



Count on it.

Operator's Manual

48in and 52in Bagger For Zero-Turn-Radius Riding Mower

Model No. 79155—Serial No. 270000001 and Up

The installation of this kit requires a Bagging Blade Kit:
79141 for 48in decks or 79142 for 52in decks.
Contact you local Authorized Service Dealer for more
information.

Introduction

Read this information carefully to learn how to operate and maintain your product properly and to avoid injury and product damage. You are responsible for operating the product properly and safely.

You may contact Toro directly at www.toro.com for product and accessory information or help finding a dealer. 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 on the front cover.

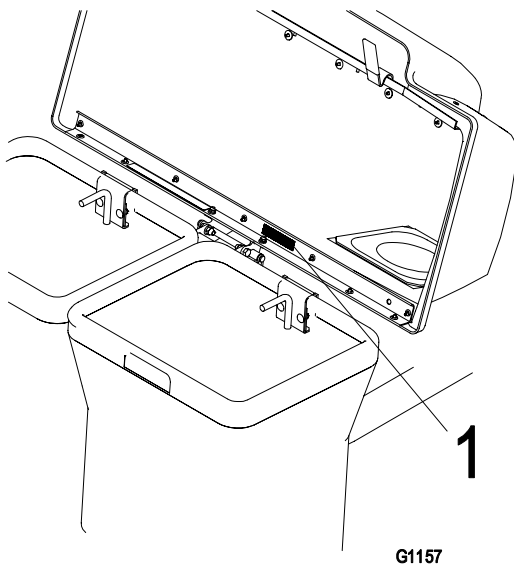


Figure 1

1. Model and serial number plate

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



Figure 2

1. Safety alert symbol.

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

Specifications

Model Number:

79155

Dimensions

Overall Width with Bagger:

48" Deck: 58.0" (147 cm)

52" Deck: 62.0" (157 cm)

Overall Length with Bagger:

48" & 52" Deck: 95" (241 cm)

Overall Height with Bagger:

48" & 52" Deck: 42.2" (107 cm)

Overall Weight with Bagger:

48" Deck: 734 lbs (333 kg)

52" Deck: 749 lbs (340 kg)

Contents

Introduction	2
Specifications.....	3
Safety	4
Training.....	4
Preparation	4
Operation	4
Think Safety First.....	4
Slopes.....	5
Slope Chart.....	6
Safety and Instructional Decals	7
Setup	8
Installing the Weight	8
Installing the Hitch Bracket	8
Installing the Hood and Bags.....	9
Installing the Boot Mount Bracket and Tubes	10
Installing the Discharge Baffle (52" Deck Only).....	11
Operation.....	11
Emptying the Grass Bags	11
Clearing Obstructions from the Bagger	12
Removing the Bagger	12
Replacing the Discharge Deflector	13
Operating Tips	14
Maintenance	16
Recommended Maintenance Schedule(s).....	16
Inspecting the Bagger Attachment.....	17
Inspecting the Mower Blades.....	17
Caring for the Grass Bags	17
Cleaning the Bagger Attachment.....	17
Storage	17
Storing the Bagger Attachment.....	17
Tips and Troubleshooting	18
Changing Blades	18

Safety

Please carefully read all of the safety instructions and decals in the safety section. Knowing this information could help you, your family, pets or bystanders avoid injury.

Training

- Regard the Toro Bagger as a piece of power equipment and teach this regard to all who operate this unit.
- Before operating your Bagger, carefully read and understand this manual and the operator's manual for your mower in their entirety. Familiarize yourself with the controls and the proper use of the equipment. If the operator(s) or mechanic(s) can not read English, it is the owner's responsibility to explain this material to them.
- Do not allow operation of this machine by untrained personnel. Never allow children, teenagers, or people unfamiliar with these instructions to use the mower. Local regulations may restrict the age of the operator.
- Avoid mowing while people, especially children, or pets, are nearby. Keep in mind that the operator or user is responsible for accidents or hazards occurring to other people or their property.

Preparation

- Evaluate the terrain to determine what accessories and attachments are needed to properly and safely perform the job. Only use accessories and attachments approved by Toro.
- The use of personal protective equipment, such as (but not limited to) protection for the eyes, ears, feet, and head is recommended.
- While mowing, always wear substantial footwear and long trousers. Do not operate equipment when barefoot or when wearing open sandals.

- Thoroughly inspect the area where the equipment is to be used and remove all stones, sticks, wires, bones, and other foreign objects which may damage the equipment or cause personal injury to the operator or bystanders.

Operation

Although hazard control and accident prevention are partially dependent upon the design and configuration of the equipment, these factors are also dependent upon the awareness, concern, prudence, and proper training of the personnel involved in the operation, transport, maintenance, and storage of the equipment. It is essential that all Operator Safety Mechanisms be connected and in operating condition prior to use for mowing. Refer to the Operator's Manual for the mower for additional hazard control and accident prevention information.

Think Safety First




To avoid personal injury, follow these procedures:

- **Become familiar with all operating and safety instruction in the Operator's manual for the mower before using this attachment.**
- **Never remove the discharge tube, bags, bagger top or discharge deflector while the engine is running.**
- **Always shut the engine off, engage parking brake, wait for all moving parts to stop and remove key before clearing an obstruction from the bagging system.**
- **Never do maintenance or repairs while the engine is running.**
- **Never operate the lawn mower unless you install a mulch plate, discharge deflector, or entire grass collection system.**

Slopes

- Use *EXTREME* caution when mowing and/or turning on slopes as loss of traction and/or tip-over could occur. The operator is responsible for safe operation on slopes.



