



# SCT

**SIoux CITY TARP, INC.**

**ONE OF NATION'S LARGEST SUPPLIERS OF  
NEW AND REPLACEMENT TARPS AND PARTS!**

**GRAIN WAGONS/CARTS**

**COMPLETE ROLL UP**

**TARP KITS**



# GETTING STARTED

## IMPORTANT:

**PLEASE READ MANUAL THOROUGHLY AND COMPLETELY.**

This manual explains how to install, operate & maintain the Sioux City Tarp Grain Wagon and Grain Cart systems safely. If you have any questions on the proper installation or maintenance of your roll-up tarp, please contact Sioux City Tarp.

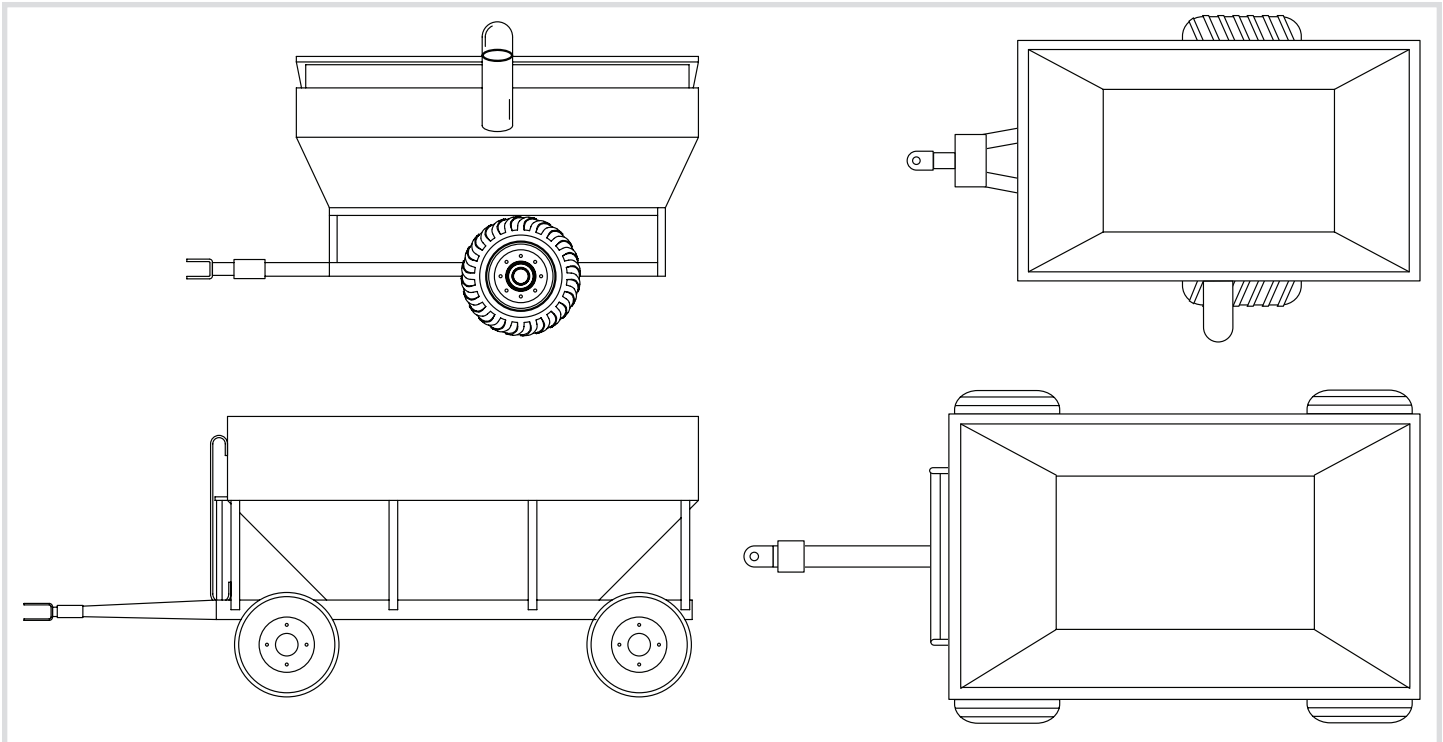
## WARNINGS, CAUTIONS, NOTES, & HINTS:

This manual is available for your safety & assistance while installing your new Sioux City Tarp Grain Wagon and Grain Cart systems. There are two levels of steps found in this installation manual. The primary steps are found in **BOLD AND ALL CAPITAL LETTERS**. Followed by secondary steps in regular font.



## 01: END CAPS: FRONT & BACK CAPS

The head caps supplied with this kit are universal fitting, and may need slight modifications to fit your unit. Set the caps on the truck to see if any modifications are necessary. Fastening the caps in this manner will improve the seal. **See Drawing 1.1.**

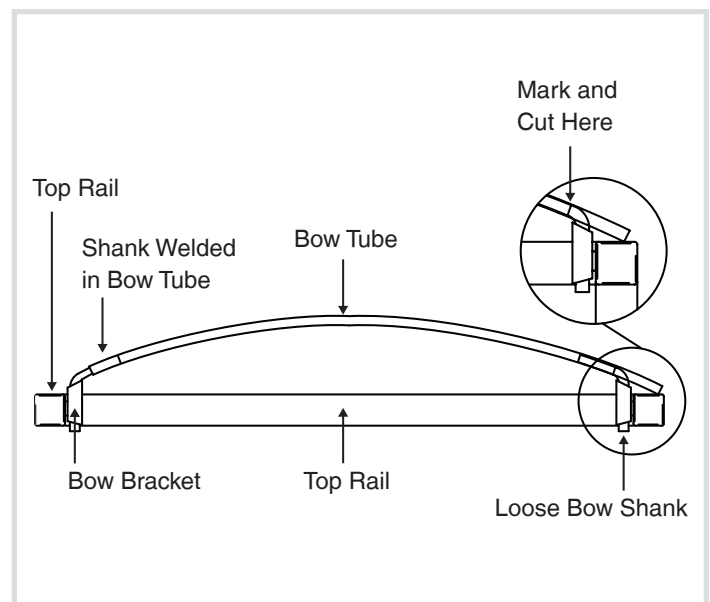


DRAWING 1.1

## 02: END CAPS: FABRIC FRONT CAP - BOW BRACKETS

The first step is to determine which height of the bow bracket to use. Check the depth of the front cap to determine the correct position of the front cap bow. Make sure there is enough material hanging over the front and side rails for fastening. Clamp the bow brackets to the inside of the box and place a bow, with the shank already welded in place, into the bow bracket. Next place a loose shank on the other side in the bow bracket, hold the bow tube up to the shank and mark as close as possible to where the bend starts on the shank. **See Drawing 2.1.**

