Form No. 3353-820 Rev A

Auger and Universal Swivel Auger Drive Head

for Compact Utility Loaders

Model No. 22802—Serial No. 220000001 & Up
Model No. 22803—Serial No. 220000001 & Up

Operator's Manual

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.

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

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 ⚠

Contact with a moving auger can cause entanglement, severe wounds, and/or death.

Keep all others at least 10 feet away from the auger during operation. Also, do not replace the supplied bolt which secures the auger to the drive head with a longer bolt as this may increase the chance for entanglement.

⚠ 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, attachments 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.

8111 Lyndale Avenue South
Bloomington, MN 55420-1196

Contact us at www.Toro.com

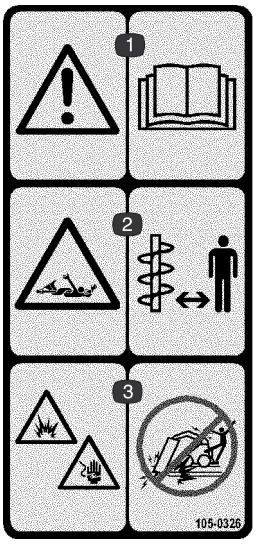
Warning

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.

Safety and Instruction 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.



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1. Warning—read the *Operator's Manual.*
2. Entanglement hazard, shaft—keep bystanders a safe distance from the auger.
3. Explosion and electric shock hazards—do not dig in areas with buried gas or electrical lines.

Specifications

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

Model 22802

Width	24 inches (61 cm)
Length	16-1/2 inches (42 cm)
Height	22 inches (56 cm)
Weight (without auger)	215 lb (98 Kg)
Maximum auger dia.	30 inches (76 cm)
Motor displacement	11.9 in^3/rev (29 cm^3/rev)
Motor rated pressure	3000 PSI Continuous (211 Kg/cm^2)
Motor flow range	0–20 GPM (38–76 LPM)
Drive ratio	3.75:1
Output shaft diameter	2-9/16 inches (6.5 cm)

Model 22803

Width	24 inches (61 cm)
Length	19.3 inches (49 cm)
Height	22 inches (56 cm)
Weight (without auger)	243 lb (111 Kg)
Maximum auger dia.	15 inches (38 cm)
Motor displacement	8.0 in^3/rev (130 cm^3/rev)
Motor rated pressure	3000 PSI Continuous (211 Kg/cm^2)
Motor flow range	0–20 GPM (38–76 LPM)
Drive ratio	3.75:1
Output shaft diameter	2-9/16 inches (6.5 cm)

Stability Ratings

To determine the degree of slope you can traverse with the auger 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 slope can cause the traction unit to tip, possibly pinning or seriously injuring you or bystanders.

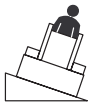
Do not drive the traction unit on a slope steeper than the maximum slope.

Stability With a 12 to 30 inch Auger

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

Important If you have a traction unit other than a TX compact utility loader, use the counterweight on the traction unit when using the auger drive head with a large auger installed. Failure to use the counterweight will cause the traction unit to become unstable.

Stability Without an Auger or with an Auger Smaller than 12 inches

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

Note: If you have a traction unit other than a TX compact utility loader, do not use the counterweight on the traction unit when using the auger drive head without an auger or with an auger smaller than 12 inches. If you use the counterweight, the traction unit will be less stable in the front and side uphill positions.

Setup

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

Note: Always use the traction unit to lift and move the drive head. To move an auger without the drive head, sling a strap over each end of the auger and hoist it to the desired location.

Loose/Separate/Optional Parts

Description	Qty.	Use
Auger (any size, sold separately)	1	Install auger on drive head
Bolt, 1/2 x 2-3/4 inch (model 22802)	1	
Flange nut, 1/2 inch (model 22802)	1	
Bolt, 1/2 x 2-3/4 inch (model 22803)	2	
Flange nut, 1/2 inch (model 22803)	2	
Bolt, 7/8 x 4-1/2 inch	1	
Nut, 7/8 inch	1	
Auger extension, bolt, and nut (optional product, sold separately)	1	Install between drive head and auger
Counterweight (sold separately)	1	Required for use with large diameter augers (not for use on TX compact utility loaders)

Installing an Auger onto the Drive Head

Warning

The auger head swings freely in the cradle arms. Your hands or fingers could get pinched and severely injured or amputated if they are caught between the cradle arms and the swinging drive head.

Keep your hands and fingers away from the cradle arms.

1. If you are installing an auger on model 22803 drive head, position the drive head vertically, slide a bolt (1/2 x 2-3/4 inch) into the holes in the front cradle arms, and secure it lightly with a flange nut (1/2 inch) (Fig. 2).