Mowing on wet grass or steep slopes can cause sliding and loss of control.

Wheels dropping over edges can cause rollovers, which may result in serious injury, death or drowning.

To avoid loss of control and possibility of rollover:

- Do not mow near drop-offs or near water.
- Do not mow slopes greater than 15 degrees.
- Reduce speed and use extreme caution on slopes.
- Avoid sudden turns or rapid speed changes.

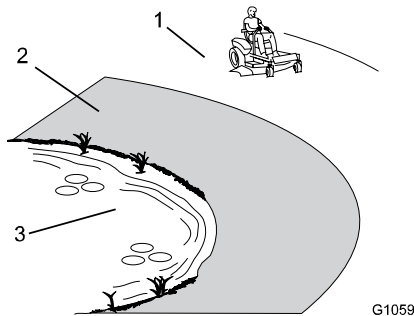


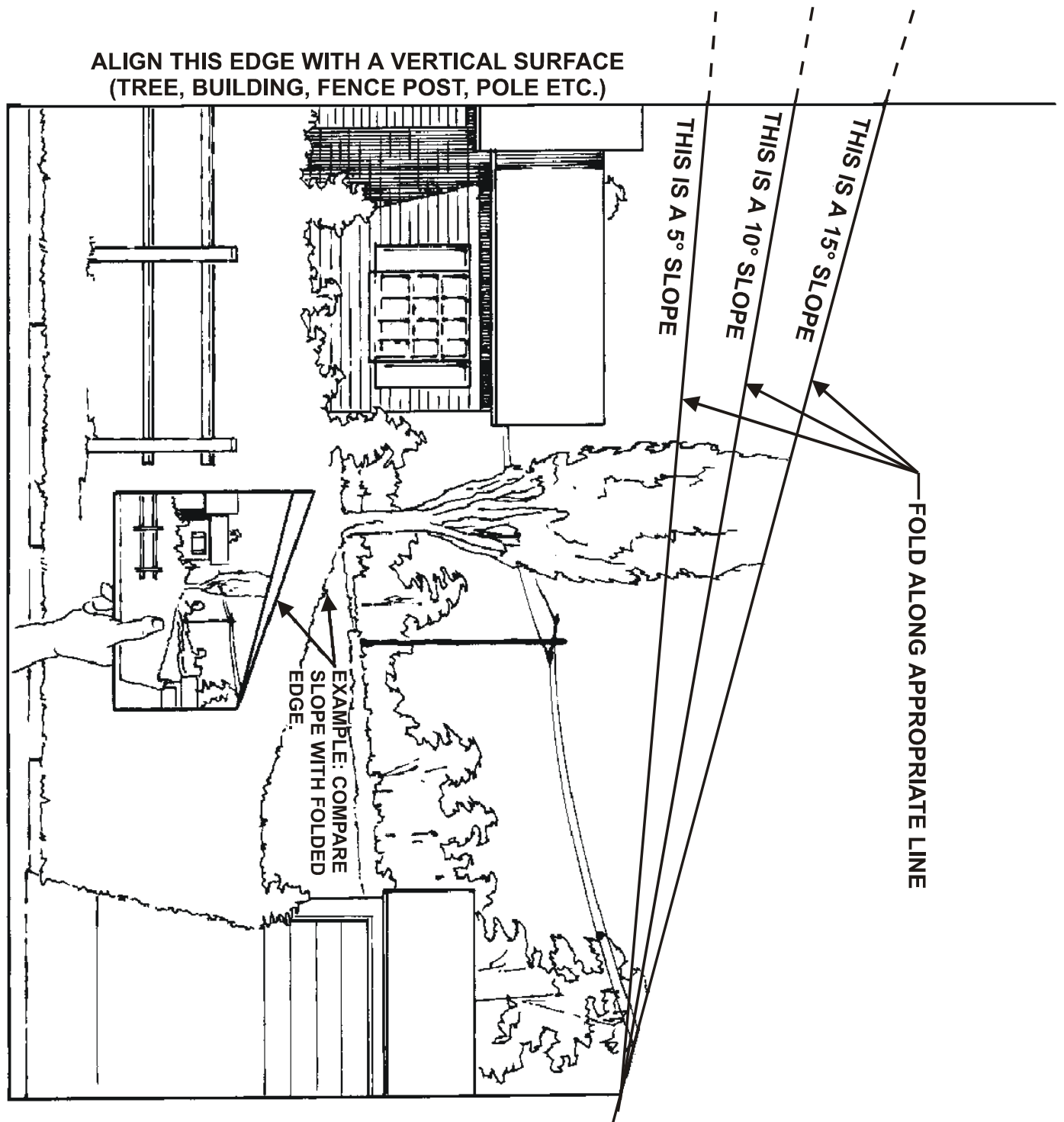
Figure 3

1. Safe Zone-use the Titan here.
2. Use walk behind mower and/or hand trimmer near drop-offs and water.
3. Water

- Progressively greater care is needed as the slope increases.
- Always avoid sudden starting or stopping on a slope. If tires lose traction, disengage the blades and proceed slowly off the slope.
- Avoid sudden starts when mowing uphill. Mower may tip backwards.
- Be aware that loss of traction may occur going downhill. Weight transfer to the front wheels may cause drive wheels to slip and cause loss of braking and steering.
- Watch for ditches, holes, rocks, dips, and rises that change the operating angle, as rough terrain could overturn the machine.
- Remove or mark obstacles such as rocks, tree limbs, etc. from the mowing area. Tall grass can hide obstacles.
- The operating characteristics of the machine will change with the Bagger installed. The stability and traction of the machine will change as the Bagger fills with grass clippings. Use progressively greater care on slopes as the Bagger fills.
- Always install and remove the Bagger, including counterweights, as instructed. Failure to do so will cause a reduction in stability or traction. Do not operate the mower with only a portion of the Bagger installed.

Refer to the Slope Chart on page 6 to determine the approximate slope angle to be mowed.

Slope Chart



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 lost.



PART NO. 109-6809

LOCATION: Inside Hood on bracket

1. Crushing hazard of hand—do not remove the whole bagger from the machine; open the bagger top and then remove the bag(s) from the bagger. Do not remove the bagger top when it is closed; open the bagger top and then remove it.


Setup

Installing the Weight

Parts needed for this step:

Description	Qty.
Nut, Nyloc 3/8-16 Flg	2
Weight	1
Screw, Button Head 3/8-16 x 1	2
Asm, Weight Support	1
Rod, Weight, Lock	1

Procedure:



The front weight installed without the bagger may cause loss of traction and steering control or an unstable condition which could result in injury or death.

