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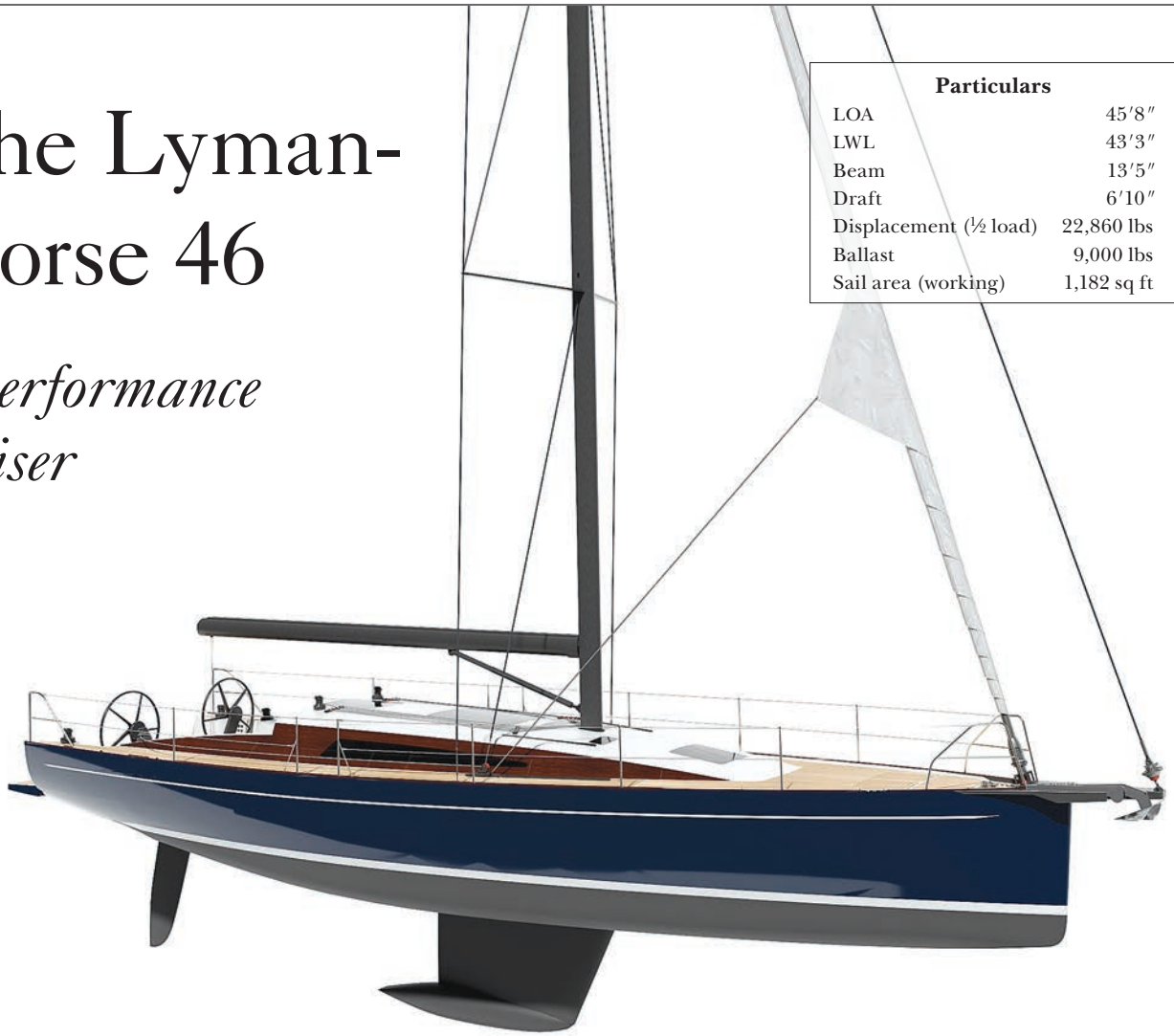
The Lyman-Morse 46

