



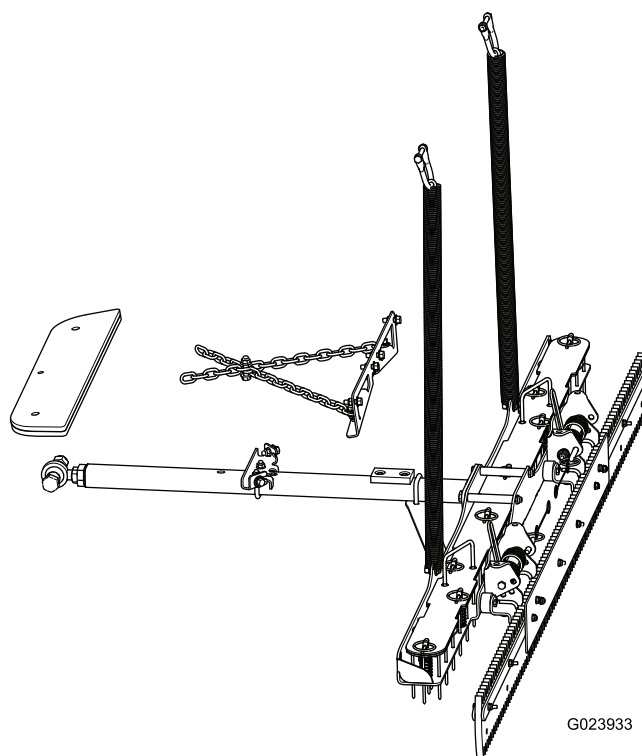
Count on it.

Form No. 3457-755 Rev A

Operator's Manual

Nail Drag Sand Pro® 2040Z Traction Unit

Model No. 08717—Serial No. 314000001 and Up



⚠ 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.



Figure 2

g000502

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.

Introduction

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. [Figure 1](#) illustrates the location of the model and serial numbers on the product. Write the numbers in the space provided.

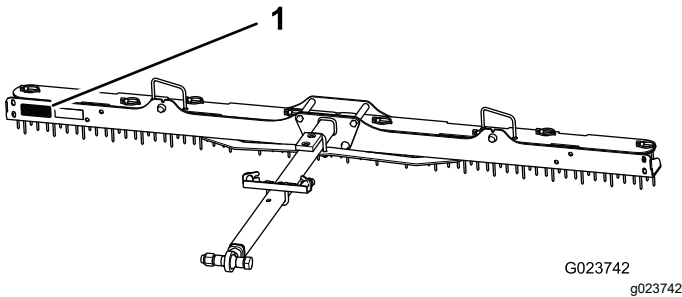


Figure 1

1. Location of the model and serial numbers

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.

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Setup

Loose Parts

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

Description	Qty.	Use
Drawbar	1	Assemble the nail drag.
Support brace	2	
Stop-chain assembly	1	
Bolt (3/8 x 4-1/2 inches)	2	
Bolt (3/8 x 3/4 inch)	4	
Locknut (3/8 inch)	6	
Long spacer	2	
Bolt (5/16 x 3/4 inch)	2	
Flange locknut (5/16 inch)	4	
U-bolt	1	
Lift chain	2	
Washer (3/8 inch)	2	
Nail	88	

Media and Additional Parts

Description	Qty.	Use
Bolt (5/16 x 2-1/2 inches)	2	Install the nail drag to the machine.
Flange locknut (5/16 inch)	2	
Shackle	2	
Bolt (3/4 x 4-1/2 inches)	1	
Locknut (3/4 inch)	1	
Short spacer	2	

Assembling the Nail Drag

Removing the Plates

1. Remove the lynch pins from the 8 clevis pins securing the nail plate and the top plates to the bottom plate (Figure 3).

Note: Retain the lynch pins for installing the nail plate and the top plates.

