supporting the rudder the same way your mast is to a cleat or a winch on deck. You have now secured procedures in advance. The lower lines should be lead If possible, wait for good weather and plan all. 6. Next step is to secure the upper spectra lines which are attached to the eye bolts. The lines have a bowline with a tail close to the rudder blade. The lines should go around the corner of the strutguard which are attached to the eye bolts. The lines have running the line back and forth you have now a bowline and then up to the strutguard again. The pin is put in place. Use at least one spectra line as a safety line. We have also seen a bosun chair being used to secure the person doing the work safely. Consider using preventer lines to stop side swing.

1. Heave to with the boat and try to avoid forward movement. Wear your safety harness.
2. Disconnect MONITOR pendulum lines from the tiller or wheel adapter and lock the pendulum in the middle by taking the lines to a cleat.
3. Place the wedge between the pendulum and the strutguard. Secure the wedge by attaching it to the strutguard with clevis pins. Use safety lines.
4. Remove the serve paddle assembly by removing the cotter ring and the hinge pin. Store the serve assembly.
5. Attach MRUD assembly to MONITOR. This can be done in different ways and it should have been practiced at the dock. One way is to hold the paddle upside down with the help of the attached lines when you put the special tapered hinge pin through the hole in the hinge block. The pin is attached to the hinge with a safety line. When the pin is in place the cotter ring is used to keep the hinge pin in place. Another method to attach MRUD is to let it float behind the MONITOR while the hinge pin is put in place. Use at least one spectra line as a safety line. We have also seen a bosun chair being used to secure the person doing the work safely. Consider using preventer lines to stop side swing.
6. Next step is to secure the upper spectra lines which are attached to the eye bolts. The lines have a bowline with a tail close to the rudder blade. The lines should go around the corner of the strutguard where it is welded to the leg of the frame. The line should then go down to the bowline and then up to the strutguard again. By running the line back and forth you have now a very simple and practical “block and tackle” purchase system. The upper spectra lines will stretch very little and you have an easy system to make the lines tight. Do the same thing with the opposite upper line. If possible, wait for good weather and plan all procedures in advance. The lower lines should be lead to a cleat or a winch on deck. You have now secured the pendulum with the wedge and the spectra lines are supporting the rudder the same way your mast is supported with uppers and lowers-only this “mast” is upside down. Check for chaffing in the spectra lines after use and add or replace lines as necessary.

Do not over tighten the support lines. Experiment with the tension. If the lines are too tight, you will have problems turning the MRUD. Your MONITOR now has a very rigid and strong spade rudder ready to steer your boat. Of course you need to balance your boat carefully and possibly reduce sails somewhat. Compared to your boat’s rudder you may feel that the MRUD is too small to control your boat. However, we have purposely kept it this way (will not break, easy to store, easier to install, etc.). With a normal boat there are very small corrections with the rudder unless you carry too much sail or have ignored balancing the sail plan. The large size of the boat’s main rudder is necessary for maneuverability which is needed when you dock the boat or are on a race course. With MRUD in the open ocean and a course to steer you can make slow corrections. At your destination you can anchor or get help for the last few miles if you feel that you cannot maneuver in tight corners.

You can now steer by three different methods.

1. **By hand:** Grab the counterweight and move it. You are now steering by hand. You can rig up lines to the counterweight and steer from any position on the boat.
2. **With Light Air MONITOR airvane:** Your MONITOR will now work as an auxiliary rudder self-steering windvane. The spectra tension lines provide some friction. You might find that the performance improves if you ease the spectra lines just a little bit if conditions permit.
3. **With a small autopilot:** A small tiller pilot can be rigged up to the counter weight. The tiller pilot will steer a magnetic compass course.

In the 1994-95 BOC (Single-handed Around the World Race) seven out of eleven boats had MONITOR windvanes. In the 1998-99 Around Alone (same race, different sponsor) the five boats that used windvanes all used the MONITOR windvane. Again, no other windvane was used in the race.

The MONITOR’s servo-pendulum system had once again been proven the best self steering principle.

Since the BOC 1986-87 there has not been a single auxiliary rudder self steering system in the race.

It was our goal to make an emergency rudder that would work for the BOC and Around Alone boats. It is now being tested in real conditions for 2000 NM on such a boat. That should satisfy the requirements for normal cruising boats.

**MRUD, THE EMERGENCY RUDDER**

Our challenge was to be able to convert the MONITOR aboard a 50 foot BOC boat, in the roaring forties, into a true emergency rudder. We knew that the strength required for survival in these conditions would guarantee a more than adequate back up system for cruisers having the misfortune to lose their boat’s rudder. MRUD has been designed to meet the following criteria:

- Strong and dependable
- Reasonably easy to install at sea
- Easy to store on board
- Affordable

MRUD offers a unique solution to a serious problem.

**MONITOR, THE SELF STEERING SOLUTION**

There are many different systems of windvane self-steering. Trim tab, auxiliary rudder and serve pendulum systems are just a few. The development of the servo-pendulum principle represented a breakthrough in windvane self-steering. As the boat moves faster with stronger winds, the power of the servo increases and this gives ample power to turn the boat’s own large rudder. The MONITOR steering system is powerful and has positive yaw dampening which makes it possible to steer straight in difficult downwind conditions. The more it blows, the better the MONITOR likes it. Consensus of opinion is that the servo-pendulum principle is the best method of self steering for most boats.
Finally a solution to the nightmare of losing your boat’s main rudder.

The MONITOR is a proven, reliable, and strong rudder system. It is designed to be the primary rudder on a boat, not a backup. It is built to last and is designed to be a permanent part of your boat. It is a good investment, and it is a good alternative to a backup rudder system.

The MONITOR emergency rudder conversion kit is designed to be a quick and easy way to add a backup rudder to your boat. It is a great solution for boats that do not have a backup rudder system.

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