



Form No. 3430-870 Rev A

**Count on it.**

**Operator's Manual**

**48in Hydraulic Blade  
Compact Tool Carriers**

Model No. 22414—Serial No. 404000000 and Up



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**

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

**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.

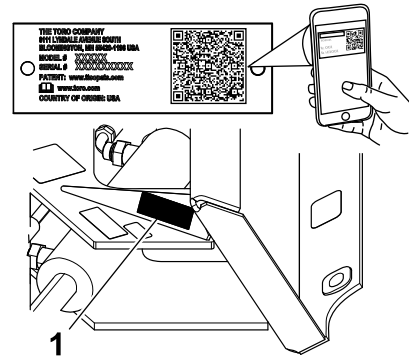


Figure 1

g278004

## Introduction

The hydraulic blade is intended to be used on a Toro compact tool carrier. The blade is designed to hydraulically change its angle as needed for earth and snow grading applications. 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](http://www.Toro.com) for more information, including safety tips, 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. The model and serial numbers are located on a plate on the blade pivot frame. 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 2), which signals a hazard that may cause serious injury or death if you do not follow the recommended precautions.



Figure 2

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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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# 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 transport an attachment with the arms raised.** Always transport the attachment close to the ground; refer to [Transport Position \(page 6\)](#).
- 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 engine.
- 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 engine, 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.

You can find additional safety information where needed throughout this *Operator's Manual*.

## Slope Safety

- **Operate the machine up and down slopes with the heavy end of the machine uphill.** Weight distribution changes with attachments. This attachment makes the front of machine the heavy end.
- **Keep the attachment in the lowered position when on slopes.** Raising the attachment on a slope affects the stability of the machine.
- 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.

## Hydraulic Blade Safety

- For wheeled traction units with a built-in operator's platform, do not use the counterweight on the traction unit when using the attachment.
- After striking a foreign object, shut off the engine, remove the key, thoroughly inspect the attachment for any damage, and repair the damage before starting and operating the attachment.
- Always lower the attachment each time you shut off the machine or leave the operating position.
- Seek immediate medical attention if hydraulic fluid is injected into skin. Injected fluid must be surgically removed within a few hours by a doctor.
- Ensure that all hydraulic-fluid hoses and lines are in good condition and all hydraulic connections and fittings are tight before applying pressure to the hydraulic system.
- Keep your body and hands away from pinhole leaks or nozzles that eject high-pressure hydraulic fluid.
- Use cardboard or paper to find hydraulic leaks.

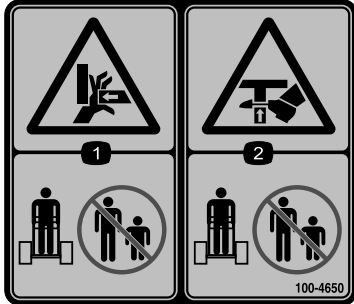
## Maintenance and Storage Safety

- Check fasteners at frequent intervals for proper tightness to ensure that the equipment is in safe operating condition.
- Refer to the *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.
- Safely relieve all pressure in the hydraulic system before performing any work on the hydraulic system.

# 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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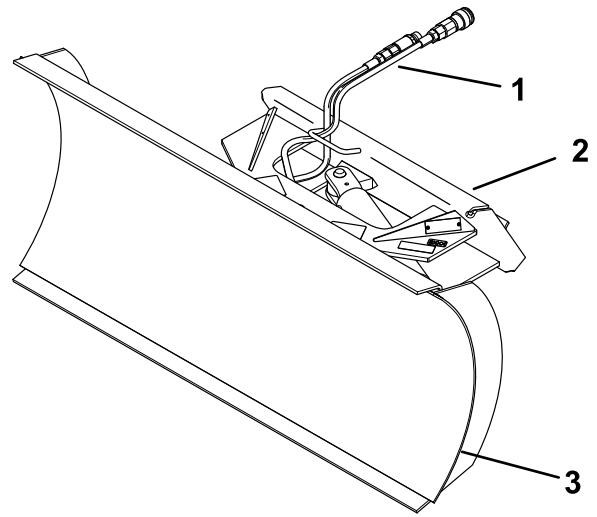
1. Crushing hazard of hand—keep bystanders away.
2. Crushing hazard of foot—keep bystanders away.