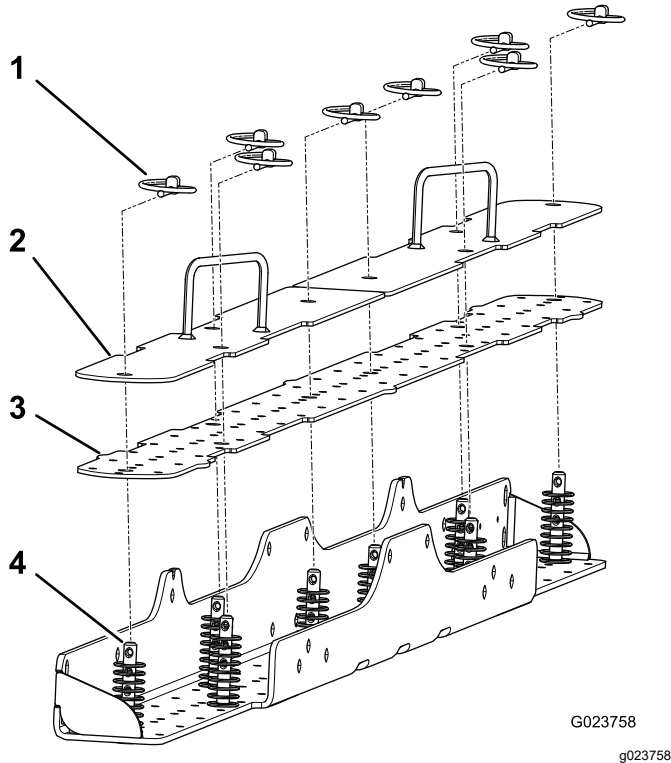


Figure 3

- | | |
|------------------|-------------------|
| 1. Lynch pin (8) | 3. Nail plate |
| 2. Top plate (2) | 4. Clevis pin (8) |

2. Remove the 2 top plates and the nail plate.

Attaching the Drawbar

1. While aligning 2 long spacers with the top bolt holes in the bottom plate, use 2 locknuts (3/8 inch) and 2 bolts (3/8 x 4-1/2 inches) to secure the drawbar to the bottom plate (Figure 4).

Note: To allow for access later when installing the top plates, do not tighten the top bolts and locknuts yet.

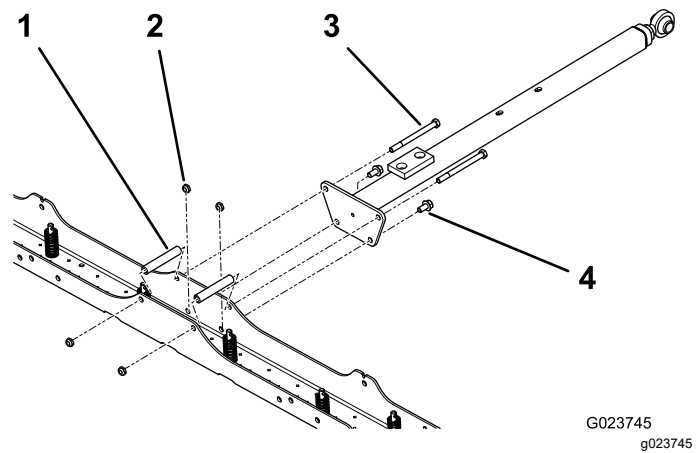


Figure 4

- | | |
|--------------------------|--------------------------------------|
| 1. Long spacer (2) | 3. Long bolt (3/8 x 4-1/2 inches), 2 |
| 2. Locknut (3/8 inch), 4 | 4. Short bolt (3/8 x 3/4 inch), 2 |
-
2. Insert 2 bolts (3/8 x 3/4 inch) through the bottom bolt holes in the bottom plate, and secure them with 2 locknuts (3/8 inch).

Attaching the Support Braces

1. Align the longer flat end of a support brace to the underside of the bottom plate so that the shorter flat end reaches the drawbar ([Figure 5](#)).

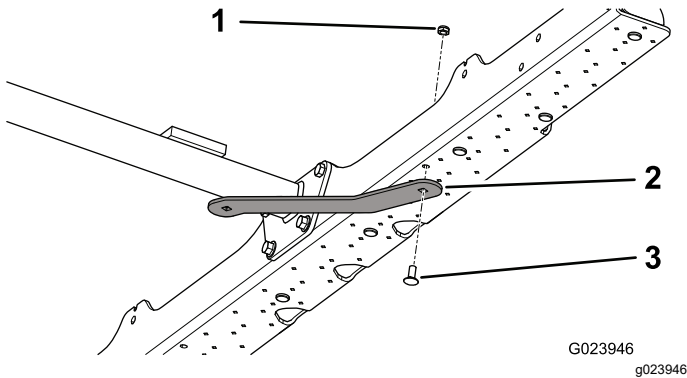


Figure 5

1. Flange locknut (5/16 inch)
2. Support brace
3. Bolt (5/16 x 3/4 inch)

2. Secure the support brace to the bottom plate with a bolt (5/16 x 3/4 inch) and a locknut (5/16 inch); refer to [Figure 5](#).
3. Repeat steps 1 and 2 for the other support brace.
4. Install a U-bolt over the top of the drawbar, and align the holes in the shorter flat ends of the support braces to the U-bolt ([Figure 6](#)).

