SQUIBB TAYLOR

MANUFACTURED BY PARKER - PGI DIVISION

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Installation, Operation & Maintenance Manual Disassembly and Assembly Instructions for Models AL343A, AL362A & L424A

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

WARNING!

1. Contact with or inhalation of Liquid Anhydrous Ammonia (NH_3) can cause SERIOUS INJURY OR DEATH.
2. Before installation or removal of any tank valve, the system must be purged of all product.
3. Personal Protective Equipment (PPE), safety gloves, goggles and clothing should be worn.
4. For proper handling and storage of NH_3, refer to ANSI Standard K61.1.
5. An abundant supply of fresh water should be available to provide immediate first aid treatment for exposure to NH_3.
6. To ensure long term safe operation, the manufacturer recommends that under normal service conditions this product should be inspected at least once every year and be repaired or replaced as required.

Tools Required

Safety Equipment (i.e. gloves, goggles, and clothing), 12” Adjustable Wrench, 1/4” Diameter Drift Pin, small Ball Peen Hammer and 7/16” Open-End or Boxed-End Wrench.

Removal of Valve for Repair or Replacement (Refer to Figure 1 for Item Numbers)

Step 1: Safety equipment (i.e. gloves, goggles, and clothing) must be worn before proceeding to the next step.

Step 2: Before removing the valve from the tank, place the valve in the **FULL OPEN POSITION** to ensure all pressure is bled from the system. See WARNING at the top of this page.

Disassembly Procedure for Repair (Refer to Figure 1 for Item Numbers)

1. With the valve secured in a bench-mounted vise, use the 1/4” Drift Pin to remove the Roll Pin ㉘. This will allow the Handle Assembly to be removed from the Stem ⑯.
2. Remove the Bonnet ⑳ from the Body ⑫ using the 12” adjustable Wrench. NOTE: The Handle Bearing ㉕, Wiper Ring ㉖, Bonnet Bushing ㉔, Stem Seal ㉒, Seal Sleeve ㉓, Seal Retainer ㉑, and Body Bonnet Seal ⑮ will all remain with the Bonnet when removed.
3. Remove the Stem and Extension Assembly through the top of the Body ⑫. NOTE: The Stem Spring ⑰, and Handle Guide ㉗ will all remain with the Stem and Extension Assembly when removed. Keep these parts for use during re-assembly.

CAUTION:
The complete Stem and Extension Assembly should be inspected before re-assembly is attempted. The following components should be inspected for proper fit and function before the Stem and Extension Assembly is re-used.

1. At Location “A” of FIGURE 1, the Stem Extension ⑩ must rotate freely inside the Seat Retainer ⑬ and have a small amount of end play inside the bore. This interface is mechanically crimped and cannot be disassembled.
2. At Location “B” of FIGURE 1, the Disc Holder ⑨ should be shouldered snug against the Screw ②.

If inspection of either of these locations yields a problem, the complete Stem and Extension Assembly must be replaced. Refer to the Available Kits Chart on the reverse side for Kit Numbers.

Assembly Procedure (Refer to Figure 1 for Item Numbers)

