

TORO[®]MODEL NO. 08812 – 20001 & UP
MODEL NO. 08814 – 20001 & UP**INSTALLATION
INSTRUCTIONS****TOOTH RAKE KIT
(SAND PRO[®])**

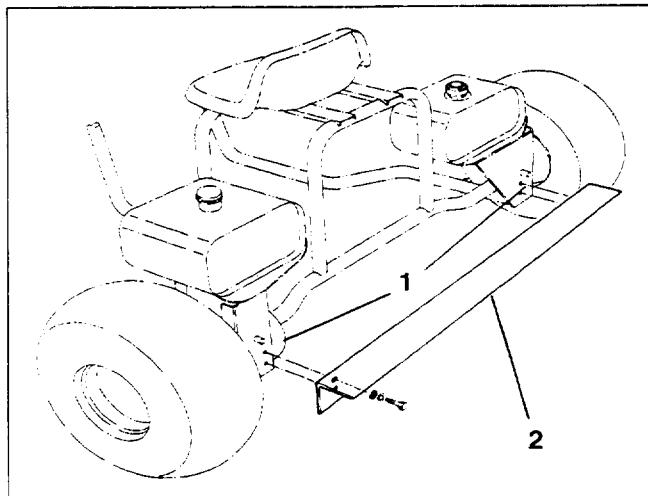
NOTE: A Rake Mounting Kit, Model No. 08814 is required to install this kit to your Sand Pro. The kit must be purchased separately from an Authorized Toro Distributor. The installation instructions for the Rake Mounting Kit are included in this sheet.

LOOSE PARTS

Description	Qty	Where Used
Lift Arm Assembly	1	Mount to Rear of Machine
Lift Pivot	1	
Shoulder Bolt	1	Mount Pivot to Rake Assembly
Flatwasher 1/2"	1	
Flatwasher 7/16"	1	
Lock Nut	1	
Clevis Pin	1	
Flat washers	2	Mount Rake Assembly to Lift Arm Assembly
Cotter Pin	1	
Installation Instructions	1	

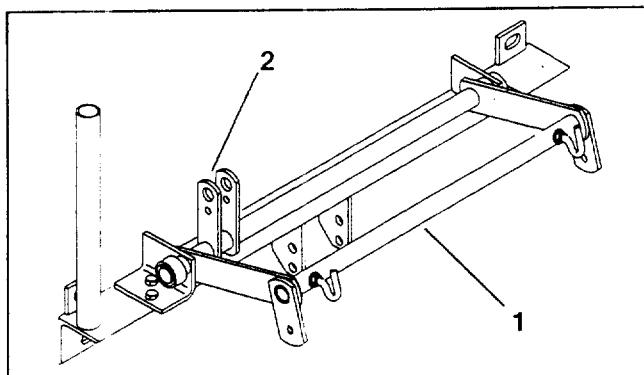
SET UP INSTRUCTIONS**INSTALL LIFT ARM ASSEMBLY**

1. Remove any attachment from rear of machine. Keep hydraulic cylinder retaining pin and hardware.
2. Remove existing (4) capscrews, lockwashers and flat washers from back of left and right wheel motor mounts (Fig. 1).

**Figure 1**

1. Wheel Motor Mounts
2. Existing Attachment

3. Mount the lift arm assembly to left and right wheel motor mounts with fasteners removed (Fig. 2).

**Figure 2**

1. Lift Arm Assembly
2. Connect Hydraulic Cylinder Here

4. Connect the hydraulic cylinder from the machine to the cylinder bracket on the hitch and lift arm assembly with large retaining pin, hair pin and cotter pin previously removed.

NOTE: On the Sand Pro 5000 (Model No. 08881), the hydraulic cylinder is mounted to left side of cylinder bracket on the hitch and lift arm assembly with above fasteners plus a spacer, capscrew and locknut, as shown in figure 3.

