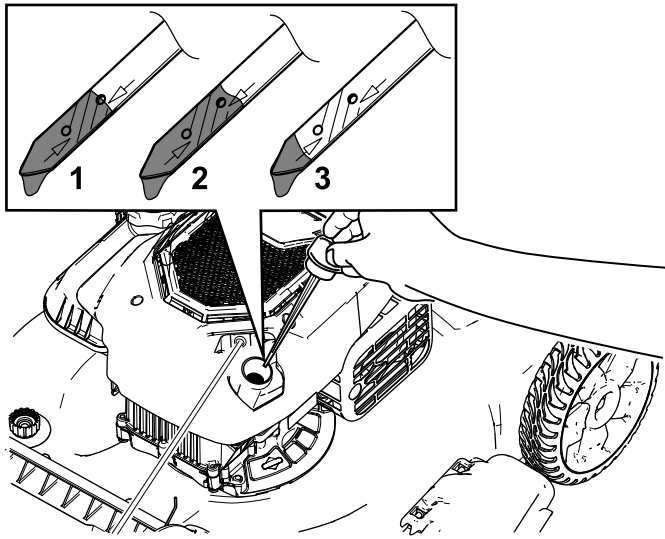


Figure 6

g201460

- 1. Full
- 2. High
- 3. Low

3. Carefully pour about 3/4 of the engine capacity of oil into the oil-fill tube.
4. Wait about 3 minutes for the oil to settle in the engine.
5. Wipe the dipstick clean with a clean cloth.
6. Insert the dipstick into the oil-fill tube, then remove the dipstick.
7. Read the oil level on the dipstick (Figure 6).
 - 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 6 until the oil level on the dipstick 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 17).

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

8. Install the dipstick securely.

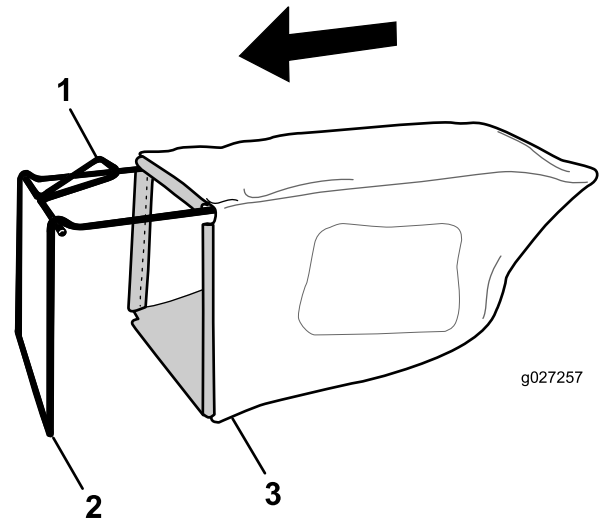
4

Assembling the Grass Bag

No Parts Required

Procedure

1. Slip the grass bag over the frame as shown in Figure 7.



g027257

g027257

Figure 7

- 1. Handle
- 2. Frame
- 3. Grass bag

Note: Do not slip the bag over the handle (Figure 7).

