

Chain reaction

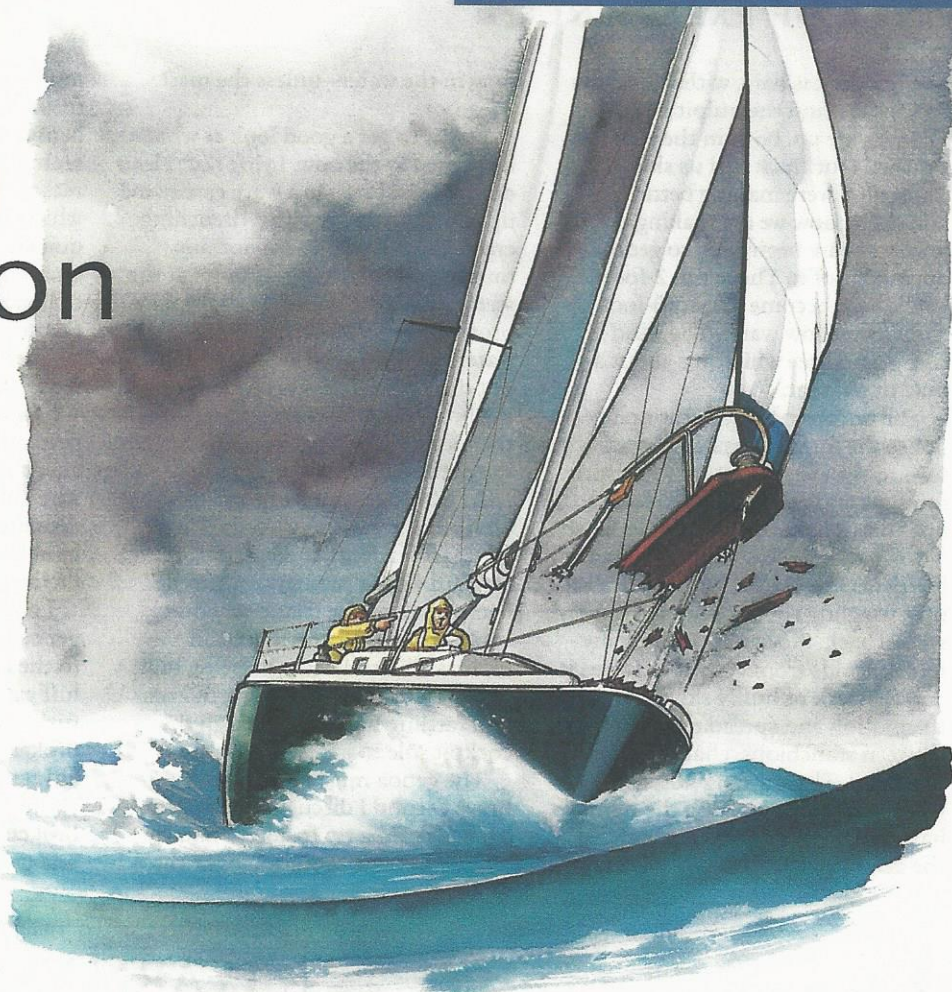
The failure of one tiny component can bring a rig down around your ears. Unless, of course, you get lucky

BY ED VERNER

The wind is building from the south, and our 32-foot Allied Seawind II ketch, *Wind Ketcher*, is stretching her legs under reefed main, full mizzen, and full genoa. The forecast is for moderate winds and rain, but my friend Gil and I are enthusiastic about this short trip across Tampa Bay, for our boat craves brisk wind.

We steer to windward of the track of a building thunderstorm to the southwest, sailing a close reach on port tack. The helm is balanced and the boat is steering herself. The 15-knot wind is cool with moisture from the storm cloud. We smile at each other; we've found a course to skirt this little system and are proud we are the only sailboat in sight. We're about to break out the deli sandwiches.

Then there is a horrible crack from up forward. Gil and I both watch the bowsprit tear in two, as if in slow motion. We hear the sickening sounds of ripping wood and screeching steel. In an endless instant, the tack of the headsail, the bow pulpit, the two anchors and their rodes, and the forward lifelines carry to leeward in a tangled heap, only to be checked by some unseen snag. What was our bowsprit begins to bash against the side of the hull, just forward of and to leeward of the mainmast. There is



fearsome flapping and banging.