**WARNING:** Cancer and Reproductive Harm - [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).  
For more information, please visit [www.ttcocalprop65.com](http://www.ttcocalprop65.com)

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# Product Overview



g278070

Figure 3

1. Hydraulic hoses
2. Attachment mount plate
3. Blade

## Specifications

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

Width	121 cm (48 inches)
Length	63.5 cm (25 inches)
Height	53 cm (21 inches)
Weight	96 kg (212 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.

# 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.

### ⚠ WARNING

Hydraulic fluid escaping under pressure can penetrate skin and cause injury. Fluid injected into the skin must be surgically removed within a few hours by a doctor familiar with this form of injury; otherwise, gangrene may result.

- Ensure that all hydraulic-fluid hoses and lines are in good condition and all hydraulic connections and fittings are tight before applying pressure to the hydraulic system.
- Keep your body and hands away from pinhole leaks or nozzles that eject high-pressure hydraulic fluid.
- Use cardboard or paper to find hydraulic leaks; never use your hands.

### ⚠ CAUTION

Hydraulic couplers, hydraulic lines/valves, and hydraulic fluid may be hot. If you contact hot components, you may be burned.

- Wear gloves when disconnecting the hydraulic couplers.
- Allow the machine to cool before touching hydraulic components.
- Do not touch hydraulic fluid spills.

## Operating the Blade

**Note:** If your traction unit has a speed selector, move it to the FAST position.

- To angle the blade to the right, pull the auxiliary hydraulics lever to the operator grip.
- To angle the blade to the left, push the auxiliary hydraulics lever away from the operator grip.

## Transport Position

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

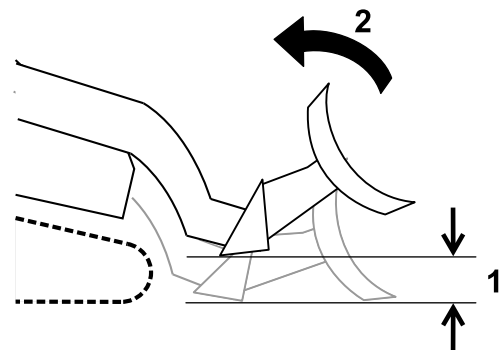


Figure 4

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

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# Operating Tips

- Clean the area of trash, branches and rocks before beginning work to prevent equipment damage.
- Always begin with the slowest ground speed possible. Increase speed if conditions permit.
- Always use full throttle (maximum engine speed).
- Never transport the blade with the loader arms raised. Keep the arms lowered and the blade tilted up.
- When scraping, leveling, and surface stripping, lower the blade to the ground, ensuring that the cutting edge makes contact. The blade will bite into the soil as you move forward.

# Maintenance

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

## ⚠ CAUTION

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

Remove the key from the switch before you perform any maintenance.

## Recommended Maintenance Schedule(s)

Maintenance Service Interval	Maintenance Procedure
Before each use or daily	<ul style="list-style-type: none"><li>Grease the hydraulic cylinder pivot points (grease all fittings immediately after every washing).</li><li>Check the hydraulic lines for leaks, loose fittings, kinked lines, loose mounting supports, wear, weather, and chemical deterioration.</li></ul>
Every 200 hours	<ul style="list-style-type: none"><li>Inspect the hydraulic hoses and replace them if they are damaged.</li></ul>
Before storage	<ul style="list-style-type: none"><li>Inspect the hydraulic hoses and replace them if they are damaged.</li><li>Paint chipped or worn surfaces.</li></ul>
Yearly	<ul style="list-style-type: none"><li>Check the blade cutting edge for wear.</li></ul>

## Greasing the Hydraulic Cylinder Pivot Points

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

**Grease Type:** General-purpose grease

1. Park the machine on a level surface, lower the loader arms, and engage the parking brake (if equipped).
2. Shut off the engine and remove the key.
3. Clean the grease fittings with a rag.
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.

## Checking the Blade Cutting Edge

**Service Interval:** Yearly

If the blade is badly worn, complete the following procedure:

1. Remove the pins securing the blade to the frame and hydraulic cylinder and remove the blade.
2. Turn the blade 180 degrees so the worn edge is on top, then install it back on the mounting frame and hydraulic cylinder.

