Form No. 3463-843 Rev A

TORO®

Count on it.

Operator's Manual

Narrow Bucket

Compact Tool Carriers

Model No. 22520—Serial No. 409900000 and Up
Model No. 23174—Serial No. 400000000 and Up

Register at www.Toro.com.
Original Instructions (EN)

CE UK CA

3463-843

⚠ WARNING

CALIFORNIA
Proposition 65 Warning

Use of this product may cause exposure to chemicals known to the State of California to cause cancer, birth defects, or other reproductive harm.

Introduction

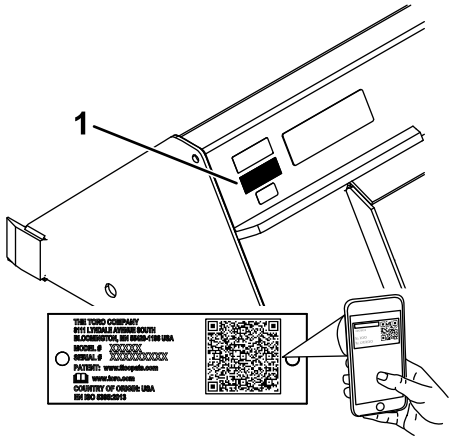
The bucket is a load-bearing attachment intended to be used on a Toro compact tool carrier. It is designed primarily for moving rock, dirt, sand, or other materials. Using this product for purposes other than its intended use could prove dangerous to you and bystanders.

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

Visit www.Toro.com for product safety and operation training materials, accessory information, help finding a dealer, or to register your product.

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

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



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Figure 1

1. Model and serial number location

Model No. _____

Serial No. _____

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



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Figure 2

1. Safety-alert symbol

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

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8111 Lyndale Avenue South
Bloomington, MN 55420

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Safety

⚠ DANGER

There may be buried utility lines in the work area. Digging into them may cause a shock or an explosion.

Have the property or work area marked for buried lines and do not dig in marked areas. Contact your local marking service or utility company to have the property marked (for example, in the US, call 811 or in Australia, call 1100 for the nationwide marking service).

General Safety

Always follow all safety instructions to avoid serious injury or death.

- Do not exceed the rated operating capacity, as the machine may become unstable, which may result in loss of control.
- **Do not transport an attachment with the arms raised or extended (if applicable)**. Always transport the attachment close to the ground; refer to Transport Position (page 7).
- Have the property or work area marked for buried lines and other objects, and do not dig in marked areas.
- Read and understand the content of this *Operator's Manual* before starting the machine.
- Use your full attention while operating the machine. Do not engage in any activity that causes distractions; otherwise, injury or property damage may occur.
- Never allow children or untrained people to operate the machine.
- Keep your hands and feet away from the moving components and attachments.
- Do not operate the machine without the guards and other safety protective devices in place and working on the machine.
- Keep bystanders and pets away from the machine.
- Stop the machine, shut off the machine, and remove the key 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.

Slope Safety

- **Operate the machine up and down slopes with the heavy end of the machine uphill.** Weight distribution changes with attachments. An empty load-bearing attachment makes the rear of the machine the heavy end, and a full load-bearing attachment makes the front of the machine the heavy end. Most other attachments make the front of machine the heavy end.
- Raising or extending (if applicable) the loader arms on a slope affects the stability of the machine. Keep the loader arms in the lowered and retracted position when on slopes.
- Slopes are a major factor related to loss of control and tip-over accidents, which can result in severe injury or death. **Operating the machine on any slope or uneven terrain requires extra caution.**
- Establish your own procedures and rules for operating on slopes. These procedures must include surveying the site to determine which slopes are safe for machine operation. Always use common sense and good judgment when performing this survey.
- Slow down and use extra care on hillsides. Ground conditions can affect the stability of the machine.
- Avoid starting or stopping on a slope. If the machine loses traction, proceed slowly, straight down the slope.
- Avoid turning on slopes. If you must turn, turn slowly and keep the heavy end of the machine uphill.
- Keep all movements on slopes slow and gradual. Do not make sudden changes in speed or direction.
- If you feel uneasy operating the machine on a slope, do not do it.
- Watch for holes, ruts, or bumps, as uneven terrain could overturn the machine. Tall grass can hide obstacles.
- Use caution when operating on wet surfaces. Reduced traction could cause sliding.
- Evaluate the area to ensure that the ground is stable enough to support the machine.
- Use caution when operating the machine near the following:
  - Drop-offs
  - Ditches
  - Embankments
  - Bodies of water

