

Reliable Connections

Operating & Maintenance Instructions

For Mueller Part No. 83953 and Part No. 88611 Gate Valves (Replaces Mueller Part No. 88621 Bypass/Relief Valve)

- **To Open:** Rotate the Bypass Valve Actuator screw counter clockwise approximately 1-1/2 to 2 turns until it stops. **Do not force.** Close the Bypass Valve actuator screw immediately after use.
- **To Close:** Rotate the Bypass Valve actuator screw clockwise until seated. Do not over tighten.

Relief Valve Operation

- **To Open:** Rotate the Relief Valve actuator screw counter clockwise approximately 1-1/2 to 2 turns until it stops. **Do not force.** Close the Relief Valve actuator screw immediately after use.
- **To Close:** Rotate the Relief Valve actuator screw clockwise until seated. **Do not over tighten.**

Maintenance

The Bypass and Relief actuator screws and valve seats are designed to be self-cleaning, therefore little maintenance is required.

- 1. To replace the Bypass and Relief actuator screw o-rings:
 - a. Remove the 4 hex socket head mounting screws and remove the valve assembly.
 - b. Remove the gasket from the back mounting face of the valve body. Clean all gasket surfaces.
 - c. Loosen and back out the hex headless set screw(s) of the valve actuator screw(s) to be repaired about 4 turns - do not remove. Unscrew the valve actuator screw(s) from the body.

- d. Remove the old o-ring and thoroughly clean the valve actuator screw and body bore.
- e. Install the new o-ring. Lubricate the o-ring and valve actuator screw and install into body.
- f. Turn the valve actuator screw in until seated. Turn the hex headless socket set screw against the valve screw. Do not tighten. Then back out the set screw (about 1/4 turn) until the actuator screw turns freely.
- g. Back the actuator valve screw out until it stops solidly against the set screw.
 - Note: The headless set screw is installed to prevent the actuator screw from coming out of the body. Failure to properly adjust the set screw can allow the actuator screw to blow out of the body while under pressure, causing serious injury.
- h. The hex headless set screw is self-locking and is sealed by the body gasket. No sealant is required.
- i. Install a new part number 36623 gasket onto the Bypass/Relief Valve Body. Check for hole alignment with the body, remove any adhesive protector film and apply the gasket.
- j. Install the Bypass/Relief Valve to the Gate Valve (check passage hole alignment). Tighten hex screw-head mounting screws to 40 lb-ft.
- k. Recheck valve actuator screws for correct operation.

Repair Parts List

Part Number	Description	Quantity
311887	Hex Headless Set Screw w/ Nylon Insert	2
304609	O-Ring	2
311888	3/8-16 x 1-1/2" Hex. Soc. Hd. Cap. Screw	4
527292	Actuator Screw	2
036623	Gasket	1

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