



# ***OTS***

# ***O'BRIAN TARPER***

US Patents and Patent Pending

## **Owner's Manual**

**FOR ASSISTANCE  
CALL 252-291-2141**

ATTENTION DISTRIBUTOR: DO NOT DISCARD, Please forward to customer  
Along with warranty registration when unit is delivered and hang driver operation  
Tag in cab around hoist controls

**WARNING: If incorrectly used, this equipment can cause injury!**

## TABLE OF CONTENTS

Section	Description	Page No.
Part 1	Operation	2
Part 2	Overview	3-4
Part 3	OTS Packing List	5
Part 4	Gantry Installation	6-7
Part 5	Modular Installation	8
Part 6	Side Arm Installation	9
Part 7	Plumbing	10-11
Part 8	Final Adjustment & Maintenance	12-13
Part 9	Warranty	14

## COVER OPERATION

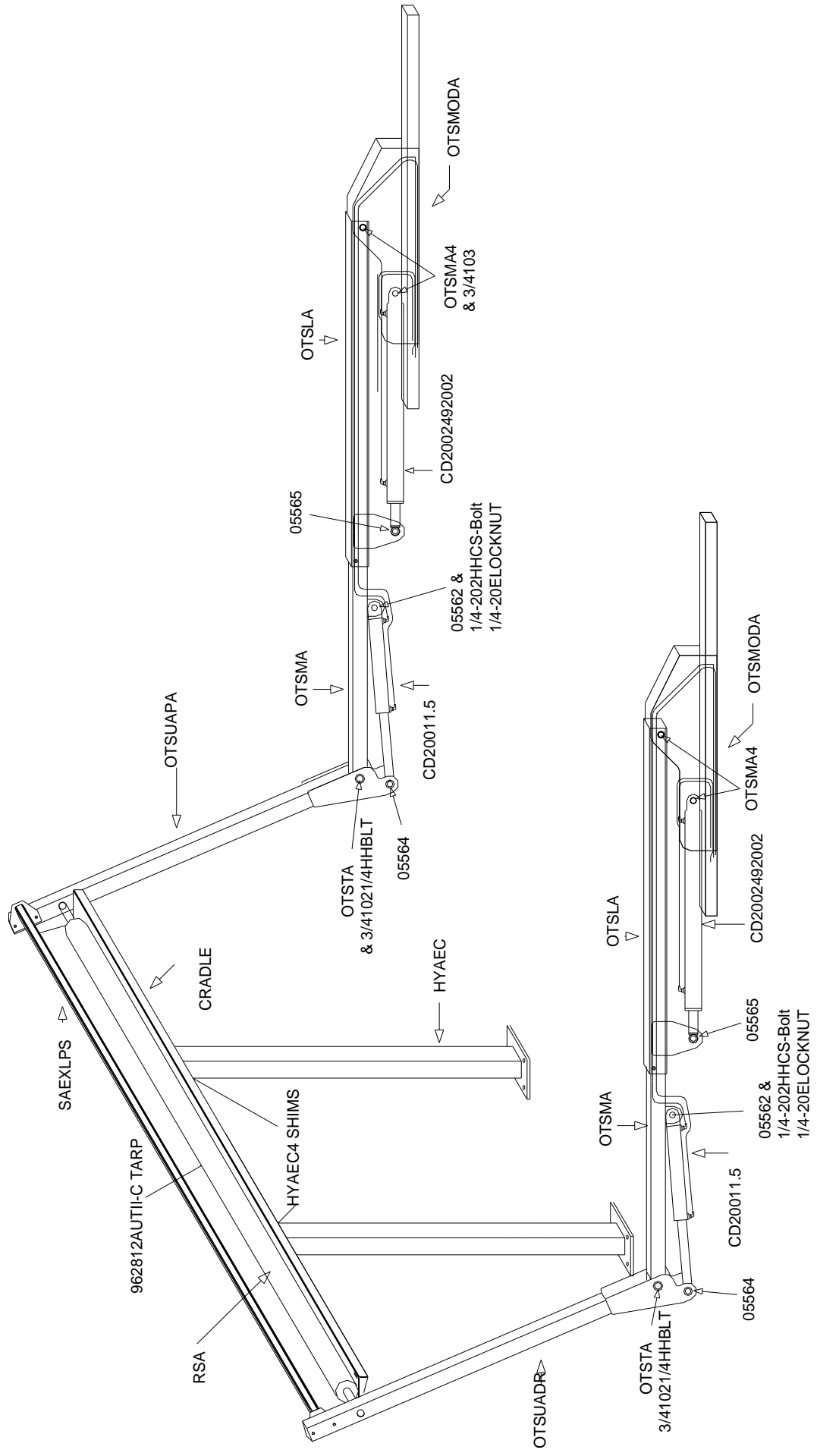
### TO COVER:

1. Raise side arms and extend upper arms to raise roller up between cab and container
2. Raise gantry above container (OPTIONAL)
3. Once the roller is past the front of the container, continue to hold joystick in the covering direction and cover container.
4. Position the roller so it will **REST ON THE TOP REAR EDGE OF THE CONTAINER BUT BELOW 13'6"**. **POWER DOWN THE ROLLER AGAINST THE TAILGATE.** This helps to keep the roller from bouncing up and down against the container while going down the road. If powered against the tailgate, the roller should ride tightly against the container as the truck goes down the road.
5. **Do NOT extend or leave roller past rear edge of container. Roller MUST be supported or arm damage WILL occur**
6. Flip the tarp side flaps down and secure them as needed.
7. Lower gantry down to just under container edge (Optional)

