

INSTALLATION INSTRUCTION MANUAL

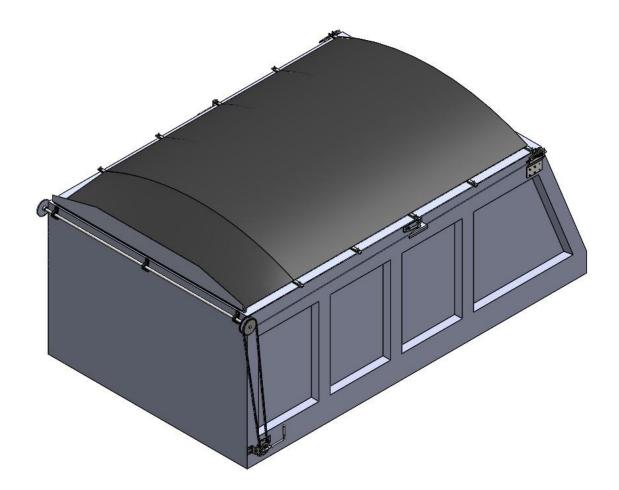


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SAFETY

Read this section carefully before proceeding. The following symbols may appear prior to certain safety related assembly and installation steps described in this manual.

FAILURE TO OPERATE AND INSTALL THIS UNIT AS INSTRUCTED MAY RESULT IN SERIOUS INJURY OR DEATH.



Indicates an immediately hazardous situation which, if not avoided, will result in serious injury or death.

WARNING

Indicates a potentially hazardous situation which, if not avoided, could result in serious injury or death.

Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury or property damage.

NOTICE

Indicates information about a subject that is not safety related.

Step 1: Assembling the Front Pulley System

If you upgraded the system to include the bearing mounting brackets, attach the three pillow block bearings to the three bearing mounting brackets using the supplied 1/2"-13x1-1/2" hex bolts, and hex nuts.

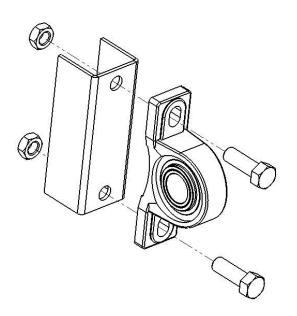
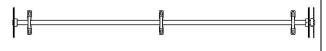


Figure 1.1

Place a pully on the left end of the shaft followed by the three bearings/ bearing assemblies. Then slide on the remaining pulley and place the large 42-tooth sprocket on the right end of the shaft.





Step 2: Mounting the Front Pulley System



Mark a line across the front of the trailer that is 2-5/8" from the top rail of the trailer. This line is where the center of the shaft must be for the pulleys to be positioned at the correct height.

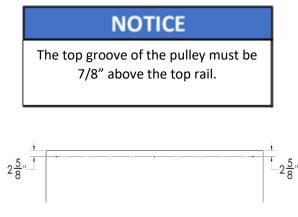
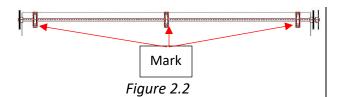


Figure 2.1

Have two people, one on each end of the front pulley system, hold the system level along the marked line. Slide the bearing assemblies to a position where they can be easily mounted to the front of the trailer. Mark the position of the bearing mounting brackets. If you are not using the bearing mounting brackets be sure to mark the bearing mounting slots onto the trailer as well.



If you are using the bearing mounting brackets remove them from the front pulley assembly. Weld the bearing mounting brackets to the front of the trailer at their marked positions.

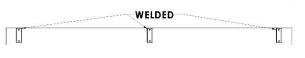
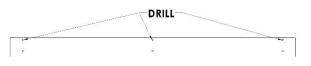


Figure 2.3

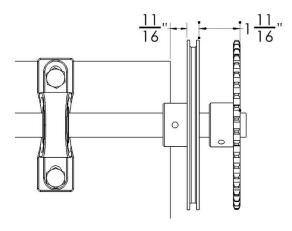
If you are not using the bearing mounting brackets, use a 33/64" drill bit to drill out 6 mounting holes at the marked locations for the pillow block bearings.





Attach the front pulley system to the front of the trailer.

Adjust the pulleys so that their inside face is 11/16" from the edge of the trailer. The 42-tooth sprocket needs to be adjusted so that the outside face of the sprocket is 1-11/16" from the outside face of the pulley. Mark the shaft at the outside edge of the passenger side pulley and the outside edge of the 42-tooth sprocket.





Remove the shaft from the front pulley assembly and cut it 1/4" outside of the marks on the shaft.

