

#### Count on it.

# Operator's Manual

# **Bagger**

TITAN® ZX and MX Series Riding Mower Model No. 79328—Serial No. 312000001 and Up



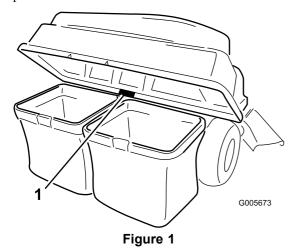
This kit requires the simultaneous installation of other kits to function properly. Contact your Authorized Service Dealer to obtain the corresponding necessary parts. For more information, visit us at www.Toro.com.

# Introduction

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

You may contact Toro directly at www.Toro.com 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. Write the numbers in the space provided.



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.



1. Safety alert symbol

This manual uses 2 other words to highlight information. **Important** calls attention to special mechanical information and **Note** emphasizes general information worthy of special attention.

# **Contents**

Introduction	2
Safety	
Towing Safety	3
Safety and Instructional Decals	
Setup	
1 Installing the Bagger Frame	4
2 Assembling the Bagger Top	
3 Installing the Bagger Top	
4 Completing the Installation	7
Operation	8
Emptying the Grass Bags	8
Clearing Obstructions from the Bagger	8
Removing the Bagger	9
Operating Tips	9
Maintenance	10
Recommended Maintenance Schedule(s)	10
Inspecting the Bagger Attachment	10
Inspecting the Mower Blades	11
Caring for the Grass Bags	11
Cleaning the Bagger Attachment	11
Storage	11
Storing the Bagger Attachment	11

# Safety

#### **A DANGER**

Engines can become hot when they are operating. Severe burns can occur from contacting hot surfaces.

Allow engines, especially the muffler, to cool before touching.

#### **A** DANGER

Debris, such as leaves, grass, or brush can catch fire. A fire in the engine area can cause personal injury and property damage.

- Keep the engine and muffler area free of debris accumulation.
- Take care when opening the bagger cover to keep debris from falling onto the engine and muffler area.
- Allow the machine to cool before storing it.

# **Towing Safety**

- Do not attach towed equipment except at the hitch point.
- Follow the attachment manufacturer's recommendation for weight limits for towed equipment and towing on slopes.
- Never allow children or others in or on towed equipment.
- On slopes, the weight of the towed equipment may cause loss of traction and loss of control. Reduce towed weight and slow down.
- Stopping distance increases with the weight of the towed load. Travel slowly and allow extra distance to stop.
- Make wide turns to keep the attachment clear of the machine.
- Do not tow a load that weighs more than the towing machine.

# **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.



109-6809

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

#### **Loose Parts**

Use the chart below to verify that all parts have been shipped.

Procedure	Description	Qty.	Use	
	Bagger frame support bracket	1		
	Support spacer plate	1		
	Self tapping screw (5/16 x 3/4 inch)	2	Install the bagger frame.	
	Bolt (5/16 x 2-1/2 inch)	2		
<b> </b>	Lock nut (5/16 inch)	2		
1	Bagger frame	1		
	Clevis pin (1/2 x 2-1/4 inch)	1		
	Hair pin cotter	5		
	Rod	2		
	Washer	4		
2	Bagger top	1	Assemble the bagger top.	
	Bagger screen	1		
3	Circular cotter pin	1	Install the bagger top.	
4	No parts required	_	Complete the installation.	



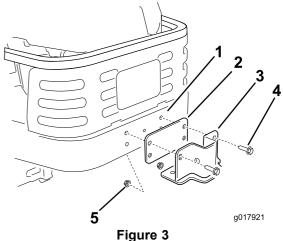
# **Installing the Bagger Frame**

#### Parts needed for this procedure:

1	Bagger frame support bracket
1	Support spacer plate
2	Self tapping screw (5/16 x 3/4 inch)
2	Bolt (5/16 x 2-1/2 inch)
2	Lock nut (5/16 inch)
1	Bagger frame
1	Clevis pin (1/2 x 2-1/4 inch)
5	Hair pin cotter
2	Rod
4	Washer

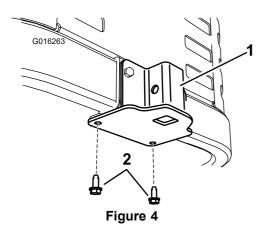
#### **Procedure**

1. Locate the bagger frame support spacer plate and bracket in loose parts. Install the plate and bracket to the machine frame as shown in Figure 3. Secure the plate and bracket to the frame using two bolts (5/16 x 2-1/2 inch) and two lock nuts (5/16 inch).

