

## Design Features and Gear that Make a Cruising Boat Safer

John Neal of Mahina Offshore Services

### Design

- A cockpit designed with coamings that make sitting comfortable and secure to safely move about and is protected from the weather. A hard dodger or at least a fixed windscreens reduces fatigue and is sturdier than a pipe and fabric dodger.
- A closed transom which reduces damage/danger from breaking following seas.
- A mainsheet that can't injure someone in the cockpit during an uncontrolled gybe. The targa arch location mainsheet seen on some Beneteau's, Jeanneau's and Malo's or mid-boom sheeting found on many designs nearly eliminate chance of injury from the mainsheet when gybing.
- Aft end of the boom must be high enough so that the tallest person has no chance of being hit by the boom in an uncontrolled gybe. If the boom currently isn't high enough, frequently a shallow, triangular piece of sailcloth can be removed from the foot of the mainsail, raising the outboard end of the boom.
- Sufficient number of handholds around the deck.
- Anchor points at helm and throughout cockpit to attach tethers to. [Wichard foldable padeyes](#) work well.
- A built-in swim step and easily lowerable ladder to recover a MOB. Sufficient handholds at the swimstep/ladder area are important.
- Swim ladder needs to be long and rigid enough for a weakened victim to reboard.
- If there isn't a swim step or if seas are too rough to get the MOB aboard from astern, having a spinnaker halyard long enough to reach the water with its self-tailing halyard winch mounted waist to shoulder height on the mast makes getting the MOB victim up the topsides and over the lifelines much easier and safer.
- The Lifesling multi-part tackle kit may be required if spinnaker halyard winch doesn't provide sufficient lifting power.
- Netting or lacing between lifelines is useful if children are aboard.
- A deck surface that provides good non-skid properties.

### Equipment

- Always wear a PFD when underway. Choose a lightweight auto-inflate model such as the Spinlock Lite+ or Mustang Atlas which incorporates a built-in safety harness with a soft loop attachment point. Your PFD should also have a light and a whistle. A personal AIS/DSC beacon can be invaluable for locating a MOB.
- Tethers, the connections between the PFD/harness and the vessel must have a quick-release snap shackle at the chest end to prevent drowning by dragging. West Marine's [Standard Safety Tether](#) is a solid choice.

- Adding high lifelines running from bow to stern pulpits through a chest high D-ring or [CS Johnson Jackline fairlead](#) on the inside of the cap shroud allows one to easily move from the cockpit to the bow, only disconnecting and refastening once at the shrouds where there are shrouds to hold onto.
- Jacklines on deck are another option which many experienced sailors find cumbersome because of tendency of their tether to wrap around their ankles while moving about the deck. The ability to connect your tether to a high lifeline or jackline before leaving the cockpit is important in heavy weather.
- [The Lifesling](#) is the best possible MOB retrieval system. It's available in either the standard soft case or a much sturdier and longer-lasting [fiberglass case](#). It is essential that the inboard end of the floating retrieval line is attached to a strong point near where the Lifesling case is mounted. Mounting it on the stern rail as close as possible to the centerline makes running over the line less likely.
- A throwable, self-inflating [SOS Danbuoy](#) deployed immediately after MOB hits the water and stored near the Lifesling case greatly compliments the Lifesling. In just seven seconds, the SOS Dan Buoy self-inflates to become a six-foot-tall floating spar buoy with an eight foot long high-visibility fluorescent green streamer at its top. The buoy is lead ballasted to help maintain as vertical an attitude as wind and sea conditions allows. Night visibility is enhanced by an automatically activated SOLAS strobe light at the top of the mast, as well as SOLAS light-reflective tape. A whistle helps the MOB alert rescuers to their position, and the device incorporates hand holds so the MOB can hang onto the highly visible buoy. The Dan Buoy incorporates a large drogue to significantly reduce drift in high winds.
- [Rescue Throw Rope, 75'](#) to get a line quickly to a MOB.
- [Personal Locator Beacon with AIS/DSC](#) greatly simplifies finding the MOB if they aren't attached to the boat.
- The [Icom M510](#) which has a built in GPS, AIS and an optional waterproof [RAM](#) (Remote Access Mic) designed to be mounted at the helm position allows for much stronger and more easily accessed communication than either having to go below to use the radio or relying on a handheld VHF with limited range.