2. Hook the bottom channel of the bag onto the bottom of the frame (Figure 8).

Product Overview

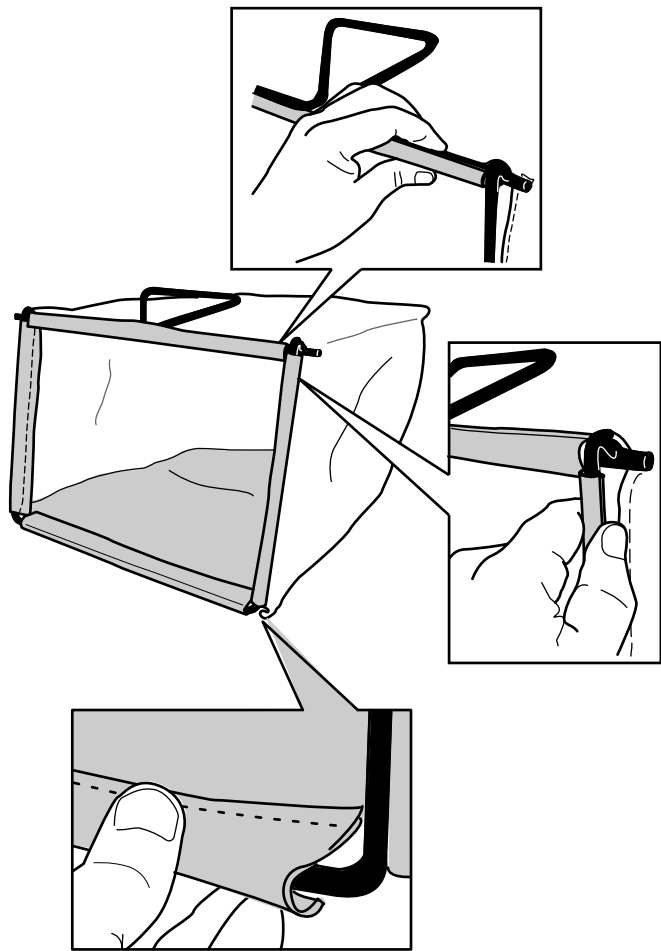


Figure 8

g027258

g027258

3. Hook the top and side channels of the bag onto the top and sides of the frame, respectively (Figure 8).

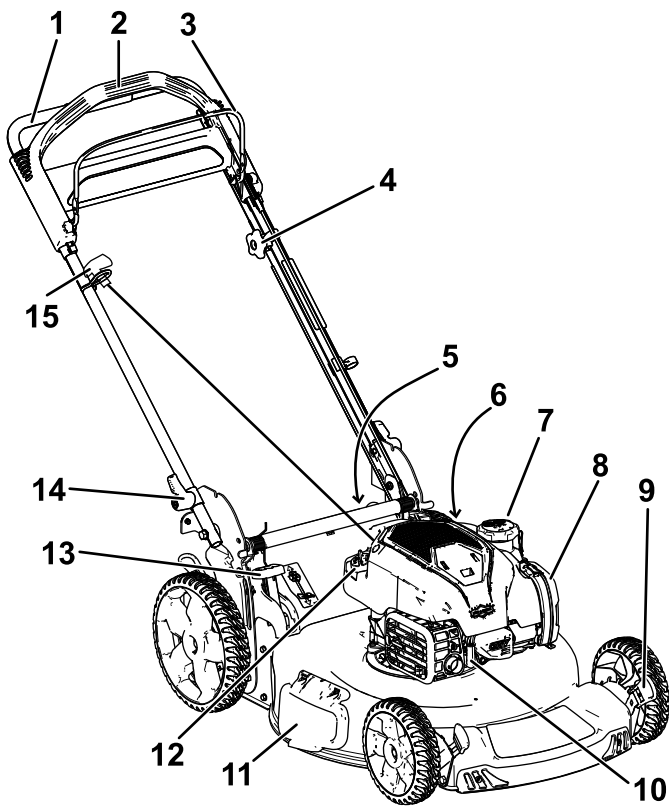
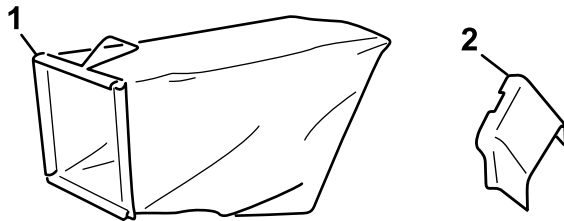


Figure 9

g198722

- | | |
|--|-----------------------------|
| 1. Handle | 9. Cutting-height lever (4) |
| 2. Self-propel bar | 10. Spark plug |
| 3. Blade-control bar | 11. Side-discharge door |
| 4. Adjustment knob for the self-propel drive | 12. Oil-fill tube/dipstick |
| 5. Rear door (not shown) | 13. Bag-on-demand lever |
| 6. Washout port (not shown) | 14. Handle lock (2) |
| 7. Fuel-tank cap | 15. Recoil-start handle |
| 8. Air filter | |



g036586

g036586

Figure 10

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

Specifications

Model	Weight	Length	Width	Height
20961	35 kg (77 lb)	152 cm (60 in)	58 cm (23 in)	104 cm (41 in)

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.

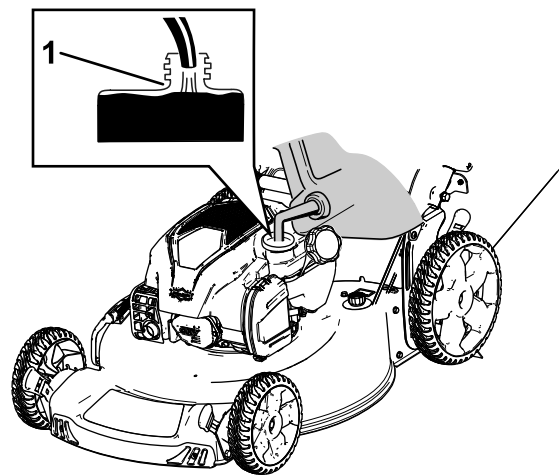


Figure 11

1. Do not fill the fuel tank above the bottom of the fuel tank neck.

g188348

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 11).

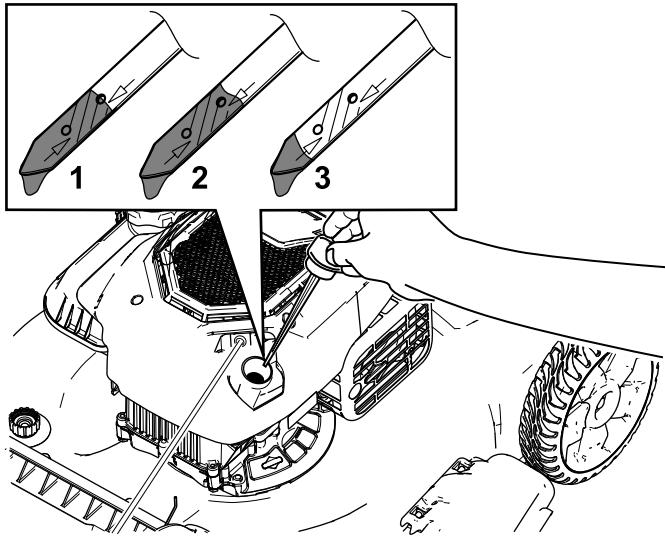


Figure 12

1. Full
2. High
3. Low

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 11).
 - 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 17).

