



Model No. 04495—200000001 &amp; Up

# Operator's Manual

## Tri-Roller Kit For Greensmaster® 3000 Series

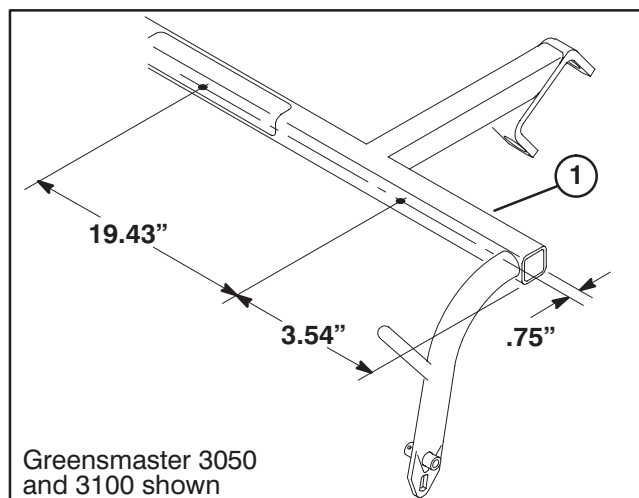
### SET-UP INSTRUCTIONS

**IMPORTANT:** Read this Operator's Manual thoroughly before operating the Tri-Roller Kit. Failure to do so may result in damage to the roller.

#### MOUNT PULL ARM BUMPERS (Fig. 1–2) (Greensmaster 3050, 3100 and 3200 Only)

1. Using dimensions shown in figure 1, locate, mark and drill (2) .221" dia. holes in underside of each pull frame cross tube.

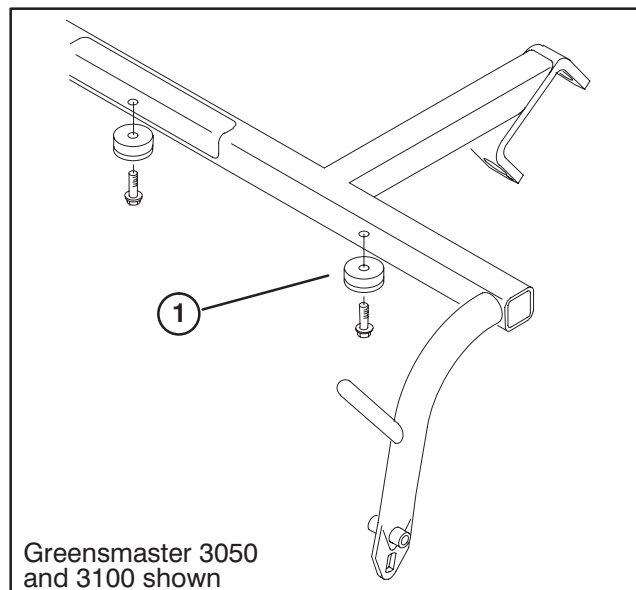
**Note:** Holes may already be present in cross tubes.



**Figure 1**

1. Pull frame cross tube

2. Mount (2) recessed bumpers to underside of each pull frame cross tube with (2) 1/4 x 3/4" lg. washer head self tapping screws (Fig. 2).



**Figure 2**

1. Recessed bumper

#### ADJUST REAR ROLLER SCRAPERS

**Note:** Rear roller scraper is adjusted at the factory, but can be adjusted to meet turf conditions.

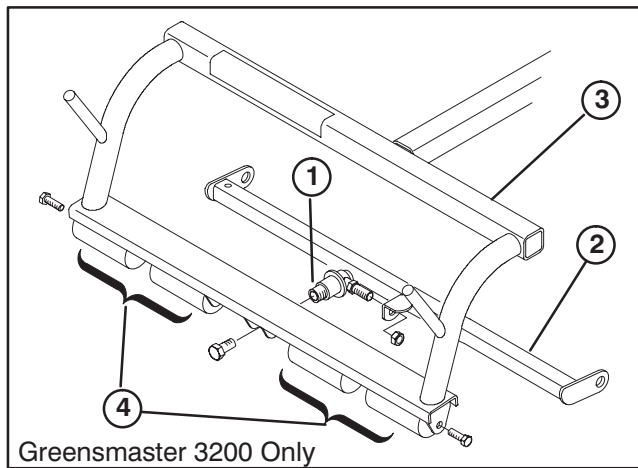
1. Loosen locknuts securing scraper to frame.
2. Adjust scraper until there is .030"–.060" clearance between edge of scraper and roller.
3. Tighten locknuts securing scraper.