A performance cruiser

Particulars	
LOA	45′8″
LWL	43′3″
Beam	13′5″
Draft	6′10″
Displacement (½ load)	22,860 lbs
Ballast	9,000 lbs
Sail area (working)	1,182 sq ft



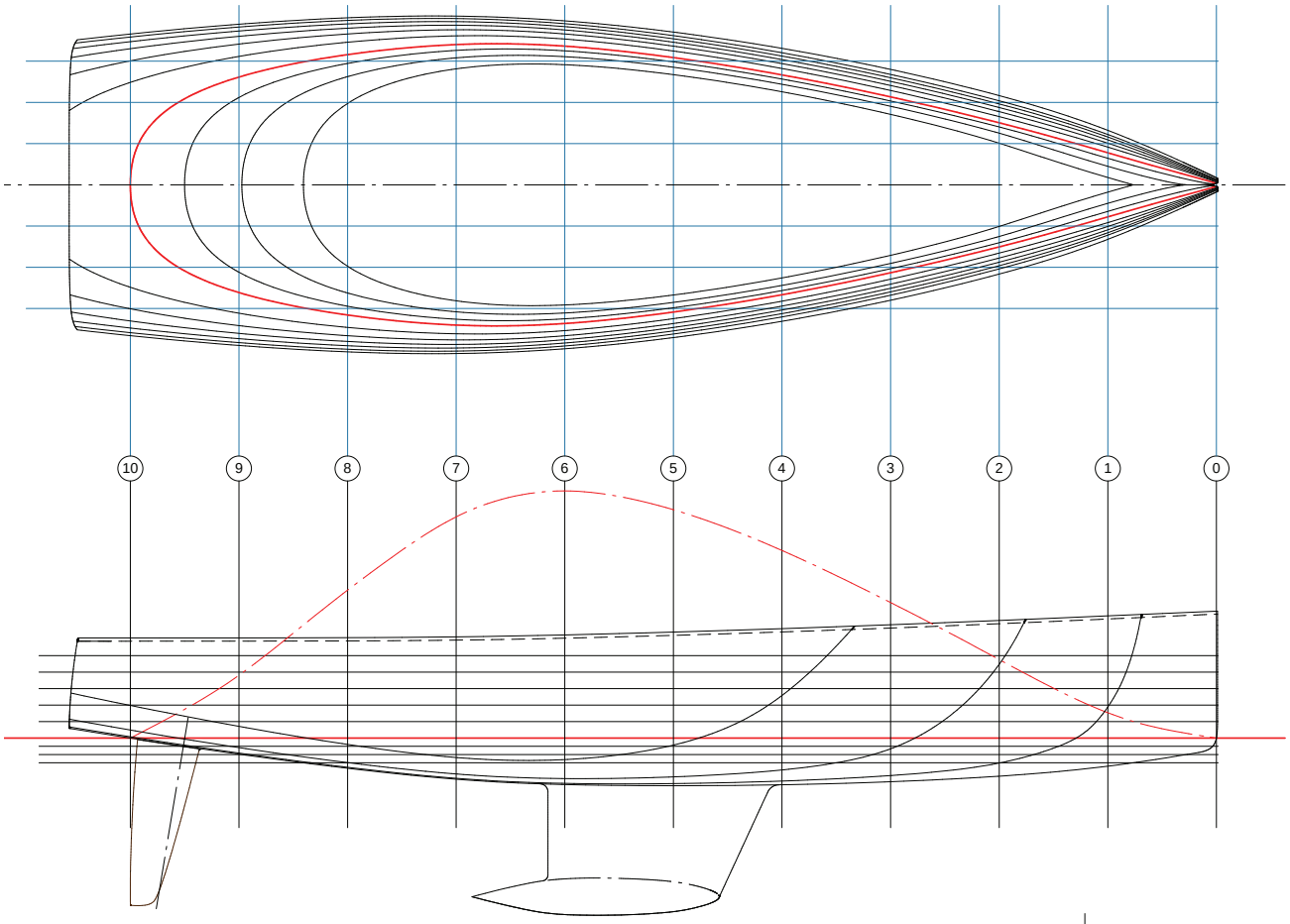
Design by Kevin Dibley
Commentary by Tad Roberts

