



The Ross 780 - a fast man's trailer yacht

Story and illustrations
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THE 780 trailer yacht is one of the most interesting classes to have been developed in this country and from the first has attracted innovative design with its freedom from restrictions.

With parameters of: length 7.8m, beam 2.5m, displacement 1000kg and headroom 1.46m measured over certain floor area, the boats that have evolved have been advanced and interesting, but at the same time, basically simple in concept and execution. They go back to where sailing boats should be: uncluttered, big dinghies with the emphasis on sailing efficiency, control and boat-handling ease. It is a refreshing movement that appears to be gaining acceptance with the public. Certainly our leading designers are turning their attention to such craft and it seems that the days when boats were bought on the merits (?) of a suburban lounge-like interior despite retrograde steps in sailing performance, are happily past.

This is not to say that Murray Ross's 780 is a spartan racing machine with no room below; headroom (1.7m) is ample for a 25½ft boat and Murray, with lessons learnt from practical experience plus a flair for design, has produced a modern, functional below-decks layout.

The dinghy-like hull makes full use of the length rule and has a near-vertical stem and vertical stern. The beam, too, has been drawn to the limit of the rules; the section is U-shaped all the way to the bow and when sailing it is satisfying to see the full length of the waterline being utilised.

For some, the short ends may take a little getting used to, but to those who have been around dinghies, straight ends do not appear unattractive.

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drawing). These run back a short distance aft of the shroud attachments to the deck and can be tensioned with a two-part purchase system that activates a lever, a handspan down from their junction by the gooseneck.

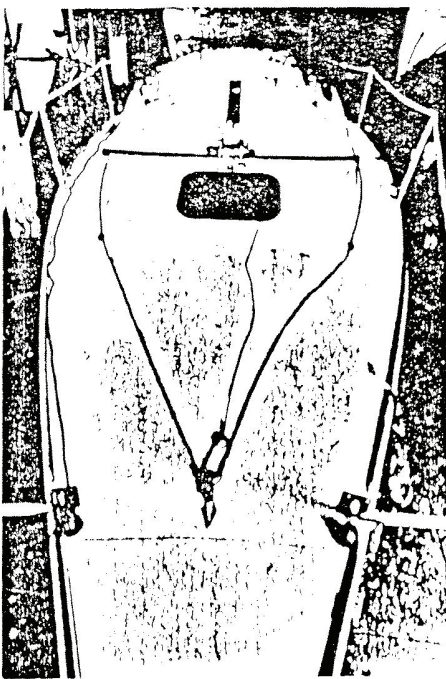
By tensioning this system, the stays pull back against the forward bending force of the main boom when it has been vang'd tight; it does a similar job to that of deck chocks on a keel-stepped mast, but such a mast would, of course, be unsuited to a trailer yacht where the rig has to be easily raised and lowered; the deck-stepped, check-stayed mast supplies the solution.

Also, having this set-up allows for a lighter and softer mast section as the check stays add the necessary stiffness. Murray has chosen a 76mm diameter, tapered Bavastock mast of 14 gauge with swept spreaders; aside from the check stays at the base, a fairly standard trailer sailer rig.

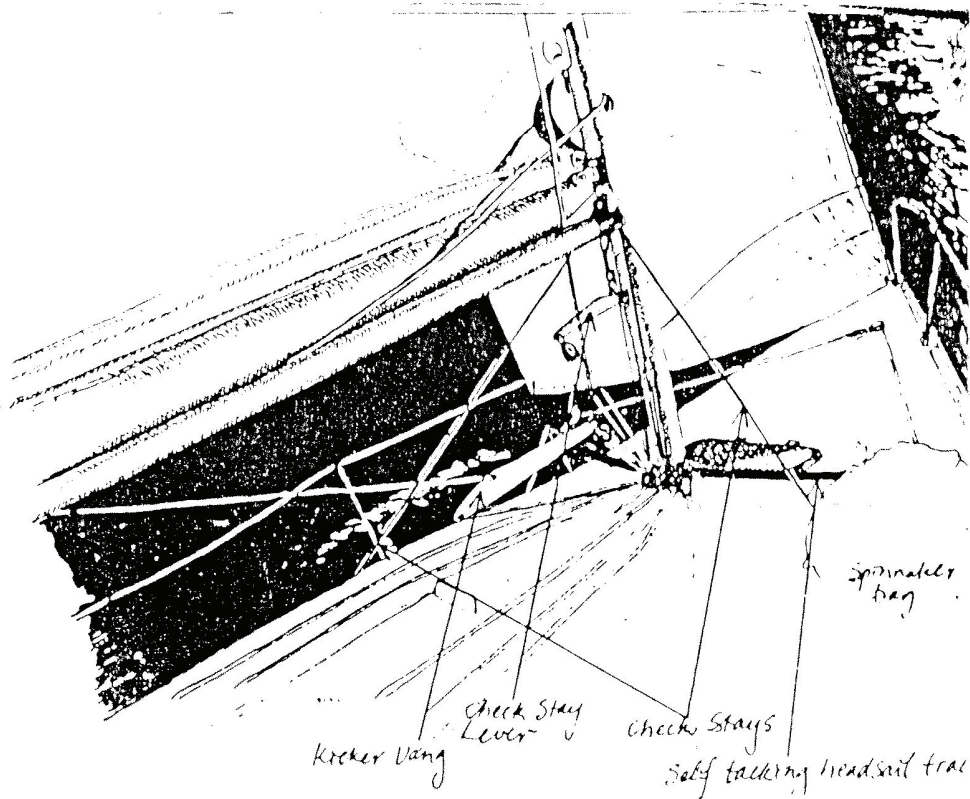
Being able to play around with the bending characteristics of the mast for a wide range of sailing conditions, is a definite advantage over earlier rig designs and although the 780's rigging may sound complex, Murray stipulates that it is extremely simple and for buyers of the design he offers careful directions on how to utilise the advantages of his set-up.

