BOAT TEST

Sneaky Frog proves a cunning plan

Sneaky Frog must nave a cunning plan — for this newcomer to the Auckland race scene has been a regular frontrunner in harbour racing since her Easter launch.

Sneaky Frog spinnaker reaches to the finish line during a two-handed race on Auckland Harbour.

Upwind and trucking, the Elliott 9.1 is a powerful performer.

In a bid to learn a bit more about this slippery amphibian, *Boating* contacted the owners — appropriately known locally as "Sneaky" and "Kermit". Being particularly sharp of wit, we did not have to enquire as to the origin of the yacht's name.

Our first chance to examine this new 9.1m Elliott is on a fine mid-May Sunday during the Richmond Yacht Club's first two-handed race for the season.

Manoeuvring the photography boat through hundreds of Sunday racers we finally catch sight of a speeding frog ahead, particularly distinguishable by its large wing mast.

Once alongside, we begin a photography session which lasts from North Head to the Auckland Harbour Bridge. With the wind varying between 5 and 12 knots out of the southwest, we are able to observe and photograph the new Elliott from a number of interesting angles and on most points of sailing — from hard on the wind to spinnaker reaching.

Once over the finish line we arrange with Sneaky and Kermit to wait for the rest of the test team — yet to finish the race — before beginning our test sail.

Leaving the marina reveals the first surprise — there being no clattering diesel or outboard in sight. Instead, there emanates from below the 11,000-rev performance scream of a 250cc liquid-cooled Kawasaki motorcycle engine.

This interesting setup not only produces 28hp and weighs a mere 40kgs, but also has a six-speed gearbox (perhaps the owners' envisage having to change down to climb large waves). This installation was marinised and installed by Duke Engineering and features a 50amp alternator for the yacht's battery. The engine's starting battery is fed by its own charging system. The whole setup is a light and ingenious means of powering the boat.

This inexpensive little engine drives Sneaky Frog easily at around 7 knots, the engine noise remarkably quiet.

Once out on Auckland Harbour it is time to get this frog sailing. The fully-battened mainsail is easily hoisted by the external main halyard which cleats off on the mast.

The cockpit footrests provide a comfortable perch for the crew.

With the jib set, we begin to experiment with the rotating mast. This unconventional setup has no vang, the boom running directly to the mast base. The mainsheet tension provides the for'ard pressure on the base of the mast to rotate it to leeward.

Looking from the leeward side of the mainsail, the advantages of a wing rig quickly become obvious. The entire leeward side is aerodynamically shaped from the leech of the mainsail to the front edge of the mast — making it a very efficient rig upwind.

Sailing upwind, the Elliott 9.1 easily sits on 6.5 knots and maintains a fairly constant angle of heel throughout quite a range of wind speeds.

Steering this frog is very easy, the cockpit crew enjoying a positive footrest. All of the sail controls are easily within reach of the helmsman, the endless mainsheet system being particularly well thought out. The helm is very light, with response being very quick as Sneaky Frog moves very cleanly through the water.

Easing off to a two-sail reach, the yacht stands upright very quickly and accelerates dramatically. We climb quickly to a comfortable speed of around 8 knots, the crew all the while willing the wind to rise.

Next on the agenda is the No 2 three-quarter hoist lightweight spinnaker. Bearing away the apparent wind diminishes so the speed remains around 8 knots.

An interesting feature is the attachment for the spinnaker pole, again at the base of the mast. The pole is designed to fit in the specially-designed pulpit and act as a prod from which gennakers can be flown. All the spinnaker handling equipment runs aft to the cockpit within easy reach for shorthanded racing.

The large gap between the loose footed mainsail and the boom provides a bonus when dropping the spinnaker — the kite being fed between the sail and boom, easily under control and out of the way of the headsail winches.

All the sails aboard Sneaky Frog were made by "Kermit" of Dave Giddens Sailmakers. The wardrobe currently consists of a Dacron fully-battened mainsail, kevlar/mylar No 1, 2 and 3 genoas, a 0.5oz masthead spinnaker and a 0.75oz I-point spinnaker — with gennakers yet to be developed. All were constructed from Bainbridge sail cloth.

Deck

With the last of the breeze quickly disappearing we head back to the marina for a closer deck and interior inspection.

The first thing we notice about this Elliott is the large radial Ronstan traveller running from gunwale to gunwale, a necessary system since you cannot have a vang on a rotating wing mast. The endless mainsheet system is easily operated from leeward, with turning blocks bringing the sheet back in the right direction and cleating on the cockpit coaming.

The jib and spinnaker halyards and spinnaker pole topping lift all run to the aft edge of the cabintop where they are anchored by Ronstan camcleats.

The cockpit bulkhead is home for the two Silva compasses and the Horizon Standard digital log, which impressed with its large, easy-to-read digits and its range of functions.

The Genoa sheets run through the base of the traveller and are handled by Andersen 28 two-speed self-tailing winches.

The spinnaker sheets have their own Andersen 28 two-speed self-tailing winches further aft in the cockpit. These winches also provide the grunt for the masthead backstays. The lifebuoys live tidily under the laminated tiller, right aft in the cockpit.

The rest of Sneaky Frog's deck is a clear working platform — the chain

plates being on the hullside and there being no for'ard hatch or anchor well.

Construction

The rotating wing mast is constructed of 6mm Gaboon plywood over horizontal bulkheads and vertical stringers. The structure is reinforced by a skin of 6oz glass with a carbon unidirectional skin in the stress regions.

The mast is supported by just three stays — the centre being kept in line with a set of double diamond stays. The mast rotates on a Nyloil hemispherical bearing.

