

S-L Anchorman

Manual Vertical Windlass Handbook

Installation, Operation and Maintenance Instructions



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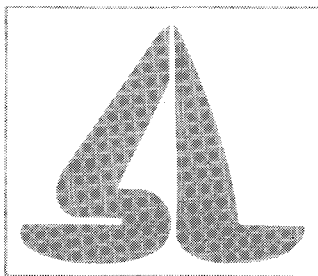
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1.2 For Future Reference

This technical drawing is an exploded diagram of a mechanical assembly, likely a fuel injector or a similar precision component. The diagram shows the main assembly in the center, with various parts shown in their relative positions as they would be assembled. The parts are numbered 1 through 33. The main assembly consists of a central body (1) with a flange (2) and a nozzle (3). A fuel passage (4) leads from the top of the body to the nozzle. A fuel valve (5) is located at the top of the fuel passage. A fuel filter (6) is shown at the top of the fuel passage. A fuel line (7) is connected to the fuel filter. A fuel pump (8) is shown at the top of the fuel passage. A fuel pump drive (9) is shown at the top of the fuel passage. A fuel pump drive shaft (10) is shown at the top of the fuel passage. A fuel pump drive gear (11) is shown at the top of the fuel passage. A fuel pump drive gear (12) is shown at the top of the fuel passage. A fuel pump drive gear (13) is shown at the top of the fuel passage. A fuel pump drive gear (14) is shown at the top of the fuel passage. A fuel pump drive gear (15) is shown at the top of the fuel passage. A fuel pump drive gear (16) is shown at the top of the fuel passage. A fuel pump drive gear (17) is shown at the top of the fuel passage. A fuel pump drive gear (18) is shown at the top of the fuel passage. A fuel pump drive gear (19) is shown at the top of the fuel passage. A fuel pump drive gear (20) is shown at the top of the fuel passage. A fuel pump drive gear (21) is shown at the top of the fuel passage. A fuel pump drive gear (22) is shown at the top of the fuel passage. A fuel pump drive gear (23) is shown at the top of the fuel passage. A fuel pump drive gear (24) is shown at the top of the fuel passage. A fuel pump drive gear (25) is shown at the top of the fuel passage. A fuel pump drive gear (26) is shown at the top of the fuel passage. A fuel pump drive gear (27) is shown at the top of the fuel passage. A fuel pump drive gear (28) is shown at the top of the fuel passage. A fuel pump drive gear (29) is shown at the top of the fuel passage. A fuel pump drive gear (30) is shown at the top of the fuel passage. A fuel pump drive gear (31) is shown at the top of the fuel passage. A fuel pump drive gear (32) is shown at the top of the fuel passage. A fuel pump drive gear (33) is shown at the top of the fuel passage.

Identify your model

	List No.	Tick
Gipsy/Drum Anchorman	0044100	
Gipsy only Anchorman	0044200	

The above information is essential when ordering spare parts.

1.3 Parts List

Part Number	Part Description	Quantity Applicable to	
		441	442
1	Rope Chain Gipsy	1	1
2	Baseplate	1	1
4	Gipsy Pawl	1	1
6	Nameplate	1	1
7	Shoulder Screw	1	1
8	Bearing	1	1
10	Washer	1	1
11	Pawl	2	2
12	Pawl Spring	2	2
13	Stripper Screw	2	2
14	Washer	1	1
D17	Distance Piece	1	0
G17	Distance Piece	0	1
D18	Gipsy Carrier	1	0
G18	Gipsy Carrier	0	1
D19	Drum Cap	1	0
G119	Gipsy Cap	0	1
20	Drum	1	0
21	Clutch Nut	1	0
22	Socket Head Cap Screws	3	0
23	Hole Plug	1	0
30	Fleming Stripper	1	1
31	Fleming	1	1
32	Screw	2	2
33	Hole Plug	0	1

2. SPECIFICATION

2.1 Gipsy Suitability

The rope/chain gipsy enables the windlass to be used for hauling rope and chain without the need to transfer from warping drum to gipsy. It is ideally suited to anchor rodes which consist of rope with a chain tail. Rope used with rope/chain gipsies should be good quality, medium lay three strand nylon.

