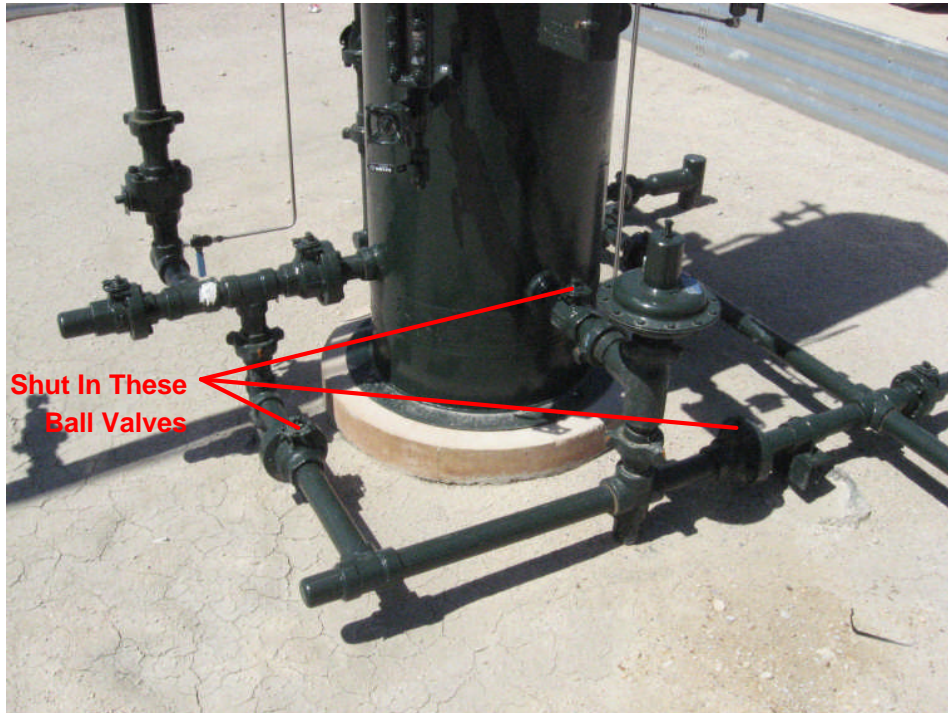


# Dump Valve Maintenance

- 1.) Shut in the well as instructed in “Shutting In A Producing Well” guidelines.
- 2.) Close the valve between the vessel and the dump valve.
- 3.) Activate the dump valve to release any trapped pressure between the vessel and dump valve.
- 4.) Close the remaining valves on both sides of the dump valve to isolate assembly.



- 5.) Remove the supply line from the level controller to the dump valve. Activate level controller to clean out any debris from supply line. Ensure that adequate pressure is being supplied to valve.



6.) Loosen the hammer union below the dump valve diaphragm body and remove assembly.



7.) Insert tool into the openings in the side of the seat to twist and pull out. Inspect dump body for any cuts or debris. Replace the dump body as needed.



8.) Lubricate the new replacement seat O-ring with anti-seize and slide into the dump body.



9.) To insert the new seat, several methods are available to achieve this;

- a.) Use the handle of the hammer to firmly push the seat into position.
- b.) Place the old seat on top of the new seat and use a hammer to tap it into position.

Be sure that the seat “clicks” into place with the O-ring into the groove of the body.



10.) Using a 3/32" punch, drive the keeper pin out from the stem.

