Form No. 3395-214 Rev B

TORO®

Count on it.

Operator's Manual

High-Torque Trencher Head and High-Speed Trencher Head

Compact Utility Loaders

Model No. 22473—Serial No. 315000001 and Up

Model No. 22474—Serial No. 315000001 and Up

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

CE

3395-214 B

⚠ 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.

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

This product complies with all relevant European directives; for details, please see the separate product specific Declaration of Conformity (DOC) sheet.

Introduction

The trencher heads are attachments designed for use on Toro compact utility loaders with a variety of booms and chains to dig trenches in soil to facilitate the burying of cabling and piping. They are not intended for use in cutting hard materials such as wood or concrete.

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 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.

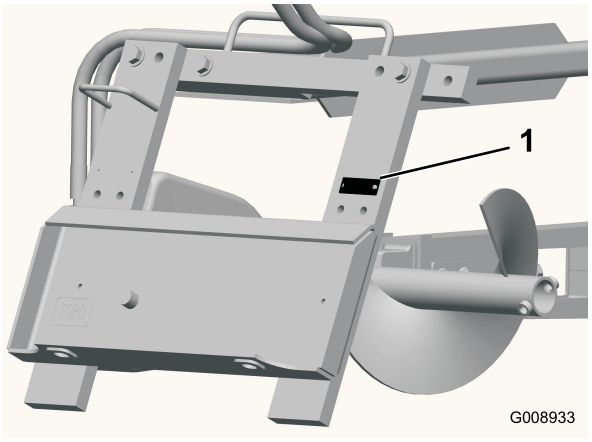

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Figure 1

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.

g000502

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.

8111 Lyndale Avenue South
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Contact us at www.Toro.com.
Printed in the USA.

Contents

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.

⚠ DANGER

There may be buried power, gas, and/or telephone lines in the work area. Shock or explosion may occur if you dig into them.

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 United States, call 811 for the nationwide marking service).

⚠ DANGER

The moving teeth and auger will severely cut hands, feet, or other body parts.

- **Keep hands, feet, and any other part of your body or clothing away from moving teeth, auger, or other parts.**
- **Before adjusting, cleaning, repairing, or inspecting the trencher, lower the trencher to the ground, stop the engine, wait for all moving parts to stop, and remove the key.**

⚠ WARNING

When the engine is off, attachments in the raised position can gradually lower. Someone nearby may be pinned or injured by the attachment as it lowers.

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

⚠ WARNING

When going up or down hill, the machine could overturn if the heavy end is toward the downhill side. Someone may be pinned or seriously injured by the machine if it overturns.

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

⚠ 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 severely injuring the operator or bystanders.

- **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.**

⚠ WARNING

Lightning can cause severe injury or death. If lightning is seen or thunder is heard in the area, do not operate the machine; seek shelter.

⚠ CAUTION

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 or gangrene may result.

- **Keep your body and hands away from pin hole 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 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 trencher 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.*

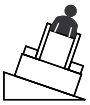
⚠ WARNING

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.*

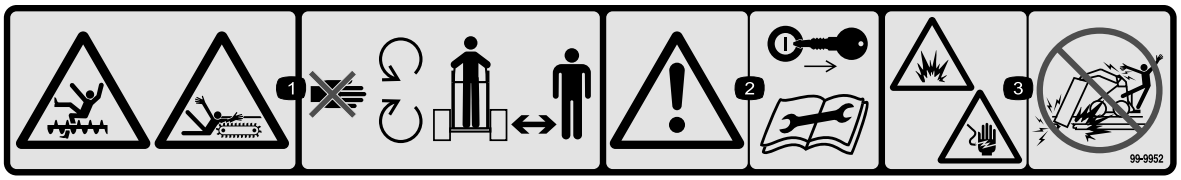
Important: If you have a traction unit other than a TX compact utility loader, use the counterweight on the traction unit when using the trencher. Failure to use the counterweight will cause the traction unit to become unstable.

Stability Rating

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

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.



decal99-9952

99-9952

1. Cutting hazard, chain and auger—stay away from moving parts and keep bystanders away from the machine.
2. Warning—stop the engine and remove the key before performing and maintenance or repairs.
3. Explosion and/or electric shock hazard—do not dig in areas with buried gas or power lines.

