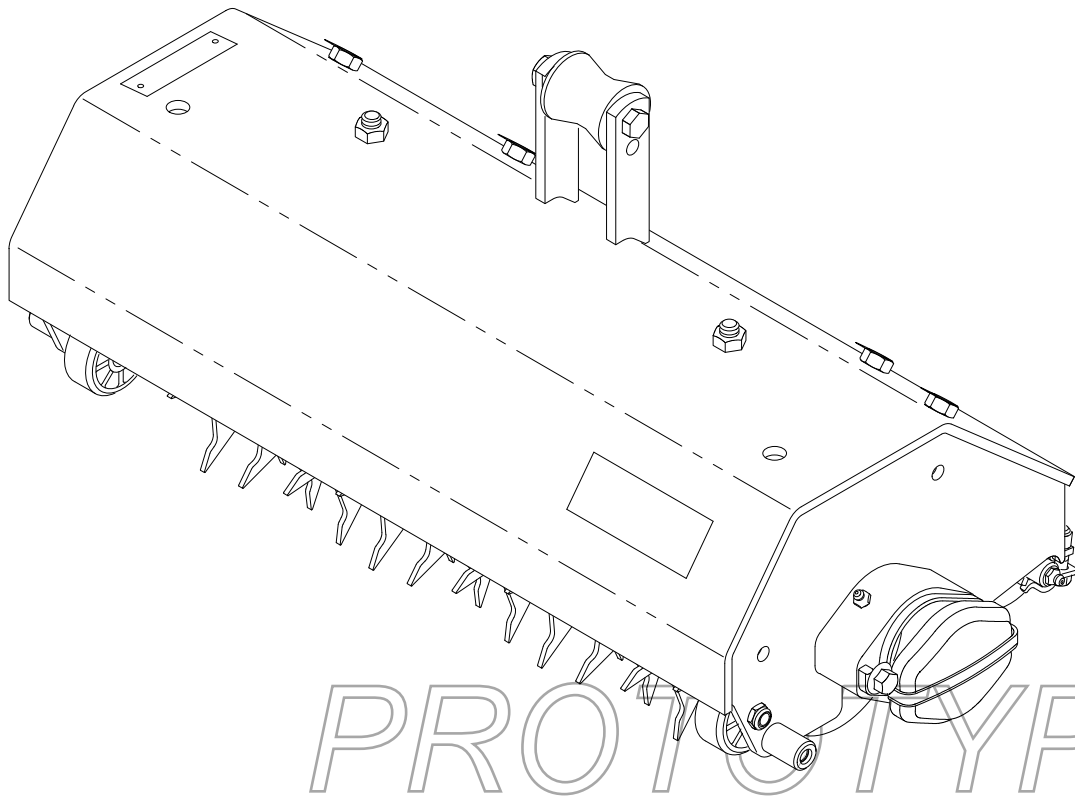




MODEL NO. 04494-80001 & UP

OPERATOR'S
MANUAL

SPIKER KIT
For Greensmaster® 3000 Series



SET-UP INSTRUCTIONS

IMPORTANT: Read this Operator's Manual thoroughly before operating the Spiker kit. Failure to do so may result in damage to the spiker.

MOUNT PULL ARM BUMPERS (Fig. 1–2)

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.

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).