SET UP INSTRUCTIONS

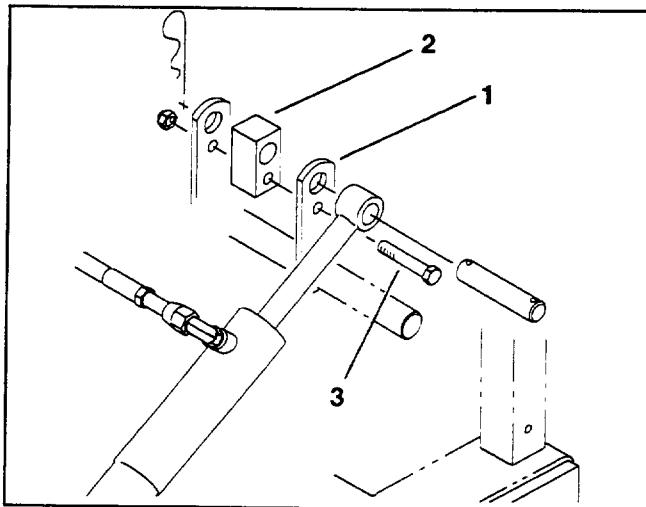


Figure 3
1. Lift Arm Assembly
2. Spacer
3. Capscrew

MOUNT RAKE ASSEMBLY TO LIFT ARM ASSEMBLY

1. Back the Sand Pro into position in front of the rake assembly.

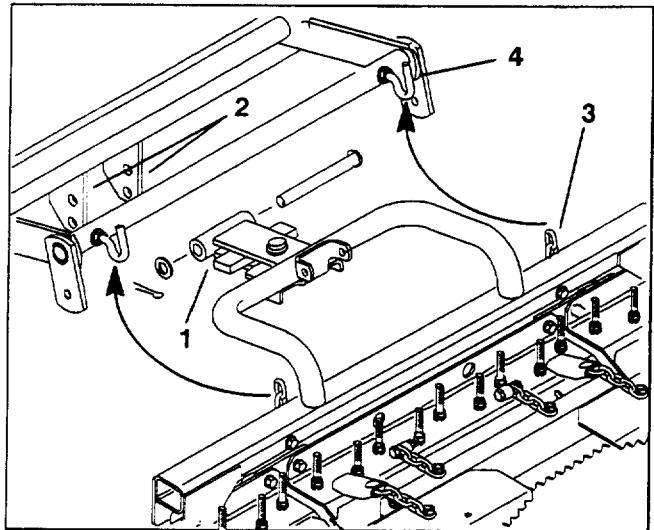


Figure 5
1. Pivot
2. Lift Brackets
3. Transport Chains
4. Lift Arm Hooks

MOUNT PIVOT TO RAKE ASSEMBLY

1. Slide lift pivot onto rake assembly plate, aligning mounting holes as shown in figure 4. Secure pivot to plate with a shoulder bolt, (2) flat washers and a lock nut. Position a washer on each side of pivot.

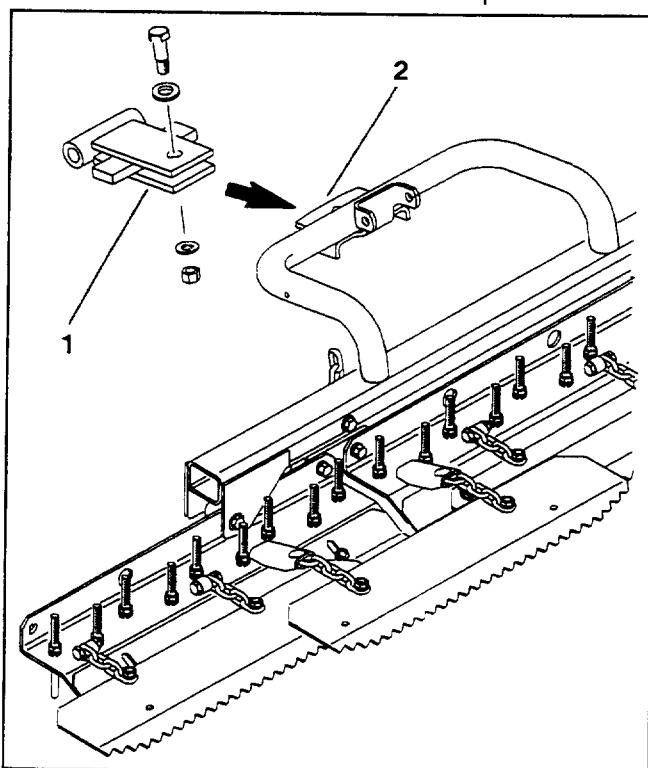


Figure 4
1. Pivot 2. Plate

2. Secure rake pivot to bottom holes in lift arm brackets with a clevis pin, flat washer and a cotter pin. Flat washer to be positioned under cotter pin.