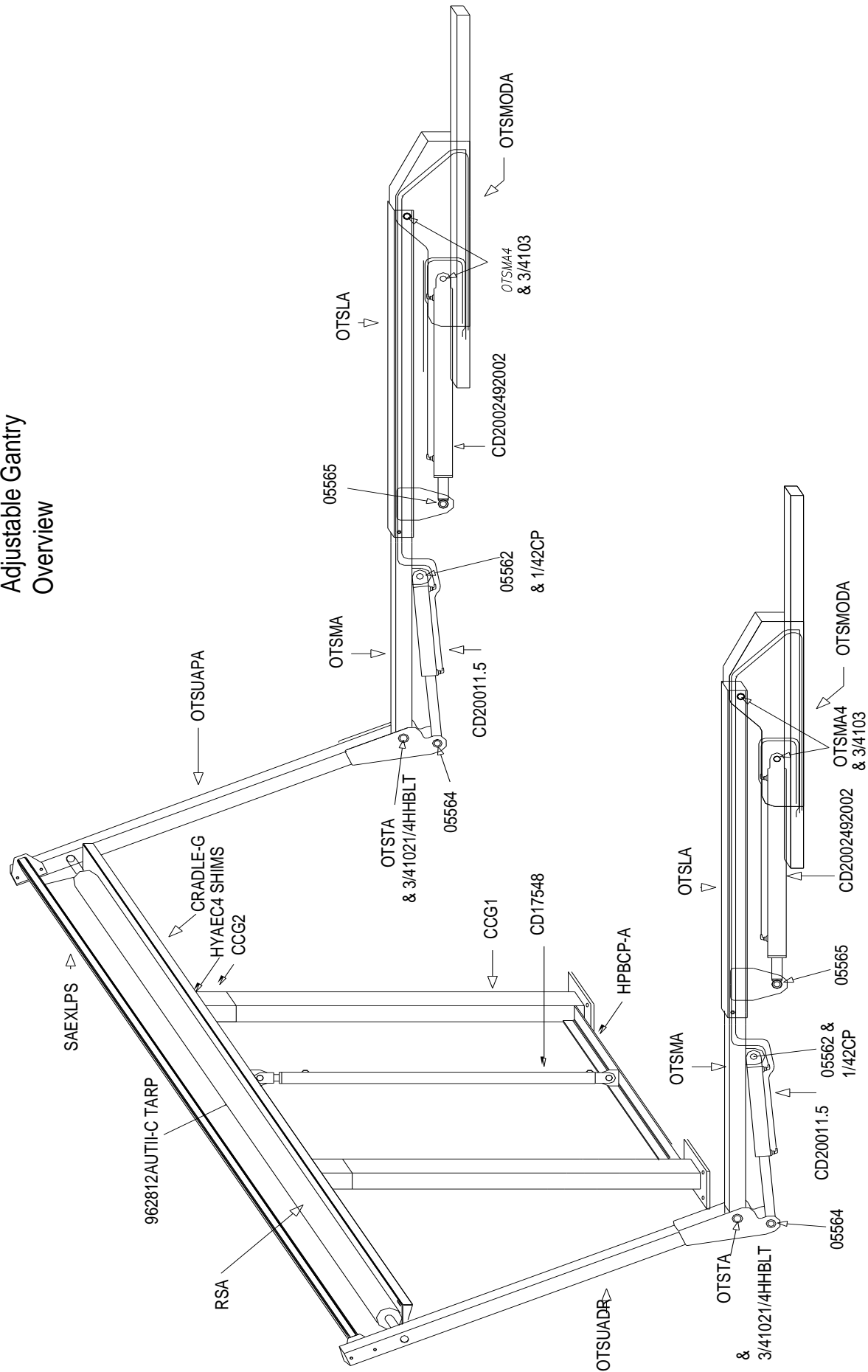
### TO UNCOVER:

8. Un-secure the side flaps
9. Extend the upper arms to get roller off of container.
10. Bring the side arms forward and clear the front top edge of the container with the roller.
11. Lower gantry (OPTIONAL)
12. Lower the side arms and adjust the upper arms in order to lower the roller down between the container and the cab.
13. **POSITION THE ARMS SO THAT THE WEIGHT OF THE ROLLER IS RESTING ON THE BOTTOM OF THE CRADLE AND NOT ON THE ARMS!** This keeps the arms from bending downward.

# OTS O'BRIAN TARPER SYSTEM



# OTS-G Tarp System Adjustable Gantry Overview



***O'BRIAN TARPER PACKING LIST***

<b><u>QTY.</u></b>	<b><u>PART #</u></b>	<b><u>DESCRIPTION</u></b>
4	L-BRACKETS	MOUNTING BRACKETS
8	SF4	GUSSETS
2	OTSMODA	MODULAR ASSEMBLY
2	OTSMA	MIDDLE ARM
1	OTSUA-D	UPPER ARM- DRIVER
1	OTSUA-P	UPPER ARM- PASSENGER
2	CD200115	UPPER ARM CYLINDER
1	SAEXLPS	STABILIZER BAR
1	CRADLE	CRADLE
1	RSA	ROLLER SPRING ASSY
1	IICTB	TARP BAR
1	962812AUTII-C	TARP
2	HYAEC	CRADLE UPRIGHTS
1	HOSEKITOTS	HOSE KIT- O'BRIAN TARPER
1	SPKOTS	SMALL PARTS KIT- OTS
4	JF038	STEEL LINES

