



# 5000 Series

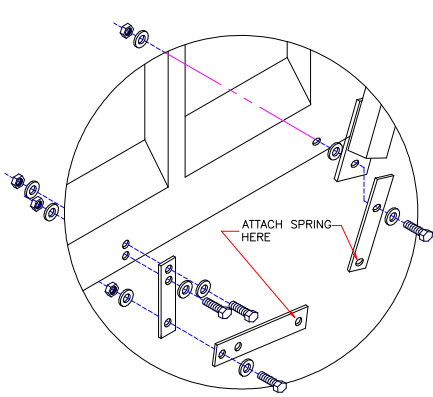
## Covering Systems

### Installation Instructions

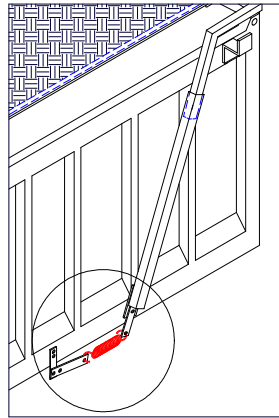
**The following hardware is universal to all kits:**

Description	QTY	Part #	Description	QTY	Part #
Bent arm extension (L)	1	905	Hose clamp 1 1/2"	4	146
Bent arm extension (R)	1	904	Bolt, 1/2" x 2 1/2"	2	2705
Pivot arm (L)	1	903	Nut, lock, 1/2"	4	2877
Pivot arm (R)	1	902	Washer, flat, 1/2"	6	2878
Pivot arm rests	2	952	Bolt, 3/8" x 1 1/2"	4	2464
Rear cross piece	1	2071	Nut, lock, 3/8"	4	2874
Rollerbar	1	121	Washer, flat, 3/8"	4	2875
Bearing plate assembly	1	3678	Cotter pin 1/4" x 3"	4	2475

### **SPRING TYPES**

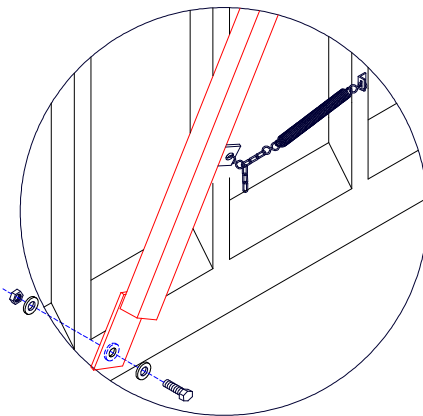


Underbody Spring

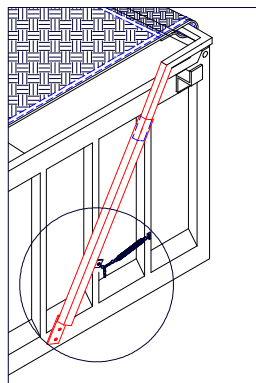


**Add this spring hardware if you have the underbody spring option:**

Description	QTY	Part #
Spring, underbody	2	1585
Pivot arm bracket	2	2121
Spring mounting bracket	4	1586
Bolt, 3/8" x 1 1/2" Bolt	6	2464
Nut, lock 3/8"	6	2874
Washer, flat, 3/8"	10	2875



Side Spring



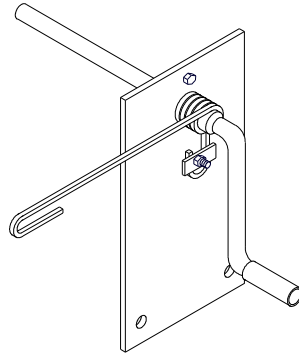
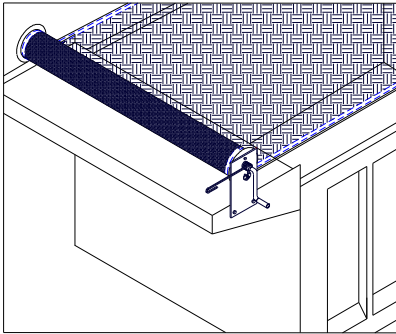
**Add this spring hardware if you have the side spring option:**

Description	QTY	Part #
Spring, extension, 25"	2	116
Spring attachment angle	2	798
Chain links, 12"	2	144
S-Hooks	6	147