The hull is constructed of two laminations of 4mm Gaboon plywood over oregon stringers, with a skin of 6oz glass. The side decks are of 6mm ply, the cabintop is three laminations of 4mm ply while the cockpit is of a ply/foam/ply laminate — all covered in 6oz glass.

The 2.13m (7ft) wing bulb keel has a steel frame and timber fairing with 860 kgs (1900 lbs) of lead ballast. There will be little chance of this keel parting from the yacht as it is held on with 10 20mm keel bolts through five 70 x 100mm laminated hardwood floors. In addition, the compression post for the mast sits on a 75 x 100mm laminated frame. The rudder is of laminated timber, glassed over.

Accommodation

Moving below we discover that headroom aboard Sneaky Frog is limited to the sitting position. Beginning our inspection aft we find two single quarterberths tucked well under the cockpit.

The navigation table is in the main saloon to port, with the batteries fitted beneath. This station easily accommodates a half chart and is also home for the Pioneer stereo and

The three-quarter hoist spinnaker provides plenty of grunt, even in light airs.

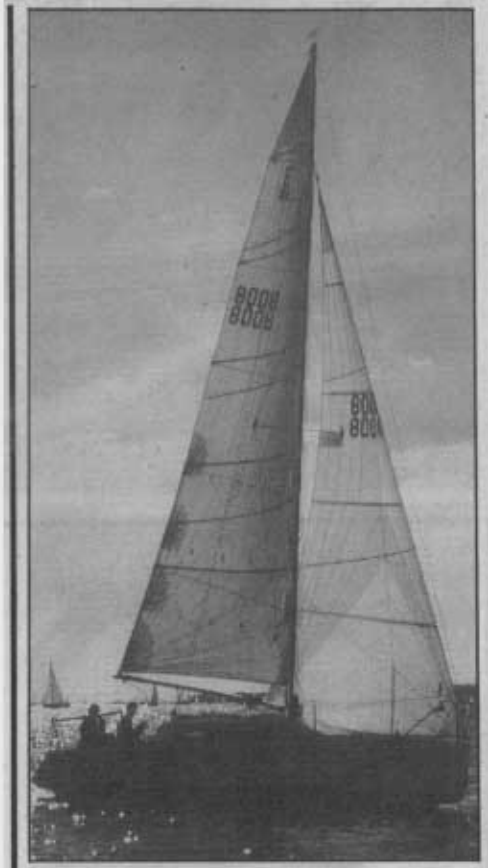
saloon to port, with the batteries fitted beneath. This station easily accommodates a half chart and is also home for the Pioneer stereo and Apelco VHF. For'ard of this is another single berth with stowage beneath.

To starboard we discover the galley unit which has been built to take a Mariner two-burner stove while the bunk layout to starboard is identical to that to port.

Sneaky Frog has no squabs — all bunktops being of mesh with zip access to the stowage beneath. These berths are both light and comfortable.

For'ard of this the yacht has been left free of weighty accommodation. Boatbuilder Craig Sterling has made a beautiful job of finishing the yacht — the clear-finished timber interior clear evidence of his craftsmanship.

The traditional and the trendy — the schooner-rigged Breeze provides a marked contrast to Sneaky Frog's winged rig.



The plywood rotating wing mast adds plenty of power.

Designer's comments

Sneaky Frog is described as a "concept race boat" by designer Greg Elliott of Elliott Boat Design.

"Craig Sterling (alias Sneaky) had previously built and raced Sneak Preview. When he sold that boat he began looking around at what to build next. We discussed it over a tray of beers and decided that the boat would have a

"As a 30ft boat this has been a neat project and most enjoyable. We ended up with a lightweight, stiff little hull. The boat doesn't have many instruments, a diesel or other on-board facilities — it's a very quick little fun machine."

Elliott says the hull form is similar to that developed for Midnight Oil and is not too removed from the shape of the larger Elliott 12s such as Transformer.

"The boat is built right down to weight. It's not a yacht you'd cross the ocean in — it was designed for fun around the harbour and coastal sailing."

Summary

Sneaky Frog is a fast fun machine, easy to sail and, with the right skills, inexpensive to build.

The yacht was built with a definite purpose and budget in mind — and it would be hard to fault the way this project has been put together.

Both Sneaky and Kermit share a love of fast, competitive yachting and have shared their very appropriate skills to produce this spectacular little yacht.

That this Elliott 9.1 has only sitting headroom below decks is of little concern to owners whose first priority is being in the cockpit, sailing the yacht.

We discussed it over a tray of beers and decided that the boat would have a rotating mast.

"Being a boatbuilder he wanted to build in wood — including the mast."

And so Sneaky Frog became a new plywood flier — even the mast being built of ply.

"Sneaky couldn't afford a high-tech mast so we decided it should be built of ply. The section is bigger than first planned to keep the number of stays down," Elliott explains.

"The first yacht we used the rotation mast on was Excess. We had originally wanted it on Gorilla Biscuits but felt we'd done enough with that design without trying too much.

"With Dennis Conway (alias Kermit) being a sailmaker with Dave Giddens, the whole project worked out well. They put the boat together for just $45,000 — their labour obviously not included.

The huge rig on the Elliott 9.1 allows her to regularly pick her way to the front.

The vitals

LOA	*9.1m (29ft 10ins)*
LWL	*8.6m (28ft 3ins)*
Beam	*3.2m (10ft 6ins)*
Draft	*2.13m (7ft)*
Ballast	*860 kgs (1900 lbs)*
Displacement	*2040 kgs (4500 lbs)*
Designer	*Elliott Boat Design*
Builder	*Craig Sterling*
Rig	*Craig Sterling (plywood)*
Sails	*Dennis Conway (Dave Giddens' loft)*
Winches	*Andersen*
Sailing instruments	*Silva/Horizon*
Engine	*Kawasaki 250cc*
Paint system	*Epiglass*