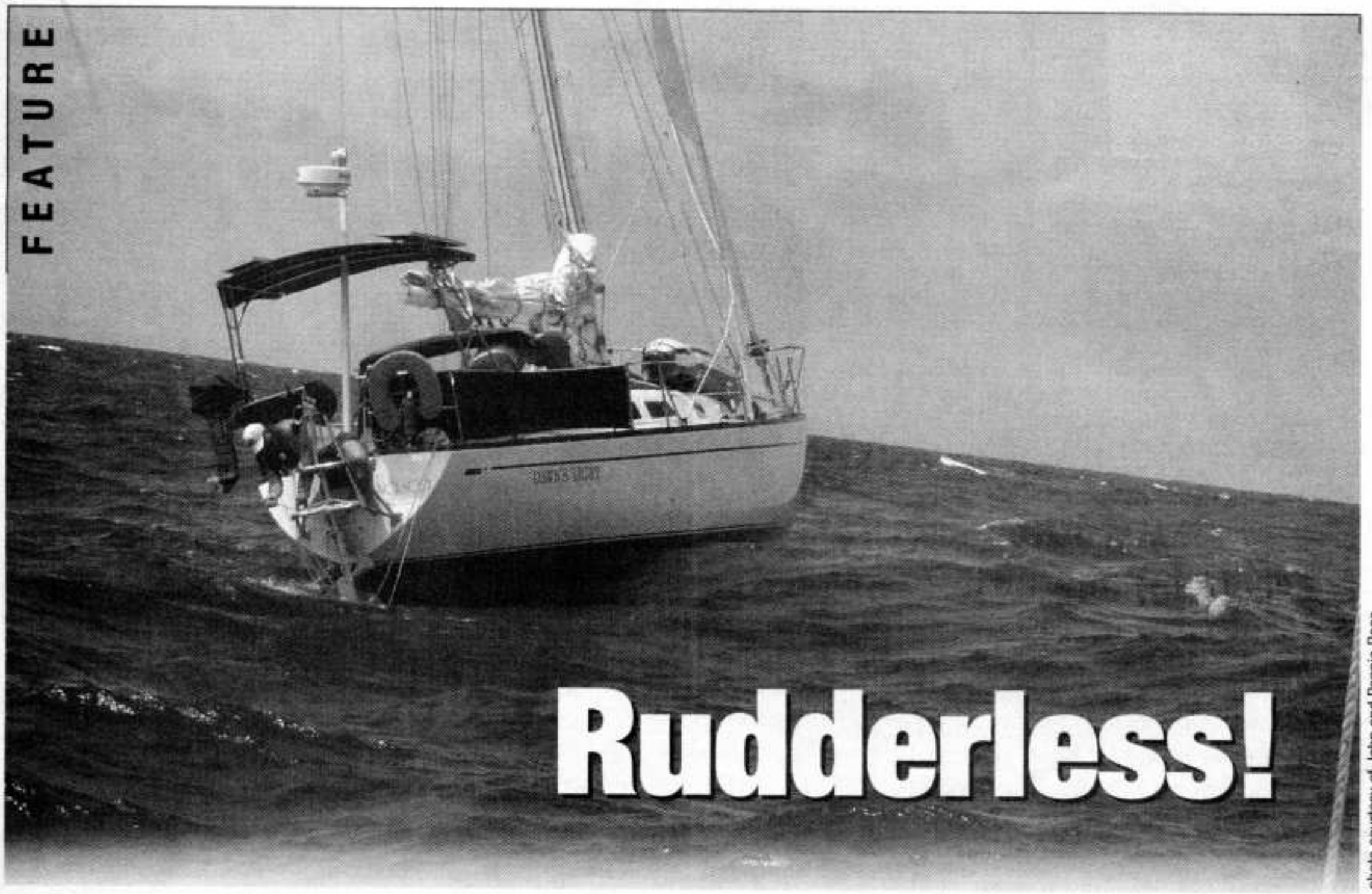


photo courtesy of John and Pennie Rees

Rudderless!