**The following optional components are also available:**

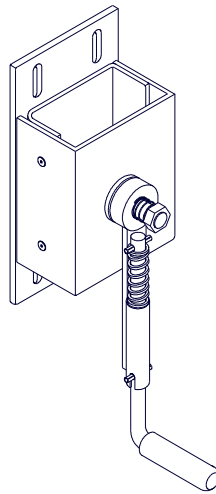
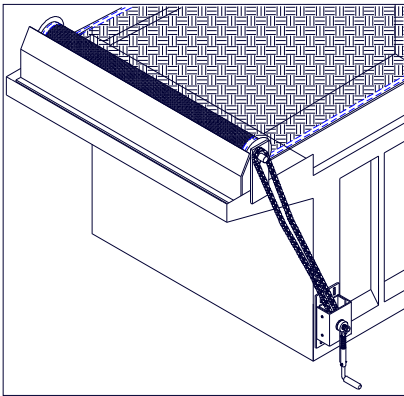
Description	QTY	Part #
Wind Deflector	1	1647
GL Chain Guard	1	

## DRIVE TYPES



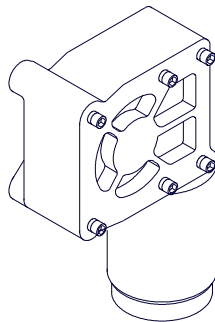
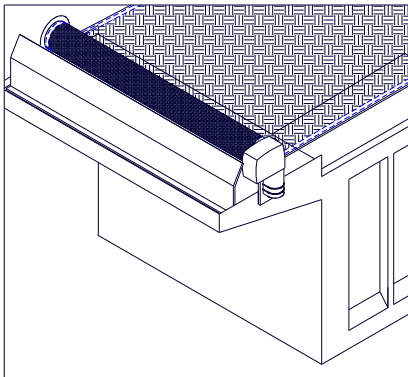
**The following additional hardware is for cab level crank (S and SU) kits:**

Description	QTY	Part #
Crank handle	1	4128
Brake spring	1	1202
Brake spring clip	1	753
Rubber strap, 15" w/hook	1	187
Shaft collar, 3/4"	2	148
Bearing plate assembly	1	3678



**The following additional hardware is for ground level crank (GL and GLU) kits:**

Description	QTY	Part #
Crank box assembly	1	441
Chain, #40 x 10'	1	793
Shaft sprocket assembly	1	2403
Bearing plate assembly	1	3678
Shaft collar, 3/4"	2	148
Nut, lock, 3/8"	4	2874
Bolt, 3/8" x 1 1/2"	4	1913
Washer, flat, 3/8"	4	2875



**The following additional hardware is for electric (ELD and ELUD) kits:**

Description	QTY	Part #
Motor, direct drive	1	61L or 61G
Motor cover	1	
U Nuts	5	3708
5/16" Lock nut	1	2868
Wire, electrical kit	1 roll	1898
Rotary switch kit	1	85N
Bearing plate	1	3270
Bolt, 5/16" x 1 1/2"	4	1913

## **Before beginning installation:**

- 1) Check parts bags for correct contents. Contact your dealer if parts are missing. **THE FIRST TWO PAGES CONTAIN THE REFERENCE GUIDE FOR THE HARDWARE YOU WILL NEED TO INSTALL YOUR SYSTEM.**
- 2) Read through instructions for entire system to get a general idea of how each component is mounted and how the components fit together. These instructions apply for all versions of the 5000 system, so use only those sections which apply to your particular model.

## **Choosing the Mounting Location**

In general, the rollerbar should be mounted on top of the cab shield as far forward as possible so the rollerbar and pivot arms are less likely to be damaged by loaders. If the head assembly is mounted too far forward, the pivot arms may interfere with the truck doors.

**Exceptions:** Trucks with vertical stacks. Vertical stacks may be in the way of the pivot arms if the rollerbar were to be mounted forward of the stack(s). Simply shortening or re-aligning the stack(s) may solve the problem. If the stack(s) still get in the way, it may be necessary to mount the rollerbar to the rear of the stack(s). If there is not room to mount the rollerbar on the cab shield behind the stacks, it will need to be mounted on top of the side board pockets to the front of the body.