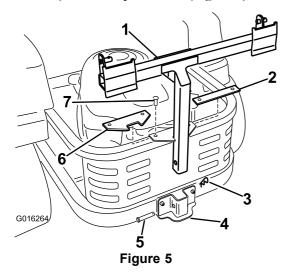


Figure

- 1. Machine frame
- 2. Support spacer plate
- 3. Support bracket
- 4. Bolt (5/16 x 2-1/2 inch)
- 5. Lock nut (5/16 inch)
- 2. Secure the support bracket to the bottom of the machine frame from below using two self tapping screws (5/16 x 3/4 inch) as shown in Figure 4.



- 1. Support bracket
- 2. Self tapping screws (5/16 x 3/4 inch)
- 3. Remove the fasteners securing the existing rectangular spacer plate from the top of the engine frame and remove the plate, if so equipped.
- 4. Install the new angle spacer plate as shown in Figure 5 using the fasteners removed previously.
- 5. Install the bagger frame to the support bracket. Secure the bagger frame with a clevis pin (1/2 x 2-1/4 inch) and hair pin cotter (Figure 5).



- 1. Bagger frame
- Clevis pin (1/2 x 2-1/4 inch)
- Existing rectangular spacer plate (if so equipped)
- 6. Spacer plate, angle (new)

3. Hair pin

- 7. Fasteners, existing
- 4. Support bracket
- 6. Install two support rods, one to each side of the bagger frame. Locate the existing bracket between the rear drive wheel and frame (Figure 6).

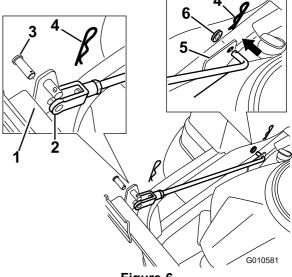


Figure 6
Left side shown

- . Bagger frame
- 2. Clevis end
- 3. Clevis pin
- 4. Hair pin
- 5. Bracket on frame
- 6. Washer
- 7. Insert the bent ends of the rod into the bagger frame as shown in Figure 6. Secure the end of the rod with a washer and hair pin.
- 8. Adjust the support rods so that bagger frame is held secure to the machine frame and seats in the notch of the angle spacer plate installed previously. Repeat these steps for each support rod:
  - A. Loosen the jam nut at the base of the clevis end of the rod.
  - B. Rotate the clevis end of the rod to adjust the rod to the desired length.
  - C. Align the holes in the clevis end with the hole in the bagger frame at the attachment point.
  - D. Secure the clevis end of the rods to the bagger frame using a clevis pin and hair pin cotter (Figure 6).
  - E. Tighten the jam nut.
- 9. With both rods installed and attached, check the bagger frame for play. The bagger frame should be held tight to the machine frame. If necessary, repeat the previous step to secure the bagger frame.

# **Assembling the Bagger Top**

#### Parts needed for this procedure:

1	Bagger top
1	Bagger screen

#### **Procedure**

Turn the bagger top over. Install the screen as shown in Figure 7 so it slopes down toward the collection bags. Make sure the screens snap into place and the tabs engage the bagger top.

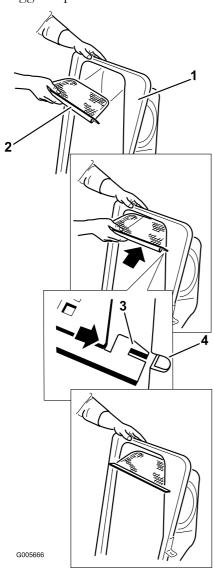


Figure 7

- Bagger top
- Screen

- 3. Screen tab
- 4. Slot in bagger top

# 3

# **Installing the Bagger Top**

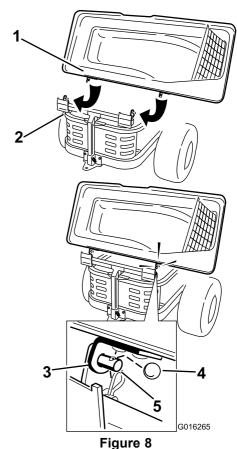
#### Parts needed for this procedure:

1 Circular cotter pin

#### **Procedure**

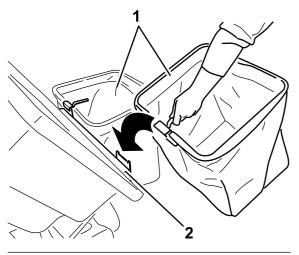
1. Install the bagger top to the bagger frame. Slide the brackets over the posts in the bagger frame and install the circular cotter into the hole in the right hand post (Figure 8). Rotate the bagger top down to the operating position. The bagger top is easier to install if two people work together.