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

6. Install the dipstick into the oil-fill tube securely.

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 13.

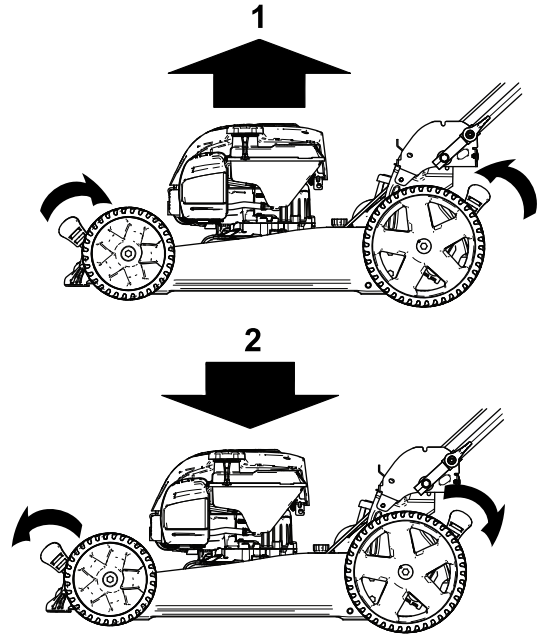


Figure 13

1. Raise the machine
2. Lower 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); 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.

Starting the Engine

- 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.

1. Hold the blade-control bar against the handle (Figure 14).

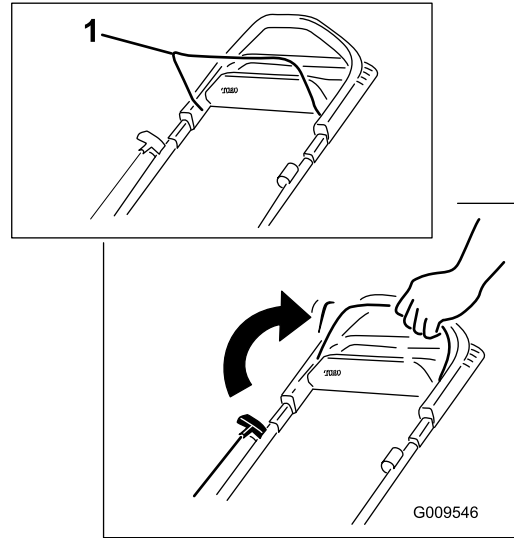


Figure 14

g009546

1. Blade-control bar

2. Pull the recoil-start handle (Figure 15) lightly until you feel resistance, then pull it sharply, and allow it to return to the rope guide on the handle slowly.

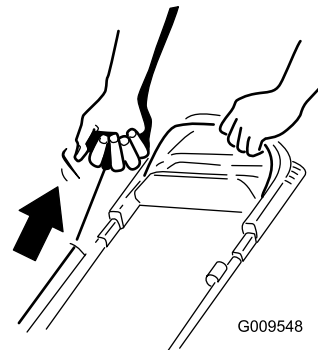


Figure 15

g009548

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, simply walk with your hands on the upper handle and your elbows at your sides, and the machine will automatically keep pace with you (Figure 16).

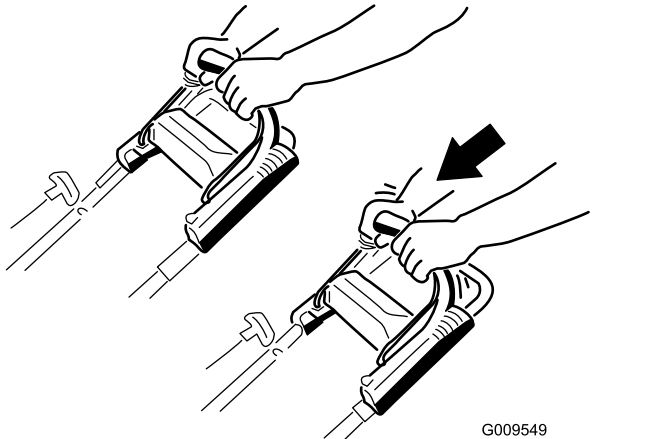


Figure 16

Note: If the machine does not freely roll backward after self-propelling, stop walking, hold your hands in place, and allow the machine to roll a couple of centimeters (inches) forward to disengage the wheel drive. You can also try reaching just under the upper handle to the metal handle and push the machine forward a couple of centimeters (inches). If the machine still does not roll backward easily, contact an Authorized Service Dealer.

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 and the bag-on-demand lever is in the bagging position, move the lever to the recycling position; refer to [Operating the Bag-on-Demand Lever \(page 11\)](#). 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 Side-Discharge Chute \(page 12\)](#). If the

bag-on-demand lever is in the recycling position, move it to the bagging position; refer to [Operating the Bag-on-Demand Lever \(page 11\)](#).

