

Bag
Mr Vane Basic
Mounting Kit

English
28-5-2009

Mr. Vane manual

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1.1 The basic mounting kit comes with 2 custom stainless steel brackets and 2 one meter long glass fibre tubes. Both the brackets and the tubes can be cut to length if required.

In this manual the copy of the vane base is used. If you feel confident you can use that plastic vane base straight away. Using the copy allows for mistakes to be corrected



1.2 The width of the "V" is chosen based on where the steering lines should enter the boats deck



1.3 Choose this position so that the steering lines stay just outside the edge of the cockpit so you won't lean against them.



1.4 First we will start to make a very basic mounting where the system only dangles from the top mounting points.

In this picture a mounting below an outboard engine bracket is shown.

This manual is for all mountings with the CMK



1.5 This picture shows a mounting on a flat and vertical transom.

If your boat has a rounded and/or sloping transom...



1.6 ...You will need to create a common plane to connect the port and starbord clamps to.

Here epoxy putty is used to accieve this. The piece of cardboard is removed after curing.

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2.7 Here the green tube clamps can connect to the epoxy/putty plane directly because the transom slopes forward.



2.8 With a flat and vertical transom a 30 mm spacer is needed for a bit of distance



2.9 Connect the system with the uncut tubes to the boat, as high as possible.



2.10 Check if the system isn't too high.

ATTENTION

In this picture the pendulum rudder is not connected but DO try it out with the pendulum rudder attached.

There may be a conflict between the pendulum rudder and the outboard bracket (or something similar) that does not show without a mounted pendulum rudder!



2.11 Measure the height of the vane base to the deck and the length of the white tubes between the tubeclamp at the top of the stainless steel bracket and the bottom of the tube clamp.

Keep on remeasuring until the position is symmetrical



2.12 Check if there is no problem with the future position of the vane mast.

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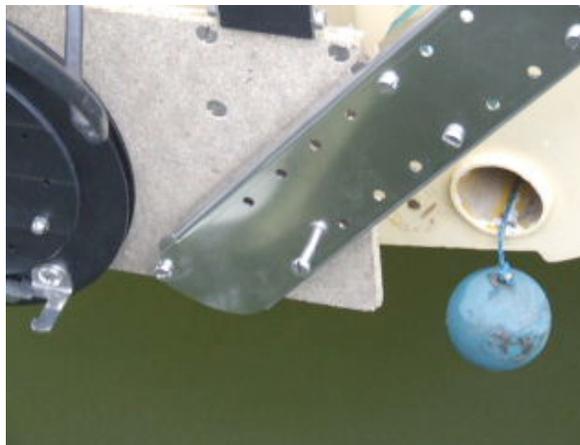
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3.13 When satisfied with the position, drill a hole through the mounting bracket, through the vane base. Use the hole in the bracket that is closest to the bottom green tube clamp.



3.14 In this particular situation using a hole closer to the tube clamp would conflict with the path of the pushrod or the connection of the mast bracket



3.15 You do not need to use the same hole on both sides.

Stick a bolt through and gently fasten.

The width of the "V" is now set.



3.16 Taking in to account the height that the steering lines need to be over the edge of the cockpit...



3.17 ...check the length of the tubes again and mark where you want to cut the them.

Cut them to length. View the seperate manual for details.



3.18 The best position to connect the bottom part of the vane base to the boat is as low as possible and as close to the bearing disk as possible.

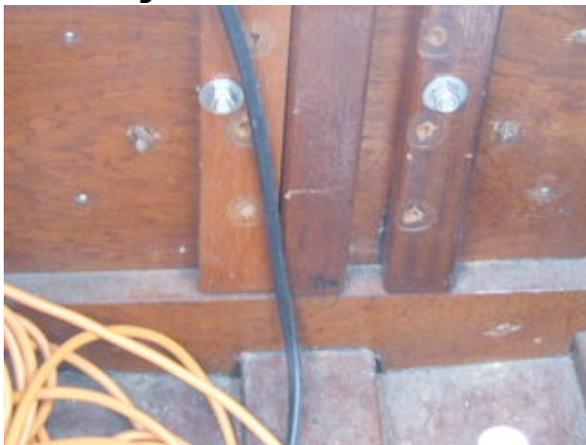
Here the screw that holds the axle of the sheaves (in the middle of the picture, sheave not shown) is replaced with a piece of m6 threaded rod (not included in the kit)

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4.19 Check on the inside of the boat if there is no obstacle that makes fixing to this point a problem



4.20 With the screw replaced, the threaded rod sticking out sufficiently on the other side of the vane base, tap the rod to leave a mark on the boats transom.



4.21 With a sloping transom, use longer threaded rods to connect to the same point on the vane base.

Bend the threaded rod if required.



4.22 Drill the two holes through the transom



4.23 Use 47.5 mm spacers at the bottom to connect to the transom.
(47.5 mm is the exact dimension, 46-49 mm will work fine)

Replace the copy of the vane base with the plastic one after drillen the new holes for mounting to your boat.



4.24 When connecting the bolts that fix the width of the "V", insert a 15 mm long white plastic spacer between the vane base and the mounting bracket so you can tighten well

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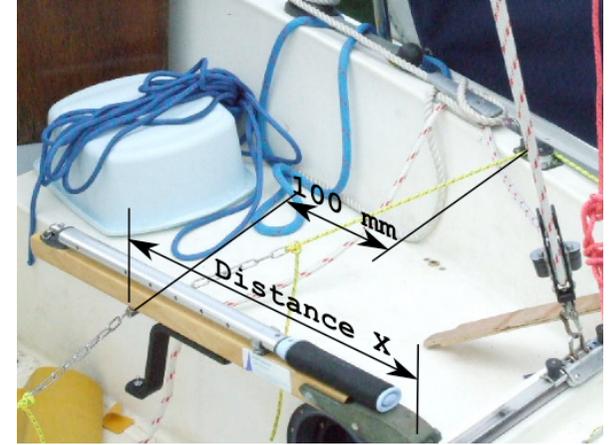


5.25 Assemble the sheave blocks. Use two pieces of plastic hose to centre the sheaves on the axle.

Connect them to the ends of the white tubes.



5.26 Connect the complete system to the boat. Cut down the treaded rod at the bottom of the vane base.



5.27 Distance X needs to be between 100 and 200 mm.

Choosing this distance X is not an exact science. A short distance gives a quick response and a bigger range (in steering angle). A bigger distance gives more power and a more subtle response.

The steering line guidance blocks on the side of the cockpit need to be about 100 mm behind the point where the steering lines connect to the tiller.



5.28 Connect the chain hook to the tiller using two screws. This can be at the top of the tiller as well as the bottom.

Connect the steering lines as described in the assembly manual. Guide them from the top of the outer bearing disk around the sheaves on the vanebase, then up through the white tubes, over the sheaves and along the side of the cockpit, then connect them to the chain on the chain hook.

With the pendulum rudder straight down and the tiller in the middle the steering lines should not be slack but also not over tightened.