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Sailing



Design Analysis

by Robert H. Perry

technical editor

This month . . .

a selection of the competition in the SORC

FREE FALL: Farr 28.7 rater

Do you think that Bruce Farr sits at his drawing board singing to himself, "I am the eye in the sky looking at you, I can read your mind. I am the maker of rules dealing with fools, I can cheat you blind." Probably not. But I thought those lyrics were very provocative and I was determined to work them into this month's reviews. But in a way if you consider the impact that Farr has had on the IOR, Alan Parson's song fits.

Farr has been able to manipulate the subtleties of the rule over the years to produce more than a fair share of winners. Rumor has it that FREE FALL is almost unbeatable so far. You should be aware that all of this month's review boats are headed for the SORC. Obviously they are all IOR boats. As a designer noted for my canoe sterns and shower stalls this catches me a little out of my element. But I know the key, I know the chords and if I play a wrong note we can call it jazz.

To begin with I find this Farr boat very exciting. It looks good especially when you compare it with the rest of the boats this month. It may be a game of numbers but there still has to be subjective judgment used to determine sheer spring, house shape and general aesthetic balance of the yacht. In this case all of the preceeding is enhanced by impeccable drafting — as opposed to the G & S design that shows peccable drafting.

The Farr approach has not changed too much in the past years. The bow overhang is short and the stern is broad and quite flat. Note the knuckle at the bow directly at the cutwater. True, this is evident on all of this month's designs to some degree, but Farr has done this all along. The midsection shows a shape of low wetted surface and considerable flare to the topsides. There is no hard turn to the bilge above the waterline like the C & C and G & S designs have. The midsection is far more similar to the Cook design. The boat is sized just above the One Ton limit. There is very minimal distortion aft through the girth stations.

Keel and rudder geometry look normal on this design. The rudder is tapered in plan form on both the leading and trailing edges. Note the slight rake angle to the trailing edge of the keel. We know now after Mr. Farr's enlightening letter of six months ago that the forward location of the engine allows the keel to be placed further aft. The midsection shows the keel and it appears to be quite thin at the tip with an elliptical shape rather than the purled truncated foil that most designers use. The displacement to length ratio for this design is 187.

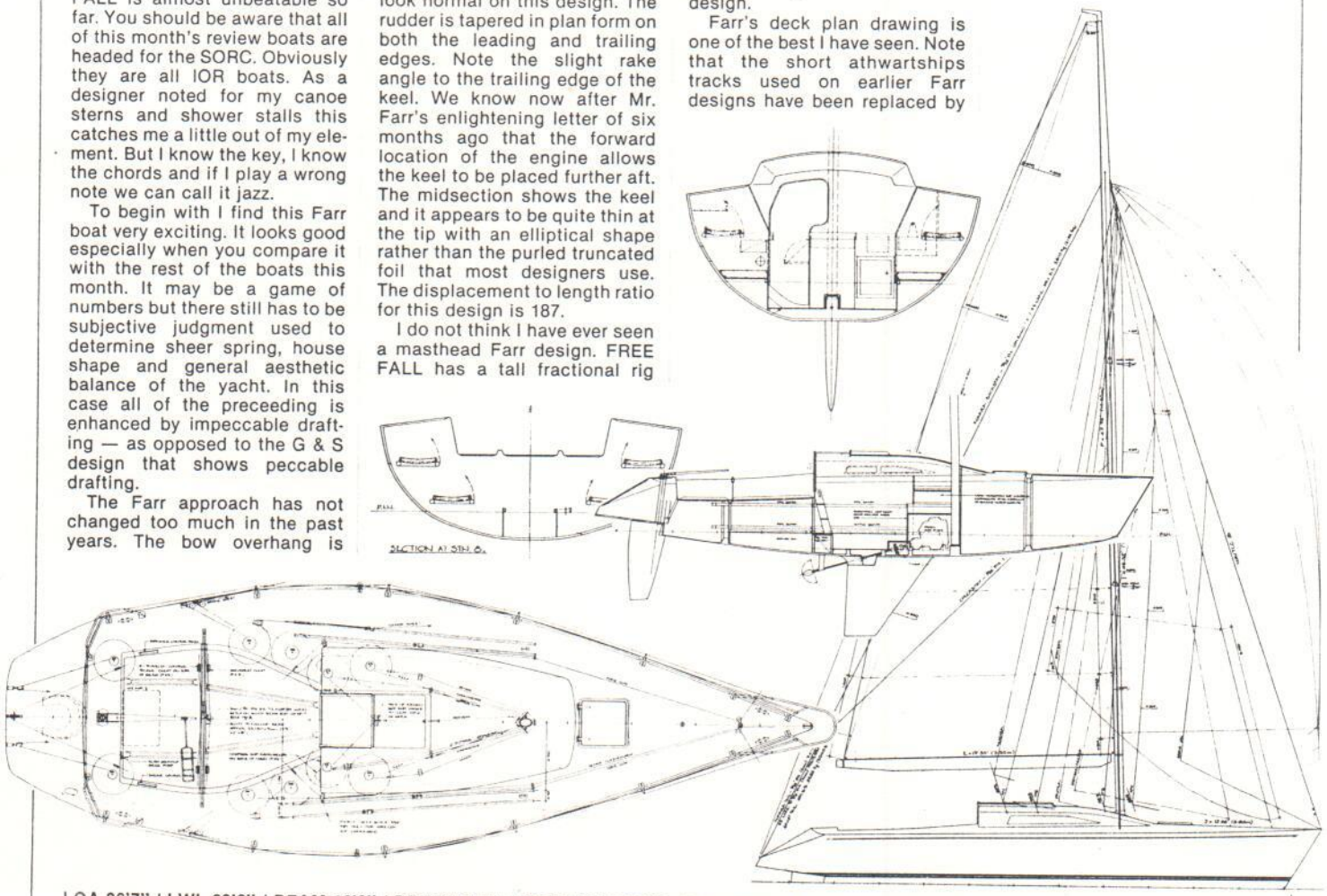
I do not think I have ever seen a masthead Farr design. FREE FALL has a tall fractional rig with a healthy sail area to displacement ratio of 22.96. This will obviously give this design the power to sail effectively in light air. Just for comparison sake, the headstay is Navtec rod No. 10. This converts to 1 x 19 stainless steel wire 9/32nds inch in diameter. I add this because I am aware of how many people tend to favor disproportionately large rigging diameters. It is helpful to store the rigging diameters for a few successful boats in your head for a bench mark.

In studying the sail plan I think you will be impressed with the overall good looks of this design.

Farr's deck plan drawing is one of the best I have seen. Note that the short athwartships tracks used on earlier Farr designs have been replaced by traditionally placed genoa tracks. Again note that the fractional rig with its smaller headsails allows the genoa turning blocks to be placed forward of the mainsheet traveller thus simplifying the deck layout aft. The traveller adjustments are located within easy reach of the helmsman.

I like this one.

Bruce Farr & Associates Inc., 121 Eastern Ave., Annapolis, MD 21403. Performance Yachts, c/o Ted Simpkins, 4510 S. Church St., Tampa, FL 33611; Sea Craft, 8624 Cuyamaca, Suite S, Santee, CA 92071.



LOA 36'7" / LWL 29'2" / BEAM 12'3" / DRAFT 6'10" / DISPLACEMENT 10,361 LBS. / BALLAST 4,817 LBS. / SAIL AREA 687 SQ. FT.