Installing the Grass Bag

1. Raise and hold up the rear door (Figure 17).

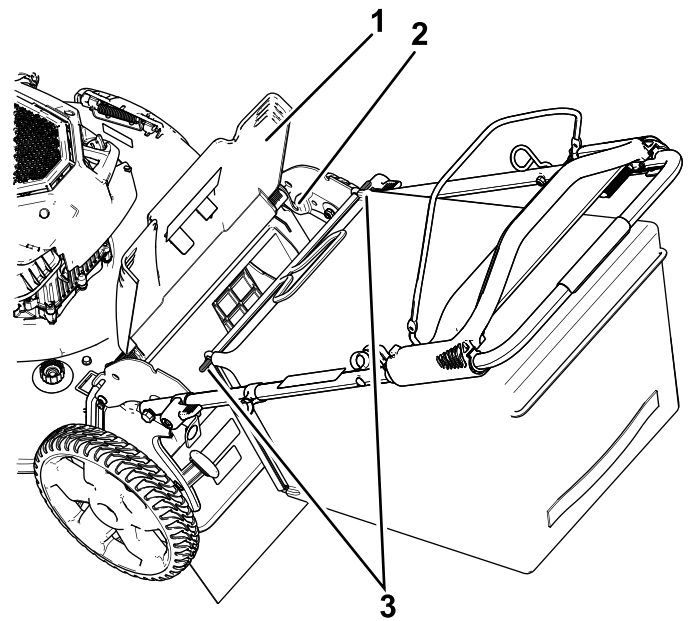


Figure 17

1. Rear deflector
2. Notches (2)
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 17).
3. Lower the rear door.

Removing the Grass Bag

To remove the bag, reverse the steps in [Installing the Grass Bag \(page 11\)](#).

Operating the Bag-on-Demand Lever

The bag-on-demand feature allows you to either collect or recycle grass and leaf clippings while the grass bag is attached to the machine.

- **To bag the grass and leaf clippings**, press the button on the bag-on-demand lever and move the lever forward until the button on the lever pops up (Figure 18).

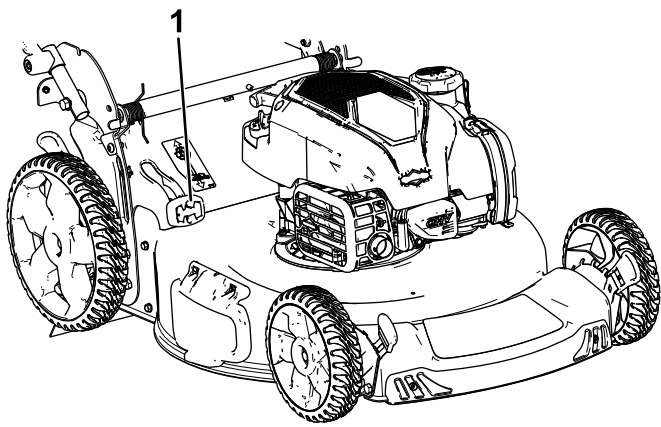


Figure 18

g198723

1. Bag-on-demand lever (in the bagging position)

- To recycle or side-discharge the grass and leaf clippings, press the button on the lever and move the lever rearward until the button on the lever pops up.

Important: For proper operation, shut off the engine, wait for all moving parts to stop, and then remove any grass clippings and debris from the bag-on-demand door and the surrounding opening (Figure 19) before you move the bag-on-demand lever from 1 position to another.

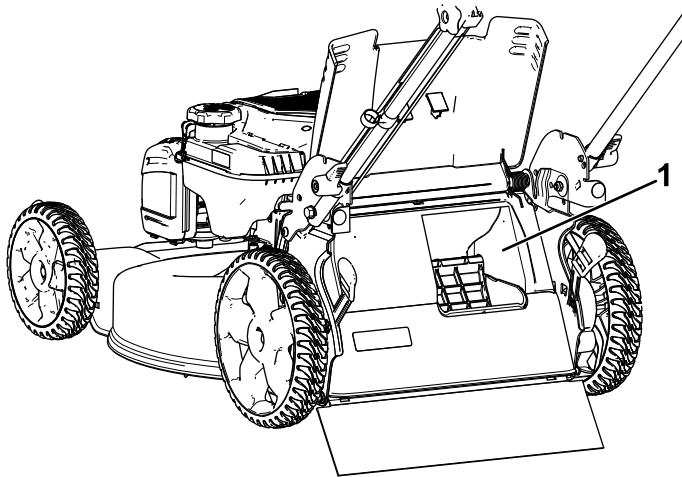


Figure 19

g198734

1. Clean here

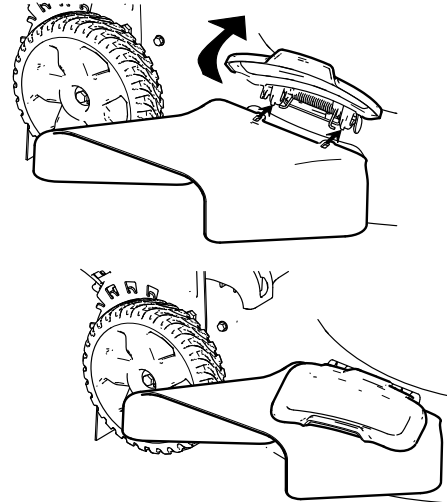
Side-Discharging the Clippings

Use side-discharging for cutting very tall grass.

