



Installation Instructions

360° Rotator

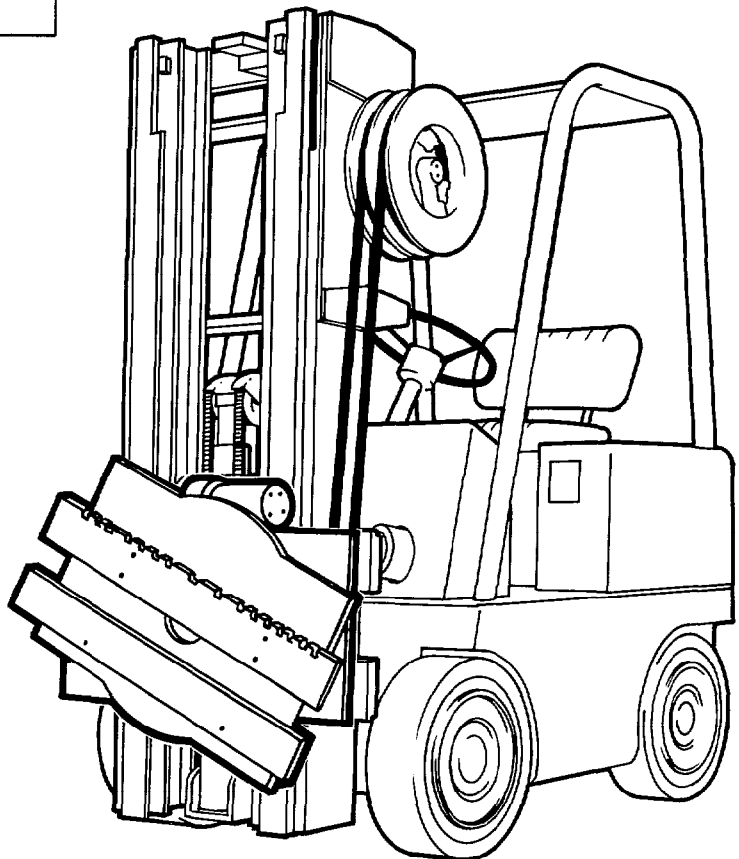
Models: R3R, R4R, R6R, and R7R

Field alterations may impair performance or capability and could result in loss of warranty. Consult Cascade for technical assistance and approval for any required modifications.



WARNING

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



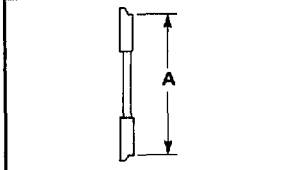
cascade[®]
corporation

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A. Truck Requirements

- Recommended hose and fitting size: Minimum No. 8 hoses with minimum fitting orifices of .375 inch (3/8 inch).
- Truck system must provide the minimum rate of flow of 12 GPM.
- Truck carriage must conform to the Industrial Truck Association (ITA) dimensional standards as shown in the following chart:

	Mounting	Dimension A	
		Min.	Max.
	Class II	14.94	15.00
	Class III	18.68	18.74
	Class IV	23.44	23.50

- Check the truck carriage to be sure it is clean and that the notches are undamaged.

B. Prior to Installation

1. Install the hydraulic lines to the **junction blocks** using the correct Cascade Attachment Installation Kit (C-663584 for R3R, R4R, and R6R; C-663597 for R7R) OR use hoses and fittings as shown in Figure 1 or 2.

Be careful not to pinch, twist, or otherwise damage the hoses. Do not route the hoses where moving parts can damage them. Connect the hoses to the junction blocks only.