***O'BRIAN TARPER W/ ADJ. GANTRY PACKING LIST***

<b><u>QTY.</u></b>	<b><u>PART #</u></b>	<b><u>DESCRIPTION</u></b>
2	CCG1	GANTRY BASE
2	CCG2	GANTRY INSERT
1	CRADLE-G	CRADLE FOR GANTRY
1	CD15042	GANTRY CYLINDER
2	1X52	GANTRY CROSS BRACES
1	HPBCB	GANTRY CYLINDER MOUNT
1	HOSEKITG	GANTRY HOSE KIT
1	SPKOTSG	GANTRY SMALL PARTS KIT
4	L-BRACKETS	MOUNTING BRACKETS
8	SF4	GUSSETS
2	OTSMODA	MODULAR ASSEMBLY
2	OTSMA	MIDDLE ARM
1	OTSUA-D	UPPER ARM- DRIVER
1	OTSUA-P	UPPER ARM- PASSENGER
2	CD200115	UPPER ARM CYLINDER
1	SAEXLPS	STABILIZER BAR
1	RSA	ROLLER SPRING ASSY
1	IICTB	TARP BAR
1	962812AUTII-C	TARP
4	JF038	STEEL LINES
1	HOSEKITOTS	HOSE KIT- O'BRIAN TARPER

## GANTRY INSTALLATION

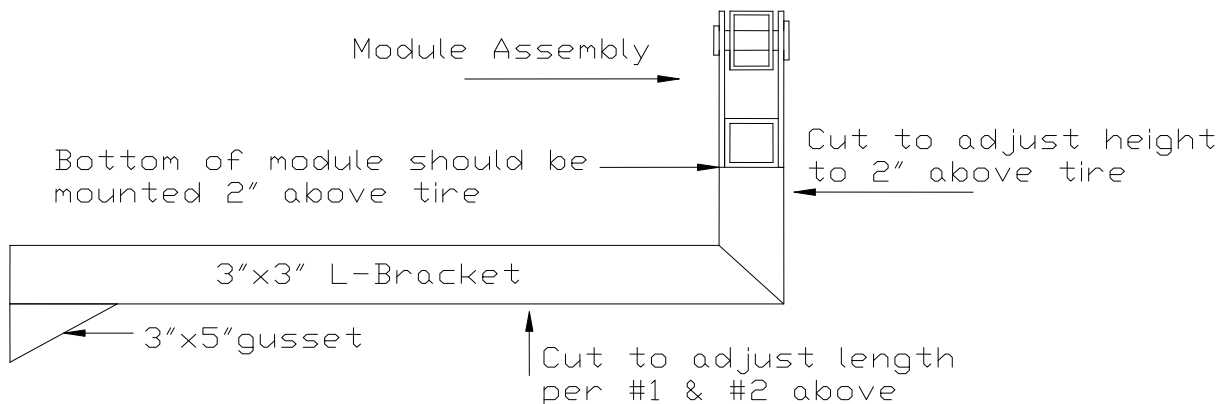
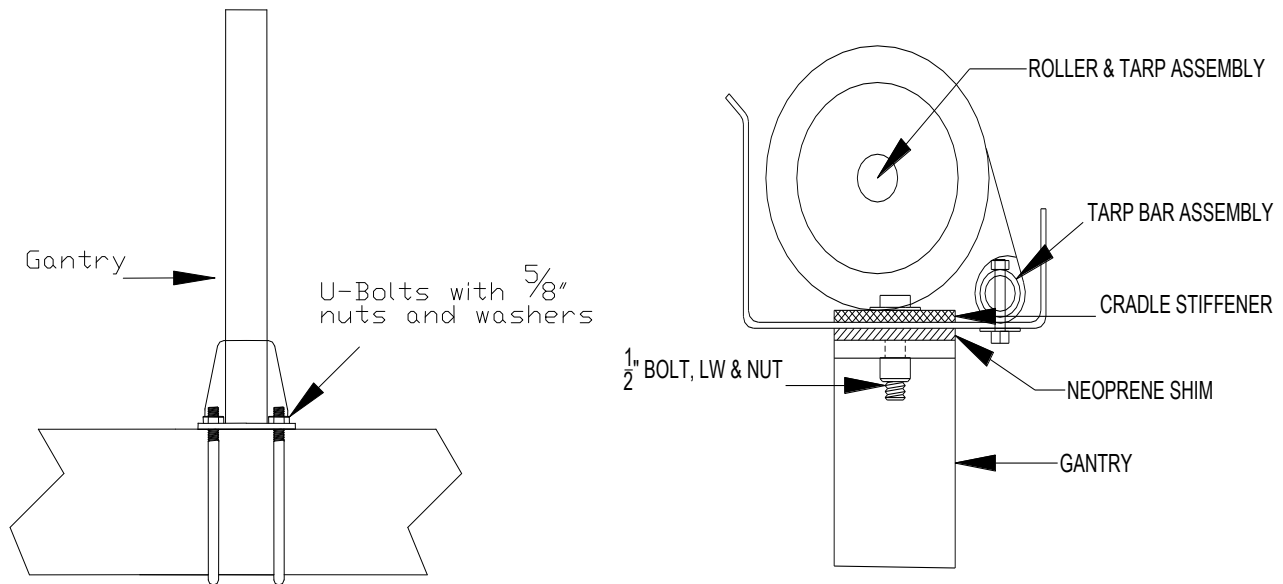
1. Check for clearance between cab, exhaust, and hoist.
2. You need a minimum of 7" clearance between hoist and cab to mount the gantry.
3. Sit gantry on top of chassis, flex U-bolts apart, slide in from bottom of chassis into mounting plate holes, and attach the 5/8" U-bolts with the 5/8" nuts and washers. If this option will not work then a chassis bridge will need to be fabricated for gantry attachment.
4. If mounting to chassis; flex U-bolts apart, slide in from bottom of chassis into mounting plate holes, and attach the 5/8" nuts and washers. Flexing U-Bolts to fit into plates is common!
5. The closer the roller is to the cab the easier it will be to raise and lower arms. **\*Note- leave at least one (1") inch of clearance between cab and gantry.**
6. Measure the distance from hoist to gantry. Make sure both gantry legs are the same distance from the hoist and plumb.
7. Mount cradle on top of gantry using the 4) 1 1/2" x 1 3/4" bolts and cradle support plates (3"x7"x1/8" plate). **Insert the rubber shims between cradle and gantry uprights. These shims are needed to allow for chassis flex.** Be sure to mount the cradle with the 1/2" bolts and cradle support plate through the top and the locknuts on the bottom.
8. Place roller assembly into the cradle with the end marked **PASSENGER SIDE and TORQUE SHAFT** on the **PASSENGER SIDE**. Center the tarp on the tarp bar and bolt the tarp bar to the **INSIDE** of the cradle with the 5/16" x 2" bolts and locknuts. (See Diagram)
9. **NOTE:** The shaft end on the passenger side has a **FLAT** spot. So you can put the supplied wrench on for tensioning.