If the grass bag is on the machine and the bag-on-demand lever is in the bagging position, move the lever to the recycling position; refer to [Operating the Bag-on-Demand Lever](#) (page 11).

Installing the Side-Discharge Chute

Lift up the side door and install the side-discharge chute (Figure 20).



g024439

g024439

Figure 20

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.

Storing the Machine in the Vertical-Stow Position

During the mowing season or in the off-season, you can store your machine in the vertical position to minimize storage space.

▲ DANGER

Fuel is extremely flammable and explosive. A fire or explosion from gasoline can burn you and others.

- Storing the machine in the vertical position when there is too much gasoline in the fuel tank may cause fuel to leak from the fuel tank. Gasoline is extremely flammable and explosive. A fire or explosion from gasoline can burn you and others.
- Store the machine in the vertical position only when the level of fuel in the fuel tank is no higher than what is recommended in this *Operator's Manual*.
- Do not store the machine in a position that is beyond the vertical (90°) position; otherwise, gasoline may escape from the fuel tank.
- Do not transport the machine in the vertical-stow position.
- Do not attempt to start the machine in the vertical-stow position.
- Do not attempt to store any machine with fuel and oil in the vertical-stow position that is not designed for that purpose.

▲ 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. Ensure that the level of gasoline in the fuel tank is no higher than what is recommended by the engine manufacturer; refer to the engine manufacturer's decal on the engine (Figure 21).

Note: If the level of gasoline in the fuel tank is too high, drain the fuel from the fuel tank into an approved fuel container until it is at or below the level recommended by the engine manufacturer.

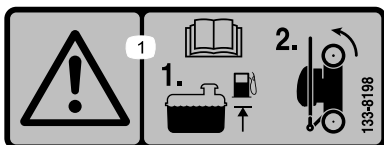


Figure 21

decal133-8198

2. Ensure that the cutting-height setting on the machine is 35 mm (1-3/8 inches) or higher; if it is not, raise it; refer to [Adjusting the Cutting Height \(page 9\)](#).
3. Disengage the handle locks (Figure 22).

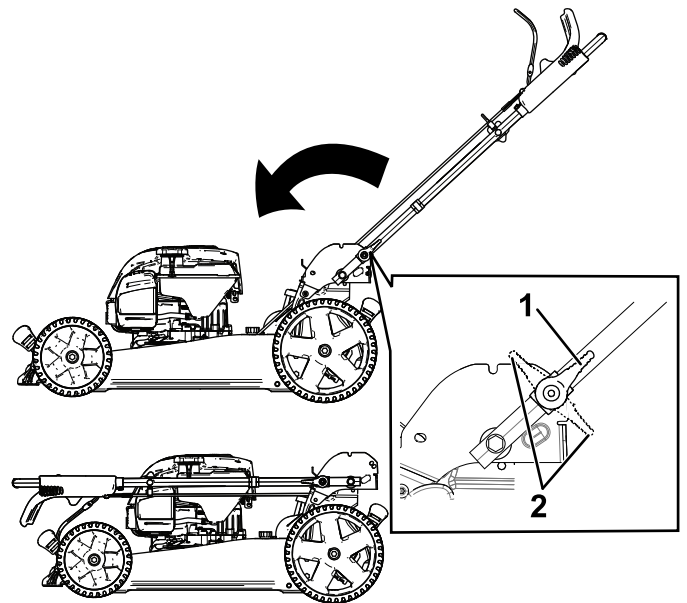


Figure 22

g186012

1. Handle lock engaged position
2. Handle lock disengaged positions

4. Fold the handle fully forward (Figure 22).

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

5. Engage the handle locks.
6. Lift the front of the machine by the handle and move it into a storage space (Figure 23).

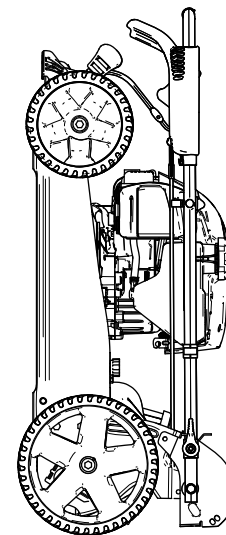


Figure 23

g186013

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, 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.

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.
- 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

Cleaning under the Machine Using the Washout Port

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

1. Move the machine onto a flat paved surface.
2. Shut off the engine and wait for all moving parts to stop before leaving the operating position.
3. Lower the machine to its lowest cutting-height setting. Refer to [Adjusting the Cutting Height \(page 9\)](#).
4. Wash out the area under the rear door 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.