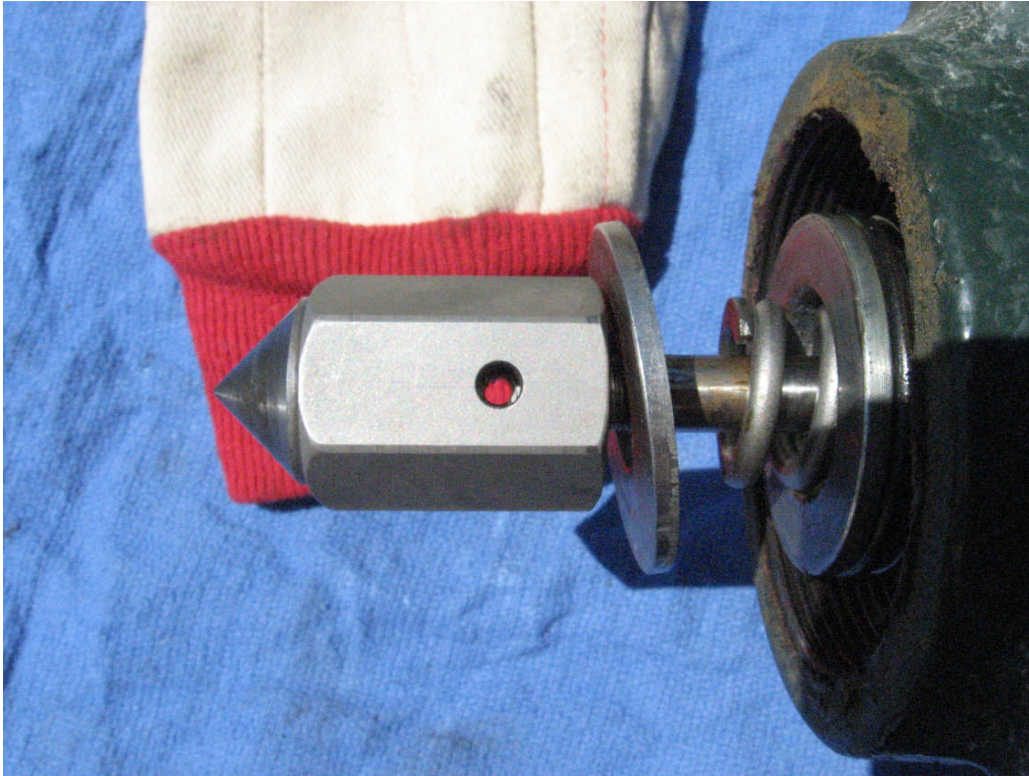


11.) Use a wrench to unscrew the trim from the stem. Clean any debris or residue from the stem.

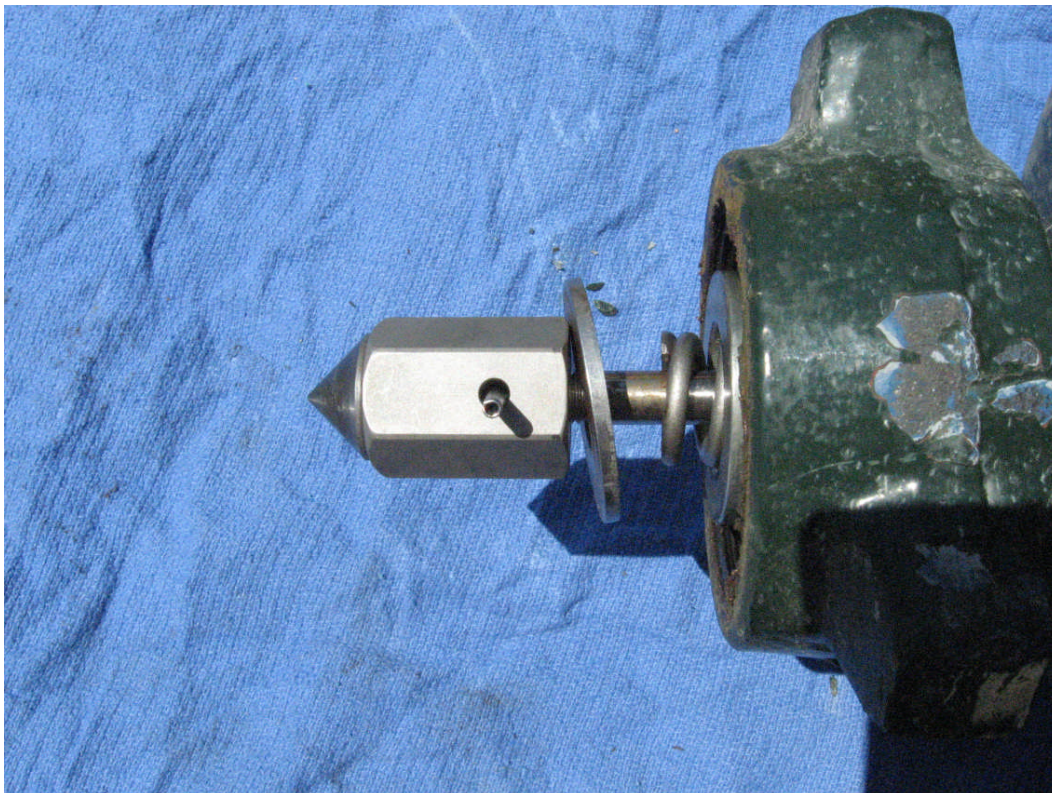


12.) Remove the stainless steel fitting from the lower housing diaphragm and inspect for debris build-up. Clean with wire or replace as needed.

- 13.) Ensure that the spring and washer are in place before replacing with new trim. Lubricate the stem with anti-seize before installing the new trim onto the stem. Screw inward until the hole in the trim matches evenly with the hole in the stem.



