INSTALLATION AND MAINTENANCE INSTRUCTIONS

2-WAY REMOTE PILOT OPERATED VALVES

ANGLE BODY – 1 AND 1 1/2" N.P.T.

BULLETIN **8353**

ASCO®

DESCRIPTION

Bulletin 8353 is a 2-way diaphragm type air valve designed for remote pilot operation. Valves have an angle type aluminum body with a 1/8 or 1/4 N.P.T. connection in the valve bonnet for connection to the ASCO remote pilot valve. Valves are designed for multi-unit installations with separately mounted ASCO pilot valves.

OPERATION

When remote pilot valve opens, pressure above the main diaphragm is released allowing main line pressure to act against the underside of the diaphragm, opening the main valve orifice. When pilot valve closes, main line pressure bleeds to the top of the diaphragm and closes the main orifice.

INSTALLATION

Check valve bonnet for correct catalog number, pressure and service.

POSITIONING

Valve may be mounted in any position.

PIPING/TUBING

Connect piping to valve according to markings on valve body. Apply pipe compound sparingly to male pipe threads only; if applied to valve threads, it may enter the valve and cause operational difficulty. Pipe strain should be avoided by proper support and alignment of piping. When tightening pipe, do not use valve as a lever. Wrenches applied to valve body or piping are to be located as close as possible to connection point. The remote ASCO pilot valve should be mounted as closely as possible to the main valve. For correct ASCO pilot valve, consult factory. For proper operation of valve, a specific pilot valve must be utilized. Connecting tubing lengths of ten feet or less have little effect on the pulse response. Installations with over ten feet of tubing must be tested under actual operating conditions. Tubing with 1/4 O.D. is recommended for all installations.

CAUTION: To avoid damage to the valve body, DO NOT OVERTIGHTEN PIPE CONNECTIONS. If teflon tape, paste, spray or similar lubricant is used, use extra care due to reduced friction.

IMPORTANT: For the protection of the valve, install a strainer or filter suitable for the service involved in the inlet side as close to the valve as possible. Periodic cleaning is required, depending on the service conditions. See Bulletins 8600, 8601 and 8602 for strainers.

MAINTENANCE

WARNING: Depressurize valve and bleed air from header before making repairs. It is necessary only to remove the tubing from the remote pilot valve.

CLEANING

A periodic cleaning of all valves is desirable. The time between cleaning will vary, depending upon media and service conditions. In general, sluggish valve operation or excessive leakage or noise will indicate that cleaning is required.

PREVENTIVE MAINTENANCE

1. Keep the medium flowing through the valve as free from dirt and foreign material as possible.
2. While in service, operate valve at least once a month to insure proper opening and closing.
3. Periodic inspection (depending on media and service conditions) of internal valve parts for damage or excessive wear is recommended. Thoroughly clean all parts. Replace any parts that are worn or damaged.

IMPROPER OPERATION

1. **Incorrect Pressure:** Check valve pressure. Pressure to valve must be within 5-125 PSI.
2. **Excessive Leakage:** Disassemble valve and clean all parts. Replace parts that are worn or damaged with a complete Spare Parts Kit for best results.
3. **Failure to Open or Close:**
   A. If diaphragm valve stays open, bleed hole may be clogged. If diaphragm valve stays closed, diaphragm may be torn. Disassemble valve and clean or replace diaphragm assembly.
   B. Failure of the remote pilot solenoid valve can also cause the diaphragm valve to stay closed or open. Inspect remote pilot solenoid valve for proper opening and closing.

VALVE DISASSEMBLY AND REASSEMBLY

(Refer to Figure 1)

Depressurize valve and remove tubing connection from remote pilot valve. Proceed in the following manner:

1. Remove bonnet screws, valve bonnet and diaphragm assembly.
2. Diaphragm assembly is now accessible for cleaning or replacement. Replace diaphragm assembly if worn or damaged.
3. Reassemble in reverse order of disassembly paying careful attention to exploded views provided for placement of diaphragm assembly.
4. When replacing diaphragm assembly be sure marking "THIS SIDE OUT" on diaphragm assembly faces valve bonnet and that bleed hole in diaphragm assembly is in alignment with cavity in valve body and bonnet. The external contours of the diaphragm, body and bonnet must all be in alignment.
5. Replace bonnet screws and tighten in a crisscross manner. For valves with 1 inch N.P.T. torque bonnet screws (4) to 110 $\pm$ 10 inch pounds. For valves with 1-1/2 inch N.P.T. torque bonnet screws (6) to 160 $\pm$ 10 inch pounds.
6. After maintenance operate the valve a few times to be sure of proper opening and closing.