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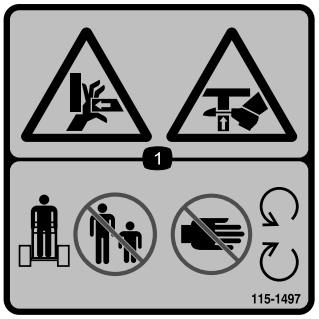
1. Explosion and/or electric shock hazard—do not dig in areas with buried gas or power lines.



decal115-1497

115-1497

1. Crushing hazard of hand; crushing hazard of foot—keep bystanders away from the machine; keep away from moving parts.

Setup

Loose Parts

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

Procedure	Description	Qty.	Use
1	Boom assembly (sold separately) Chain assembly (sold separately)	1 1	Install the boom and digging chain.
2	Safety bar Safety bar extension (with booms over 61 cm (2 ft) only) Bolts (with booms over 61 cm (2 ft) only) Locknuts (with booms over 61 cm (2 ft) only)	1 1 2 2	Install the safety bar.
3	No parts required	–	Install the spoils auger.
4	No parts required	–	Check the bearing case lube level.

1

Installing the Boom and Digging Chain

Parts needed for this procedure:

1	Boom assembly (sold separately)
1	Chain assembly (sold separately)

Procedure

1. Raise the trencher about 15 cm (6 inches) off the ground.
2. Stop the engine and remove the key.
3. Remove the bolt and nut securing the spoils auger and remove the auger (Figure 3).

   Note: Retain the bolts and nuts for installation later.

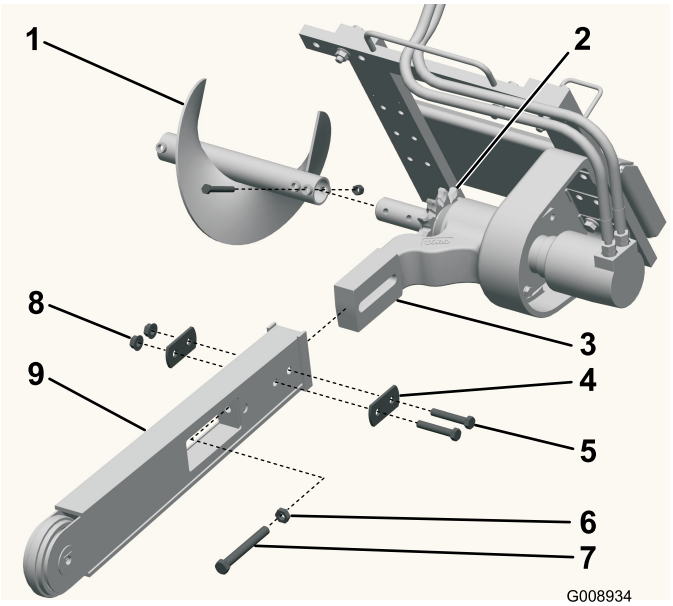


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Figure 3

1. Spoils auger
2. Drive sprocket
3. Arm on the drive head
4. Double washer
5. Bolts
6. Jam nut
7. Adjusting bolt
8. Nuts
9. Boom

4. Remove the 2 bolts, nuts, and double washers from the sides of the boom (Figure 3).
5. Loosen the adjusting bolt and jam nut (Figure 3).
6. Slide the boom over the arm on the drive head.
7. Install the 2 bolts, nuts, and double washers removed previously through the boom and arm, but do not tighten them.

8. If the chain is not connected, connect the links by pressing or hammering the clevis pin supplied with the chain through the links.

   Important: To avoid bending the chain links, place blocks under and between the links when hammering the clevis pin through.

9. Secure the clevis pin with the cotter pin supplied with the chain.
10. Loop the digging chain over the auger drive shaft and onto the drive sprocket, ensuring that the digging teeth point forward on the upper span.
11. Set the upper span of the chain into place on the trencher boom, then wrap the chain around the roller at the end of the boom.
12. Thread the adjustment bolt into the boom and turn it in until there is 3.8 to 6.3 cm (1-1/2 to 2-1/2 inches) of slack in the chain on the bottom span.
13. Thread the jam nut down the adjusting bolt and tighten it securely against the boom.
14. Torque the 2 bolts and nuts securing the boom to 183 to 223 N-m (135 to 165 ft-lb).