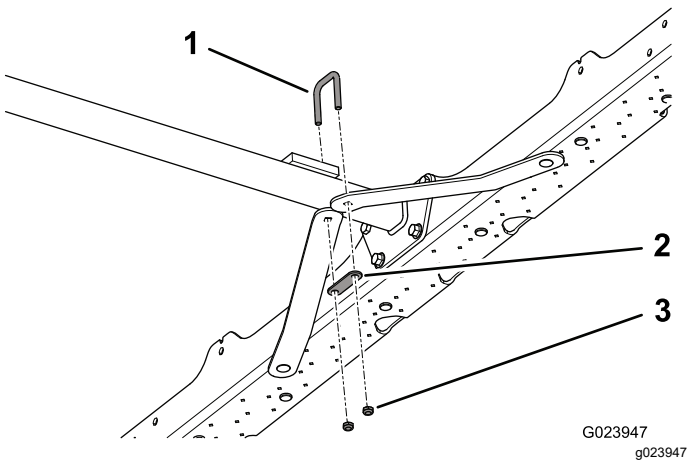


Figure 6

1. U-bolt
2. Strap
3. Flange locknut (5/16 inch), 2

5. Place the strap over the threaded ends of the U-bolt, and secure the U-bolt with 2 flange locknuts (5/16 inch); refer to [Figure 6](#).

Mounting the Stop-chain Assembly

1. Align the center tab on the drawbar bracket to the hole toward the rear of the drawbar ([Figure 7](#)).

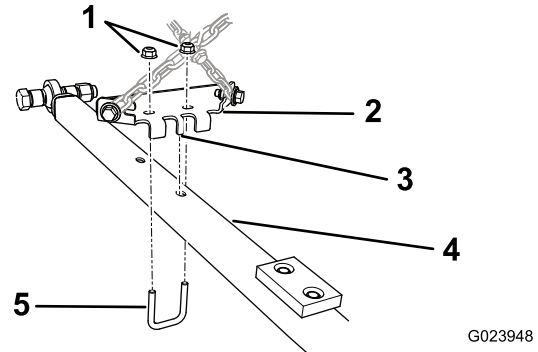


Figure 7

1. Flange locknut (5/16 inch)
2. Drawbar bracket
3. Center tab
4. Drawbar
5. U-bolt

2. Install the U-bolt, and secure it with 2 flange nuts (5/16 inch).

Mounting the Lift Chains

1. Insert a bolt (3/8 x 3/4 inch) through a lift chain, and secure it to the bottom plate with a washer (3/8 inch) and a locknut (3/8 inch); refer to [Figure 8](#).

Note: To ensure that the chain lengths do not change by rotating, ensure that the second link of the chain stays in the slot above the bolt hole, as shown in [Figure 8](#).

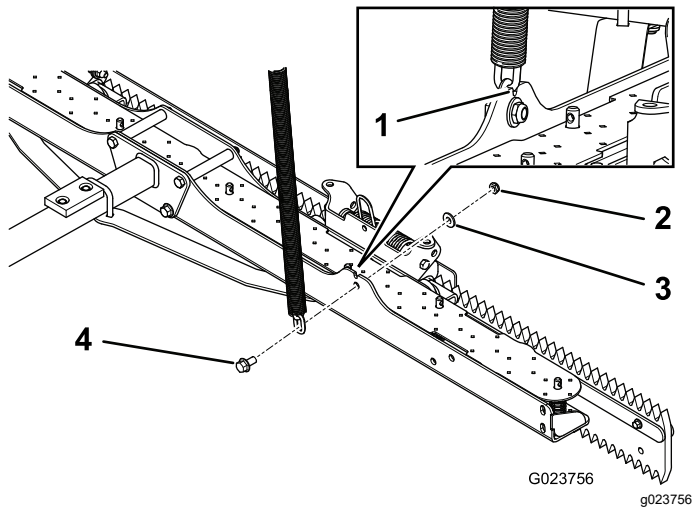


Figure 8

- | | |
|-----------------------|--------------------------|
| 1. Slot | 3. Washer (3/8 inch) |
| 2. Locknut (3/8 inch) | 4. Bolt (3/8 x 3/4 inch) |

2. Repeat step 1 for the other side.

Attaching the Finish Drag Mat (Optional, Sold Separately)

If you plan to install the finish drag mat, do so before installing the nails. Refer to the finish drag mat *Operator's Manual*.

Note: You can install the finish drag mat later, but you will need to remove various components of the nail drag to do so.

Installing the Nails

Before you install the nails, attach the nail drag to the machine so that you can raise it with the attachment lift; refer to [Attaching the Nail Drag to the Machine](#) (page 8).

1. Remove the top drawbar bolts, locknuts, and spacers.
2. Install the nail plate onto the clevis pins.
3. Install the top drawbar bolts, locknuts, and spacers, and tighten them until they are secure.
4. Start the machine, and raise the attachment lift so that the nail drag is up off the ground.