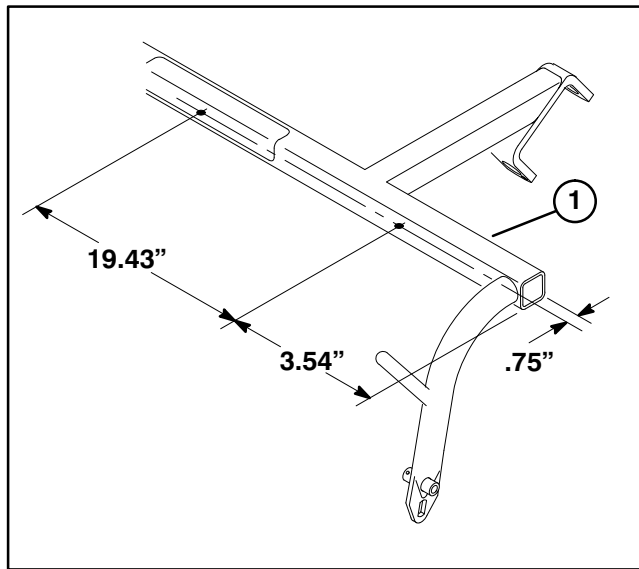


Figure 1

1. Pull frame cross tube

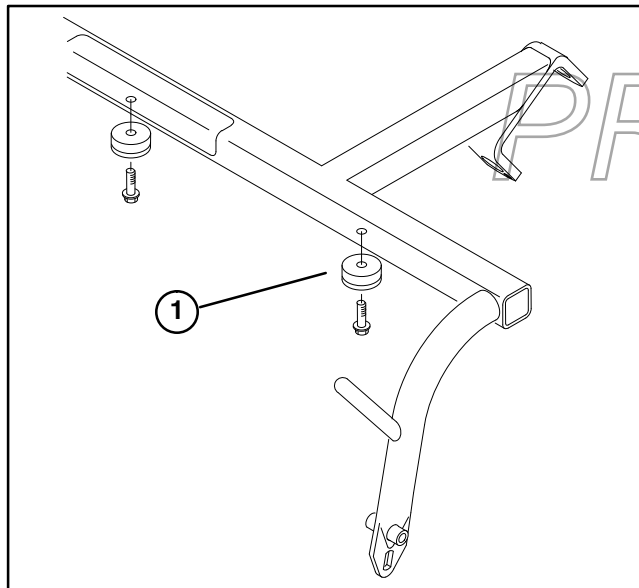


Figure 2

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 SPIKERS (Fig. 3–9)

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, pull frame and attaching ball joint must be removed (Fig. 3).

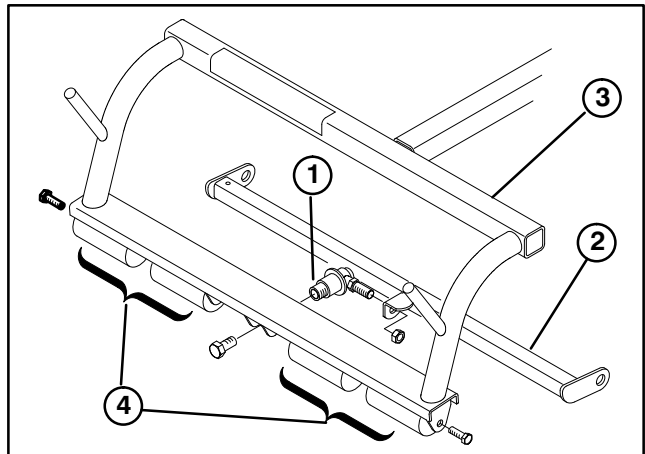


Figure 3

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

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

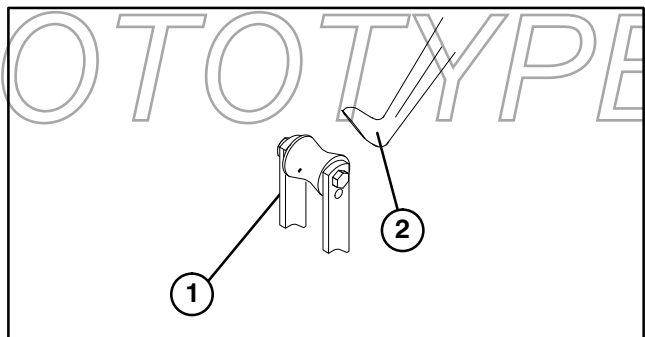


Figure 4

1. Lift roller
2. Lift arm

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

- A. Remove capscrews securing outside ends of each anti-scalp roller shaft to each end of carrier frame (outside end of shafts only) (Fig. 3).

SET-UP INSTRUCTIONS

B. Assemble a jam nut and ball joint receiver onto each pull link assembly as shown in figure 5.

C. Mount a pull link assembly to each end of carrier frame with spacer, washer and capscrew (Fig. 5). Make sure nylon bushing is in pull link.

