Catalina
TECHNICAL SECTION • MAY 2002
MAINSHEET

Catalina 470

Technical Editor
Glen McIntosh
2792 Dawson's Chase
Duluth, GA 30097
(770) 476-9328
GlenMc470@aol.com
Latitude Adjustment, #13

The C470 list on Sailnet.com has become a very active site for discussion among owners about maintaining and equipping a Catalina 470. I encourage everyone to join the list and take a look. There is no charge for participation. Go to www.sailnet.com, and look at the site index on the left side. Click "Join E-mail List" under the Member's Center section of the index. Then click "Display All Active Lists", then click the "C470 Discussion List" and fill out the brief form to join. You will from then on receive copies of all mail sent to the list by C470 owners and will also be given instructions on how to submit mail to the list. Most of the information in this issue of Tech Notes came from comments or questions by owners participating in the lists. Here are many of the items discussed recently.

Safety at Sea - Preventing Boat Loss

We have a high percentage of C470 owners doing fairly serious cruising, including several with fairly lengthy trips planned. Some have a lot of miles experience but many may be skilled sailors but are novices to long distance cruising. Most have never participated in an ORC race where they've had to meet the stringent requirements of emergency backup plans and equipment for significant boat threatening events. Those doing long distance trips need to know that several things can happen that can potentially result in boat loss. We must be prepared to deal with these problems as they arise. When far out to sea, everyone will eventually encounter sustained winds of 40 knots or greater and waves greater that ten feet. In these conditions, being caught with too much sail up, breakage of a furling line with a large genoa or main unfurling can result in a difficult to control boat. Losing control of the genoa resulting in a bad wrap or knotted up sheets can result in a billowing uncontrollable foresail. Anyone who has been on the foredeck trying to control a loose genoa in high winds knows how personally dangerous a flogging sail can be. On our boats over the years, we've experienced most of these problems as well as broken mainsheet, jammed blocks, broken vang, loss of all charging capability when still a long time from next port, rapid water intake while at sea from a failed packing gland, loss of engine while near reefs, and other emergencies. There are few 'experts' in cruising safety among us rank and file cruisers, but there are a lot of experiences and a lot of opinions. Each of us has the responsibility to our crew and our boat to have a thought out plan for all these problems, plus other boat threatening events such as mast loss and steerage loss. Over the next few issues, in addition to the Tech questions and ideas submitted by owners, we'll address the major safety

SUPPLEMENT TO CATALINA MAINSHEET MAGAZINE

Publisher/Editor
Jim Holder
830 Willow Lake
Evans, GA
(706) 651-0533
jholder@mainsheet.net

Technical Consultant
Gerry Douglas
Designer & Engineer
Catalina Yachts
(818) 884-7700
gerard@catalinayachts.com

DIRECT QUESTIONS AND COMMENTS TO YOUR CLASS TECHNICAL EDITOR.

Catalina 470 Glen McIntosh GlenMc470@aol.com	Catalina 36 Bob McCullough rmccullough@comcast.net	Catalina 30 (edited by Max Munger) techtalk@catalina30.com	Capri 14.2 Ed Jones rocket88@cts.com
Catalina 42 Garry Willis garrywillis@attbi.com	Catalina 34 Bill Nuttall TechEditor@c34.org	Catalina 28 Chet Brier brierc@aol.com	
Catalina 400 Sam Sevier Dep454@aol.com	Catalina 320 Rod Boer Rodboer777@cs.com	Catalina 27/270 Harry M. Cowgill mollyc27@cox.net	
Catalina 380/390 Warren Elliott warrenell@msn.com	Catalina 310 Bill Lewis wol1@yahoo.com	Capri 26 Bob Unkel Unkel@one.net	

Catalina Mainsheet is published quarterly by Eagle Ltd., 830 Willow Lake, Evans, GA 30809 • Phone&Fax (706) 651-0533 • jholder@mainsheet.net. For advertising information, contact Jim Holder, Eagle Ltd. For subscription information see page 63.

backup plans needed for long distance cruising. In this issue, we'll begin the topic with loss of steerage.

A fast roundup fought off with extreme helm response can result in loss of steerage due to cable or rudder problems. Hitting a log or large debris or a hard bump on bottom at in high wind and speed can threaten the rudder. Imagine being without steerage in 40 plus knots of wind and fourteen foot seas. Would you know what to do?

It is mandatory in both Bermuda races for all boats to have an emergency steering plan and the materials and fittings on board to deploy it. It is subject to inspection prior to being accepted as an entry.