**NOTE: THE BOW MUST BE CUT TO THIS EXACT LENGTH TO PREVENT FLATTENING OF THE BOWS WHEN NOT WELDING THE SHANKS IN PLACE.**

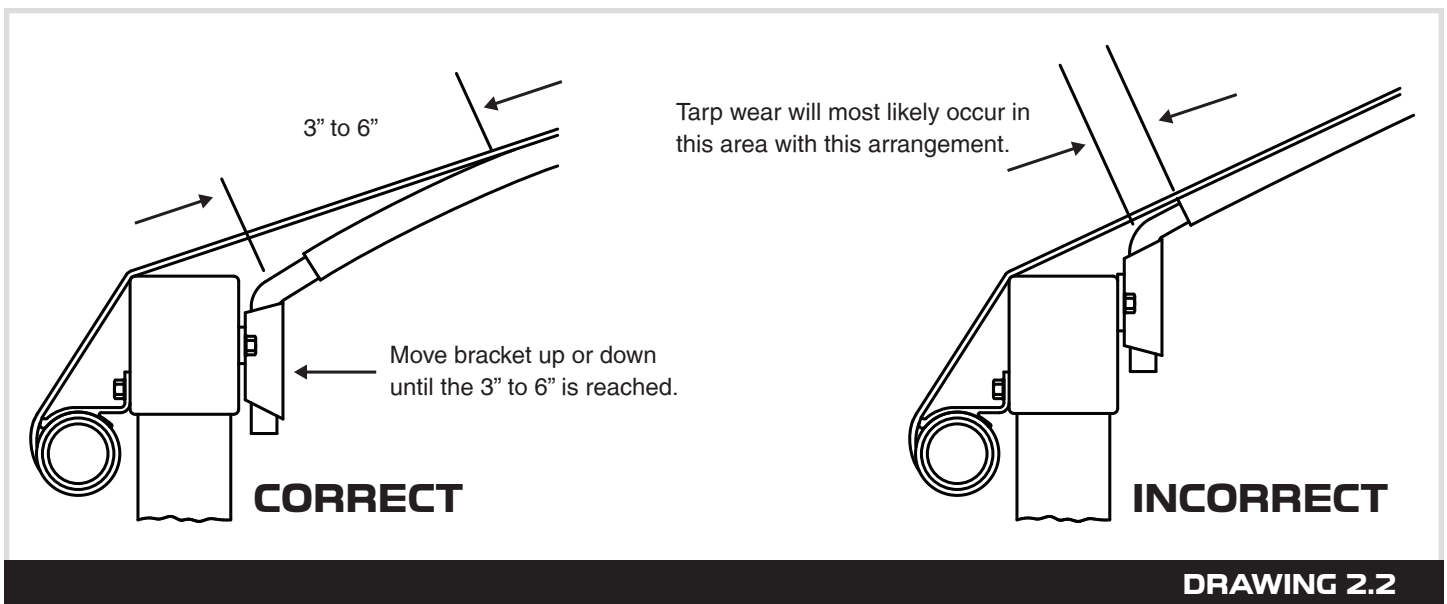


DRAWING 2.1

## **02: END CAPS: FABRIC FRONT CAP - BOW BRACKETS CONTINUED**

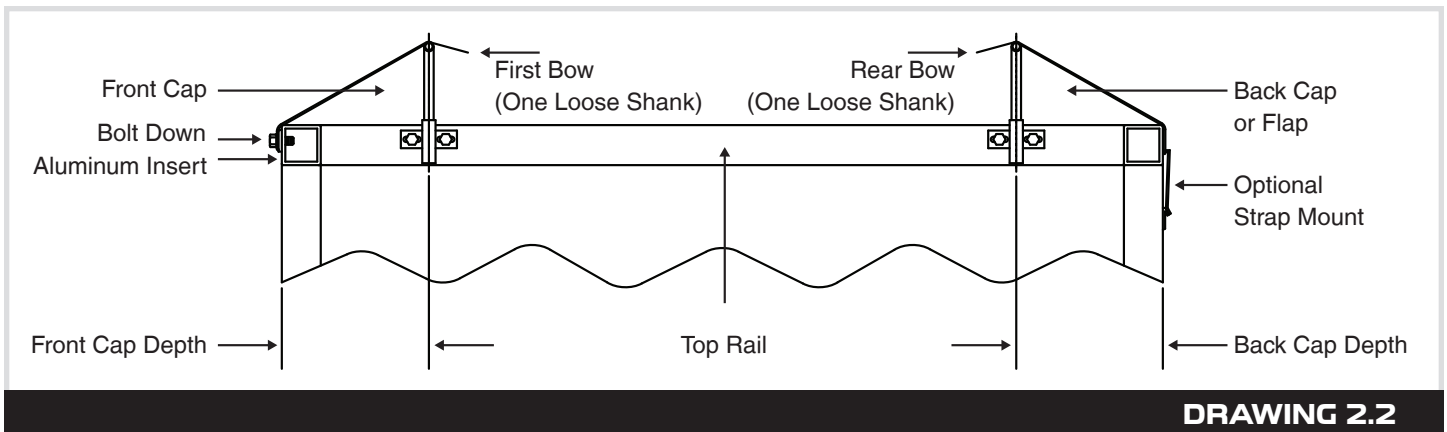
It is important to consider the path the tarp takes from the shank and head toward the outside edge of the top rail. **See Drawing 2.2.** To achieve this, with a bow in place, hold a straight edge on the bow and on the outside edge of the top rail. Move the bracket up or down until the 3 to 6 inches is reached. This is where you want to mount your bow brackets on the top rail for both front and back cap bow brackets.

