

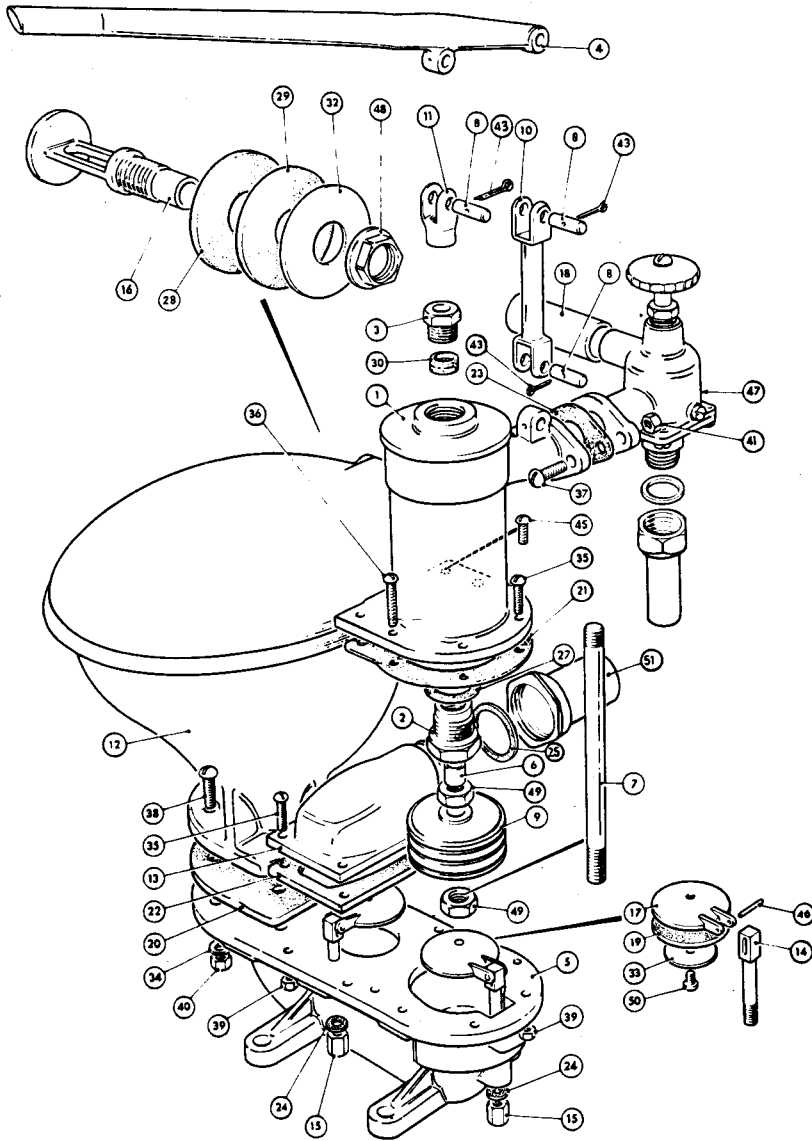
S-L STANDARD

MARINE TOILET

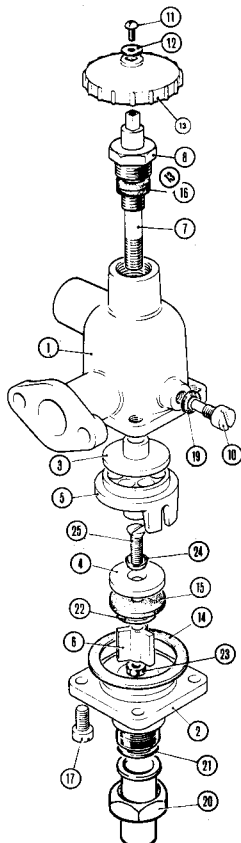
Installation
Operation
Maintenance
and Parts List



**SIMPSON
LAWRENCE**



Ref. No.	List No.	Description	No per Set
1	0439204	White Plastic Seat and Cover	1
2		Cylinder	1
3		Stuffing Box	1
4		Gland Nut	1
5		Handle	1
6		Base	1
7		Piston Rod Stopper	1
8		Piston Rod	1
9		Joint Pin	3
10		Piston	1
11		Double Link	1
12	6039600	Single Link	1
13		Basin	1
14		Discharge Valve Cover	1
15		Valve Hinge Pin (Supplied assembled with parts 17 and 46)	2
16	Self Locking Nut	2	
17	Basin Back Connector	1	
18	6039504	Discharge Valve (Supplied assembled with parts 14 and 46)	2
19		Back Tube	1
20		Discharge Valve Washer	2
21		Basin Gasket	1
22		Cylinder Bottom Gasket	1
23		Discharge Valve Cover Gasket	1
24		Cylinder Inlet Gasket	1
25		Discharge Valve Hinge Washer	2
26		Washer	1
27		Stuffing Box Washer	1
28		Basin Back Connector Washer (Back)	1
29	Basin Back Connector Washer (Front)	1	
30	Packing	1	
32	Washer	1	
33	Washer	2	
34	Washer	4	
35	Screw	8	
36	Screw	1	
37	Screw	2	
38	Screw	4	
39	Nut	9	
40	Nut	6	
43	Split Pin	3	
45	Screw	1	
46	Hinge (Supplied assembled with parts 14 and 17)	2	
47	Valve Chest (see separate list below)		
48	Nut	1	
49	Nut	2	
50	Screw	2	
51	Cap and Lining	1	