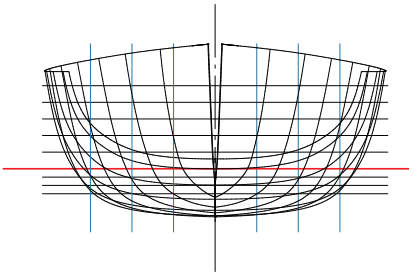
The "performance cruiser" is a strong and popular market segment, and as a new entry the Lyman-Morse 46 should be a success based on looks, specifications, and pedigree. The computer renderings show a very good-looking and totally up-to-date coastwise cruiser. Designer Kevin Dibley has created a boat to be fast and comfortable in the mixed and unpredictable conditions met during the typical two-week summer cruise, but also a boat that will be easy to get underway quickly in daysailing or club-racing situations.

An additional aim is to incorporate modern fast design features in a comfortable cruising boat. This means a powerful boat with plenty of beam, a large but not-too-tall rig, some structural weight so the boat is quiet and predictable, and up-to-date but not-extreme appendages. Immediately obvious is the way the designer has pulled both the maximum beam and the rig aft. Traditionally we would expect the mast and the leading edge of the keel to land at about station 4; but in the LM46 the mast is back at station 4.3, and the headstay is pulled well aft of the stemhead. The general effect is to minimize the yacht's tendency to trim bow-down with heeling. The form of the LM46 should produce bow-up trim as the boat heels, keeping the deck and crew drier and happier than they would otherwise be.

Lyman-Morse is marketing wooden construction in a nontraditional semi-production yacht, and that is newsworthy. To the already-committed, the choice of sheathed wood has been obvious for a long time. Lyman-Morse's stated reasons for choosing wood include

***Above*—The LM46, designed by Kevin Dibley and under construction at Lyman-Morse Boatbuilding, is a fast and comfortable performance cruiser.**