The RC172 gipsy is designed to suit 12 mm (1/2") rope, the RC162 and RC152 gipsies to suit 16 mm (5/8") rope but they all may accept diameters that are plus or minus 3 mm (1/8") depending on the particular lay of the rope. Because of wide variations in rope type and construction some experimentation may be required. On no account should multiplait ropes be used!

The 180 & 181 gipsies handle chain only.

Chain should be chosen to suit gipsies as follows:-

GIPSY	CHAIN	PITCH (mm)	SIZE
RC152	US NACM		5/16"
RC162	S-L 0058004	27.7	9.5 mm
	S-L 0058604 Stainless		10 mm
	US BBB		3/8"
	French NFE 26011		10 mm
	German DIN 766		9 & 10 mm
	Italian		10 mm
	Norwegian		1/4"
	Australian PWB & Beavers		8 mm
	Australian Grade 'L'		10 mm
RC172	S-L 0058002	25.4	1/4"
	S-L 0058003		8 mm
	S-L 0058603 Stainless		8 mm
	US Transport 'G7' (ISO Spec.)		1/4"
	US BBB		5/16"
	US High Test 'G4' (ISO Spec.)		5/16"
	French NFE 26011		8 mm
	German DIN 766		8 mm
	Italian		8 mm
	Norwegian		1/4"
		26.2	5/16"
			8 mm
	Australian		8 mm
180	Accoloy		9/32"
181	German DIN 766(86)		6 mm

Depending on manufacture, other chains in the range from 6mm to 10mm and 1/4" to 3/8" may be suitable with one of the above gipsies. Should you have difficulty in matching a gipsy to your chain please consult your local agent or Simpson-Lawrence Ltd.

2.2 Materials

Cap	Chrome Plated Bronze
Drum	Chrome Plated Bronze
Gipsy	Chrome Plated Bronze
Baseplate	Chrome Plated Bronze
Bearings	Plastic
Internal Pawls	Stainless Steel
Weight	Gipsy/Drum 7.5 kg (16.5 lb)
	Gipsy only 6.5 kg (14.3 lb)

2.3 Package Contents

Windlass	
Mounting Template	D1018-1
Instruction Booklet	D1020-3
Safety Instructions	D1000-2

3. PLANNING THE INSTALLATION

Additional Requirements

Each windlass installation requires:

- A Fixing Stud Set (See 'Accessories' section)
- An Operating Handle (See 'Accessories' section)
- The following tools:

Flat Bladed Screwdriver
13mm Spanner

- Sealant

4. ACCESSORIES

List Number Item

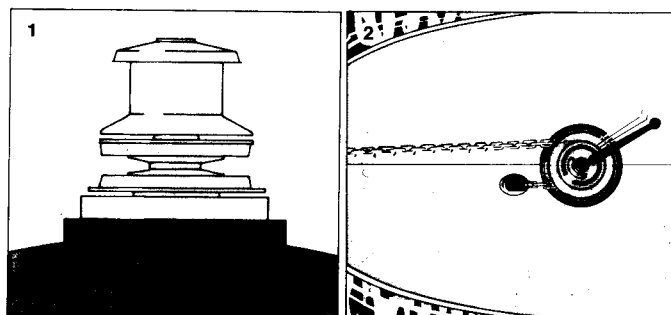
2756900	10" Operating Handle - Standard
2756700	10" Operating Handle - Autolock
2417201	Chain Pipe - Flat type with cover
2417202	Hooded Chain Pipe
6044120	Short reach fixing stud set 50 mm
6044121	Long reach fixing stud set 100 mm
6044122	Installation Pack (Contains - teak mounting pad, long reach fixing studs and marine grade sealant

5. INSTALLATION

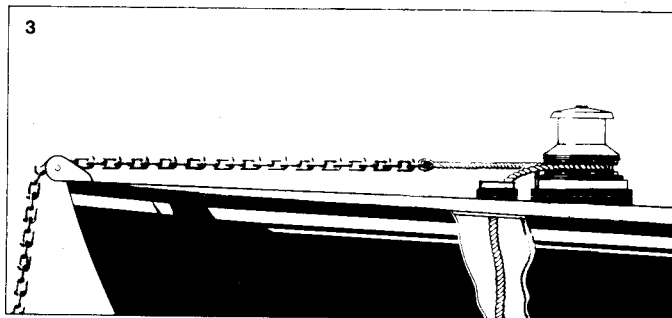
5.1 Fitting Windlass to Deck

5.1.1 If the deck top is not flat a suitable mounting pad may be required to take up camber or sheer. Decks which are thin, of foam or balsa laminate construction, will require a backing piece in order to spread the loads which will be applied locally to the deck while the windlass is in use.