SPARE PARTS KITS

Spare Parts Kits are available for ASCO valves.
Parts marked with an asterisk (*) are supplied in Spare Parts Kits.

ORDERING INFORMATION FOR SPARE PARTS KITS
When Ordering Spare Parts Kits, Specify Valve Catalog Number, and Serial Number.

ASCO Valves

ASCO®

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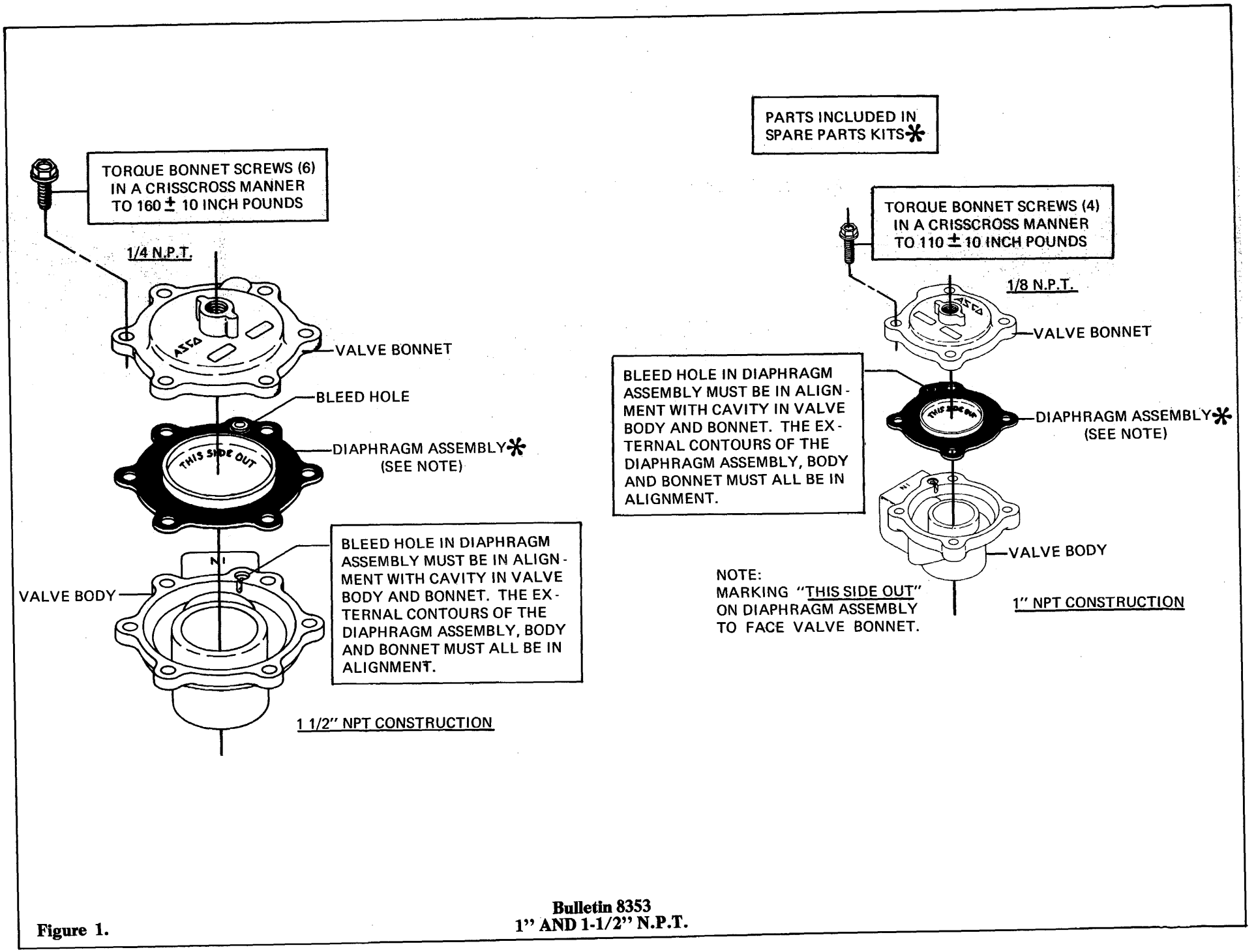

Figure 1.

Bulletin 8353
1" AND 1-1/2" N.P.T.