We stop staring and start acting. Gil takes the helm and, instinctively avoiding an urge to head up, keeps us on a beam reach, while I blurt out "Uh oh, we're gonna need the engine" and crank it up. Gil loosens the jibsheet and I try to imagine what has happened at the forepeak. Surely the hull must be damaged; perhaps we are shipping water right now. Genuine fear pumps me full of adrenaline, and I have the same feeling I had years ago after a head-on car collision. There is a wonderful clarity.

"I'm going below to check for hull damage," I say. I scamper down to the V-berth, half expecting to find water flowing onto the sole, but there is none. However, the banging of the rigging just above is alarming. When whatever is holding that tangled mass of genoa and pulpit remnants lets go, the deck will be swept clean of spars and stays. These masts are deck-

stepped, and we just lost our forestay.

I know I need to secure the mess now, before it pokes a hole in the hull or dismasts us. What could be holding it? The way the mahogany bowsprit just ripped apart like tissue paper proves the power of the forces involved. Whatever is stopping the mast from toppling, it won't last long.

Back on deck, we both take a hard look at the rigging. The loose genoa flogs. The reefed main is putting some forward pressure onto the mainmast, which wobbles, and the leeward shrouds whip about. Occasionally the masthead sways aft a foot or so, then snaps forward until brought up by the backstays. The rig is precarious, but I must first go forward and lash down the pulpit bundle, if I can catch it long enough to secure it.

I scootch forward, avoiding the shrouds and now-slack lifelines. I am scared something will snap and recoil.

We hear the sickening sounds of ripping wood and screeching steel

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The foredeck is bare, with no secure handholds, and the pulpit is gone. The seas are up, born in the squall to weather. Our track had us skimming it when we were making better than 7 knots, but now we are making only 3 knots and are beginning to get the outer edge of it. Those fun 2-foot swells have become a nasty 3-foot chop in shallow water. The wind is rising, and I see whitecaps about a mile to weather.

The oncoming seas occasionally douse the foredeck as I reach out toward the tangled mess of bowsprit, forestay, and genoa luff and loop a line through part of the pulpit. I lash it down to anything I can find on the foredeck. I feel like a spider wrapping up a wiggling fly, but at times this fly strikes back. I focus on keeping my feet or hands from getting between it and the deck or hull. I slowly strangle the motion and spread the strain between stanchions, chainplates, and a grabrail. The banging lessens, and whatever was supporting the rig now has some help. I'm no longer afraid the genoa will go over the side and

drag in the water—unless the mast goes.

I want to get a good look at what's happened at the bow. Lying flat, I lean out over the bow. As a wave carries me up and back down with a drenching crash, I'm relieved to see nothing immediately alarming. I glance at the stem, where the bobstay's chainplate protrudes 4 inches above the waterline. The bobstay snapped there, but didn't twist the threaded fitting at the bow. Suddenly I am green from the motion, and I begin my retreat to the cockpit.

As *Wind Ketcher* surfs down the waves and then buries her bow a bit, the mast leans aft and then snaps forward with a jarring yank on the backstays and the triatic stay that connects mizzen and main. Gil reports all's well with the helm, but the yanking is buffeting the mizzen and rattling his teeth through the cockpit sole.

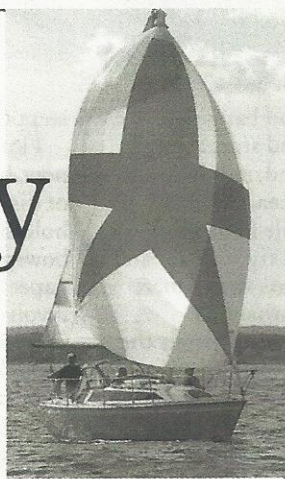
The genoa must be stowed, but how? Gil and I discuss the problem. Will the genoa rip to shreds and fly away? No, it's in good shape at the

moment. I don't think I can use the furling gear, since the extrusion is bent and the pulpit tangle is not well seated. I can't drop it for the same reason. I could start a tear at the tack, which the wind would enlarge pretty quickly. But that would carry the strain up the mast, culminating with the maximum load being placed at the unstayed masthead; it might snap.

There is a mighty bang as the mast really yanks at the backstays. Whatever we're going to do, we'd better do it right now. I go below, check again for water, and retrieve a wire cutter and box blade. If we are dismasted while I am forward, I will be able to cut myself out if pinned by lifelines or shrouds.

