Installation Instructions

Load Push and Load Push/Pull (Sideshifting models) L5S, L7S, P5S, P7S

CAUTION

Rated capacity of the truck/attachment combination is a responsibility of the original truck manufacturer and may be less than shown on the attachment nameplate. Consult the truck nameplate.

Truck Requirements

Truck relief valve setting: 1750-1800 psi. min. (refer to your truck service manual for instructions on how to achieve this setting.)

Recommended hose and fitting size: No. 6.

Inspect truck carriage. Upper crossbar locating notches must not be damaged. Carriage faceplates should be smooth, straight, and without metal projections. This is particularly critical because wear shoes bear directly against the lower truck carriage faceplate. The lower crossbar should be flat within 0.125 inch.

Prior To Installation

1. Using a suitable hoist and chain, lift the attachment by the **baseplate** and set the attachment in an upright position on a pallet. See Figure 1.

WARNING: Do not lift the attachment by the **faceplate.** The faceplate may extend while you are lifting and damage to the attachment or personal injury may result.

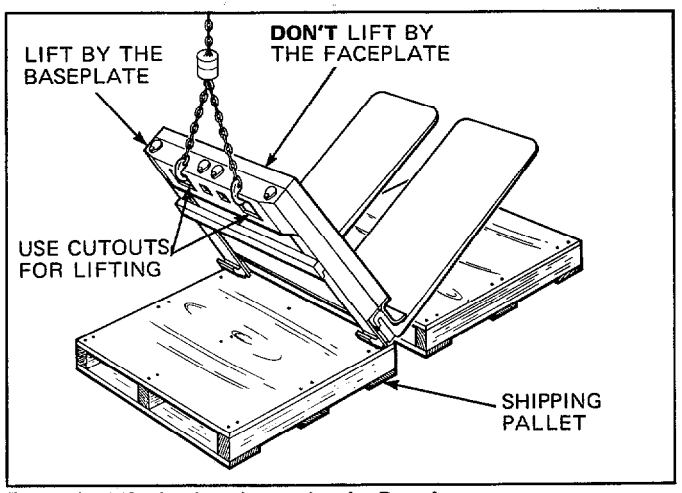


Figure 1. Lift the Attachment by the Baseplate

2. Remove the sideshift cylinder anchor bracket if it is attached to the cylinder (the bracket may be in a separate shipping bag). See Figure 2.

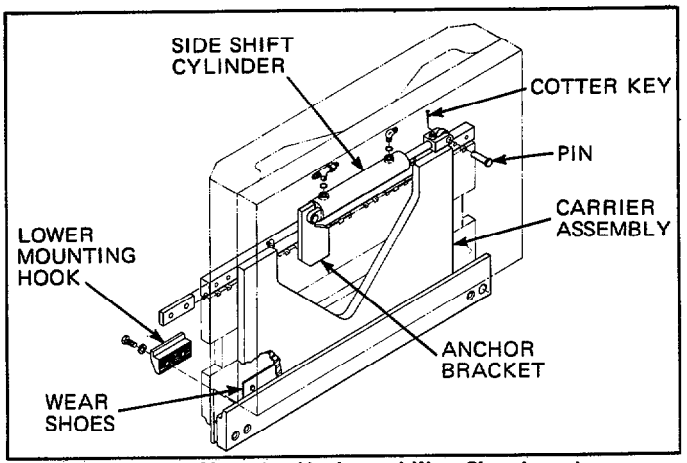
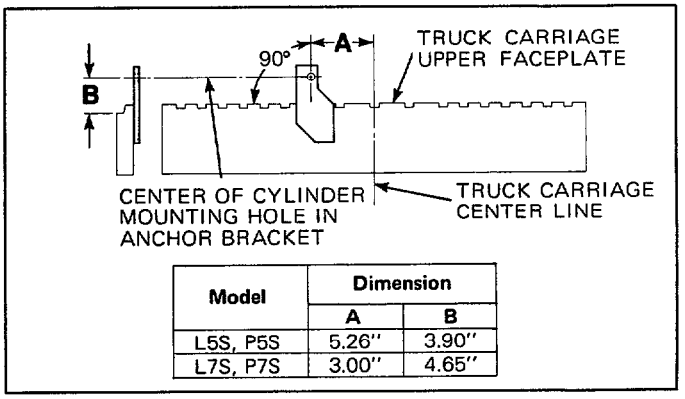


Figure 2. Cylinder, Mounting Hooks, and Wear Shoe Location

3. Locate the anchor bracket on the front side of the lift truck carriage according to dimensions shown in Figure 3. The anchor bracket must be positioned at a true 90° angle to the carriage faceplate.