Note: Mounting rake pivot in the top set of holes will make the rake more aggressive in the sand.

3. Secure top links of transport chains to hooks on lift arm assembly.

Note: For proper operation of the rake, chains must be slack when rake is in the lowered (operating) position.

OPERATING INSTRUCTIONS

We suggest that you read this entire section on RAKING before actually raking a trap. There are many conditions that will determine the adjustments necessary. The texture and depth of the sand, moisture content, weeds, the amount of compaction; all these conditions can vary from course to course, or even from trap to trap on the same course. Make the adjustments on the rake for optimum results in your particular area.

TRAINING PERIOD

The Toro Company suggests that you practice raking in one of the large and level traps on the course. Practice starting and stopping, turning, raising and lowering the rake, entering and leaving the trap, etc. Practice at a moderate engine speed and a slow ground speed. This training period will be beneficial to the operator in gaining confidence in the performance of the SAND PRO.

GENERAL

If the sand is deep enough, you can rake right up to the edge of the trap in level areas.

If the sand "feathers" out to the turf, stay far enough away from the edge to avoid disturbing the underlying soil.

Do not rake too close to a short steep bank. The sand will merely flow down into the bottom of the trap.

Some touch up with a hand rake may be necessary on steep banks, small pockets, etc.

RAKING PATTERN

The recommended pattern for raking a trap is shown in figure 6. This pattern avoids unnecessary overlap, holds compaction to a minimum and leaves a neat, attractive pattern on the sand.

Enter the trap straight into the long dimension, where the bank is the least severe. Drive through the center of the trap almost to the end, turn to either direction as sharp as you can, and come right back next to the first pass. Spiral outward as shown in the drawing, and leave the trap at a right angle in a level area.

Leave steep, short banks and small pockets for touch-up with a hand rake.

ENTERING AND LEAVING THE TRAP

When entering the trap, do not lower the rake until the rake is actually over the sand. This will avoid cutting the turf or dragging grass clippings or other debris into the trap. Lower the rake while the SAND PRO is moving.

When leaving the trap, start raising the rake when the front wheel leaves the trap. As the SAND PRO moves out, the rake will be lifting and will not drag sand out onto the grass.

The operator will soon gain, through experience and practice, the required timing for entering and leaving the trap properly.

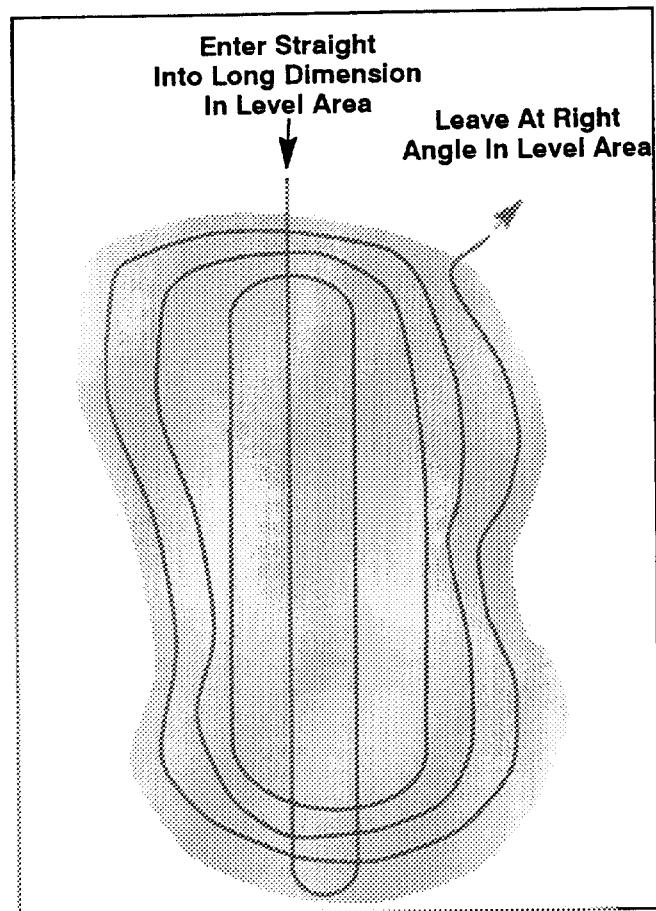


Figure 6

ADJUSTING RAKE ANGLE

The angle of the rake can be changed to increase or decrease its aggressiveness in the sand.

