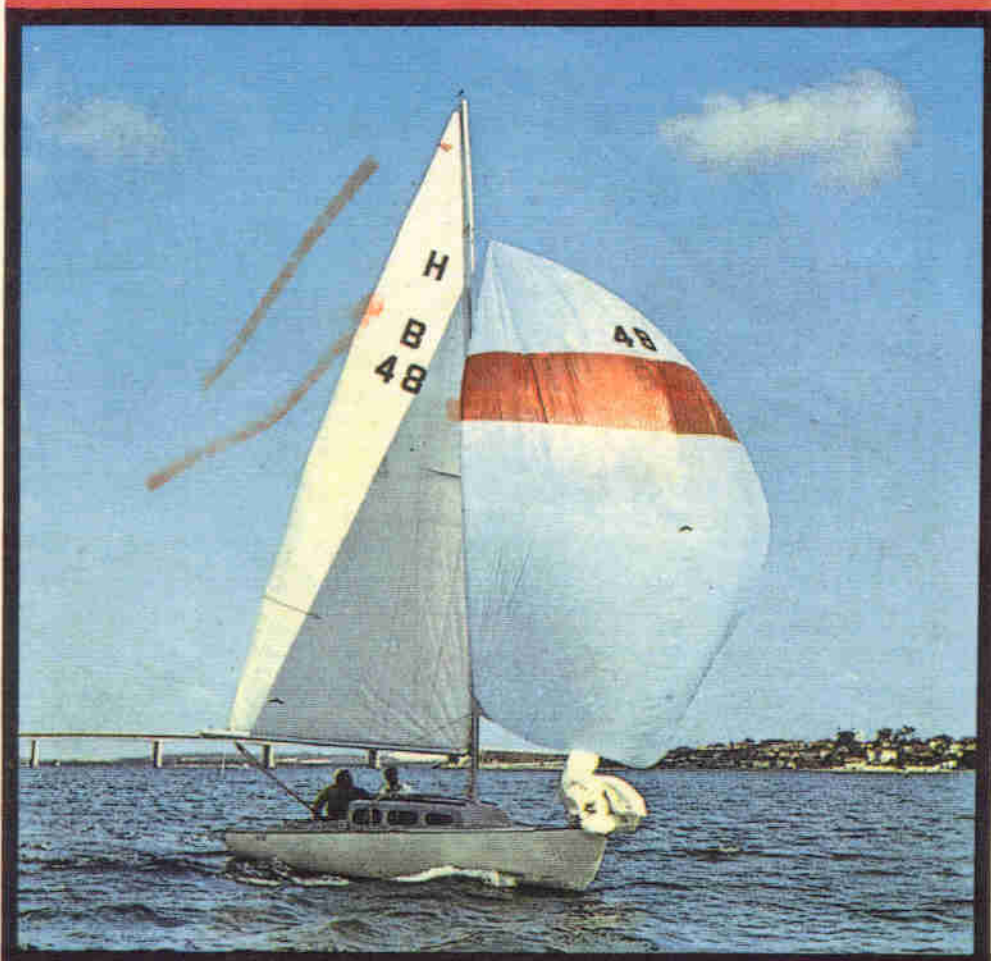




FAMILY-STYLE SPORTS MODEL



BY PAUL HOPKINS

She planes offwind, holds the 5.5s upwind, sleeps four and costs \$4650 complete. That's the bonny Highlander 25, a new concept in yacht design that goes faster with three men on the flying trapeze.

DOUG CHALMERS, the man who built Sydney's first Flying Dutchman, has come up with another first: a four-bunk, three-trap fibreglass deepkeel yacht. She's the Highlander 25, a sportscar version of the new breed of family harbor racers that sails as fast as a 5.5 metre at a fraction of the cost. The Highlander, that is.

I can honestly say that the test we gave the prototype fibreglass version (*Skye*) was the most thorough so far. We sailed her for an hour in a light sea breeze then, the next day, thrashed her around the Botany Bay Yacht Club course in a 20 to 25 knot nor'easter. "Thrashed" is the word. Botany Bay throws up a very bad chop under such conditions.

Before we examine the boat itself, a brief description of the race will reveal several unique qualities.

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Sailing in the first division, which includes YW Diamonds, 5.5 metres, Dragons and such, we were boxed-in at the start by a 5.5, *Yeoman IV* and a Diamond.