There are proprietary emergency rudders and windvane steering systems available as options for emergency rudder replacement. One such system I am fairly impressed with is the SOS Emergency rudder by Scanmar International. Information can be obtained at their website: www.selfsteer.com. They make a removable and stowable emergency rudder as well as a vane steerage system. The windvane is a lot of "stuff" hanging off the transom. However, you rarely read of a serious world cruiser taking off without one. But you also read of windvane failures. The stainless steel emergency rudder disassembles into a bag that fits into the stern lazarrettes. The only thing left on the transom are either two or four brackets about 2.5" long, maybe and inch tall, and about an inch of depth. However, I can't imagine trying to deploy one in terrible sea conditions.

Carrying extra cable and fittings for the steering system is also needed. We have an advantage in the event of cable breakage with the C470 in that the two helms are cabled to the quadrant independently so that if one fails, the other is still functional.

Everyone must also try out their emergency tiller included with the boat. Once trying it, you will realize that the boat is very difficult to steer with it due to lack of leverage. It is worthwhile hooking it up and trying it for the experience. You may then want to add enough height to the emergency tiller shaft to clear the aft lazerette seating and existing wheels and add a long tiller to it to give sufficient leverage to either steer or lash it down on a straight course.

Finally, you need a plan for loss of all steerage. There are three ways commonly accepted for riding out an emergency such as steerage loss in bad weather. One is heaving to. However, I doubt it would be possible to maintain a hove to position without steerage. The second option of laying ahull, i.e. drifting without sails up until the bad weather has passed, is a very uncomfortable and difficult option. Seasickness and rough ride will be a major problem. And you must have the sea room away from land or wind direction away from land to be able to drift safely. I believe the best option is to have a sea anchor, adequate rode, and adequate chafe protection on board and the practice and experience to deploy it. An effective sea anchor pulls the bow head to wind and seas, making the ride as comfortable as possible, while slowing the drift to a half a knot or less, buying both sea room and time until the conditions pass. A sea anchor was the first piece of safety equipment I purchased for my boat after an EPIRB, and was on our boat from the first trip.

Bottom line- We cruisers really do need emergency steerage if we are sailing offshore. It is mandated for ORC races. It can be accomplished by a windvane system or a removable, stowable emergency rudder. It should be complemented by ability to repair steering cable, a usable emergency tiller, and an alternative such as a sea anchor. *–Glen McIntosh, #13, Latitude Adjustment*

Remote Control Windlass and Rode Counter

I have added a remote control for the windlass plus rode counter at the helm station. Of the many additions to the boat, this without question has provided the best "bang for the buck". The product is made in New Zealand by Cruzpro - see website: http://www.cruzpro.com/ch30.html

It actual works with any windlass and is relatively simple to install once you have access to the foreword compartment that houses the windlass – I removed the washer/dryer to get access but another alternative is to cut an inspection plate behind the cabinet above the washer/dryer. The rode counter is extremely accurate as long as you use chain and chain does not skip off the windlass. It actually is quite a simple device. It works by imbedding a magnet in the wildcat and placing two sensors under the wildcat - the result being that the device actually is able to count the rotations up or down. A CPU in the device enables you to calibrate the device to your boat's actual windlass specifics. It costs about US $300. Please note that I would only recommend it if you plan to use an all chain rode. If you decide to get one let me know and I can give you more details as to how I installed the magnet and the sensors. *–From Sailnet Correspondence by Ian Durrell, #12, Franconia*

Spurs Vs. Prop Protector

If you are planning on Maine, there is nothing as good as SPURS. Even the lobstermen use them down east. The only drawback to spurs is the replacement of their zincs. The other systems are zinc free, however, they are not as effective as the "anvil" method, unique to Spurs as I understand it. We have spent the last four summers in Maine and have developed great respect for SPURS over the competitors. *–Richard Frankenheimer; MÉNAGE; # 22*

I have the Prop Protector, on my last 3 boats. It seems to work fine. The difference is that Spurs will cut the line before it wraps, while the prop protector will get half a wrap before it is dragged across the prop protector and cut. The Prop Protector is cheaper and totally maintenace free while Spurs require some maintenance. The Spurs are slightly more effective in cutting the line before it wraps, so the choice is yours. *–Al Sharlun, #84, Lightfoot*

I vote SPURS. I had it on my C42 as well as my C470. *–Stan Walsh, #32 Makin' Progress.*