## **Mounting the Rollerbar Assembly (ALL KITS):**

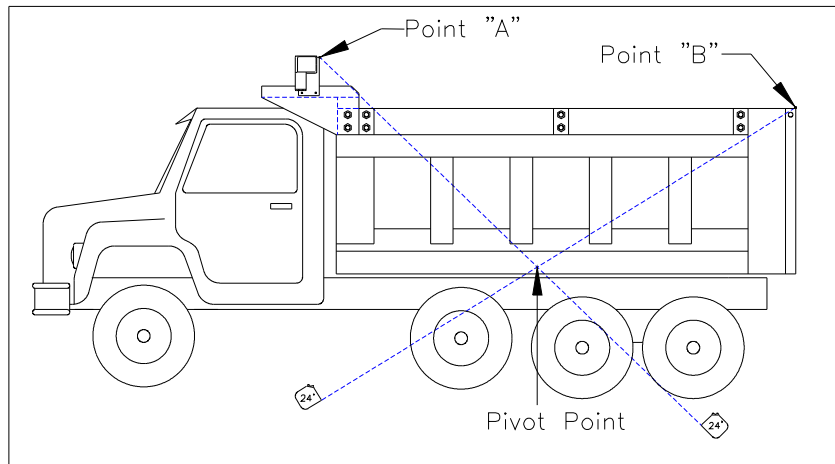
- 1) Once the mounting location has been determined, you may either install the included bearing plates using the 3/8" x 1 1/2" bolts, flat washers and lock nuts, or use the bearing plates as templates to drill the necessary mounting holes into the cab shield sides or other suitable location. Check to make sure that the distance from each bearing plate to the tailgate is the same to ensure the tarp will roll up evenly. **NOTE:** For S/SU kits, ensure the bearing on the crank side of the assembly is not facing out, this will prevent proper installation of the spring brake.
- 2) If you chose to use the bearing plates as templates and mount directly to the cab shield, remove the 3/4" bearing from the passenger side bearing plate and bolt it in place on the passenger side of the cab shield. **NOTE:** The bearing plates or cab shield holes should be exactly opposite of each other to avoid the tarp bunching to one side during use.
- 3) Be sure there is enough clearance between the rollerbar and the cab shield to roll-up the entire tarp. Measure the distance between the outside edges of the bearing plates. Cut the open end of the rollerbar 1" – 2" longer than that distance.
- 4) Insert 3/4" shaft end of the rollerbar through the right side 3/4" bearing.

SU KIT: Slide the 3/4" shaft collar onto the shaft end of the rollerbar and lightly tighten. Install the cab level crank on the left-hand bearing plate (Refer to cab level crank assembly instructions). Secure both 3/4" shaft collars and tack weld or bolt the crank handle shaft to the rollerbar. (See Mounting the Cab Level Crank Assembly)

GL KIT: Slide a 3/4" shaft collar onto the 3/4" x 14" shaft with sprocket. Insert the 3/4" x 14 shaft through the outside of the left side bearing plate and into the open end of the roller bar. Do not secure shaft to roller bar at this time.

EL KIT: Attach the direct drive motor (with the back side of the motor cover on) to the driver's side bearing plate using the 3/8" x 3/4" bolts. Drill a 5/16" hole, 3/4" in from the open end of the rollerbar. Slide open end of the rollerbar onto the motor shaft. Align the hole in the rollerbar with the one in the motor shaft. Insert the 5/16" bolt through rollerbar and motor shaft, then fasten the bolt with a 5/16" lock nut.

## Mounting Pivot Arms (ALL KITS):



- 1) To find the pivot point, pull one tape measure from point "A" and a separate tape measure from point "B". Next cross the tape measures at the bottom-middle of the truck body where the two measurements are equal. Mark the spot where they cross. This is your pivot point.
- 2) Drill a hole in the bottom rail of the body at the pivot point using a 1/2" drill bit.
- 3a) For **underbody** spring models, insert the underbody pivot arm bracket inside of the square pivot arms, aligning the 1/2" hole in the bracket with the 1/2" hole in the pivot arm. Ensure that the end of the underbody pivot arm bracket with the 3/8" hole extends out of the arm. (See drawing on first page)
- 3b) For **side** spring models, insert a 1/2" bolt through the bracket (bracket for underbody option only), pivot arm, and side of the body. Place a 1/2" washer under the bolt head between the pivot arm and the body, and inside the body. Secure the bolt with two 1/2" nuts per side, leaving minimal play in pivot arms. Repeat procedure for the other side of the body. (See drawing on first page)
- 4) Insert the bent arm extensions into the end of the pivot arms. Walk arms over to the rear of the truck and adjust arm extensions until they rest on top of the tailgate. Shorter bodies may require pivot arms to be cut down in length. Temporarily clamp the bent arm extensions where they enter the pivot arms and walk the arms forward to ensure that they end at or near the rollerbar. Adjust the length of the pivot arms if they do not align properly.
- 5) Insert the rear cross piece into the bent arm extensions and ensure pivot arms remain parallel to the sides of the body. If necessary, the rear cross piece can be cut shorter to fit on narrower bodies.
- 6) When proper lengths and alignments are achieved, drill and cotter pin bent arm extensions to the pivot arms. Drill the rear cross piece and the bent arm extensions so that the tarp won't get punctured by the cotter pins once assembly is complete. Disassemble the rear cross piece and insert it through the rear pocket of the tarp. Reassemble the rear cross piece back into the bent arm extensions and secure with cotter pins such that the pivot arms are parallel to the sides of the body. Position cotter pins so that the loop is pointing up when the pivot arms are in the rear position.
- 7) Attach the front edge of the tarp to the roller bar using the 1 1/2" hose clamps. Thread the hose clamps through the four leading edge grommets and around the rollerbar. Space the clamps evenly and secure them tightly across the roller bar width to prevent rubbing of the tarp on the bearing plates.
- 8) Position the pivot arm rests on the sides of the body so that the weight of the pivot arms rest on the brackets rather than on the tailgate when the tarp is in the covered position. Pivot arm rests should be welded in place.