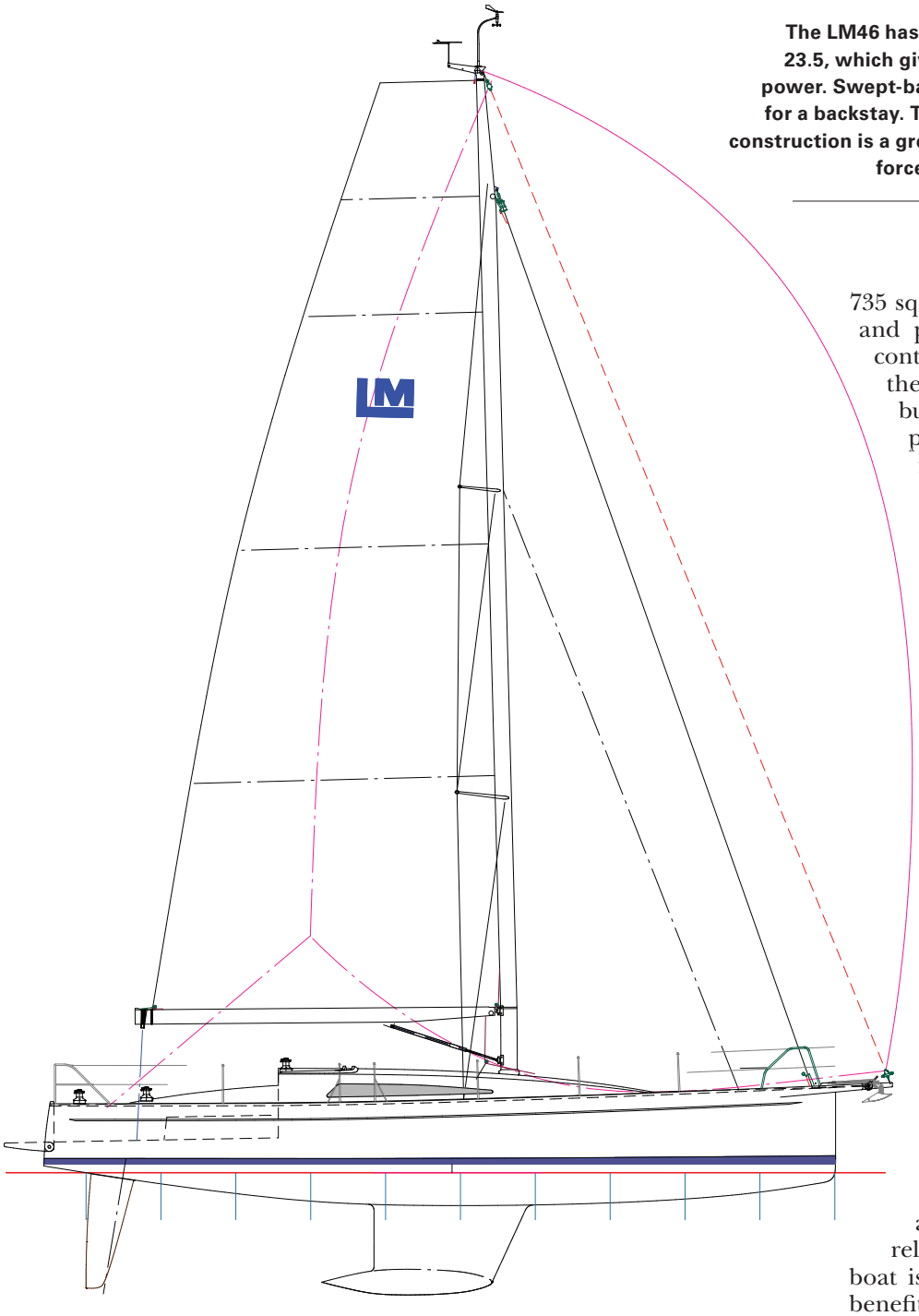
Well-rounded sections, and a slightly narrower waterline than many contemporary boats, should result in an easy motion. The boat has more sheer than many of her contemporary cousins, and long keel and rudder chords should give good directional stability.

sustainability, acoustic and thermal insulation, interior character, and enthusiasm from both customers and employees. To these I would add structural superiority, since no manufactured core material would be so puncture resistant or longitudinally stiff.

It's relatively easy to create a boat that looks good from forward of the beam. The stern is much more difficult; this is where the designer must balance performance requirements against aesthetics, and in a hull billed as a performance cruiser, the stern quarters need to be beamy and powerful. Smaller transoms always look more graceful. In this case, Dibley has combined slightly more sheer than is usual today, with a delicately tapered deck line aft. The well-rounded sections with a slightly narrow waterline mean the motion will be more forgiving and less jerky than it would be with the nearly rectangular sectional form of most modern designs.

The forward sections are not fine at all. Looking at the waterlines, I would fill out the deck edge just a hair between stations 2 and 6.5, to smooth out the topsides just a little more. The keel is fixed and draft is very moderate; I would expect potential owners might request variable draft. Both the keel and the rudder have longer chords and larger plan-forms than we're used to today. This means more wetted surface but also more directional stability and predictability. Steering will be immediate but will not require grand-prix attention. The keel bulb is huge, and I assume it contains almost all of the ballast.

It's refreshing that Dibley and the Lymans have ignored the reverse stem profile and topside chines that characterize many modern designs. Resisting the more extreme and harder-edged fashion trends should ensure long-term appeal. This follows the theme of relative simplicity, letting the sheer speak for classic good looks, while the basic wedge-shaped trunk and coamings are functional without any unneeded extra facets or edges.