BY CARY DERINGER

It was a typical pre-passage week. Like us, most of the boats leaving from Luganville, Vanuatu on the 1,040-nautical mile passage to Australia were doing so as part of the annual Port-2-Port Fun Ocean Passage Rally into Bundaberg. Information spread like wildfire regarding check-out procedures, how and where to obtain duty-free diesel, rumb lines north and south of various reefs, and, of course, weather predictions, which came from so many sources that just about everyone suffered a bit of analysis paralysis.

The weather, as it turned out, was lovely on the morning of our departure. Wind and seas were from the southeast at 20-to-25 knots and three-to-five feet, respectively. A favorable two-knot current and warm sunshine were a welcomed surprise. We slipped into passage mode easily – the motion of our heeled world was unbelievably smooth and the wave of sailors leaving that day quickly disappeared from view. Twenty-eight hours later, at 1030 on October 19th, our VHF crackled.

"Pan Pan, Pan Pan. This is the sailing vessel *Dawn's Light*. Is there any vessel in the area? We've lost our rudder."

There was no mistaking the bridled tone of distress emitting from our radio speaker. According to their position, our friends Glennie and Al, and their crewmate Craig, aboard *Dawn's Light*, a Cal 39, were approximately 150-nautical miles out of Luganville. Luckily, because of the Rally, a number of boats were in the area, as well as ahead and astern. John and Pennie aboard *Dream Catcher* made contact thinking Al must've meant he'd lost steerage in his wheel and might need to hook-up an emergency tiller. But Al radioed back and said, "No John, the rudder, it's gone."

Al told me later that for the first twenty-four hours, *Dawn's Light* sailed beautifully along at eight plus knots. Then, for no apparent reason, their Monitor Windvane had trouble steering the boat, causing them to wander all over the place and accidentally jibing the boat once so forcefully the mainsheet shackle snapped.

The Monitor was replaced with their autopilot, but still the boat

"Pan Pan, Pan Pan. This is the sailing vessel 'Dawn's Light' Is there any vessel in the area? We've lost our rudder."

