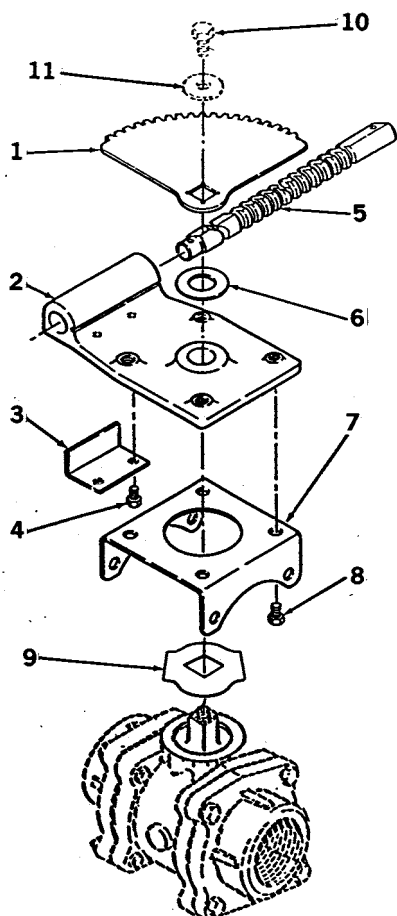


## RACK AND SECTOR ACTUATOR STYLE 7625/7630 ASSEMBLY INSTRUCTIONS

These instructions are designed to aid you in upgrading Swing-Out™ valves from handle operation to rack and sector operation. The rack and sector is available for 2½ in. to 3 in. non Tork-Lok valves only. The following cautions should be practiced to maximize safety.

### Cautions

- **KEEP HANDS CLEAR OF RACK AND GEAR SECTOR DURING OPERATION.**
- **Go through steps in order**
- **Make sure stop plate is synchronized with rack and sector as described in these instructions.**
- **The rack is a push-pull device and is not designed to take side loads.**



**FIGURE 1**

Item number	Description	Quantity
1	Gear Selector	1
2	Carrier Bracket	1
3	Lock Plate	1
4	Brass Hex Head Bolt	4
5	Rack	1
6	Spacer	*
7	Platform	1
8	Stainless Steel Hex Head Bolt	2
9	Stop Plate	1
10	Top Bolt	1
11	Washer	1

\* One or more may have been used for proper alignment.

## INSTRUCTIONS

The rack and gear sector is designed to be very versatile. Please take a few minutes to decide how the actuator is to be configured. The following considerations need to be taken into account:

1. The Carrier Bracket can be mounted four different ways; either to the left, right, up stream, or down stream of the valve.
2. The rack and sector can be configured so it can be pushed to open and pulled to close, or pushed to close and pulled to open.
3. The stop plate is used to stop the valve travel in the full open and full closed positions. Configure the rack and gear sector so that the rack, sector, and stop plate are all in the closed position when the valve is closed.

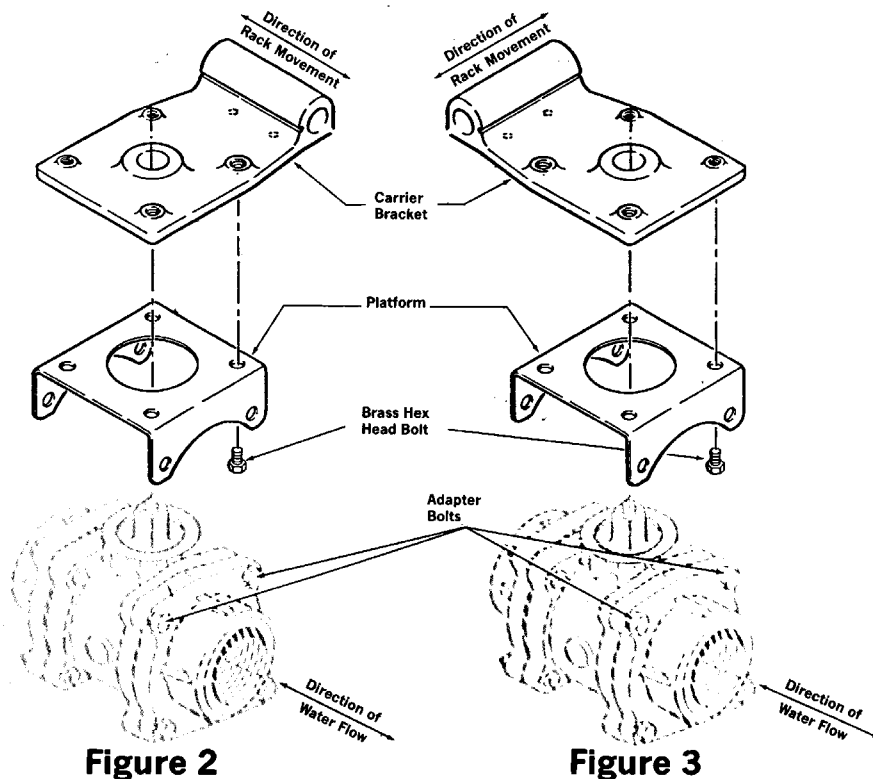
## PROCEDURE

1. Close valve and remove all pressure on valve (if applicable). Remove top bolt (Item #10), washer (Item #11) and handle from the valve.
2. Remove the two adapter bolts (See Figures 2 & 3) on both adapters closest to the trunnion.
3. Properly align carrier bracket on platform making sure all platform bolt holes align with the corresponding adapter bolt holes (see Figures 2 & 3). Fasten carrier bracket to platform using 4 brass hex head bolts as shown. Do not tighten bolts.
4. Make sure valve stop plate is in proper position for a closed valve, and fasten platform to valve by reinstalling four adapter bolts.
5. Tighten four brass hex head bolts, which hold carrier bracket to platform.
6. Place one .010" brown spacer over handle trunnion (see Figure 1).

