



(never put into production), but in general concept was very like the rig in several other small boats. However, in this department a great deal of talent was brought to bear and a great deal of time spent.

After racing the prototype successfully in quite light airs, the builder, Ian Bruce, the sailmaker, Hans Fogh, and I agreed that we would continue working on the marriage of mast and sail and that in particular we would have to try the boat in all winds to be sure the range of efficiency was satisfactory. Ian Bruce, president of Performance Sailcraft and known to the British dinghy world as the two-time winner of the Prince of Wales trophy in International Fourteens (1967 and 68), built a second prototype so we could compare one rig with another. Meanwhile I drew another sailplan with the mast 3 inches further forward, with the luff three inches longer and the foot two inches shorter.

Ian Bruce cut open the deck of the original boat and made a mast step that could be moved fore and aft. With this he worked on proper balance in all types of wind and I ended up doing a third sailplan, with the mast in the new, forward, position and with less aft rake. The area of 76 square feet remained the same, but the centre of effort had been moved several inches forward.

With the rig placed, we set about making the final choice of 'pipes' which would make up the two-part mast. The original combination had been too flexible, especially the lower part, so a stiffer extrusion was chosen for the bottom piece and it was made a foot longer as well so the maximum bend would be higher. Meanwhile Hans Fogh, former Flying

Dutchman world champion and Olympic Silver Medallist, who had moved from his native Denmark to Canada to open an Elvstrom loft, had been cutting sails to the new sailplans. He had recut at least two of them to match the mast better and in general was playing an important role in the programme.

Finally the three of us — Ian Bruce, Hans Fogh and I — met at Royal St Lawrence YP Near Montreal on a cold and blustery weekend in later November 1970, to sail the two boats and make the final choice of mast position and rake, the pipes that made up the mast and the sail itself. It was a cold, numbing but very satisfying task, and when the job was finished we stood in the yacht club showers for an hour toasting the new little craft with one hot buttered rum after another.

At a more populous, but no more festive party later that night, the name Laser was chosen and the following week Performance Sailcraft began tooling up for production.

At the same time Hans Fogh began making tests of material and negotiating with Dacron manufacturers in an effort to get a high degree of quality control in the Laser sailcloth. From the beginning he has done an outstanding job in this regard.

The centreboard and rudder were trouble free from the beginning. The plate — a daggerboard — was designed with a 12:1 thickness to width ratio and the box was given exactly the same shape, so that the plate just fits into it. In this way the plate shape is controlled automatically. If an owner makes his plate even a half millimetre thicker it will not fit in the box and if he makes it any thinner it will be sloppy in the box. The rudder was given the same ratio, but the fullness is slightly further forward and the forward edge more rounded to prevent stalling at higher angles of attack.

As a designer I cannot say enough about the care and skill that went into preparation for the production of this boat. The techniques used cannot be outlined here as they are the property of Performance Sailcraft and were developed by Ian Bruce, who before the Laser came along, was practising as one of Canada's leading industrial designers. But I can say from personal investigation that the quality control is outstanding. One day we weighed 28 boats in the plant and found them all to be within 1.5 lb of one another.

A great deal of the credit for the boat's success in the market place must go to the original working up of the construction technique and to the continued practice of modern craftsmanship.