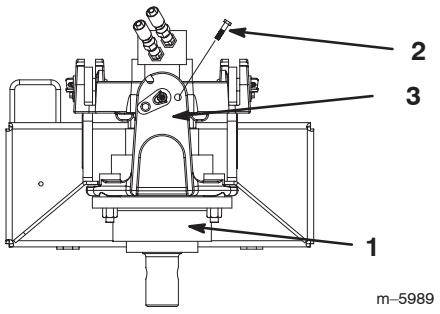


Figure 1

1. Drive head (front view)
2. Bolt
3. Front cradle arm

2. Raise the loader arms so the drive head clears the ground.
3. Stop the engine.
4. Manually rotate the auger drive head up, until you can slide a bolt (1/2 x 2-3/4 inch) into the hole in the cradle arm, securing the drive head. Lightly secure the bolt with a flange nut (1/2 inch) (Fig. 2).

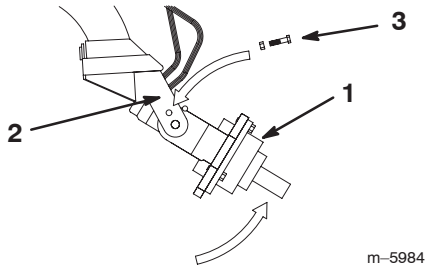


Figure 2

1. Drive head
2. Cradle arm
3. Bolt and flange nut

5. If using an extension with the auger, insert the end of the extension into the end of the auger and secure the auger to the extension with a bolt (7/8 x 4-1/2 inch) and nut (7/8 inch) (Fig. 3).

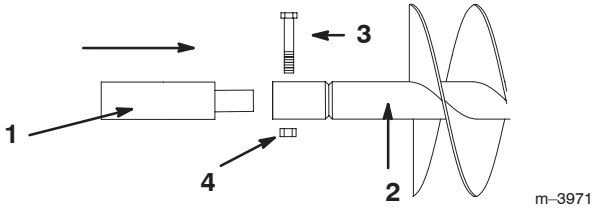


Figure 3

1. Extension
2. Auger shaft
3. Bolt, 7/8 x 4-1/2 inch
4. Nut, 7/8 inch

6. Start the engine.

7. Maneuver the drive shaft into the end of the auger shaft or extension (if applicable) (Fig. 4).

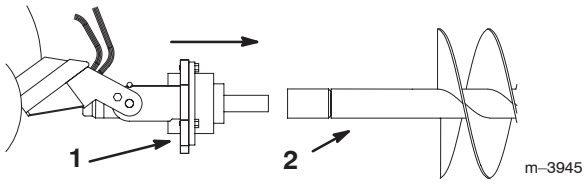


Figure 4

1. Drive head
2. Auger shaft

8. Stop the engine.
9. Secure the auger to the drive head with a bolt (7/8 x 4-1/2 inch) and nut (7/8 inch) (Fig. 5).
10. Remove the bolts and nuts from the cradle arms that were installed in steps 1 (if applicable) and 4 (Fig. 5).

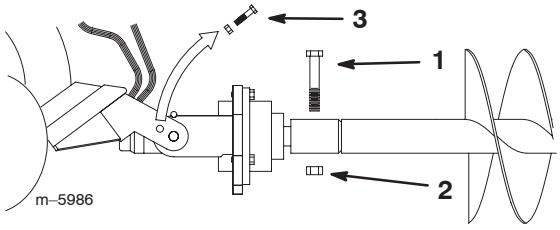


Figure 5

1. Bolt, 7/8 x 4-1/2 inch
2. Nut, 7/8 inch
3. Bolt(s) and nut(s)

11. Start the engine.
12. Raise the auger free of the ground (Fig. 6).
13. When the auger is vertical, tilt the attachment plate rearward, until the drive head contacts the attachment plate to stabilize the auger and keep it from swinging freely (Fig. 6).

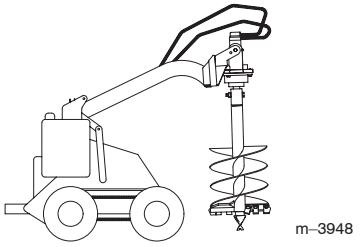


Figure 6

Removing an Auger/Extension from the Drive Head

1. Raise the loader arms so the auger comes out of the hole.

Note: If you have a 24 inch extension installed between the drive head and the auger, it may be necessary to raise the auger as high as possible and then move the traction unit backward to pull the auger the rest of the way out of the hole.

2. Set the auger down in its storage location.
3. While lowering the arms, drive slowly backwards until the auger is horizontal.
4. Stop the engine.
5. Remove the bolt and nut securing the drive head to the auger or extension.
6. Start the engine and back the traction unit away from the auger.
7. If an extension was used, remove the bolt and nut securing it and pull it off of the auger.

Operation

Digging a Hole

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.

Important Before digging, ensure that the ground is free of any trash or debris.

Important Do not use the auger unless the auger point and teeth are intact and in good condition.

1. Lower the auger to the soil at the site of the proposed hole.
2. Move the throttle lever to the Fast position.
3. If your traction unit has a speed selector lever, move it to the Slow position.
4. If your traction unit has a flow divider control, move it to the 10:00 o'clock position.

5. Pull the auxiliary hydraulics lever to the operator grip or reference bar to begin digging.

6. Lower the auger slowly as the soil is loosened. As you dig deeper, move the traction unit backward or forward as required to keep the auger vertical (Fig. 7).

