Form No. 3396-718 Rev A

TORO®

Count on it.

Operator's Manual

40in Tiller

Compact Utility Loader

Model No. 22445—Serial No. 260000001 and Up

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

CE

3396-718 A

This product complies with all relevant European directives. For details, please see the Declaration of Incorporation (DOI) at the back of this publication.

⚠ 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.

Introduction

This tiller is intended to be used on a Toro compact utility loader. It is designed primarily for breaking through hard soil conditions on residential or commercial properties. It is not designed for breaking through materials other than soil. It is not designed for use on non-Toro traction units.

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. The model and serial numbers are printed on a plate located on the right side of the drive head. Write the numbers in the space provided.

Model No. _____

Serial No. _____

This manual identifies potential hazards and has safety messages identified by the safety-alert symbol (Figure 1), which signals a hazard that may cause serious injury or death if you do not follow the recommended precautions.



Figure 1

1. Safety-alert symbol

This manual also 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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Safety

Improper use or maintenance by the operator or owner can result in injury. To reduce the potential for injury, comply with these safety instructions and those in the traction unit *Operator's Manual*. Always pay attention to the safety alert symbol, which means *Caution*, *Warning*, or *Danger*—personal safety instruction. Failure to comply with the instruction may result in personal injury or death.

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 could void the product warranty.

⚠ DANGER

Contact with rotating tines may cause injury, cutting hands, feet, or other body parts.

- **Keep away from the rotating tines while operating the tiller.**
- **Keep your hands, feet, and any other part of your body or clothing away from rotating parts.**
- **Before adjusting, cleaning, repairing and inspecting the tiller, lower the tiller and loader arms to the ground, turn the key to the OFF position, and remove the key from the ignition switch.**

⚠ WARNING

There may be buried power, gas, and/or, telephone lines in the area needing tilling and shock or explosion may occur.

Have the property or area to be tilled marked for buried lines.

⚠ WARNING

Tines can throw dirt, debris, and small rocks resulting in injury.

- **Run the tiller so that debris is thrown away from the traction unit.**
- **Keep all bystanders away from the work area.**

⚠ WARNING

When the engine is off, attachments in the raised position can gradually lower and this may result in someone nearby getting pinned or injured.

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

⚠ WARNING

If you do not fully seat the attachment locking pins in the attachment mount plate holes, the attachment could fall off of the traction unit, causing severe injury.

- **Ensure that you fully seat the attachment locking pins through the holes in the attachment mount plate before lifting the attachment.**
- **Ensure that the attachment mount plate is free of any dirt or debris that may hinder the connection of the traction unit to the attachment.**
- **Refer to your traction unit *Operator's Manual* for detailed information on safely connecting an attachment to your traction unit.**

⚠ CAUTION

Hydraulic couplers, hydraulic lines/valves, and hydraulic fluid may be hot and can burn you if you touch them.

- **Wear gloves when operating the hydraulic couplers.**
- **Allow the traction unit to cool before touching hydraulic components.**
- **Do not touch hydraulic fluid spills.**

Stability Ratings

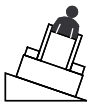
To determine the degree of slope you can traverse with the attachment installed on a traction unit, find the stability rating for the hill position you want to travel in the appropriate table below, then find the degree of slope for the same rating and hill position in the Stability Data section of the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

⚠ WARNING

Exceeding the maximum recommended slope can cause the traction unit to tip, crushing you or bystanders.

Do not drive the traction unit on a slope steeper than the maximum recommended slope, as determined in the following tables and the traction unit *Operator's Manual*.

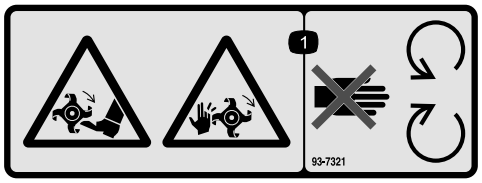
Important: If your traction unit has wheels, do not use the counterweight on the platform while using the attachment, or the traction unit will become less stable in the front and side uphill positions.

Orientation	Stability Rating
Front Uphill 	**C**
Rear Uphill 	**C**
Side Uphill 	**B**

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.



93-7321

1. Cutting/dismemberment hazard of hands and feet, rotating knives/blades—stay away from moving parts.



100-4708

1. Thrown object hazard—keep bystanders away from the machine.

Product Overview

Specifications

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

Width	120 cm (44 inches)
Tilling Width	102 cm (40 inches)
Length	51 cm (20 inches)
Height	66 cm (26 inches)
Weight	165 kg (363 lb)

Attachments/Accessories

A selection of Toro approved attachments and accessories is available for use with the machine to enhance and expand its capabilities. Contact your Authorized Service Dealer or Distributor or go to www.Toro.com for a list of all approved attachments and accessories.