2

Installing the Safety Bar

Parts needed for this procedure:

1	Safety bar
1	Safety bar extension (with booms over 61 cm (2 ft) only)
2	Bolts (with booms over 61 cm (2 ft) only)
2	Locknuts (with booms over 61 cm (2 ft) only)

Procedure

1. Remove the 3 bolts, washers, and flange nuts from the upper left corner of the trencher frame (Figure 4).

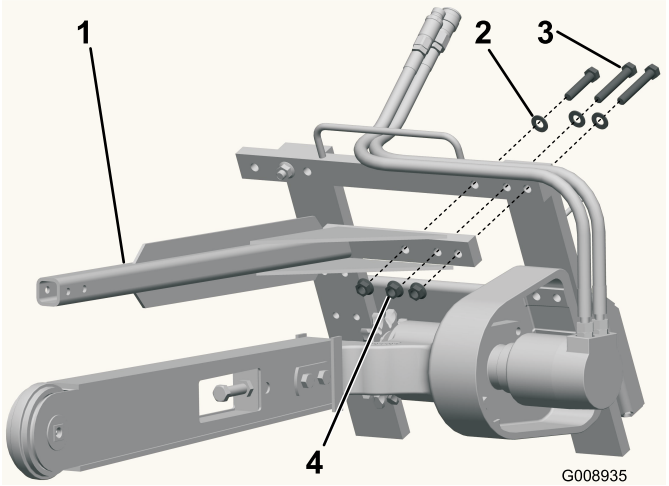

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Figure 4

1. Safety bar
2. Washers
3. Bolts
4. Flange nuts

2. Using the fasteners removed previously, install the trencher safety bar as illustrated in (Figure 4).
3. Torque the bolts and nuts to 257 to 311 N-m (190 to 230 ft-lb).
4. If you have a boom over 61 cm (2 ft), secure the safety bar extension (supplied with the boom) over the end of the safety bar and secure it using the 2 bolts and locknuts supplied with the extension.

3

Installing the Spoils Auger

No Parts Required

Procedure

Before operating the trencher, install and position the spoils auger to work correctly with the digging chain configuration you are using. If you do not position the spoils auger correctly, you could damage the trencher.

1. Use the bolt and nut removed from the auger previously to secure it in the correct holes, as described in the following list:

   Note: Refer to (Figure 5) when performing this procedure.

   - 10 cm (4 inch) chain configuration

     Using the hole closest to the auger blade in the end of the auger with 2 holes, connect the auger to the inner hole on the shaft.

   - 15 cm (6 inch) chain configuration

Using the hole farthest from the auger blade in the end of the auger with 2 holes, connect the auger to the inner hole on the shaft.

- 20 cm (8 inch) chain configuration

  Using the end of the auger with 1 hole, connect the auger to the inner hole on the shaft.

- 25 or 30 cm (12 inch) chain configuration

  Using the end of the auger with 1 hole, connect the auger to the outer hole on the shaft.

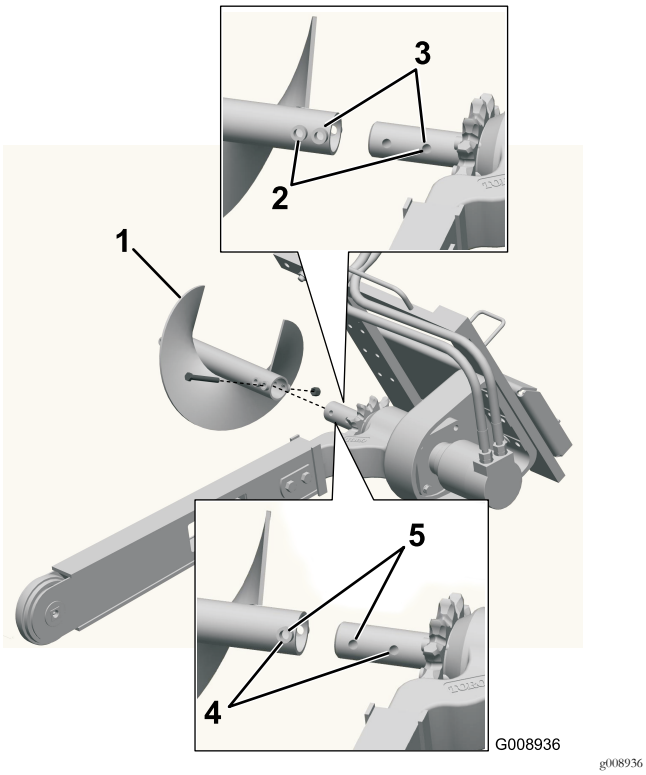

Figure 5

1. Auger
2. Connect these holes for a 10 cm (4 inch) chain
3. Connect these holes for a 15 cm (6 inch) chain
4. Connect these holes for a 20 cm (8 inch) chain
5. Connect these holes for a 30 cm (12 inch) chain

2. Torque the bolt and nut to 101 N-m (75 ft-lb).

4

Checking the Bearing Case Lube Level

No Parts Required

Procedure

Before operating the trencher, check to ensure that the bearing case is filled with gear lube.