5.1.2 Place the windlass on the deck or mounting pad in the desired position and check the line up of the chain or rope with reference to the stemhead roller and the chain locker below. Check that there is sufficient room to fully rotate a bi-square winch handle without obstruction.



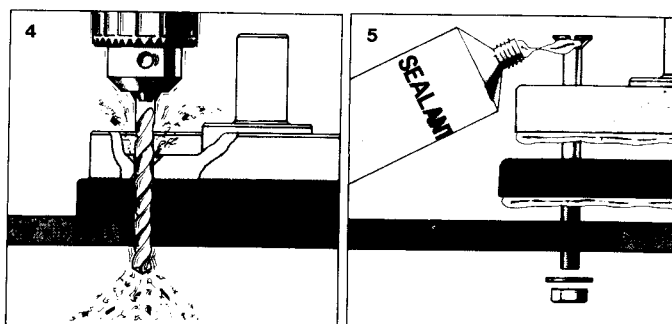
5.1.3 Chain lead from the bow roller should be in the same plan as the centre of the gipsy so any deck pad may also be required to be angled. There must also be sufficient vertical fall for the chain or rope, even with a full locker, to draw the chain or rope from the gipsy.



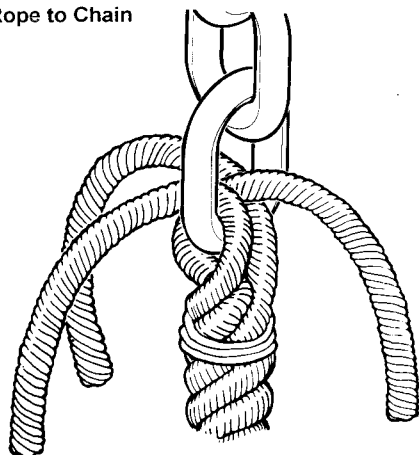
5.1.4 Dismantle the windlass by unscrewing fully the central clutch nut or gipsy cap as appropriate. Also remove the stripper screws (part 13). Remove the drum and/or gipsy with its stripper to expose the 4 countersunk mounting holes. Drill four M8 (5/16") clearance holes for the screws.

5.1.5 Apply a suitable sealant as indicated and secure the baseplate firmly to the deck.

NB If using silicone or other rubbery type sealants it is advisable to allow curing of the sealant before final tightening of the mounting bolts.



5.2. Joining Rope to Chain



- 5.2.1 With whipping twine or similar, seize your rope 300 mm (12") from the rope's end and unlay strands.
- 5.2.2 Pass one strand through the chain end link from one side and the other two strands from the opposite side.
- 5.2.3 Remove seizing and complete back splice in normal manner for two full tucks.
- 5.2.4 With a hot knife pare down the three strands by one third and continue with two further tucks.
- 5.2.5 Pare strands down by another third and finish with another two tucks.
- 5.2.6 Cut away remaining tails.

This method of joining is designed to minimise chafe between rope and chain but as a matter of prudent seamanship it should be checked regularly and remade if there is any evidence of wear.

The rope chain gipsy is not a self tailing device, therefore rope, of the correct size, will require to be tailed sufficiently taut to allow it to grip in the rope channel.

6. OPERATING INSTRUCTIONS

6.1 Safety First

Ensure that fingers and loose clothing are kept clear of the chain and gipsy whilst they are in motion to avoid personal injury! Also, adopt the habit of removing the handle, when not in use, from the drum or gipsy cap to avoid personal injury and the possibility of inadvertently releasing the clutch!

6.2 Anchor Release

Insert a standard sheet winch handle into the central clutch nut (441 model) or off-set bi-square hole (442 model) and gently slacken by turning it anti-clockwise until the cable begins to run out. The speed at which the cable runs out can easily be controlled by the handle.