## Checking the Hydraulic Lines

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

### ⚠ WARNING

Hydraulic fluid escaping under pressure can penetrate skin and cause injury. Fluid injected into the skin must be surgically removed within a few hours by a doctor familiar with this form of injury; otherwise, gangrene may result.

- Keep your body and hands away from pinhole leaks or nozzles that eject high-pressure hydraulic fluid.
- Use cardboard or paper to find hydraulic leaks; never use your hands.



# 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 cutting edge. Remove and rotate the blade 180 degrees so the worn edge is on top, if it is badly worn.
3. Check and tighten all bolts, nuts, and screws. Repair or replace any part that is damaged or worn.
4. Ensure that all hydraulic couplers are connected together to prevent contamination of the hydraulic system.
5. Paint all scratched or bare metal surfaces.  
**Note:** Paint is available from your Authorized Service Dealer.
6. Store the attachment in a clean, dry garage or storage area. Cover it to protect it and keep it clean.

# Troubleshooting

Problem	Possible Cause	Corrective Action
The blade does not change angle.	<ol style="list-style-type: none"><li data-bbox="586 218 1029 275">1. A hydraulic coupler is not completely connected.</li><li data-bbox="586 285 1029 317">2. A hydraulic coupler is damaged.</li><li data-bbox="586 344 1029 401">3. There is an obstruction in a hydraulic hose.</li><li data-bbox="586 411 1029 468">4. An auxiliary valve on the traction unit is not opening.</li><li data-bbox="586 478 1029 497">5. A hydraulic cylinder is damaged.</li></ol>	<ol style="list-style-type: none"><li data-bbox="1062 218 1508 249">1. Check and tighten all couplers.</li><li data-bbox="1062 285 1508 342">2. Check the couplers and replace any that are damaged.</li><li data-bbox="1062 352 1508 384">3. Find and remove the obstruction.</li><li data-bbox="1062 411 1508 443">4. Repair the valve.</li><li data-bbox="1062 470 1508 497">5. Replace or repair the cylinder.</li></ol>

# Notes:

# Notes:

**Notes:**

# Declaration of Incorporation

The Toro Company, 8111 Lyndale Ave. South, Bloomington, MN, USA declares that the following unit(s) conform(s) to the directives listed, when installed in accordance with the accompanying instructions onto certain Toro models as indicated on the relevant Declarations of Conformity.

Model No.	Serial No.	Product Description	Invoice Description	General Description	Directive
22414	404000000 and Up	48in Hydraulic Blade	HYD BLADE ATTACHMENT CE	Hydraulic Blade	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:



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January 28, 2019

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## EEA/UK Privacy Notice

### **Toro's Use of Your Personal Information**

The Toro Company ("Toro") respects your privacy. When you purchase our products, we may collect certain personal information about you, either directly from you or through your local Toro company or dealer. Toro uses this information to fulfil contractual obligations - such as to register your warranty, process your warranty claim or to contact you in the event of a product recall - and for legitimate business purposes - such as to gauge customer satisfaction, improve our products or provide you with product information which may be of interest. Toro may share your information with our subsidiaries, affiliates, dealers or other business partners in connection these activities. We may also disclose personal information when required by law or in connection with the sale, purchase or merger of a business. We will never sell your personal information to any other company for marketing purposes.

### **Retention of your Personal Information**

Toro will keep your personal information as long as it is relevant for the above purposes and in accordance with legal requirements. For more information about applicable retention periods please contact [legal@toro.com](mailto:legal@toro.com).

### **Toro's Commitment to Security**

Your personal information may be processed in the US or another country which may have less strict data protection laws than your country of residence. Whenever we transfer your information outside of your country of residence, we will take legally required steps to ensure that appropriate safeguards are in place to protect your information and to make sure it is treated securely.

### **Access and Correction**

You may have the right to correct or review your personal data, or object to or restrict the processing of your data. To do so, please contact us by email at [legal@toro.com](mailto:legal@toro.com). If you have concerns about the way in which Toro has handled your information, we encourage you to raise this directly with us. Please note that European residents have the right to complain to your Data Protection Authority.

# 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](http://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.