**NOTE: THE REASON FOR WANTING THE TARP TO LEAVE THE BOW 3 TO 6 INCHES FROM THE SHANK IS TO REDUCE TARP WEAR IN THIS AREA.**



Mount the brackets in place using 3/8" x 1" bolts, washers and nuts. Slide the front cap bow through the bow pocket on the front fabric cap. Then place the loose shank in the end of the bow and put the bow in the bow brackets. Let the cap hang over the edges of the top rail. **See Drawing 2.3.**

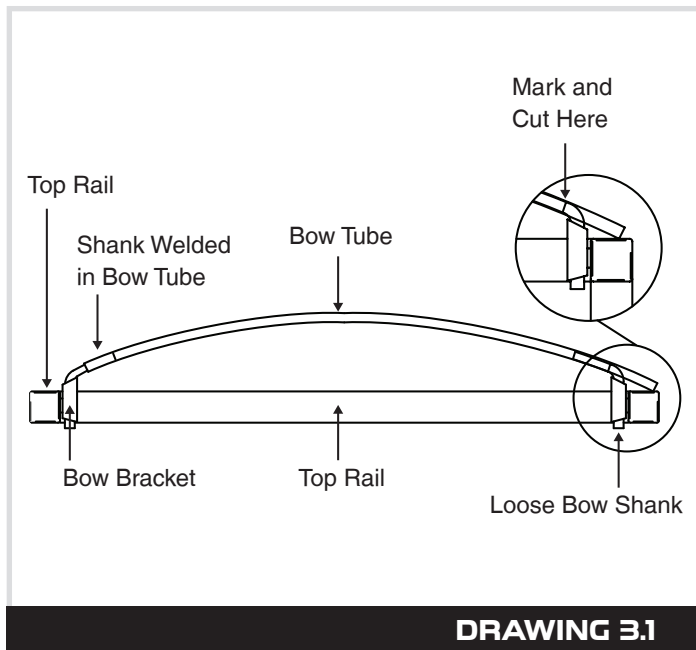
**NOTE: TRIMMING AROUND THE BOW POCKETS TO ACHIEVE A BETTER FIT IS PERMITTED AS LONG AS NO STITCHING IS CUT AND THAT ALL CUTS ARE SMOOTH AND CONSISTENT.**



### 03: INTERMEDIATE BOWS

Roll up Tarp Systems are designed to operate with arched low rise, high rise or flat bows. If your box or trailer has alternate bows you must add arched bows for proper support. The first step is to determine which height of the single bow bracket to use. The single bow bracket is reversible for different widths of top rails. Mount the bow bracket with the 3/4" dimension up for top rails 1-1/2" to 3" wide, mount the bow bracket with the 1-1/2" dimension up for top rails 3" to 6" wide. Place a bow with the shank already welded in place into the bow bracket. Then place a loose shank on the other side in the bow bracket. Hold the bow tube up to the shank and mark as close as possible to where the bend starts on the shank. **See Drawing 3.3.**

**NOTE: THE BOW MUST BE CUT TO THIS EXACT LENGTH TO PREVENT FLATTENING OF THE BOWS WHEN NOT WELDING THE SHANKS IN PLACE.**

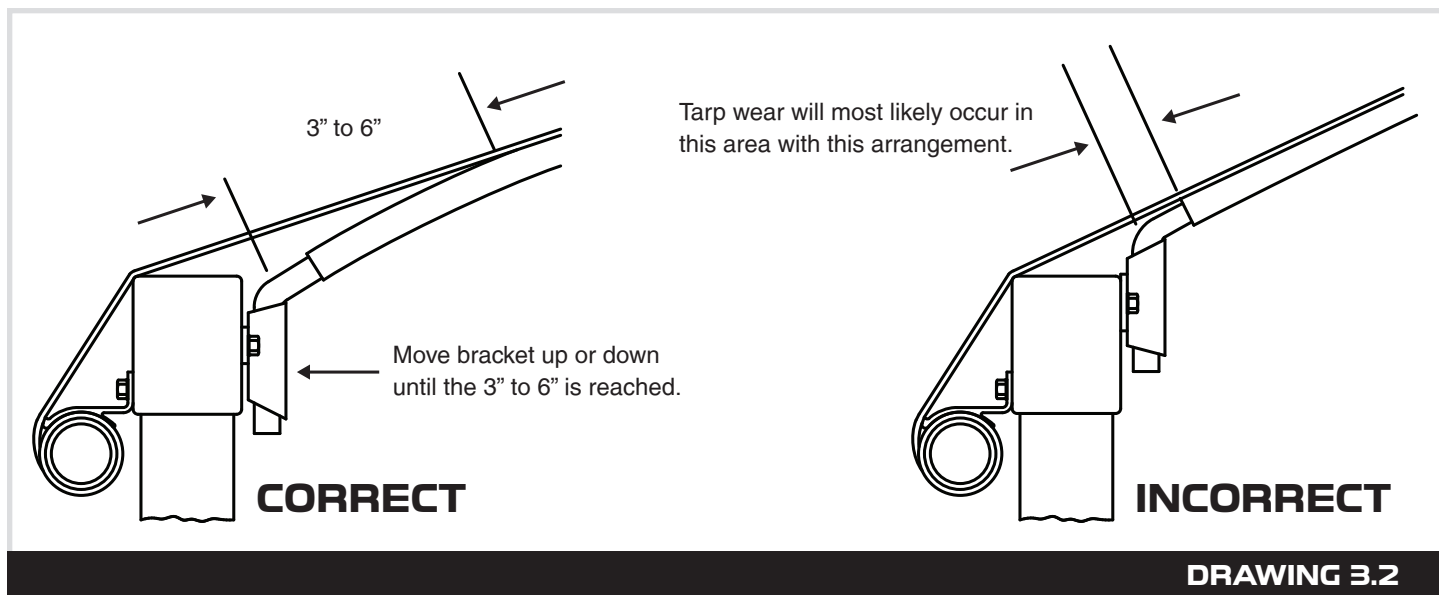


**DRAWING 3.1**

Mount your bow brackets on the top rail, equally space the bow brackets between the second bow from the front and the rear bow. Mount the brackets with 3/8" x 1" self-tapping bolts, washers, and nuts remembering to mount all brackets with the same dimensions facing is either the 3/4" side up or the 1-1/2" side up. Place bows in brackets.

