

Betts Industries, Inc.

1800 Pennsylvania Ave. West
Warren, PA 16365 U.S.A.

Engineering Bulletin 8-99

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Subject: Safety Instructions – Betts Outside Screw & Yoke (OS&Y) Hydrolet Valves

The following safety instructions must be followed when operating Betts OS&Y Hydrolet Valves.

- 1) When operating the valve, wear protective gear appropriate to the product being transported. At a minimum, operators should wear safety goggles and gloves. Other equipment such as face shields, protective suits and respirators must be used when appropriate.
- 2) Inspect Quick Release Bonnet (QRB) clamp ring before loading or unloading through valve. Insure that clamp ring is seated properly around perimeter of bonnet and valve body and that wing nut is secured hand tight. Do not use tools to strike wing nut as this can damage wing nut and/or clamp ring. Replace damaged clamp rings before loading or unloading through valve.
- 3) On DOT specification cargo tanks, manually operated stop valves (hydrolet valve, for example) must be installed in series with a self-closing stop valve (emergency valve) on every product discharge line. When unloading cargo tank, always open the hydrolet valve before opening the emergency valve. Likewise, when bottom loading cargo tank, open the hydrolet valve and then the emergency valve before beginning the loading process. This allows the operator to maintain a safe distance so that if the hydrolet fails, they are less likely to be splashed with product.
- 4) Betts hydrolets are designed to be easily dismantled for ease of cleaning between loads by removing the clamp ring and bonnet to expose the inner parts of the valve. Never adjust or remove QRB clamp ring if valve is pressurized. Failure to relieve pressure can cause bonnet to “blow off” body and release product.
- 5) OS&Y Hydrolets have two cotter pins in the stem and disc holder assembly that must be installed for safe operation.
 - a) The first is located behind the disc plate nut. It must be installed to prevent the plate nut from loosening to the point that the disc retainer plate and seat disc come apart from the disc holder assembly.

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- b) The second cotter pin is located at the junction of the stem and the disc holder assembly. This cotter pin prevents the stem from disengaging from the disc holder assembly. Failure to install this pin can result in a separation between the disc holder and the stem when the valve handle is turned. To insure that this pin and the disc holder assembly are in place before loading or unloading, open valve by turning handle (insure that emergency valve is closed if cargo tank is full or that piping is not pressurized if setting up to bottom load). Continue unscrewing handle until the stem either stops or comes out of the bonnet. **Never use a wrench in place of handle as this can cause the stem cotter pin to shear.** If the stem stops, the cotter pin and disc holder assembly are in position. If the stem comes out of the body, the disc holder assembly has separated from the stem. **Repair valve before beginning to load or unload.**

