



Replacement Instructions For Large Bellows Assembly

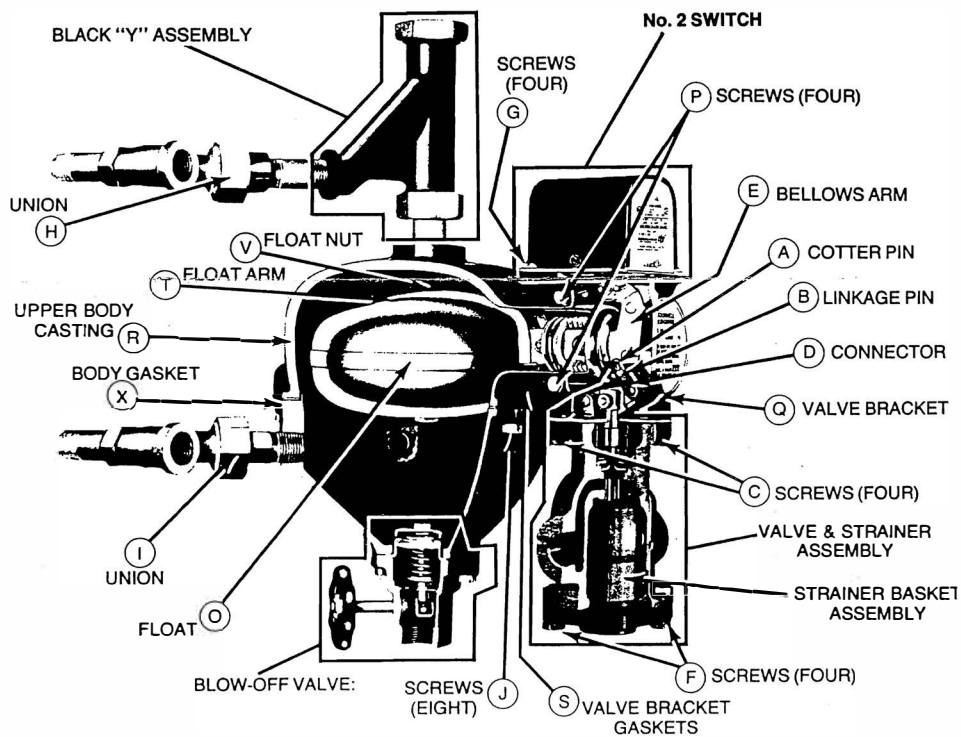
Part Nos. SA47-4 (341500) and SA47-104 (341900)

All Work Must be Performed by Qualified Personnel

(Please read all instructions carefully before starting work)



This product can expose you to chemicals including Lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to: www.P65Warnings.ca.gov.

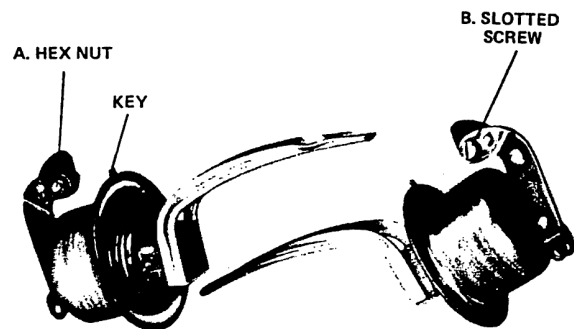


To Remove Large Bellows Assembly . . .

1. Disconnect electric power to No. 2 Switch. If control is equipped with a switch, remove four screws (G) and lift switch from control with wiring in place.
2. Close off water supply valve (L) and valve M (See Diagram 1 on other side). With boiler cold, release boiler pressure and remove cold water piping from "IN" and "OUT" tapings.
3. Drain water from boiler to a level below the lower glass connection.
4. If control has blow-off valve on bottom of float chamber (see illustration), open this valve and drain water remaining in control and disconnect blow-off piping.
5. Break unions (H) and (I) or equalizing pipe connections to float chamber then remove control from boiler.
6. Remove large black "Y" assembly (if so equipped).
7. Mark two castings of float chamber at flange so both can be reassembled in correct position.
8. Remove eight cap screws (j) and separate two float chamber castings.
9. Remove float nut (V) and unscrew float (O) from float arm (T).
10. With long nose pliers remove cotter pin (A) and linkage pin (B) through opening.
11. Take out four screws (P) and remove valve bracket (Q) from upper body casting (R). NOTE: Do not loosen or remove screws (C) holding valve bracket (Q) to valve and strainer assembly.
12. Remove large bellows assembly from upper body casting (R).