1. Stop the engine and remove the key.
2. Clean the area around the fill-hole plug on the bearing case (Figure 6).

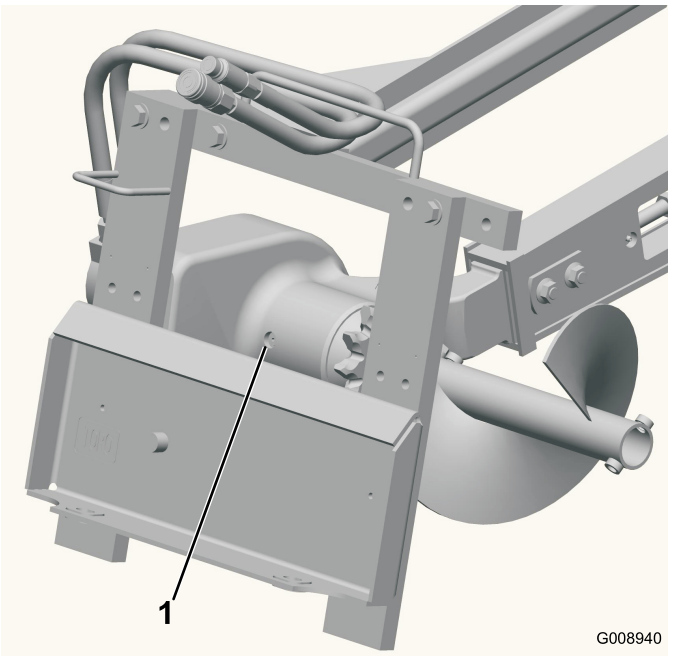

Figure 6

1. Fill-hole plug on the bearing case

3. Remove the plug from the bearing case fill hole (Figure 6).
4. Look in the hole and check the level of gear lube in the bearing case.

   Note: The level should be up to the bottom of the hole; if it is not, add gear lube. Refer to; 4 Checking the Bearing Case Lube Level (page 8)
5. Replace the plug and torque it to 20 to 23 N-m (15 to 17 ft-lb).

Product Overview

Specifications

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

Width, with 91 cm (3 ft) boom	35 inches (89 cm)
Length, with 91 cm (3 ft) boom	165 cm (65 inches)
Height, with 91 cm (3 ft) boom	61 cm (24 inches)
Weight, with 91 cm (3 ft) boom	177 Kg (390 lb)
Maximum trench depth, 61 cm (2 ft) boom	61 cm (24 inches) at a 65 degree boom angle
Maximum trench depth, 91 cm (3 ft) boom	91 cm (36 inches) at a 65 degree boom angle
Maximum trench depth, 122 cm (4 ft) boom	122 cm (48 inches) at a 65 degree boom angle

Attachments/Accessories

A selection of Toro approved attachments and accessories are 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.

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.

Digging a Trench

1. If your traction unit has a speed selector, set it to the slow (turtle) position, then start the engine.
2. Pull the auxiliary hydraulics lever to the operator grip to engage the trencher.
3. Slowly lower the trencher to the ground so that the boom and chain are parallel to the ground.
4. Begin inserting the nose of the boom and chain into the ground by slowly raising the trencher a few centimeters (inches) off the ground while tilting the nose down into the ground gradually.
5. Once the trencher boom is in the ground at a 45 to 60 degree angle, slowly lower the trencher until the spoils auger is just above the ground.
6. Ensure that all parts of the trencher are functioning correctly.
7. Slowly move the traction unit rearward to extend the trench.

   Note: If you move too fast, the trencher will stall. If it stalls, raise it slightly, slowly drive forward, or reverse the chain direction momentarily.
8. When finished, raise the trencher and boom out of the trench by tilting the attachment rearward, then stop the trencher by moving the auxiliary hydraulics lever into neutral.

Offsetting the Trencher

You can move the trencher to the right side of the trencher frame to allow you to trench close to buildings and other obstacles.

1. Lower the trencher to the ground, stop the engine, and disconnect the hydraulic lines from the trencher.

⚠ 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 or gangrene may result.

