

# Bluewater Gear

Systems-rich  
but ready  
to go simple

**F**or Katie and Jim Thomsen, live-aboard voyaging started unexpectedly. In 2005, Katie — a die-hard mountain person — went on a weeklong live-aboard kayaking trip with a friend in the waters off of Vancouver Island. She returned to her expat home in Antwerp, Belgium, and said to Jim, “I had the best time, I could live on a boat!” That was all he needed. Before long he had ordered a 40-foot Hallberg-Rassy sloop. By April 2006, they were living aboard Tenaya in Bruinisse, the Netherlands.

sailing life, the plan was to gunkhole around the Med; if she didn't, they'd park the boat or sell it.

She liked the life and convinced Jim to sail to the Caribbean, where they met people who suggested going into the Pacific. In 2010 they sailed to New Zealand. By this point they loved voyaging but wanted to get off the beaten path so they circumnavigated New Zealand, then headed for Vanuatu, Papua New Guinea, Palau and northern Borneo. In 2015 they shipped Tenaya from Phuket, Thailand, to Istanbul, Turkey, where



Katie & Jim Thomsen



**OV:** What is your philosophy regarding voyaging gear? Do you like a systems-rich approach or do you prefer to keep your gear simple?

**K&JT:** In the beginning we planned to keep things simple but as we learned how much some systems can help, we figured we'd give them a try. If they failed, we'd go back to simple; if they worked, we'd enjoy the benefits.

The most important is our Raymarine navigation system that has all the electronic charts and overlays from our radar and AIS. We cannot imagine sailing without it. The ability to look at a chart, check the radar to see how it lines up and keep track of big ships nearby is a tremendous aid to navigating and safety.

We spend a lot of time in remote areas where there is no outside help. If something breaks, we must fix it ourselves.

Katie and Jim Thomsen at the helm of their Hallberg-Rassy 40, Tenaya.

Jim owned a Newport 30 in the '70s with the dream of sailing from Marina del Rey to Mexico. Work got in the way and he traded it for five sewing machines for his new company, Wilderness Experience. The couple took 50 hours of lessons aboard Tenaya in Bruinisse and went on a three-week training course in Norway with Mahina Expeditions. By then they felt confident to sail to Portugal. If Katie liked the

they spent over a month in the Black Sea. The highlight of last season was stopping in four ports and traveling inland in Albania. Now Tenaya is in Venice, Italy.

For the Thomsens, the experiences and connections made with people ashore are as much a part of voyaging as the long ocean passages. For stories and photos of their adventures, see [www.tenayatravels.com](http://www.tenayatravels.com).

Katie & Jim Thomsen

## In This Section

- Lift pump replacement
- Stoves and fuels for voyagers
- 12-volt computing
- Composting head options



*Above, Tenaya sails in Sydney Harbor. Below, The Hallberg-Rassy 40 at anchor in Palau.*

When possible, we choose computer-controlled devices, such as our watermaker, that have simple manual overrides. We're also big on redundancy to have backup options, such as the Bimini with gutters that Jim made for rain catchment.

There is also a Mastervolt Whisper 8 generator aboard that works intermittently. It has no manual override so we have gone long stretches without having it available, like when we circumnavigated South Island, New Zealand. Those times we just ran the engine, but it's not as efficient. We don't have a place for solar panels as we don't have an arch across the stern. If we had to do it again, we would add those. Also, we don't have a wind generator because they weren't popular where we bought the boat in Northern Europe, and when we got to the Caribbean we hated the noise in anchorages and didn't want to subject others to that. Our generator is in the insulated engine room and cannot be heard outside. We've had to suggest people visiting *Tenaya* in their dinghies move away from the exhaust because they do not know it is on.

**OV:** What tools do you have on board? Are

there any tools you'd consider vital?

**K&JT:** We have all required metric wrenches, socket sets and hex keys for our Swedish-made boat, and imperial sizes for all American-made items. We also carry: Torx drivers for the winches, etc., and a "breaker bar" for loosening stuck bolts; a selection of screwdrivers, making sure there are both short and long sizes to fit in all locations; large pipe wrenches to fit all valves; hacksaw and extra blades; small propane blowtorch to use when nothing else can loosen a bolt; electric wiring,

connectors, wire stripper and crimper, soldering iron and a good multimeter; broken bolt removal tools; Dremel tool with cutting and grinding blades; rechargeable electric drill and bits; vice grips, both small and large; pliers (needle-nose and channellock); tap and die set; cable cutter; heavy hammer and rubber mallet; oil filter wrench; long spring grabber tool (which must have a proper name); pump for changing oil; Leatherman multi-tool (Jim keeps this attached to his harness); and sewing machine and supplies, including small spectra cord and large needles for emergency sail



Katie & Jim Thomsen

## Offshore safety checklist

The following lists contain items that most well-found cruising boats have on board for extended voyages. Items not considered essential are included in the Optional list.