This procedure should be done to all remaining bow tubes. Now with the bow tubes all marked, cut and weld in the loose shanks. Also important is where to mount the brackets on the top rail. It is important to consider the path the tarp takes from the bow to the outside edge of the top rail. The tarp should leave approximately 3 to 6 inches from the shank and head toward the outside edge of the top rail. **See Drawing 3.2.** With a bow in place, hold a straight edge of some sort on the bow and on the outside edge of the top rail. Move the bracket up and down until the 3 to 6 inches is reached, this is where you want to mount your bow brackets on the top rails.

**NOTE: THE REASON FOR WANTING THE TARP TO LEAVE THE BOW 3 TO 6 INCHES FROM THE SHANK IS TO REDUCE TARP WEAR IN THIS AREA.**

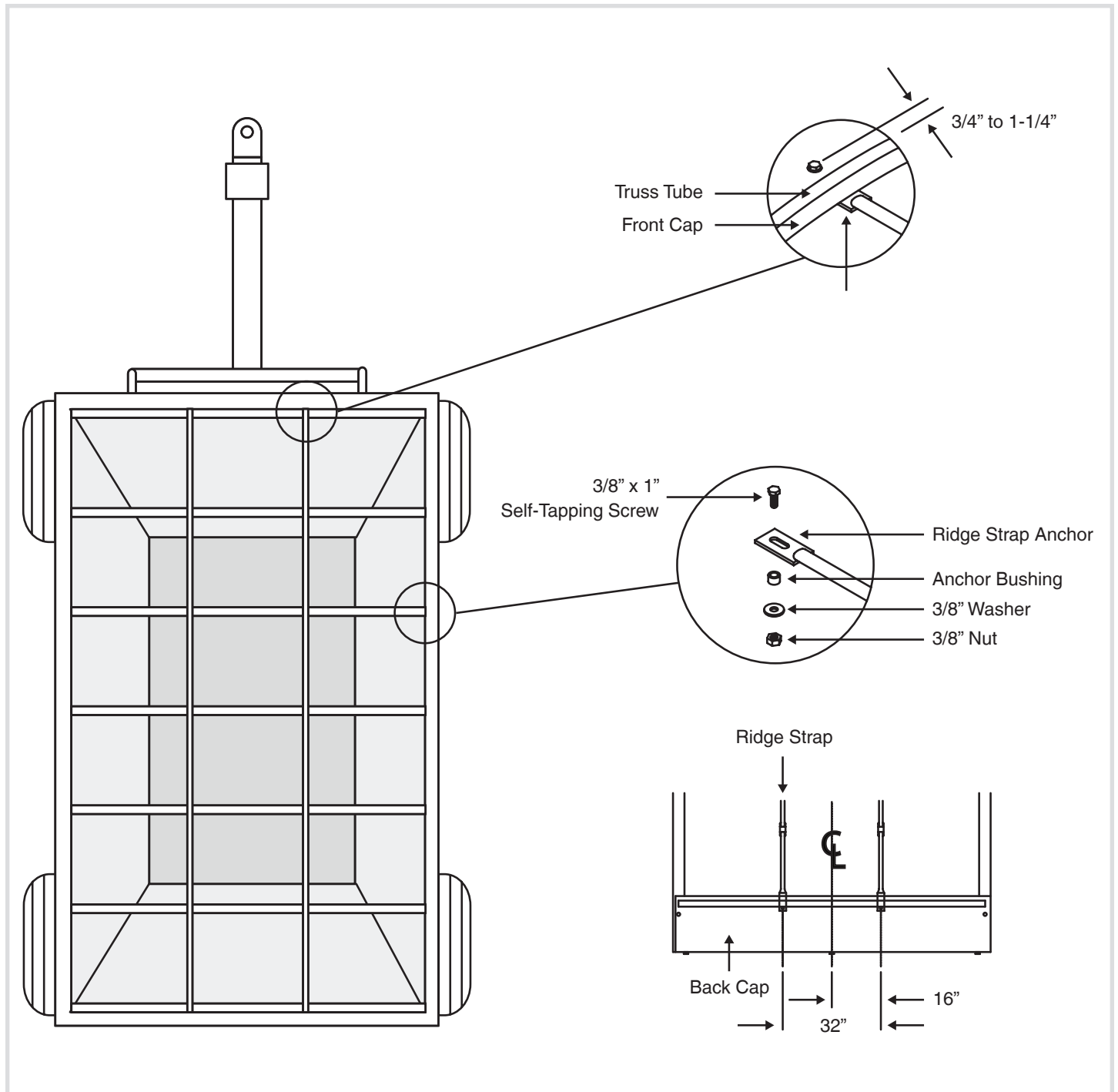


**DRAWING 3.2**

# STEP 04

## 04: RIDGE STRAP: USED WITH ALUMINUM HEAD CAPS

If your kit uses one ridge strap, locate it in the center of your head caps. Mount the ridge strap anchor on the bottom side of the caps, close enough so the bolt head is 3/4" to 1-1/4" away from the Water Seal Ridge. The ridge straps will rest on the top side of the bows. If your kit uses two ridge straps, they will be mounted 16" off center for a total of 32" between the ridge straps. **See Drawing 4.1.**



**DRAWING 4.1**

## 05: TARP PREPARATION

For the correct verification of the tarp length for box, open and measure the length of the tarp with slight tension applied. Check this measurement with the sheet attached to your tarp. Do not proceed any further with your installation if the tarp length does not match.