5. Attach a garden hose that is connected to a water supply to the washout port ([Figure 24](#)).

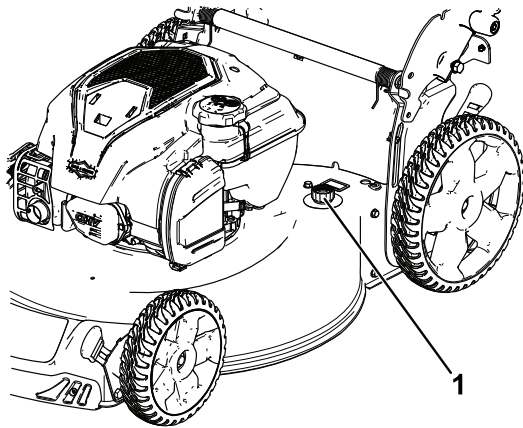


Figure 24

g186136

1. Washout port

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

Cleaning under the Machine in the Vertical-stow Position

1. Set the machine in the vertical-stow position; refer to [Storing the Machine in the Vertical-Stow Position \(page 12\)](#).
2. Wash out the clippings from under 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. Disengage the handle locks until you can move the upper handle freely.
2. Fold the handle forward either to the vertical position or the fully forward position as shown in [Figure 25](#).

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

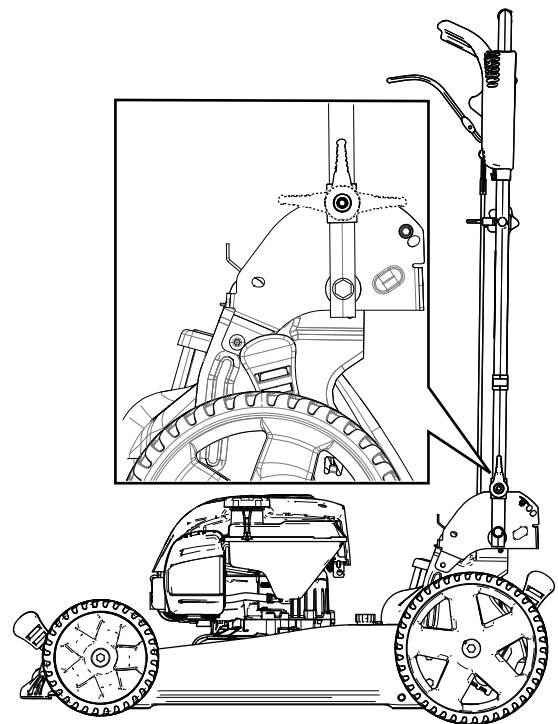


Figure 25

g186137

3. To unfold the handle, refer to [1 Unfolding the Handle \(page 4\)](#).

Maintenance

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

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

Recommended Maintenance Schedule(s)

Maintenance Service Interval	Maintenance Procedure
Before each use or daily	<ul style="list-style-type: none"> • Check the engine-oil level and add oil as needed. • Ensure that the engine stops within 3 seconds after releasing the blade-control bar. • Clean grass clippings and dirt from under the machine.
Yearly	<ul style="list-style-type: none"> • Clean the air-cooling system; clean it more frequently in dusty operating conditions. Refer to your engine manual. • Service the air filter; service it more frequently in dusty operating conditions. • Replace the blade or have it sharpened (more frequently if the edge dulls quickly). • Clean the air-cooling system; clean it more frequently in dusty operating conditions. Refer to your engine manual.
Yearly or before storage	<ul style="list-style-type: none"> • Empty the fuel tank before repairs as directed and before yearly storage.

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.

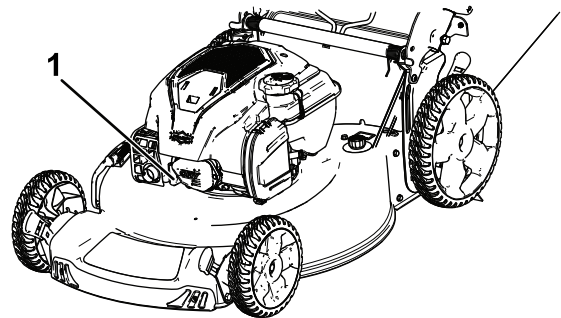


Figure 26

g186014

1. Spark-plug wire

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).

Servicing the Air Filter

Service Interval: Yearly

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

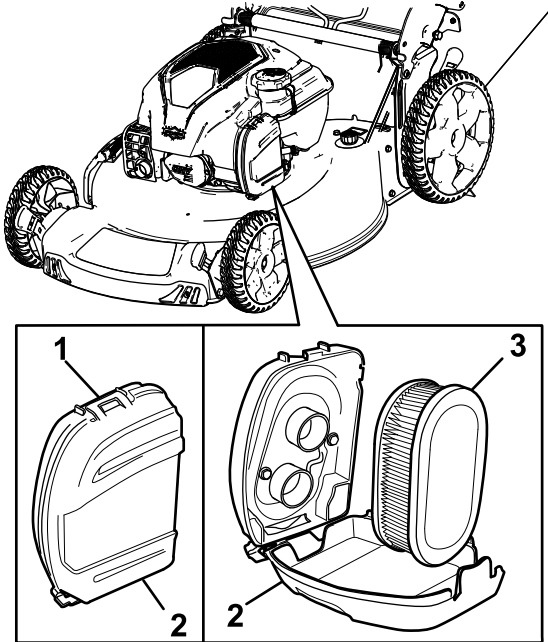


Figure 27

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.

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

Engine oil capacity: 0.47 L (16 fl 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 16).
3. Remove the dipstick by rotating the cap counterclockwise and pulling it out (Figure 28).