#### MOUNT TRI-ROLLERS (Fig. 3–10)

1. Park the machine on a level surface, lower lift arms, stop engine and set parking brake.

**Note:** If carrier frames are equipped with single point pull frames, they must be removed as follows:

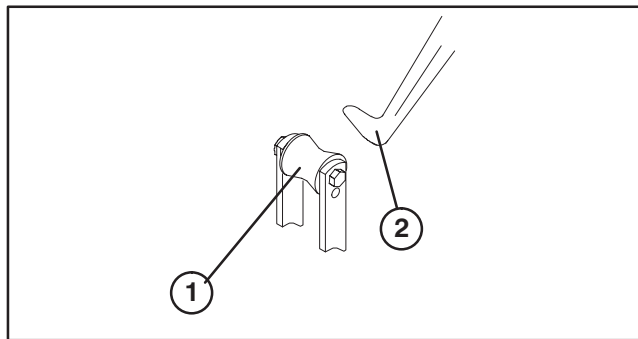
- A. If carrier frames are equipped with single point pull frames, pull frame and attaching ball joint must be removed (Fig. 3).



**Figure 3**

- |                |                  |
|----------------|------------------|
| 1. Ball socket | 3. Carrier frame |
| 2. Pull frame  | 4. Roller sets   |

2. Slide tri-roller under traction unit pull frame while hooking lift roller onto lift arm (Fig. 4).

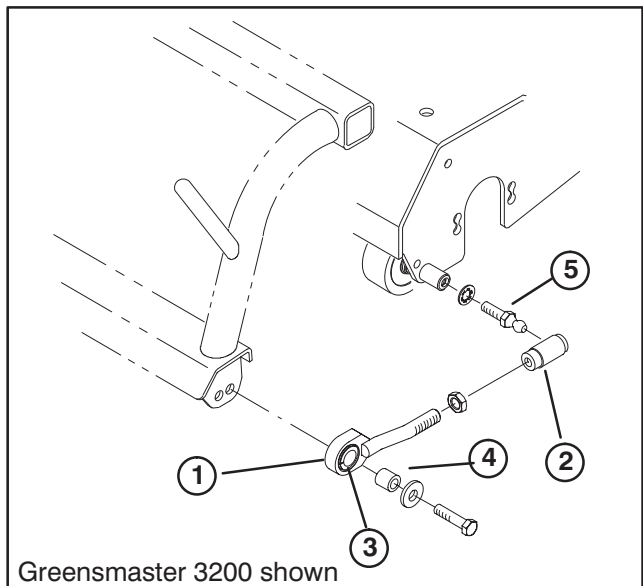


**Figure 4**

- |                |
|----------------|
| 1. Lift roller |
| 2. Lift arm    |

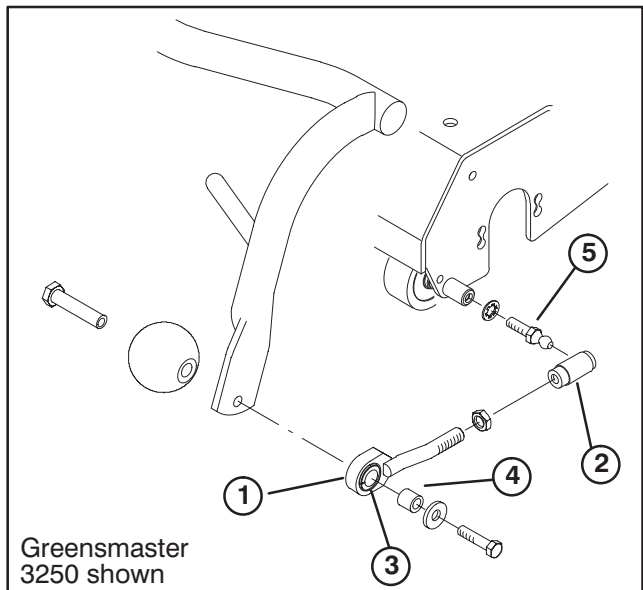
3. Mount new pull link assemblies to **Greensmaster 3200 and 3250** pull arms as follows:

- Remove capscrews securing outside ends of each anti-scalp roller shaft to each end of carrier frame (outside end of shafts only) (Fig. 3).
- Assemble a jam nut and ball joint receiver onto each pull link assembly as shown in figures 5 and 6.
- Mount a pull link assembly to each end of carrier frame with spacer, washer and capscrew (Fig. 5 & 6). Make sure nylon bushing is in pull link.
- Install ball stud and lockwasher to each end of tri-roller (Fig. 5 & 6).
- Adjust pull links all the way forward and tighten jam nut.
- Slide sleeve back on each ball joint receiver and hook onto ball studs (Fig. 5 & 6).



