

TROUBLE-SHOOTING GUIDE FOR RITCHIE FROST FREE HYDRANTS

1. If hydrant continues to drip after handle is closed, the plunger rod may need to be adjusted.
 - a. Loosen hex nut #11, on top of plunger rod #17
 - b. Open the hydrant handle #5 partially to relieve pressure on plunger rod.
 - c. Turn the lower hex nut #12 on plunger rod #17 approximately $\frac{1}{2}$ to 1 turn toward top of rod.
 - d. Tighten top hex nut #11 onto plunger rod.
 - e. Close hydrant handle. Check for leaks.
2. If hydrant continues to drip after adjusting the plunger rod, the leather washer #25 on the plunger assembly #20 needs to be replaced. **NOTE:** *This can be done without removing hydrant from ground.*
 - a. Shut water supply off.
 - b. Remove plunger rod nuts and washers #11 & #12, and the rocker arm pin and retaining ring, #8.
 - c. Remove packing nut #14 and packing gland #15 by turning counterclockwise.
 - d. Pull plunger rod #17 & #18 up through hydrant pipe #24, without turning rod as this may damage washer and plunger sleeve. **NOTE:** *Due to calcium (lime) or iron buildup in the valve chamber above the plunger assembly, it may be difficult to remove the plunger rod assembly. The hydrant should be flushed after removing hydrant rod assembly by turning water supply on, momentarily, and then turning off again.*
 - e. Inspect leather washer #25 and rubber plunger #22 for wear and, or damage. Replace if necessary.
 - f. Re-install plunger rod into hydrant, and replace rocker arm and plunger nuts and washers and adjust, and then turn on water supply and test for leaks.
3. If hydrant continues to leak, after replacing plunger assembly, the valve chamber #19 needs to be replaced. **NOTE:** *The hydrant must be removed from ground for this repair.*
4. If hydrant leaks around plunger rod #17 in hydrant head, the brass packing nut #14 may need adjusting.
 - a. Tighten brass packing nut #14 into plastic packing gland fitting #15, approximately $\frac{1}{4}$ turn at a time.
 - b. If this does not stop the leak, the packing #16 may need to be replaced. To do this, the rocker arm and adjusting nuts must be removed as described above. The packing nut #14 must then be removed by turning counter clockwise. The packing gland #15 also needs to be removed by turning counterclockwise. The packing can be removed by using a $\frac{1}{2}$ " to $\frac{5}{8}$ " dia. drill bit. Be careful not to drill too deep into packing gland or it can be damaged. The packing gland could also be replaced at this time.
 - c. Inspect the hydrant rod extension #17 for wear and damage at this time, it should be smooth. Replace if damage is evident or it shows wear on one side of the rod.
5. If hydrant freezes in the winter, the drain weep hole in the valve chamber #19 is plugged, the valve is leaking, or the ground water level is too high. If drain hole is plugged, it may be possible to clean it out, by back flushing after the hydrant is unfrozen. This can be done, by connecting a pressurized water or air source to the hydrant outlet hose fitting #3, while the handle is closed.

CAUTION: *Do not use more than 125 psi pressure source.*