The system is derived from centreboard rating boats but goes back further to the early 1970s when Ross did similar things on his Javelin, *John Wesley Harding*. It is used on the wind in breezes below 10 knots when

The 780's self-tacking jib system based on that used on Solings



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tensioning the stays forces fullness into the main; the mast stands straight and at the same time, forestay tension is eased to put fullness into the headsail. Off the wind and possibly in stronger winds, the stays are set up to achieve the same results and with extra tension, can almost bend the mast forward for extra speed from the sails.

It gives the best of all worlds — a raked mast on the wind for speed, a forward mast for off-wind efficiency, and the ability to adjust the rig for any wind power or sea condition.

The combination of mast bend and stiffness had been correlated to the cut of the mainsail — something the new owner can reap the benefit of as the information has been acquired from years in developmental sailing boats.

Perhaps in the future we will see more of this simple tuning system on smaller boats for its advantages outweigh the intrusion of the check stays at the mast base.

All-up weight of the mast is 26kg and the height, 10m; it is light for handling and sets with a very even bend under sail, the lower shrouds halting it from S-bending while the top section feathers the sail to leeward in higher wind strengths.

Main sheeting is a four-part purchase system from the end of the boom and the traveller runs from near gunwale to gunwale, giving ample control while playing it in stronger winds.

Freeway, as the new boat is called, is fast on the wind — as fast or faster

than *Magic Bus* (6½ knots) — leaps away a lot quicker when the sheets are eased and picks up on the waves with the spinnaker set, skidding along like an oversized Javelin. The rule stipulates 30m² sail area and this is what *Freeway* has — a main with a luff of 8.8m (29ft) and foot of 4m (13ft); the spinnaker totals 36m², a little less than 400sq ft.

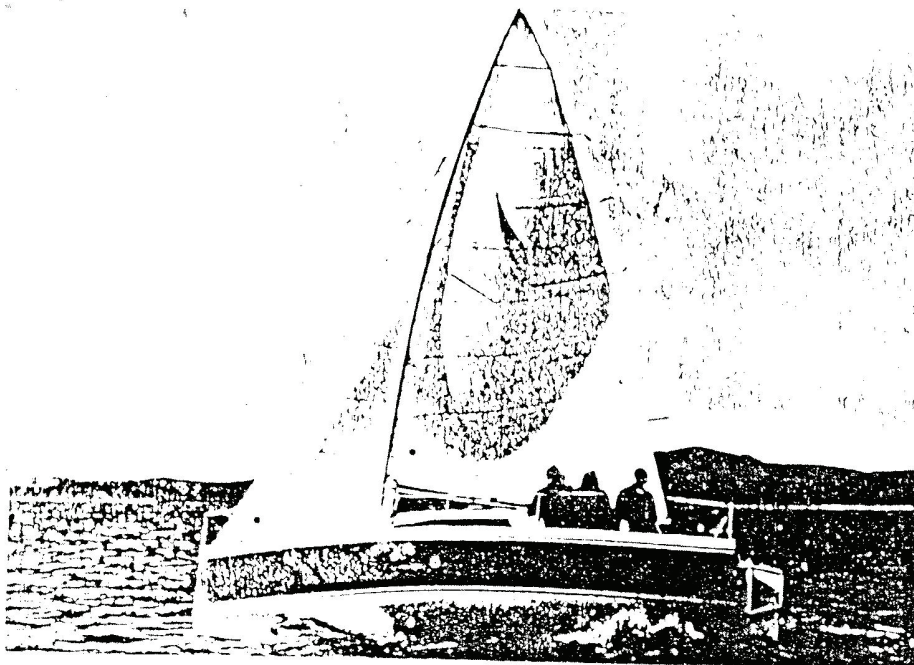
The jib is self-tacking based on the system used on Solings; it makes tacking so easy one wonders why this arrangement is not used more often; for single-handed sailing this answer for headsail sheeting is ideal. On *Freeway* there is a two-part purchase system for setting up the sheet tension and this runs through a ratchet block, making a winch unnecessary.