5. Insert the nails down through the nail plate and the bottom plate ([Figure 9](#)).

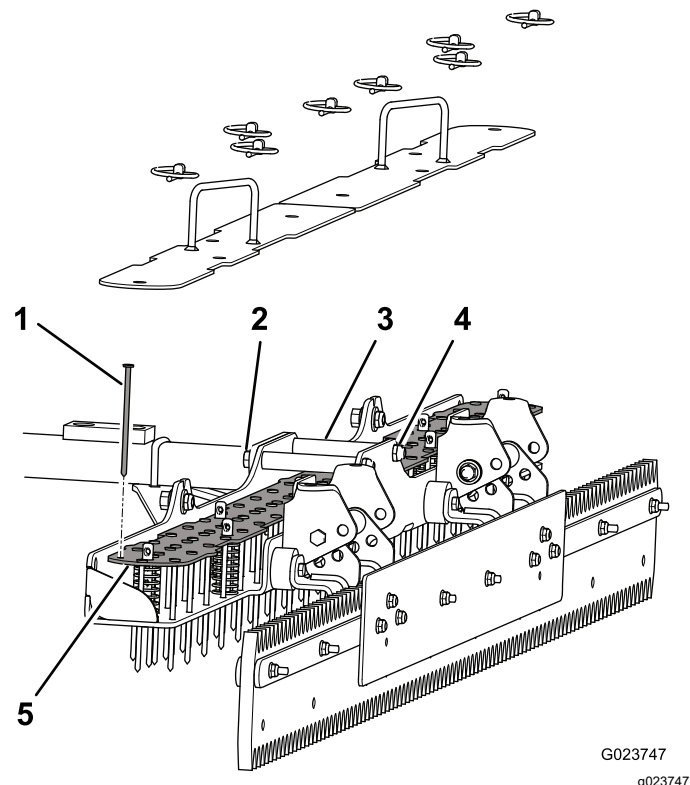


Figure 9

- | | |
|---------------------|----------------|
| 1. Nail (88) | 4. Locknut (2) |
| 2. Drawbar bolt (2) | 5. Nail plate |
| 3. Spacer (2) | |

6. Install the top plates.
7. Secure the top plates by installing the 8 lynch pins into the 8 clevis pins.

Product Overview

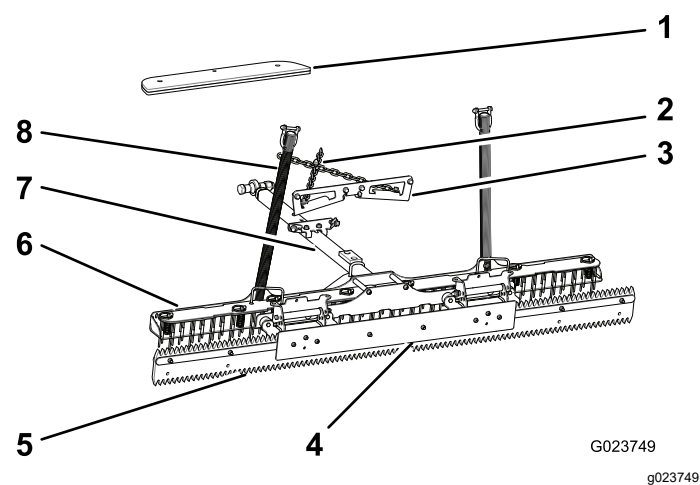


Figure 10

- 1. Front weights (2 included)
- 2. Stop-chain assembly
- 3. Frame bracket
- 4. Back blade
- 5. Groomer
- 6. Nail drag assembly
- 7. Drawbar
- 8. Lift chain (2)

Operation

Installing and Removing the Weights

Always ensure that your machine has the appropriate number of weights.

Refer to the following table for how many weights are required on the front of the machine:

Attachment	Number of weights required
Flex tooth rake	4
Nail drag	6
Nail drag with finish drag mat	8

1. Remove the 2 bolts and 2 nuts securing the existing weights on the front of the machine (Figure 11).

Note: If the machine is equipped with the light kit, remove the nut and the bolt securing the front light to the machine. Retain all of the parts; refer to the *Light Kit Installation Instructions*.