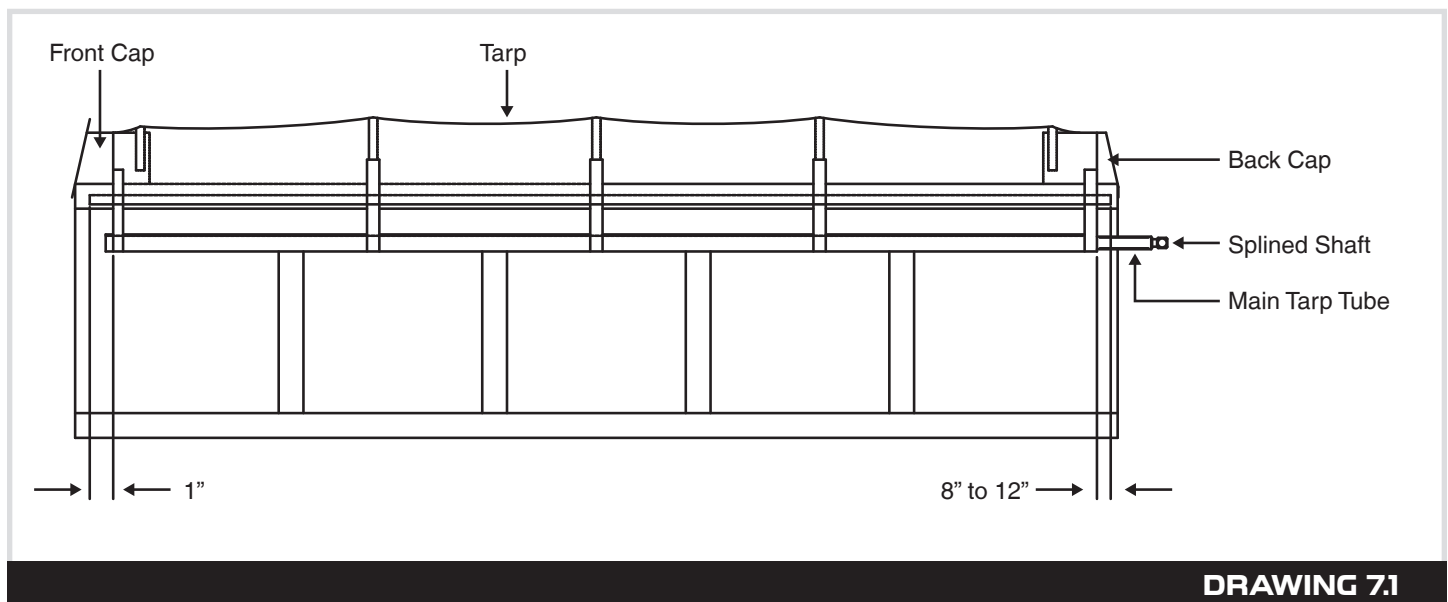
## 06: FIXED TARP TUBE (1-1/8" DIAMETER)

Cut the fixed tube (1-1/8" dia.) to the same length as the tarp.

**NOTE: UNITS OVER 24' REFER TO NOTE BELOW. GRIND OFF ANY ROUGH EDGES TO PREVENT A TEAR IN THE TARP, AND INSERT THE TUBE INTO THE 4" POCKET ON THE TARP.**

## 07: ROLL TUBE (2" DIAMETER)

To determine the correct length of the roll tube, two dimensions need to be accounted for. The first is the back of the box. The splined shaft must protrude 8 to 12 inches from the back of the box. The second dimension is the roll tube. It must extend 1" past the tarp at the front of the box. **See Drawing 7.1.**



Now with the length figured out for the roll tube, cut the tube and grind off any rough edges. With the tarp laying on the ground, slide the main tarp tube into the 5" pocket on the tarp.

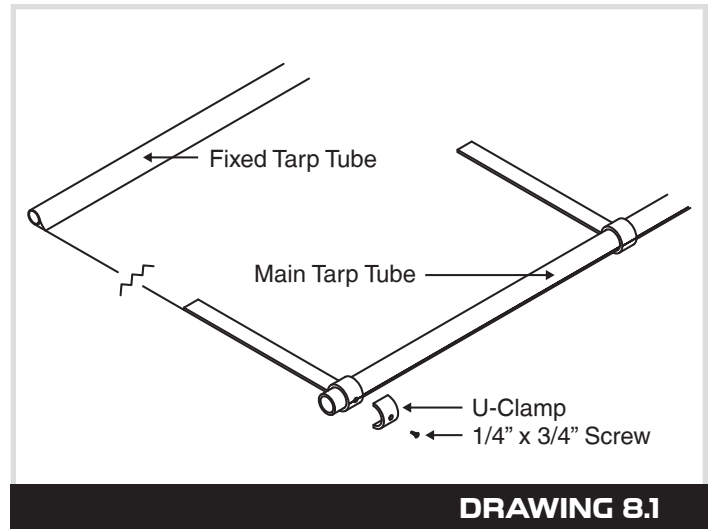
**BE CAREFUL NOT TO DAMAGE TARP WITH END OF TUBE.**

**NOTE: TO PROTECT TARP, WRAP END OF TUBE WITH DUCT TAPE PRIOR TO INSTALLING.**

## 08: U-CLAMPS

Place a u-clip on the front strap and align the crease with the hole in the u-clip. Making sure that the main tarp tube is sticking out 1" out of the pocket. **See Drawing 8.1.**

Insert the 1/3" x 3/4" screw and tighten as tight as possible. Stretch the tarp when in-stalling the rear u-clip so that it equals the tarp length on the fixed tarp tube side. After installing the rear u-clip, install the remaining u-clamps.