Install the front weight only when the bagger is installed.

Note: The removable weight is heavy. Use care when lifting it. Make sure that you can hold it securely before lifting it. Use caution when positioning your hands so that you do not set it down on your hands or fingers.

1. Attach the weight support assembly (item 5) to the front panel foot rest with two 3/8-16 x 1 button head screws (item 4) and two nyloc nuts (item 2) as shown in Figure 4.

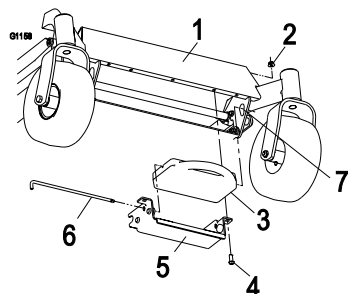


Figure 4

- | | |
|----------------------------|--------------------|
| 1. Front panel foot rest | 2. Nut |
| 3. Weight | 4. Screw |
| 5. Weight support assembly | 6. Weight lock rod |
| 7. Oval hole | |

Note: If your mower does not have mounting holes on the foot rest, position the back of the weight support assembly on the cross bar under the foot rest. Center the weight support assembly and mark the two mounting holes on the lip of the foot rest. Drill holes using a 13/32" drill bit. Install weight support assembly as stated in step 1.

2. Insert the weight (item 3) onto the weight support assembly (item 5).
3. The lock rod (item 6) has a key on one end. Slide the lock rod through the weight support assembly, notch in the weight and the oval hole in the frame bracket.
4. Rotate the lock rod to secure it into place.

Note: The weight support assembly can stay mounted to the unit when the bagger and weight are removed.

Installing the Hitch Bracket

Parts needed for this step:

Description	Qty.
Bolt, Carriage 3/8-16 x 5.....	4
Plate, Stiffener	4
Nut, Nyloc 3/8-16 Flg	8
Tube, Bagger	2
Bolt, Carriage 3/8-16 x 3.....	4
Plate, Stiffener	2
Hitch, Bagger	1

Procedure:

1. Remove the two 3/8-16 carriage bolts at the rear of each frame rail. Retain for reuse if the bagger is removed.

2. Install the two 3/8-16 x 5 carriage bolts (item 1) through the holes on the frame as shown in Figure 5. Place two stiffeners (item 2) on the top and bottom of the bagger tube (item 4) and install on carriage bolts. Fasten with two nyloc nuts (item 3); leave loose to aid installation. Repeat procedure for other side.

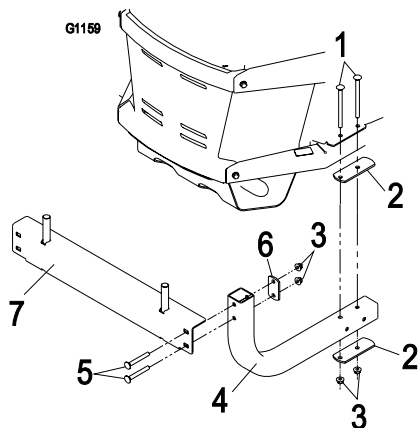


Figure 5

- | | |
|-----------------|----------------|
| 1. Bolts | 2. Stiffener |
| 3. Nuts | 4. Bagger tube |
| 5. Screws | 6. Stiffener |
| 7. Bagger hitch | |

3. Align the holes in the bagger tube (item 4) with the bagger hitch (item 7). Fasten with hardware and stiffener as shown in Figure 5; leave loose to aid in installation.
4. Tighten all hardware.