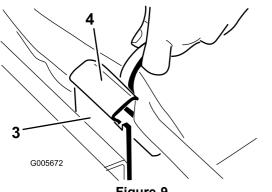
**Note:** To remove the circular cotter, continue to rotate it in the same direction as installed.



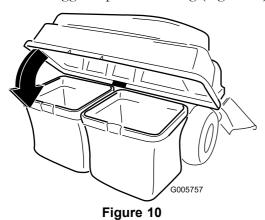
- 1. Bagger top
- 2. Bagger frame
- 3. Bracket, bagger top
- 4. Circular cotter pin
- 5. Post

2. Lift the bagger top and install the bags by sliding the bag frame hooks onto the retaining brackets (Figure 9).





- Figure 9
- Bag
   Bagger frame
- 3. Retaining bracket
- 4. Bag frame hook
- 3. Lower the bagger top onto the bag (Figure 10).





# **Completing the Installation**

#### No Parts Required

#### **Procedure**

This kit requires the simultaneous installation of other finishing kits to function properly. Contact your Authorized Service Dealer to obtain the corresponding necessary parts. For more information, visit us at www.Toro.com.

Once the Finishing Kit is installed, use the following Operation and Maintenance sections for use and care of the entire bagger attachment.

# **Operation**

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

#### **A WARNING**

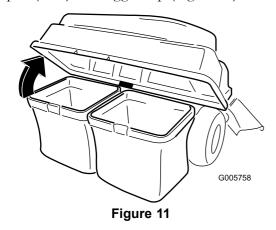
To avoid personal injury, follow these procedures:

- Become familiar with all operating and safety instructions in the *Operator's Manual* for the mower before using this attachment.
- Never remove the discharge tube, bags, bagger top, or the chute while the engine is running.
- Always shut the engine off and wait for all moving parts to stop before clearing an obstruction from the bagging system.
- Never do maintenance or repairs while the engine is running.

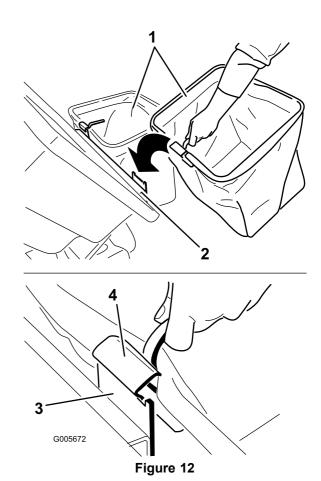
# **Emptying the Grass Bags**

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

- 1. Park the machine on a level surface and disengage the blade control switch.
- 2. Move the motion control levers outward to the neutral lock position, stop the engine, remove the key, set the parking brake and wait for all moving parts to stop before leaving the operating position.
- 3. Open (raise) the bagger top (Figure 11).



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



- 1. Bag
- 2. Bagger frame
- 3. Retaining bracket
- 4. Bag frame hook

6. Lower the bagger top onto the bags.

# Clearing Obstructions from the Bagger

- 1. Park the machine on a level surface and disengage the blade control switch.
- 2. Move the motion control levers outward to the neutral lock position, stop the engine, remove the key, set the parking brake and wait for all moving parts to stop before leaving the operating position.
- 3. Check the grass bags and empty them if they are full.
- 4. Remove and separate the discharge tube and chute from the bagger top and mower. Using a stick or similar object, carefully remove and clear the obstruction from the mower, discharge tube, chute, and the bagger top.
- 5. After you remove the obstruction, install the complete bagger system and resume operation.

### Removing the Bagger

#### **A** CAUTION

Failing to remove the front bagger weights and operating the machine without the bagger attachment may cause an unstable condition which could result in a loss of control.

- Always remove the front weights when removing the bagger attachment.
- Never operate the machine without the bagger attachment and the front weights still installed.

The bagger can be removed by repeating the Setup sections from all installed bagger related kits in reverse order. If weights are in stalled, always remove the front bagger weights when removing the bagger attachments.

**Note:** It is only necessary to remove the cutoff baffle when installing a mulching kit.

# **Operating Tips**

#### **Tips for Bagging**

#### Size

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.

#### **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. Mow downhill whenever possible.

#### **A** CAUTION

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 steering control or the machine may tip.

- Do not start or stop suddenly when going uphill or downhill. Avoid uphill starts.
- If you do stop the machine when going uphill, disengage the blade control. Then back down the hill using a slow speed.
- Do not change speeds or stop on slopes.
- Never operate the machine without the bagger attachment and the front weights still installed.