The spinnaker pole is launched dinghy-fashion from the cockpit and this keeps a person's weight off the foredeck — not that weight on this buoyant-bowed boat puts the craft out of trim; it just makes lifting a spinnaker easier as everything is controlled from the cockpit.

The centreboard has a four-part purchase set-up for lifting, done from the cockpit again, and is cleated alongside an impressive, but clearly-marked, array of eight cam cleats on the cabin coaming. It is also marked with depth figures.

Similar thought has gone into the interior and for a boat of 25½ft, there is the same amount of room below as an H28. This makes it ideal for cruising.

From the cockpit one walks straight into the interior, which con-



To windward in 15 knots - note even mast bend with check stays eased

sists of two full-length berths in the aft section, couches each side and aft of the centrease, with a good-sized forward bunk in the bow. The centrease is finished at galley height and Murray intends to fit a folding table each side for convenience while cooking or relaxing below. There are lockers the length of each couch in a combination back-rest/storage area, plus more storage beneath the couches themselves. A gas stove, water tank and portable toilet make up the requirements for a clean, open-designed area of surprising space.

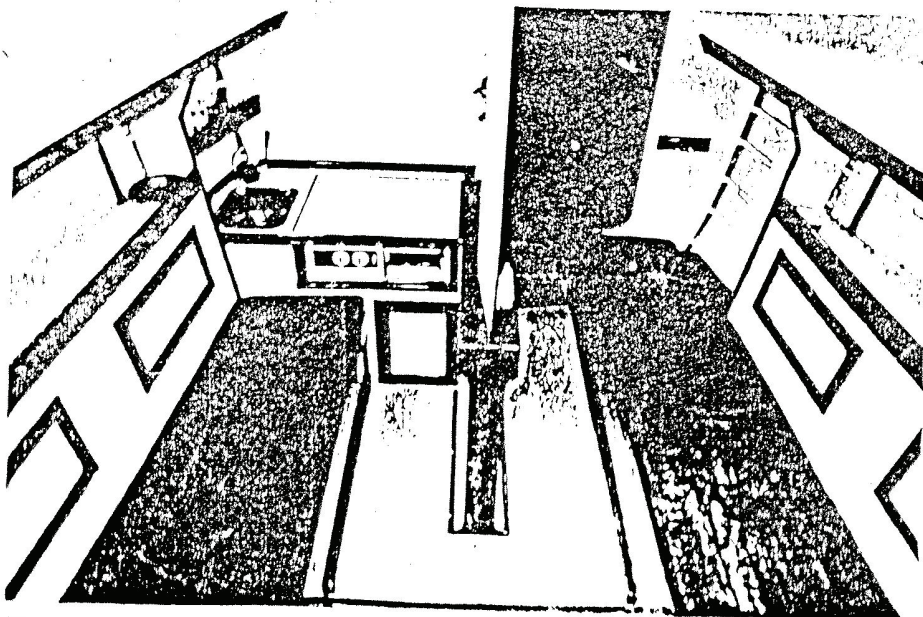
The squabs are 76mm foam covered in quilted maroon Draylon velvet

which looks fine with the contrasting mahogany brightwork and white-painted areas below.

Water tank and gas bottles are in an aft locker while the motor, when cruising, is stored beneath the cockpit. An anomaly with 780 racing is that the motor has to be carried in position on the transom; to counter this, Murray is thinking of making an outboard well similar to the set-up on the Noelexes.

Above the stove is a screw vent for ventilation; a little forward to the main bulkhead is a tinted hatch for light and access to the foredeck, while at the bow is a covered anchor well with drainage near the stem.

Freeway's interior is surprisingly roomy for a 7.8 metre yacht



A nice touch is the compass mounting on the washboard — when sailing, it is near deck level and, being large, easily read by helmsman or crew. When the boat is moored or on her trailer, the washboard is reversed, putting the expensive instrument inside the cabin for safety.

This craft came into being because the designer, after sailing in the trailer sailer internationals, discovered that the type of yachts competing had been underrated and that there was potential for good sailing and competition. The Ross 780 is a yacht he designed for himself, his own type of boat, and the fact that many people are showing interest in the craft reveals that his thinking parallels what others feel a boat should be.

Bonito Craft have indicated interest in moulding the 780 and the price, with glass hull, wooden deck, cabin top, mast, boom and sail, is \$15,000 unfitted. The complete boat, fully fitted and on a trailer, is \$23,000. Ewen Guy also offers a kitset in wood to the owner's requirements in the same manner as his Pied Piper arrangement; i.e., hull or cabin with bare essentials but without glass or paint. □

... skuds off downwind like a large Javelin