Model	Dimension	
	A	B
L5S, P5S	5.26"	3.90"
L7S, P7S	3.00"	4.65"

Figure 3. Location of Anchor Bracket

4. Weld the anchor bracket to the truck carriage upper faceplate with a 0.40 inch fillet weld on the bottom and sides of the bracket as shown in Figure 4. Weld the bracket using AWS E7018 rod. Preheat to 300°-350° F.

5. Assemble the small bracket, hoses, and straight thread fittings (in the bag accompanying the attachment). Bolt the small bracket to the end of the anchor bracket on the truck carriage. See Figure 5.

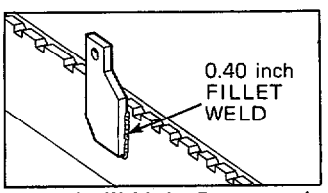


Figure 4. Weld the Bottom and Sides of Anchor Bracket

(over)

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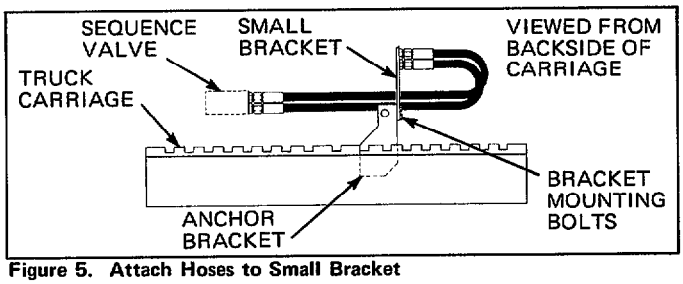

Figure 5. Attach Hoses to Small Bracket

6. Place the upper bearing segments in the notches of the truck carriage upper faceplate, grouping them as shown in Figure 6. Apply a liberal coating of graphite base grease to the bearing segments.

   NOTE: To avoid losing the bearing segments, they should be installed so that the outer bearing segments will not be exposed more than half their length beyond the edge of the carrier assembly when the unit is sideshifted fully to either side.

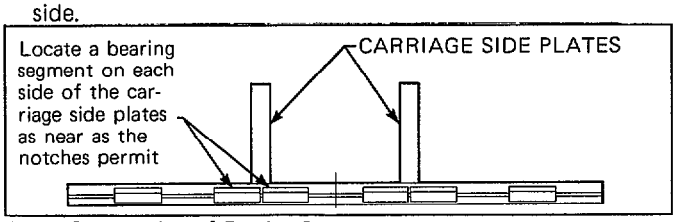

Figure 6. Location of Bearing Segments

7. Insert the two wear shoes (contained in the bag accompanying the attachment) in the holes provided on the attachment. See Figure 2. Coat the bearing surface of the wear shoes with a graphite base lubricant.

Plumbing

1. Install Cascade Attachment Installation Kit No. C-663588 OR plumb No. 6 (minimum) hoses to the truck junction blocks. See Figure 7. Do not pinch, twist, or otherwise damage the hoses.

IMPORTANT

In order to conform to industry standard practice, the hoses should be connected to the truck auxiliary valve as indicated by the following chart.

Function Listed in Sequence of Location to Operator	Attachment Movement	Motion of the operator's hand when actuating the truck auxiliary control handle while facing the load.
Sideshifting	Sideshift Right	Rearward or Up
	Sideshift Left	Forward or Down
Push/Pull	Pull (rearward)	Rearward or Up
	Push (forward)	Forward or Down

