Form No. 3351-159

TORO®

3 cu. ft. Narrow Bucket

for Dingo® TX 413 Compact Utility Loader

Model No. 22422—240000001 and Up

Operator's Manual

Original Instructions (EN)

Contents

Introduction

Read this manual carefully to learn how to operate and maintain your product properly. The information in this manual can help you and others avoid injury and product damage. Although Toro designs and produces safe products, 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. You will find the model and serial number on a plate located on the auger drive head. On augers and extensions, the model and serial number plate is located on the upper portion of the shaft.

Write the product model and serial numbers in the space below:

Model No. _____

Serial No. _____

This manual identifies potential hazards and has special safety messages that help you and others avoid personal injury and even death. ***Danger***, ***Warning***, and ***Caution*** are signal words used to identify the level of hazard. However, regardless of the hazard, be extremely careful.

Danger signals an extreme hazard that **will** cause serious injury or death if you do not follow the recommended precautions.

Warning signals a hazard that **may** cause serious injury or death if you do not follow the recommended precautions.

Caution signals a hazard that may cause minor or moderate injury if you do not follow the recommended precautions.

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.

Safety

To ensure maximum safety and best performance, and to gain knowledge of the product, it is essential that you and any other operator of the product read and understand the contents of this manual before the engine is ever started.

⚠ This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.

Improperly using or maintaining this product could result in injury or death. To reduce this potential, comply with the following safety instructions.

⚠ Danger ⚠

If there are buried power, gas, or telephone lines in the work area, you may dig into them causing shock or explosion.

Have the property or work area marked for buried lines and do not dig in marked areas.

⚠ Warning ⚠

When the engine is off, an attachment in the raised position can gradually lower, possibly pinning or injuring someone.

Always lower the attachment lift each time you shut off the traction unit.

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Warning

When going up or down hill, the machine could overturn if the heavy end is toward the downhill side, possibly pinning or seriously injuring you or bystanders.

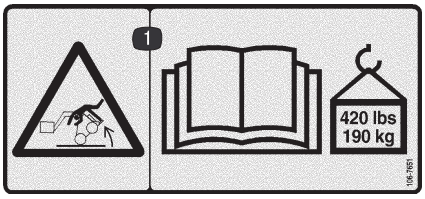
Operate up and down slopes with the heavy end of the machine uphill. An attached auger bit will make the front end heavy.

Caution

If the bucket is not kept level while lifting, the load could be inadvertently dumped on the operator, causing injury.

When lifting the bucket, tilt it forward to keep it level and prevent it from spilling backward.

Safety Decal



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1. Tipping hazard—read the *Operator's Manual*; the maximum load rating is 420 lbs (190 kg)

Specifications

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

Overall width	34.5 inches (88 cm)
Overall length	24.0 inches (61 cm)
Overall height	14.0 inches (36 cm)
Weight	120 lbs (55 Kg)
Capacity (SAE struck capacity)	2.8 ft^3 (.08 m^3)

Maximum Material Density at Capacity

The density of materials that the bucket can move varies and therefore the maximum load rating for a given material that the bucket can carry also varies. The Maximum Density for Capacity Chart below lists the density of material that the bucket can carry, both heaped and struck (i.e., leveled off), in the bucket. The Material Density Chart on page 4 lists common materials and their densities.

Maximum Density for Capacity Chart

Bucket Capacity	Maximum Density
Bucket, heaped	97 lb/ft^3 (1553 kg/m^3)
Bucket, struck	119 lb/ft^3 (1918 kg/m^3)

Note: To move materials with densities greater than the maximum allowed for the bucket, reduce the volume of material placed in the bucket.

Material Density Chart

Material	Density (Loose)
Caliche	78lb/ft^3 (1250 kg/m^3)
Clay:	
Natural bed	104 lb/ft^3 (1660 kg/m^3)
Dry	93 lb/ft^3 (1490 kg/m^3)
Wet	104 lb/ft^3 (1660 kg/m^3)
With gravel, dry	89 lb/ft^3 (1420 kg/m^3)
With gravel, wet	96 lb/ft^3 (1540 kg/m^3)
Coal:	
Anthracite, broken	69 lb/ft^3 (1100 kg/m^3)
Bituminous, broken	52 lb/ft^3 (830 kg/m^3)
Earth:	
Dry, packed	94 lb/ft^3 (1500 kg/m^3)
Wet, packed	100 lb/ft^3 (1600 kg/m^3)
Loam	78 lb/ft^3 (1250 kg/m^3)
Granite, broken or large crushed	104 lb/ft^3 (1660 kg/m^3)
Gravel:	
Dry	94 lb/ft^3 (1500 kg/m^3)
Pit run (graveled sand)	120 lb/ft^3 (1920 kg/m^3)
Dry 1/2″–2″ (13–51mm)	106 lb/ft^3 (1700 kg/m^3)
Wet 1/2″–2″ (13–51mm)	126 lb/ft^3 (2020 kg/m^3)
Limestone, broken or crushed	96 lb/ft^3 (1540 kg/m^3)
Sand:	
Dry	89 lb/ft^3 (1420 kg/m^3)
Wet	115 lb/ft^3 (1840 kg/m^3)
With gravel, dry	107 lb/ft^3 (1710 kg/m^3)
With gravel, wet	126 lb/ft^3 (2020 kg/m^3)
Sandstone, broken	94 lb/ft^3 (1500 kg/m^3)
Shale	78 lb/ft^3 (1250 kg/m^3)
Slag, broken	109 lb/ft^3 (1740 kg/m^3)
Stone, crushed	100 lb/ft^3 (1600 kg/m^3)
Topsoil	59 lb/ft^3 (940 kg/m^3)

*Actual material density will vary from these typical values.

Stability Ratings

Warning

Exceeding the maximum slope can cause the traction unit to tip. If the traction unit tips, you or bystanders could be crushed.

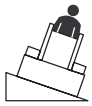
Do not drive the the traction unit on a slope steeper that the maximum slope.

To determine the degree of slope you can traverse with the bucket installed on a traction unit, find the stability rating for the hill position you want to travel in the appropriate table on the following page, then find the degree of slope for the same rating and hill position in the Stability Data section of the traction unit *Operator's Manual*.

Stability with a Loaded Bucket

Orientation	Stability Rating
Front Uphill 	B
Rear Uphill 	D
Side Uphill 	B

Stability with an Unloaded Bucket

Orientation	Stability Rating
Front Uphill 	D
Rear Uphill 	C
Side Uphill 	C

Operation

Operating Tips

When loading material, always have the bucket level to the ground, moving forward into the material. When the bucket is full, tilt it gently rearward to decrease the lifting resistance when you lift the load.

When transporting a load, keep the bucket as close to the ground as possible.

Storage

1. Before long-term storage, wash the bucket with mild detergent and water to remove dirt and grime.
2. Paint all scratched or bare metal surfaces with paint available from an Authorized Service Dealer.
3. Store the bucket in a clean, dry garage or storage area. Cover it to protect it and keep it clean.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