

# OPERATING INSTRUCTIONS

## AUTOTARPER CHECK LIST

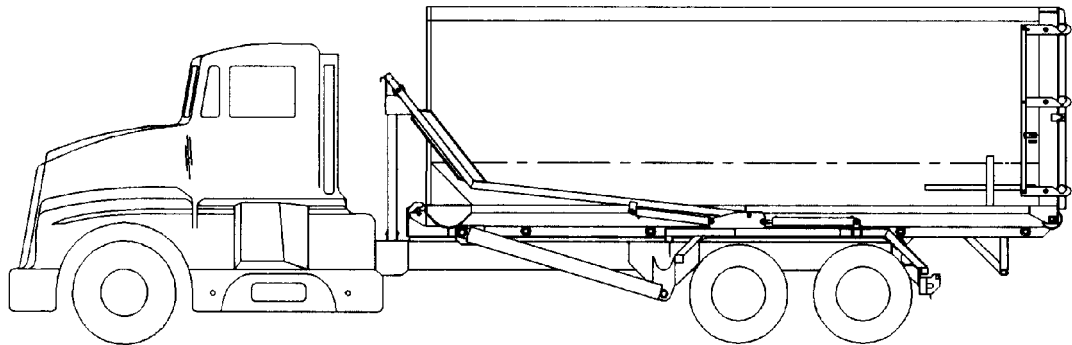
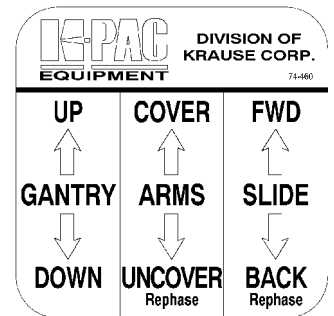
1. Arms are in home position and cylinders have been rephased by retracting and holding valve handle down for a few extra seconds. Cylinders must be rephased daily before first use.
2. Grease all lubrication points.
3. Check load to be tarped to be sure there is nothing protruding to catch arms or tarp.
4. Be sure gantry is fully retracted when transporting empty truck or container.
5. Check hose routing to be sure hoses are free during arm movement and slide movement.
6. Check hose routing to be sure hoses do not touch areas on truck that would wear or pinch hoses.
7. Check hose routing to be sure hoses are not in an area that will allow container to catch hoses.
8. Check spring tension on roller after unit has been used awhile. It may require readjustment.

## GENERAL GUIDELINES FOR OPERATION OF THE AUTOTARPER

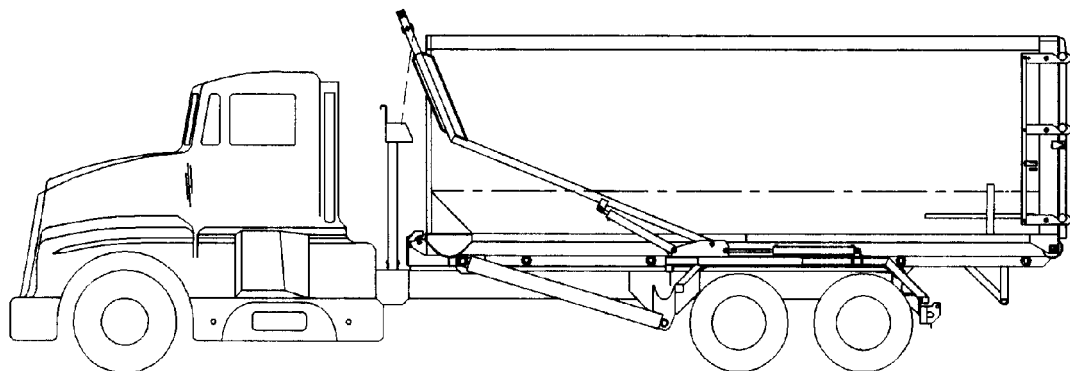
### COVERING OR UNCOVERING THE LOAD

**⚠ Caution:** Be sure the area around truck and tarper is clear of personnel and obstacles overhead before operating. Overhead clearance must be minimum of 20 foot.

**⚠ Caution:** Severe damage may result if tarp arms are not lifted before gantry is raised.



**START (STORAGE POSITION)**

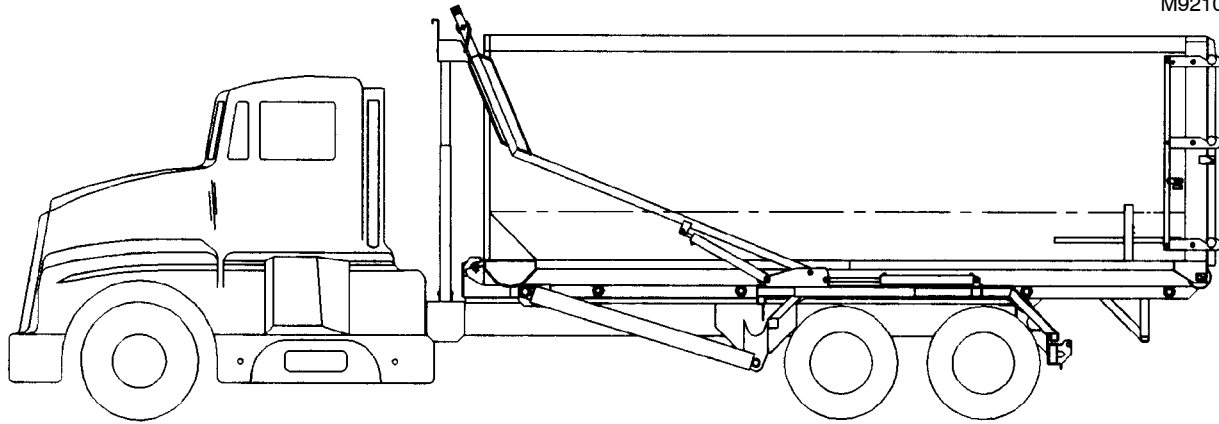


**TO COVER:**

**ARMS UP, SLIDE FORWARD**

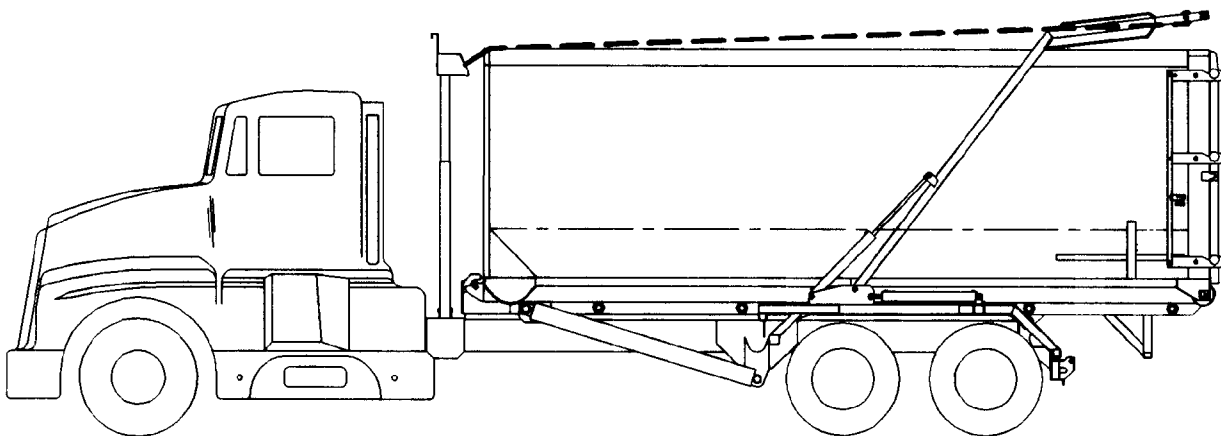
M9210-6

1. Move the arms upward to the top front of the container. Operate the slide to clear the front corner of the container.



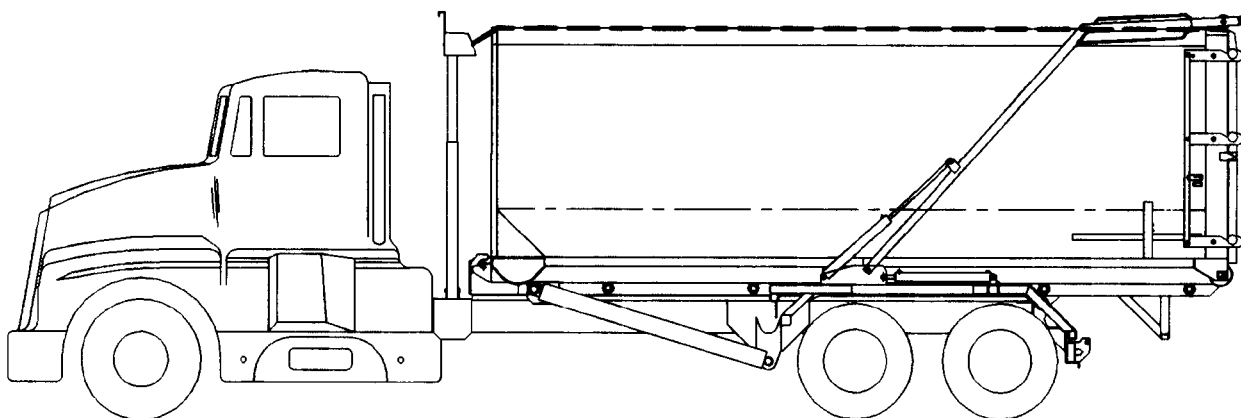
### GANTRY

2. Raise the gantry so the tarp attach point is 0 - 6 inches below the top of the container.



### COVER LOAD

3. Rotate the arms to the rear of the container within 1 foot of the top of the container. Do not stop arms abruptly, but feather the hydraulic valve to stop slowly.
4. Move the slide to position the roll on the top of rear corner of the container.