### NAVIGATION

sextant  
Nautical Almanac for current year  
sight-reduction tables  
chronometer  
plotting sheets  
charts for intended route  
ship's log  
tide tables  
*Light List*  
*Coast Pilots* and cruising guides  
pilot charts  
radio receiver for time and weather  
radio frequency lists  
binoculars  
adjusted compass  
hand-bearing compass  
dividers  
course plotters and parallel rules  
calculator  
speed and distance log  
depth sounder  
GPS and/or loran  
spotlight

signal mirrors  
EPIRB  
fire extinguishers  
first-aid kit  
backup prescription medications  
spare eyeglasses  
safety harnesses  
life jackets  
flashlights  
knives for each crew  
bungs for seacocks  
life ring and/or life sling  
storm sails  
storm anchor and rode  
parachute sea anchor and/or drogue  
extra chafing gear for lines  
emergency tiller or steering system  
backup autopilot or wind-vane parts  
tools and repair materials  
jumper cables  
abandon-ship bag  
emergency food and water  
life raft

hand-held VHF radio  
waterproof case for hand-held  
emergency antenna for VHF  
horn  
bell  
whistles for crew  
radio  
frequency lists  
AIS receiver/transponder

### OPTIONAL

sight-reduction calculator  
Radio Direction Finder  
electronic chartplotter or computer  
electronic charts  
radar  
radar detector  
SSB radio  
ham radio  
satellite communication  
weatherfax  
Navtex  
signal flags  
personal strobes and/or EPIRBs  
survival suits  
wet suits or dry suits  
solar panel for emergency charging  
emergency generator  
watermaker for life raft

### EMERGENCY & SAFETY

flares  
spotlight  
horn  
smoke flares  
radar reflector

### COMMUNICATIONS

VHF radio  
emergency procedures card near radio  
emergency contact information

clew repairs. Ask us how we know we need that!

**OV:** How do you decide what spares to carry? Has your mix of spares changed as you've voyaged?

**K&JT:** We try to have a spare for any part that would cause a major safety issue. For the engine, that includes a spare alternator, starter, electric bilge pump, a fuel pump and raw water pump, as well as extra belts and impellers.

We carry complete repair parts for the toilet — maybe that's not a safety issue, but it's pretty important to us. Also, battery charge controllers, propane solenoids and a water pump. Stashed away are a year's supply of fuel, oil, watermaker filters and most parts to rebuild the watermaker.

Over the years we have added spares when things failed that we were not prepared for. Because we are often far from yachting centers, we tend to buy two replacements, one for the repair and the other as a spare. This pretty much guarantees they'll never fail again.

We make sure to always have these items on board to repair and jury-rig: emergency tiller, short lengths of 10-mm cable and wire clamps for rigging repair, extra shackles, blocks, hose clamps, lengths of hose, rescue tape, duct tape, zip ties, underwater setting epoxy, assorted clevis pins and split rings.

**OV:** Is it getting easier or more difficult to find skilled boatyard workers around the world?

**K&JT:** Since we have visited most places only once, it's hard to know if it is getting easier or more difficult. Perhaps, in general, it is easier. For brands that are common on boats around the world such as Raymarine, Spectra, Yamaha, Lewmar, Yanmar and Volvo, technicians can usually be found in major ports. They often have the parts or can order them. New Zealand, Australia, Thailand, Western Europe and the Caribbean have many skilled workers although it seems labor costs continue to rise in these busy areas.

**OV:** What kinds of repair work do you attempt yourself?

**K&JT:** It depends where we are. When we had failures in Papua New Guinea, Vanuatu and the southern part of New Zealand, there was no choice but to fix the problems ourselves. Those included engine, alternator and starter problems, and problems with electronics. We had just cleared the outer reef at Ninigo Atoll in Papua New Guinea when our alternator went out. Once anchored, we dug out the spare and Jim pulled off the old broken one. The pulley was not the same on the new one and did not fit. Using the breaker bar, he tried with all his might to pry the old one off in the cockpit. It was seized tight. We were 955 miles from Palau, the closest help. We decided to re-mount the old alternator to hold it really tight while Jim heated the pulley with the propane torch and took the breaker bar to it, which finally broke it free — whew! The locals could not understand why we spent a day aboard when they'd invited us ashore, but we couldn't rest until we sorted the alternator problem out.

Our starter went out in Doubtful Sound in Fiordland, New Zealand. Yes, it's possible to get it going by whacking it with a hammer, but



Katie & Jim Thomsen

Right, Tenaya motoring in the Bosphorus Strait. Below, Jim sailing to Cesme, Turkey.