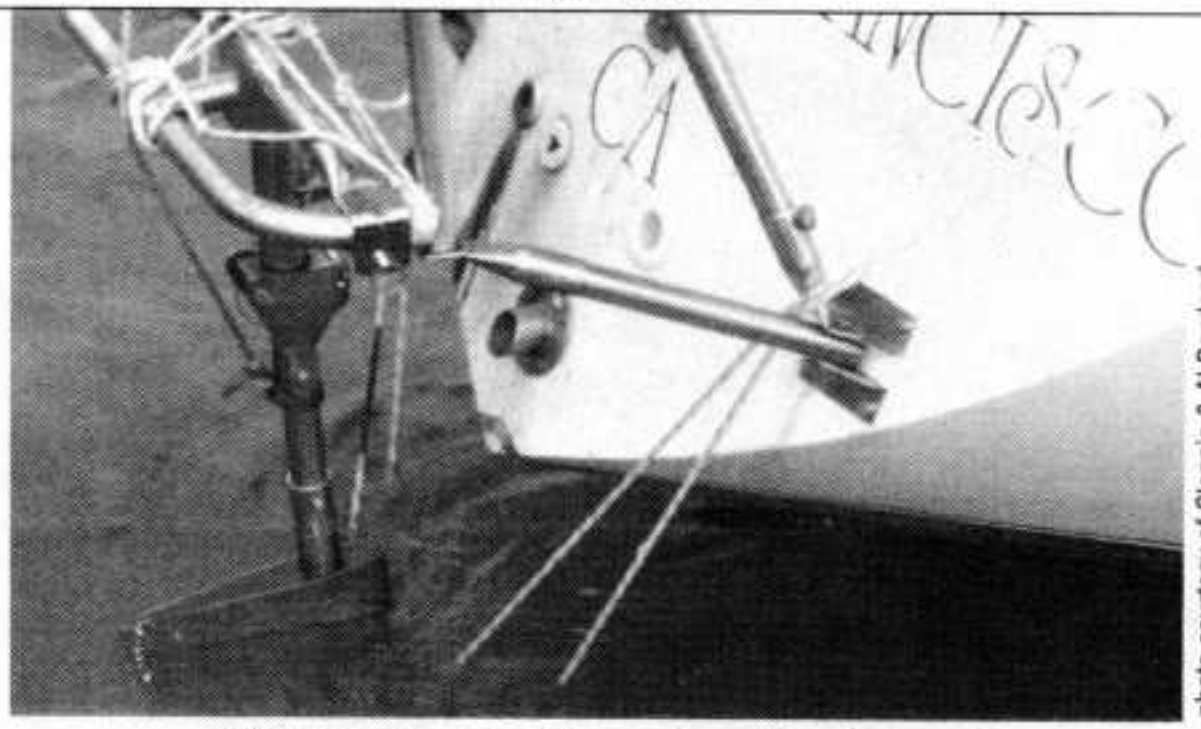


photo courtesy of Glennie & Al Bowland

11" stem of rudder after main portion broke off

would drift 40-degrees or more and not recover the course laid. The Monitor was put back on duty while Al and Craig took a look at the autopilot settings, hoping to find some answer to the lack in steering response. Once again, the boat wandered off course, taking forever to return and nearly jibing *Dawn's Light* three more times. Al checked the steering cables, then tried to hand steer. By this time, Glennie was awake and coming up into the cockpit where a crew conference ensued to discuss what might be going on. At one point, Al gave the helm to Craig. Less than five minutes later, they all heard this horrendous sound.

"At first," Al said, "I thought the steering cable snapped. In retrospect, the sound was much louder, and Craig said the wheel shook in his hands." Al leaned out over the stern and was shocked to find only 11-inches left of his rudder.

Dream Catcher, along with a second boat, *Tai Mo Shan*, altered course and arrived within minutes of the call. For over three hours, they remained on the scene while Craig and Al took turns over the stern railing to remove the windvane rudder and install an emergency rudder specifically made to fit within the existing mount of the Monitor. With forward motion halted, *Dawn's Light* pitched and rolled in the seas, making progress slow and wet.

At this point, several more boats arrived on the scene, and after the emergency rudder was installed and lashed tightly in place, Al made the decision to continue on with the nearly 900-nautical miles to Australia. The Norwegian sailboat, *Augusta*, hailed them on VHF.

"We are a heavy, slow boat," Cato, the captain, said. "We would love to be in your company to Bundaberg." Glennie and Al accepted this gracious offer immediately.

Hand-steering *Dawn's Light* by boat hook with a push-pull motion was tiresome and resulted in cramped hands and fingers. Using both hands, Glennie, a petite five foot-two, had to sit atop four boat cushions to get the boat hook high enough to clear the stern railing. By early evening, *Augusta* was positioned off their bow, alleviating the constant need for *Dawn's Light* to focus on their compass.

Henry, on *Maritime Express*, suggested over the VHF that utilizing a tiller pilot might possibly eliminate the need to hand-steer. At 2200, Pat and Olivia on *Aldebaran*, responded to the call and made the decision to turn back the 20-nauti-

photo courtesy of Glennie & Al Bowland

Aldebaran coming alongside to make the tiller pilot transfer.

cal miles to deliver their tiller pilot. By 0330, *Aldebaran* joined the escort fleet of five yachts and spent the next few hours preparing the items for transfer.

Olivia wrapped the tiller pilot in cling film and secured it in large plastic bags. Pat wired a spare socket that would connect the tiller pilot via a long lead directly to the ship's battery. He included a mounting bracket and some photographs of this same set-up employed on *Aldebaran* during periods of light wind.