NOTE: Figure 2- The rack movement is parallel to water flow.

Figure 3- The rack movement is perpendicular to water flow.

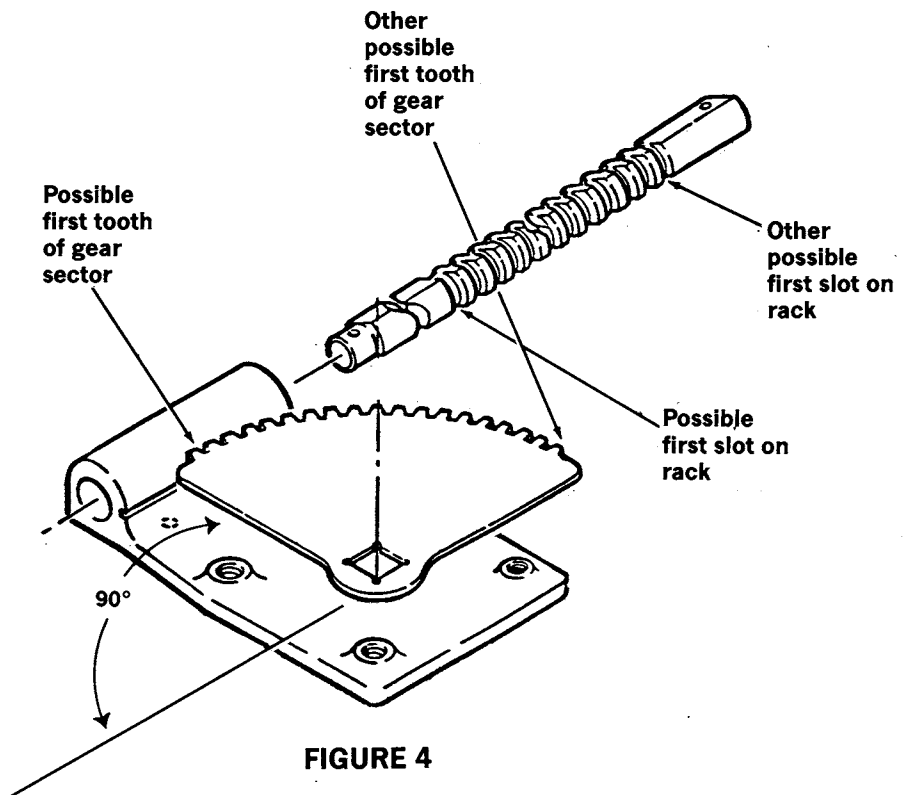
7. Slide rack into carrier bracket and mount gear sector on handle trunnion. Make sure first tooth on gear sector is in the first slot on the rack. The rack, gear sector, and stop plate should be in the closed position and the valve should be closed.



8. Secure gear sector using original handle bolt and washer.
9. Check for excess spacing between gear sector and raised center boss on carrier bracket with a feeler gauge. Spacing should be .005 to .010 inches. Adjust as needed by removing bolt, washer and gear sector, and then adding or removing spacers as needed. The color of the spacer corresponds to its size; blue is .003, green is .005, brown is .010, and pink is .015.

10. Push and pull on the rack to make sure the valve travels from full closed to full open position. Gear sector must rotate 90 degrees. If it does not, make sure first tooth of gear sector is in first slot of rack.

11. Attach lock plate to carrier brackets using two stainless steel hex head bolts. Check to make sure there is just enough clearance between lock plate and rack to allow rack to slide back and forth. Lock plate should be installed so that it will slide back and forth only when the flat side of the rack faces the lock plate.



**FIGURE 4**

12. Keep hands clear of the area where the gear sector mates with rack, and the pinch point between gear sector and the carrier bracket. Operate rack to ensure rack and sector, as well as the valve, are operating properly. Rack should not move with less than 45 lbs. of force in the lock position. If rack moves with 45 lbs. of force, remove the lock plate and ensure the lock plate surface and mounting surface of the carrier bracket are free of burrs and foreign material. After checking and cleaning surface, reinstall lock plate and retest. If rack still moves with less than 45 lbs. of force, contact Customer Service.

*\*To insure continued quality performance, use only Akron replacement parts.*



PHONE: 330.264.5678 or 800.228.1161 | FAX: 330.264.2944 or 800.531.7335 | [akronbrass.com](http://akronbrass.com)

REVISED: 6/11

WARRANTY AND DISCLAIMER: We warrant Akron Brass products for a period of five (5) years after purchase against defects in materials or workmanship. Akron Brass will repair or replace product which fails to satisfy this warranty. Repair or replacement shall be at the discretion of Akron Brass. Products must be promptly returned to Akron Brass for warranty service.

We will not be responsible for: wear and tear; any improper installation, use, maintenance or storage; negligence of the owner or user; repair or modification after delivery; damage; failure to follow our instructions or recommendations; or anything else beyond our control. WE MAKE NO WARRANTIES, EXPRESS OR IMPLIED, OTHER THAN THOSE INCLUDED IN THIS WARRANTY STATEMENT, AND WE DISCLAIM ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE. Further, we will not be responsible for any consequential, incidental or indirect damages (including, but not limited to, any loss of profits) from any cause whatsoever. No person has authority to change this warranty.

© Akron Brass Company. 2011 All rights reserved. No portion of this can be reproduced without the express written consent of Akron Brass Company.