INLET VALVE CHEST

Ref. No.	List No.	Description	No. per Set	
	6039406	Inlet Valve Chest Assembly	1	
VC1		Valve Chest Body	1	
VC2		Bottom Cover	1	
VC3		Top Valve	1	
VC4		Bottom Valve	1	
VC5		Top Valve Seat	1	
VC6		Bottom Valve Wing	1	
VC7		Spindle	1	
VC8		Gland Nut	1	
VC10		Check Pin	1	
VC11		Screw	1	
VC12		Washer	1	
VC13		6039405	On/Off Control Wheel	1
VC14			Bottom Cover Joint	1
VC15			Bottom Valve Facing	1
VC16			Packing	1
VC17			Screw	4
VC19			Washer	1
VC20			Cap and Lining	1
VC21			Lining Washer	1
VC22			Facing Washer	1
VC23			Nut	1
VC24			Seal	1
VC25		Screw	1	

Simpson-Lawrence Standard Toilet is suitable for medium sized craft and has a large diameter pump with specially designed valves which reduce the possibility of blockages.

The S-L Standard has the advantage of a domestic size seat on a system which fits even the smallest space.

Stringent quality control in material and construction minimises unnecessary maintenance. Full spares kits are, however, available which makes servicing remarkably easy.

The S-L Standard is designed to be used either above or below the waterline. If mounted below, a suitable height of anti-syphon bend should be allowed on the discharge pipe. The inlet is controlled by a hand operated control wheel.

SPECIFICATION

Basin	High quality Vitreous China
Pump	Bronze
Inlet Valve Chest	Bronze
Handle	Bronze
Base	Galvanised cast iron
All metal parts	Stove enamelled
Weight	20 kg (44 lb)
Dimensions	See dimension diagram
List No. 0439604	S-L Standard complete with White seat and cover.

SPARES KITS FOR S-L STANDARD

Pair Discharge Valves:

- 2 x Part No. 15 : 2 x Part No. 24
- 2 x Part No. 17 : 2 x Part No. 33
- (Supplied with parts 14 and 46) : 2 x Part No. 50
- 2 x Part No. 19 :

List No. 6039307

Basin Back Connector consisting of:

- 1 x Part No. 16 : 1 x Part No. 32
- 1 x Part No. 28 : 1 x Part No. 48
- 1 x Part No. 29 :

List No. 6039308

Set of Washers/Gaskets consisting of:

- 1 x Part No. VC14 : 1 x Part No. VC15
- 2 x Part No. 19 : 2 x Part No. 24
- 1 x Part No. 20 : 1 x Part No. 27
- 1 x Part No. 21 : 1 x Part No. 28
- 1 x Part No. 22 : 1 x Part No. 29
- 1 x Part No. 23 :

List No. 6039401

Complete Handle with Linkage consisting of:

- 1 x Part No. 4 : 1 x Part No. 11
- 3 x Part No. 8 : 3 x Part No. 43
- 1 x Part No. 10 :

List No. 6039402

Complete Cylinder Assembly consisting of:

- 1 x Part No. 1 : 1 x Part No. 9
- 1 x Part No. 2 : 1 x Part No. 11
- 1 x Part No. 3 : 1 x Part No. 27
- 1 x Part No. 6 : 1 x Part No. 30
- 1 x Part No. 7 : 2 x Part No. 49

List No. 6039403

Galvanised Base with Valves consisting of:

- 1 x Part No. 5 : 2 x Part No. 19
- 2 x Part No. 15 : 2 x Part No. 24
- 2 x Part No. 17 : 2 x Part No. 33
- (Supplied assembled with parts 14 and 46) : 2 x Part No. 50

List No. 6039404

Basin Holding Down Bolts consisting of:

- 4 x Part No. 34 : 4 x Part No. 40
- 4 x Part No. 38 :