At first light, *Aldebaran* dropped their sails and motored alongside of *Dawn's Light*. All items were in a backpack with a large fender attached just in case the transfer went wrong. An ingenious method of transfer was arranged with Pat at the helm, their crew Andrew ready with the heaving line, and Olivia stationed near the mast with the backpack. A 10-mm line was attached at one end of the heaving line with a free running snatch block. The snatch block was fed through the large shackle at the end of the staysail halyard and

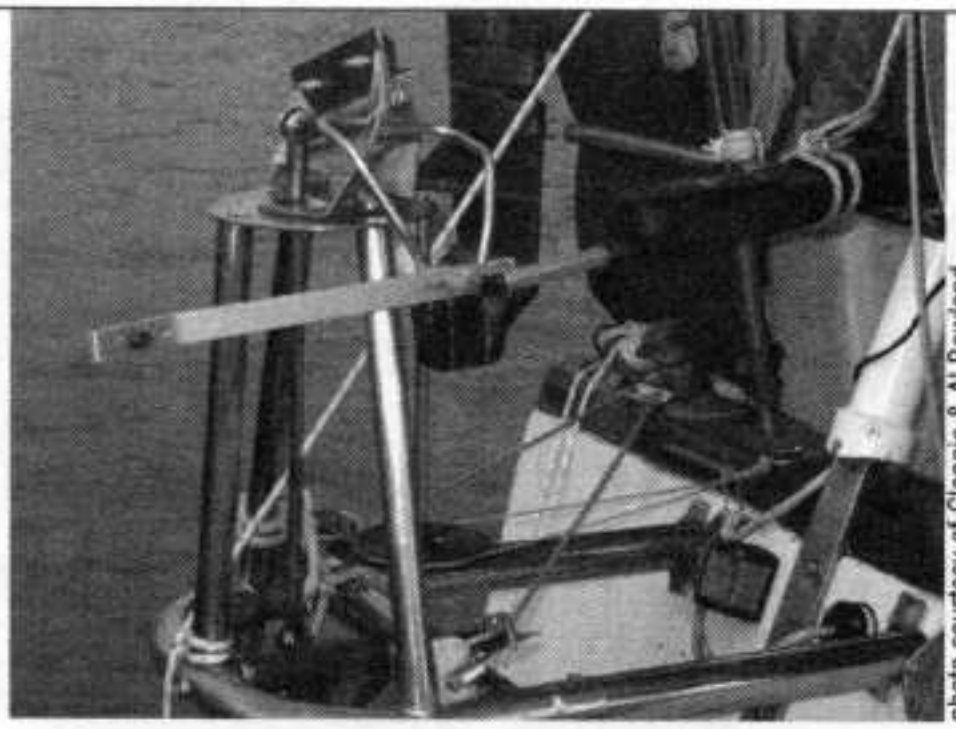


photo courtesy of Glennie & Al Bowland

Hook-up of tiller pilot arrangement

the end of the halyard also attached to the shackle to allow both raising and lowering control depending upon the height needed.

When *Dawn's Light* caught the heaving line, Olivia raised the halyard and the backpack zipped down into their boat and was quickly unshackled. *Aldebaran* retrieved their lines and the whole process was completed in under 30-seconds. *Dawn's Light* maintained headway behind *Augusta* as they installed the tiller pilot. The position of four holes were calculated then drilled into the aluminum clutch handle of Al's windlass so that the autopilot's pin could be inserted into one and wire lashings could be made fast through the others to hold the unit in place. Once set up, it worked perfectly.

As if on cue, the wind and seas began to moderate that afternoon and further lessened throughout the following days. Cato and Christine on *Augusta* stayed within two miles of *Dawn's Light*, and the radio banter between the two boats gave the latter a sense normalcy. By October 23rd, flat seas glared beneath a hot sun and a slight wind puffed from the southeast between five and eight knots. Engines were running, and the two boats motor-sailed, even when the wind came up to 15-knots at times, in order to maintain 5.5-knots of speed in strong intermittent countercurrents.