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

2. Remove the 6 bolts securing the trencher head to the frame (Figure 7).

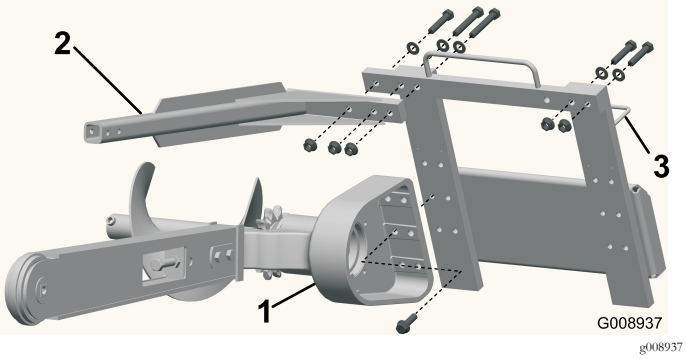

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Figure 7

1. Trencher head (simplified for illustrative purposes)
2. Safety bar
3. Side-hose guide

3. Move the frame to the left, aligning the holes in the right side of the frame with those in the head.
4. Attach the head to the frame with the 6 bolts removed previously (Figure 7).
5. Torque the bolts to 257 to 311 N-m (190 to 230 ft-lb).
6. Remove the 3 bolts, washers, and flange nuts from the safety bar and remove the bar (Figure 7).
7. Remove the 2 short bolts, washers, and flange nuts securing the right side of the upper frame and move them to the corresponding holes on the left (Figure 7).
8. Install the safety bar over the trencher chain using the 3 bolts, washers, and flange nuts removed previously (Figure 7).
9. Torque all 5 bolts and nuts to 257 to 311 N-m (190 to 230 ft-lb).
10. Move the hoses from the hose guide on top of the trencher to the hose guide on the left side (Figure 7).

Transporting the Trencher on a Trailer

Place the trencher on a trailer or truck capable of carrying it. Securely tie the trencher to the trailer or truck using tie straps appropriate for the weight of the trencher and for highway use.

Operating Tips

- Clean the area of trash, branches and rocks before trenching to prevent equipment damage.
- Always begin trenching with the slowest ground speed possible. Increase speed if conditions permit.
- Always use full throttle (maximum engine speed) when trenching.
- Always trench backward (i.e., in reverse).
- Never transport the trencher with the loader arms raised. Keep the arms lowered and the trencher tilted up.
- When trenching, the spoils auger should just clear the original ground surface to obtain maximum soil removal.
- Trench at a 45 to 60 degree angle for best results.
- You will be able to dig a trench faster by controlling the depth with periodic adjustments of the loader arms.
- If your traction unit has a speed selector (present on some wheeled traction units), set it to the slow (turtle) position.
- If your traction unit has a flow divider (present on some wheeled traction units), adjust it to approximately the 10 o'clock position.
- If the trencher binds in the soil, push the auxiliary hydraulics lever fully forward to reverse the chain direction. Once the chain is loose, pull the lever rearward again and continue trenching.
- If you need the finished trench to be cleaner than what is possible with the trencher, you can purchase a crumber from your dealer. The crumber mounts onto the trencher and scrapes the trench clean as you run the trencher.
- To improve the quality of trenches less than 61 cm (24 inches) deep, use a 61 cm (24 inch) boom on the trencher.

Maintenance

Recommended Maintenance Schedule(s)

Maintenance Service Interval	Maintenance Procedure
Before each use or daily	• Grease the trencher. • Inspect the boom for wear.
Every 25 hours	• Check the gear-lube level. • Adjust the digging chain tension. • Inspect the boom for wear.
Every 200 hours	• Change the gear lube.
Before storage	• Grease the trencher. • Check the gear-lube level.

⚠ CAUTION

If you leave the key in the ignition switch, someone could start the engine. 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 the Trencher

Service Interval: Before each use or daily

Before storage

Grease 2 fittings, as shown in Figure 8 and Figure 9, every day and immediately after every washing.

Grease Type: General-purpose grease

1. Stop the engine and remove the key.
2. Clean the grease fittings with a rag.
3. Connect a grease gun to each fitting.
4. Pump grease into the fittings until grease begins to ooze out of the bearings.
5. Wipe up any excess grease.