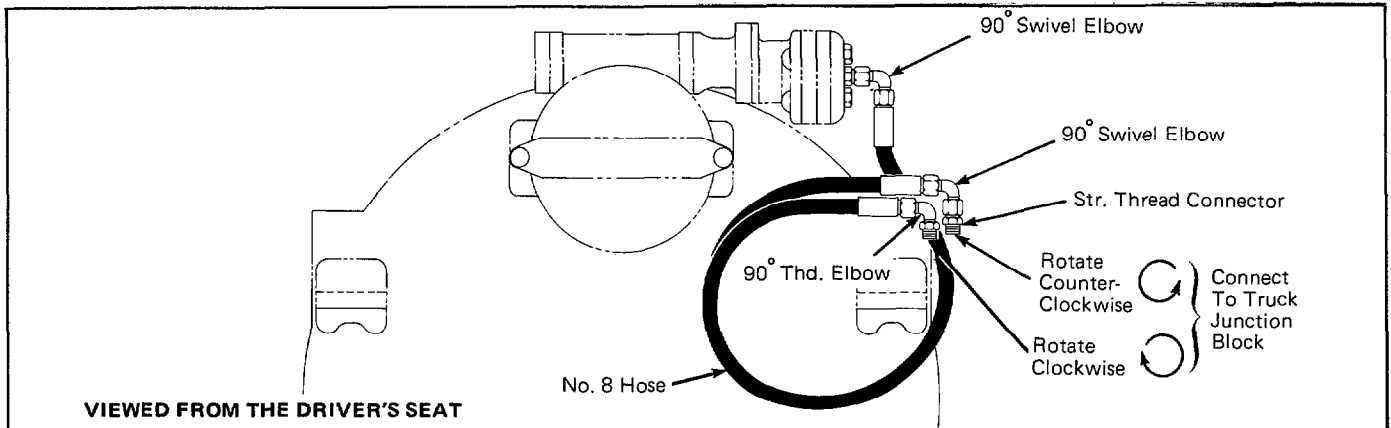


Figure 1. Plumbing Diagram for R3R, R4R, and R6R Rotators (Installation Kit C-663584)

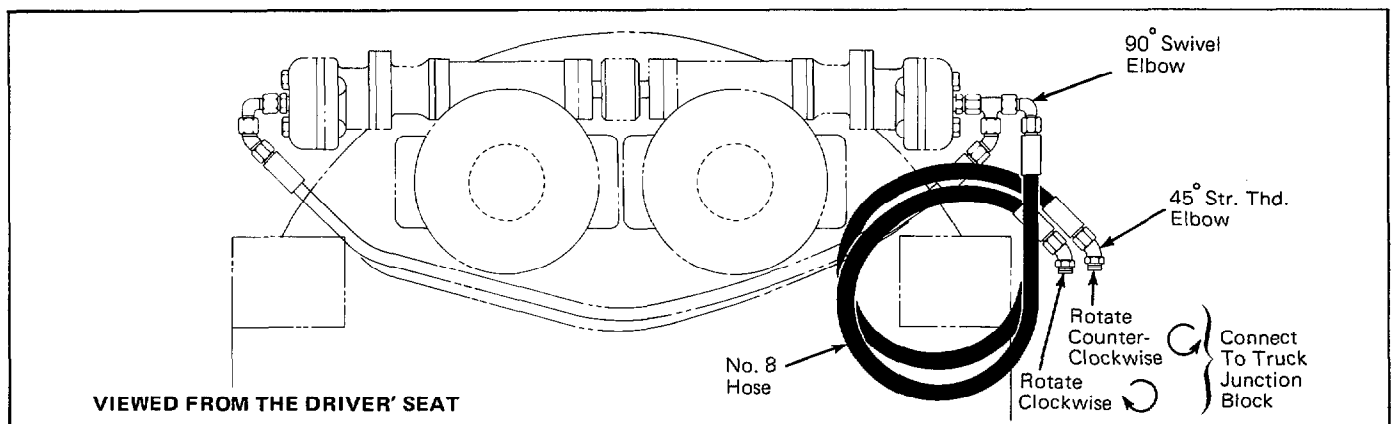


Figure 2. Plumbing Diagram for R7R Rotator (Installation Kit C-663597)

B. Prior to Installation

(Continued)

IMPORTANT

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

Function	Attachment Movement	Motion of the operator's hand
Rotate	Clockwise	Rearward or up
	Counter-Clockwise	Forward or down

2. Flush the hoses as follows to prevent damage to the rotator.
 - a. Connect the hoses ends together using a nipple. See Figure 3.
 - b. Start the truck and actuate the rotate lever in both directions for about 30 seconds to carry any debris left in the hoses to the hydraulic tank and filter.

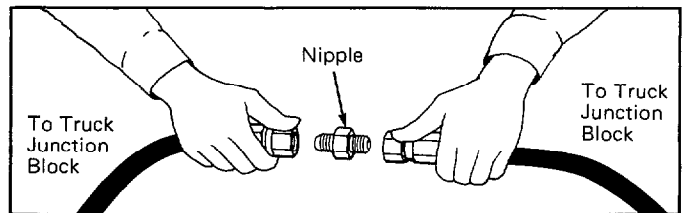


Figure 3. Flushing the Hoses

C. Installation



WARNING
Make sure your overhead crane has a rated capacity of at least 3500 lbs.