### TARP ROLL DOWN ON CONTAINER

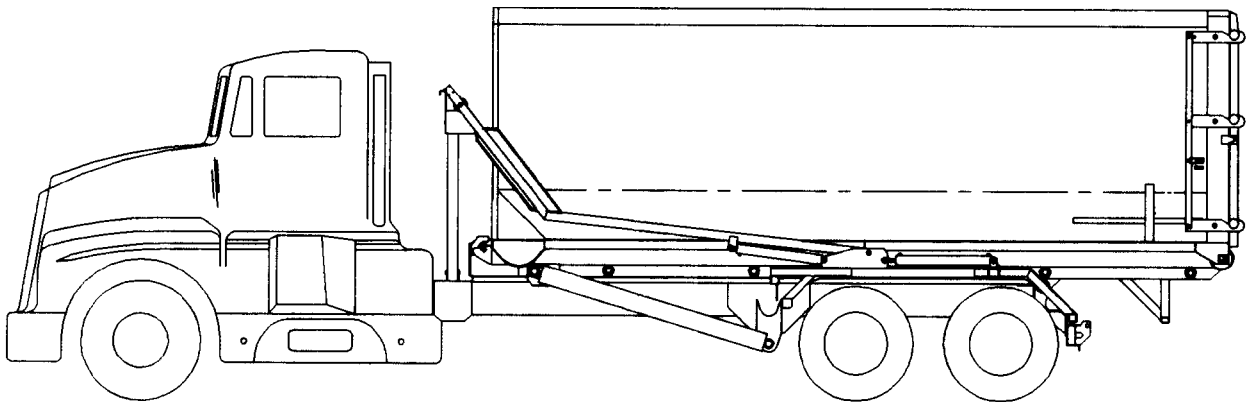
5. Rotate the arms down to lay tarp roll on top of container.
6. Move the gantry down slightly to tension the tarp at the front.

## TO UNCOVER:

1. Move the tarp roll to the front of the container, stopping slowly at the front top of container.
2. Lower the gantry to its lowest (storage/travel) position.
3. Move the tarp roll down onto the top of the gantry using the arm control valve and slide control valve to properly position the tarp roll.
4. Hold the arm control valve handle down for a few seconds to rephase the arm cylinders.
5. Hold the slide control valve handle down for a few seconds to rephase the slide cylinders.

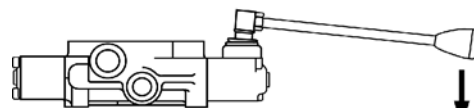
## PROCEDURE FOR REPHASING CYLINDERS (SEE ILLUSTRATION BELOW):

1. Rephasing is accomplished by oil bypassing the cylinder piston when retracted.
2. To rephase arms, hold valve handle down for 5 seconds after tarp arms are resting on gantry.
3. To rephase slides, hold valve handle down after slide is positioned maximum back for 5 seconds.
4. It is recommended that operator rephase arms and slides before each use of the tarper.

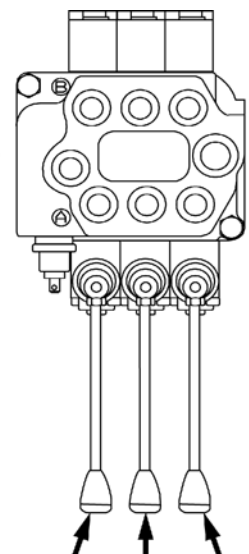


## TARP ARM AND SLIDE POSITION FOR REPHASING

SIDE VIEW



TOP VIEW



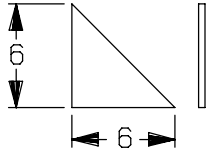
Gantry Arm Slide  
(Non-rephasing) M9210-60

## OPERATOR TIPS:

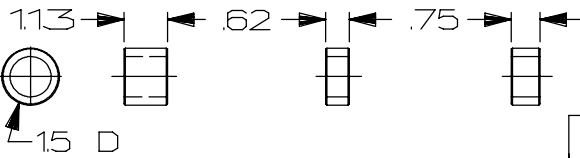
1. The cylinders can only be rephased in the retracted position. DO NOT continue to hold control lever up when cylinders are completely extended.
2. The gantry cylinder is not a rephasing cylinder, so do not hold valve handle open at either end of the cylinder cycle.
3. CAREFULLY watch arms to determine if some obstruction has been hit, and if so, immediately release hydraulic valve handle to stop potential damage.
4. Because cylinder relief is set to lift arms at lowest rear position, the force available when the arms are in their highest position could damage arms if arms catch container or solid debris.
5. BE AWARE that if one arm stops because of an obstruction, that both arms will stop. This is due to the special slave cylinder system, unique to K-PAC.

# TARPER MOUNTING PARTS IDENTIFICATION SHEET

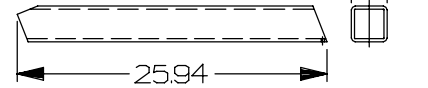
TRI-AXLE TUBE  
GUSSET (2)  
3991-13-3



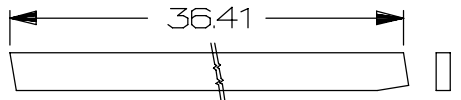
SPACER (2) 9210-15-8    SPACER (2) 9210-15-9    SPACER (4) 9210-15-10



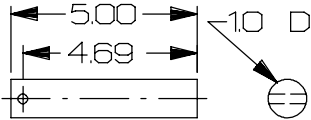
TUBE GUSSET (2) 9210-0-4  
300 SQ



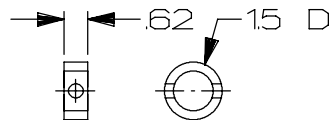
GUSSET STRAP (2) 9210-0-6



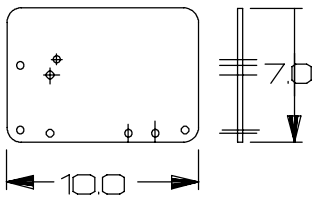
PIN (8) 9210-0-1



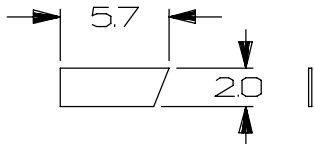
LOCK RING (8) 9210-0-2



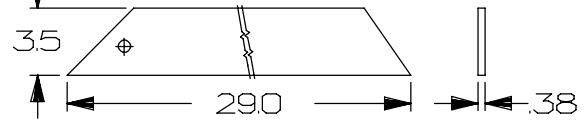
VALVE MTG PLATE (1)  
9210-0-3B



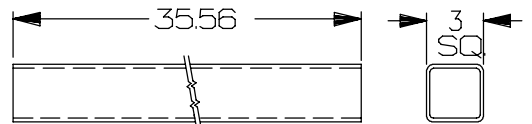
SIDE REINFORCEMENT  
PLATE (4) 9210-0-8



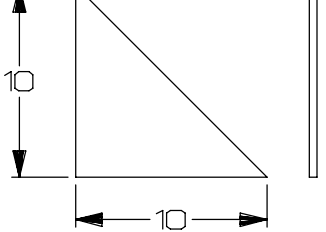
GUSSET STRAP (4) 9210-0-14



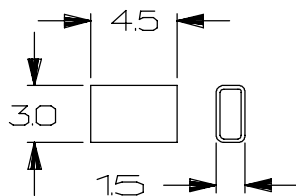
FRONT FENDER MTG TUBE: TANDEM (2)  
9210-15-1A    TRI-AXLE (4)



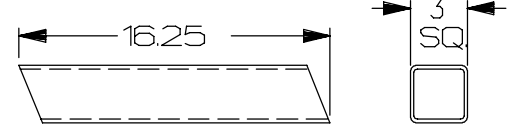
GANTRY GUSSET (4)  
9210-15-12



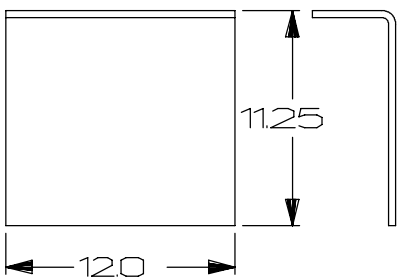
HOSE ROUTING TUBE (2)  
9210-15-20



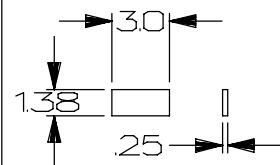
BACK SLIDE SUPPORT TUBE (2)  
9210-15-5A



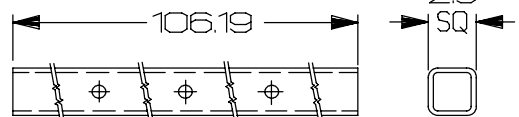
GANTRY MOUNTING  
BRACKET (2)  
9210-15-22