**Figure 5**

- |                        |                               |
|------------------------|-------------------------------|
| 1. Pull link assembly  | 4. Spacer                     |
| 2. Ball joint receiver | 5. Ball stud (large diameter) |
| 3. Nylon bushing       |                               |



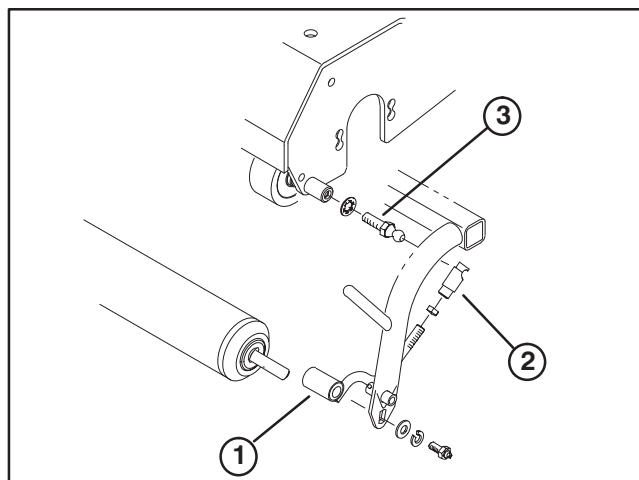
**Figure 6**

- |                        |                               |
|------------------------|-------------------------------|
| 1. Pull link assembly  | 4. Spacer                     |
| 2. Ball joint receiver | 5. Ball stud (large diameter) |
| 3. Nylon bushing       |                               |

4. When mounting Tri-Roller Kit to Greensmaster 3050 or 3100 traction unit, use small diameter ball stud and washer on each end of tri-roller (Fig. 7). Adjust links so they are forward as far as they will go.

**Note:** To avoid tri-roller interference with the traction pedal linkage, it may be necessary to lower the tri-rollers when in the raised (transport) position. See Adjusting Lift Cylinders in the Maintenance section of the traction unit Operator's Manual.

# SET-UP INSTRUCTIONS



**Figure 7**

- 1. Pull link assembly
- 2. Ball joint receiver
- 3. Ball stud (small diameter)

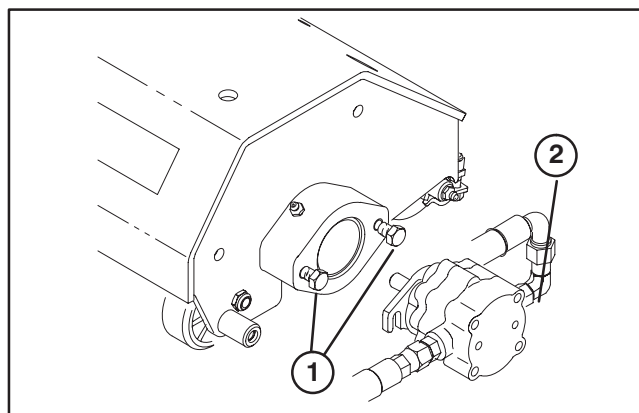
**Note:** When mounting the Tri-roller Kit in the right front position on Greensmaster 3200 or 3250 traction unit, remove counter weight from left end of unit and mount on right end. Motor to be connected to left end.

## 5. Store front reel motors as follows:

A. Loosen the mounting capscrews and washers for the reel motor to each tri-roller. Leave approximately 1/2 in. of threads exposed on each mounting capscrew (Fig. 8).

B Install the motor by rotating the motor clockwise so the motor flanges clear the capscrews. Rotate the motor counterclockwise until the flanges encircle the capscrews and tighten the capscrews. Ensure the washers are against the capscrew heads.