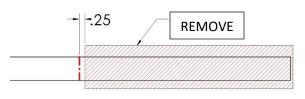
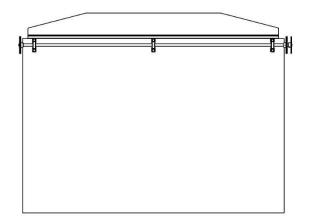


Figure 2.5

Reassemble the front pulley system, this time adding the heat shrink wrapping in between the bearings to prevent rusting. Attach the front pulley system to the front of the trailer.

Step 3: Installing the Wind Deflector & Tarp Bar.

Set the wind deflector and 1" square tarp bar on the front rail of the trailer and position them so they are centered. Mark the position of the mounting holes on the front rail. Remove the wind deflector and tarp bar.



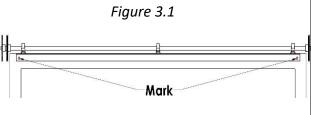


Figure 3.2

Cut the head off two 1/2"-13 x 2" hex bolts. Weld each headless bolt vertically at the marked locations.

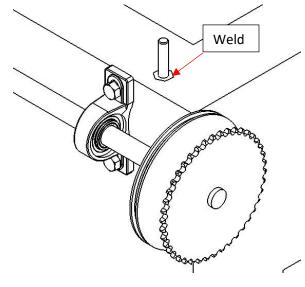


Figure 3.3

Place the tarp bar and wind deflector on the now welded bolts. Make sure that the wind deflector is sitting on the tarp bar. Secure them using $1/2^{"}$ -13 hex nuts.

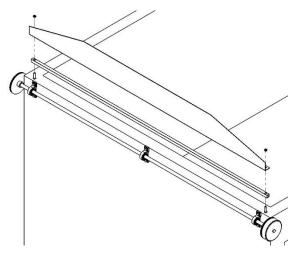


Figure 3.4

Step 4: Installing the Crank Assembly

To install the crank assembly without needing more than then 12' of #40 chain that is provided, the crank assembly must be mounted so that the center of the sprocket in the crank assembly is no more than 5' from the center of the sprocket in the pulley assembly.

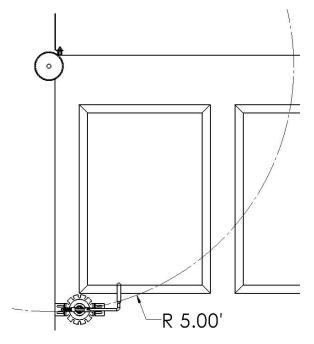


Figure 4.1

For dump bodies and trailers with little or no corner radius present, the assembly may be mounted to the bottom rail or flush mount fender (note: it may be necessary to fabricate a mount if no flush mount is present). After determining the proper placement, hold the assembly in place and make a mark on the body or trailer at the right most end of each of the four mounting slots in the spider wheel. Next using a 25/64" drill bit, drill holes at these marks. Then, using 3/8"x 1-1/2" hex bolts. Mount the assembly to the body or trailer with the mounting bolts at the right most end of the slots in the spider wheel but do not completely tighten the bolts.

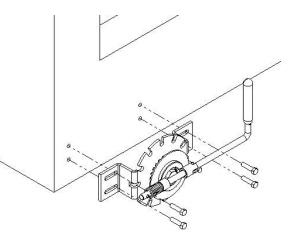
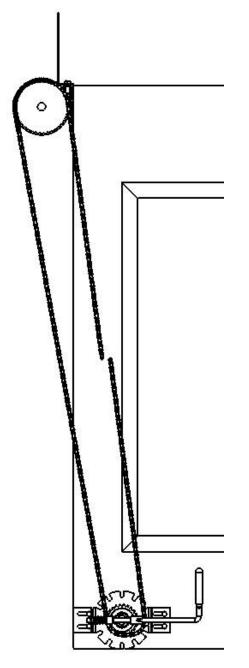


Figure 4.2

The next step is to install the sprocket chain. First, wrap the chain around the sprocket at the end of the pulley assembly and then around the sprocket on the crank assembly. Bring the ends together and mark the chain at the desired length. Break and discard the excess chain and fasten the ends with the master link.



After you fasten the master link, shift the crank assembly to the right until the chain is tight. If the chain is not tight even after shifting the crank assembly, remove the master link, make the chain shorter, and reinstall the master link. Tighten the bolts to secure the assembly to the body or trailer.

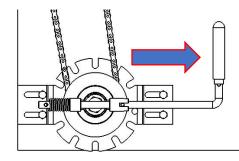


Figure 4.4

NOTICE

The crank sprocket and pulley sprocket must be in alignment. If this is not the case adjust the position of the Pulley Sprocket.