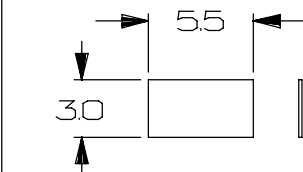
BUMPER SPACER (2)  
9210-15-21



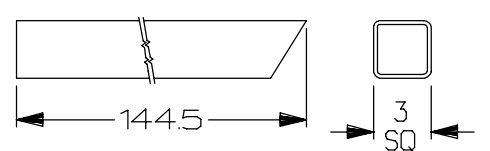
REAR CROSS TUBE (1)  
9210-15-7



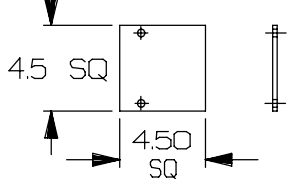
CAP (8) 9210-15-14A



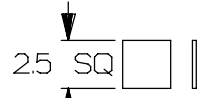
SLIDE MOUNTING TUBE (2)  
9210-15-25



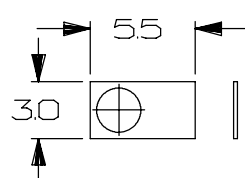
MTG PLATE, PRIORITY  
FLOW DIVIDER (1)  
9210-15-18



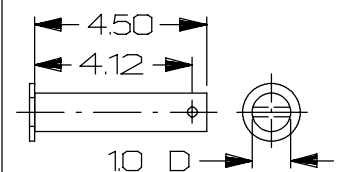
CAP (2) 9210-15-5



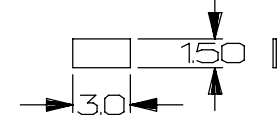
END CAP W/MID-BODY  
LIGHT (2)  
9210-15-29



CYL. PIN WELDMENT  
9210-24-0 (2)



CAP (4) 9210-15-16



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M9210-34

# INSTALLATION INSTRUCTIONS

This KPAT Autotarper is designed to be mounted with a K-PAC Roll-Off Hoist. The hydraulic priority flow divider and tarper control valve is compatible with a K-PAC system.

If this Autotarper is being mounted with any other manufactured hoist, it is the responsibility of the installer to contact hoist manufacturer to determine hydraulic compatibility.

The following mounting instructions refer to a K-PAC Hoist with a sub-frame. If KPAT Autotarper is being installed with any other manufacturer's hoist, installer must adapt according to the differences between the K-PAC Hoist and the hoist being assembled.

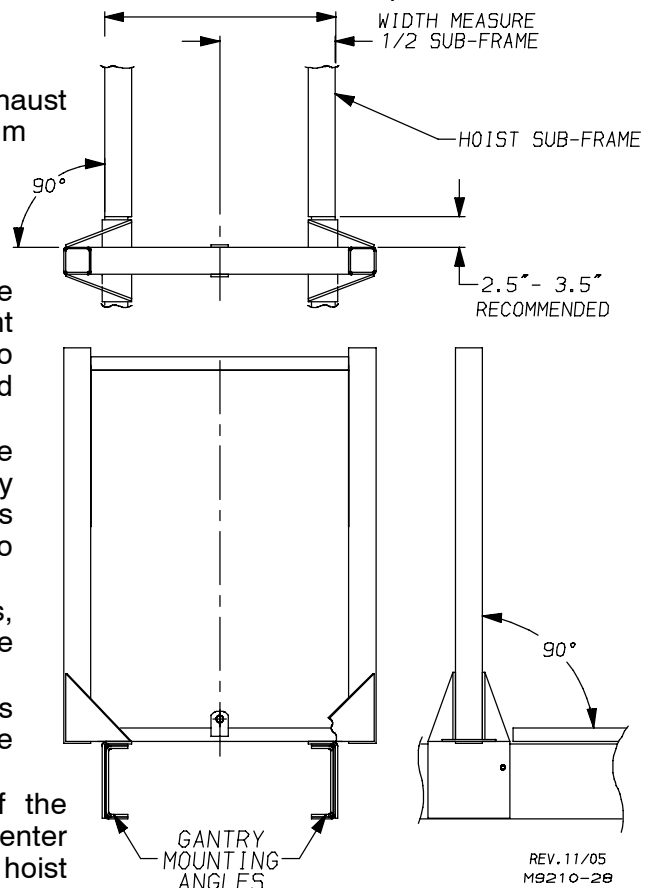
## MOUNTING THE GANTRY ASSEMBLY

### Assembling Gantry to Weldment (See Parts page P8)

1. Install the gantry guide tube weldment (Item 7) into the gantry guide weldment (Item 21). Turn weld seam to inside.
2. Position the gantry rack weldments (Item 19) onto the gantry guide tube weldments and install the 1/2NC x 2" Carriage Bolt from top down. Assemble 1/2" Lock Washer and 1/2NC Hex Nut onto the carriage bolt. Note the dimensional position shown on illustration. Install all (4) carriage bolts, and tighten per torque specs.
3. Install the 2 x 48 cylinder (Item 11). Pin the base end of the cylinder with the 1 x 5-1/2" clevis pin (Item 1). Install spacer bushings as shown. Pin rod end of cylinder, installing spacer bushings as shown.
4. Assemble tarp guard (Item 20) as shown. If cab clearance is a problem, notch as necessary around obstruction.

### Mounting Gantry Guide Weldment

1. Check for clearance between cab, exhaust stack, and hoist. You must have a minimum of 7.5" of clearance, and 10.0" for any cab height above 70". NOTE: 12" between cab and hoist is recommended.
2. Clear an area on top of the frame to rest bottom of gantry weldment. If solid linkage hoist controls are used, you must mount gantry on top of the links using spacers to clear linkage, or be sure linkage is installed with control arms down.
3. It would be best to change to air or cable controls to eliminate mounting gantry higher than standard. NOTE: If gantry is spaced up, tarp cannot be lowered to match front of 15 yd. container.
4. Clear area or re-route any hoses, cables, etc. that may interfere with mounting the gantry to the chassis.
5. Clamp the Gantry Mounting Brackets provided to the truck frame on each side as shown. Modify brackets as necessary.
6. Locate the gantry weldment on top of the mounting angles, being very careful to center the gantry as well as mount it square to hoist sub-frame. Care in this step is very important to get the complete unit mounted square on the truck. Make sure gantry weldment is 2.5" - 3.5" forward of front end of sub-frame as shown. If it is necessary to mount closer to the hoist, check for container and hoist clearance.
7. When installer is confident gantry is centered and square then weld gantry weldment to mounting angles as shown.
8. Match existing hole on truck frame if possible. Mark and drill through the Gantry Mounting Bracket and truck frame for qty. (5) 5/8 Cap Screws on each side. Install 5/8NF x 2-1/2" GD5 Cap Screws and torque to 180 Ft. Lbs. **DO NOT WELD to truck frame.**
9. After unit is bolted to truck frame, add triangular Gantry Gussets bracing the gantry front-to-rear as shown.



## SLIDE BASE MOUNTING

IMPORTANT ITEMS TO CONSIDER BEFORE BEGINNING THIS STAGE OF AUTOTARPER MOUNTING.

The slide frame must be installed level front to rear and side to side. This support frame must also be welded parallel to the hoist sub-frame. Extra precaution in this area will make the rest of the installation very simple. **NOTE: Truck must be on level pavement when installing.**

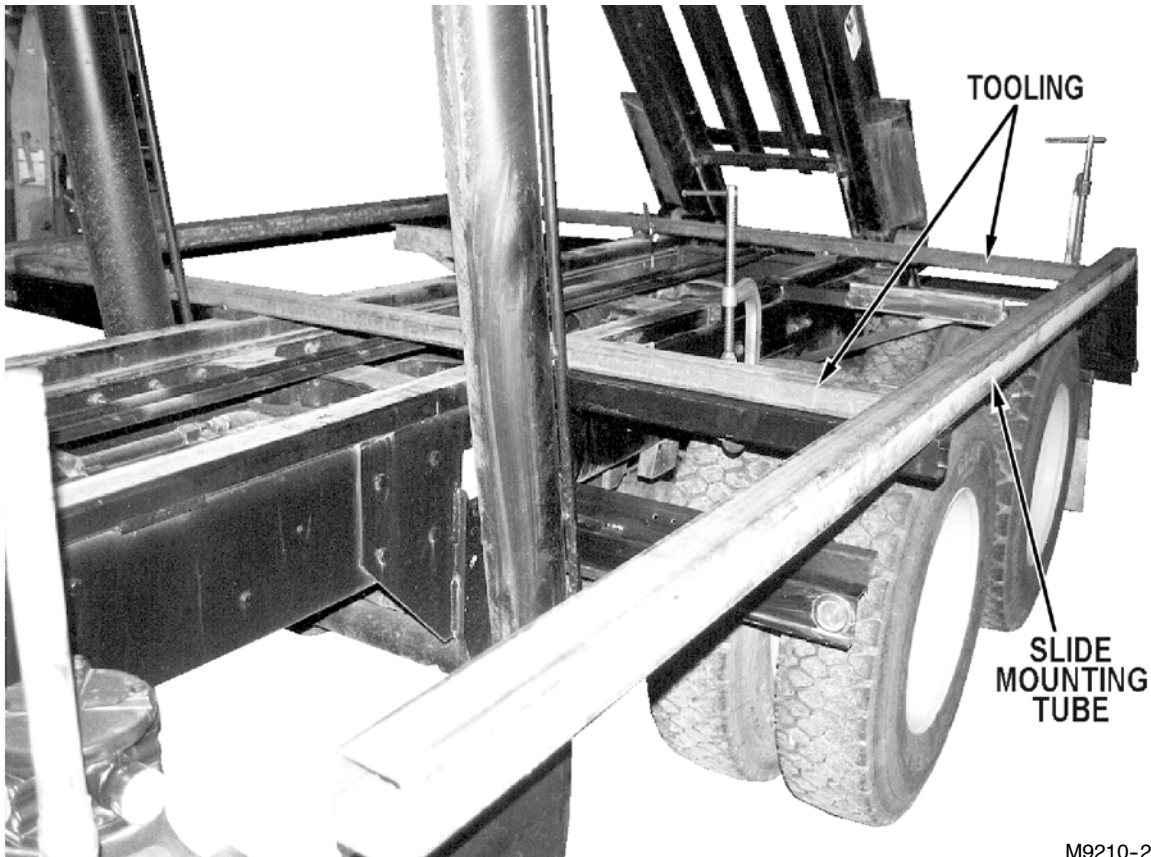
The Federal DOT allows up to 108" width for safety equipment. Due to the clearance required on self-contained compactors, this tarper is designed to mount at the 108" width. If regulations have changed, or you have some reason to desire a narrower mount, modify the following instructions accordingly. Check with your state and local DOT to determine what standards apply in your area.