To Install New Large Bellows Assembly

13. Scrape clean all gasket surfaces and clean inside float chamber casting.
14. Replace new large bellows assembly in upper body casting (R) as shown in illustration using a gasket on both sides of the bellows cup flange. Make sure the key on the large bellows assembly flange fits in the slot provided by the recessed part of upper body casting (R).
15. Replace valve bracket (Q) so that connector (D) fits correctly over lower end of bellows (E) and secure with four screws (P).
16. Screw float (O) on float arm (T) and secure with float nut.
17. Assemble float chamber castings using new body gasket (X) so that mark on casting is same as in Step 7 above. Replace eight cap screws (J) and tighten securely.
18. Insert linkage pin (B) and fix in position with cotter pin (A).
19. Replace large black "Y" assembly; see illustration.
20. Connect control to boiler as before, replace any piping to blow-off valve and connect cold water piping to "IN" and "OUT" tapings, see Diagram No. 1.
21. If control is equipped with McDonnell No. 2 Switch, locate switch in position shown in illustration and replace four screws (G).



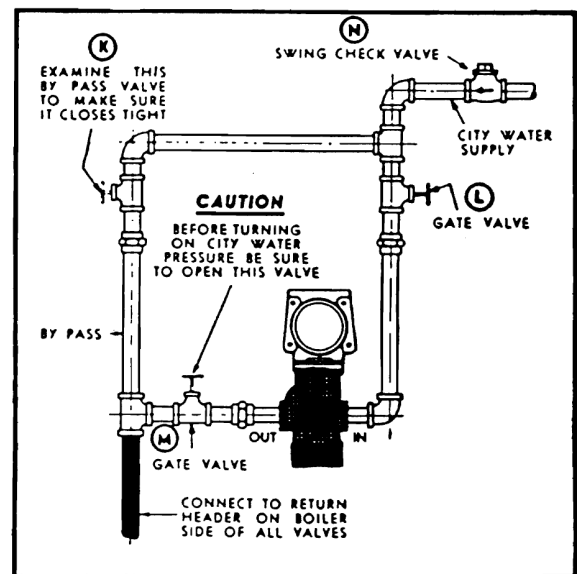
**Large Siphon Assembly. Used on:
McDonnell Nos. 47, 147 and 247, etc.**

To Place in Operation:

Be sure by-pass valve (K) is closed drip tight. Open valve (M) first, then supply valve (L). Test control several times by draining water from boiler and allow to refill automatically to insure control is working properly. Bring boiler up to operating pressure and inspect to see that there are no gasket leaks.

If control is equipped with McDonnell No. 2 Switch, proceed as follows:

1. Turn on electric power
2. Check switch action
 - a. switch should be in "Burner Off" - "Alarm On" position.
 - b. open valves (L) and (M) allow water to fill boiler slowly to a level 1" above lower gauge glass nut.
 - c. No. 2 Switch should be in the "Burner On" position. If not, see Diagram 1 and loosen cam adjustment screw lock nut (A) and rotate the cam adjusting screw (B) until burner is actuated. Hold cam adjusting screw (B) firmly in this position and securely tighten lock nut (A).
 - d. shut off valve (L) and open blow-off valve and drain water from boiler until level is about 1/4" above the lower gauge glass nut. Burner should turn off at this level. If not, loosen cam adjusting screw lock nut (A) and readjust the cam adjusting screw (B) until burner goes off. Hold cam adjusting screw firmly in this position and securely tighten cam adjusting screw lock nut (A) and open valve (L).
 - e. check operation through several cycles by repeating step (d) to make sure the control operation is satisfactory.



**Piping Diagram No. 1 for Present Type
Valve and Strainer Assembly.**

SERVICE INSTRUCTIONS

At least twice a year, or more often if necessary, close off water supply Valve (L) and Valve (M)—slide out Strainer Basket Assembly. Carefully clean strainer screen, replace and put Feeder back into operation. Before leaving job, blow down feeder float chamber to clean out mud and foreign matter; urge boiler attendant to blow down Feeder weekly to keep valve assembly and float chamber clean. The No. 2 Switch may be checked by opening Blow-Off Valve and making sure the current is interrupted to the firing device or an alarm is sounded when the water line falls below the minimum level.

xylem
Let's Solve Water

Xylem Inc.
8200 N. Austin Avenue
Morton Grove, Illinois 60053
Phone: (847) 966-3700
Fax: (847) 965-8379
www.xylem.com/mcdonnellmiller