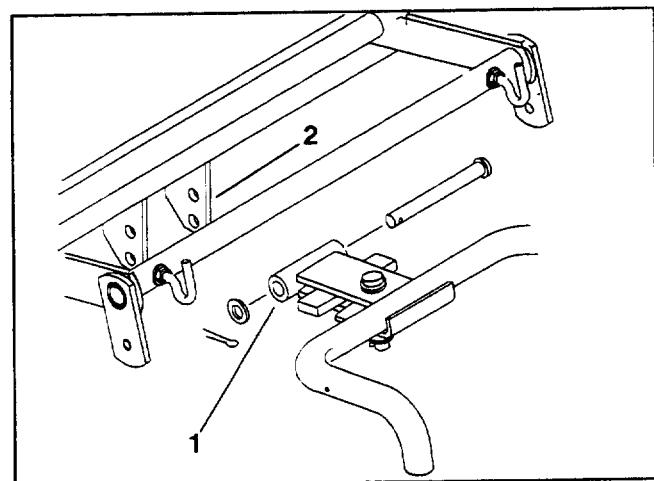


Figure 7

1. Pivot
2. Lift Brackets

Mount rake pivot to bottom holes in lift arm brackets (Fig. 7) for less aggressive raking or top holes for more aggressive raking.

OPERATING INSTRUCTIONS

ADJUSTING TROWELS

The length of the trowels can be adjusted to increase or decrease the amount of prong penetration.

1. Loosen trowel mounting screws, move trowel up or down to desired position and tighten screws (Fig. 8).

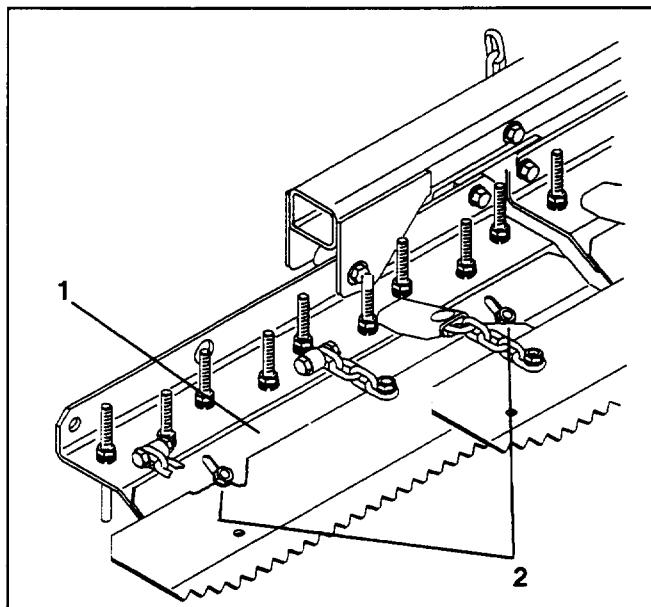


Figure 8
1. Trowel
2. Mounting Screws

DRAG WEIGHTS

In damp or coarse sand, or if there is considerable vegetation or deep foot prints in the traps, optional weights may be bolted to the finishing rakes. Order weight part no. 18-7570 from your Authorized Toro Distributor.

TRANSPORT POSITION

To increase the height of the rake when transporting:

1. Lower rake and lift assembly as low as possible.
2. Unhook chains from lift arm hooks and re-hook chains on hooks no more than three links from free end of chains.

Note: Transporting rake with chains shortened beyond the 3rd link, may result in damage to the hooks or rake pivots.

Note: To ensure proper operation of rake, chains must be returned to original "slack" positioning hooks before commencing operation.

INSPECTION AND CLEAN-UP

When the raking operation is completed, clean the SAND PRO thoroughly. Since this machine is used primarily in sand, and sand is extremely abrasive, the sand should be flushed off after each use. If the SAND PRO is cleaned frequently, (before the sand has a chance to "cake"), it can be cleaned with a stream of water from a hose with the nozzle removed. A high pressure stream could drive the sand into wear areas where it could act as a grinding compound.