## ADJUSTABLE GANTRY INSTALLATION

1. Check for clearance between cab, exhaust, and hoist.
2. You will need a minimum of 7" clearance between hoist and cab to mount gantry base.
3. Sit gantry base on top of chassis, Get the 4-5/8" U-bolts & 8-5/8" lockwashers and nuts out of the small parts kit. **YOU WILL NEED TO FLEX THE U-bolts APART** in order to slide into the gantry mounting plates. Slide U-bolts in from bottom of chassis into mounting plate holes, and attach with the 5/8" nuts and lock washers. If this option will not work then a chassis bridge will need to be fabricated for gantry attachment.
4. **Note-leave at least one inch (1") of clearance between cab and gantry.**
5. Measure the distance from hoist to gantry base. Make sure both gantry base's are the same distance from the hoist and plumb.
6. Tighten down the 5/8" U-bolts after verifying square and plumb.
7. Slide the gantry inserts into the gantry bases.
8. Mount the Cradle-G on top of gantry inserts using the 4) 1/2" bolts. Be sure to mount the Cradle with the 1/2" bolts and 3"x7"x1/8" cradle stiffeners on top, 1/4" neoprene shims between the cradle and gantry and the locknuts on the bottom of the gantry inserts
9. Center the cradle on the gantry and tighten down the 4) 1/2" bolts.
10. Attach the rod end of the CD17548 cylinder to the Cradle-G clevis with the clevis pin and 1/4" x 2" Cotter pin. With the cylinder hanging from Cradle-G, measure the distance between the gantry bases at the cylinder base mounting point.
11. Cut the HPBCB-A angle to fit this dimension. Be sure that the cylinder mounting bracket is centered on the angle. If the dimension between the gantry bases is 34 1/2" and the angle is 35 1/2", cut 1/2" from each end.
12. Attach the base of the cylinder to the HPBCB-A using the clevis pin and 1/4" x 2" cotter pin. Weld the HPBCP-A angle to the gantry legs, making sure that the HPBCP-A angle is level and plumb with the truck.

13. Making sure that the gantry legs are level and plumb, weld the 2-1X52 cross braces to the gantry bases in a criss-cross pattern. This will give the gantry additional lateral support for raising and lowering the Cradle.
14. Place roller assembly into the cradle with the end marked **PASSENGER SIDE and TORQUE SHAFT** on the **PASSENGER SIDE**. Bolt the tarp bar to the **INSIDE** of the cradle with the 5/16" x 2" bolts and locknuts.

**NOTE:** The torque shaft end on the passenger side has a **FLAT** spot. So you can put the supplied wrench on for tensioning.



## MODULAR INSTALLATION

**NOTE:** The installation of the O'Brian Tarper is very simple. The cylinder placement, hose routing, and lower arm mounting has **already been done**. The only thing involved is mounting the modular assembly to the truck's sub-frame.

1. Federal D.O.T. allows for 108" overall width for safety devices. Therefore maximum width for the *O'Brian Tarper* must not exceed 108" overall width. This includes any bolts, hydraulic fittings, etc. **Check with your state and local D.O.T. to determine what standards apply in your area!**
2. For example, if the hoist is 35 ½" wide then the following formula will give you your maximum overall width.

$$108" - 35 \frac{1}{2}" = 72 \frac{1}{2}"$$
$$72 \frac{1}{2}" / 2 = 36 \frac{1}{4}" \text{ maximum width from hoist for each side}$$

O'Brian recommendation would then be 36" on each side

### PIVOT POINT FORMULA

3. Take the length of your longest box (22'-24') and add the length from the front of the box to the center of the gantry uprights (example 1') then divide by two.

$$(22' + 1' = 23', 23' / 2 = 11'-9" \text{ or } 24' + 1' = 25', 25' / 2 = 12'-6")$$

Based on the pivot point formula, your pivot point would be 11'-9" or 12'-6" from the center of your gantry uprights to the pivot center of your modular assembly.

**Note:** Average pivot points fall between 11'-9" and 12'-6"; depending on container length of 22' – 24'

4. The modular pivot assemblies are side sensitive with decals facing away from the truck. They can be mounted to the sub frame anywhere on their bottom. **The modules must be level front to rear, side-to-side, and parallel to the hoist in order to function properly!**

As a general rule, mount the module as low as possible to clear the container and high enough to change the tires.