Figure 4.3

Step 5: Installing the Rear Idlers

The placement of the rear idler assembly is influenced by the tailgate style on the body or trailer. If there is not a tailgate or the tailgate swings up and down, the idler assembly should be mounted as close to the rear as possible, while still allowing for at least 4 bolts to be installed in the mounting holes on the assembly (Figure 5.1). If the swing door swings outward, side to side, then the rear idler assembly must be mounted slightly closer to the front of the body or trailer, to not interfere with the opening or closing of the swing door (Figure 5.2).

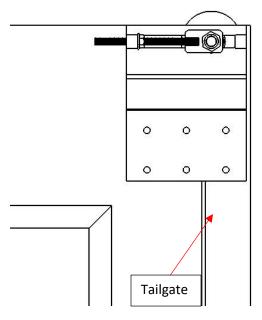
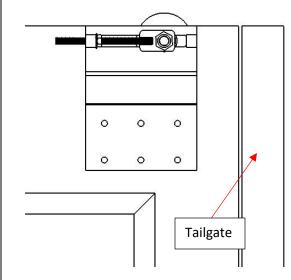


Figure 5.1





Clamp the driver side idler assembly to the body or trailer so that the top of the mounting bracket is flush with the top rail of the body/ trailer. Mark the position of at least 4 of the mounting holes. Remove the assembly and drill out the mounting holes using an 11/32" drill bit. Use the supplied 3/8" x 1-1/2" self-tapping bolts to secure the idler assembly to the body/ trailer.

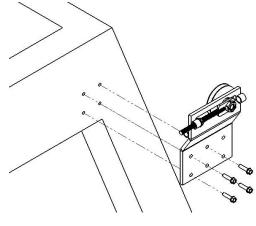


Figure 5.3

Measure the distance from the rear of the body or trailer to the front of the driver side idler mounting bracket. Mark this distance on the other side of the body/ trailer. Align the front of the passenger side idler assembly mounting bracket with this mark, clamp it to the body and repeat the mounting instructions that were given for the driver side idler assembly.

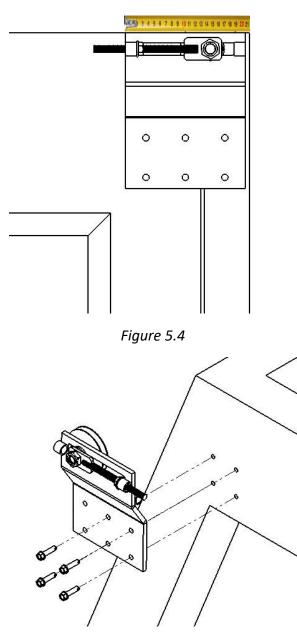


Figure 5.5

It is necessary for the rear idlers to be square and in line with the front pulleys.

To check if the idler assemblies are square measure the distance of the idler assemblies from the driver side front corner to the passenger side rear corner (X), and then from the passenger side front corner to the driver side rear corner (Y). These distances should be the same.

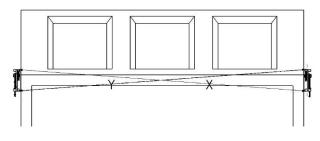


Figure 5.6

To check if the idler assemblies are in line with the front pulleys measure the distance between the front pulleys and measure the distance between the rear idlers. These distances should be the same. Additionally use line of sight from the rear of the body/ trailer to ensure they are in line.

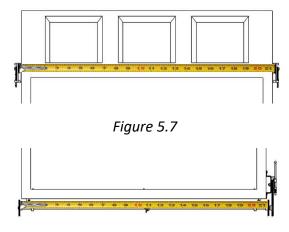


Figure 5.8

If the rear idlers are not square it may be necessary to use shims to achieve the proper orientation. If the idlers and the pulleys are not in line with each other adjust the positioning of the pulleys on the front of the body/ trailer.

Step 6: Installing the Cable Tarp and Bows

The tarp and bows should come preassembled and held together by shipping rods. If this is not the case, slide one bow through each pocket and orient them so that the pocket side of the tarp faces down when installed.

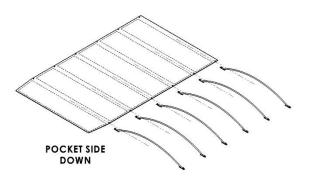


Figure 6.1

Detach the 1/4" hex nut and washer that links the slider to the bow. Attach the tarp to each bow by placing the grommet over the bolt located at the end of the bow. Attach the tarp to the bow by replacing the 1/4"-20 hex nut and washer.

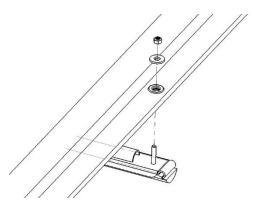


Figure 6.2

Once your tarp and bows are assembled pack them tightly together and secure them using a ratchet strap or something similar. For the preassembled tarp, leave the shipping rods in place. Set the tarp and bow assembly on the front of the body or trailer. Starting with the driver side, thread the cable down and around the idler on the rear idler assembly.