K-PAC'S INSTRUCTIONS ARE PREMISED ON 102" MAXIMUM TRAILER WIDTH ALLOWED BY FEDERAL DOT REGULATIONS. THESE INSTRUCTIONS ARE NOT INTENDED TO OFFER LEGAL ADVICE FOR YOUR LOCALITY.

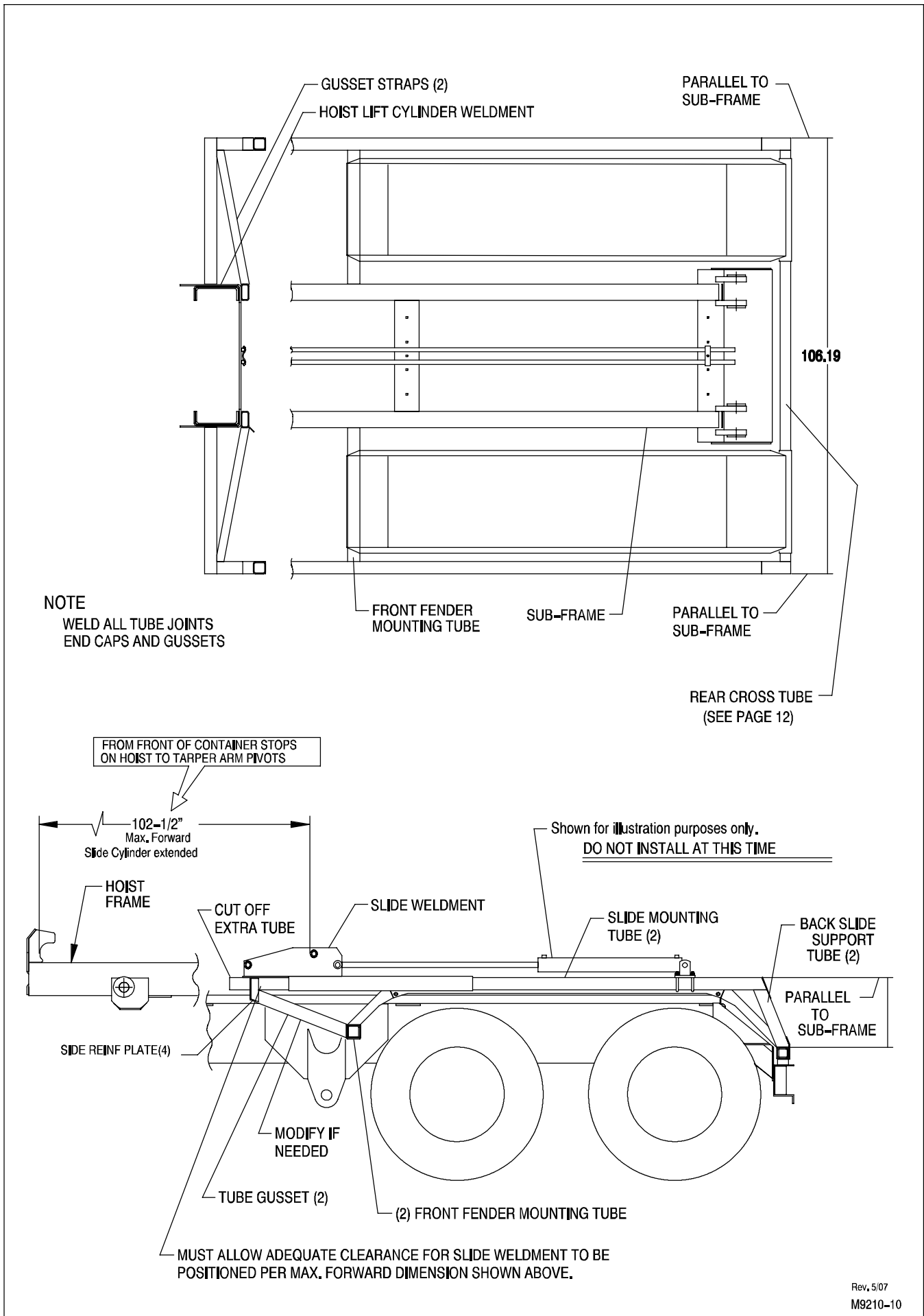
1. (Tandem Axle) Raise hoist completely to determine mounting clearance.  
**NOTE: FULLY EXTEND CYLINDERS.**
2. Take long piece of straight tubing or straight edge, and clamp to sub-frame as shown, using a 1" spacer on top of sub-frame.
3. Locate Front Fender Mounting Tubes as shown using Slide Mounting Tube and Slide Support Tube as shown on page 11.

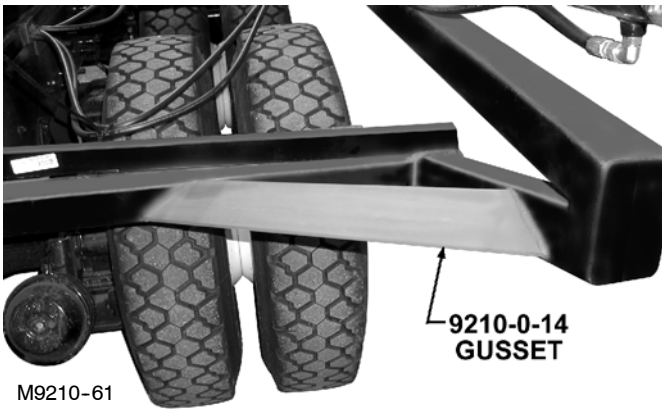
**NOTE:** Fender to be installed before welding Tube Gusset and Gusset Strap.

**The tarp arm pivot should be 102-1/2" back from the front hoist stops in its forward most position (Slide Cylinder EXTENDED).**



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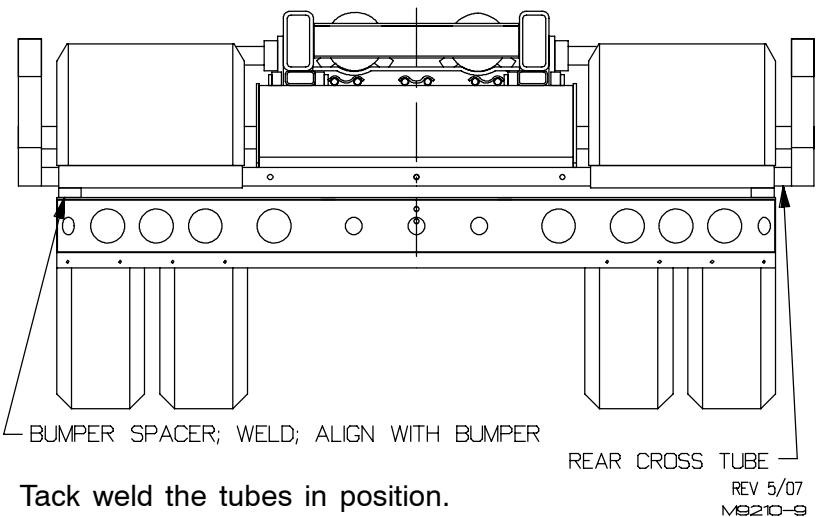


Brace the front corner of the slide mounting tube to the front fender mounting tube by welding in a gusset (9210-0-14) on each side as shown in the photograph to the left.

4. Instead of installing standard Rear Fender Support Tube, install autotarper Rear Cross Tube as shown. If hoist has already been completely installed remove the Rear Fender Support Tube, and replace with above cross tube supplied. End cap on fender must also be removed. If fenders have rusted to the support tube, remove end cap on fender, cut off piece of rear cross tube supplied and weld it into fender tube. Make sure overall width is same as total rear cross tube. If equipped with K-PAC metal fenders, be sure fenders are completely installed before proceeding with autotarper mounting.

NOTE: If new hoist mounting with pintle bumper, cut rear cross tube like pintle fender tubes or add to pintle fender tubes.

Refer to illustration on page 11 for steps 5-8 below.



5. Position the Back Slide Support Tube on top of rear cross tube as shown, and at the overall width as shown. Overall width must be centered on sub-frame. Tack weld the tubes in position.
6. Locate Slide Mounting Tube and align with Back Slide Support Tube as shown. Install the slide weldment onto the slide mounting tube and locate in forward most position as shown (Note: The 102-1/2" dimension works with containers up to 40yd<sup>3</sup>. 50 yd<sup>3</sup>. containers may require mounting cylinder base farther back than 102-1/2" and may require an extension behind the Back Slide Support tube.)
7. Determine required length of Slide Mounting Tube needed to mount Tube Gusset. Be sure to provide adequate clearance for slide weldment. Cut Slide Mounting Tube as needed.
8. Make absolutely sure that Slide Mounting Tube is parallel side-to-side. See illustration! When tubes are positioned correctly, tack weld tubes secure enough to continue assembling tarp parts and operate unit. This is especially important if this is your first K-PAC autotarper mount.
9. Final welding of unit is to be done after operating completely assembled and tested unit. Caps provided are also to be welded after testing.
10. If the 50yd<sup>3</sup>. containers are to be tarped, load a container onto the hoist after tarp installation is completed to an operation state. Position the slide cylinder base so that when the slide cylinder is fully extended, the tarp roller just clears the top front corner of the container. Depending on the height of the container, it may require extending slide mounting tube past the back slide support tube or position back slide support at a different angle than shown.