When sufficient cable has been let out, stop it by turning the handle clockwise.

6.3 Lying to Anchor Safely

- 6.3.1 Boats lying to their anchor in a high swell or heavy weather conditions will snub on the anchor or mooring rope and this can cause the chain to slip or apply excessive loads to the windlass.
- 6.3.2 For maximum safety the windlass must not be left to take the entire force from the anchor cable and a bridle should be used to transfer the load to a mooring cleat or bollard. Alternatively, the chain can be removed from the windlass gipsy and made fast directly to a bollard or sampson post.

6.4 Anchor Recovery

When using chain, remove the bridle or stopper. Rope should be untied and replaced in the gipsy. The effort required to break out the anchor should be minimised by first hauling in the slack cable with a clockwise rotation of the handle and then motoring towards the anchor.

6.5 Warping (441 only)

- 6.5.1 If the gipsy is in use, ensure that the gipsy pawl is engaged.
- 6.5.2 Slacken the clutch nut to disengage the gipsy clutch.
- 6.5.3 The warping drum can now be made to revolve independently of the gipsy.
- 6.5.4 Rope/drum slippage can normally be overcome by increasing the number of turns of rope taken on the drum.

6.6 Operating Tips

- 6.6.1 When anchoring it is best to allow the chain to run out slowly, allowing the vessel to take up sternway before full scope is let out. This helps prevent the chain from becoming tangled on top of your anchor on the sea bed.
- 6.6.2 To aid anchor recovery under conditions where wind or tide cause

additional load on the anchor, we recommend that the vessel's engine be used to assist by lessening the load on the windlass and by providing the opportunity for greater control when the anchor breaks out.

- 6.6.3 When mooring stern to, drop the anchor at the required distance from the jetty, and gently ease off the gipsy clutch just enough to allow the chain to run out under the influence of the stern way of the vessel. By engaging the clutch fully, the anchor can be used to restrain the vessel as it approaches the jetty. Make fast your vessel with warps from the stern.

7. IMPORTANT USER INFORMATION

Classification Societies require that a vessel lying to anchor should have its chain held by a cable stopper or equivalent strong point as windlasses are not designed to withstand the loads generated under storm conditions.

Whilst under way it is the responsibility of the boat user to ensure that the anchor and rode are properly stowed for the prevailing sea conditions. This is particularly important with high speed power boats. This rule should be applied to all craft!

An anchor windlass is mounted in the most exposed position on a vessel and is thus subject to severe atmospheric attack resulting in a possibility of corrosion in excess of that experienced with most other items of deck equipment. As the windlass may only be used infrequently the risk of corrosion is further increased.

When the windlass is mounted in an anchor well with a closing lid, due to lack of ventilation and consequent high saline conditions, the rate of corrosion is accelerated. It is essential that the windlass is regularly examined, operated and given any necessary maintenance. This is of even greater importance when the windlass is installed in an anchor well!

8. MAINTENANCE

8.1 General Recommendations

After the first two or three anchor recoveries, check that the windlass is still fastened tightly to your deck as it should now be 'bedded-in'.

Regularly wash down the exterior of your windlass with fresh water.

For smoothest operation of the clutch ensure that the clutch mechanism and gipsy exterior is kept free from excess salt deposits. At least once a year dismantle the above deck parts, clean thoroughly and apply a small amount of Marine Grade teflon grease to all bearing surfaces and re-assemble.

8.2 Winter Laying Up

As with all items of marine equipment poor installation or neglect is often responsible for damage caused during the winter lay up period.

Given correct installation and maintenance your windlass will require little attention prior to, or after, winter lay up. Check between the windlass deck housing and deck for signs of water ingress. Should it occur, remove, clean and reseal the deck plate.

9. WARRANTY

The Simpson-Lawrence warranty covers your unit for a period of one year from the date of purchase, to be free from defects in material and workmanship. This warranty is subject to proper installation and use in service as described in this booklet. Our current catalogue contains our full "Conditions of Sale". A copy of these conditions can be obtained by application to any of our branches or our agents.

The models described in this document are subject to a policy of continual improvement. Simpson-Lawrence Ltd. reserve the right to alter specifications and recommendations without notice. For the latest information regarding any aspect of your windlass please contact your local agent or:-

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