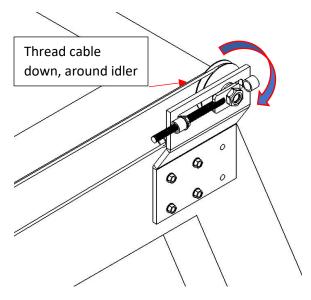


Figure 6.3

Remove the shipping rod, thread the cable up and around the front pulley and then through the holes at the end of the bows beginning with the front bow and working to the rear bow.

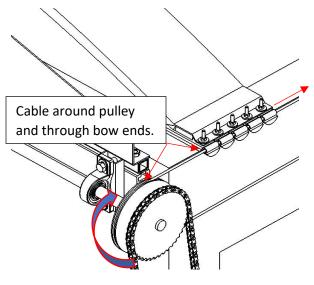
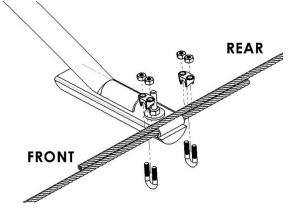


Figure 6.4

After threading through the bows, stop with two to four inches of cable protruding from the rear most bow. Next, bring the other end of the cable forward to meet the previous end at the rear most bow. Using two cable clamps, clamp the ends together placing one clamp in front of and one clamp behind the rear most bow.





Repeat the process of threading the cable and installing the clamps on the passenger side of the trailer.

Once you have secured both sides of the system tension the cable by loosening the sheave nut on the idler bolt and then tightening the nut on the tension bolt to push the pulley toward the rear of the trailer. Once you have achieved an ideal tension retighten the sheave nut on the idler bolt. Repeat this process for the idler on the other side of the trailer.

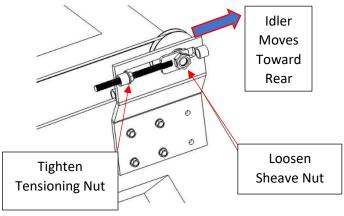
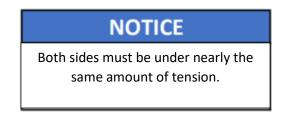
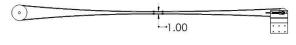


Figure 6.6



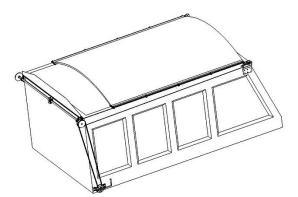
To check if the cable is under the correct tension, move the cable to the uncovered position. When both cables are squeezed together in the middle there should be a 1" gap between them. Recheck the cable tension after the system has sat for a couple of days.





Step 7: Fastening the Front of The Tarp.

Extend the tarp out so that the last bow is as close as possible to the rear idler without resting on it. Leave no more than a 4" gap between the idler and the last bow. Clamp the rear bow into position.





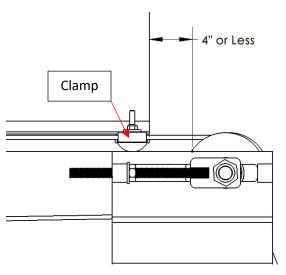


Figure 7.2

Remove the wind deflector and tension bar from the kbar.

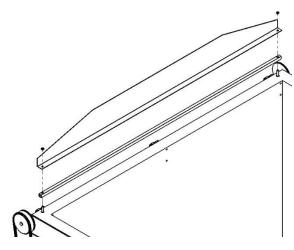


Figure 7.3

Fasten the front of the tarp to the tension bar using the supplied #12 x 1" Pan Head Phillips Self Tapping Screws.

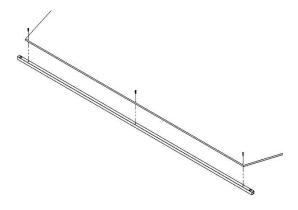


Figure 7.4

Roll the bar under the tarp until the tarp is taught.

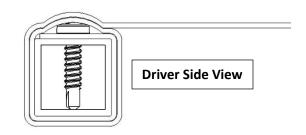


Figure 7.5

Remount the tension bar and wind deflector to the kbar. The system should look like the one depicted in Figure 7.6.

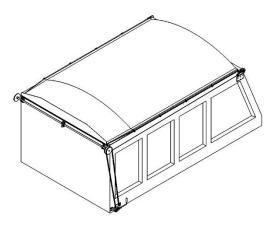


Figure 7.6

Run the system in and out a few times to make sure the system is operating correctly. Adjust the system as necessary.



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