### Assembly of Tarp Arms:

1. Install the left arm into the base as shown on page P6, assemble pivot pin, roll pin, and weld special washer on inside of slide weldment as shown. Lay arm against rear arm stop.
2. Install the right arm into the base, assemble pivot pin using same procedure as in Step 1 above, and lay arm against rear arm stop.
3. Lift the Tarp Roller Assembly and align with arms, slide shaft into right arm, then deflect left arm out and slide arm over right end of shaft. Note direction of roller assembly. Double hole end of shaft **MUST** be on the **right hand** (passenger) **side**.
4. Install the Torque Tube Weldment onto each tarp arm, loosely installing the hardware as shown.
5. Position tarp arm weldments parallel to each other and tighten hardware to torque tube.

## HYDRAULICS INSTALLATION

### HYDRAULIC SAFETY: PLEASE READ CAREFULLY!



**Warning:** Escaping fluid under pressure can penetrate the skin causing serious injury. Avoid the hazard by relieving pressure before disconnecting hydraulic lines. Tighten all connections before applying pressure.

Search for leaks with a piece of cardboard. Protect hands and body from high pressure fluids.

If an accident occurs, see a doctor immediately. Any fluid injected into the skin must be surgically removed within a few hours or gangrene may result.

### AVOID HEATING NEAR PRESSURIZED HYDRAULIC HOSES

Flammable spray can be generated by heating near pressurized hydraulic hoses, resulting in severe burns to yourself and bystanders. Do not heat by welding, or using a torch near hoses. Hose can be accidentally cut when heat goes beyond the immediate flame area.

### THE FOLLOWING WARNINGS PERTAIN TO THE MORE COMMON ABUSES OF HYDRAULIC HOSE:

1. **INSPECT** the hose assembly before each use.
2. **REPLACE** the hose assembly immediately if:
  - a. The jacket of the hose appears abnormal.
  - b. You have reason to believe it may be abnormal.
  - c. There is any fluid leakage.
  - d. The couplings are damaged.
  - e. The hose is damaged or kinked.
  - f. The reinforcement is visible through the jacket.
3. DO NOT **EXCEED** the maximum recommended working pressure of the hose.
4. DO NOT **KINK** the hose assembly.
5. DO NOT **BEND** the hose assembly beyond its minimum recommended bend radius.
6. DO NOT **EXPOSE** to temperatures in excess of 225° Fahrenheit.
7. DO NOT USE AS A **STRENGTH MEMBER** for pulling or lifting equipment.

**Caution:** If replacing hydraulic hose, use only hose that meets or exceeds 3,000 PSI working pressure.

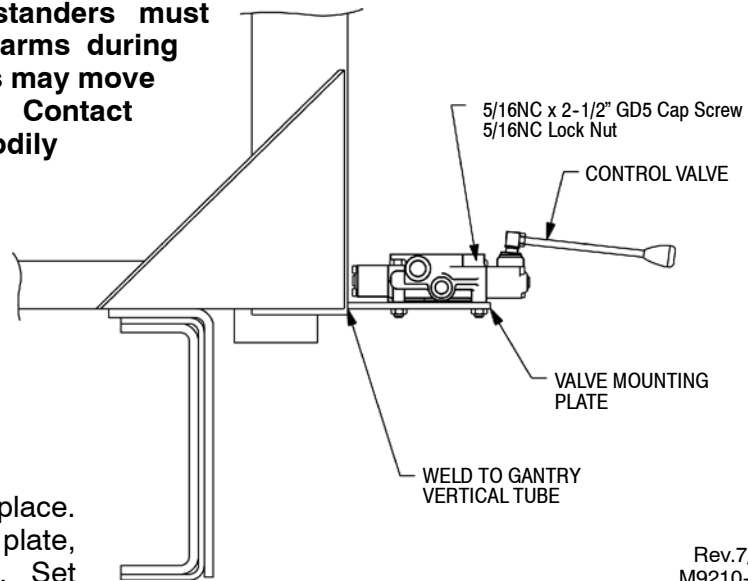
IMPORTANT: REPAIR OF HYDRAULIC CYLINDERS SHOULD BE MADE BY AN AUTHORIZED DEALER.

### Control Valve Mounting:

1. Determine a clear location for the control valve mounting plate. VALVE TO BE MOUNTED AS FAR FORWARD AS PRACTICAL TO CLEAR OPERATOR OF TARP ARMS.

**Warning:** Operator and all bystanders must stand clear of tarper arms during operation. Tarper arms may move quicker than expected. Contact can cause serious bodily injury or death.

For most installations the mounting plate can be welded to the gantry base as shown.



2. Weld valve mounting plate into place. Install control valve on plate, fastening with hardware shown. Set control valve relief pressure at 2,500 PSI.

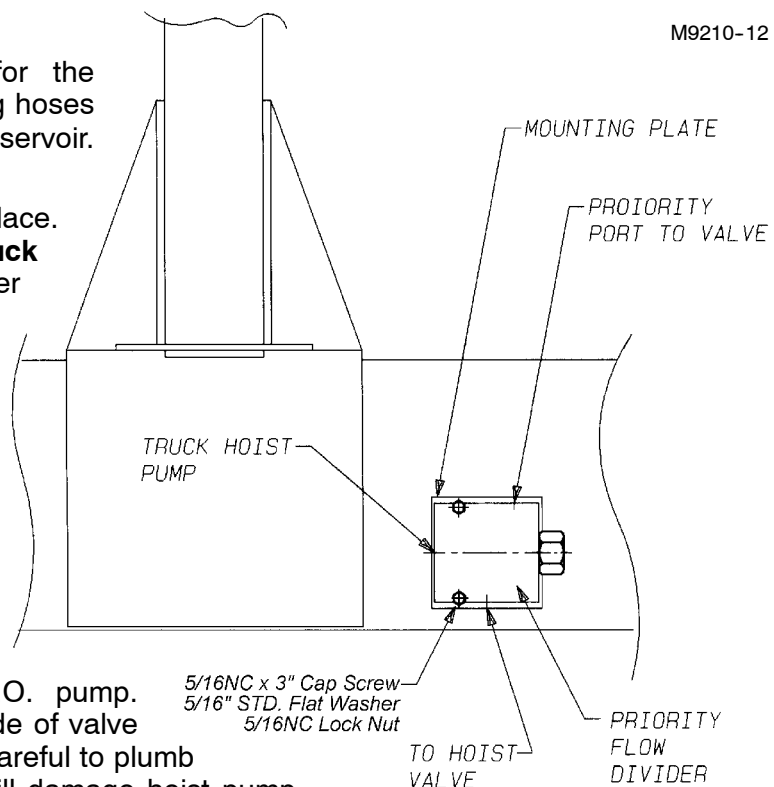
Rev.7/06  
M9210-11

### Priority Flow Divider Mounting:

1. Determine a clear location for the Priority Flow Divider, considering hoses supplied, and location of hoist reservoir.

2. Weld or bolt mounting plate in place. **Do not weld directly to truck frame.** Install priority flow divider with hardware as shown. Hydraulic fittings may need to be installed prior to fastening flow divider solid.

3. Plumb hydraulic hoses from truck pump to flow divider, then from flow divider to control valve with hose from priority port. (See Parts page P11 for hoses and fittings) Plumb from large port on side of priority valve to truck P.T.O. pump. Plumb from large port on left side of valve to hoist control valve. Be very careful to plumb correctly. Incorrect plumbing will damage hoist pump.