To best protect your investment and maintain optimal performance of your Toro equipment, count on Toro genuine parts. When it comes to reliability, Toro delivers replacement parts designed to the exact engineering specification of our equipment. For peace of mind, insist on Toro genuine parts.

Operation

Refer to your traction unit *Operator's Manual* for more information on installing and removing attachments on your traction unit.

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

- Clean the area of trash, branches, and rocks before tilling to prevent equipment damage.
- Always begin tilling with the slowest ground speed possible. Increase speed if conditions permit.
- Always use full throttle (maximum engine speed).
- Till in long, straight passes. Do not make turns while the tiller is in the ground, as equipment damage may result.
- Avoid excessive tilling of the soil, as finely tilled soil does not absorb moisture easily and puddles of water may form.
- When tilling hard packed, very dry, or virgin soil, raise the tiller so only the very top of the soil is penetrated. On succeeding passes the depth may be lowered.
- Run the tiller so that the dirt is thrown away from you.
- If a rock or other obstruction gets into the tiller tines, reverse the rotation direction to dislodge it.

Maintenance

Recommended Maintenance Schedule(s)

Maintenance Service Interval	Maintenance Procedure
After the first 5 hours	• Lubricate the chain tension. • Adjust the chain tension.
Before each use or daily	• Check the tines (replace as required). • Check and tighten the tine bolts (replace as required).
Every 25 hours	• Lubricate the shaft bearing (immediately after every washing). • Lubricate the chain tension. • Adjust the chain tension.
Before storage	• Lubricate shaft bearing. • Paint chipped surfaces.

⚠ CAUTION

If you leave the key in the traction unit ignition switch while the tiller is attached, someone could accidently start the engine and seriously injure you or other bystanders.

Accidental starting of the engine could seriously injure you or other bystanders; remove the key from the ignition switch before you do any maintenance.

Greasing and Lubrication

Service Interval: Every 25 hours—Lubricate the shaft bearing (immediately after every washing).

Grease Type: General-purpose grease

1. Lower the loader arms, turn the key to the OFF position, and remove the key from the ignition switch.
2. Clean the grease fittings with a rag.
3. Scrape any paint off the front of the fittings.
4. Connect a grease gun to each fitting.
5. Pump grease into the fittings until grease begins to ooze out of the bearings.
6. Wipe up any excess grease.

Lubricating the Tiller Drive Chain

Service Interval: After the first 5 hours

Every 25 hours

Lubricant Type: Commercial chain lube

1. Lower the loader arms, turn the key to the OFF position, and remove the key from the ignition switch.
2. Remove the chain-drive cover ().
3. Apply a commercial chain lube onto the chain spans.
4. Install the chain-drive cover.

Adjusting Tiller Drive Chain Tension

Service Interval: After the first 5 hours

Every 25 hours

Note: There should be 1 to 2 cm (1/2 to 3/4 inch) slack in the chain, measured midway between the sprockets.

1. Lower the loader arms, turn the key to the OFF position, and remove the key from the ignition switch.
2. Remove the chain-drive cover (Figure 2).
3. Loosen the 2 hydraulic motor, mount-plate bolts (Figure 2).
4. Using the adjuster bolt, move the hydraulic motor upward to tighten the chain (Figure 2).

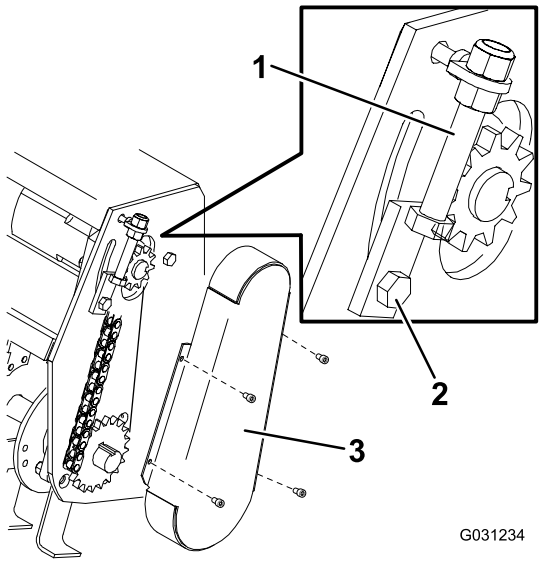


Figure 2

1. Adjuster bolt
2. Hydraulic motor, mount-plate bolt
3. Chain-drive cover

5. After you have set the chain to the proper tension, tighten the adjuster bolt and hydraulic motor mount-plate bolts (Figure 2).

   Note: When you can no longer set the chain to the proper tension using the adjuster bolt or if chain failures repeatedly occur, replace the chain.