## Underbody spring attachment

- 1) Insert one end of the underbody spring through the 3/8" hole in the underbody pivot arm bracket. Insert the other end of the spring through the single hole end of the underbody spring mounting bracket.

- 2) Find the location where the underbody spring mounting bracket will be mounted by positioning the pivot arms approximately 30 degrees to the rear of vertical and aligning the underbody spring parallel to the bottom rail in a relaxed position. Mark the spot on the bottom rail of the truck 4" forward of the forward edge of the spring.
- 3) Using the bracket as a template, drill two 3/8" holes in the bottom rail at the mark. Bolt or weld brackets in place using 3/8" bolt, 3/8" washers, and 3/8" lock nuts.
- 4) Connect the bracket attached to spring to the bracket attached to the truck body using the 3/8" bolts, flat washers and lock nut. Do not over-tighten or the brackets will not pivot with arm movement.
- 5) Adjust spring tension by moving the 3/8" bolt joining the underbody spring mounting brackets to the other hole in the bracket.
- 6) Repeat procedure for other side of truck.

### **Side Spring Attachment**

- 1) Weld or bolt the spring attachment angle to the side of the body 60" toward the rear of the truck body from the pivot point and 20" up from the bottom rail.
- 2) Attach the spring to the spring attachment angle and bracket on the pivot arms using the "S-Hooks" and chain. Test operation and adjust as necessary using chain links between the spring and pivot arm. NOTE: extension spring should have tension on it when covering the load until the mechanism is approximately 25 degrees to the rear of vertical.
- 3) Once final adjustments are made, crimp all "S-Hooks" closed.

### **Installing the Optional Wind Deflector**

Install the wind deflector halves to the cab shield using the 3/8 x 1 1/2" bolts, flat washers and lock nuts. Mount forward of the rollerbar allowing enough space between the wind deflector and the rollerbar for the tarp when it is fully rolled up. One or both halves may need cutting to fit the width of the cab shield. It may also be necessary to cut notches in the wind deflector for the cab shield support braces.

### **Mounting the Cab Level Crank Assembly (5000XCL, 5000S, 5000SU)**

- 1) Remove the bottom nut to the bolt that attaches the 3/4" bearing to the bearing plate. NOTE: the 3/4" bearing and brake spring are installed on opposite sides of the bearing plate.
- 2) Attach the brake spring to the bearing plate using the spring clip and bolt from the bearing.
- 3) Slide the crank handle shaft through the spring brake, bearing plate, 3/4" bearing, shaft collar, and into rollerbar. Weld or bolt crank handle to rollerbar. NOTE: it may be necessary to pull up slightly on the brake spring handle to allow the crank handle to easily slide through.

### **Mounting the Ground Level Crank Assembly (5000XGL, 5000GL, 5000GLU)**

- 1) Determine a suitable position for mounting the GL Crank Assembly to the front driver's side of the body below the top roller bar sprocket. Keep in mind that the top sprocket and the crank assembly must align vertically without any obstacles to interfere with movement of the chain or the crank handle.
- 2) Adjust the 14" shaft / sprocket assembly so that the top sprocket and bottom sprocket align. Secure the 3/4" shaft collar flush with the 3/4" bearing to maintain alignment. Weld or bolt the 14" shaft to the roller bar. Secure the right side of the roller bar with a 3/4" shaft collar on the outside of the bearing plate, allowing 1/2" of side-to-side play in the rollerbar.
- 3) Assemble the chain around the top sprocket and bottom sprocket (within the GL crank assembly) and adjust the GL crank box up or down for adequate chain tension.
- 4) Mount the GL Crank Assembly to the side wall of the body using the 3/8" bolts, lock nuts, and washers.

### **Optional Chain Guard (for 5000XGL, 5000GL and 5000GLU Kits)**

- 1) Mount the chain guard by overlapping the upper and lower chain guard pieces and attaching them together with sheet metal screws and 1/4" lock washers or by welding.
- 2) Mount the lower chain guard over the top part of the crank assembly and attach to the body using the chain guard brackets and 1/4" bolts or by welding.

### **Wiring the Motor**

Follow the wiring instructions provided with your electrical switch kit.

# Thank You for Your Purchase



**Donovan Enterprises 2951 S.E. Dominica Terrace, Stuart FL. 34997**

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