Though the weather proved helpful in not overburdening the jury-rigged rudder and steering system on *Dawn's Light*, it was detrimental in another area – fuel consumption. Cato did some calculations on October 25th and came up with a solution. Normally able to carry 700-liters they only topped off in Vanuatu

photo courtesy of Glennie & Al Bowland

Augusta coming alongside to make diesel transfer. Christine at the ready.

with 500-liters because of the high cost. Cato figured they could spare 50-liters which they transferred to *Dawn's Light* in two jerry jugs. Christine practiced throwing the line as if she were bowling and was successful on her second attempt. When *Dawn's Light* caught the line, Christine tipped one jug into the water while Craig quickly hauled it in.The process was repeated, lines were retrieved, and the two boats resumed course.

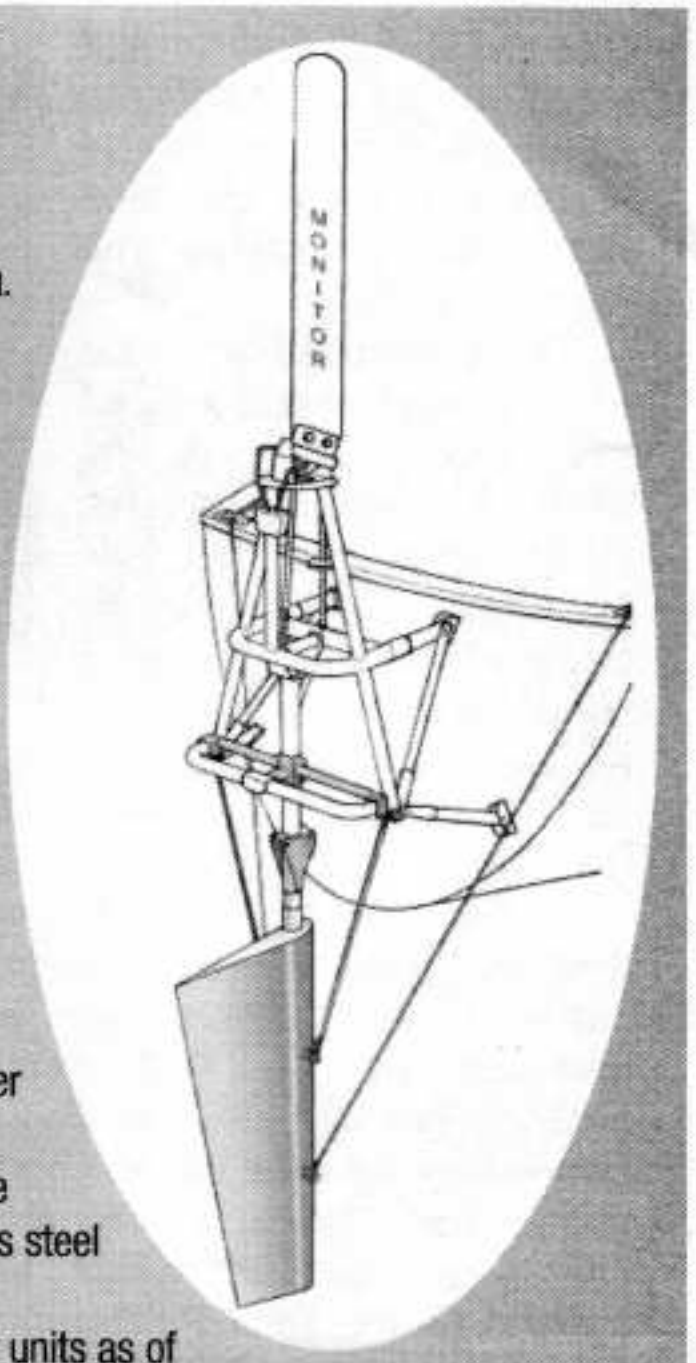
On October 26th, VHF contact was made with VMR in Bundaberg (Volunteer Marine Rescue). A workboat was dispatched from Port Bundaberg Marina, which safely docked *Dawn's Light* to an outside wharf while *Augusta* pulled into the Quarantine berth for clearance. Running for just a minute or two after securing docklines, *Dawn's Light*'s engine ran out of fuel and shut itself down.