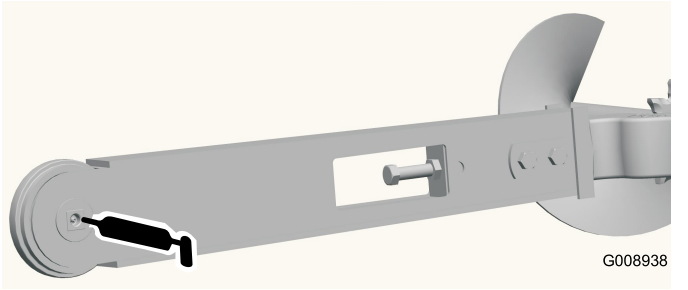

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Figure 8

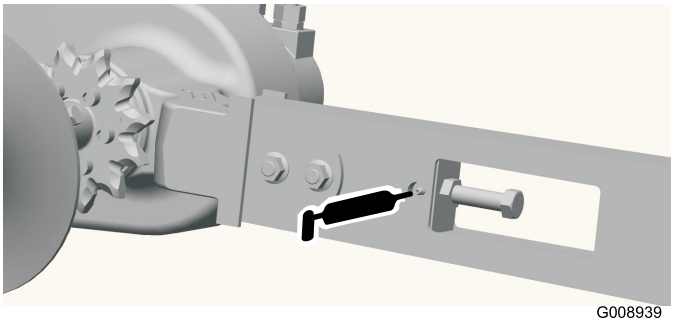

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Figure 9

Servicing the Bearing Case Lube

Service Interval: Every 25 hours—Check the gear-lube level.

Every 200 hours—Change the gear lube.

Before storage—Check the gear-lube level.

Checking the Bearing Case Lube Level

Gear lube type: SAE 90-140 API service GL-4 or GL-5

Refill capacity: 1/2 L(1 pint).

1. Lower the trencher to the ground on a flat, level surface and tilt it so that the boom is parallel with the ground.
2. Stop the engine and remove the key.
3. Clean the area around the fill-hole plug on the bearing case (Figure 10).

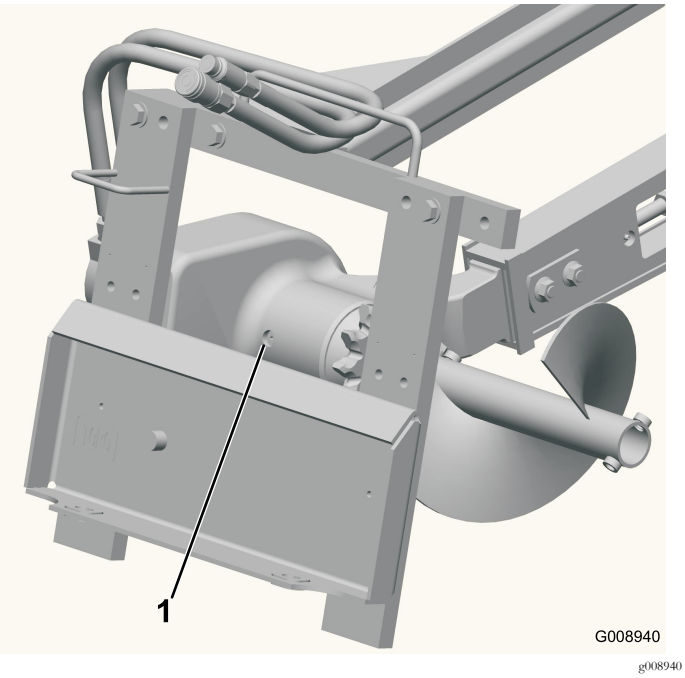

Figure 10

1. Fill-hole plug on the bearing case

4. Remove the plug from the fill hole (Figure 10).
5. Look in the hole and check the level of gear lube in the bearing case.

   Note: The level should be up to the bottom of the hole; if it is not, add gear lube. Refer to; Checking the Bearing Case Lube Level (page 11)
6. Replace the plug and torque it to 20 to 23 N-m (15 to 17 ft-lb).

Changing the Gear Lube

1. Clean the area around the fill-hole plug on the bearing case (Figure 10).
2. Remove the plug from the fill hole (Figure 10).
3. Lift the trencher until the boom is vertical, draining the lube through the fill hole and into a pan.
4. Return the trencher to the ground.
5. Fill the bearing case with gear lube until it comes out of the fill hole.
6. Replace the plug and torque it to 20 to 23 N-m (15 to 17 ft-lb).

Adjusting the Digging Chain Tension

Service Interval: Every 25 hours—Adjust the digging chain tension.

With the trencher parallel to the ground, ensure that there are 3.8 to 6.3 cm (1-1/2 to 2-1/2 inches) between the bottom of the boom and the top of the bottom chain span. If not, adjust the chain using the following procedure:

Important: Do not overtighten the chain. Excess chain tension may damage drive components.

1. Loosen the 2 bolts and nuts securing the boom to the trencher arm (Figure 3).
2. Loosen the jam nut securing the adjustment bolt (Figure 3).
3. Turn the adjustment bolt in or out as needed to achieve the desired tension.
4. Tighten the jam nut.
5. Torque the 2 bolts and nuts securing the boom to 183 to 223 N-m (135 to 165 ft-lb).

Flipping a Worn Boom

Service Interval: Every 25 hours—Inspect the boom for wear.

Inspect the bottom of the boom for wear, if it is worn, complete the following:

Note: If you have already flipped the boom once, replace the boom when both sides are worn.