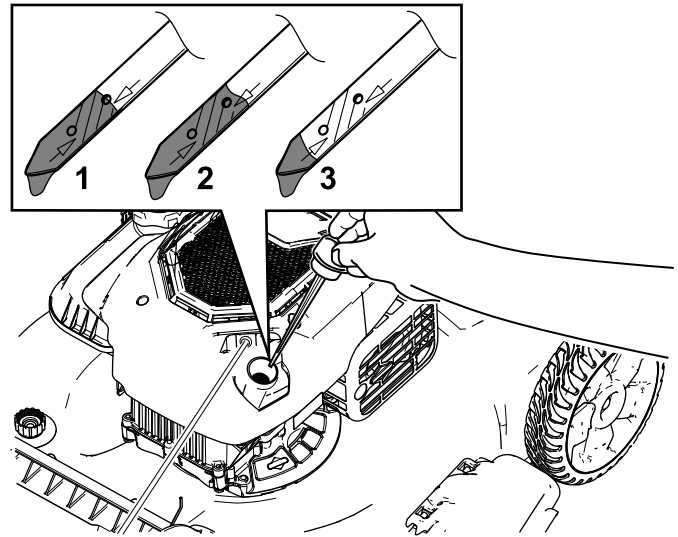


Figure 28

1. Full
2. High
3. Low

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) or set the machine in the vertical-stow position (Figure 30).

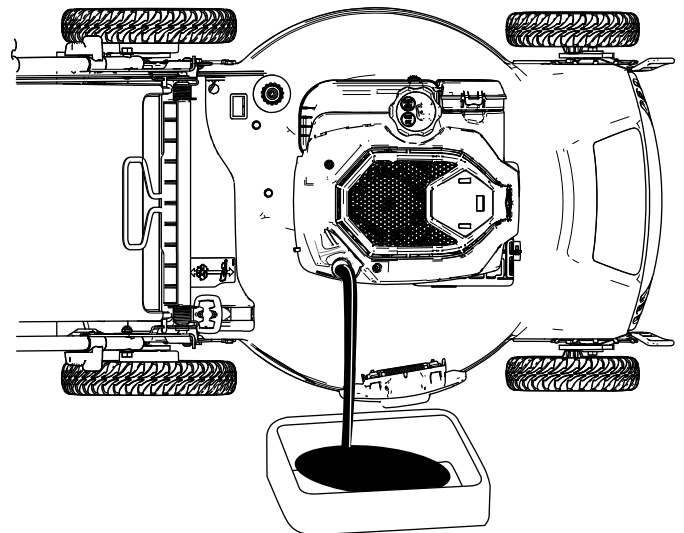


Figure 29

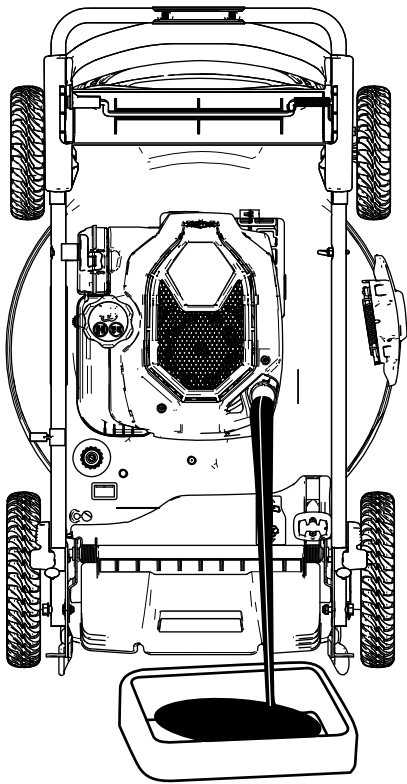


Figure 30

g186134

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

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

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 31).

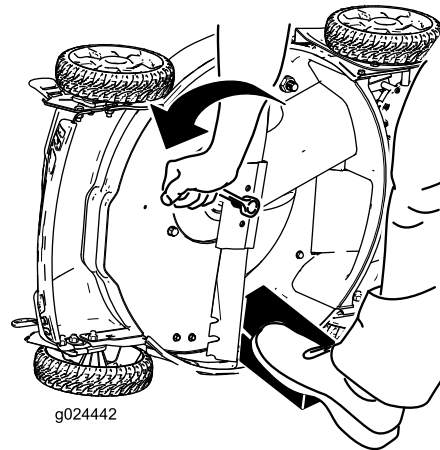


Figure 31

g024442

g024442

4. Remove the blade, saving all mounting hardware (Figure 31).
5. Install the new blade and all mounting hardware (Figure 32).