## 6. Store rear reel motor on Greensmaster 3200 the same as the front reel motor.

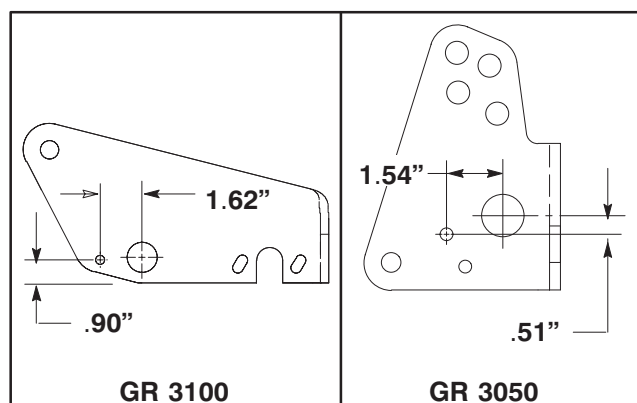


**Figure 8**

- 1. Capscrews & washers
- 2. Reel motor

## 7. Store rear reel motor on Greensmaster 3100 and Greensmaster 3050 as follows:

A. Using dimensions shown in figure 9, locate and scribe a line on appropriate frame member.



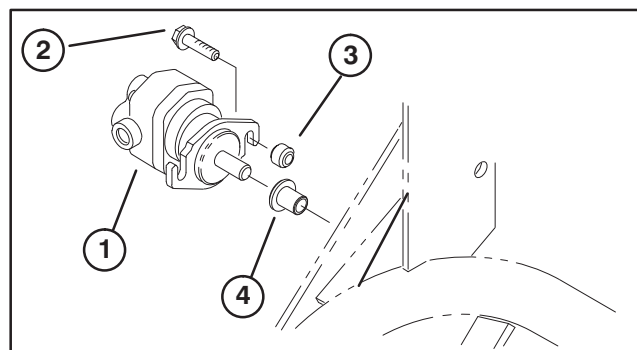
**Figure 9**

B. Insert spline shaft of reel motor into storage tube on frame.

C. Using reel motor flange as template and positioning as shown in figure 10, locate, mark and drill a .344" dia. hole on scribed line.

**Note:** Hole may already be present.

D. Position spacer between reel motor flange and frame while aligning holes. Secure reel motor and spacer to frame with a self tapping screw.



**Figure 10**

- 1. Reel motor
- 2. Self tapping screw
- 3. Spacer
- 4. Storage tube

## 8. Mount counter weight to right side of rear tri-roller with (2) capscrews and washers.

## INSTALL REAR WEIGHT

The Greensmaster Traction Units comply with ANSI B71.4-1990 and EN836 Standards when equipped with rear weight. Order appropriate weight kit (see below) from your local Authorized Toro Distributor.

For Greensmaster 3050, 3100, 3200 or 3250 – 2 Wheel Drive order Weight Kit Part No. 99-1640.

For Greensmaster 3100, 3200 or 3250 – 3 Wheel Drive or with 3 Wheel Drive Kit order Weight Kit Part No. 99-1645.

# OPERATION

## TRAINING PERIOD

Before rolling greens, The Toro Company suggests you find a clear area and practice starting, stopping, raising, lowering, and rolling with the tri-roller. This training period will be beneficial to the operator in gaining confidence in the performance of the tri-roller.

## OPERATING TIPS

Maintain a straight line when rolling. Do not turn when tri-rollers are in the ground.

When the edge of green is reached raise the tri-rollers before turning or stopping. Tri-rollers must be raised **completely** before making turns. Survey the green to determine if there are any obstacles that will be damaged or will result in damage to the rollers such as sprinkler heads and protruding objects.

# MAINTENANCE

## LUBRICATION (Fig. 11)

There are (4) grease fittings on each tri-roller, which must be lubricated after every 15 hours of operation. Lubricate using a #2 multipurpose lithium base grease. A hand operated grease gun is recommended for best results.

1. Wipe each grease fitting with a clean rag.
2. Apply grease to tri-roller shaft bearings and rear roller bearings until pressure is felt.

**IMPORTANT: Do not apply too much pressure or grease seals will be permanently damaged.**

3. Wipe excess grease away.

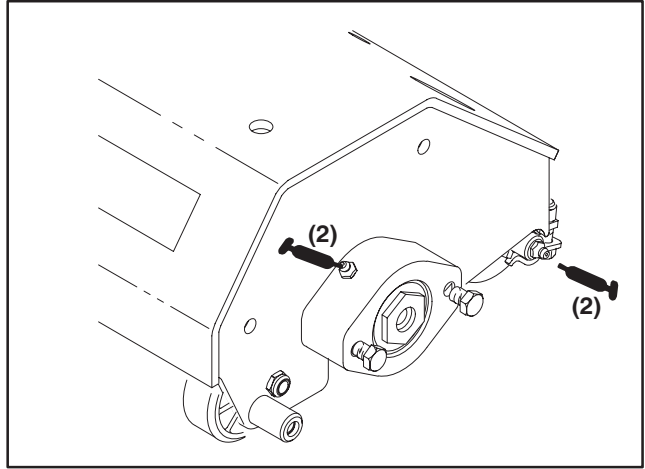


Figure 11