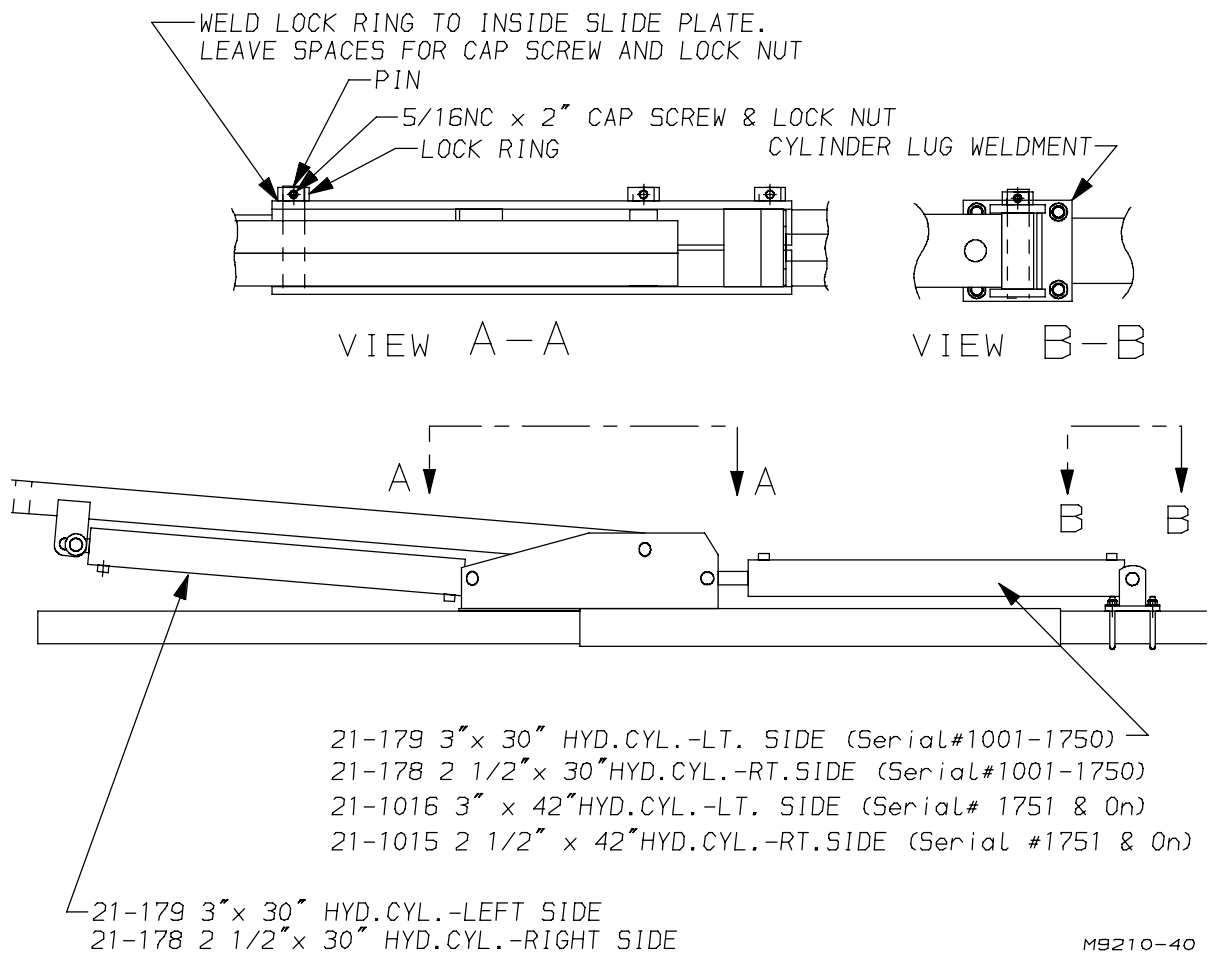
M9210-12

Arm and Slide Cylinder Installation

1. Install the Tarp Arm Cylinders, using the large cylinder (3" x 30" stroke) on the left side. Leave the rod end loose until hoses have been installed and air bled from system.
2. Install the smaller cylinder (2-1/2" x 30" stroke) on the right side, and leave the rod end loose.
3. Install the slide cylinder (3" x 42" stroke) using the large cylinder on the left side, leave the rod end loose until hoses are connected and system is bled.
4. Install the right slide cylinder (2-1/2" x 42" stroke). See illustration on page P6 for assembly of pins, lock pin and hardware. Leave the rod end loose.
5. Install the cylinder lug weldment using U-Bolts as shown.

Leave the rod end of slide cylinder loose until cylinders have been plumbed and air bled from system. Loosely fasten the lug weldment to hold cylinder in place.

Loosely fasten lug weldment to hold cylinder in place.



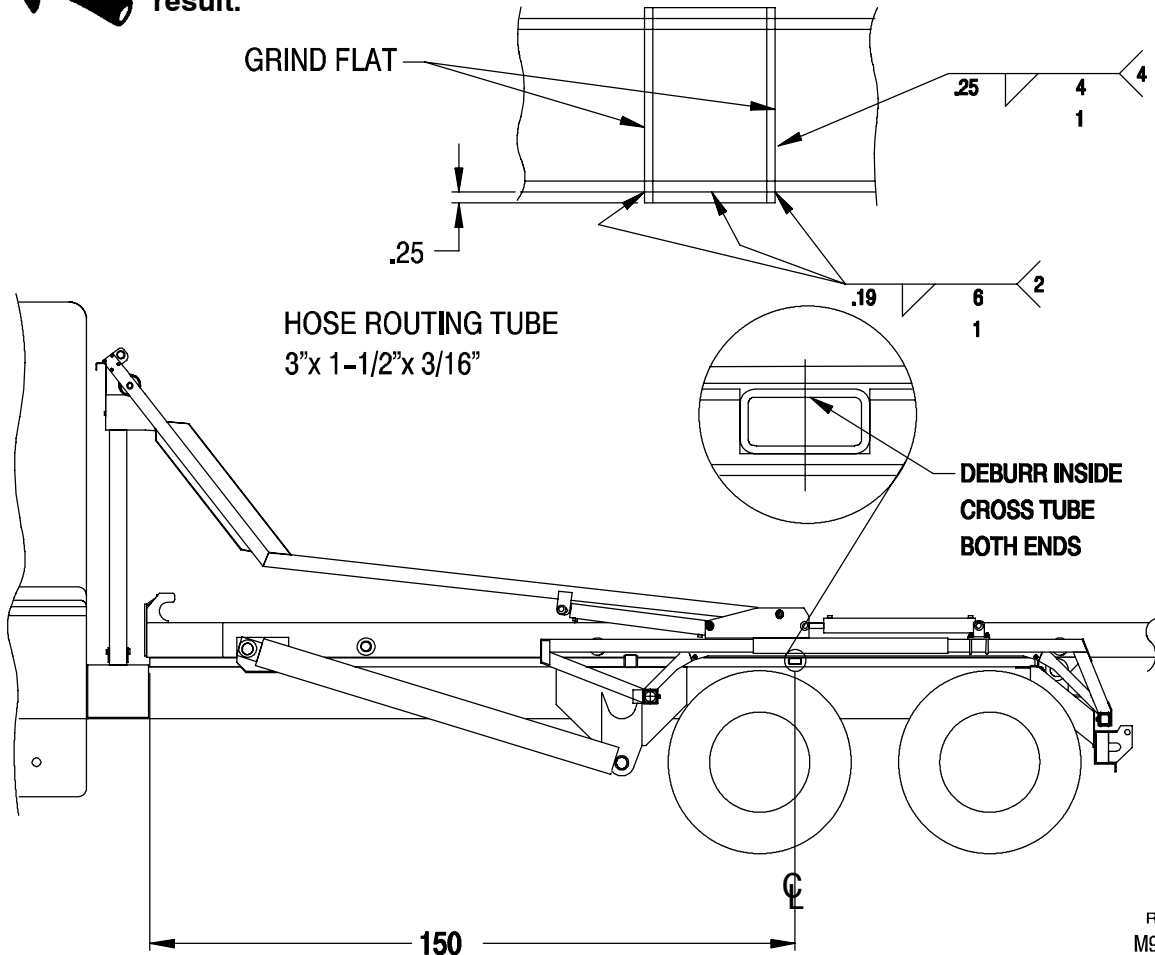
# HYDRAULIC HOSE INSTALLATION



**Warning:** Escaping fluid under pressure can penetrate the skin causing serious injury. Avoid the hazard by relieving pressure before disconnecting hydraulic lines. Tighten all connections before applying pressure.

Search for leaks with a piece of cardboard. Protect hands and body from high pressure fluids.

If an accident occurs, see a doctor immediately. Any fluid injected into the skin must be surgically removed within a few hours or gangrene may result.

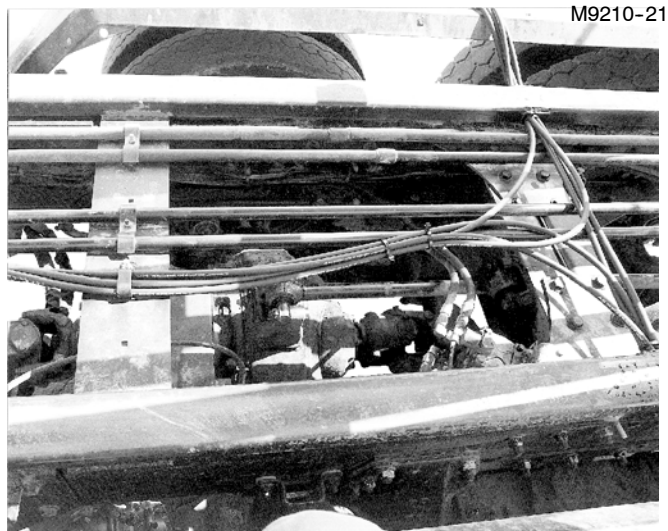


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1. Route the hose from control valve to arm cylinders, and slide cylinders, being sure to tie hoses to keep clear from any moving parts on the truck or roll-off hoist. See parts illustration on page P11 for hose call-outs and fittings.

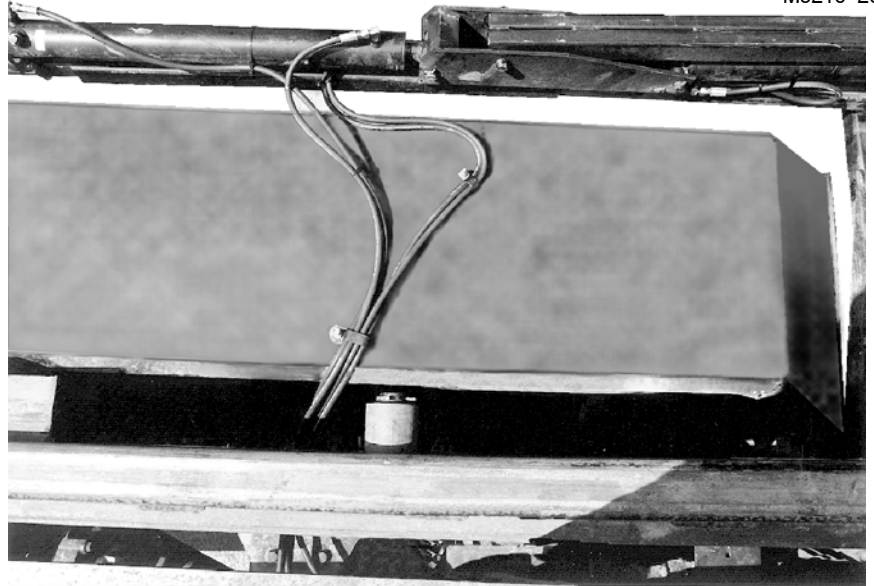
**Important:** The base of the rephasing cylinder has two ports. The smaller port is for plumbing. The larger port has a rephase check. DO NOT plumb to this port. The recommended routing would be down the middle of the sub-frame and out through the sub-frame, installing the tube provided per illustration.