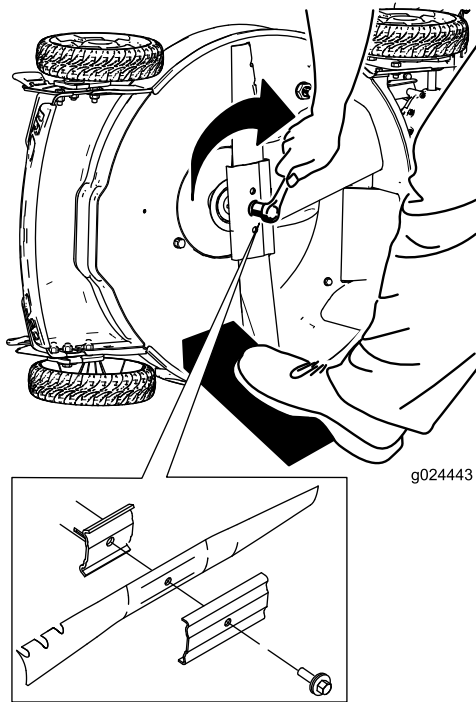


Figure 32

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

- 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.

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.

- Turn the adjustment knob counterclockwise to loosen the cable adjustment (Figure 33).

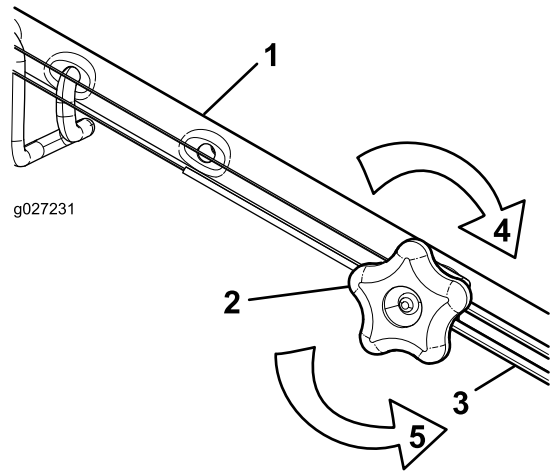


Figure 33

- Handle (left side)
- Adjustment knob
- Self-propel-drive cable
- Turn the knob clockwise to tighten the adjustment.
- Turn the knob counterclockwise to loosen the adjustment.

- Adjust the tension on the cable (Figure 33) 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.

- 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 \(page 16\)](#).
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.

Notes:

Notes:

European Privacy Notice

The Information Toro Collects

Toro Warranty Company (Toro) respects your privacy. In order to process your warranty claim and contact you in the event of a product recall, we ask you to share certain personal information with us, either directly or through your local Toro company or dealer.

The Toro warranty system is hosted on servers located within the United States where privacy law may not provide the same protection as applies in your country.

BY SHARING YOUR PERSONAL INFORMATION WITH US, YOU ARE CONSENTING TO THE PROCESSING OF YOUR PERSONAL INFORMATION AS DESCRIBED IN THIS PRIVACY NOTICE.

The Way Toro Uses Information

Toro may use your personal information to process warranty claims, to contact you in the event of a product recall and for any other purpose which we tell you about. Toro may share your information with Toro's affiliates, dealers or other business partners in connection with any of these activities. We will not sell your personal information to any other company. We reserve the right to disclose personal information in order to comply with applicable laws and with requests by the appropriate authorities, to operate our systems properly or for our own protection or that of other users.

Retention of your Personal Information

We will keep your personal information as long as we need it for the purposes for which it was originally collected or for other legitimate purposes (such as regulatory compliance), or as required by applicable law.

Toro's Commitment to Security of Your Personal Information

We take reasonable precautions in order to protect the security of your personal information. We also take steps to maintain the accuracy and current status of personal information.

Access and Correction of your Personal Information

If you would like to review or correct your personal information, please contact us by email at legal@toro.com.

Australian Consumer Law

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



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 for the original purchaser¹ 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 date of purchase:

Products	Warranty Period
Walk Power Mowers	
• Cast Deck	5 years Residential Use ² 90 Days Commercial Use
—Engine	5 years GTS Guarantee, Residential Use ³
—Battery	2 years
• Steel Deck	2 years Residential Use ² 30 Days Commercial Use
—Engine	2 years GTS Guarantee, Residential Use ³
TimeMaster Mowers	
• Engine	3 years Residential Use ² 90 Days Commercial Use 3 years GTS Guarantee, Residential Use ³
• Battery	2 years
Electric Hand Held Products and Walk Power Mowers	2 years Residential Use ² No Warranty for Commercial Use
All Ride-On Units Below	
• Engine	See engine manufacturer's warranty ⁴
• Battery	2 years Residential Use ²
• Attachments	2 years Residential Use ²
DH Lawn & Garden Tractors	2 years Residential Use ² 30 Days Commercial Use
XLS Lawn & Garden Tractors	3 years Residential Use ² 30 Days Commercial Use
TimeCutter	3 years Residential Use ² 30 Days Commercial Use
TITAN Mowers	
• Frame	3 years or 240 hours ⁵ Lifetime (original owner only) ⁶

¹Original Purchaser means the person who originally purchased the Toro Product.

²Residential 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.

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

⁴Some engines used on Toro Products are warranted by the engine manufacturer.

⁵Whichever occurs first.

⁶Lifetime Frame Warranty - If the main frame, consisting of the parts welded together to form the tractor structure that other components such as the engine are secured to, cracks or breaks in normal use, it will be repaired or replaced, at Toro's option, under warranty at no cost for parts and labor. Frame failure due to misuse or abuse and failure or repair required due to rust or corrosion are not covered.

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 or misused or neglected and 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.