Installing the Hood and Bags

Parts needed for this step:

Description	Qty.
Screw, PPH 1/4-20 x 3/4	2
Asm, Bagger Mount.....	1
Nut, Nyloc 1/4-20 Flg	2
Asm, Hood Bagger	1
Bags.....	2

Procedure:

Operating the mower with the bagger installed and the front weight removed may cause loss of traction and steering control or an unstable condition which could result in injury or death.

Install the bagger only when the front weight is installed.

1. Install the bagger mount assembly (item 2) onto the hood assembly (item 3) using two 1/4-20 x 3/4 screws (item 1) and nyloc nuts (item 4) as shown in Figure 6.

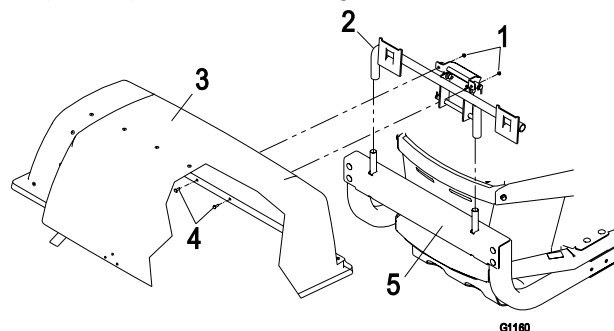


Figure 6

- | | |
|------------------|--------------------------|
| 1. Screws | 2. Bagger mount assembly |
| 3. Hood assembly | 4. Nuts |
| 5. Bagger hitch | |

2. Install the mount assembly onto the hitch.



If you remove the spring-loaded hood when it is closed (in the down position), the hood may suddenly fly open and you or someone else may be bruised, pinched, or injured in another way.

Always open (raise) the hood before you remove or install it on the quick-attach bracket.

3. Install the bags by sliding the bag frame hooks onto the retaining brackets.

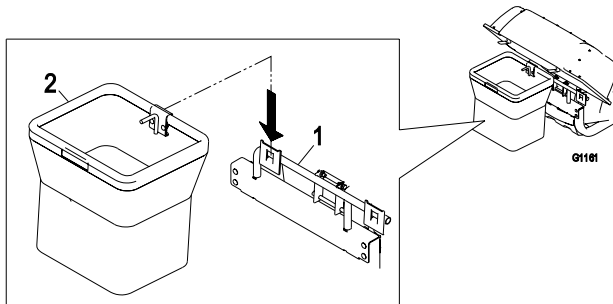


Figure 7

1. Retaining bracket
2. Bag frame hook

4. Lower the hood onto the bags. Then push down on both bagger retainer latches until they lock on the bag frame as shown in Figure 8.

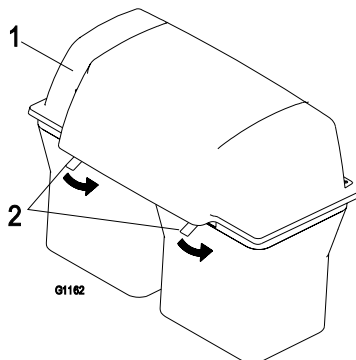


Figure 8

1. Hood
2. Bagger retainer latches

Installing the Boot Mount Bracket and Tubes

Parts needed for this step:

Description	Qty.
Nut, Nyloc 5/16-18 Flg	1
Bkt, Boot Mount	1
Asm, Lower Tube	1
Bolt, Carriage 5/16-18 x 3/4	1
Asm, Upper Tube	1

1. Remove the discharge deflector from the deck. Retain all components for reuse if the bagger is removed.
2. Install the boot mount bracket (item 2) onto the deck frame using the 5/16-18 x 3/4 carriage bolt (item 3) and nyloc nut (item 1) as shown in Figure 9. Bracket may stay on when converting to side discharge mode.

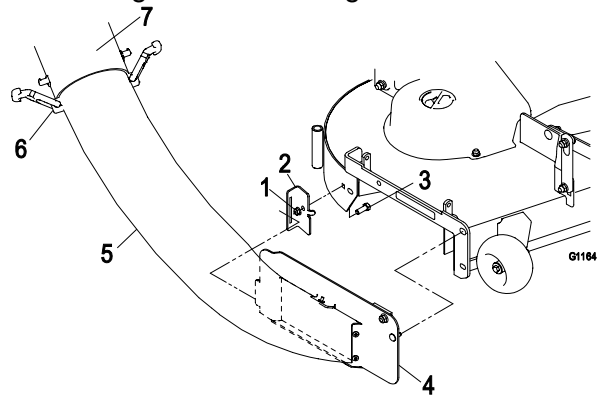


Figure 9

1. Nut
2. Boot mount bracket
3. Screw
4. Mount bracket
5. Lower tube
6. Rubber latch
7. Upper tube

3. Insert the tab on the lower tube assembly into the boot mount bracket as shown in Figure 9.
4. Use the latch on the lower tube assembly to lock the bracket to the deck. Adjust the tension on the latch to hold the bracket up to the deck, yet allow for release by hand.
5. Slip the upper tube into seal of the hood opening – push in and then pull out so that the seal is extended outward.
6. Slide the upper tube onto the lower tube and fasten the rubber latches (Figure 9).

Installing the Discharge Baffle – 52” Deck Only

Parts needed for this step:

Description	Qty.
Baffle, Discharge 52”.....	1
Bolt, Carriage 5/16-18 x 3/4	2
Nut, Nyloc 5/16-18 Flg	2

Procedure:

1. Remove the fasteners in the deck as shown in Figure 10. Retain for reuse if the discharge baffle is removed.
2. Install the 52” discharge baffle as shown in Figure 10.