On a typical installation the 3 x 1-1/2 rectangular tube is located 150" back from front end of sub-frame. See illustration for installing tube.



**ROUTING IS VERY IMPORTANT** BECAUSE DAMAGED HOSES CAN CAUSE SAFETY PROBLEMS. ALWAYS STAND CLEAR OF ARMS DURING ANY OPERATION. GOOD HOSE ROUTING WILL INSURE LONG HOSE LIFE. HIGH QUALITY HOSES WITH ABRASION RESISTANCE HAVE BEEN SUPPLIED FOR INCREASED SAFETY.

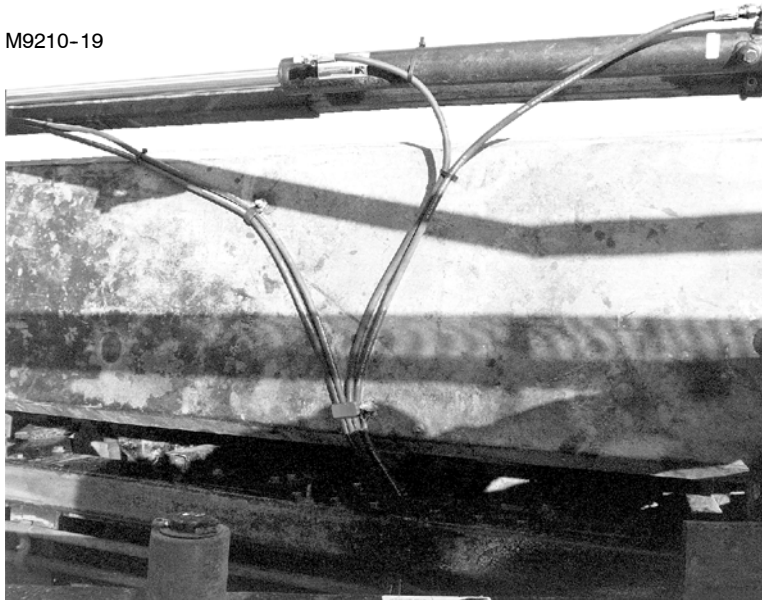
2. Route the hoses between the left and right arm cylinders. Route hoses that connect the rod port of the large slave cylinder to the base of the small slave cylinder through the tubes crossing through the hoist sub-frame.



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**NOTE: THIS ROUTING IS HIGHLY RECOMMENDED FOR MAXIMUM PROTECTION OF THESE CRITICAL CROSS-OVER HOSES.**

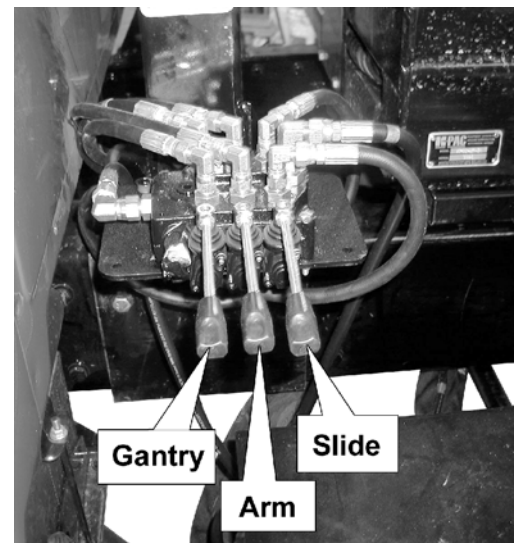
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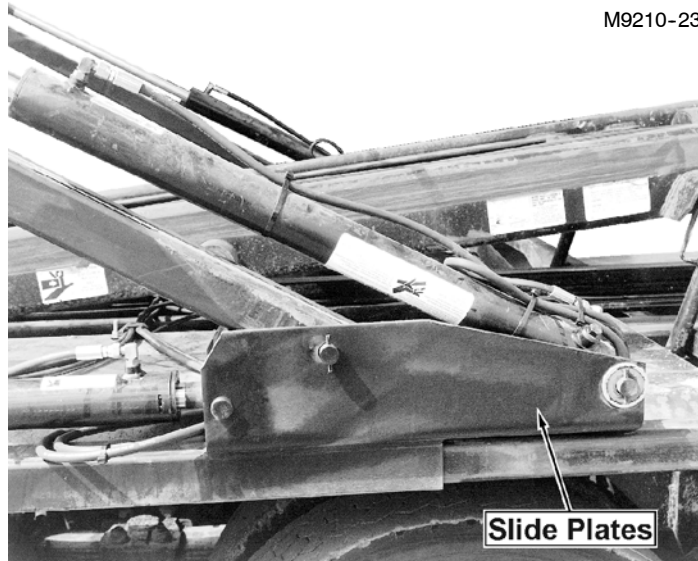
3. Route hoses from control valve to gantry cylinder plumbing as per illustration on page P11.

4. Check the hose connection at the Control Valve to determine correct porting. Check that controls function as per photo. This is **IMPORTANT** to match valve function with control valve decal. **NEVER PLUMB VALVE TO OPERATE INCONSISTENTLY WITH DECAL.** **SAFETY IS VERY IMPORTANT.**

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- When hoses have been connected, extend both the slide cylinder and arm cylinder and tie hoses per photos. Start at the cylinders and work your way to the valve. Be sure to route arm hoses around cylinder butt and through slide plates as shown. This will protect hoses from catching on container wheels.



#### Bleeding Air From Hydraulic System

**(Do Not Extend cylinders before rephasing to remove air.)** Retract the cylinders completely and hold the control valve handle down.

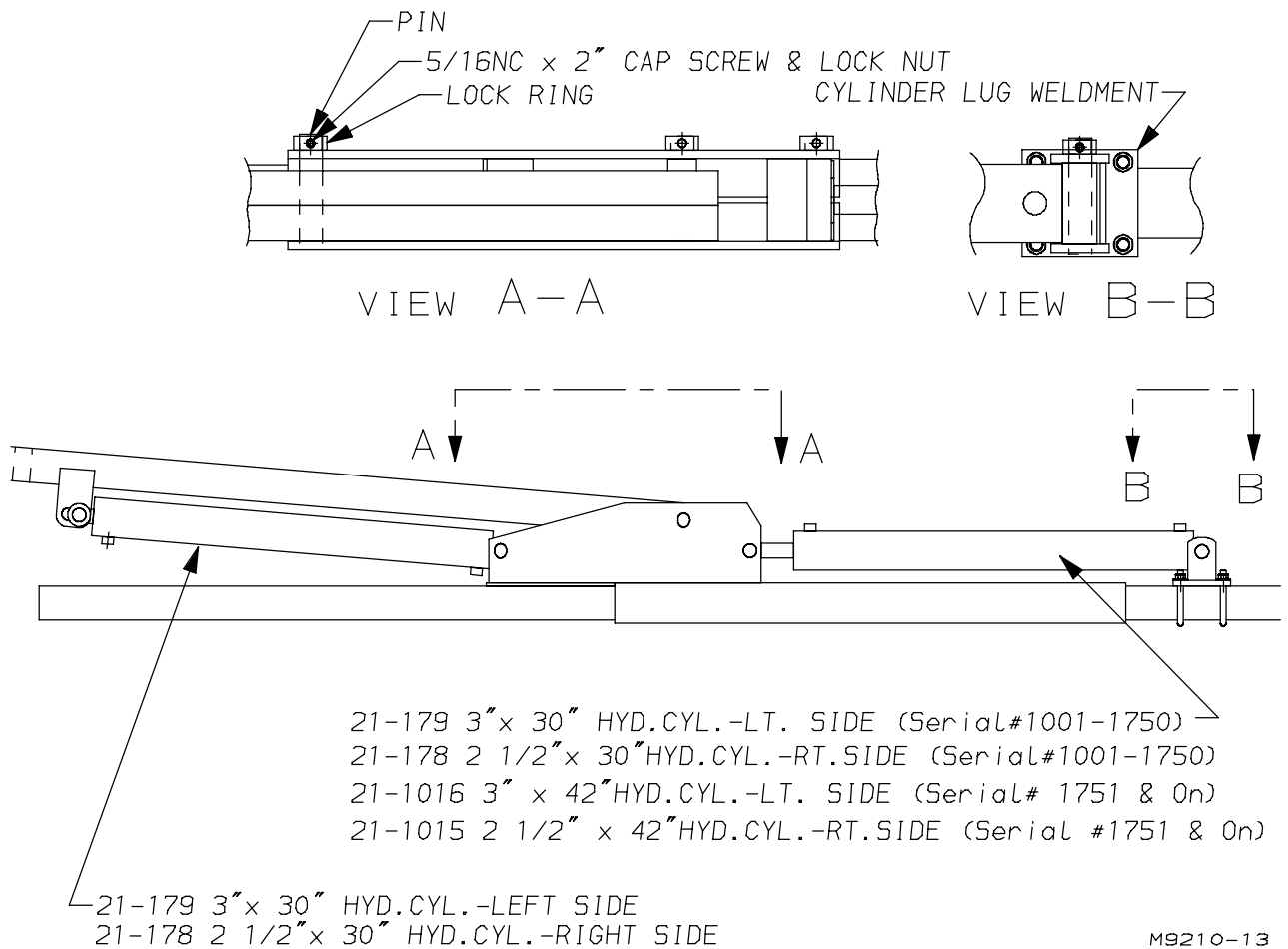
Feather the valve but allow the oil to flow past the rephasing groove for at least 1 minute. Operate the cylinders several times and then retract and hold the valve handle down another minute.