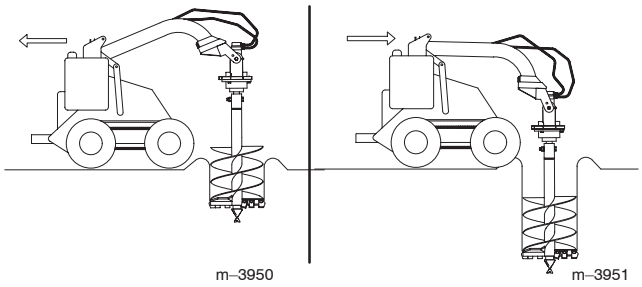


Figure 7

7. When the auger becomes full of soil, disengage the auger drive and lift the auger from the hole. Engage the auger drive to spin off the soil, then resume digging.

Note: Switching the auxiliary hydraulics lever rapidly from forward to reverse will help to shake off the soil.

Danger

If you are using model 22803, excessive downward force may cause the bit to wobble uncontrollably which could tip the traction unit. You or bystanders could be pined or seriously injured.

When using model 22803, do not use excessive downward pressure on the bit. Allow the bit to pull itself into the soil.

Maintenance

Recommended Maintenance Schedule

Maintenance Service Interval	Maintenance Procedure
Each Use	• Inspect the auger teeth and replace them if they are damaged or worn. • Grease the pivot points on the cradle arms.
25 hours	• Check the planetary gear case oil
1000 hours	• Change the planetary gear case oil.
Storage	• Inspect the auger teeth and replace them if they are damaged or worn. • Paint chipped surfaces

Caution

If you leave the key in the ignition switch, someone could start the engine, seriously injuring you or bystanders.

Remove the key from the ignition switch before performing any maintenance.

Greasing the Cradle Arm Pivot Points

Grease the fittings on the pivot points of the cradle arms before each use. Also, grease all fittings 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.

Checking Planetary Gear Case Oil

Check the oil level in the planetary gear case every 25 hours and top off the oil if necessary.

1. Place the auger drive head on the ground so that the drive shaft is parallel with the ground.
2. Rotate the drive head so that one of the oil drain plugs is located on top (Fig. 8).
3. Remove the upper oil drain plug (Fig. 8)
4. Rotate the auger drive head so that the drain opening is at the 2 o'clock position (Fig 8). Oil should just begin to come out of the opening.

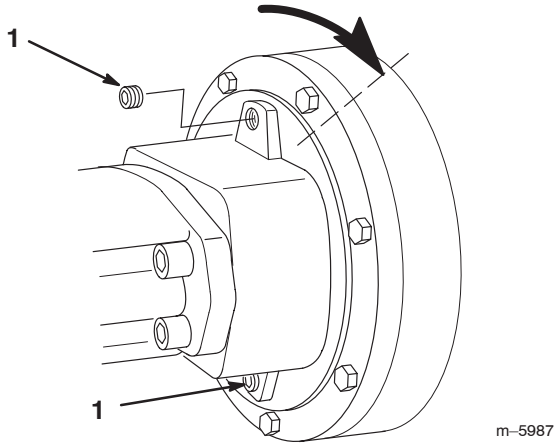


Figure 8

1. Drain plug

5. If no oil comes out of the opening, add oil (a mild, extreme pressure lubricant API–GL–5, number 80 or 90) until the oil starts to run out when the drain hole is at the 2 o'clock position.
6. Replace the drain plug.

Changing Planetary Gear Case Oil

Change the oil after the first 50 hours of operation and every 1000 hours thereafter. The planetary gear case requires 1.69 pints of a mild, extreme pressure lubricant, rated API–GL–5, number 80 or 90.

1. Support the drive head over an oil pan so that one of the oil drain plugs (Fig. 8) is on the bottom of the drive head, facing the oil pan.
2. Remove the bottom oil drain plug to drain the oil.
3. When the oil is completely drained, turn the drive head so that the oil drain opening is on the top of the drive head, facing the up.
4. Add 1.69 pints of a mild, extreme pressure lubricant, rated API–GL–5, number 80 or 90.
5. Replace the drain plug.

Storage

1. Before long term storage, wash the attachment with mild detergent and water.
2. Check and tighten all bolts, nuts, and screws. Repair or replace any damaged or worn part.
3. Ensure that all hydraulic couplers are connected together to prevent contamination of the hydraulic system.
4. Paint all scratched or bare metal surfaces. Paint is available from your Authorized Service Dealer.
5. Store the attachment in a clean, dry garage or storage area. Cover it to protect it and keep it clean.

Troubleshooting

Problem	Possible Causes	Corrective Action
Drive head does not operate.	1. Hydraulic coupler not completely connected	1. Check and tighten all couplers.
	2. Defective hydraulic coupler	2. Check couplers and replace any that are defective.
	3. An obstruction in a hydraulic hose	3. Find and remove the obstruction.
	4. Kinked hydraulic hose	4. Replace the kinked hose
	5. Contamination in the gearbox	5. Refer to your authorized service dealer.