D. Install ball stud and lockwasher to each end of spiker (Fig. 5).

E. Adjust pull links all the way forward and tighten jam nut.

F. Slide sleeve back on each ball joint receiver and hook onto ball studs (Fig. 5).

D. Install ball stud and lockwasher to each end of spiker (Fig. 5).

E. Adjust pull links all the way forward and tighten jam nut.

F. Slide sleeve back on each ball joint receiver and hook onto ball studs (Fig. 5).

Note: When mounting Spiker Kit in the right front position on Greensmaster 3200 traction units, 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 for the reel motor to each spiker. Leave approximately 1/2 in. of threads exposed on each mounting capscrew (Fig. 7).

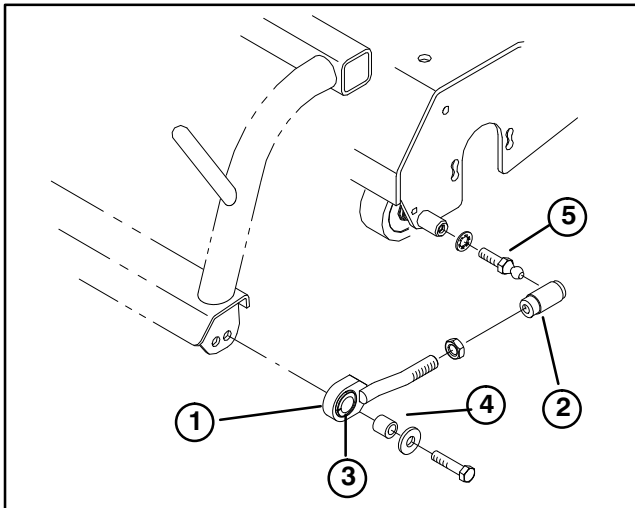


Figure 5

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

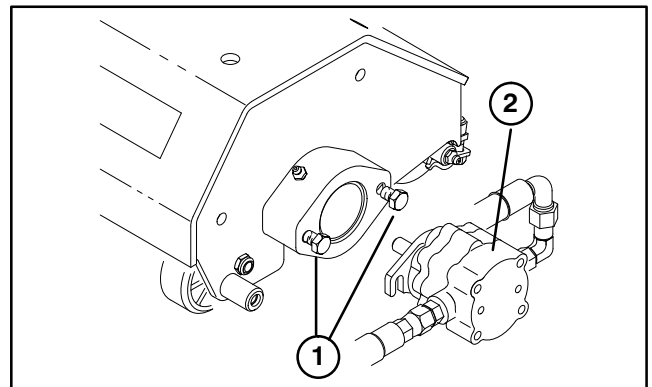


Figure 7

- | |
|------------------------|
| 1. Capscrews & washers |
| 2. Reel motor |

4. Mount pull link assemblies to **Greensmaster 3050 and Greensmaster 3100** pull arms as follows:

A. Remove fasteners securing roller shaft and pull arms to each end of carrier frame (Fig. 6).

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.

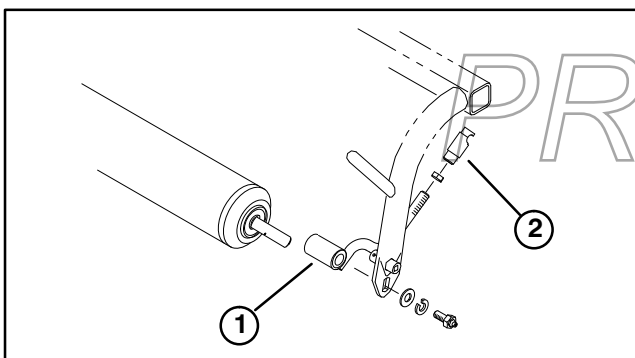


Figure 6

- | |
|------------------------|
| 1. Pull link assembly |
| 2. Ball joint receiver |

B. Re-install roller and new pull arm assemblies to carrier frame with fasteners previously removed (Fig. 6). Pull arms are to be positioned so they bend outward.