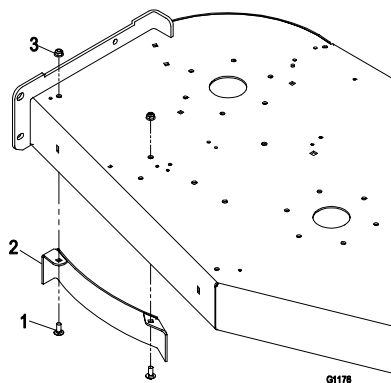


Figure 10

1. Nut
2. Discharge baffle
3. Screw

Note: This baffle can stay on the machine while side discharging or mulching.

Note: These parts may be discarded if mounting to 48” unit.

Operation

Note: The left and right sides of the machine are determined while sitting in the seat in the normal operating position.

Emptying the Grass Bags

Be careful when lifting or handling a grass bag that is full. To empty the grass bags:

1. Move the motion control levers outward to neutral position, disengage the power take off (PTO), engage parking brake, stop the engine, remove the key, and wait for all moving parts to stop before leaving the operating position.
2. Pull up on both bagger retainer latches until they unlock from the bag frame (Figure 11). Open (raise) the hood.

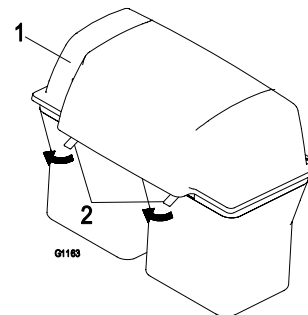


Figure 11

1. Hood
2. Bag retainer latches

3. Compress debris into the bags. With both hands, lift up on the bag and unhook it from the retaining bracket. Empty the bag. Repeat the procedure for the other bag.

4. Install the bags by sliding the bag frame hooks onto the retaining brackets (Figure 12).

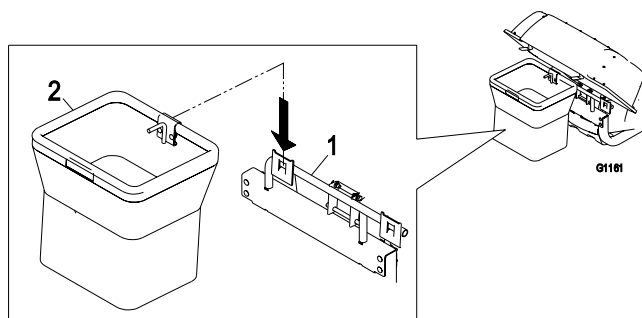


Figure 12

- | | |
|--------------------------|-----------------|
| 1. Screws | 4. Nuts |
| 2. Bagger mount assembly | 5. Bagger hitch |
| 3. Hood assembly | |

5. Lower the hood onto the bags. Then push down on both bag retainer handles until they lock on the bag frame.

Clearing Obstructions from the Bagger

1. Move the motion control levers outward to neutral position, disengage the power take off (PTO), engage parking brake, stop the engine, remove the key, and wait for all moving parts to stop before leaving the operating position.
2. Check the grass bags and empty them if they are full.
3. Remove and separate the discharge tube and chute from the bagger hood and mower. Using a stick or similar object, carefully remove and clear the obstruction from the mower, discharge tube, chute, and the hood.
4. After you remove the obstruction, install the complete bagger system and resume operation.

Removing the Bagger



An uncovered discharge opening will allow objects to be thrown in operator's or bystander's direction. Also, contact with blade could occur. Thrown objects or blade contact can cause serious injury or kill you or bystanders.

Never operate mower unless discharge deflector, or entire grass collection system, or mulch kit is installed.

1. Move the motion control levers outward to neutral position, disengage the power take off (PTO), engage parking brake, stop the engine, remove the key, and wait for all moving parts to stop before leaving the operating position.
2. Unlatch the upper tube and the lower tube. Remove the upper tube from the hood seal.



Operating the mower with the bagger installed and the front weight removed may cause loss of traction and steering control or an unstable condition which could result in injury or death.

Install the bagger only when the front weight is installed.

3. Remove the bagger mount bracket from the deck and retain all hardware see Figure 9.
Note: The boot mount bracket does not have to be removed from the deck.



If you remove the spring-loaded hood when it is closed (in the down position), the hood may suddenly fly open and you or someone else may be bruised, pinched, or injured in another way.

Always open (raise) the hood before you remove or install it on the quick-attach bracket.

4. Open the hood and remove the two bags from the bag frame hooks (Figure 12).
5. Lift the bagger mount assembly and hood off the bagger hitch.

Note: The bagger hitch does not have to be removed from the unit.



Operating the mower with the front weight installed and the bagger removed may cause loss of traction and steering control or an unstable condition which could result in injury or death.

Install the front weight only when the bagger is installed.

Note: The removable weight is heavy. Use care when lifting it. Make sure that you can hold it securely before lifting it. Use caution when positioning your hands so that you do not set it down on your hands or fingers.

6. Remove the weight on the front of the mower.

Note: The weight support assembly can stay mounted to the unit when the bagger and weight are removed.