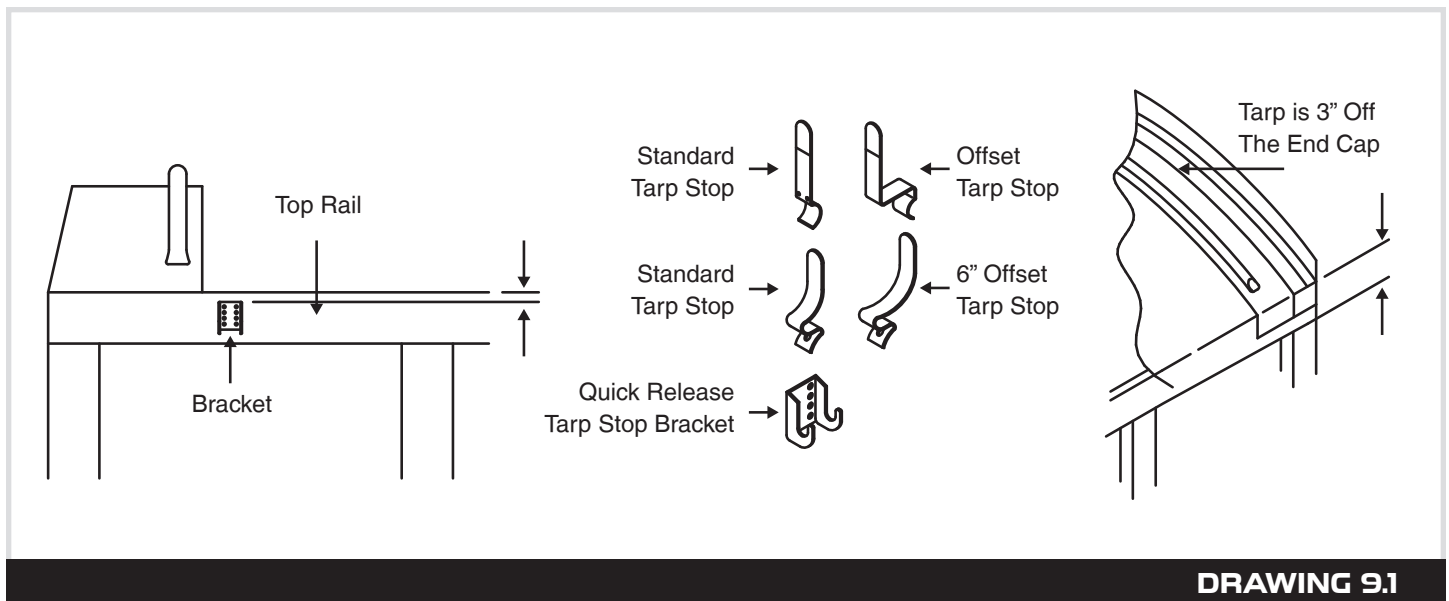


## 09: TARP STOPS

**NOTE: WHEN MOUNTING THE TARP STOPS KEEP IN MIND THAT THEY WERE DESIGNED TO OPEN FROM THE PASSENGER'S SIDE TO THE DRIVER'S SIDE. MEANING THE TARP STOPS WILL BE MOUNTED ON THE DRIVER SIDE OF THE TRUCK. HOWEVER, IF OPENING FROM THE DRIVER SIDE TO THE PASSENGER'S SIDE IS PREFERRED, MOUNT THE TARP STOPS ON THE PASSENGER'S SIDE OF THE TRUCK.**

Set the tarp up on the trailer or box and let the fixed tarp tube (1-1/8" dia.) side of the tarp hang over the edge about 3". Position the tarp so it is centered on the front and back caps. Now making sure that the fixed tarp tube is flush with the tarp, bolt a tarp stop approximately 2" to 4" back from the edge of the cap using the 3/8" x 1" self-tapping bolts, washers, and nuts. Now move to the other end, and making sure that the tarp is flush with the fixed tarp tube, place another tarp stop approximately 2" to 4" back from the edge of the cap. Equally space the remaining tarp stops.

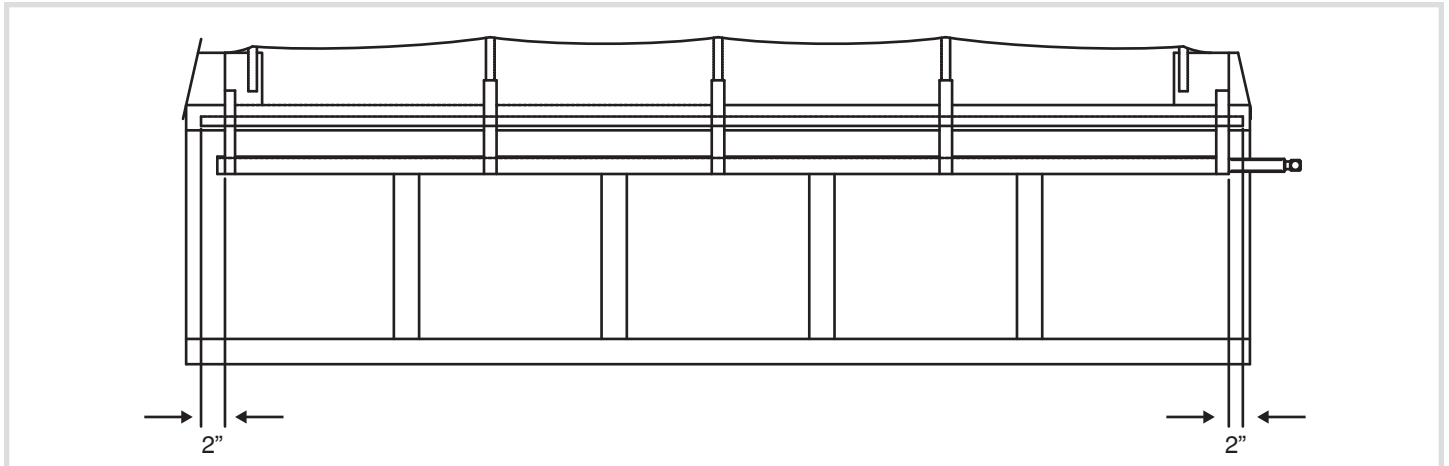
**NOTE: IF USING QUICK RELEASE TARP STOPS, MOUNT THE BRACKET APPROXIMATELY 1" FROM THE TOP EDGE OF THE TOP RAIL OR SIDE HEADER. SEE DRAWING 10.**





## 10: LATCH PLATE

Allow the tarp to hang over the edge of the truck. The latch plate must extend beyond the tarp at each end approximately 2". Locate the latch plate flush with the top rail. **See Drawing 10.1.**



**DRAWING 10.1**

The latch plate will be installed from the rear, proceeding to the front. Bolt in place approximately every 24" using 3/8" x 1" self-tapping bolts, starting no more than 6" from each end of all latch plate sections.

