

Frequently Asked Questions (FAQs)

Q1. Will it fit my boat?

A. The wind vane is designed to be mounted in its socket around deck level or just below, 150mm to 400mm aft of the transom and connected by lines to the tiller or wheel. Free-board height at the stern determines the length of pendulum, which needs to be cut to length accordingly.

The socket can be sandwiched between 2 horizontally mounted blocks of hardwood bolted to the deck. Alternatively, it can be between blocks that are vertical or at an angle and bolted to your transom. It can also be sandwiched between 2 stainless-steel plates (120 by 80mm, 6-8mm thick) welded to a frame which is bolted to the transom, as may be required to prevent restricting movement of a transom-mounted rudder (see diagram in the component gallery of my website).

The pendulum in the water must be free to swing from side to side at least 45 degrees from centre.

Normally the pendulum swings no more than 30 degrees. Any obstruction within the 45-degree limit could cause damage (eg. if it makes contact with an outboard motor or part of the transom).

One of the other diagrams in the component gallery shows how to test compatibility of a Hebridean with your boat using a frame which can be made from scraps of wood.

Q2. Is it difficult to make?

A. It basically requires little more than woodwork skills (ie. the ability to saw, drill and chisel wood). By reputation servo pendulums work well but are usually not easy to build yourself, being complex in design (unlike some “off the shelf” servo pendulums). The simplicity of this design lends itself to DIY construction. Moving parts are metal-to-metal, which are trouble-free and easy to bolt to the wooden frame. They are few, with only one lever between vane and pendulum. A video of the wind vane under construction is on the front page of my website.

Q3. Is it strong enough?

A. In the H1 kit I supply American Oak. I have tested it – with the pendulum pulling a force of 350kg on the lines to the tiller, which is much more than usual. I advise the owner to have a fail-safe connection to the tiller which breaks at around 150kg, to safeguard the wind vane in the event of a broach. In normal use, especially if the sails are balanced, the forces on the tiller are not great. If this connection does fail, the pendulum freely swings clear. The pendulum is held down in the water by friction at the socket where it is sandwiched between woods or stainless-steel plates. On striking something in the water, the wind vane rotates upwards out of the water, safeguarding the pendulum from damage. All you have to do then is push the wind vane back down. If in certain conditions friction is not enough to keep the pendulum submerged, a shear-pin can be inserted, which then breaks on impact. So, the wind vane is safeguarded from excessive sideways and upwards force on the pendulum.

Q4. Will the metal-to-metal moving parts wear out?

A. If they do it is an easy job to replace them. However wear is not a problem as nothing in a wind vane moves at high speed.

Q5. Can it cope with weather helm?

A. Yes, but it is always better to have the sails balanced initially when connecting wind vane to tiller or wheel.

Q6. How easy is it to store in a locker?

A. With pendulum removed (by undoing 3 split rings and removing 2 pins) the frame folded flat is 1.1 metres long.