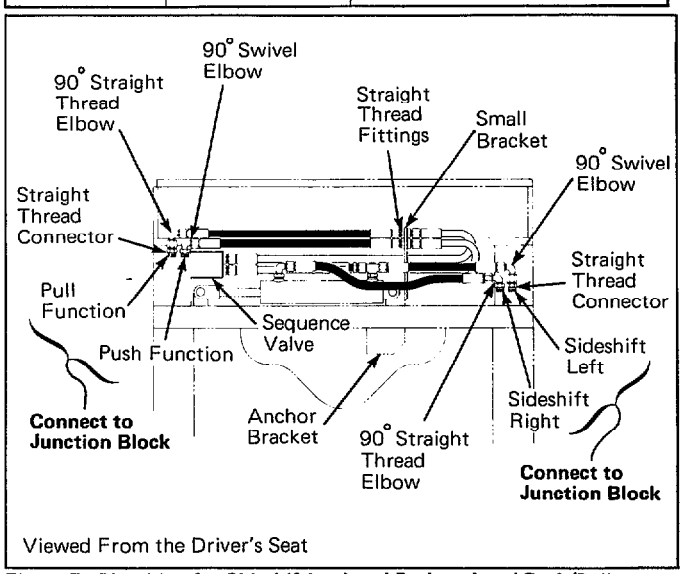

Figure 7. Plumbing for Sideshifting Load Push or Load Push/Pull

2. Flush the hoses according to the following procedures to prevent damage to the sequence valve and cylinders.
   a. Connect the two push/pull hose ends together using a nipple. See Figure 8.
   b. Connect the sideshift hose ends together using a nipple. See Figure 8.
   c. Start the truck and actuate the push/pull lever and the sideshift lever in both directions for about 30 seconds. This causes oil to carry debris left in the hoses to the truck hydraulic tank and filter.

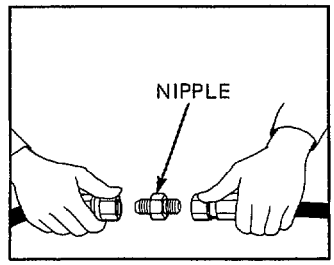

Figure 8. Connect the Two Hoses

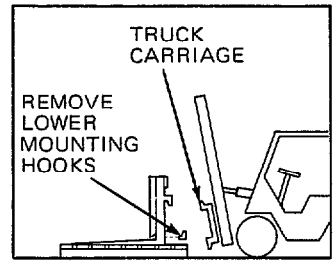

Figure 9. Position for Installation

Installation

1. Remove the lower mounting hooks from the attachment. See Figure 9.
2. Position the truck close enough so that the hoses on the junction blocks can be connected to the attachment. See Figure 9.
3. Attach the loose push/pull hose ends to the small bracket and the loose sideshift hose ends to the sideshift cylinder. See Figure 7.
4. Raise the carriage into position on the attachment.
5. Replace the lower mounting hooks and torque the capscrews to 58-63 ft.-lbs.

   NOTE: With the lower mounting hooks installed, there should be a 1/16 to 1/8-inch clearance between the hooks and the truck carriage. This clearance will prevent binding during sideshifting.

6. Connect the push/pull hoses from the small bracket to the ports on the sequence valve. See Figure 7.

   NOTE: Make sure the hoses are routed together and connected to the proper ports.

Prior To Operation

Remove air which may have entered the hydraulic system according to the following procedures:

1. Power the faceplate to the fully extended position. Don't be alarmed if the faceplate extends irregularly or at an angle.
2. Keep the control handle to the "extend" position for 10-20 seconds to circulate oil throughout the system. This forces air to the truck reservoir. Retract the faceplate fully, then repeat. In most cases, two cycles of this operation will bleed all the air from the system.
3. As a check, while the faceplate is extended, grab the faceplate and shove it from side to side while watching both push cylinders. The cylinder rods should not move. If either cylinder rod is "spongy", the system still contains some air. Repeat Step 2 as required.

Make sure the tips of the platens or forks are at the same level and are about 1-½ inch below the faceplate or gripper jaw with the faceplate extended. If the tips are not properly aligned, you may have to grind the heel of a platen or fork to lower its tip or add weld to the heel to to raise its tip. See Figure 10.

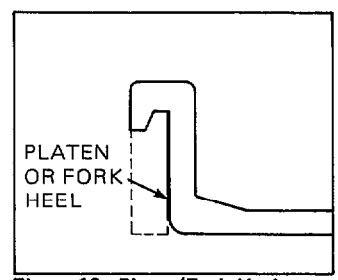

Figure 10. Platen/Fork Heel