7. Store all hardware in a convenient location.

Note: On the 52" deck, the discharge baffle does not have to be removed from the deck; you may notice better discharge with it

installed. If removed, replace the original hardware in the deck holes.

Replacing the Discharge Deflector



An uncovered discharge opening will allow objects to be thrown in operator's or bystander's direction. Also, contact with blade could occur. Thrown objects or blade contact can cause serious injury or kill you or bystanders.

Never operate mower unless discharge deflector, or entire grass collection system, or mulch kit is installed.

1. Disengage the spring from the notch in the deflector bracket and slide the rod out of the welded deck brackets, spring, and discharge deflector (Figure 13).

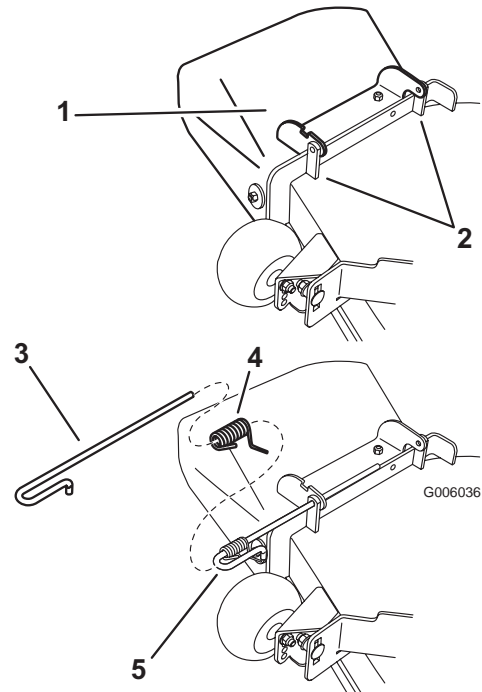


Figure 13

- | | |
|--------------------------------|------------------------|
| 1. Mower deck | 2. Discharge deflector |
| 3. Discharge deflector bracket | 4. Spring |
| 5. Rod | 6. Assembled view |

2. Position the new discharge deflector assembly with the bracket ends between the welded brackets on the deck as shown in Figure 13.
3. Install the spring onto the straight end of the rod. Position the spring on the rod as shown in Figure 13 so the shorter spring end is coming from under the rod before the bend and going over the rod as it returns from the bend.
4. Lift the long end of the spring and place it into the notch on the deflector assembly bracket Figure 14.

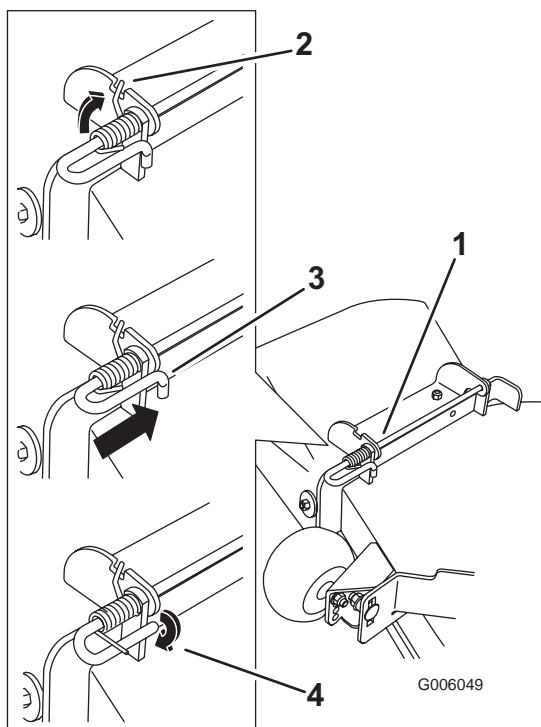


Figure 14

- | | |
|--------------------------------|------------------------|
| 1. Mower deck | 2. Discharge deflector |
| 3. Discharge deflector bracket | 4. Spring |
| 5. Rod | 6. Assembled view |

5. Secure the rod and spring assembly by twisting it so the short end of the rod can be placed behind the front bracket welded to the deck (Figure 14).

Important: The discharge deflector must be spring loaded in the down position. Lift the deflector up to test that it snaps to the full down position.

Operating Tips

Larger Machine with Bagger

Remember that the mower is longer and wider with this attachment installed. By turning too sharply in confined places you may damage the attachment.

Trimming

Always trim with the left side of the mower. Do not trim with the right side of the mower because you could damage the bagger's chute and discharge tube.

Cutting Height

Do not set the mower cutting height too low because long grass surrounding the mower can prevent air from getting under the mower and entering the bagging system. If enough air doesn't get under the mower, the bagging system will plug.

Cutting Frequency

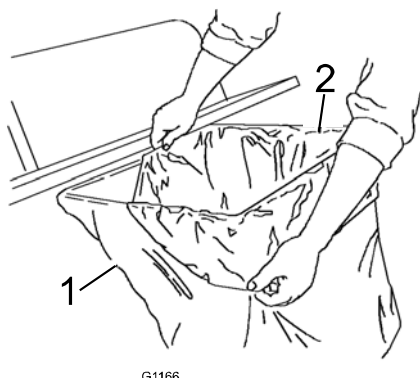
Cut the grass often, especially when it grows rapidly. You will have to cut your grass twice if it gets excessively long.

