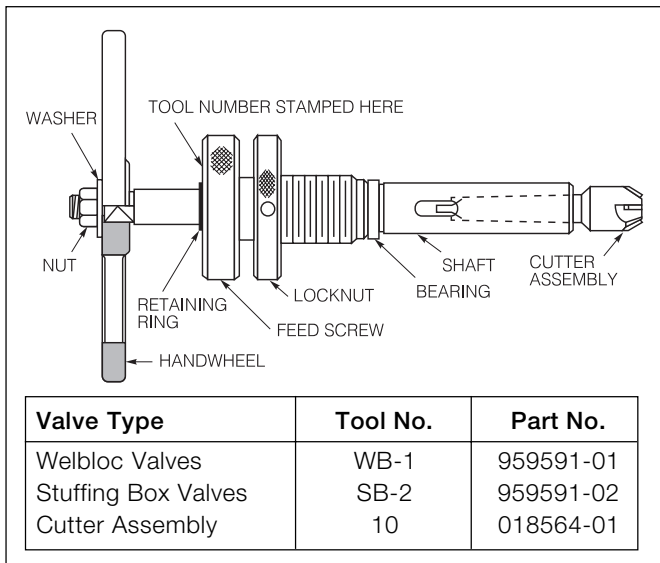


# reseating Yarway water level gage valves

A special set of tools has been designed to allow efficient recutting of worn or damaged seats in Yarway Water Level Gage Valves. The reseating operation can be done quickly with the valve remaining in place and without cutting or moving any piping. It is recommended that a spare set of packing and a stem-disc assembly be on hand.

An assembly of the parts of the cutting tool is shown in Figure 1. Make sure that the proper tool and cutter is on hand.

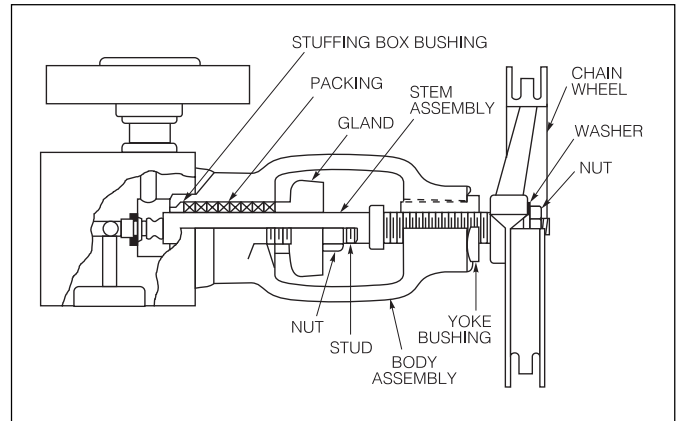


**FIGURE 1**

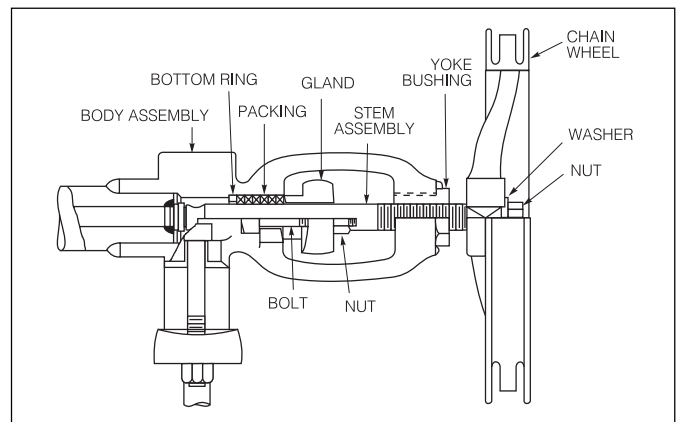
**IMPORTANT—Do not attempt any disassembly until all pressure to the gage is relieved and the lines to the valves secured to prevent pressurization.**

## DISASSEMBLY

1. Refer to the assembly drawings included in this instruction. Both Welbloc (Fig. 2) and Stuffing Box Valves (Fig. 3) are shown.
2. Loosen and remove the gland nuts. Stuffing Box Valves have gland bolts; Welbloc Valves have studs that remain in the body.
3. Remove the chain and chain wheel. Note the position of the chain wheel for use in reassembly. Grind off the two anti-rotation tack welds on the end of the yoke face.
4. Unthread the yoke bushing carrying the stem assembly with it.
5. Remove the gland. Remove the packing set and the bushing or bottom ring and withdraw the parts from the body. Use care to prevent scratching or marking the stuffing box surface.