- To bleed the lines, start the truck and engage the PTO to activate the hydraulic system. Crack open the fittings at the gantry lift cylinder. Operate the 'UP-DOWN' control handle in both directions to fill the lines with fluid. As soon as pure fluid begins to come out of the hoses, re-tighten the fittings. Operate the valve so the cylinder moves upward. Move the cylinder to the top of its stroke and crack open the fitting at the rod end of the cylinder to evacuate any air trapped in the cylinder. Retighten the fitting and operate the valve to make the cylinder retract. With the cylinder in its fully retracted position, crack open the bottom hose fitting to evacuate any trapped air. Re-tighten the fitting and run the gantry up and down 5 times to force any air trapped in the system back to the tank.
- Move slide to forward position. Unpin arm cylinder and place vertical with butt end at top.
- Crack open the fitting at the tarp arm cylinder. Operate the arm cylinder to retract (cover) fill the hose with fluid. As soon as pure fluid starts to come out of the hose, re-tighten the fitting. Continue to retract (cover) until left cylinder is retracted.
- Retract the cylinders completely and hold the control valve handle down. Feather the valve but allow the oil to flow past the rephasing groove for at least 1 minute. Operate the cylinders several times and then retract and hold the valve handle down another minute.
- Repeat steps 3 & 4 for the slide cylinders.
- IT IS VERY IMPORTANT THAT ALL AIR IS BLED OUT OF THE ARM AND SLIDE CYLINDERS. THIS WILL ALLOW BOTH TARP ARMS TO STAY IN ALIGNMENT WHEN ROLLING AND UNROLLING TARP.

#### Connecting Cylinders to Tarp Arms and Slides:

- Repin base of arm cylinder
- Lift the Tarp Arms by lifting with forklift to the center of the tarp roller to lift both arms evenly.
- Connect the rod end of the cylinder to the slot on the arms. Install pin from outside of the slot and assemble cotter pin to secure. See illustration.
- Connect the rod end of the slide cylinder to the slide, installing the bushings as shown in illustration. Repeat for both sides.
- Extend the slide cylinders to position slide weldment as far forward as possible on tandem axle hoist. Position slide weldment arm pivot 116-1/4" back from front hoist stops with cylinder fully extended on tri-axle hoist. When both slide weldments are forward, check that they are each equal distance from the front of the hoist. The arm pivot must be parallel to the gantry to assure that the arms will lay tarp evenly onto the gantry. Be sure cylinders are completely extended and tighten u-bolts on cylinder lugs.

6. Operate the arms very slowly, especially without the tarp connected. Do not allow the arms to hit the solid stops rapidly, but feather the valve at the end of the stroke.
7. Watch the tarp arm cylinders during operation to be sure they are in phase with one another. If the cylinders are not in phase, hold the control valve handle down after retracting the cylinder to allow oil to bypass the piston groove and equalize the cylinders. (This bypass is termed rephasing)
8. Observe the slide cylinders to determine if they are in phase with each other. If not, hold down the control valve handle after retracting the cylinder to allow oil to bypass the piston groove and equalize the cylinders. (This bypass is termed rephasing).



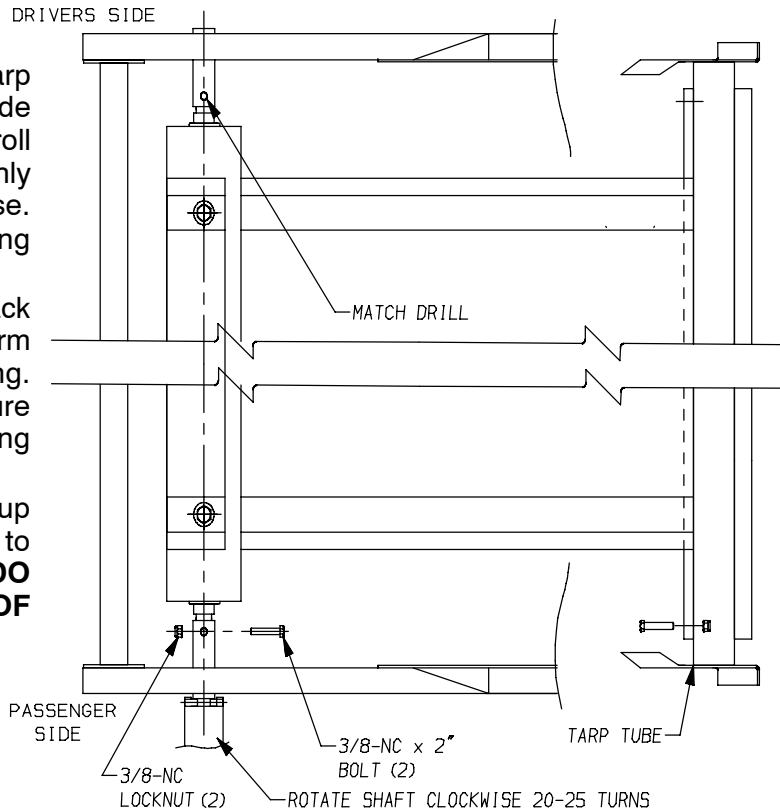
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### Installing Tarp Onto Roller

1. Lay tarp out over roll-off hoist with folded edges faced down. Have the looped end toward the front of the truck.
2. Operate tarp arms and place in the rearmost position.  
See illustration on page 20.
3. Position tarp under the roller and align the grommets with the holes in the tarp roller.
4. Install the proper hardware per illustration.
5. Thread the tarp tube through the tarp and attach the ends to the gantry with hardware as shown.

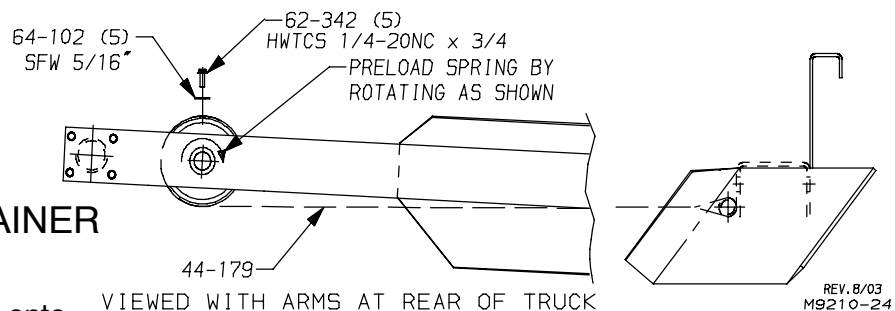
### Pre-loading the Tarp Roller

1. Slide the tarp roller assembly through the tarp arms to expose the cross hole near the right end (passenger side) of the tarp roller shaft. Insert a rod or punch through this hole and rotate clockwise 20-25 turns. As you first begin to wind the tarp, make sure that the tarp is folded over evenly as you roll. This will ensure even tarp rolling. Align the cross hole on the arm tube with another cross hole in the tarp roller shaft. Install a bolt and nut per illustration.
2. Actuate the tarp arms forward slowly allowing the tarp to roll onto the roller. Guide the tarp as necessary to roll evenly. Observe how evenly the arms are in phase. Rephase the arms after laying the tarp roll onto the gantry.
3. Actuate the tarp arms back slowly to check the arm phasing and tarp unrolling. Test several times to assure arms and roller are working smoothly.
4. If the tarp does not roll up completely, you may have to increase roller tension. **DO NOT EXCEED A TOTAL OF 30 TURNS.**
5. Match drill through arm tube on left side and install 3/8NC x 2" bolt and lock nut.



### SETTING HYDRAULIC RELIEF PRESSURE

Remove cap, set relief pressure at 2,500 PSI, lock setting and replace cap.



### FINAL CHECK ON CONTAINER SIZES TO BE TARPED

1. Load largest container onto hoist and tarp the container per the operational section. If the tarp will not reach back far enough, it may be necessary to reposition the cylinder base mounting clamp rearward until the tarp arms, when slide cylinders are fully retracted, will reach the rear top corner of the container. Check then to be sure, when cylinders are fully extended, that the tarp roller will clear the top front corner of the container. When repositioning cylinder mounting be certain that both sides are adjusted evenly.

### FINAL TARPER HOSE AND TARP CHECK

1. Position the hose clamps as shown in photos pages 16-17 with 3/8NC x 1-1/2" Cap Screws and 3/8NC lock nuts, and operate tarp completely forward and back, observing the hoses in all positions. Check that hoses don't catch or curl up where a container may catch them.
2. Check hoses when slide is completely forward and completely back. In each extreme position, check arms completely forward and completely back.
3. During this hose checking procedure, also check the tarp rolling, do arms lay evenly on gantry?
4. **BE SURE TO CHECK HOSES ON BOTH SIDES OF TRUCK. HAVING HOSES PROPERLY ROUTED AND FASTENED IS OF EXTREME IMPORTANCE TO THE CUSTOMER SATISFACTION OF THIS UNIT.**