**(Minimum tire clearance is 2" from bottom of module to top of tire!!)**

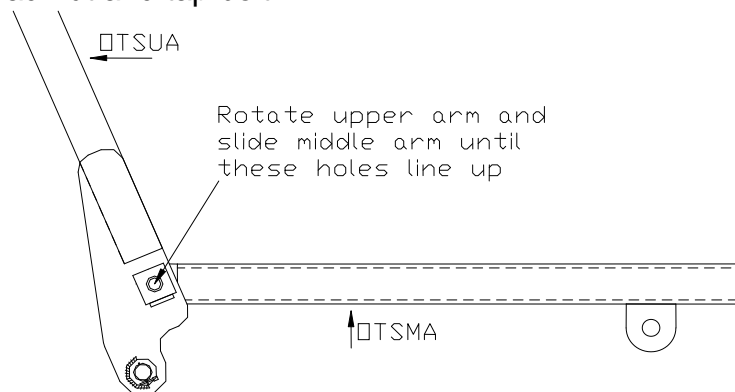
5. Use the supplied 3" x 3" "L" brackets for mounting the module. You may have to cut either length to get the module level front to rear and side to side. **DO NOT WELD TO THE CHASSIS!! THERE MUST BE A PLATE BOLTED TO THE CHASSIS OR USE THE HOIST SUB FRAME TO WELD TO.**
6. Use the supplied gussets to finish the modular installation.

**(See diagram on previous page for bracket & gusset schematic)**

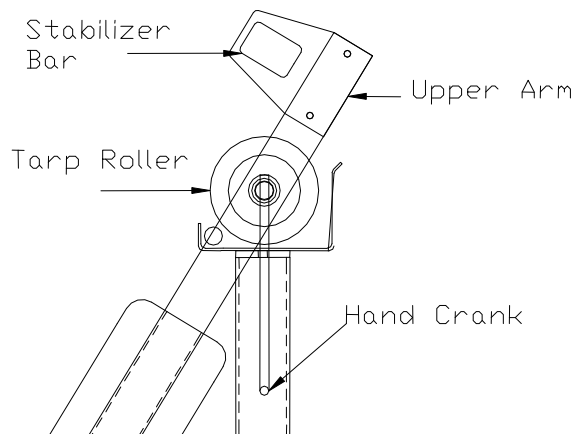


## SIDE ARM INSTALLATION

1. Slide the middle arm (OTSMA) into the lower arm (OTSLA).
2. Slide the upper arm (OTSUA-D and OTSUA-P) onto the RSA shaft.
3. Slide the middle arm out AND rotate the upper arm around so that the pivot holes are aligned for the square head nut and tap bolt.

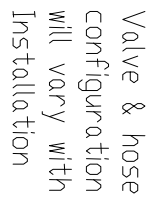


4. Attach the middle arm to the upper arm using the Square head nut and tap bolt. Be sure that the square washer is engaging the steel retainer. **Application of removable thread locker is highly recommended at ALL pivot bolt locations!! Not Included**
5. Snug up the tap bolt. Then Torque to 100 ft/lbs.
6. **Make sure that the middle and lower arms are level. Slide the middle arm in or out of the lower arm to accomplish this.** When level, measure the distance from the elbow pivot to the lower arm. Make sure that both sides are the same distance and level before drilling.
7. Drill a 3/8" hole through the middle & lower arm. Secure using provided 3/8" x 2 1/2" bolt and locknut in lower arm.
8. Align the rod end of the 11 1/2" stroke cylinders with the lower hole in the upper arm using the provided 1" x 3" pin. Secure the 1"x3" pin laterally to the collar using a 1/4" x 2" bolt and nut.
9. Attach the base of the cylinder with the 1" x 2 1/2" pin and cotter pin.
10. Place enclosed tarp tensioning wrench on passenger side RSA shaft. Torque allen screw down against the flat side of RSA shaft. Turn the wrench 10-12 turns clockwise and place the 5/16" x 1 3/4" bolt through roller shaft and upper arm on Passenger and Driver sides. Finish by tightening the 5/16" locknuts against the bolts.