**FIGURE 2**

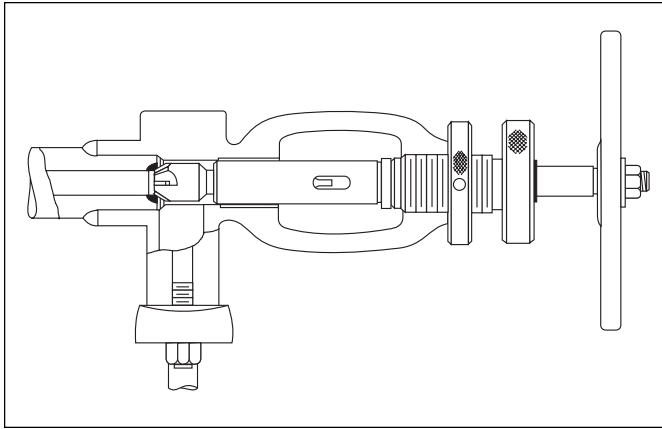


**FIGURE 3**

6. Inspect the stem assembly. Replace the stem assembly if worn or damaged. Replace the packing set.

## RECUTTING THE SEAT

1. Carbide cutters are used to cut the Stellite valve seats. Both the seat and cutter blades are very hard but can be chipped or cracked by careless handling.
2. Refer to Fig. 4 which shows the reseating tool assembled in a Stuffing Box Valve.
3. Carefully engage the feed screw threads in the yoke. Rotate the feed screw slowly until the cutter assembly **lightly** contacts the valve seat.
4. Tighten the feed screw by hand using a light to moderate hand torque. Tighten the locknut.
5. Using both hands, start to turn the handwheel slowly and smoothly, maintaining a steady pressure on the cutter. Turn the handwheel only as far as smooth rotation can be maintained. Avoid putting side loading on the cutter that may result in unsymmetrical cuts.



**FIGURE 4**

6. Rotate the handwheel through at least three revolutions.
7. Back out the feed screw; remove the tool assembly and clean away any chips.
8. When properly recut, the seat will have a smooth, bright, continuous seating surface. Repeat Steps 3 through 7, if necessary, to obtain a satisfactory seat.

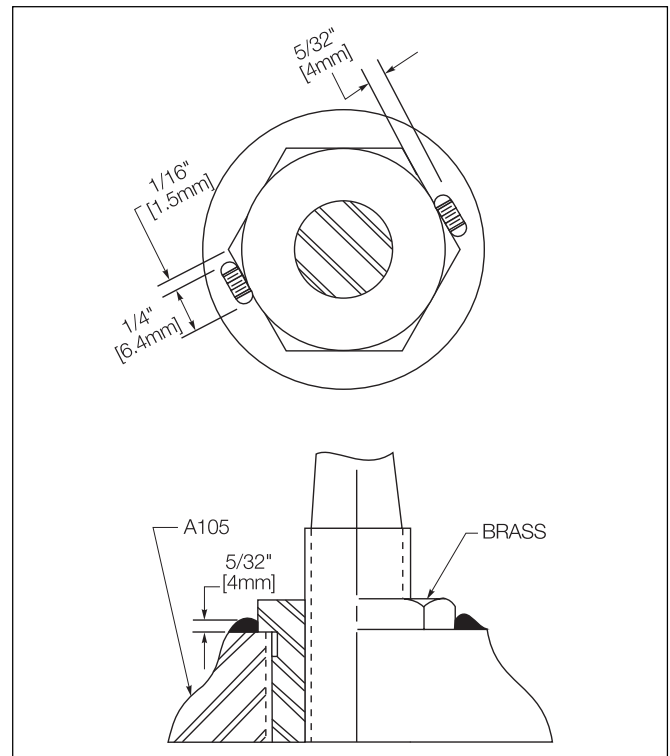
## REASSEMBLY

1. Check to make sure the interior of the valve is clean and in condition to accept the valve parts.
2. Insert the bushing or bottom ring and set it in place in the bottom of the stuffing box. Insert the split packing rings; stagger the splits. Assemble the gland and tighten the gland nuts finger tight.
3. Guide the stem assembly carefully through the yoke and gland and into the stuffing box. Push the stem through the packing to make contact lightly with the seat.
4. Carefully thread the yoke bushing onto the stem and into the yoke. Back the disc away from contact with the seat, a minimum of one turn counterclockwise. Torque the yoke bushing as follows: Welbloc Valve

(Fig. 2) 40-60 ft-lb (54-81 N•m); Stuffing Box Valve (Fig. 3) 80-100 ft-lb (108-135 N•m).

5. The anti-rotation tack welds must be replaced. The detail below, (Fig. 5) shows the required location and minimum dimensions. The base metal is Carbon Steel, A-105. The yoke bushing is brass. Use E-7018 filler metal with the shielded metal arc welding process.
6. Assemble the chain wheel in its original position. Install the chain. Tighten the gland nuts evenly. Open and close the valve several times to set the packing as the gland nuts are tightened.

Refer to Yarway Instruction Manuals 954672 and 963035 for installation, operation, and maintenance instructions on Flat Glass and Color-Port Gages, respectively.



**FIGURE 5**