Cutting Technique

For best lawn appearance, be sure to slightly overlap the mower into the previously cut area. This helps reduce the load on the engine and reduces the chance of plugging the chute and discharge tube.

Using Bag Liners

Although not required, bag liners may be inserted into each grass bag to collect clippings and make disposal more convenient (Figure 15). If you use a bag liner, remove the filled grass bag and close the top of the liner. Then pull the liner out the grass bag or turn the bag upside down while holding the handle on the bottom of the grass bag, allowing the liner to slide out.



G1166


Figure 15

1. Cloth grass bag

2. Bag (liner)

Bagging Speed

Most often you will bag with the mower throttle in the Fast position and drive at a normal ground speed. However, in extremely dry and dusty grass, you may want to slightly reduce the throttle speed and increase the ground speed of the mower. The bagging system may plug if you drive too fast and the engine speed gets too slow. On hills it may be necessary to slow the mower ground speed. This helps maintain the engine speed and bagging efficiency.



As the bagger fills, extra weight is added to the back of the machine. If you stop and start suddenly on hills, you may lose traction and steering control or the machine may tip.

- **Do not start or stop suddenly when going uphill or down hill. Avoid uphill starts.**
- **If you do stop the machine when going uphill, disengage the PTO. Then back down the hill using a slow speed.**
- **Do not change speeds or stop on slopes.**

Bagging Long Grass

Excessively long grass is heavy and may not be propelled completely into the grass bags. If this happens, the discharge tube and chute may plug. To avoid plugging the bagging system, mow the grass at a high height of cut, then lower the mower to your normal cutting height and repeat the bagging process.

Bagging Wet Grass

Always try to cut grass when it is dry because your lawn will have a neat appearance. If you must cut wet grass, use the conventional side discharge feature of the mower. Several hours later, when the clippings are dry, install the complete bagger attachment and vacuum up the grass clippings.

Signs of Plugging

As you are bagging, a small amount of grass clippings normally blow out the front of the mower. An excessive amount of clippings blowing out indicates that the bags are full or the system is plugged.

Maintenance

Note: The left and right sides of the machine are determined while sitting in the seat in the normal operating position.

Recommended Maintenance Schedule(s)

Maintenance Service Interval	Maintenance Procedure
After the first 10 operating hours	<ul style="list-style-type: none"> • Inspect the bagger
Before each use or daily	<ul style="list-style-type: none"> • Clean the bagger.
Before storage	<ul style="list-style-type: none"> • Inspect the bagger. • Clean the bagger.



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

- **Remove the key from the ignition and disconnect the wire from the spark plug before you do any maintenance. Set the wire aside so that it does not accidentally contact the spark plug.**



Debris built up in the engine compartment, if not removed, could be ignited by a hot engine. A fire in the engine compartment can burn you and others and can damage property.

- **Before using and while the engine is cool, check for debris in the engine compartment.**
- **Keep the machine free of grass, leaves, or other debris build-up.**
- **Clean up oil or fuel spillage and fuel soaked debris.**
- **Allow the machine to cool before storing.**

Inspecting the Bagger Attachment

Inspect the bagger attachment after the first 10 hours of operation, and monthly thereafter.

1. Check the chute, discharge tube, and the bagger top. Replace these parts if they are cracked or broken.
2. Tighten all nuts, bolts, and screws.
3. Under normal use the bags will deteriorate and wear. Inspect the grass bags for deterioration.



You or bystanders could be severely injured by flying debris or thrown objects that may pass through torn, worn or deteriorated grass bags.

- **Frequently check the grass bags for holes, rips, wear, and other deterioration.**
- **Do not wash the grass bags.**
- **If the bag has deteriorated, install new grass bags supplied by the manufacturer of this bagger attachment.**

Inspecting the Mower Blades

Refer to your mower *Operator's Manual* for complete blade maintenance.

Caring for the Grass Bags

Washing the grass bags is not recommended.

Under normal use the bags will deteriorate and wear. To prevent rapid deterioration of the bag material, store the bags where they will dry completely after each use.

Cleaning the Bagger Attachment

1. After each use, remove and wash the inside and outside of the bagger top, discharge tube, chute, and the underside of the mower, using water sprayed from a garden hose. Use a mild automotive detergent to remove stubborn dirt.
2. Make sure you remove matted grass from all parts.
3. After washing, let all of the parts dry thoroughly. Do not wash the grass bags.

Storage

Storing the Bagger Attachment

1. Clean the bagger attachment; refer to Cleaning the Bagger Attachment.
2. Inspect the bagger attachment for damage; refer to Inspecting the Bagger Attachment.
3. Make sure the grass bags are empty and thoroughly dry.
4. Store the bagger in a clean, dry place, out of direct sunlight. This protects the plastic parts and extends the life of the bagger. If you must store the bagger outside, cover it with a weatherproof cover.

Tips and Troubleshooting

1. When the bags get full, there will be slight blowout from the front right corner of the deck. Emptying the bags at this point will minimize the potential for the tube to plug.
2. If there is excessive blowout from the deck, check to make sure that the rear screen in the hood is clear of grass build up. It is recommended that the screen and mesh portions of the bags be cleaned regularly to maintain proper air flow. This is especially important in wet conditions.
3. During dry conditions check engine air cleaners and clean cooling fins more frequently. The bagger has been designed to minimize the impact of dust and debris on the mower, but bagging can be a dirty environment.
4. During dry conditions, switching to a lower lift blade may reduce blowout without hurting quality of cut.
5. Maintaining a ground speed that does not pull down the engine RPM will allow for the highest productivity and best quality of cut. Bogging the engine RPM down by going too fast will cause plugging and quality of cut issues.
6. When storing the bagger, it is recommended that any grass build up in the tubes be cleaned out.

