TROUBLESHOOTING

In the Field

I. Identify the Problem

A. Valve Leaks
B. Valve Fails to Operate
C. Insufficient Flow
D. Erratic Operation

II. Breakdown the Problem to Determine Cause

A. Valve Leaks

1. Packing Leaks – Problem should be visible. Isolate the valve, review material of packing for possible upgrades, remove and replace packing.
2. Body Leaks – Problem should be visible. Consult factory for torque specifications for body bolting, attempt to re-torque bolting. If this does not solve the problem, isolate and arrange to repair the valve.
3. Leak-Through – Confirm the valve is leaking, and eliminate all other possible sources that could be causing the problem (i.e. by-passes, cross-piping, or back-feed from downstream). If leak is detected, check stem to make sure it was not pushed in during an operator installation. Check "T" on top of stem for model C-Series, Isolator, Gen-X and SC-3PC valves for proper orientation. For model iRSVP check for scribe line on stem matching scribe line on packing gland. Attempt to cycle the valve multiple times to clear any possible debris. If this does not solve the problem, isolate the valve and arrange for repair.

B. Valve Fails to Operate

1. Manual Valves – (Lever or Gear operated) Check for visible damage such as bent stem, sheared pins, bent shaft or broken gears.
2. Automated Valves – Determine if the problem is with the valve, actuator, controls or mounting hardware. Check packing torque at this time.
   - Valve – If the actuator operates but the valve does not, check for sheared pin or stem adaptor (key).
   - Actuator – Check for any manual or hydraulic lockouts. Check for any physical damage such as dented pneumatic or hydraulic cylinders. Check mounting hardware for damage as well at this time.
   - Controls – If neither the valve or the actuator operate when a signal is given, check by checking basic components of operation: Air Supply, Voltage, Signal Pressure, and Control Voltage. Check for manual or electrical lockouts, which may be engaged. If all components for operation exist, and unit will not stroke, remove actuator from valve and cycle actuator to confirm actuator is operating properly. If actuator is functioning properly, double check actuator sizing.
   - If the valve size permits, attempt to operate the valve manually.
   - If the valve is truly locked up, attempt to determine if the lock up is thermal or mechanical. If possible, isolate the valve, allow to cool and attempt to operate again. Isolate the valve and arrange for repair.

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MOGAS®
SEVERE SERVICE BALL VALVES

TROUBLESHOOTING

In the Field (continued)

C. Insufficient Flow

1. Check valve stem (scribe lines) to make sure valve is opening and closing fully. If not, look for the cause (sheared pin, key, broken mounting hardware, etc). If valve is making full cycle, arrange for internal inspection of valve to check for debris.

D. Erratic Operation

1. Pneumatic Units – If valve is not stroking smoothly check controls for plugged exhaust ports or insufficient volume of pressure at air supply.
2. Hydraulic or Pneumatic Units with Hydraulic overrides – Check fluid level, damaged or plugged flow controls.
3. Electric Units – Check for damage to mechanic portions of these units (gears).
4. Check all mounting adaption for all units listed above.

It may also be necessary to separate the actuator from the valve to identify if the cause of the erratic operation is the fault of the valve or the actuator. Once the cause has been determined, arrange for repair.

III. Record Data

A. Serial Number
B. Actual Conditions
C. Design Conditions
D. Customer contact

Follow MOGAS Return Material Authorization (RMA) Procedures.

Forward to the Mogas Service Department

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