6. Install the chain-drive cover.

Replacing the Tiller Tines

Service Interval: Before each use or daily—Check the tines (replace as required).

Before each use or daily—Check and tighten the tine bolts (replace as required).

Note: Worn or dull tines degrade the performance of the tiller.

1. Install tines so that there are 2 left tines and 2 right tines on each hub (Figure 3).

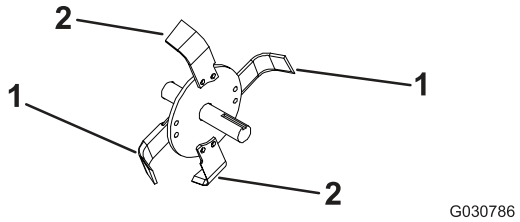


Figure 3

1. Left tine
2. Right tine

Note: The cutting edges of the tines should face toward the rear of the tiller.

2. Torque the tine-mounting bolts to 85 to 104 N-m (63 to 77 ft-lb).

Storage

1. Before long term storage, wash the attachment with mild detergent and water to remove dirt and grime.
2. Check the condition of the drive chain. Adjust and lubricate the chain.
3. Grease all fittings.
4. Check and tighten all bolts, nuts, and screws. Repair or replace any damaged or worn parts.
5. Paint all scratched or bare metal surfaces. Paint is available from your Authorized Service Dealer.
6. Store the tiller in a clean, dry garage or storage area. Cover the tiller to protect it and keep it clean.

Troubleshooting

Problem	Possible Cause	Corrective Action
The tiller does not operate.	1. A hydraulic coupler is not completely connected.	1. Check and tighten all couplers.
	2. One or more hydraulic couplers are damaged.	2. Check the couplers and replace any that are damaged.
	3. There is an obstruction in a hydraulic hose.	3. Find and remove the obstruction.
	4. The auxiliary valve on the traction unit is not opening.	4. Repair the auxiliary valve.
	5. There is an obstruction in the tiller (e.g., rock or root).	5. Find and remove the obstruction.
	6. A drive chain is broken.	6. Repair or replace the chain.
	7. A drive chain is loose.	7. Adjust the chain tension.
	8. A hydraulic valve is not working properly.	8. Replace or repair the hydraulic valve.
	9. A drive motor is not working properly.	9. Replace or repair the drive motor.

Declaration of Incorporation

Model No.	Serial No.	Product Description	Invoice Description	General Description	Directive
22445	260000001 and Up	40in Tiller, Compact Utility Loader	TILLER ATTACHMENT CE	Compact Utility Loader	2006/42/EC

Relevant technical documentation has been compiled as required per Part B of Annex VII of 2006/42/EC.

We will undertake to transmit, in response to requests by national authorities, relevant information on this partly completed machinery. The method of transmission shall be electronic transmittal.

This machinery shall not be put into service until incorporated into approved Toro models as indicated on the associated Declaration of Conformity and in accordance with all instructions, whereby it can be declared in conformity with all relevant Directives.

Certified:



Joe Hager
Sr. Engineering Manager
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June 16, 2015

EU Technical Contact:

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Toro Europe NV
B-2260 Oevel-Westerloo
Belgium

Tel. 0032 14 562960
Fax 0032 14 581911

International Distributor List

Distributor:	Country:	Phone Number:	Distributor:	Country:	Phone Number:
Agrolanc Kft	Hungary	36 27 539 640	Maquiver S.A.	Colombia	57 1 236 4079
Balama Prima Engineering Equip.	Hong Kong	852 2155 2163	Maruyama Mfg. Co. Inc.	Japan	81 3 3252 2285
B-Ray Corporation	Korea	82 32 551 2076	Mountfield a.s.	Czech Republic	420 255 704 220
Casco Sales Company	Puerto Rico	787 788 8383	Mountfield a.s.	Slovakia	420 255 704 220
Ceres S.A.	Costa Rica	506 239 1138	Munditol S.A.	Argentina	54 11 4 821 9999
CSSC Turf Equipment (pvt) Ltd.	Sri Lanka	94 11 2746100	Norma Garden	Russia	7 495 411 61 20
Cyril Johnston & Co.	Northern Ireland	44 2890 813 121	Oslinger Turf Equipment SA	Ecuador	593 4 239 6970
Cyril Johnston & Co.	Republic of Ireland	44 2890 813 121	Oy Hako Ground and Garden Ab	Finland	358 987 00733
Equiver	Mexico	52 55 539 95444	Parkland Products Ltd.	New Zealand	64 3 34 93760
Femco S.A.	Guatemala	502 442 3277	Perfetto	Poland	48 61 8 208 416
ForGarder OU	Estonia	372 384 6060	Pratoverde SRL.	Italy	39 049 9128 128
G.Y.K. Company Ltd.	Japan	81 726 325 861	Prochaska & Cie	Austria	43 1 278 5100
Geomechaniki of Athens	Greece	30 10 935 0054	RT Cohen 2004 Ltd.	Israel	972 986 17979
Golf international Turizm	Turkey	90 216 336 5993	Riversa	Spain	34 9 52 83 7500
Guandong Golden Star	China	86 20 876 51338	Lely Turfcare	Denmark	45 66 109 200
Hako Ground and Garden	Sweden	46 35 10 0000	Solvert S.A.S.	France	33 1 30 81 77 00
Hako Ground and Garden	Norway	47 22 90 7760	Spypros Stavrinides Limited	Cyprus	357 22 434131
Hayter Limited (U.K.)	United Kingdom	44 1279 723 444	Surge Systems India Limited	India	91 1 292299901
Hydroturf Int. Co Dubai	United Arab Emirates	97 14 347 9479	T-Markt Logistics Ltd.	Hungary	36 26 525 500
Hydroturf Egypt LLC	Egypt	202 519 4308	Toro Australia	Australia	61 3 9580 7355
Irrimac	Portugal	351 21 238 8260	Toro Europe NV	Belgium	32 14 562 960
Irrigation Products Int'l Pvt Ltd.	India	0091 44 2449 4387	Valtech	Morocco	212 5 3766 3636
Jean Heybroek b.v.	Netherlands	31 30 639 4611	Victus Emak	Poland	48 61 823 8369