  The machine could suddenly roll over if a track goes over the edge or the edge caves in. Maintain a safe distance between the machine and any hazard.
- Do not remove or add attachments on a slope.
- Do not park the machine on a hillside or slope.

Bucket Safety

- Always lower the attachment and shut off the machine each time you leave the operating position.
- When lifting the attachment, keep it level and prevent the load from spilling backward.

Maintenance and Storage Safety

- Check fasteners at frequent intervals for proper tightness to ensure that the equipment is in safe operating condition.
- Refer to this *Operator's Manual* for important details if you store the attachment for an extended period of time.
- Maintain or replace safety and instruction labels, as necessary.

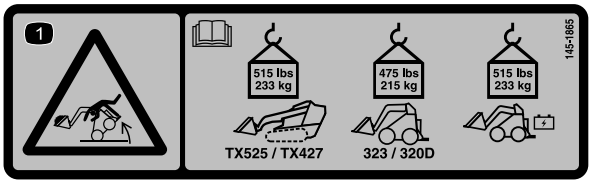
Safety and Instructional Decals

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.



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133-8061



decal145-1865

145-1865

1. Tipping hazard—read the *Operator's Manual*; for the TX 525 and TX 427, do not exceed loads of 233 kg (515 lb); for the 323 and 320D models, do not exceed loads of 215 kg (475 lb); for the battery powered models, do not exceed loads of 233 kg (515 lb).

Product Overview

Specifications

Note: Specifications and design are subject to change without notice.

	Model 22520	Model 23174
Width	88 cm (35 inches)	53 cm (21 inches)
Length	68 cm (27 inches)	74 cm (29 inches)
Height	64 cm (25 inches)	42 cm (17 inches)
Weight	69 kg (153 lb)	69 kg (153 lb)
Capacity		
SAE struck capacity	0.10 m^3 (3.5 ft^3)	0.08 m^3 (2.9 ft^3)
Heaped capacity	0.12 m^3 (4.3 ft^3)	0.10 m^3 (3.4 ft^3)
Maximum load rating		
320D and 323 models	215 kg (475 lb)	215 kg (475 lb)
TX 427 and TX 525 models	233 kg (515 lb)	233 kg (515 lb)
Battery-powered models	233 kg (515 lb)	233 kg (515 lb)

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

Maximum Material Density at Capacity

The density of the materials moved by the bucket varies and, therefore, so does the amount of material that the bucket can carry before reaching the maximum load rating. The first 2 tables lists the density of material that can be carried, both heaped and struck (i.e., leveled off), in the bucket. The Material Density table lists common materials and their densities.

	Maximum Density	
Bucket Capacity	**Model 22520**	**Model 23174**
Struck (leveled) bucket	2369 kg/m^3 (147 lb/ft^3)	2835 kg/m^3 (177 lb/ft^3)
Heaped bucket	1922 kg/m^3 (120 lb/ft^3)	2419 kg/m^3 (151 lb/ft^3)