List No. 6039505

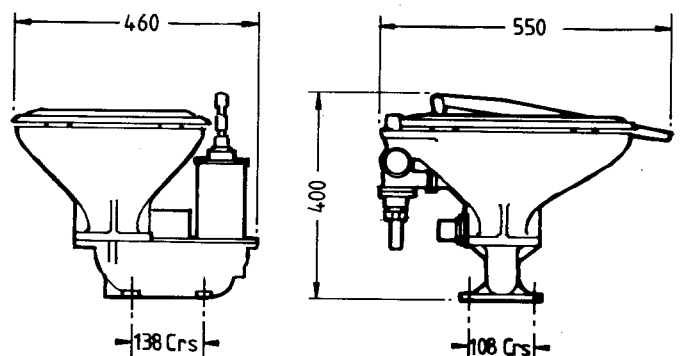
INSTALLATION

The toilet is supplied complete with instructions. 2 seacocks are required as part of the toilet installation, 19mm (3/4") and 38mm (1 1/2"). The former is the water inlet and the latter the discharge outlet. The inlet seacock should be fitted well below the waterline and if possible located on the other side of the vessel from the discharge seacock. If this is not possible the inlet seacock should be fitted forward of and further below the waterline than the discharge seacock. The discharge seacock should be below the normal waterline of the vessel.

A list of S-L components to complete your installation are shown in installation diagrams 'A' and 'B'.

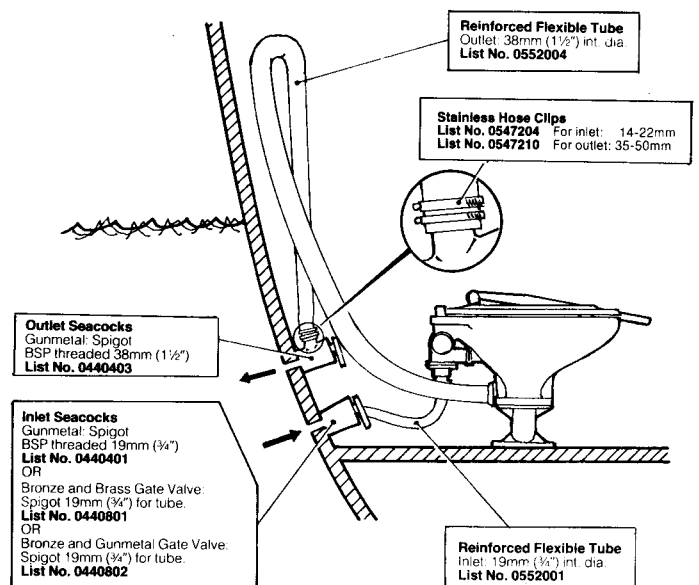
Locate the toilet in a convenient position and check that the handle can be operated upwards and downwards conveniently and that the toilet door can close properly. Securely bolt the toilet to the ship's structure. The inlet tube can then be led directly to the inlet seacock on the under side of the inlet valve chest. The discharge tube should be taken from the discharge outlet of the toilet in an upward loop well above the waterline (the heeled waterline on a sailing vessel), before returning to the discharge seacock. The purpose of this loop is to prevent the possible syphoning of sea water into the toilet should blockages occur in the discharge valves.

DIMENSIONS



INSTALLATION DIAGRAM A

Normal Installation of Sea-Toilet in small craft.