By pulling away into clear air, *Skye's* acceleration was demonstrated. We sailed right through the 5.5 and then choked up until the Diamond got a snout full of dirty wind and dropped away. At this stage, the wind was around 15 knots and, with three men on trapeze, she was sailing beautifully under jib and full mainsail. Although the 5.5 was pointing slightly higher, our speed through the water soon had us ahead.

At the lay-line (on Botany Bay in a nor'easter, one has to take a long starboard tack toward Mascot then lift to the Bunnerong mark on port) we tacked only to find that the starter's boat had fouled the buoy and dragged it at least half a mile off course toward the middle of the bay.

A sure lead was immediately turned into eighth around the mark. An exciting reach under the 350 square foot spinnaker saw *Skye* fourth round the wing mark, at least five minutes behind the leader, a Diamond that had happened to sail straight to the errant windward mark.

A short close lead knocked off another rival before we hardened sheets for the windward slog. And a slog it was, with the wind up to around 22 knots with heavier gusts. She could have done with a few rolls in the mainsail as she likes to sail at a reasonable angle.

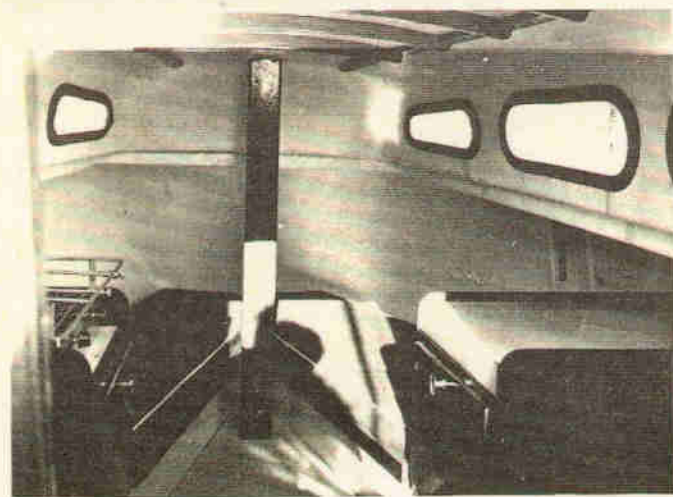
The Diamond and the second 5.5 were much closer as we squared away

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TOP: Dragon genoa and Soling mainsail — a perfect combination for the Highlander and a wise way to save money when rigging a new yacht. Slight plan alterations can usually find a stock sail to suit.

CENTRE: Down below, two bunks for'ard (6 ft x 27 in.), stove to port, wash basin to starboard with sliding table top. Two extra bunks aft of "galley" extend under cockpit seats. Plenty of light from windows. Teak mast support is out of the way.

BOTTOM: Designer Doug Chalmers seems at peace with the world, relaxing in the comfort of his trap belt. Arthur Fiumini makes sure his feet are in the "starting blocks" while Kevin Shepherd keeps her on course. Trapezing on this deep keel yacht is just as exhilarating as on small centreboarders.



up and side curtains and tonneau cover buttoned on, the cockpit is entirely protected from the weather.

Included among the standard fittings supplied with the V170 are navigation lights that comply with official requirements. There is a retractable all round white light aft, and red and green side lights for'ard.

As I said, we tested the outboard model, and there is also a model for use with sterndrive (inboard/outboard) motors. As well as the standard equipment fitted to the outboard version, the sterndrive model has an electric bilge pump and bilge blower built in. This helps to eliminate the slightly higher fire risk that exists with this type of motor.

The hull itself is formed from fibreglass chopped strand mat, with 26 oz woven roving reinforcement. The resulting laminate is extremely strong and rigid. This is a big contributing factor to the low noise level and lack of flexing that we noticed on our test runs. The cockpit lining and carpeting also helps to damp down the resonance caused by a high revving motor.

Positive flotation is achieved with polyurethane foam. This is installed in the under floor sections of the hull and round the stern.

SUMMARY

The Glastron V170 Crestflite runabout left the impression of a rugged, versatile workhorse. She is able to take plenty of hard knocks from weather and owner alike and there is plenty of comfort and space for a big family to go boating together, yet she is easy to handle in and out of the water.