Note: Maximum density = Maximum load rating / Capacity

Material Density

Material	Density (Approximate)
Caliche	1250 kg/m^3 (78 lb/ft^3)
Clay:	
Natural bed	1600 kg/m^3 (104 lb/ft^3)
Dry	1480 kg/m^3 (93 lb/ft^3)
Wet	1660 kg/m^3 (104 lb/ft^3)
With gravel, dry	1420 kg/m^3 (89 lb/ft^3)
With gravel, wet	1540 kg/m^3 (96 lb/ft^3)
Coal:	
Anthracite, broken	1100 kg/m^3 (69 lb/ft^3)
Bituminous, broken	830 kg/m^3 (52 lb/ft^3)
Earth:	
Dry, packed	1510 kg/m^3 (94 lb/ft^3)
Wet, packed	1600 kg/m^3 (100 lb/ft^3)
Loam	1250 kg/m^3 (78 lb/ft^3)
Granite, broken or large crushed	1660 kg/m^3 (104 lb/ft^3)
Gravel:	
Dry	1510 kg/m^3 (94 lb/ft^3)
Pit run (graveled sand)	1930 kg/m^3 (120 lb/ft^3)
Dry, 13 to 51 mm (1/2 to 2 inch)	1690 kg/m^3 (106 lb/ft^3)
Wet, 13 to 51 mm (1/2 to 2 inch)	2020 kg/m^3 (126 lb/ft^3)
Limestone, broken or crushed	1540 kg/m^3 (96 lb/ft^3)
Sand:	
Dry	1420 kg/m^3 (89 lb/ft^3)

Material Density (cont'd.)

Wet	1840 kg/m³ (115 lb/ft³)
With gravel, dry	1720 kg/m³ (107 lb/ft³)
With gravel, wet	2020 kg/m³ (126 lb/ft³)
Sandstone, broken	1510 kg/m³ (94 lb/ft³)
Shale	1250 kg/m³ (78 lb/ft³)
Slag, broken	1750 kg/m³ (109 lb/ft³)
Stone, crushed	1600 kg/m³ (100 lb/ft³)
Topsoil	950 kg/m³ (59 lb/ft³)

Operation

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

Installing and Removing the Attachment

Refer to the *Operator's Manual* for the traction unit for the installation and removal procedure.

Important: **Before installing the attachment, position the machine on a level surface, ensure that the mount plates are free of any dirt or debris, and ensure that the pins rotate freely. If the pins do not rotate freely, grease them.**

Note: Always use the traction unit to lift and move the attachment.

⚠ WARNING

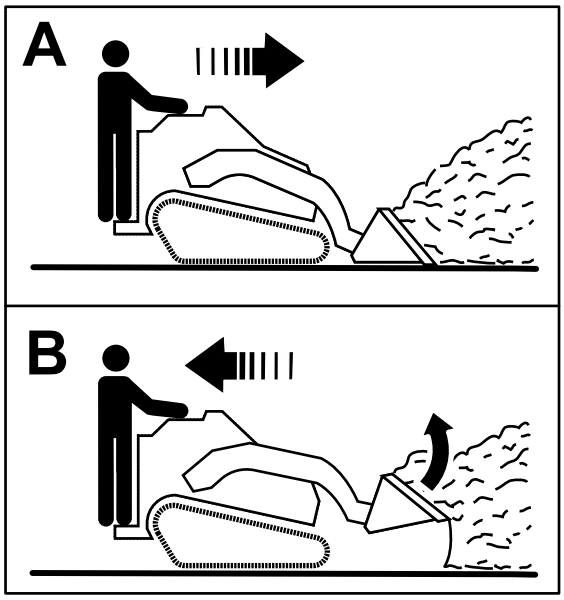
If you do not fully seat the quick-attach pins through the attachment mount plate, the attachment could fall off the machine, crushing you or bystanders.

Ensure that the quick-attach pins are fully seated in the attachment mount plate.

Filling the Bucket

1. Position the bucket level to the ground.
2. Drive forward and insert the bucket into the pile of material.
3. When the bucket is full, drive the machine in reverse and gently tilt the bucket rearward to decrease the lifting resistance when you lift the load.