I decide that I'll try to furl the genoa before cutting it. I slide down to the lashed pulpit, where the bent luff extrusion runs down to the furling drum and is anchored to the broken pieces of the bowsprit. I wince as I remember how it glowed after I varnished it. Placing my foot on the broken sprit, I seize the furling line and give it my all. To my amazement,

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the sail rolls a quarter-turn. This is going to take a while, but it can be done. Within a few minutes I furl the genoa into a limp blue tube that snakes its way to the masthead.

Now Gil and I look aloft at the sickening movement of the mainmast as it violently snaps forward against the backstays. The movement is reduced now that I've rolled up the genoa, but the waves are building and more must be done. The weight of the wind in the reefed main is providing some forward thrust on the spar, but we agree it would be better to drop all sail. I stow the main and mizzen, but the mast is still rocking. What now? Oh, of course—the boom's topping



lift. I secure the mainboom instead with the mizzen halyard and loosen the topping lift. Much better.

I've decided to use the only line readily available—one of the genoa sheets where it emerges from the luff wrap a third of the way up the old forestay—and tension it to the forward cleat. I race aft and undo the

stopper knot, then scamper back forward to retrieve the line. As I reach down to the cleat, I see the anchor chain precariously jammed there. All at once I realize...what luck!

The chain is trapped at the cleat by a kink, aided by the steel cover that normally caps the vent to the chain locker below. The chain rode of our plow anchor, secured to a roller on the bowsprit, ran to the port side of this cleat. When the pulpit carried away to starboard, the chain looped forward of the cleat and slid around it for 4 or 5 feet. Somehow, the sprung steel cap trapped the chain in a bind and it dug in. The vinyl overlay on the deck tells the tale with its rubbed and chafed surface. Now that the pulpit is

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otherwise secured, I wiggle the pulpit lashings and free the chain from the cleat. I secure the jury forestay, all the while envisioning how this anchor chain absorbed all that tension and holding for a few precious minutes. Not just luck, but incredible luck.

I go back to the cockpit and report that the jury forestay is rigged, and Gil heads for the marina. I catch my breath, but I can't rest yet. Motoring

into the wind, the boat now has a more pronounced motion. It dawns on me that with both our anchors tangled and trapped in the lashed-up pulpit, we have none available in the event of an engine failure. We are less than 2 miles out, but there is a lee shore about 3 miles astern. If the engine quits, I'm going to need an anchor. You always need an anchor. So I make my last trip to the foredeck

to untangle, retrieve, and safely stow the Danforth attached to the dislodged pulpit.

Words are few at first, but eventually Gil and I speak of how lucky we were that the anchor chain snagged. Indeed, things could have been far worse.



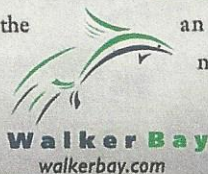
Ed Verner now examines his standing rigging religiously and regularly.



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HINDSIGHT

➤ Checking standing rigging is standard. But with so many redundancies and duplications dividing loads in the shrouds and stays, detection is often only after the fact. Don't let this be the case with your bobstay, especially if you have a roller-furling headsail. Unlike a hank-on sail, a furling sail can't be dropped when the wind is up or if the luff extrusion is bent. Thus a bobstay, especially one made of solid rod (rather than cable or chain), might show few external signs of weakness, and the results of losing it can be severe. If in doubt, replace it.

➤ If the broken shroud is on the windward side, tack immediately to take the strain off it. If possible, you should heave-to with the affected part to leeward.

➤ Deal with injuries and make nonessential crew go below out of the way. Assure them that rigging is what makes the boat go and not what makes it float.

➤ If you need to go forward to work on deck, wear a PFD. Make sure all the crew put them on in case you need their help up there.

➤ Consider anchoring if in shallow water or streaming a sea anchor if in deep water to ease the boat's motion while you sort out the problem.

➤ Tell any nearby boats or ships that you are restricted in your ability to maneuver.

➤ Reduce or eliminate the load on any intact ancillary rigging systems and go to bare poles if able to do so.

➤ Rig a jury replacement for the missing element in the rig. I should have taken the spinnaker halyard, which was secured at the mast base to the foredeck to use as a jury forestay. This would have secured the rig much better. But hindsight is always 20/20!