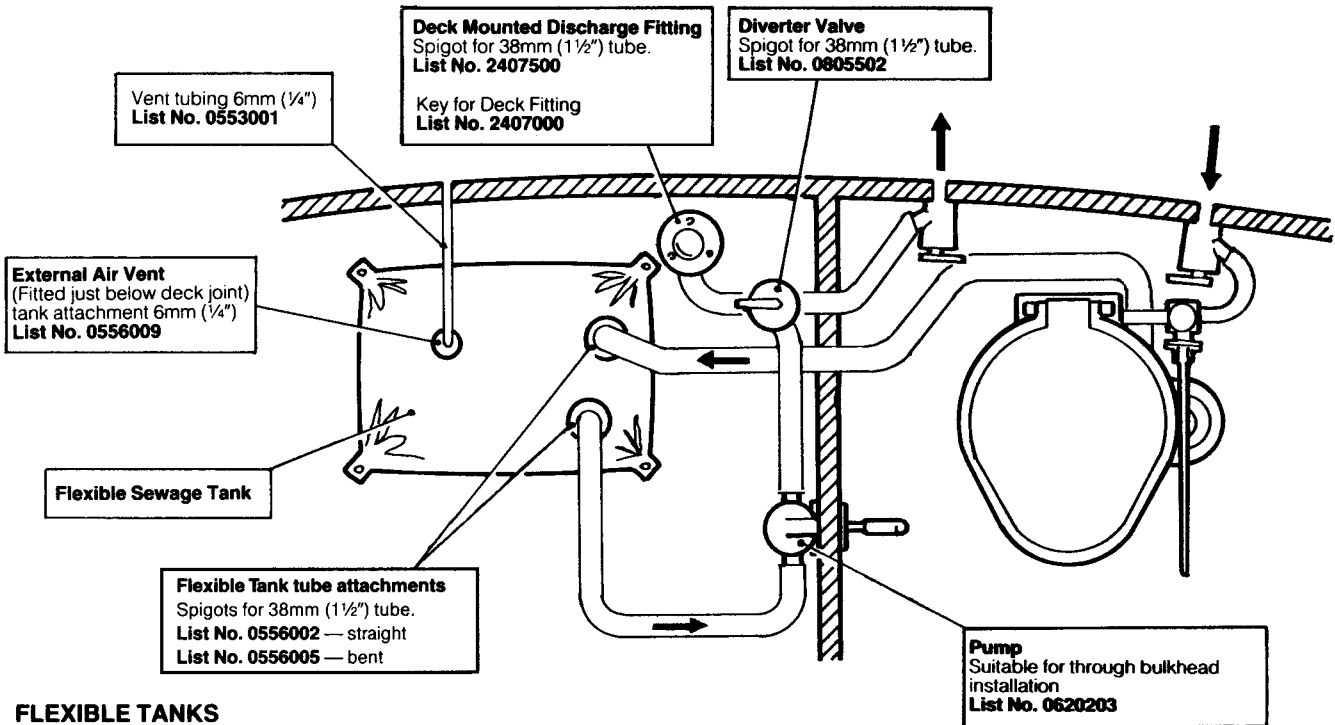


Note: Adaptors for using tube on BSP threaded Seacocks

- List No. 0545002 19mm thread to 19mm tube.
- List No. 0545005 38mm thread to 38mm tube.

INSTALLATION DIAGRAM B

Toilet installation with separate sewage tank



FLEXIBLE TANKS

List No.	Capacity		Dimensions Empty	
	Litres	Gallons	mm	ins
0554001	55	12	660 x 610	26 x 24
0554002	90	20	660 x 850	26 x 33½
0554003	135	30	660 x 1155	26 x 45½
0554004	260	57	825 x 1385	32½ x 54½

OPERATION

Ensure both inlet and outlet seacocks are open. The pump is double acting; flushing water is pumped through the cylinder above the piston and soil is pumped through the cylinder below the piston. To operate the pump, the handle is pulled up and down in a vertical manner. With the control hand wheel in the 'Shut' position the toilet can discharge only, but when the control hand wheel is in the 'On' position both flushing of the basin and discharge will take place simultaneously. Commence the discharge of the toilet by turning the control hand wheel to the open position and pump until the basin is clear. Turn the control hand wheel to the 'Shut' position and continue pumping to completely empty the toilet. It is good practice to flush a considerable amount of water through the toilet after use to ensure that all soil is discharged from the outlet pipe as well as the toilet. A small amount of water should remain at the bottom of the basin to provide an odour trap.

Note: Always shut off seacocks when vessel is unattended. This instruction is in keeping with good seamanship.

MAINTENANCE

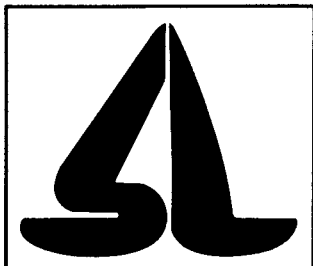
We recommend the use of S-L Loosan liquid disinfectant for normal cleaning, (List No. 4916100). Calcium scale will, in the course of time, build up on the inside of the valves, pump and pipe work. We recommend an annual pump and pipe work overhaul to remove any scale. Scale can be removed from pipe work by vigorous flexing and the next toilet flush will eject the loose scale.

If the vessel is to be unused for long periods, use Loosan and leave to stand. During winter conditions in countries where freezing might be encountered, the toilet and associated pipe work should be drained to avoid ice damage. Regularly examine the gland nut, Part 3, on top of the cylinder and gland nut, part VC8, on the inlet valve chest for leaks. Tighten as required but avoid over-tightening as this will cause stiffness in operation. Oil should be applied to the packing regularly. Should leaks not cease by tightening gland nuts repack as necessary.

A few drops of oil should be applied to all moving parts of the toilet, particularly the handle, linkage and pins. The exploded diagram on page 2 indicates clearly the configuration of the separate parts.

WARRANTY

The Simpson-Lawrence warranty covers the S-L Standard Toilet for a period of one year from defects in material and workmanship. This warranty is subject to proper installation and use in service as described in this literature.



**SIMPSON
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