- 14.) Replace the pin and drive into place with a hammer. Make sure that the pin is not protruding and contacting the seat as the stem travels up and down during the cycles. Use punch to evenly set pin inside trim.



- 15.) Lubricate the body threads with anti-seize and then replace dump valve assembly on top of the dump body and hand tighten the union until the trim is seated into the seat. Loosen the union one half turn and align the fitting with the supply line. Tighten the supply line connection and the hammer union. Open valves needed to put the system into operation and open well according to “Shutting In A Producing Well” guidelines. Ensure there are no leaks around the hammer unions.



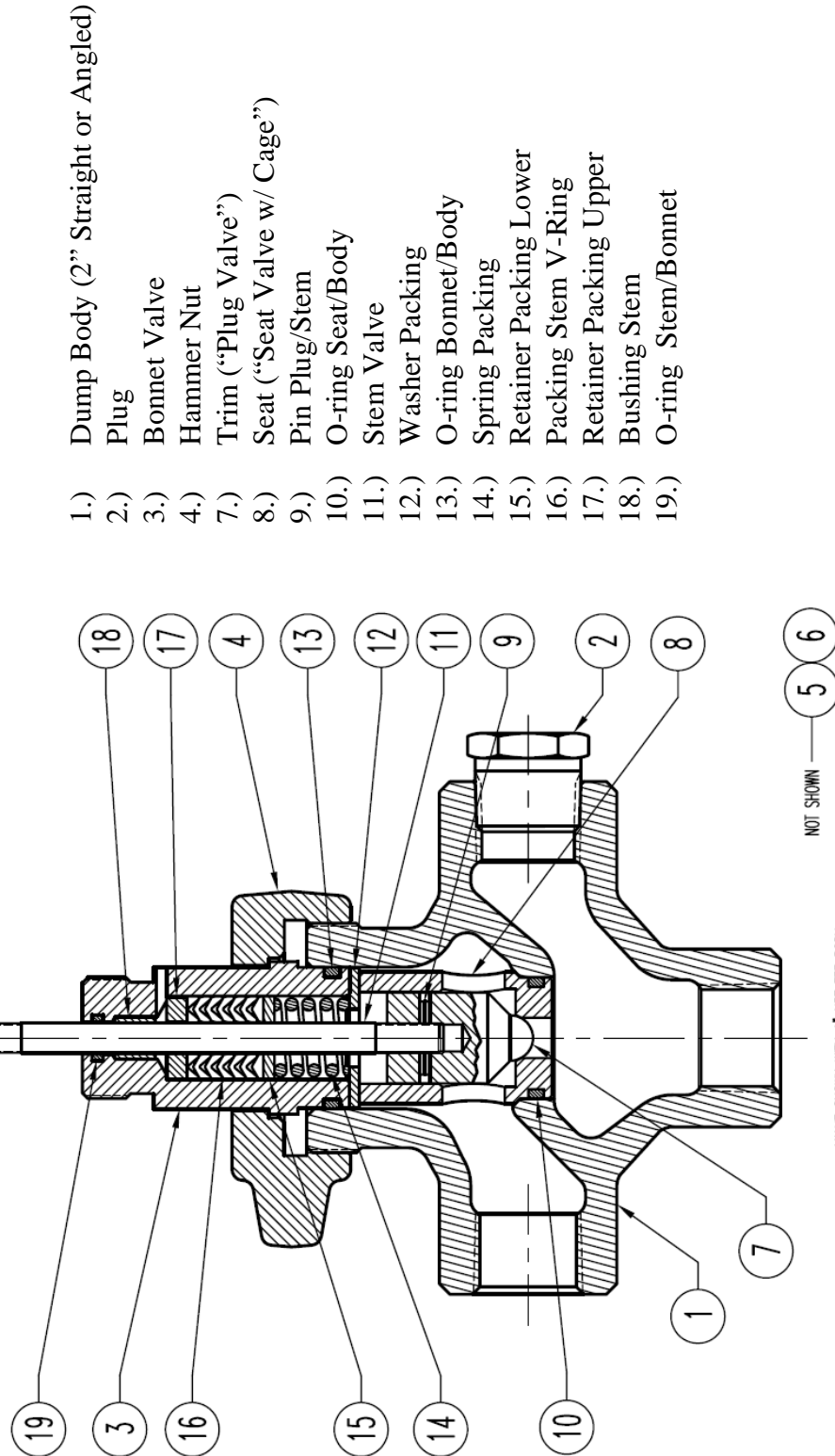
- 16.) The following tools are required to perform this task.