FACT BOX

Model Glastron Crestflite V170 Fibreglass Runabout.
Manufacturer Glastron Boat Company, 9 Attenborough St, Dandenong, Vic. **LOA** 17 ft 6 in.
Beam — max 6 ft 10 in.; at transom 6 ft 2 in.
Freeboard (for'ard) 2 ft 6 in.; (aft) 1 ft 11 in.
Accommodation Back to back fold down seats for four, plus rear bench seat for three. **Equipment** Vinyl upholstery, full carpeting. Windscreen with fold up centre section. Heavy duty chromed bronze deck hardware. Navigation lights, side storage pockets, fore and aft stowage compartments. Mechanical steering. **Rated Horsepower** to 130 hp (outboard). Long shaft motors. **Price** \$1795.

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for the windward and return. An exhilarating surf to the leeward mark saw us in second position, almost close enough to read the Diamond skipper's mind.

At the windward mark again, the Diamond (with a man on trapeze!) was only half a dozen lengths ahead. Up went our kite — but the crew hadn't cleated the pole downhaul — the kite went right up and things became a bit hectic. You can't do those sort of things in such strong winds without getting knocked flat. Which were were.

While gazing over the side, I was able to examine the fibreglass steel plate and its lead bullet. Lead weighs 880 lb and the $\frac{1}{2}$ in. plate 120 lb . . . the crew finally got the kicker cleated, the 1000 lb pendulum took over, I reefed at the tiller, and away we went, smoking toward the next mark.

We happened to be the only boat carrying a spinnaker as the wind was a bit much. Being greedy — and seeing the Diamond was under jib and main only — we jibed the big parachute and began planing. It looked as if the gamble would pay — but an extra hard clout knocked her flat and, to save the mast, the halyard was let go and we went prawning.

The final bash to windward saw us gain quite a bit

on the Diamond but the gun beat us by about a minute. *Yeoman*, the 5.5, was next, failing to make an inch on the last work and then threw away a minute by tacking for the long end of the finish line.

This race proved that the Highland 25 is an exceptionally fast racing machine and demonstrated that one must not be too willing in a deepkeel yacht. Just enough sail is the secret. Many crews could ponder that revelation as yachts don't like to sail with their lee decks awash. A small, flattish spinnaker would have saved us a lot of trouble, too. And we probably would have gone faster without trying to shake the mast out of her.

ABOUT THE BOAT

Skye is a new concept in yacht racing. She has everything other popular family yachts have plus outstanding performance. The three men on trapeze add greatly to stability in stronger winds but are not needed in anything under eight knots. When deep reefed, she can be sailed as a normal deepkeeler without traps.

The 1000 lb ballast will right her from a completely inverted position. The race prove (twice!) that she doesn't fuss about coming up from a complete knock-down — and, boy, what a picture that would have made!

Incidentally, while the crew was frantically taming that wild spinnaker, I noted that very little water came into the self-draining cockpit. The keel was almost breaking the surface to starboard and the bay was bubbling around the port coach-house but was restrained by the high coaming and wide sidedecks.

I had previously noted, — after we belted straight through a couple of lumpy seas — that green water ran full length of the boat and drained off the stern. Only spray found its way into the cockpit.

This cockpit is seven feet long, 20 in. wide and 15 in. deep. A permanent 11 in. board shields the companionway and a sliding plywood "door" completely seals the opening if needed.

The companionway hatch slides forward to give standing room while below. There is plenty of sitting head room on two bunks for'ard and two aft with the stove (to port) and the sink (to starboard) dividing the sleeping quarters. The sink top slides across and locks into the stove mounting to form a table.

Accommodation is quite reasonable for a 25-foot yacht and a family of four could easily live aboard for weekend cruising. There's a spot for a toilet if desired — an optional extra.

Stowage is so-so, with a hatch aft for the outboard (six horsepower motor gives six knots) and drawers below the companionway and about the bunks. Sails and such are stowed for'ard under the foredeck which does not have a hatchway. This may be a good thing on a boat such as this as a leaky hatch is a damn nuisance at the best of times.

The prototype has a teak mast support fixed to a glassed block at the keel. Shrouds are adjusted from below decks and are fixed to hanging knees. This system is to be replaced on subsequent boats by stainless steel straps half way to the keel supported by stainless steel tubes glassed into the hull sides.