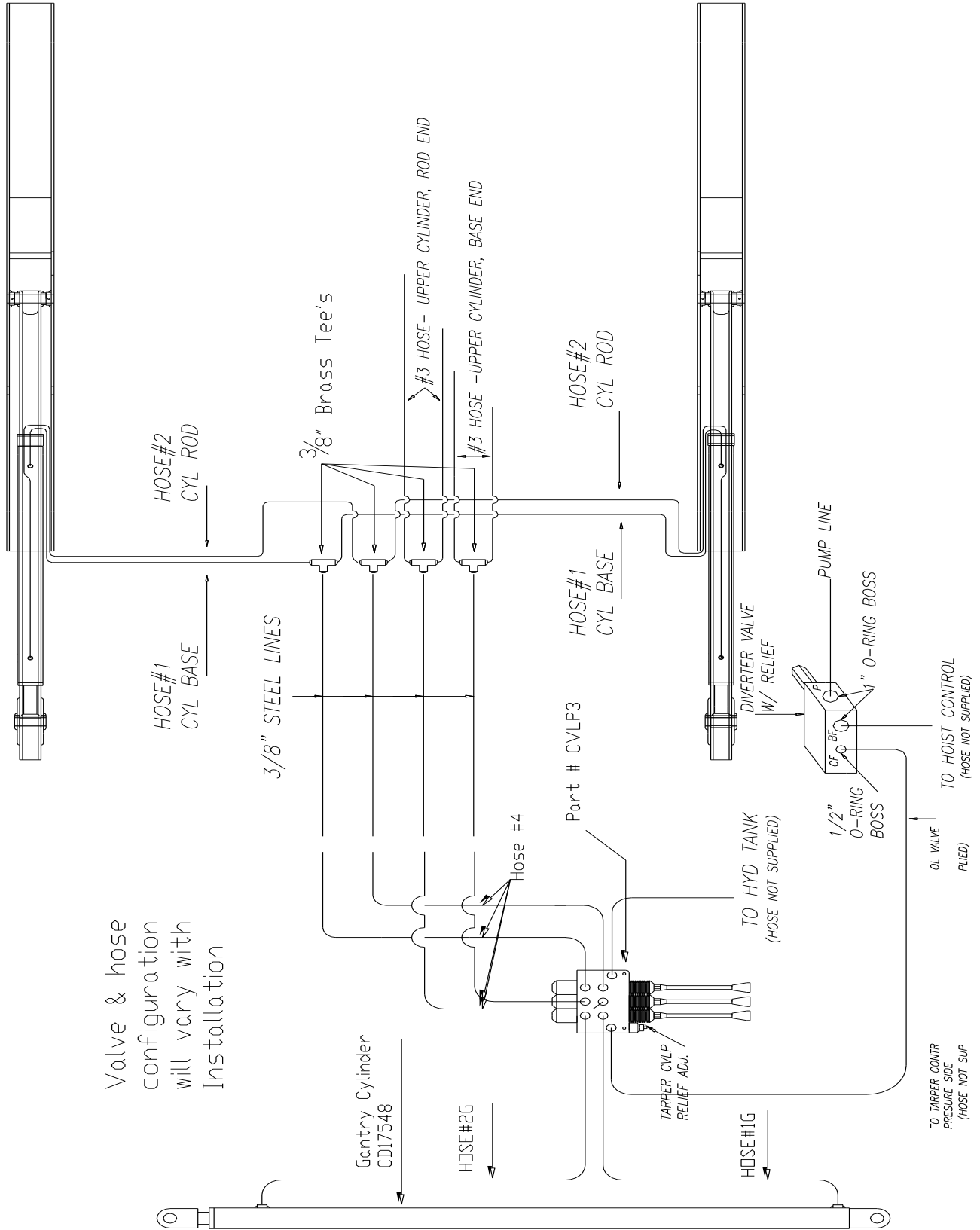
11. **PRACTICE EXTREME CAUTION!!! THE WRENCH COULD SLIDE OUT OF YOUR HANDS, SPIN AROUND AND BREAK WRISTS!!!**
12. Install the stabilizer bar (SAEXLPS) between the upper arms using the (4) 3/8" x 2 1/4" bolts and lock nuts. Make sure that the stabilizer offset is facing toward the rear.

**\*Hydraulic systems over 3000 psi require mounting priority valve downstream using power beyond**



## OTS-G Adjustable gantry hydraulic schematic

**Hydraulic systems over 3000 psi require mounting priority valve downstream using power beyond**



## PLUMBING INSTRUCTIONS

1. Mount the tarper control valve where it is easiest for the driver to operate but out of the way of the tarper. Ideally, the valve will locate the driver in front of the door of the truck at operation. A mounting bracket will need to be fabricated (not included).
2. Mount the Priority valve at a place that is easily accessible for hydraulic lines and maintenance.
3. Insert the 2- $\frac{1}{2}$ " O-Ring to  $\frac{1}{2}$ " 90° female pipe adapters into the Pump and Tank ports of the tarper control valve.
4. Insert the 4- $\frac{1}{2}$ " O-Ring to  $\frac{1}{4}$ " male JIC adapters into the tarper valve work ports.
5. Disconnect the pump line from the hoist control valve.
6. Re-connect the pump line into the 1" o-ring port labeled "P".
7. Fabricate a hose from the 1" o-ring port labeled "BF" back to the hoist control valve (Not Supplied)
8. Fabricate a hose from the  $\frac{1}{2}$ " o-ring port labeled "CF" to the relief valve side of the tarper control valve. (Not Supplied)
9. Fabricate a hose from the return side of the tarper control valve back to tank. (Not Supplied)

## UPPER & LOWER ARM PLUMBING INSTRUCTIONS

1. Screw the 4-  $\frac{3}{8}$ " Tee's onto one end of the 4-  $\frac{3}{8}$ " steel lines.
2. Run the steel lines down the chassis in a neat manner. Be sure to use the weld/plastic tabs to secure the  $\frac{3}{8}$ " steel lines, with the T's toward the rear of the truck.
3. Route the (4) #4 hoses from the control valve work ports to the (4)  $\frac{3}{8}$ " steel lines.
4. Route the (2) #1 hoses from the base port of the lifting cylinders at the modules to a "T".
5. Route the (2) #5 hoses from the rod port of the lifting cylinders at the modules to a "T".
6. Route the (4) #3 hoses from the remaining "T's, through the modules, into the arms and to the upper cylinders. Base ports to base ports, and rod ports to rod ports. (See Scematic)

## FINAL PLUMBING INSTRUCTIONS

1. I personally leave the #4 hoses loose from the steel lines until ready for tarper operation.
2. Start truck and engage the PTO.
3. Slowly move the tarper valve joystick in the direction that the follows the operation decal. Note which hose fluid shoots out.
  - A. Tarper cover, hook up #4 hose to steel line for lower cylinders, base "T".
  - B. Tarper uncover, hook up #4 hose to steel line for lower cylinders, rod "T"
  - C. Upper arm extend, hook up #4 hose to steel line for upper cylinder, rod "T".
  - D. Upper arm retract, hook up #4 hose to steel line for upper cylinder, base "T".
4. **LEAVE ALL HOSES LOOSE OR OFF OF THE CYLINDERS.** Operate the control valve until good, clean, non-aerated fluid comes out of the hoses. Hook hoses back up to the cylinders.
5. Cycle tarper 5-10 times. Re-bleed hydraulic lines if tarper arms drift or operate out of sequence. If tarper cannot uncover, relief valve adjustment or pump replacement may be necessary.