#### **Bagging Long Grass**

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

# Recommended Maintenance Schedule(s)

Maintenance Service Interval	Maintenance Procedure
After the first 10 hours	Inspect the bagger
Before each use or daily	Clean the bagger
Before storage	<ul><li>Inspect the bagger</li><li>Clean the bagger</li></ul>

#### **A** CAUTION

If you leave the key in the ignition switch, someone could accidently 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.

#### **A** DANGER

Engines can become hot when they are operating. Severe burns can occur from contacting hot surfaces.

Allow engines, especially the muffler, to cool before touching.

#### **A** DANGER

Debris, such as leaves, grass, or brush can catch fire. A fire in the engine area can cause personal injury and property damage.

- Keep the engine and muffler area free of debris accumulation.
- Take care when opening the bagger cover to keep debris from falling onto the engine and muffler area.
- Allow the machine to cool before storing it.

# Inspecting the Bagger Attachment

**Service Interval:** After the first 10 hours

Before storage

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. Inspect all fasteners and latches; replace any missing or damaged.
- 4. Inspect the grass bags for deterioration.

#### **A WARNING**

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

- 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**

Inspect the mower blades regularly and whenever a blade strikes a foreign object.

If the blades are badly worn or damaged, install new blades. Refer to your mower or mower *Operator's Manual* for complete blade maintenance.

# **Caring for the Grass Bags**

Washing the grass bags is not recommended.

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

# Cleaning the Bagger Attachment

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

Before storage

- 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 detergent to remove stubborn dirt.
- 2. Make sure you remove matted grass from all parts.
- 3. Flush the grass bags with water using garden hose to remove any debris.
- 4. After washing, let all of the parts dry thoroughly.

# **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.



#### The Toro Total Coverage Warranty

Limited Warranty (see warranty periods below)

TimeCutter and TITAN Mowers

#### **Conditions and Products Covered**

The Toro Company and its affiliate, Toro Warranty Company, pursuant to an agreement between them, jointly promise to the original purchaser to repair the Toro Products listed below if defective in materials or

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

Products	Warranty Period
TimeCutter and MX Mowers • Engines <sup>1</sup> — Residential use	Residential use <sup>2</sup> – 3 years Kawasaki – 3 years Kohler – 3 years Toro – 3 years
TimeCutter and MX Mowers •Engines¹ — Commercial use	Commercial use 30 days Kawasaki – 3 years Kohler – 90 days Toro – 90 days
TITAN Mowers – Residential or Commercial use	3 years or 240 hours <sup>3</sup>
•Engines¹ — Residential or Commercial use	Kawasaki – 3 years Kohler – 2 years
• Frame	Lifetime (original owner only)4
TITAN MX Mowers – Residential or Commercial use	3 years or 400 hours <sup>3</sup>
•Engines <sup>1</sup> — Residential or	Kawasaki – 3 years
Commercial use	Kohler – 2 years
• Frame	Lifetime (original owner only)4
All Mowers	
· Attachments	1 year
<ul> <li>Battery</li> </ul>	90 days Parts and Labor
	1 year Parts only
·Belts and Tires	90 days

<sup>1</sup>Some engines used on Toro Products are warranted by the engine manufacturer

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

3Whichever occurs first

<sup>4</sup>Lifetime 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

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

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 any Authorized Toro 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. You may also call the numbers listed in item #3 to use the 24-hour Toro Dealer locator system.
- Bring the product and your proof of purchase (sales receipt) to the Service Dealer. The dealer will diagnose the problem and determine if it is covered under warranty.
- If for any reason you are dissatisfied with the Service Dealer's analysis or with the assistance provided, contact us at:

Customer Care Department, RLC Division Toro Warranty Company 8111 Lyndale Avenue South Bloomington, MN 55420-1196 Toll free at 866-216-6029 (U.S. customers) Toll free at 866-216-6030 (Canadian customers)

#### 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/worn blade on mowers, cable/linkage adjustments, or brake and clutch adjustments
- Components failing due to normal wear
- Any product or part which has been altered or misused and requires replacement or repair due to accidents or lack of proper maintenance
- Repairs necessary due to improper battery care, failure to use fresh fuel (less than one month old), or failure to properly prepare the unit prior to any period of non-use over one month
- Pickup and delivery charges
- Operational misuse, neglect, or accidents
- Repairs or attempted repairs by anyone other than an Authorized Toro Service Dealer

#### **General Conditions**

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

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.

All implied warranties of merchantability (that the product is fit for ordinary use) and fitness for use (that the product is fit for a particular purpose) are limited to the duration of the express warranty.

Some states do not allow exclusions of incidental or consequential damages, or limitations on how long an implied warranty lasts, so the above exclusions 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 outside 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. 374-0258 Rev C