   Important: **Always carry loads close to the ground; refer to Transport Position (page 7).**

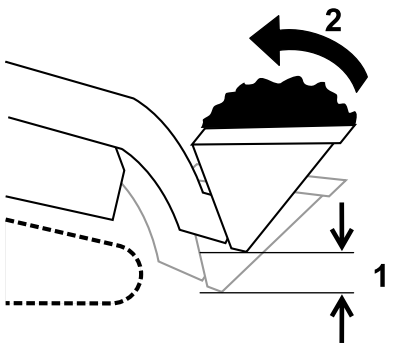


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Figure 3

Transport Position

When transporting a load, keep the attachment as close to the ground as possible, no more than 15 cm (6 inches) above the ground. Tilt it rearward to keep the load level.



g240205

Figure 4

1. No more than 15 cm (6 inches) above the ground
2. Tilt the load rearward

Storage

1. Before long-term storage, wash the attachment with mild detergent and water to remove dirt and grime.
2. Paint all scratched or bare metal surfaces.

   Note: Paint is available from your Authorized Service Dealer.
3. Store the attachment in a clean, dry garage or storage area. Cover it to protect it and keep it clean.

California Proposition 65 Warning Information

What is this warning?

You may see a product for sale that has a warning label like the following:



WARNING: Cancer and Reproductive Harm—www.p65Warnings.ca.gov.

What is Prop 65?

Prop 65 applies to any company operating in California, selling products in California, or manufacturing products that may be sold in or brought into California. It mandates that the Governor of California maintain and publish a list of chemicals known to cause cancer, birth defects, and/or other reproductive harm. The list, which is updated annually, includes hundreds of chemicals found in many everyday items. The purpose of Prop 65 is to inform the public about exposure to these chemicals.

Prop 65 does not ban the sale of products containing these chemicals but instead requires warnings on any product, product packaging, or literature with the product. Moreover, a Prop 65 warning does not mean that a product is in violation of any product safety standards or requirements. In fact, the California government has clarified that a Prop 65 warning "is not the same as a regulatory decision that a product is 'safe' or 'unsafe.'" Many of these chemicals have been used in everyday products for years without documented harm. For more information, go to https://oag.ca.gov/prop65/faqs-view-all.

A Prop 65 warning means that a company has either (1) evaluated the exposure and has concluded that it exceeds the "no significant risk level"; or (2) has chosen to provide a warning based on its understanding about the presence of a listed chemical without attempting to evaluate the exposure.

Does this law apply everywhere?

Prop 65 warnings are required under California law only. These warnings are seen throughout California in a wide range of settings, including but not limited to restaurants, grocery stores, hotels, schools, and hospitals, and on a wide variety of products. Additionally, some online and mail order retailers provide Prop 65 warnings on their websites or in catalogs.

How do the California warnings compare to federal limits?

Prop 65 standards are often more stringent than federal and international standards. There are various substances that require a Prop 65 warning at levels that are far lower than federal action limits. For example, the Prop 65 standard for warnings for lead is 0.5 µg/day, which is well below the federal and international standards.

Why don't all similar products carry the warning?

- Products sold in California require Prop 65 labelling while similar products sold elsewhere do not.
- A company involved in a Prop 65 lawsuit reaching a settlement may be required to use Prop 65 warnings for its products, but other companies making similar products may have no such requirement.
- The enforcement of Prop 65 is inconsistent.
- Companies may elect not to provide warnings because they conclude that they are not required to do so under Prop 65; a lack of warnings for a product does not mean that the product is free of listed chemicals at similar levels.

Why does Toro include this warning?

Toro has chosen to provide consumers with as much information as possible so that they can make informed decisions about the products they buy and use. Toro provides warnings in certain cases based on its knowledge of the presence of one or more listed chemicals without evaluating the level of exposure, as not all the listed chemicals provide exposure limit requirements. While the exposure from Toro products may be negligible or well within the "no significant risk" range, out of an abundance of caution, Toro has elected to provide the Prop 65 warnings. Moreover, if Toro does not provide these warnings, it could be sued by the State of California or by private parties seeking to enforce Prop 65 and subject to substantial penalties.