## 11: STANDARD CRANK ASSEMBLY

Slide the crank arm into the crank extension and finger tighten the 3/8" x 1-3/4" bolt and nut (crank arm can be adjusted after the tarp has been open and closed once). Then place the splined u-joint on the splined shaft and insert the 3/8" wire lock pin. Now that the crank assembly has been assembled, roll the tarp up under the latch plate and find the location you want to mount the crank retainer.

You want the crank retainer hook to be up on the crank extension portion of the crank assembly. The crank arm might have to be adjusted at this time. Once the location of the crank retainer has been determined, bolt the retainer in place. Now that everything is in place make sure that the bolt for the crank arm is tightened.

## STEP 12

### 12: STANDARD ROLL RETURN

The Roll Return assists the operator in rolling the tarp from the open position to the closed position. You will be connecting the PVC tubes together, inserting the stretch rope and securing the knot.

**12.1** Press fit the PVC tube with beveled end into the straight PVC tube. Insert the end plug into the straight PVC tube.

**See Drawing 12.1**

**12.2** Insert stretch rope through end plug & PVC tube. Put a flat washer on the end opposite the end plug & tie a knot.

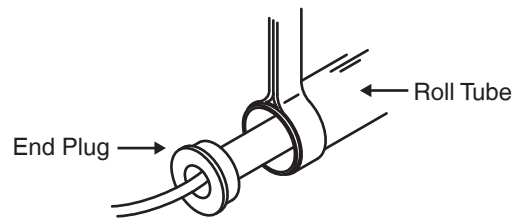
**See Drawing 12.2**

**12.3** Insert roll return assembly into the main tarp tube, lightly tap end plug into position. **See Drawing 12.3**

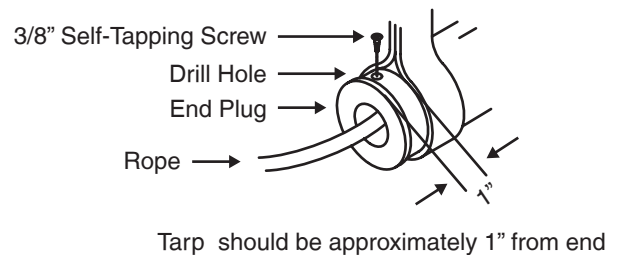
**12.4** Using a 9/64" drill bit, predrill hole approximately 7/16" away from the end of the roll return end plug. Secure with 3/8" self-tapping screw. **See Drawing 12.4**

**12.5** Using a 13/32" drill bit, drill a hole through the latch plate 1-1/2" away from the end of the tarp. Insert eye bolt into hole & secure with lock nuts. **See Drawing 12.5**

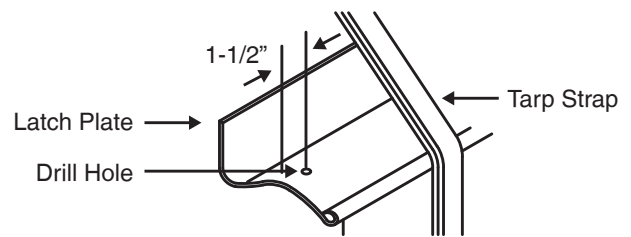
**12.6** Let the tarp hang over the edge of the box, pull stretch rope to remove all the slack in the roll return assembly. Slide the protective cover over the stretch rope. Thread stretch rope through predrilled hole and eye bolt. Pull until the roll return just starts to lift up, tie a knot. Test operation. Cut excess stretch rope and melt cut end to prevent fraying. **See Drawing 12.6**