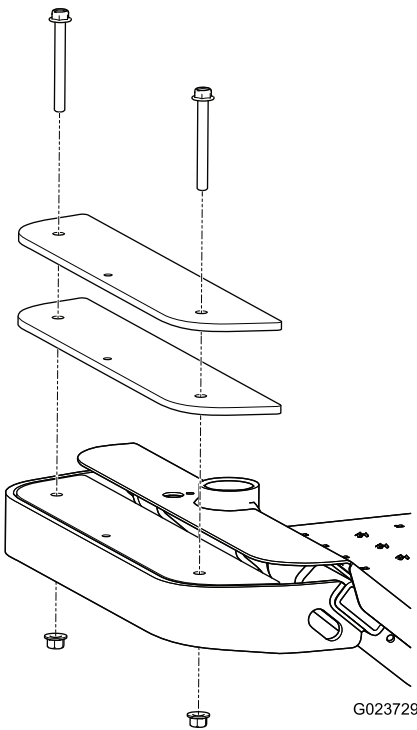


Figure 11

2. Add or remove weights as necessary.
3. Secure the weights with the 2 bolts and the 2 nuts.

The Finish Drag Mat includes 2 longer bolts to accommodate the additional weights that it requires.

Note: If the machine is equipped with the light kit, install the front light by inserting the bolt through the weights and securing it with the nut; refer to the *Light Kit Installation Instructions*.

Attaching the Nail Drag to the Machine

Connecting the Chains to the Attachment Lift

1. Position the drawbar under the machine.
2. Install a shackle on the end of each lift chain.
3. Align each shackle to the appropriate side of the attachment lift on the machine (Figure 12).

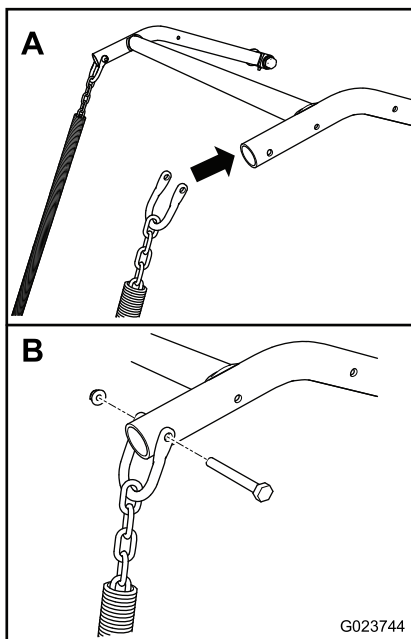


Figure 12

g023744

4. Secure each shackle with a flange locknut (5/16 inch) and a bolt (5/16 x 2-1/2 inches).

Note: Ensure that the threads of each bolt contact the nylon insert of the flange locknut, and that each shackle pivots freely.

Important: Ensure that the chains are not twisted inside the convoluted covering.

Connecting the Drawbar to the Frame Hitch

1. Align the rod end of the drawbar to the frame hitch (Figure 13).

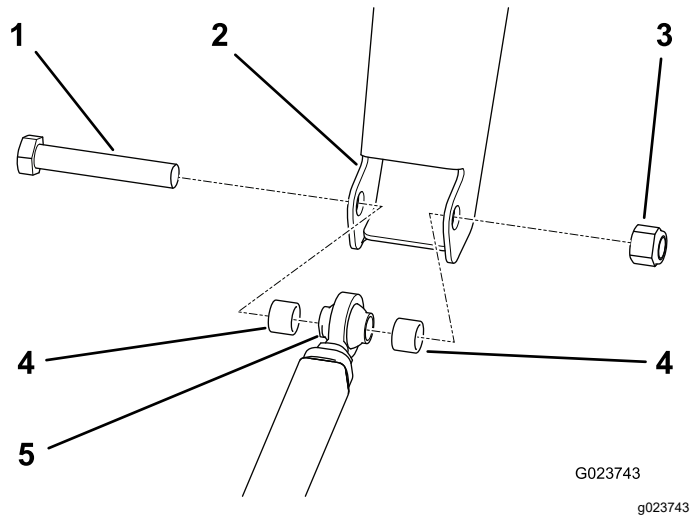


Figure 13

1. Bolt (3/4 x 4-1/2 inches)
2. Frame hitch
3. Locknut (3/4 inch)
4. Short spacer
5. Rod end

2. Align a spacer on each side of the rod end, and insert the bolt (3/4 x 4-1/2 inches) through the frame hitch, the rod end, and the spacers.
3. Secure the bolt with the locknut (3/4 inch) torqued to 163 to 217 N-m (120 to 160 ft-lb).