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.

Toro Compact Utility Equipment Warranty

A One-Year Limited Warranty

Conditions and Products Covered

The Toro Company and its affiliate, Toro Warranty Company, pursuant to an agreement between them, jointly warrant your Toro Compact Utility Equipment ("Product") to be free from defects in materials or workmanship. The following time periods apply from the date of purchase:

Products	Warranty Period
Pro Sneak Compact Utility Loaders, Trenchers, Stump Grinders, and Attachments	1 year or 1000 operating hours, whichever occurs first
Kohler Engines	3 years*
All other Engines	2 years*

Where a warrantable condition exists, we will repair the Product at no cost to you including diagnosis, labor, and parts.

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

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 Authorized Toro Compact Utility Equipment (CUE) Service Dealer to arrange service at their dealership. To locate a dealer convenient to you, access our website at www.Toro.com. You may also call our Toro Customer Care Department toll free at the number below.
2. Bring the product and your proof of purchase (sales receipt) to the Service Dealer.
3. If for any reason you are dissatisfied with the Service Dealer's analysis or with the assistance provided, contact us at:

   SWS Customer Care Department
   Toro Warranty Company
   8111 Lyndale Avenue South
   Bloomington, MN 55420-1196
   Toll Free: 888-384-9940

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. Parts scheduled for replacement as required maintenance ("Maintenance Parts"), are warranted for the period of time up to the scheduled replacement time for that part. Failure to perform required maintenance and adjustments can be grounds for disallowing a warranty claim.

Items and Conditions Not Covered

Not all product failures or malfunctions that occur during the warranty period are defects in materials or workmanship. This express warranty does not cover the following:

- Product failures which result from the use of non-Toro replacement parts, or from installation and use of add-on, modified, or unapproved accessories
- Product failures which result from failure to perform required maintenance and/or adjustments
- Product failures which result from operating the Product in an abusive, negligent or reckless manner
- Parts subject to consumption through use unless found to be defective. Examples of parts which are consumed, or used up, during normal product operation include, but are not limited to, belts, wipers, spark plugs, tires, filters, gaskets, wear plates, seals, O-rings, drive chains, clutches.
- Failures caused by outside influence. Items considered to be outside influence include, but are not limited to, weather, storage practices, contamination, use of unapproved coolants, lubricants, additives, or chemicals, etc.
- Normal "wear and tear" items. Normal "wear and tear" includes, but is not limited to, worn painted surfaces, scratched decals, etc.
- 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 that 15% MTBE
  - Failure to drain the fuel system prior to any period of non-use over one month
- Any component covered by a separate manufacturer's warranty
- Pickup and delivery charges

General Conditions

Repair by an Authorized Toro Compact Utility Equipment (CUE) 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. All implied warranties of merchantability and fitness for use are limited to the duration of this 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.

Except for the engine warranty coverage and the Emissions warranty referenced below, if applicable, there is no other express warranty. The Emissions Control System on your Product may be covered by a separate warranty meeting requirements established by the U.S. Environmental Protection Agency (EPA) or the California Air Resources Board (CARB). The hour limitations set forth above do not apply to the Emissions Control System Warranty. Refer to the California Emission Control Warranty Statement supplied with your Product or contained in the engine manufacturer's documentation for details.

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.

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