

No. 340324

Machine: 830-II, 830 Published: 7-99/00 System: OPTIONS

NOTE: DO NOT DISCARD the Parts List from the Instruction Bulletin. Place the Parts List in the appropriate place in your machine manual for future reference. Retaining the Parts List will make it easier to reorder individual parts and will save you the cost of ordering an entire kit.

NOTE: Numbers in parenthesis () are reference numbers for parts listed in Bill of Materials. Installation instructions for kit number CP830394

#### SYNOPSIS / PROBLEM:

This kit contains the parts needed to install a liquid drain kit on the model 830-II sweeper. Please follow step-by-step instructions.

SPECIAL TOOLS / CONSIDERATIONS: Hand drill, .281 in. (9/32 in.) drill bit,

1.75 in. hole saw.

(Estimated time to complete: 4 hours)

#### PREPARATION:

(Refer to FIG. 3)

FOR SAFETY: Before leaving or servicing machine, stop on level surface and set parking brake. Then turn off machine and remove key.

1. Make sure the hopper has been emptied of all debris.

## PRE-ASSEMBLE ELBOW, VALVE, AND HALF NIPPLE: (Refer to FIG. 1, 2 and 3)

- 1. Turn the handle of the valve (17) to the "ON" position. The handle is now pointing to the "IN" side of the valve. Clamp the other end of the valve ("OUT") in a vise with the handle toward you. Turn the handle to the "OFF" position. The handle should now be pointing to the right. (Refer to FIG. 3)
- 2. Apply PST (2) to the male threads of the 1–1/2 in. street elbow (14). Install the elbow (14) into the "IN" side of the valve (17) and tighten until snug. Continue to tighten until the opening of the elbow (14) faces away from you. (Refer to FIG. 3)
- 3. Re-clamp the valve (17) in the vise with the other end ("OUT") facing up. Apply PST (2) onto the threads of the half nipple (15) and install it into the "OUT" end of the valve (17). Tighten to snug. (Refer to FIG. 3)

## INSTALL ADAPTOR AND HOPPER DRAIN STRAINER: (Refer to FIG. 1, 2 and 3)

- 1. Drill eight .281 in. holes as shown in Fig. 1. Use the adaptor (16) as a template to locate the four holes on the 2.50 in. bolt circle. (*Refer to FIG. 1*)
- 2. Use a hole saw to cut a 1.75 in. hole in the center of the 2.50 in. bolt circle. (Refer to FIG. 1)
- 3. Apply RTV (5) onto the outside of the flange on the adaptor (16). Install the adaptor (16) onto the outside of the hopper door using four hex screws (7) and four nuts (6). Tighten to 7 10 Nm (5 7 ft lb). (Refer to FIG. 3)
- 4. Apply RTV (5) onto the flat side of one of the neoprene bumpers (12). Position the the RTV side of the bumper (12) over one of the .281 in. holes on the inside of the hopper door. Insert one hex screw (4) and washer (1) from the outside to hold the bumper. Repeat with the other three bumpers (12). (Refer to FIG. 2)
- 5. Position the strainer (18) over the four bumpers (12) and secure with four washers (1) and nyloc nuts (6). Tighten by hand until the bumpers just start to compress. (Refer to FIG. 2)

# INSTALL VALVE AND HOSE ASSEMBLY: (Refer to FIG. 3 and 4)

- 1. Apply PST (2) onto the adaptor (16) threads. Attach previously assembled elbow/valve/half nipple assembly. Screw on until snug and continue to tighten until valve assembly points down. (Refer to FIG. 3)
- 2. Apply RTV (5) onto the half nipple (15). Slide on the larger end of the hose (3) with the clamp (10). Tighten the clamp tight. (*Refer to FIG. 3*)
- 3. Slip the large hole of the drain hose strap (11) over the other end of the hose. (Refer to FIG. 3)
- 4. Remove the existing, right side, M8 hex screw from the lower vacuum hose broom support. Use the M8 hex screw to attach the hose hanger clip (8). Tighten to 18 24 Nm (15 20 ft lb) with the hook facing down. Insert the drain plug (9) into the hose and tighten. Hang the hose onto the clip (8) with the small hole in the strap (11). (Refer to FIG. 4)

NOTE: On machines without vacuum hose option, attach the hose hanger clip (8) with one hex screw (13) into the lower, right tapped hole just above the vacuum tube inlet nozzle. Tighten to 18 - 24 Nm (15 - 20 ft lb).