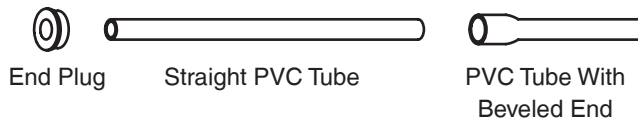
**DRAWING 12.3**



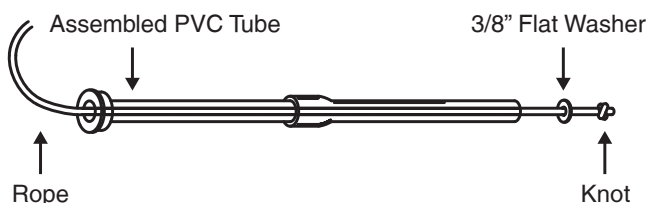
**DRAWING 12.4**



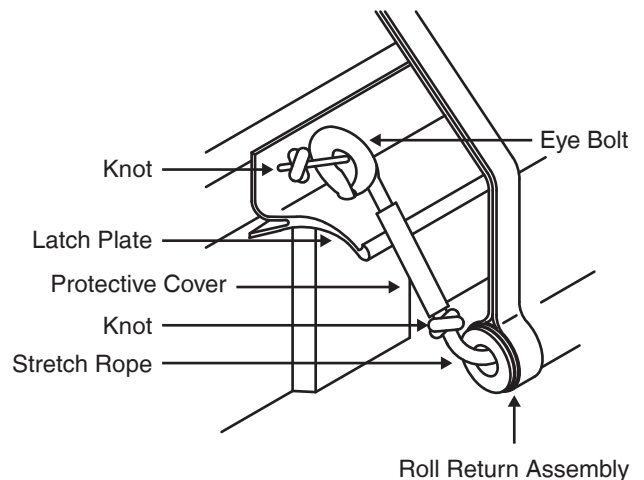
**DRAWING 12.5**



**DRAWING 12.1**



**DRAWING 12.2**



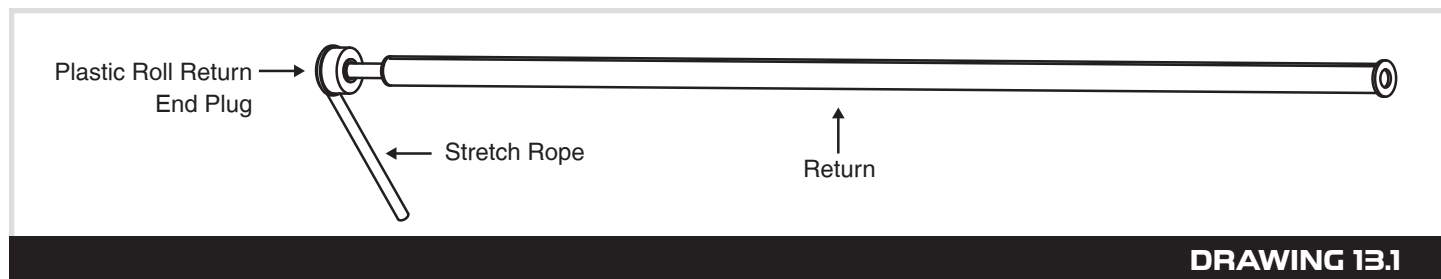
**DRAWING 12.6**

## 13: RETURN ASSEMBLY

Untie the knot and carefully allow the spring to expand to full length in the 10" long return assembly. Insert the tarp return assembly into the main tarp tube and tap the plastic end plug into place. Install the set screw provided which attaches the plastic end plug into the main tarp tube. Approximately 1-1/2" to 2" past the front end of the tarp on the latch plate, drill a 11/32" hole. This hole should be centered in the radius portion of the latch plate. Place the eye bolt in the hole from the top side and secure. See Drawing 13.1. Replace the front 10' of u-clamp screws with the flat pointed tip u-clamp screws provided in the return assembly. Failure to do this may result in return failure.

**NOTE: ON SOME TRUCK LENGTHS THE MAIN TARP TUBE IS SWAGGED ON THE END WHERE THE RETURN AND END PLUG IS INSERTED. YOU MUST CUT OFF THE SWAGGED AREA FOR THEM TO FIT.**

**NOTE: REAR ROLL RETURN OPTION ALSO AVAILABLE.**



**DRAWING 13.1**

## 14: TARP TENSION

To set the tarp tension on the crank:

### Method One:

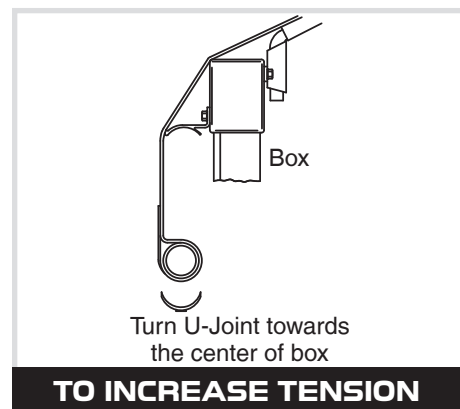
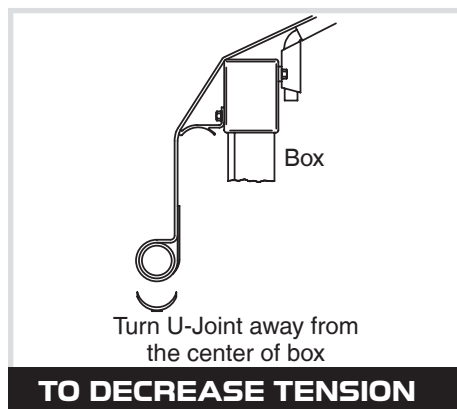
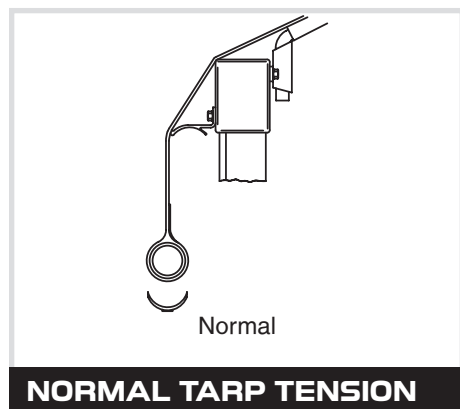
- :: Hold the crank firmly with both hands
- :: Tighten the tarp by rolling the main tarp tube up under the latch plate.
- :: Bring the crank handle down perpendicular to the ground.
- :: Continue to tighten by lifting it up (approximately 45°) into the crank retainer.
- :: Place the snap pin into place.
- :: Repeat this procedure while adjusting the splined shaft and the u-joint one tooth at a time achieve 40 to 60 pounds of tension at the handle end of the crank.

### Method Two:

Another method to measure tension is to adjust the tension until you see a slight deflection or a gradual bend in the crank extension of approximately 1/8".

**AFTER PROPERLY SETTING THE TENSION ON THE CRANK, MAKE SURE THAT THE TARP IS IN THE LOCKED POSITION AND CHECK THE FOLLOWING:**

- :: Check to see that the tarp has equal tension on both end caps and the bows.
- :: If the tarp tension is not the same along the length of the tarp (i.e., tarp twist, U-clamps not aligned, varying box widths from front to back), the u-clamps and the tarp may need to be adjusted in the loose areas of the tarp.





**SIoux CITY TARP, Inc.**

1-888-258-6939 • WWW.SIOUXCITYTARP.COM

*"Quality tarp systems & replacement parts for over 44 years"*



SIouxCITYTARP.COM



1.888.258.6939



SALES@SIouxCITYTARP.COM