Connecting the Frame Bracket

1. Remove the nut and the bolt securing the muffler shield to the back of the machine (Figure 14).

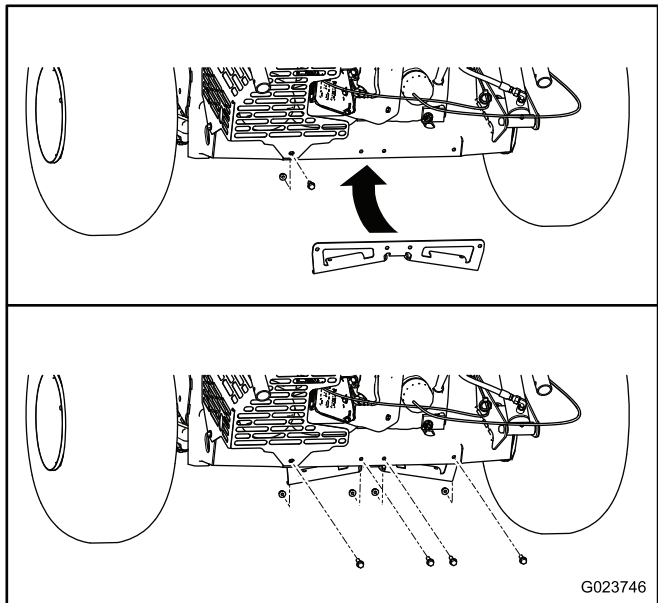


Figure 14

Bracket shown without chain, for clarity

2. Align the bolt holes in the frame bracket with the bolt holes in the frame.

Note: Ensure that the chains are crossed as shown in Figure 15.

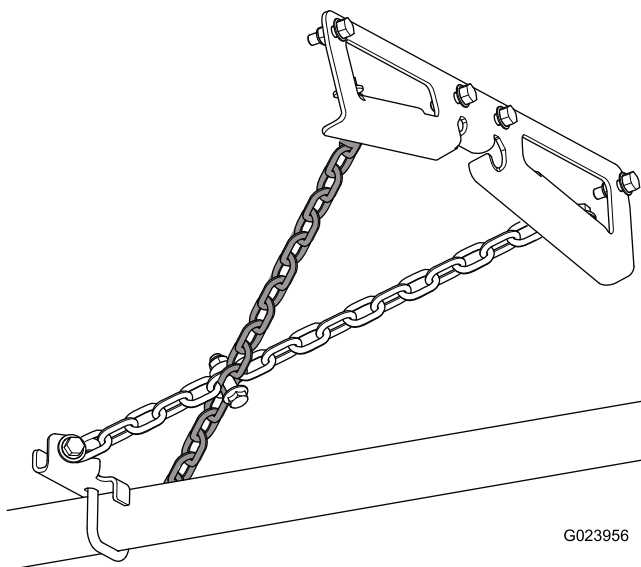


Figure 15

3. Secure the frame bracket with 4 bolts (5/16 x 1 inch) and 4 flange locknuts (5/16 inch); refer to Figure 14.

Removing the Nail Drag from the Machine

⚠ WARNING

If you drive the machine without an attachment installed, it can tip over and injure someone or damage property.

Do not drive the machine without a Toro-approved attachment installed.

1. Disconnect the drawbar from the frame hitch.
2. Disconnect the shackles from the attachment lift.
3. Remove the frame bracket from the rear of the machine.

Stowing the Groomer

If you want to use the nail drag without using the groomer, you can raise it up and out of the way.

1. Remove the clevis pins (Figure 16).

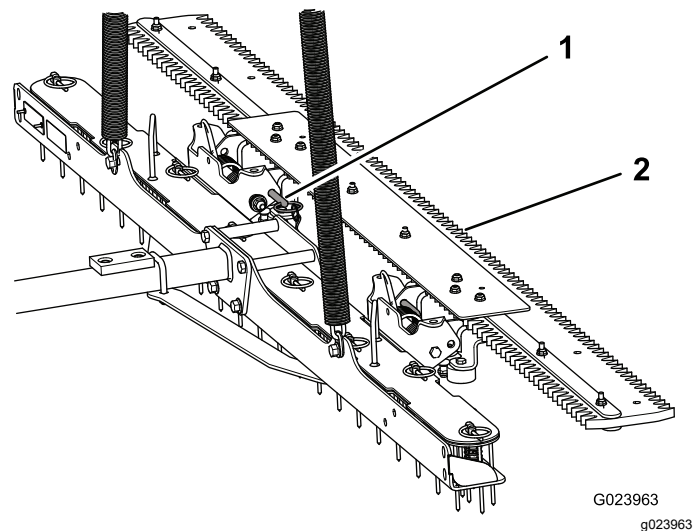


Figure 16

1. Clevis pin (2)
2. Groomer in stowed position
2. Tilt the groomer upward, and insert the clevis pins to secure it into that position.

Using the Back Blade

Driving backward while the groomer is in the lowered position pivots the groomer and the blade downward, and changes the angle of the blade. You can use the blade to push the material and fill voids and low spots. Push the material in front of the low spot, and simply drive forward over that area again to level the material.

Adjusting the Depth

Adjust the depth to suit your grooming conditions and preferences. You can also adjust the depth to compensate for worn nails.