**\*If using hoist control valve as the tarper control valve (stackable block) you will need an in-line flow control valve plumbed between control valve and tarper lifting cylinder to slow down tarper. This valve is to allow for driver reaction time\* (Not Included)**

## FINAL ADJUSTMENTS

1. **GREASE ALL PIVOT POINTS BEFORE INITIAL OPERATION!**
2. Bleed all hoses and check all fittings and lines for leaks. It is recommended to cycle the tarper 5-10 times and then re-bleed the cylinders.
3. After cycling tarper 5-10 times, re-torque all the pivot bolts to 100 Ft/Lbs.
4. If arms do not move smoothly; grease all the pivot points and cylinders, and re-bleed as needed.
5. Stick caution labels and operation labels where driver will be sure to see them. Hang driver's operation tag in cab around hoist controls.
6. Fill out warranty application and put with installation manual in cab for customer.

## MAINTENANCE

1. Grease all pivot points on a bi-weekly basis utilizing the 10 grease points at pivot points.
2. Check to make sure that all bolts are tight on a bi-weekly basis.

**Lost pins & bolts are not considered warranty.**

3. Check for hose abrasion on a bi-weekly basis. Repair or replace as needed
4. Adjust spring tension if tarp is slack or will not roll up.
5. **It is HIGHLY RECOMMENDED to use a removable thread locker at all pivot bolt locations. Replace thread locker if bolts are removed or replaced.**

## OPERATOR TIPS

1. Do not operate under or near electrical wires.
2. Keep clear of moving parts
3. Do not allow anyone on container when unit is in operation.
4. If arms stop moving, they may have hit debris in the container. Reverse arm movement, readjust trash/ readjust arms, and recover. This shows that the tarper relief valve is working properly.
5. If cover rolls to one side when rolling up it is because of one of several things
  - ☐ Arm is bent- straighten arm.
  - ☐ Upright is not plumb, straighten upright.
  - ☐ Side arms are not parallel to frame/hoist. Realign bracket/ module.
  - ☐ Cylinders have air in system/ cylinder bypassing. Bleed system/ rebuild cylinder.
  - ☐ Cover not square at one end or both. If not square, unroll cover and remove RSA tarp clamp on end of tarp that is rolling up slack. Pull excess cover under clamp and reattach.
  - ☐ Wind is blowing tarp in from side. Move truck, increase spring tension on tarp roller and/ or check pivot bolts for proper torque.

## TARP REPLACEMENT

### OPTION 1 “Most Economical”

1. For Option 1, you will need to purchase the TARP WRENCH, p/n LW from O'BRIAN.
2. Operate the tarp system and extend the roller out to its lowest and farthest position, without a box on the hoist. Position the roller about four feet off the ground.
3. With the aid of a second person, unroll the remaining tarp off the roller and position the “Locking Wrench” so that you can easily remove the old tarp and install the new tarp.
4. Slide the TARP LOCKING WRENCH into the slot on the end of the roller and slowly release the tarp until the Wrench handle is pressed against the stabilizer bar.
5. Remove screws and tarp clamp from roller. Remove old tarp from Cradle by removing the two bolts holding the tarp bar inside the front sleeve of the tarp.
6. Discard the old tarp. Spread out the new tarp onto hoist with the O'BRIAN logo up and close to the Cradle.
7. Re-insert the tarp bar into sleeve of tarp. Center the tarp on the tarp bar and re-attach tarp bar to Cradle.
8. Attach rear end of Tarp to Roller with the Tarp Clamp and Screws. Make sure the tarp is centered.
9. With the aid of a second person, pull on tarp to release the pressure from the wrench. Remove the wrench. Gradually ease the tarp onto the Roller and make sure that the tarp rolls up and that the flaps are folded up under the tarp as it rolls up.
10. Operate the tarp system and place the roller back into the Cradle.

**\*\*\*Note\*\*\*** If spring pressure is lost, re-tension roller from the FRONT OF THE TRUCK ONLY!!!!

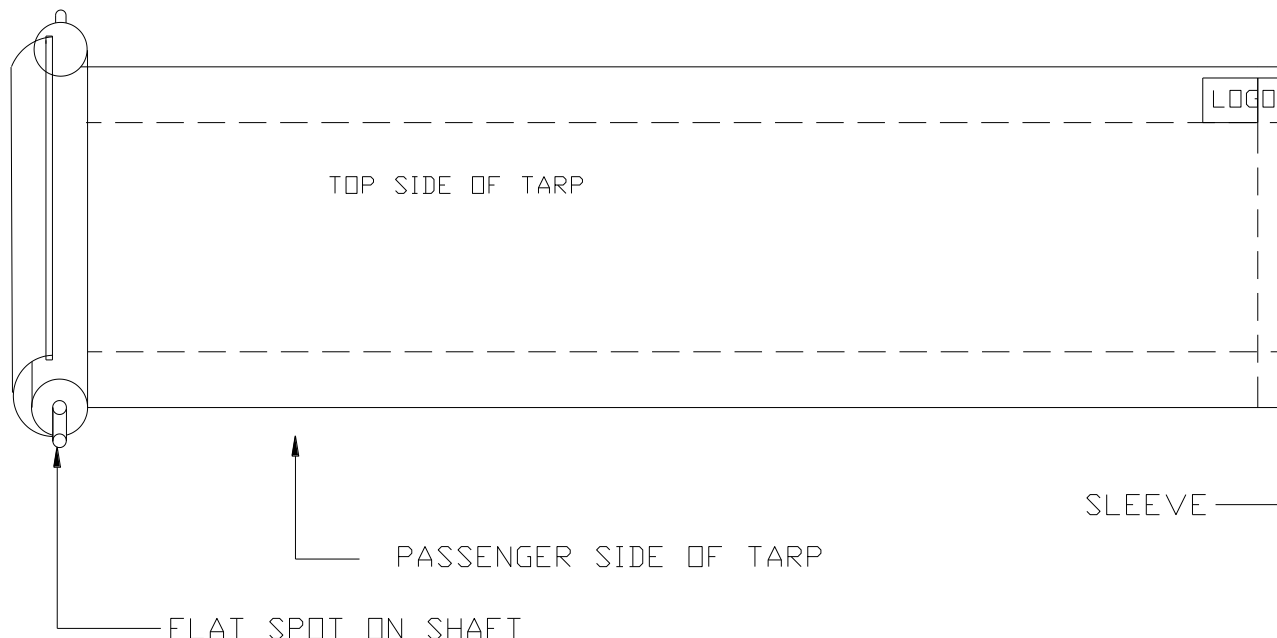
See pretension directions earlier in the book. **DO NOT TRY TO RE-TENSION ROLLER FROM REAR OF TRUCK AS THE SPRING TENSION AT THE REAR IS FAR TOO GREAT\*\*\***