Changing Blades

1. Install the blade onto the spindle shaft (Figure 16).

Important: The curved part of the blade must be pointing upward toward the inside of the mower to ensure proper cutting.

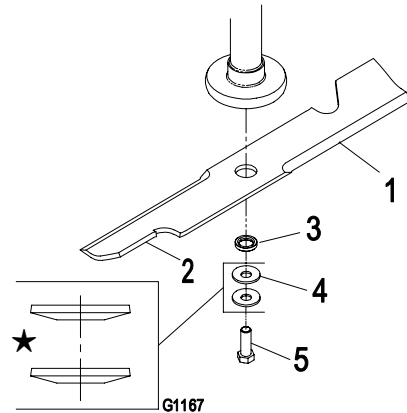


Figure 16

- | | |
|---------------|--------------------------|
| 1. Blade | 2. Sail area of blade |
| 3. Bushing | 4. Spring disk washers |
| 5. Blade bolt | ★ Orientation of washers |

2. Hold the blade end using a rag or thickly-padded glove (or place a wrench on the top sheave nut). Install the bushing, two spring disk washers (cupped side toward the blade) and blade bolt (Figure 16).
3. Torque the blade bolt to 45-55 ft-lbs (61-75 N-m).



Incorrect installation of the blade or components used to retain the blade cause the blade to come loose and could seriously injure or kill you or bystanders.

Always install the original Toro blades, blade bushing, spring disk washers and blade bolts as shown.

Note: Refer to mower *Operator's Manual* for complete blade maintenance.



TITAN Z and
TimeCutter
Z Mowers

The Toro Total Coverage Guarantee

A Three-Year Limited Warranty (Limited Warranty for
Commercial Use)

Conditions and Products Covered

The Toro Company and its affiliate, Toro Warranty Company, pursuant to an agreement between them, jointly promise to repair any Toro Product used for normal residential purposes* if defective in materials or workmanship. The following time periods apply from the date of purchase:

Products	Warranty Period
TITAN Z Mowers and Attachments	3 year limited warranty
TimeCutter Z Mowers and Attachments	3 year limited warranty
All Batteries	1 year limited warranty

This warranty includes the cost of parts and labor, but you must pay the cost of transportation to and from the servicing dealer. This warranty applies to consumer TITAN Z and TimeCutter Z mowers and attachments.

* Normal residential purposes 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.

Limited Warranty for Commercial Use

Toro Consumer Products and attachments used for commercial, institutional, or rental use are warranted against defects in materials or workmanship for the following time periods from the date of purchase:

Products	Warranty Period
Air Cooled Gas Engines	90 day limited warranty
All other items	30 day limited warranty

Instructions for Obtaining Warranty Service

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

1. Contact any Toro Authorized or Master Service Dealer to arrange service at their dealership. To locate a dealer convenient to you, refer to the Yellow Pages of your telephone directory (look under "Lawn Mowers") or access our web site at www.Toro.com. U.S. Customers may also call toll free: 866-854-9035 to use our 24-hour Toro dealer locator system.
2. Bring the product and your proof of purchase (sales receipt) to the Service Dealer.

If for any reason you are dissatisfied with the Service Dealer's analysis or with the assistance provided, contact us at:

Customer Care Department, Consumer Division
Toro Warranty Company
8111 Lyndale Avenue South
Bloomington, MN 55420-1196
Toll Free: 866-216-6029 (U.S. customers)
Toll Free: 866-216-6030 (Canada customers)

Owner Responsibilities

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

Items and Conditions Not Covered

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

- Cost of regular maintenance service or parts, such as filters, fuel, lubricants, tune-up parts, blade sharpening, brake and clutch adjustments.
- Any product or part which has been altered or misused or required replacement or repair due to normal wear, accidents, or lack of proper maintenance.
- Repairs necessary due to improper fuel, contaminants in the fuel system, or failure to properly prepare the fuel system prior to any period of non-use over three months.
- Pickup and delivery charges to and from an Authorized Toro Service Dealer.

General Conditions

All repairs covered by this warranty must be performed by an Authorized Toro Service Dealer using Toro approved replacement parts.

Repair by an Authorized Toro Service Dealer is your sole remedy under this warranty.

Neither The Toro Company nor Toro Warranty Company is liable for indirect, incidental or consequential damages in connection with the use of the Toro Products covered by this warranty, including any cost or expense of providing substitute equipment or service during reasonable periods of malfunction or non-use pending completion of repairs under this warranty.

Some states do not allow exclusion of incidental or consequential damages, so the above exclusion and limitations may not apply to you.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

Countries Other than the United States or Canada

Customers who have purchased Toro products exported from the United States or Canada should contact their Toro Distributor (Dealer) to obtain guarantee policies for your country, province, or state. If for any reason you are dissatisfied with your Distributor's service or have difficulty obtaining guarantee information, contact the Toro importer. If all other remedies fail, you may contact us at Toro Warranty Company.