Note: If you notice that the nail drag is carrying too much material, increase the depth to allow more material to flow through the nail drag.

1. Start the machine, and raise the attachment lift so that the nail drag is up off the ground.
2. Remove the lynch pins.
3. Set the depth to suit your grooming conditions and preferences.
 - To increase the depth, squeeze the top plates and the bottom plate together, so that the springs compress.
 - To decrease the depth, allow the springs to push the top plates and the bottom plate apart.

allows the nail drag and the groomer to fill the void more completely when leveling the surface.

- To increase the usable life of the groomer, you can remove it, flip it over, and install it again.

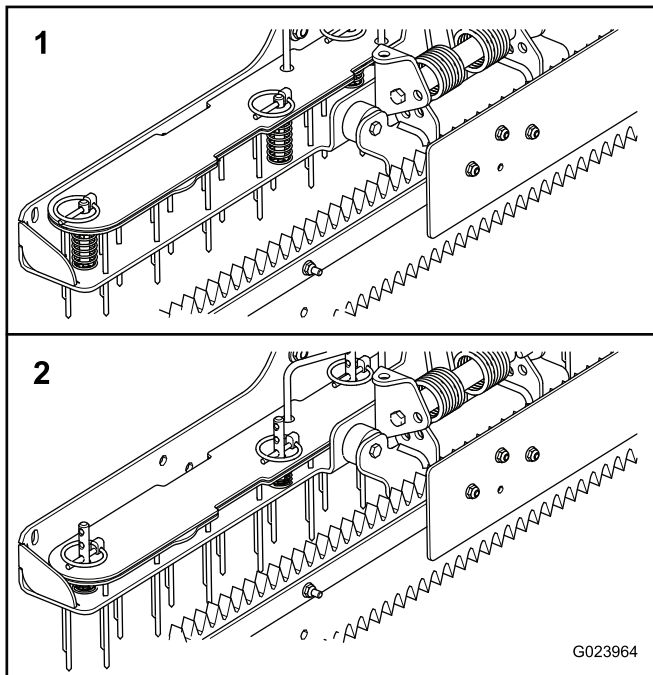


Figure 17

1. Less depth
2. More depth

4. Install the lynch pins into the desired holes in the clevis pins.

Note: Set all of the lynch pins to the same depth.

Operating Tips

- When using the back blade to fill voids, push the material so that it is just in front of the void. This

Maintenance

Replacing the Nails

1. Start the machine, and raise the attachment lift so that the nail drag is up off the ground.
2. Remove the lynch pins from the 8 clevis pins securing the top plates to the nail plate and the bottom plate ([Figure 18](#)).

Note: Retain the lynch pins for installing the top plates.

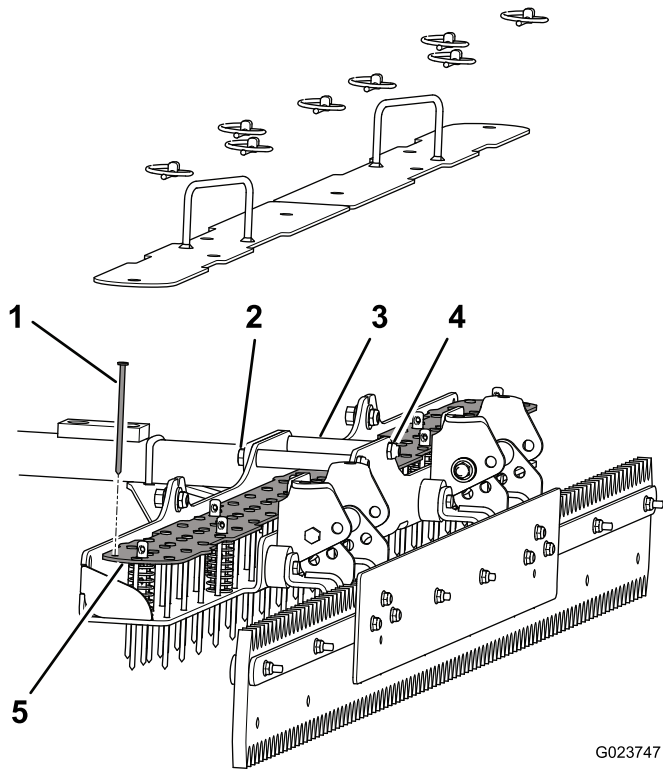


Figure 18

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g023747

3. Remove the top plates.

Note: You may need to loosen the top nuts and bolts securing the drawbar to the nail drag assembly; refer to [Figure 4](#).

4. Remove the old nails.
5. Insert the new nails down through the nail plate and the bottom plate.
6. Install the top plates and secure them with the lynch pins.
7. If you loosened the top nuts and bolts securing the drawbar to the nail drag assembly, tighten them.