1. Remove the 2 bolts and nuts securing the boom to the trencher arm (Figure 3).
2. Loosen the jam nut on the adjusting bolt in the boom (Figure 3).
3. Loosen the adjusting bolt until you can remove the chain from the boom (Figure 3).
4. Remove the chain from the drive sprocket.
5. Remove the boom, flip it over so the bottom becomes the top (or if you have already flipped it once, replace it), and install the boom again.
6. Replace the nuts, bolts, and washers securing the boom.
7. Install the chain over the drive sprocket and front roller.
8. Adjust the chain tension; refer to Adjusting the Digging Chain Tension (page 12).

Replacing the Digging Teeth

Service Interval: Before each use or daily—Inspect the boom for wear.

Due to the high amount of wear placed on the digging teeth, you will need to replace them periodically.

To replace a single tooth, remove the bolts securing the tooth to remove it, then install a new tooth in the same position. Torque the bolts securing the teeth to 37 to 45 N-m (27 to 33 ft-lb).

Replacing the Drive Sprocket

Over time, the drive sprocket will wear, especially when used in sandy or clay soils. When this happens, the digging chain will begin to slip. If the chain slips, replace the drive sprocket as follows:

1. Raise the trencher a few centimeters (inches) above the ground.
2. Stop the engine and remove the key.
3. Remove the spoils auger (Figure 11).

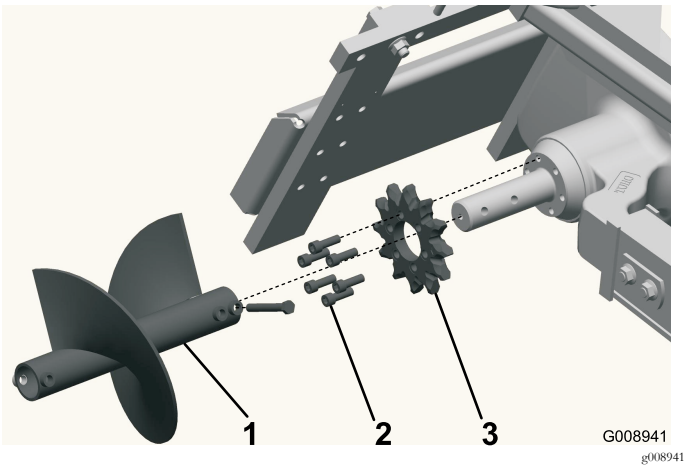

Figure 11

1. Spoils auger
2. Drive sprocket
3. Bolts

4. Loosen the 2 bolts and nuts securing the boom to the trencher arm (Figure 3).
5. Loosen the jam nut on the adjusting bolt in the boom (Figure 3).
6. Loosen the adjusting bolt until you can remove the chain from the boom (Figure 3).
7. Remove the chain from the drive sprocket.
8. Remove the 6 bolts securing the drive sprocket (Figure 11).
9. Remove and discard the drive sprocket (Figure 11).
10. Clean the sprocket mounting surface on the trencher.
11. Slide the new sprocket onto the shaft as illustrated in (Figure 11).

    Important: The arrow on the sprocket face should be visible from the right side of the trencher and should point in a clockwise direction; if not, turn the sprocket around.

12. Thread the 6 bolts into the sprocket finger tight (Figure 11).
13. Slowly begin tightening the bolts progressing around the sprocket until all bolts are torqued to 129 to 155 N-m (95 to 115 ft-lb).

    Important: Tighten each bolt only half way first, working your way around the 6 bolts, then return to each bolt in turn and torque them to the specifications given in step 13.

14. Loop the chain over the auger drive shaft and onto the drive sprocket, ensuring that the teeth point forward on the upper span.
15. Set the upper span of the chain into place on the trencher boom, then wrap the chain around the roller at the end of the boom.
16. Thread the adjustment bolt into the boom and turn it in until there is 3.8 to 6.3 cm (1-1/2 to 2-1/2 inches) of slack in the chain on the bottom span.
17. Thread the jam nut down the adjusting bolt and tighten it securely against the boom.
18. Torque the 2 bolts and nuts securing the boom to 183 to 223 N-m (135 to 165 ft-lb).
19. Install the spoils auger; refer to 3 Installing the Spoils Auger (page 7).