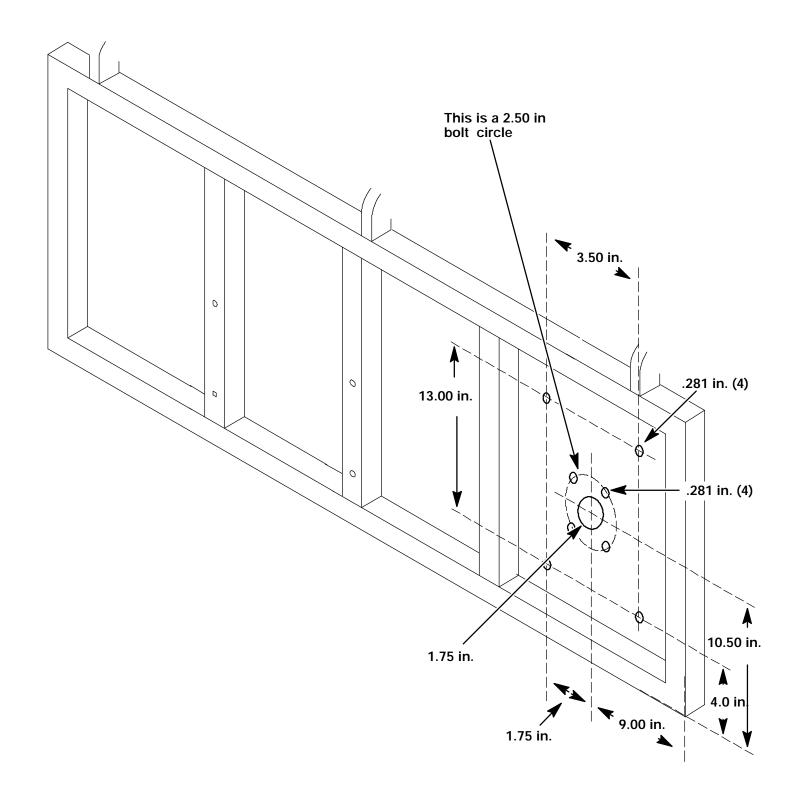


FIG. 1 - Dump Door Hole Locations

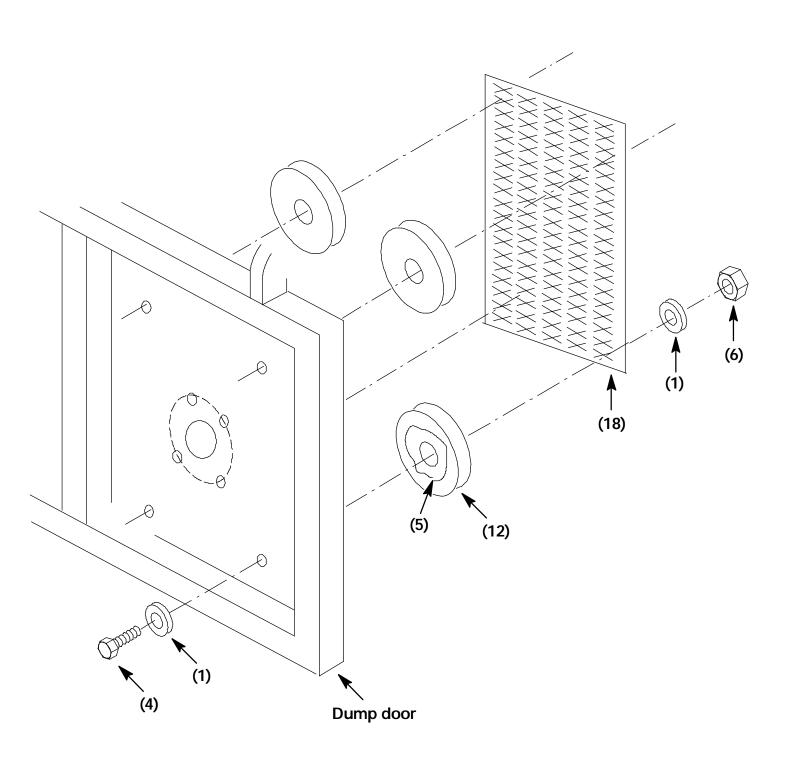


FIG. 2 - Dump Door Strainer And Bumper Assembly

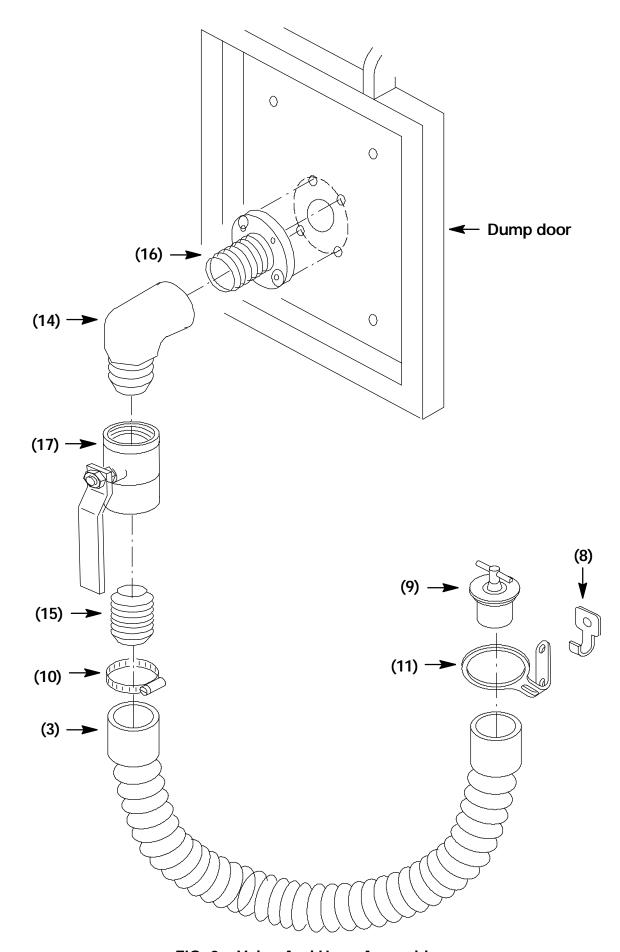


FIG. 3 - Valve And Hose Assembly

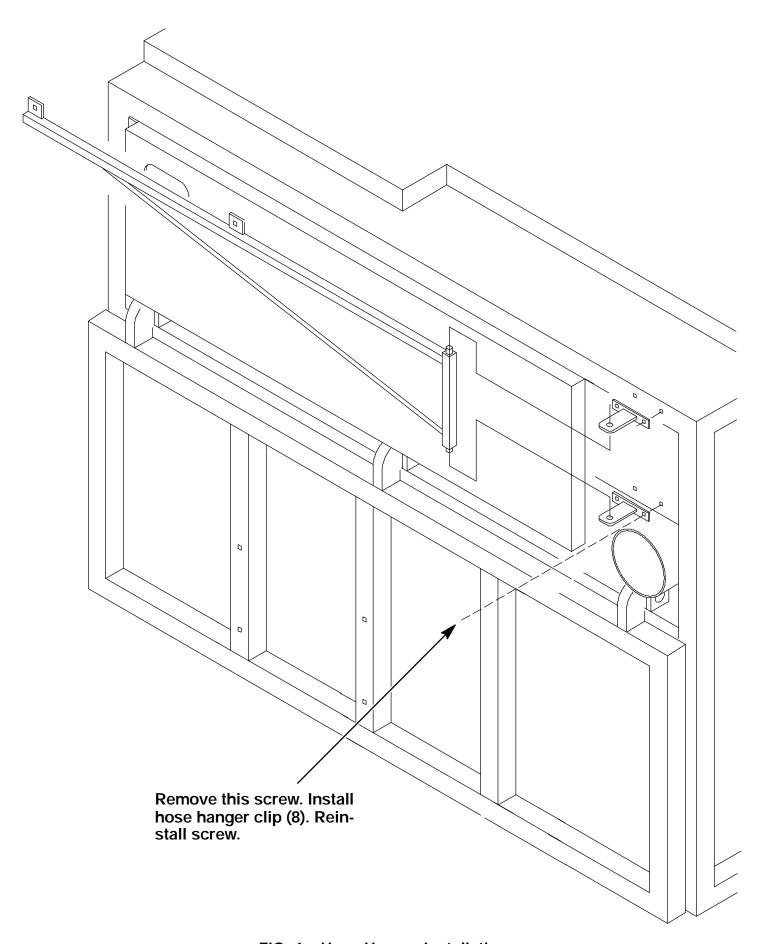


FIG. 4 - Hose Hanger Installation

### **BILL OF MATERIALS FOR LIQUID DRAIN KIT**

Ref.	TENNANT Part No.	Description	Qty.
1	01684	Flat washer, .25 in. SS PST sealant, 6.0 ML Vacuum hose w/cuff M6 hex screw, 40mm, SS RTV sealant, 3.0 oz	8
2	04415		1
3	05216		1
4	06947		4
5	08317		1
6	08712	M6 nyloc nut SS	8
7	08716	M6 hex screw, 20mm, SS	4
8	222793	Hose hanger clip	1
9	222831	Drain plug, 1.50 in diam.	1
10	22297	Wormdrive clamp	1
11 12 13 14 15	24663 364614 39277 769469 769470	Drain hose strap Neoprene bumper M8 hex screw, 25mm Street elbow, 1.50 in Nipple, 1.50 in x 3.00 in.	1 4 1 1
16	SP01766	Adaptor	1
17	SP01770	Ball valve, 1.50 in.	1
18	SP830038	Hopper drain strainer	1

TENNANT COMPANY
P. O. Box 1452
Minneapolis, MN 55440-1452