Cleaning the Nail Drag

Keep the nail drag clean. Excessive soil buildup increases the attachment weight and may affect the handling of the machine.

Troubleshooting

Problem	Possible Cause	Corrective Action
The appearance of the groomed surface is unacceptable.	<ol style="list-style-type: none"> 1. The nail depth is not correct. 2. The desired appearance is not possible with the standard configuration. 3. The machine speed is too fast or too slow. 	<ol style="list-style-type: none"> 1. Adjust the nail depth or remove some nails if necessary. 2. Install the optional drag mat kit (sold separately). 3. Adjust the machine speed, or install the optional speed limiter kit (sold separately).
The nail drag contacts the tires.	<ol style="list-style-type: none"> 1. The stop chains are not assembled properly. 	<ol style="list-style-type: none"> 1. Ensure that the stop chains are crossed and that the bolt securing the chains is installed in the 6th link from the drawbar.
The nail drag is off center when grooming in a straight line (dog tracking).	<ol style="list-style-type: none"> 1. A lift chain is twisted inside the protective covering. 	<ol style="list-style-type: none"> 1. Remove the shackle, eliminate the twist in the chain, and install the shackle again.
There is material buildup in front of the attachment.	<ol style="list-style-type: none"> 1. The material is too wet. 2. More clearance is required to allow the material to flow through the nail drag. 	<ol style="list-style-type: none"> 1. Allow the material to dry before grooming. 2. Increase the nail depth or modify the pattern by removing some nails.

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
08717	314000001 and Up	Nail Drag for Sand Pro 2040Z Traction Unit	NAIL DRAG - SANDPRO 2040Z	Nail Drag	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:



Tom Langworthy
Engineering Director
8111 Lyndale Ave. South
Bloomington, MN 55420, USA
September 23, 2022

Authorized Representative:

Marcel Dutrieux
Manager European Product Integrity
Toro Europe NV
Nijverheidsstraat 5
2260 Oevel
Belgium

UK 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	Regulation
08717	314000001 and Up	Nail Drag for Sand Pro 2040Z Traction Unit	NAIL DRAG - SANDPRO 2040Z	Nail Drag	S.I. 2008 No. 1597

Relevant technical documentation has been compiled as required per Schedule 10 of S.I. 2008 No. 1597.

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.

This declaration has been issued under the sole responsibility of the manufacturer.
The object of the declaration is in conformity with relevant UK legislation.



Tom Langworthy
Engineering Director
8111 Lyndale Ave. South
Bloomington, MN 55420, USA
September 23, 2022

Authorized Representative:

Marcel Dutrieux
Manager European Product Integrity
Toro U.K. Limited
Spellbrook Lane West
Bishop's Stortford
CM23 4BU
United Kingdom



The Toro Total Coverage Guarantee

A 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 Commercial product ("Product") to be free from defects in materials or workmanship for two years or 1500 operational hours*, whichever occurs first. This warranty is applicable to all products with the exception of Aerators (refer to separate warranty statements for these products). Where a warrantable condition exists, we will repair the Product at no cost to you including diagnostics, labor, parts, and transportation. This warranty begins on the date the Product is delivered to the original retail purchaser.

* Product equipped with an hour meter.

Instructions for Obtaining Warranty Service

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

Toro Commercial Products Service Department
Toro Warranty Company
8111 Lyndale Avenue South
Bloomington, MN 55420-1196

952-888-8801 or 800-952-2740
E-mail: commercial.warranty@toro.com

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, brake pads and linings, clutch linings, blades, reels, rollers and bearings (sealed or greasable), bed knives, spark plugs, castor wheels and bearings, tires, filters, belts, and certain sprayer components such as diaphragms, nozzles, and check valves, etc.
- 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, fertilizers, 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 or windows, etc.

Parts

Parts scheduled for replacement as required maintenance 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.

Deep Cycle and Lithium-Ion Battery Warranty:

Deep cycle and Lithium-Ion batteries have a specified total number of kilowatt-hours they can deliver during their lifetime. Operating, recharging, and maintenance techniques can extend or reduce total battery life. As the batteries in this product are consumed, the amount of useful work between charging intervals will slowly decrease until the battery is completely worn out. Replacement of worn out batteries, due to normal consumption, is the responsibility of the product owner. Battery replacement may be required during the normal product warranty period at owner's expense. Note: (Lithium-Ion battery only): A Lithium-Ion battery has a part only prorated warranty beginning year 3 through year 5 based on the time in service and kilowatt hours used. Refer to the *Operator's Manual* for additional information.

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 Distributor or 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 Distributor's service or have difficulty obtaining guarantee information, contact the Toro importer.