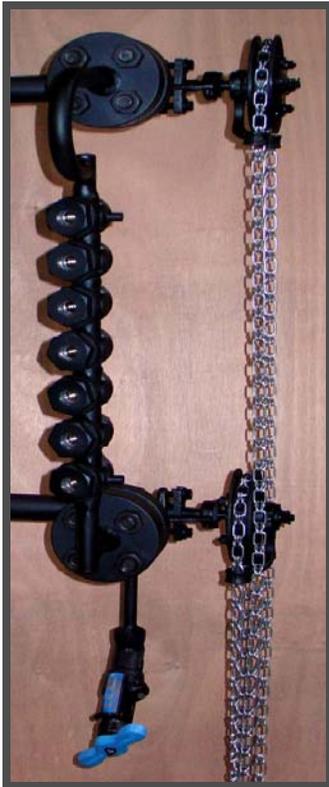


# Water Gage Valve Chain Installation Instructions



**Chain Wheel Operators**



**Lever Operators**

**Reliance**<sup>®</sup>

A PRODUCT OF CLARK-RELIANCE

## Installing operating chains on lever activated valves sets

ASME Code, Section I, PG-60.1.2 states that if either the top or bottom valve is more than 7 ft. (2m) above the floor or platform from which it is operated, the operating mechanism shall indicate by its position whether the valve is open or closed. A means of manually opening and closing the valves from the valve operating floor or platform shall be provided.



**Lever Actuated Valves**  
Figure 1

1. Adjust levers as illustrated in Fig. 1 with both upper and lower valves closed. Each lever should be positioned at a 45-degree angle downward and to the right. See Fig. 2 for instructions to adjust the lever on to the valve stem. Plant personnel can then observe when the valves are in the closed position.
2. Attach the chain (use size #8B) to each side of the upper (steam side) valve with the "S" hooks which are included in the chain package. Note that in this stage the levers should be parallel with each other.
3. Attach the chain on the left side of the valve lever to the "S" hook on the lower (water side) valve.
4. Insert the chain on the right side of the lever into the bronze locking fixture. Pull the chain tight between the two valves and tighten the locking screw. This is very important to obtain full closure of both the upper and lower valves. If there is some slack on the left side of the valves, it will have no adverse effect on the actuation of the valves for opening.



5. Both chains should extend to a safe elevation below the water gage glass, usually one platform or 10 feet below. If there is interference below when installing the chains, please contact the factory.

## **18-POSITION GAGE LEVER**

Positive, non-slip locking in 18 positions is assured with the patented Clark-Reliance gage lever. The lever is standard on all Series 400 and 500 bronze water gage valves and all Series 800 forged steel water gage valves.

The gage lever is readily adjusted to the desired angle regardless of the valve stem orientation when the valve is closed.

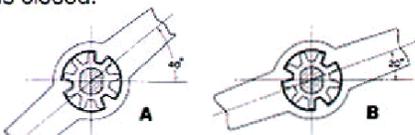


Figure 23

MOVING THE LEVER FROM POSITION A TO B ACHIEVES AN INTERMEDIATE ANGLE ADJUSTMENT QUICKLY AND EASILY.

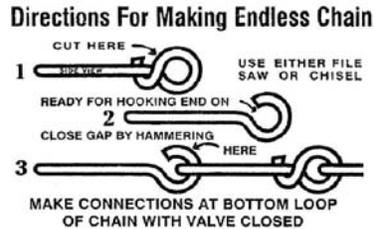
## Install Pull Handles

Install the pull handles on the end of the pull chains with the provided "S" hooks. As you face the water gage valves, the "Pull To Close" handle is to be installed on the right side chain and the "Pull To Open" handle is to be installed on the left side chain.

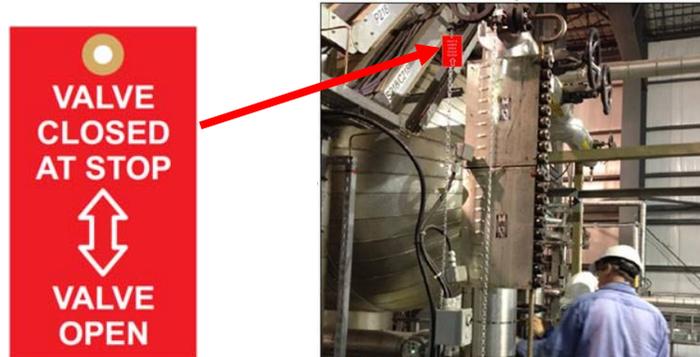


## Installing operating chains on chain wheel valves sets

1. The chain wheel on the upper valve (steam side) extends further from the valve body than the lower valve (water side). This allows the upper valve chain to fall parallel to the lower chain without interfering with it. Install a loop of chain around the chain wheel operator and through the chain guides.
2. Attach the ends of the chain together as shown below.



3. Using #1/0 size double loop chain, calculate the length of the chain for each wheel by multiplying the length of the drop times two.
4. Using the Tag Kit (SG777 8 KIT), which includes two “S” hooks (P/N: BG403R-16) and two “Valve Closed” tags (P/N: SG777-8), attach the red tags on to the upper and lower valve operating chains, one or two links below the bottom of the chain guide when the valves are fully CLOSED.



The tag is to be installed on the left side as you are facing the water gage valves. Make sure that when using the chain to close the valves, the tag does not interfere with any obstruction, such as conduit type chain routers, platform grating, or any other piping obstruction. When operating the chain at grade or on a platform below the installation, consider mounting the tag at a level where it can be easily observed by the operator. When the valves are closed, the tag will be at the bottom of the chain guides. When the valves are open, the tag will be lower than the bottom of the chain guides. Note that each valve will have their own chain drop, so each valve must be shut off, with the drain valve open, before proceeding with any gage glass maintenance. Contact Clark-Reliance for assistance, if needed, for installations that may require additional help.





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Consult the factory or your local Clark-Reliance Representative with any questions. Please have the model numbers and/or reference drawing numbers available when calling. You can also contact us at our website [www.relianceboilertrim.com](http://www.relianceboilertrim.com) or [RelianceAppEng@clark-reliance.com](mailto:RelianceAppEng@clark-reliance.com).

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