1. To remove the Disc from the Disc Holder ⑨, remove the Screw ② and the Seat Retainer ③.
2. Re-assemble the valve using a new Disc ①.
3. To replace the Stem Seal ㉒, remove the Handle Bearing ㉕ and Wiper Ring ㉖ from the top of the Bonnet ⑳. Keep these parts for use during re-assembly. Through the top of the Bonnet, press the Bonnet Bushing ㉔ downward using the 1/4" Drift Pin. This will also remove the Stem Seal ㉒, Seal Sleeve ㉓, and Seal Retainer ㉑. Remove the Bonnet/Body Seal ⑮.
4. To install the new Stem Seal and re-assemble the valve, place the repaired Stem and Extension Assembly (or new Assembly Number S343-1702) through the top of the Body ⑫ until it rests on the Seat ④.
5. Install the Stem Spring ⑰ and Seal Retainer ㉑ over the Stem ⑯ with the small shoulder diameter of the Seal Retainer ㉑ facing upward.
6. Place the Stem Seal ㉒over the Seal Sleeve ㉓ to create a "Seal Assembly". Lubricate the Seal Assembly with the Dow Corning 112 grease provided in the Seal Kit. With the flange of the Seal Sleeve facing upward, place the Seal Assembly over the Stem ⑯ and carefully press it down until it touches the small shoulder diameter of the Seal Retainer ㉑. Install the Seal Washer ㉔ over the Stem ⑯ with the larger shoulder facing downward.
7. Install the Body/Bonnet Seal ⑮ to the Bonnet ⑳ and lubricate the seal with the Dow Corning 112 grease provided. Carefully place the Bonnet over the Stem and press down until the threads on the Bonnet engage the threads in the top of the Body. Thread the Bonnet down to the top shoulder of the Body and tighten snug with a 12" Adjustable Wrench.
8. Install the Wiper Ring ㉖, with the larger shoulder downward, into the groove on top of the Bonnet and re-install the Handle Bearing ㉕.
9. Install the Handle Pivot Roll Pin ㉘ into the hole on just one side of the Handle ㉙. Place the Stem centering washer ㉗ over the Stem with the large diameter of the Handle Guide facing downward. Re-install the Handle Assembly (or new Assembly Number S340-1301) over the Stem. Align the Roll Pin with the hole in the Stem and drive it through with a Ball Peen Hammer.

The valve is now assembled and ready for a Mechanical Latch Test and a Pressure Test.

LATCH TEST: Spin the Handle Assembly around the top of the valve three times. Open and close the Handle Assembly three times. To close, strike the top of the Handle and allow the valve to snap shut. After each closing, be sure the Handle Safety Lock ⑱ latches underneath the Bonnet ⑳ flange. Pull upward on the Handle each time to ensure that the valve cannot be opened unless the Handle Spring ㉚ is depressed. This is an important Safety Feature and will ensure that the valve cannot be accidentally opened when under pressure.

PRESSURE TEST: After the repair is complete and with the valve in the CLOSED position, the Valve Seat ④ and the Stem Seal ㉒ should be "bubble tight" when pressurized at the inlet to 75 PSIG (air) and submerged in water.

Installation of a New or Repaired

1. Apply PTFE tape or sealant on the male threads of the hose or other mating part.
2. Install the Valve and tighten to the desired position, taking care not to over-tighten.

Operation of the Quick Acting Valve

1. To open the Valve, press downward on the flat surface of the Handle ㉙, directly over the Handle Spring ㉚, and lift the Handle to a vertical position. When the Valve is in the full OPEN position, the heel of the Handle will rest squarely on the Handle Bearing ㉕, with the Handle being "pushed over" slightly past the center of the Valve.
2. To close the Valve, tap the Handle in the closing direction with the heel of your hand. The Handle will release in a "Quick Acting" manner to the CLOSED position. The closing spring action of the valve assembly is designed to force the Handle Safety Lock ⑱ to secure itself beneath the Bonnet ⑳ flange, therefore preventing accidental opening of the Valve.

WARNING! If the Valve is closed slowly by holding the Handle as it is moved toward the CLOSED position, be sure the Handle reaches its STOP position. The Handle Safety Lock must engage beneath the Bonnet flange.

AVAILABLE KITS		
Kit Number	**Kit Name & Items Included**	**Assembly Procedure**
SQJ-363-0020	Seal Kit ①②③⑮ ㉑㉒㉓㉔	Steps 1 thru 9
SQJ-363-0021	Handle Assy. ⑱⑲㉘㉙ ㉚	Step 9
SQJ-363-1701	Stem & Extension Assy. ①②③⑨ ⑩⑬⑯	Steps 4 thru 9

