

## **LEWMAR®**

### Choosing a Windlass

In order to select the proper windlass for your boat, three questions should be answered:

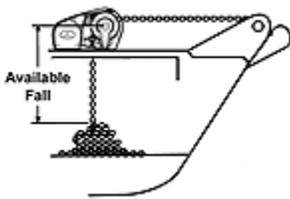
#### **1. How long is my boat?**

Use the selection guide to determine the general size of windlass to be used for your boat length and displacement. For example, if you have a 33ft/ 10m boat, a 600lb/ 270kg pull windlass (Sprint 600) would typically be selected. Adjust the windlass size if necessary, based on your answers to questions two and three below.

#### **2. How long is the anchor rode you wish to use and will it fit into your locker?**

Begin by examining the depth of the anchor locker to determine the amount of 'fall' available. The fall is the vertical distance between the top of the anchor locker and the top of the anchor rode when it is completely stored inside the locker. This measurement is important in determining whether your boat will be best suited for a vertical or horizontal windlass.

##### **Horizontal Windlass**



The Horizontal windlass is a no-nonsense design widely used by boaters requiring optimum performance from their anchoring system. Boaters who frequently anchor, especially in deep water, require a no hassle self-tailing system. The horizontal windlass offers the best performance with small or unusual locker designs. As the anchor rode enters the gypsy it makes a 90° turn and feeds directly into the anchor locker. a minimum fall of 12"/ 30cm is recommended.

##### **Vertical Windlass**



Vertical windlasses provide aesthetic value and offer the added security of the anchor rode making a 180° wrap around the gypsy. The inherent design of the vertical windlass requires at least 12"/ 30cm of fall. This is to allow gravity to properly self-tail the anchor rode through a 90° vertical turn into the anchor locker. Additionally, nylon line is lightweight and a short fall in a vertical windlass system might prevent the rode from feeding properly into the locker

#### **3. How much pulling power should my windlass have?**

Having selected the vertical or horizontal windlass sized for your boat length and displacement, the correct windlass pulling power for your needs must be determined using the following formula:

First determine the total weight of the ground tackle which comprises the anchor and rode.

**For example;**

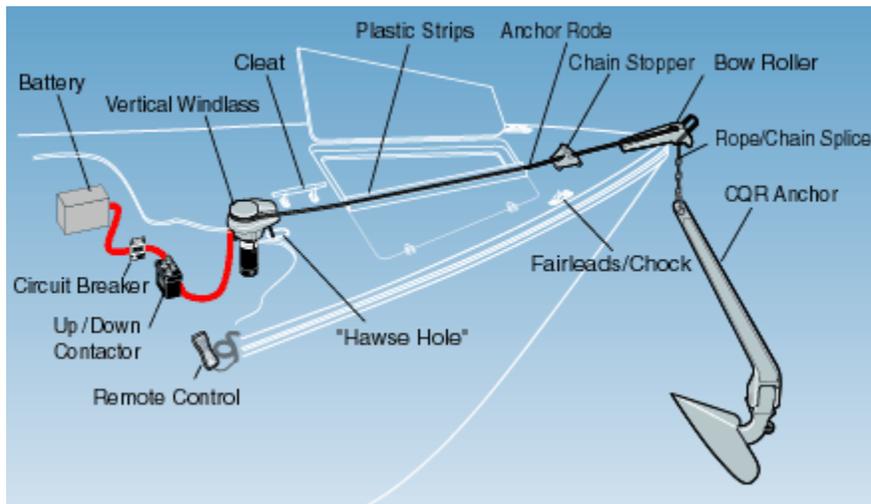
The weight of your anchor	= 22lb/ 10kg
The weight of your anchor rode comprises	
15ft/ 4.58m of chain (at 0.74lb/ft or 1.09kg/m)	= 11lb/ 5kg
200ft/ 61m of rope (at 0.06lb/ft or 0.09kg/m)	= 12lb/ 5.5kg
Total weight of ground tackle	= 45lb/ 20.5kg

Second, take the total weight of the ground tackle and multiply by a factor of three to arrive at the required windlass pulling strength. The factor of three covers the effects of windage and the speed of tidal current and includes a safety margin for unknown circumstances.

In our example the required windlass pulling strength is 135lb/ 61.5kg (3 x 45lb/ 20.5kg).

Safety guidelines suggest that the required windlass pulling strength must not exceed 1/3 of the maximum pull capacity of the windlass. Therefore, our selection of a 600lbs/ 270kg pull windlass is correct as the 135lb/ 61.5kg required pulling strength is well below 1/3 the maximum windlass pull capacity.

**Vertical Application**



**Horizontal Application**