The LM46 has a sail area/displacement ratio of 23.5, which gives the boat some serious racing power. Swept-back spreaders eliminate the need for a backstay. The fatigue-resistance of wooden construction is a great benefit in this boat, given the forces imposed on the hull by the rig.

Thirty years ago it was safe to assume a 46′ cruising boat would weigh 35,000 lbs ready for sea and have a 38′ waterline. This is a displacement/length ratio of about 285, which was typical for a performance cruiser in 1990. The LM46 has a waterline 5′ longer than the 1990 cruiser, and a much lighter overall weight thanks to carbon spars and interior details. Hull construction is cold-molded, with planking of laminated western red cedar and Douglas-fir on laminated Douglas-fir ring-frames and backbone. The D/L has dropped to 126, which would have been considered extreme ultralight construction in 1990.

The seven-eighths swept-spreader rig is huge, but the mainsail's 5′7″-wide headboard keeps height down to just over 60′. That mainsail of 735 sq ft is still pretty intimidating, and powerful gear to keep it in control will be critical to making the boat as easy to handle as the builders intend. I think many potential owners will be asking for an in-boom furler as well. With the working sails (main and blade jib), the sail area/displacement ratio is 23.5. Comparing this to the usual SA/D ratio of 16.5 from 30 years ago, we see that "performance cruiser" is a moving target and the LM46 will have serious potential in club type racing.

There is no backstay, so headstay tension depends upon the vertical shrouds and the mainsheet. With a 3,000-lb vertical load on the mainsheet and 7,600 lbs on the headstay pulling upward on the ends of the boat and the mast pushing downward at 30,000 lbs amidships, the bottom of the hull is being stretched longitudinally while the deck is being compressed. These working loads illustrate the need for a hydraulic mast-base jack to relax all these loads when the boat is not in use. The wonderful benefit of a wooden structure is that wood handles this endless bending cycle without fatiguing (losing strength over time) better than metal or composites do.

I really like a number of features about this boat's deck. The first is the low-profile bulwarks, a visually clean solution that makes all the difference when working on a sharply heeled wet surface. These won't make the hiking-out club-racers happy, but a choice was made between racing comfort and cruising safety. I also

***Above*—A transom tailgate provides safety underway, and easy access at anchor. *Opposite*—Skylights and big side windows allow light and air below. The galley is continuous with the saloon space, and there is a stateroom forward.**

like the big, open cockpit and especially the sensible transom tailgate. Again, this is a safe solution while underway, and it permits easy access while at anchor. A third deck feature I'll mention is the companionway dodger with no bridge deck. A bridge deck is a good safety feature should you be heading around Cape Horn, but for coastal use it becomes a serious impediment to moving into and out of the cabin. The LM46's cockpit arrangement, and the ease of galley access, will make the boat livable for long periods at anchor on hot summer days.

Belowdecks, this boat will be light and airy, with big side windows and overhead skylights. The decision to make this a single-stateroom boat allows the saloon and galley to be wide open visually. The standard arrangement includes one quarter berth to port aft, with a pilot berth above the starboard settee forward of the galley. The galley is not huge,

but this is not a liveaboard home. The forward head is entirely adequate, with half the space able to be divided off into a shower stall. There's a real dedicated wet locker aft of the navigation desk.

The Lyman-Morse 46 is being marketed as a "simple" boat. In today's world that means: no diesel generator, no watermaker, no bow-thruster, and no air-conditioning. But there are still myriad systems expected by potential buyers of this yacht. The engineering, purchase, installation, and maintenance of these systems adds a great deal to the overall cost. The LM46 will be an attractive addition to any harbor scene. A bit more development of systems could reduce carbon emissions and make real progress toward the stated sustainability aims—a worthy goal.

Tad Roberts designs boats on Gabriola Island in British Columbia, Canada.

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