Storage

1. Before long term storage, brush the dirt from the attachment.
2. Check the condition of the digging chain. Adjust the digging chain tension; refer to Adjusting the Digging Chain Tension (page 12). Replace any worn or damaged teeth; refer to Replacing the Digging Teeth (page 12).
3. Grease the trencher; refer to Greasing the Trencher (page 11)
4. Check bearing case lube level; refer to Checking the Bearing Case Lube Level (page 11).
5. Check and tighten all bolts, nuts, and screws. Repair or replace any part that is damaged or worn.
6. Ensure that all hydraulic couplers are connected together to prevent contamination of the hydraulic system.
7. Paint all scratched or bare metal surfaces. Paint is available from your Authorized Service Dealer.
8. Store the trencher in a clean, dry garage or storage area. Cover the trencher to protect it and keep it clean.

Notes:

Notes:

Notes:

Declaration of Incorporation

The Toro Company, 8111 Lyndale Avenue 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
22473	315000001 and Up	High-Torque Trencher Head	HIGH TORQUE TRENCHER HEAD	Trencher	2006/42/EC
22474	315000001 and Up	High-Speed Trencher Head	HIGH TORQUE TRENCHER HEAD	Trencher	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
8111 Lyndale Ave. South
Bloomington, MN 55420, USA
February 4, 2015

EU Technical Contact:

Marcel Dutrieux
Manager European Product Integrity
Toro Europe NV
Nijverheidsstraat 5

2260 Oevel
Belgium

Tel. +32 16 386 659

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.

The Toro Underground Warranty

A Limited Warranty

Underground Equipment

Conditions and Products Covered

The Toro Company and its affiliate, Toro Warranty Company, pursuant to an agreement between them, jointly warrant your Toro Underground Equipment ("Product") to be free from defects in materials or workmanship. Where a warrantable condition exists, we will repair the Product at no cost to you including diagnostics, labor, and parts.
The following warranty applies from the date the Product is delivered to the original retail purchaser or rental owner.

Products	Warranty Period
Engine Powered Units & Fluid Mixers	1 year or 1000 operating hours, whichever occurs first
All Serialized Attachments	1 year
Rock Hammer	6 months
Engines	Through engine manufacturers: 2 years or 2000 operating hours, whichever occurs first

Instructions for Obtaining Warranty Service

You are responsible for notifying the Underground Dealer from whom you purchased the Product as soon as you believe a warrantable condition exists. If you need help locating a Underground Dealer, or if you have questions regarding your warranty rights or responsibilities, you may contact us at:

Toro Customer Care
Toro Warranty Company
8111 Lyndale Avenue South
Bloomington, MN 55420-1196
Toll Free at 855-493-0088 (U.S. Customers)
1-952-948-4318 (International Customers)

Owner Responsibilities

As the Product owner, you are responsible for required maintenance and adjustments stated in your *Operator's Manual*. 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 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, or modified non-Toro branded accessories and products. A separate warranty may be provided by the manufacturer of these items.
- Product failures which result from failure to perform recommended maintenance and/or adjustments. Failure to properly maintain your Toro product per the Recommended Maintenance listed in the *Operator's Manual* can result in claims for warranty being denied.
- 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: brakes, filters, lights, bulbs, belts, tracks or tires, digging teeth, digging booms, digging, drive, or track chains, track pads, drive sprockets, idlers, rollers, blades, cutting edges, or other ground engaging components.
- Failures caused by outside influence. Conditions considered to be outside influence include, but are not limited to, weather, storage practices, contamination, use of unapproved fuels, coolants, lubricants, additives, water, or chemicals, etc.
- Failure or performance issues due to the use of fuels (e.g. gasoline, diesel, or biodiesel) that do not conform to their respective industry standards.
- Normal noise, vibration, wear and tear, and deterioration.
- Normal "wear and tear" includes, but is not limited to, damage to seats due to wear or abrasion, worn painted surfaces, scratched decals, etc.
- Hauling expenses, travel time, mileage, or overtime associated with transporting product to the authorized Toro dealer.

Parts

Parts scheduled for replacement as required maintenance in the *Operator's Manual,* are warranted for the period of time up to the scheduled replacement time for that part. Parts replaced under this warranty are covered for the duration of the original product warranty and become the property of Toro. Toro will make the final decision whether to repair any existing part or assembly or replace it. Toro may use remanufactured parts for warranty repairs.

Maintenance is at Owner's Expense

Engine tune-up, lubrication, cleaning and polishing, replacement of filters, coolant, and completing recommended maintenance are some of the normal services Toro products require that are at the owner's expense.

General Conditions

Repair by an Authorized Toro Underground 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. Except for the Emissions warranty referenced below, if applicable, there is no other express 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.

Note regarding engine 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) and/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 Engine 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 exported from 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 Underground Dealer's service or have difficulty obtaining guarantee information, contact the Toro importer.

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