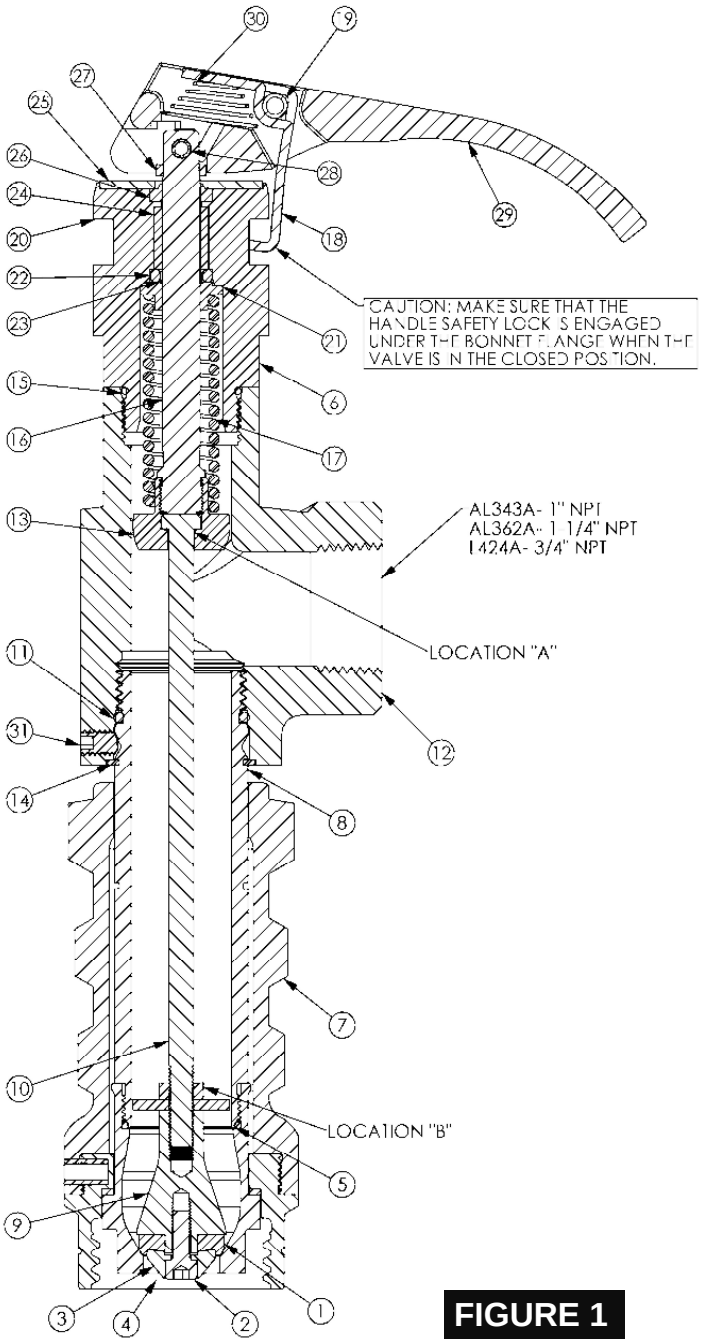

FIGURE 1

Item	Qty.	Description
1	1	Disc
2	2	Cap Screw
3	1	Seat Retainer
4	1	Seat
5	1	Nozzle/Seat Seal
6	1	Inlet Label
7	1	Speed Drive Swivel
8	1	Nozzle
9	1	Disc Holder
10	1	Stem Extension
11	1	Body/Nozzle Seal
12	1	Body (Angle)
13	1	Seat Retainer
14	1	Spiral Retainer Ring
15	1	Body/Bonnet Seal
16	1	Stem
17	1	Stem Spring
18	1	Handle Safety Lock
19	1	Spring Pin
20	1	Bonnet
21	1	Seal Retainer
22	1	Stem Seal
23	1	Seal Sleeve
24	1	Bonnet Bushing
25	1	Handle Bearing
26	1	Wiper Ring
27	1	Stem Centering Washer
28	1	Handle Pivot Roll Pin
29	1	Handle
30	1	Handle Spring
31	1	Set Screw

USER SAFETY RESPONSIBILITY STATEMENT FOR ALL PARKER PRODUCTS

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