

# Bladder-Type Expansion Tank

## Instructions for Bladder Change in the Field

### Tools and supplies necessary:

- |                           |                               |   |
|---------------------------|-------------------------------|---|
| (1) Plumber's tool box    | (5) Pressure gauge            | (9) Extension cord (as needed)                            |
| (2) Compressed air source | (6) Length of rope or cord    | (10) Wooden stick, at least 1 ft. longer than tank height |
| (3) Replacement bladder   | (7) Work light                |   |
| (4) Chain block           | (8) Portable pump (as needed) |   |

### Step-By-Step Instructions:

- (1) Isolate bladder-type expansion tank from system. Shut off automatic fill-valve and drain boiler to release all system pressure.
- (2) Remove air valve core at top of the tank and discharge remaining air.
- (3) Open drain plug located at bottom of tank.
- (4) Disconnect tank from system.
- (5) Remove bolted upper flange and dip tube. Prior to removal, mark mating flanges in order to match them up properly when reassembling.
- (6) Examine and clean bladder support and dip tube attached to the upper flange.
- (7) If necessary, pump water out of the inside of the bladder.
- (8) Using the chain block and a slight twisting motion, lift the bladder out of the tank.
- (9) If necessary, pump water out of the bottom of the tank. Also, if necessary, hose down the walls of the inside of the tank.
- (10) Clean up any remaining water, dry out the inside of the tank, and clean out any remaining dirt or foreign particles. Check the inside tank walls for any sharp edges that may cut the bladder.
- (11) Carefully roll up the replacement bladder lengthwise, with both sides rolled toward the middle like a scroll. This insures the bladder will expand without twisting when filled. Secure at intervals with rope or cord in order to keep it rolled.
- (12) Insert the replacement bladder, removing the rope or cord as it nears the tank opening. Many times, on larger sized tanks, the bladder may be inserted more easily with the tank laying on its side on the floor.
- (13) With the long wooden stick, carefully clear an opening for the dip tube. Extreme care must be taken not to puncture the bladder.
- (14) Checking the markings which were made on the flanges, line up the upper and lower flanges and assemble the upper mating flange. Tighten bolts evenly, using a star pattern.
- (15) Using compressed air source and pressure gauge, apply 10 psi air pressure to the flange connection and then relieve pressure. These actions should ensure proper positioning of the replacement bladder within the tank.
- (16) Clean drain plug and coupling.
- (17) Reassemble the drain plug, using a liberal amount of Tie-Seal Compound 55 or the equivalent. This connection must be air-tight.
- (18) Reassemble the air valve at the top of the tank.
- (19) Precharge tank to fill-pressure or minimum operating pressure.
- (20) Using soapy water, check the drain fitting threads, air valve and flange joint for leakage.
- (21) Reconnect the system, open the fill-valve and check operation of the tank. Always precharge tank before completing this step.