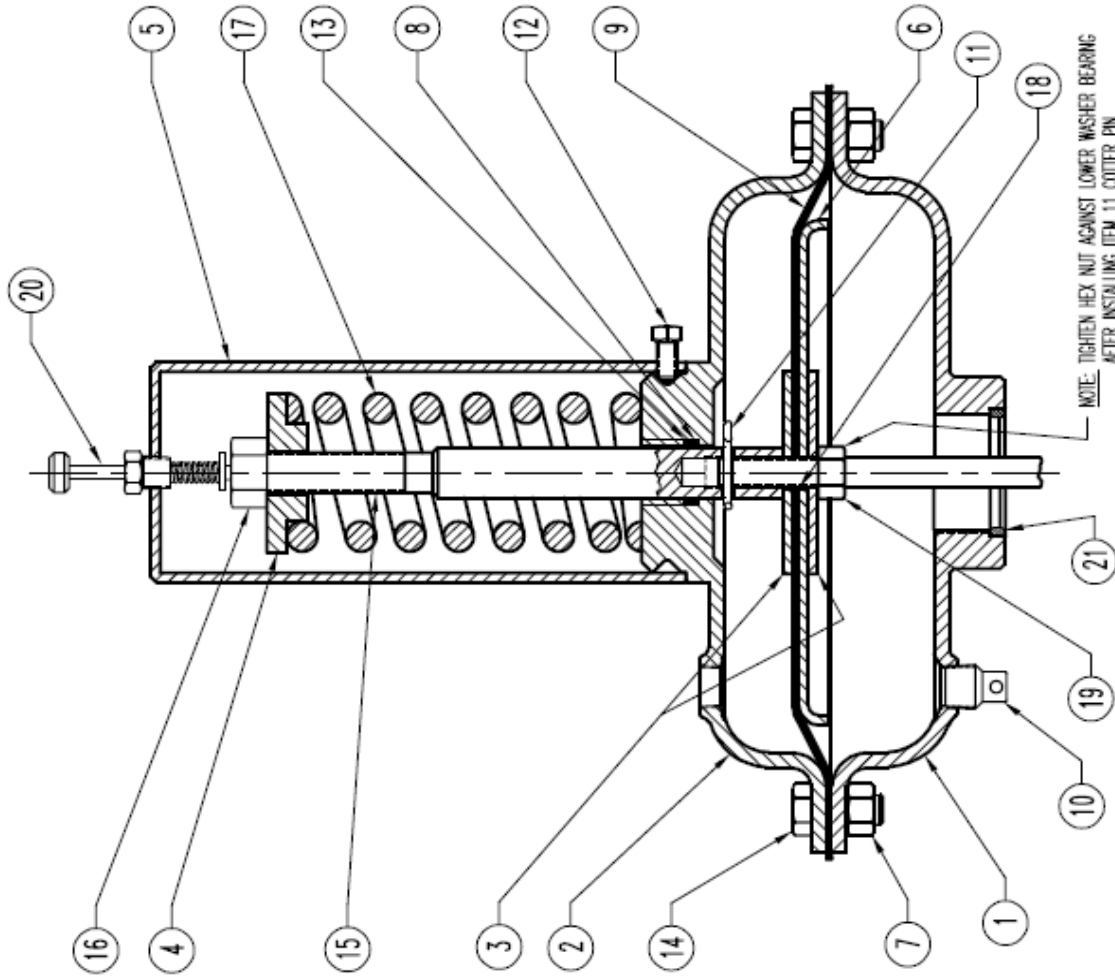
# Parts Diagram

The following diagram is for a Norriseal Series 2220 No. 9AA close coupled reverse acting (fail closed) actuator. Refer for rebuilding purposes.

## SERIES 1.00" & 2.00" 2200/2220 VALVE COMPONENTS



SERIES 2220 NO. 9AA CLOSE COUPLED  
DIRECT ACTING (FAIL OPEN) ACTUATOR



- 1.) Housing Diaphragm Lower
- 2.) Housing Diaphragm Upper
- 3.) Washer Bearing
- 4.) Retainer Spring Upper Reverse
- 5.) Retainer Spring Lower Reverse
- 6.) Plate Diaphragm
- 7.) Nut Hex Regular 375-16
- 8.) Nut Hex Regular 375-24
- 9.) Washer Lock Spring
- 10.) Diaphragm Actuator Flat
- 11.) Indicator Vent Assembly
- 12.) Screw Cap Hex .375-16 X .88 (Qty 12)
- 13.) Screw Set Square Cup .500-13 X 3.00
- 14.) Nut Hex Jam .500-13
- 15.) Spring Actuator
- 16.) O-ring Diaphragm/Stem
- 17.) Nut Hex Ham .375-24
- 18.) O-ring Lower Housing/Bonnet