Overall, accommodation is adequate but not luxurious.

HULL CONSTRUCTION

Industrial Marine Fibreglass of Kogarah builds the Highlander 25s . . . Doug Chalmers sells them through Endeavour Boatshed of Sans Souci. Hull is laid up using the chopped strand gun method, 8 oz all over with up to 20 oz at heavy stress points. Actual thickness varies from $\frac{3}{8}$ to $\frac{7}{32}$ in., again depending on strength required.

Hull and deck are made in separate moulds and fused at sheerline. Finish is good and the non-slip decks were appreciated.

Her appearance is one of speed — she resembles a big Flying Dutchman in some respects and no one could

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say she isn't a pretty yacht. Straight sheer from 17 in. freeboard aft to 28 in. freeboard forward adds to appeal.

LAYOUT AND RIGGING

Kevin Shepherd, Sydney manager for Rolly Tasker, has quite a bit to do with *Skye's* layout and sail plan. He has an eye for good shapes and a knack of drawing attractive, fast sail plans. He discovered that a stock Soling mainsail, Dragon genoa and Endeavour 24 No 2 jib fitted Highlander's sail plan almost to a "T". So a slight change here and there gave the class the benefit of proven established sails, perfected under racing stress.

This is a good scheme for anyone building a yacht. With slight adjustments, one can buy stock sails for less outlay to suit almost any small yacht.

The spinnaker, by the way, is a standard Endeavour 24 parachute.

These sails are beautiful — that Soling mainsail is a credit to the maker, and, although full, can be progressively flattened by vigorous bending of the mast by way of the backstay that connects to a bridle above the stern. A standard boom vang pulley system at bridle end (to port) gives the mechanical advantage needed to bend the tall Alspar stick.

The week before the test race, Chalmers pulled another alloy mast right out of her. It had limited swing spreaders that packed up in a 12 knot breeze — with flogging parachute. The new mast had been stepped a day before the test (with heavy fixed spreaders) and didn't move an inch when we were knocked flat. A test if ever there was one.

CONCLUSION

The Highlander 25 is a unique sailing yacht. She is as fast as a 5.5 metre and should knock off most Diamonds — although five feet shorter than both. The triple trapezes give her power to carry her big sail to windward, and off the breeze she fairly flies, actually planing when everything is set up right. In short, she's a very fast, reasonably inexpensive racing machine.

The difference is accommodation. While Diamonds 5.5s and the like are hollow racing shells, the Highlander has full — if a little Spartan — cruising facilities including four six-foot bunks and cooking facilities.

The question of trapezes has been raised before but the Botany Bay Yacht Club is allowing them because they are included in the class rules. This may possibly be the case in other centres.

This attractive yacht should appeal to the man who wants superlative performance and family accommodation. The marriage of both worlds has never been attempted before and the union should create widespread interest.

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FACT BOX

Highlander 25, unique family racing/cruising yacht. **Builder** Industrial Marine Fibreglass, Kogarah, NSW. **Designer/Distributor** Doug Chalmers, Endeavour Boatshed, Endeavour Street, Sans Souci, NSW, 2219. **LOA** 25 ft. **LWL** 22 ft. **Beam** 7 ft 3 in. **Draft** 4 ft 3 in. **Displacement** 2000 lb all up (no crew). **Keel** lead bullet 880 lb; glassed ½ in. steel plate 120 lb. **Sail area** main 146 sq ft, genoa 115 sq ft, jib 80 sq ft, spinnaker 350 sq ft. **Mast height** 30 ft 8 in. (Uffa Fox-type rig with fixed spreaders and backstay.) **Cockpit** (self-draining) 7 ft x 20 in. x 15 in. **Accommodation** for four; two forward 6 ft x 27 in., two aft 6 ft x 24 in. (extended beneath cockpit floor). **Rudder** spade type, slight balance (1/6th), 3 ft deep, 14 in. wide, 22 in. from transom. **Shaft** 1 in. 316 S/S. **Price** (complete), includes four sails, 15 gallon water tank, stove, sink, bunks — all found \$4650. **Sail away price** \$3750 — two sails (main and jib), no cupboards, and so on but with bunk frames and floor glassed in place. **Bare hull** \$2500.