Katie & Jim Thomsen

since we still wanted to visit more sounds and Stewart Island and sail up the eastern coast, we wanted a new starter. Billy, the caretaker of Deep Cove Hostel, knew a place we could get one and ordered it for us. The proprietor gave it to a fisherman going to Te Anau who brought it over to us. It arrived in two days. He didn't take credit cards but said to give the money to Billy to hold until someone was going down to his shop.

We couldn't figure out why the generator wouldn't work when we had less than half a tank of fuel until a friend suggested there was too much lift in the line. He and Jim installed a pump and fixed the problem.

Jim attended a Spectra workshop for technicians so he does all the repairs for the watermaker himself.

We have never needed to do fiberglass repair work ourselves, but we carry all the supplies to do so.

It is important to have all the manuals for all the systems aboard. In addition, Nigel Calder's book, *Boatowner's Mechanical and Electrical Manual* has come in handy several times.

We have been able to wait until we reach good yards to do big jobs. One example is when our rudder

had been making funny noises for months as we sailed in Tonga and Fiji. We hauled out in Gulf Harbour, New Zealand, and the repairman replaced the plastic sleeve. That tightened the fit and stopped the unsettling grinding.

**OV:** Do you use wind vane self-steering or do you rely on an electric autopilot?

**K&JT:** We have an electric autopilot and a wind vane. We use the autopilot when motoring or close to shore or other dangers where we need to follow an exact bearing. For long passages, we use our Monitor wind vane. It works exceptionally well and uses no electricity. The only repair required in 10 years was to tighten a bolt that had worked loose. It happened between New Zealand and New Caledonia with a 30-knot following breeze and was one of the lowermost bolts.

**OV:** Do you have manual or electric cockpit winches?

**K&JT:** We have electric winches. They are great for furling the jib, adjusting the main (in-mast furling) and wonderful for pulling someone up the mast. Our switches have failed a few times so we used the winches manually until we could replace them. Once a winch fired up all on its own

and started tightening the jib sheet. Had Jim not caught it quickly, it could have caused a lot of damage. Another time, while crossing the Atlantic, Katie was pushing the button to furl the jib in winds over 35 knots. It rolled so tightly that the furling line ran out before the sail was completely furled. Had she been cranking the sheet in, she would have never blown apart the jib furler. The upshot: We got to visit the Cape Verde islands that we'd planned to bypass.

**OV:** Is your boat equipped with a watermaker? What are your reasons for having one/not having one?

**K&JT:** We have a Spectra watermaker and love it. While we are still careful with water usage, we have plenty for drinking and showers. It allows us to go long distances and long periods of time without worrying about finding or collecting water.

The watermaker was very important on remote islands in Vanuatu and Papua New Guinea. Sometimes locals did not have enough for themselves and we were able to fill their containers. It was also valuable in Thailand and northern Turkey where the water available in marinas is not considered safe to drink.

**OV:** Do you have a mainsail furling system? If so, what type

*Tenaya with a reefed main between New Zealand and New Caledonia.*



*Katie & Jim Thomson*

(in-mast or in-boom)? Any other important sail-handling gear?

**K&JT:** We have in-mast furling. The salesman convinced us we'd appreciate it and he was right. On tropical passages we reef often because of squalls. With only the two of us on board, the in-mast furling makes it really easy for the person on watch to roll in and out the mainsail as needed. The other person can keep sleeping. That's pretty cool. It also removes the temptation to "wait a little longer to see if we really need to reef."

**OV:** Do you rely exclusively on electronic charts or paper charts, or do you use both?

**K&JT:** We carry both paper and electronic charts but mostly rely on the electronic charts. We use small-scale charts for planning ocean crossings and for an easy overview of a passage. In our experience, electronic charts are very accurate.

When we started sailing, we carried paper charts for every place we planned to go since there were no backups for our Raymarine/Navionics system. But now our iPad is our main backup with Navionics and C-Maps. Other e-charts are available as well.

While sailing around the South Island of New Zealand, we found that Navionics charts were spot on in Fiordland and C-Maps' weren't even close. But when we entered Chesterfield Reef between Vanuatu and Australia, Navionics would have had us going over the reef while C-Maps was perfect.

Before we visited the islands of Papua New Guinea, which are not charted well at all, we used Google Earth to see reefs and to plot and verify waypoints. It is possible to download and save Google Earth shots, but we usually just plot the waypoints on our Navionics system. ■



*Sailing wing and wing into the sunset while headed west to the Marquesas from the Galapagos Islands.*

*Katie & Jim Thomson*