1. Install eyebolts on both sides (in the fork bar area) of the rotator. Attach a hoist chain to the eyebolts and set the rotator in a vertical position. Remove the lower mounting hooks. Position the truck as shown in Figure 4.
2. Connect the hoses from the junction block to the rotator motor. See Figure 1 or 2.
3. Raise the truck carriage into position, aligning the centering block on the attachment with the center notch on the truck carriage.
4. Install the lower mounting hooks and torque the capscrews to 85–90 ft.-lbs. (R3R, Class II - torque to 72–76 ft.-lbs.).

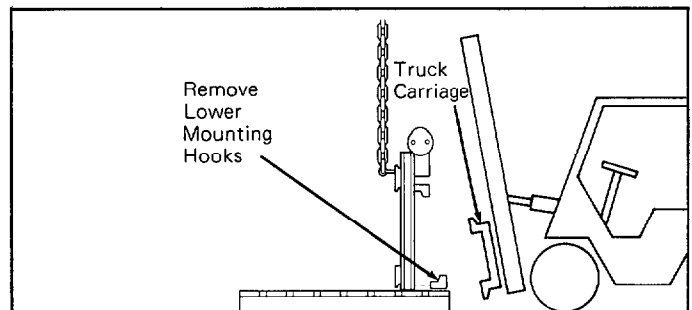


Figure 4. Position for Installation

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D. Fork Bar Installation

1. Locate the fork bars on the faceplate as shown in Figure 5.

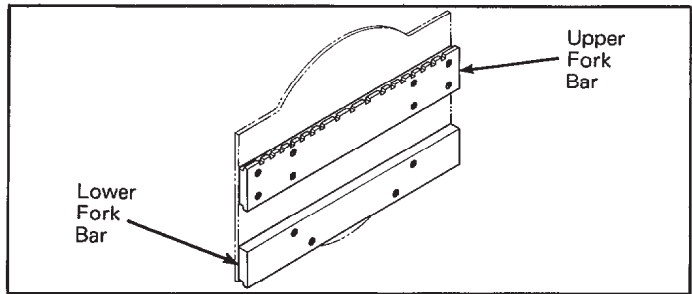


Figure 5. Fork Bar Installation

2. Install and torque the fork bar capscrews according to the following chart.

Rotator Model	Fork Bar Capscrew Torque Specifications (ft.-lbs. lubed)	
	Upper Fork Bar	Lower Fork Bar
R3R	95-100	30-36
R4R	130-140	130-140
R6R	130-140	130-140
R7R	200-210	200-210

E. How to Install and Position the Forks

IMPORTANT: Make sure each fork is equipped with three hooks. Note: Cascade forks for rotators are equipped with the third hook. Cascade rotators with fork bars (but without forks) will have the third hook included for field installation.

1. Remove the fork keeper at one end of the carriage. See Figure 6.
2. Release the spring lock on the top of each fork as shown in Figure 6.
3. Slide the fork onto the fork bars and into position.
4. Lock each fork in place by pushing the lever down as shown in Figure 7, making sure the pin is engaged in the fork bar notch.
5. Install the fork keeper on the end of the carriage.

WARNING

- When removing the forks from the rotator, handle with care to avoid dropping on fingers or feet.
- Make sure the fork keepers are in place and secured on both ends of the carriage.

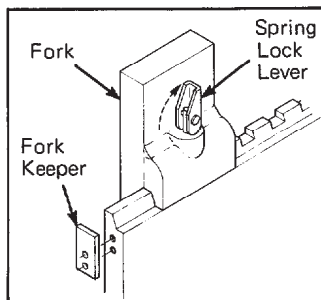


Figure 6. Release the Spring Lock

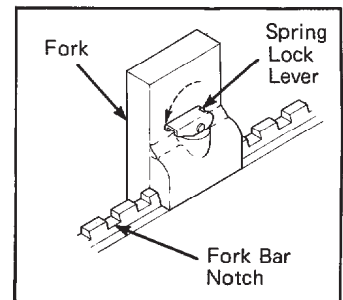


Figure 7. Lock Fork in Place

F. Prior to Operation

1. Before picking up a load, operate the rotating lever and allow a full 360° rotation in both directions. This will allow any air in the system to return to the truck reservoir.
2. Pick up a maximum load and repeat the rotation in both directions. If the rotator is sluggish or does not rotate smoothly, recheck the plumbing. If the plumbing is OK and the rotator still operates incorrectly then contact Cascade's Service Department at 800-547-5266 (toll-free), or in Oregon, call 666-1511.