All worked out well for *Dawn's Light* and her crew. This simplified version does not mention the mechanical details that challenged them nor the many others who assisted in one way or another, like the Pacific Seafarer's Net who tracked their position daily, and the technical and emotional support continually given by many boats in the fleet. As Glennie put it, "I think the man upstairs shouldn't be ignored." Good point.

Glennie and Al on *Dawn's Light* would like to say THANK YOU to all those involved: *Herron's Flight, Dream Catcher, Tai Mo Shan, Illusion, Mañana, Augusta, Maritime Express, Veritas, Aldebaran,* as well as, *Windswept*, Pacific Seafarer's Net and Volunteer Marine Rescue, Bundaberg. ■

Cary and Bob Deringer are currently spending the cyclone season in Australia aboard their 34-foot cutter, "Illusion", before heading to Indonesia, Thailand, and the Mediterranean.

Monitor M•RUD Emergency Rudder



Al found *Dawn's Light* for sale on the tropical, French Polynesian Island of Raiatea. Her cruising gear included a Monitor Windvane, manufactured by Scanmar. Al purchased the M•RUD Emergency Rudder, also made by Scanmar, at a southern California boat show purely for 'insurance' purposes. Like any piece of emergency gear, Al hoped he'd never have to use it.

The M•RUD utilizes the Monitor servopendulum system to convert it into an emergency rudder should the boat's primary rudder fall off. Mounting the M•RUD can be done at sea, with the boat hove-to, and safety harnesses worn. Utilizing the Monitor's mount already in place, the M•RUD replaces the servo-paddle and cotter ring with a much larger emergency rudder assembly, hinges and hinge pins. To balance strength, weight, and floatation, the stainless steel rudder is foam filled.

A strutguard is now part of all Monitor units as of 1991. The strutguard connects the legs of the mainframe, in essence making them stronger, and also acts as a protective stopper since it sits behind the pendulum. The strutguard is also where the stainless wedge that holds and supports the pendulum is placed. Scanmar strongly recommends fitting the M•RUD to the Monitor at dockside and possibly using it on a short test sail. If heavy weather conditions were the cause of losing a rudder, it will be much easier to do the installation at sea if familiar with the procedure and all parts have been fitted.

When the wedge is placed between the strutguard and the pendulum, there is variation in the horizontal distance. The telescoping tubes have to be drilled and bolted to fit each individual Monitor. Starter holes and necessary bolts are provided, and the wedge may need a little coaxing to make it fit easily. Another helpful hint is to secure all pieces with lines when working over water.

Two sets of Spectra lines are provided and, when attached to the M•RUD and secured tightly around a cleat or winch, they support the rigid rudder in the same manner as shrouds support the mast. The strong lines can be secured taut, though not over tightened. Glennie reported theirs humming at times like plucked guitar strings.

Once in place, there are three methods to steer. First, by using the counter weight grabbed by hand, rigged with lines, or, in the case of *Dawn's Light*, using a boat hook, the rudder can be turned to steer. Second, the Monitor now works as an auxiliary rudder self-steering windvane. Thirdly, also as in the case with *Dawn's Light*, a small tiller pilot can be fastened to the counter weight to steer a magnetic course setting.

For sailors that rely only on an electronic autopilot for selfsteering Scanmar manufactures the SOS Emergency Rudder which would steer the boat if the boat's rudder was lost. It is stored under deck and hopefully it will never be used.

■ **Scanmar,** (510) 215-2010, www.selfsteer.com