SQUIBB TAYLOR INCORPORATED

MANUFACTURED BY PGI INTERNATIONAL

Installation, Operation and Maintenance Instructions for Pneumatic Actuator Kits (347-0021, 349-0021 and 351-0021)

June 2000 Form FVC 031

KEEP THIS DOCUMENT WITH THE PRODUCT UNTIL IT REACHES THE END USER.

WARNING

Before installation or removal of any ESV globe or angle valve, the system must be purged completely of all product. Use proper safety equipment at all times. For the use of ANHYDROUS AMMONIA an abundant supply of clean water must be readily available and easily accessible as a means of providing IMMEDIATE First Aid treatment for exposure to ammonia. Installation of valves for LP-GAS in most states must comply with NFPA 58 standards. Therefore, only trained personnel should install and service this equipment. To insure long term safe operation, the manufacturer recommends that under normal service conditions this product should be inspected at least once every five (5) years and be repaired or replaced as required.

CAUTION: Contact with or inhalation of Liquid Anhydrous Ammonia or LP-Gas or their vapors can cause serious injury or death.
Dispersement must be in accordance with local regulations.
For the proper handling and storage of Anhydrous Ammonia refer to ANSI Standard K61.1.
For the proper handling and storage of Liquified Petroleum Gas refer to NFPA Pamphlet 58.

TOOLS REQUIRED: Safety equipment (i,e. gloves goggles, clothing), 1/8 drift pin and 3/4" or 1-1/8" open end wrench.

Installation Procedure for Pneumatic Actuator Kits

REFER TO FIGURE 1 FOR THE FOLLOWING STEPS:

Step 1: SAFETY EQUIPMENT (i,e. gloves, goggles, clothing) must be worn before continuing with the next step.

REFER TO FIGURE 2 FOR THE FOLLOWING STEPS:

Step 2: Decide which direction is most suitable to orient the Manual Pull Cable (20). Since the kit may be installed in four (4) different positions on top of the valve bonnet select the appropriate Bonnet Stud Bolts (18) for mounting.

Step 3: Place Plate (3), with Pneumatic Actuator Kit Assembly attached over the Bonnet Stud Bolts (18), and install Lock Washers (11), and Hex Nuts (12).

Step 4: The Handle (22), Handle Swivel (21), and the Guide Pins (19), must be oriented toward the Pneumatic Actuator Kit when the valve is in the open position.

Remove the GUIDE PINS (19), and rotate the Handle Swivel and Handle to the proper position. Replace the Guide Pins (19) into threaded holes at the new position, and tighten snugly.

Step 4: Install a 1/8"—NPT fitting at Inlet “A”, and connect to the air or gas supply to be used during operation of the Emergency Shut Off valves.

NOTE: A minimum air or gas supply of 45 PSI is required to fully extend Piston Rod (9), and Compress Spring (7). Maximum air or gas supply is 125 psi.

REFER TO FIGURE 3 FOR THE FOLLOWING STEP:

Step 5: With Rod (9) fully extended, the opening in the Clevis Ring (15) must be centered with the slot in the Clevis (16). Place the Clevis (16) over Handle (22), and rotate the Clevis Ring (15) through the slotted hole in the Handle (20).

NOTE: The Pneumatic Actuator Emergency Shut Off is ready for operation.

Operation Procedure for Pneumatic Actuator Kits

REFER TO FIGURE 1 FOR THE FOLLOWING:

NOTE: There are three methods for closing all ESV valves with the Pneumatic Actuator Kit installed:

(1) Manually rotate Handle (22)

(2) Actuating the Manual Pull Cable (20)

(3) When air is exhausted from Pneumatic Cylinder (4)

(This will occur when an emergency situation severs the plastic tubing providing the air or gas supply to the Pneumatic Actuator.)

Step 1: After installation of the Pneumatic Actuator Kit each of the three (3) methods for closing should be tried. To accomplish method (3) above, an air fitting in the supply line should be loosened to simulate an emergency loss of supply pressure.

REFER TO FIGURE 3 FOR RE-OPENING PROCEDURE:

STEP 2: To re-open valve after any of the above closing methods rotate Clevis Ring (15), to disengage Handle (22), and open valve. Re-connect Clevis Ring (15) to Handle (22).

(OVER)

Procedure for Repair of Pneumatic Actuator

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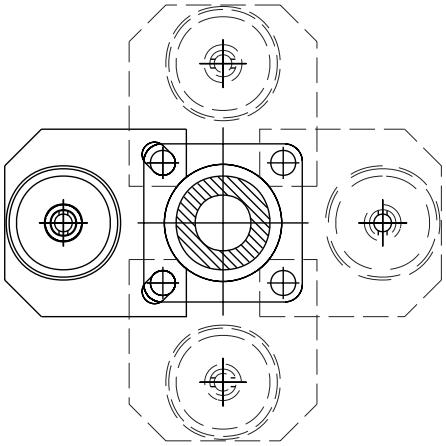
CAUTION: RE-CONNECTING CLEVIS RING (15) TO HANDLE (22) MUST BE DONE EACH TIME THE VALVE IS CLOSED. THIS WILL INSURE THAT THE EMERGENCY PNEUMATIC ACTUATOR SYSTEM IS OPERABLE AT ALL TIMES.

Step 1: Remove air or gas supply from Cylinder (4), at Inlet "A". This will close the valve. Remove Roll Pin (10), from Piston Rod (9), and remove Tie Cable (13).

Step 2: Remove End Cap (6) from Pneumatic Cylinder (4). Remove Piston Rod (9), Piston (5), and Spring (7) from Pneumatic Cylinder (4).

Step 3: Replace Wiper Ring (8), and O-ring (17), and lubricate seals and interior of Pneumatic Cylinder (4) with "Super Lube", or any good grade of grease.

Step 4: Re-assemble, and return to operation per above.



4 MOUNTING POSITIONS FOR PNEUMATIC ACTUATOR KITS

FIG. 2

ITEM	QTY.	DESCRIPTION
22	1	HANDLE
21	1	HANDLE SWIVEL
20	1	MANUAL PULL CABLE
19	2	GUIDE PINS
18	4	BONNET STUD BOLT
17	1	O-RING
16	1	CLEVIS
15	1	CLEVIS RING
14	1	ROLL PIN
13	1	TIE CABLE
12	2	HEX. NUT
11	2	LOCK WASHER
10	1	ROLL PIN
9	1	PISTON ROD
8	1	WIPER RING
7	1	SPRING
6	1	END CAP
5	1	PISTON
4	1	PNEUMATIC CYLINDER
3	2	PLATE
2	1	LOCK WASHER
1	1	HEX. NUT

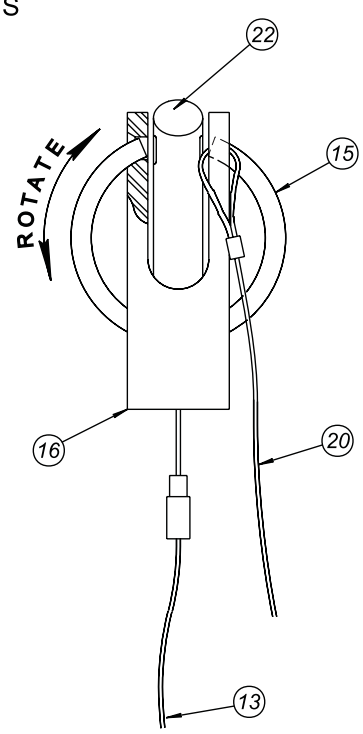


FIG. 3

FIG. 1

1-1/4" 2", OR 3"
GLOBE OR ANGLE VALVE