## TARP REPLACEMENT

### OPTION 2 “Most Time Consuming”

1. Remove Roller from between Arms and remove old tarp.
2. Spread new tarp on floor with the O'BRIAN logo up and flaps down. (See Diagram).
3. Position Roller on top of tarp, 6”-9” from edge of tarp, at the opposite end of the O'BRIAN logo.
4. The roller shaft will have a machined flat edge on one end. This is the passenger side. Be sure that the passenger side of the roller is on the passenger side of the tarp (opposite end and opposite side of the O'BRIAN logo).
5. Place the end of the tarp around and on top of the roller. Attach the tarp to the roller using the tarp clamp and screws. Use the existing holes if possible. If you have to create new holes, attach the screws on the opposite side of the spring bolt sticking out of the roller.
6. Slide the tarp bar into the sleeve of the tarp and mount back into the Cradle. Make sure that the tarp is centered left to right.
7. Roll tarp tightly around the roller and roll tarp onto roller.
8. Place the Roller into the Cradle *with the sleeve and tarp bar coming over the top of the roller* and attaching to the inside of the Cr

9. See Tensioning Roller below.



### Pre-Tensioning Roller

1. Lay ROLLER AND TARP INTO CRADLE. \*\*\*Note\*\*\**ONLY PRETENSION WITH ROLLER IN CRADLE*\*\*\*
2. **Slide Driver's side arm onto the 1" roller shaft.**
3. **Attach the tarp-tensioning wrench, part number CRANK-C4 (provided in new kits) to the Passenger side's 1" roller shaft. Tighten the wrench screw down tight onto the machined flat surface on the 1" shaft.**
4. **FIRMLY HOLD ONTO TARP TENSIONING WRENCH!! FAILURE TO DO SO WILL CAUSE BODILY INJURY!!**
5. **Torque the wrench 9-11 complete turns clockwise to pre-tension the roller spring. After you torque the shaft the 9-11 turns, turn the shaft clockwise looking for the hole alignment on the driver's side. Insert the bolt back into the driver arm and the roller shaft.**
6. **Remove the wrench from the roller. Install the passenger arm onto the roller arm and reinstall the bolt and nut.**
7. **Install the stabilizer bar onto the driver and passenger arms.**
8. **Operate the tarp system to check system.**
  - a. **Does it have enough spring tension to roll tarp up? No, repeat procedure.**

**Does it roll the tarp straight in or does it roll to one side? (This test is with the arms moving together.) If the tarp rolls to one side with the arms moving together, then you need to remove the slack in the tarp, so that the tarp will roll up even on the roller. If the tarp does roll to one side, then you will need to remove screws from center to end of tarp clamp on slack side of tarp. Slide the excess tarp past the tarp clamp to remove the excess tarp and then re-screw the tarp down.**





## **TARPER WARRANTY**

### **EXCLUSIVE TWELVE MONTH LIMITED WARRANTY**

O'Brian Manufacturing Co., Inc. warrants only products of its manufacture against operational failure caused by defective material or workmanship, WHICH OCCURS DURING NORMAL USE WITHIN TWELVE (12) MONTHS FROM DATE OF SHIPMENT FROM OUR FACTORY. The tarp is not covered under warranty.

O'Brian Manufacturing will replace all parts of our manufacture free of charge that our inspection at our factory shows to us to be defective in accordance with the above paragraph. WRITTEN PERMISSION MUST BE OBTAINED FROM AUTHORIZED PERSONNEL FOR ANY REPAIRS PERFORMED OTHER THAN IN OUR FACTORY.

All products purchased by O'Brian Manufacturing from an outside vendor shall be covered by warranty of that respective vendor only, and O'Brian does not participate in or obligate itself to any such warranty.

NO FREIGHT, TRAVEL COST, MEALS, LODGING, OR LOSS OF HYDRAULIC OIL SHALL BE COVERED BY THIS WARRANTY, all labor costs allowed shall be in accordance with O'BRIAN'S ESTABLISHED RATE; in case of alleged defect, product shall be returned to O'BRIAN with transportation charges pre-paid.

Any service part sold by O'Brian shall be warranted for thirty (30) days from date of shipment from our factory. No credit for labor will be allowed under this warranty if the returned part, upon our inspection, proves to be non-defective.

O'BRIAN makes no warranty on any of its equipment used in any way except as it was designed, intended, and sold to perform.

This limited warranty is expressly in lieu of all other warranties, expressed or implied, and of all other obligations or liabilities on the part of O'BRIAN, and it neither assures nor authorizes any other person to assure for it any other liability.

O'BRIAN MANUFACTURING does not assume any liability for loss of product, time or any other consequential damages.

All claims shall be processed through your O'Brian Manufacturing Co., Inc. authorized dealer.