C. Assemble a jam nut and ball joint receiver onto each pull link assembly as shown in figure 6.

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

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

A. Using dimensions shown in figure 8, locate and scribe a line on appropriate frame member.

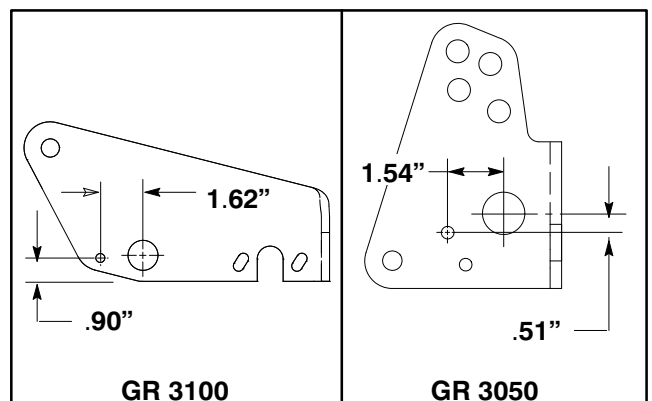


Figure 8

SET-UP INSTRUCTIONS

B. Insert spline shaft of reel motor into storage tube on frame (Fig. 9).

C. Using reel motor flange as template and positioning as shown in figure 9, locate, mark and drill a .344" dia. hole on scribed line.

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

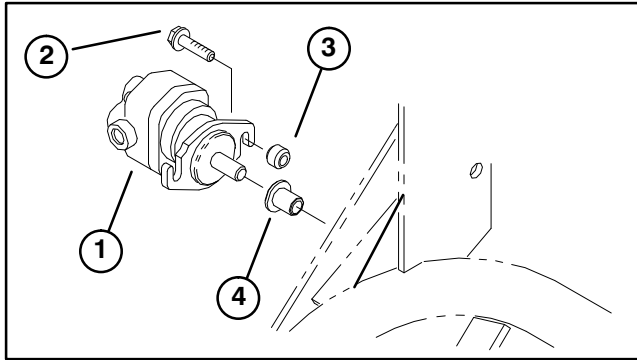


Figure 9

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

8. Mount counter weight to right side of rear spiker 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.

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

Greensmaster 3100 or 3200 – 3 wheel Drive or with 3 Wheel Drive Kit Weight Kit – Part No. 99-1645

OPERATION

TRAINING PERIOD

Before spiking greens with the spiker attachments the Toro Company suggests you find a clear area and practice starting, stopping, raising, lowering, and spiking with the spiker reels. This training period will be beneficial to the operator in gaining confidence in the performance of the spiker reels.

OPERATING TIPS

Maintain a straight line when spiking. Do not turn when

spiking units are in the ground.

When the edge of green is reached raise the spiker reels before turning or stopping. Spiker reels must be raised completely before making turns. Never use the grass catcher with spiking reels. Survey the green to determine if there are any obstacles that will be damaged or will result in damage to the spiker reels such as sprinkler heads and protruding objects

MAINTENANCE

LUBRICATION (Fig. 10)

There are (4) grease fittings on each spiker unit, 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 spiker 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.

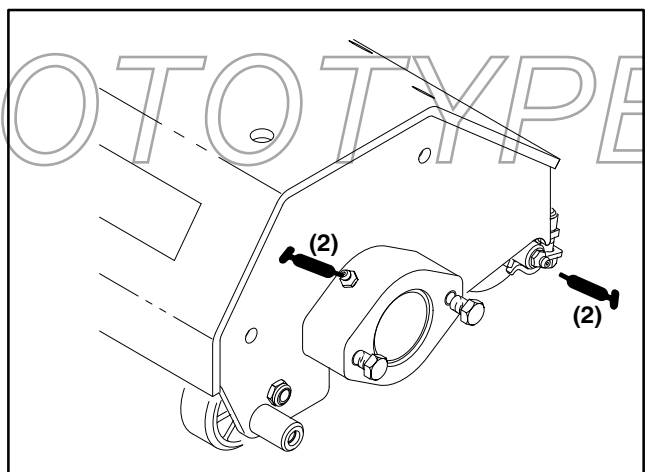


Figure 10