

# MUSCLE BOATS FROM ELLIOTT

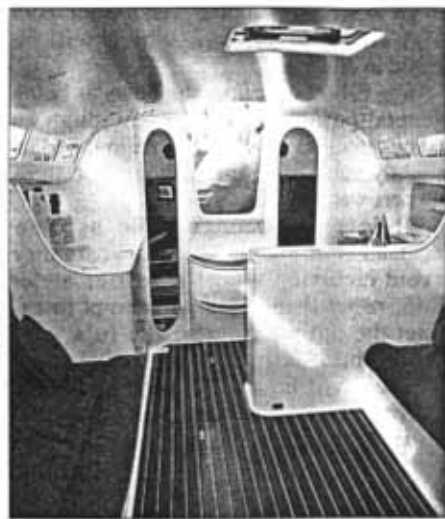


Three new 12 metre yachts from Greg Elliott point to the arrival of a new generation of powerful, light displacement boats.  
By Shane Kelly.



*Main: Sassy shows the more pleasing lines of these new generation Elliott designs.*

*Top: Cockpit area on Terminator has central mainsheet winch on a pedestal and a pair of returns into the trench for the helmsman.*



**M**uscle boats is a term they use in the US for their hottest powerboats. But it's a term which could apply equally well to a new generation of yachts which hit the water in Auckland last month.

*Total Recall*, *Terminator* and *Sassy* are from the board of Greg Elliott, who has given this country some of its most exciting yachts over the last eight years.

These new boats are big and powerful, with two being most appropriately named after movies which star Arnold Schwarzenegger, who is known to have a fair bit of muscle himself.

The three boats have all been built to the same basic 12.1m (40ft) design, but in

slightly different versions.

Two - *Total Recall* and *Terminator* - are what the designer calls "sedans, or cruiser/racers," with the third a "sports, or racer/cruiser" variant. All are intended for racing under the new IMS rule.

The design was originally commissioned by Bob Wilson of Wilson Boatbuilders at Gulf Harbour Marina. He wanted a fast, safe, stable boat for cruising with his family and racing. He had been impressed by the Elliott designs *Whispering Jack* and the new 1050 at last year's Imtec show, and liked Elliott's approach to key design factors such as stability, as well as the styling of the new boats. By mixing in his own expertise as

*Terminator* (above) has less wooden trim, more of a lacquer-type finish than *Total Recall* (left).

a boatbuilder Bob Wilson felt they could come up with the right product - and after sailing the boat, he feels they have got it. He is now campaigning *Terminator* in the B&G Gold Cup series and with half a dozen short cruises with his wife and family aboard in less than favourable weather, is happy that the concept is what he wanted.

The first of the Elliotts into the water was Ron Brittain's *Total Recall*, followed shortly after by Bob Wilson's *Terminator* - both launched and based at Gulf Harbour Marina, north of Auckland. Next



*Total Recall* powering under spinnaker.

to go in was the "sports" version for Tom McCall, named *Sassy*, which will be based in Auckland.

Greg Elliott describes the boats as being general purpose 40ft yachts, though he admits that designing one boat to meet the slightly varying requirements of the three owners was quite a juggle.

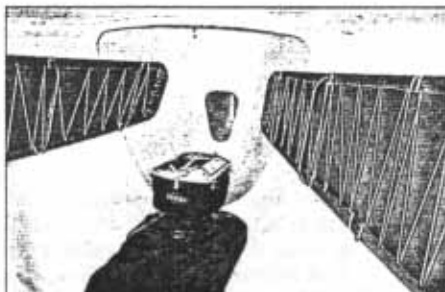
While being recognisable as New Zealand-style racing/cruising boats they avoid incurring undue penalties under IMS, rather than being an attempt to extract the optimum under the rule, or a "typeformed" boat.

"They will be able to race under the IMS rule and at certain times they will be really competitive, but when this current phase of IMS is over, and people don't want it any more, these clients will still have a really good all-round 40ft yacht."

Even the most basic - *Sassy* - scores well under the IMS interior requirements, with *Terminator* and *Total Recall* having more comforts.

The design has more displacement (around 5500kg, depending on the yacht, to accommodate cruising gear) than Elliott has generally designed into his 40ft yachts; the after sections are finer while the forward sections retain the fullness typical of his designs. It has less beam than previous Elliott yachts but it is still a large volume hull form.

The looks have received some attention too, with Greg Elliott reacting to criticism



For'ard double berth on *Total Recall* (below) and open sail storage area of *Terminator* (top).

that some of his past yachts have not been good-looking enough and drawing a more aesthetically pleasing yacht.

## Total Recall

Ron Brittain decided on the Elliott 12 metre design to replace his Beale 33 after first thinking of building a radical racing boat. But he decided that cruising was too important to cut out completely, and the interior and cruising comforts aboard reflect this.

The accommodation features three double cabins, a large double V-berth for'ard and a double cabin in each of the quarters. *Total Recall* has sumptuous leather squabs in Crystal Mint colour from Beedie and Hoyle upholstery, with teak and holly floorboards and teak cupboard doors and trim. The effect is very stylish. There is a spacious head and shower compartment to port, just aft of the for'ard cabin - full headroom, lots of stowage space and a teak grated floor are features here. In fact the large-volume hull affords full headroom right through to the for'ard berth and contributes significantly to the open feel of the boat. Opposite the head is a rack of stowage shelves and a hanging locker.

The saloon has a U-shaped dinette to port with a fixed teak table. Under the dinette are spaces for the five gallon hot water tank, one of the two 204 litre (45 gallon) fresh water tanks and a compartment for stowing the ground tackle when the boat is racing. A pair of large bins behind the berth is used for stowing sailing bags, etc, particularly when racing.

The starboard side features a single settee, under which is the second 204 litre fresh water tank. Behind it is a large liquor cabinet.

The navigation area is to starboard, with the full-sized nav table over the top of the freezer and fridge. The chart table is in two parts, the first lid accessing the chart stowage and the whole chart table lifting for the freezer. The fridge is front-accessed, and refrigeration is by way of an engine-driven compressor.

The instrument package fitted is based on Autohelm's Navcentre, networked through a full set of sailing instruments (which are repeated on deck), and which will eventually be connected to a GPS receiver.

The galley is to starboard and features a large food stowage area, rack of drawers, twin sinks and a special top-accessed stowage bin for plates, etc.

The quarter cabins are mirror image with stowage at the forward end.

Beneath the cockpit, and between the two cabins, is the Yanmar 35hp diesel with saildrive and directly behind the engine is the 140 litre (31 gal) fuel tank.

The cockpit is one area where the three boats differ, but the differences are rela-

tively minor. *Total Recall* reflects the fact that Ron Brittain scuba dives and the cockpit has a clearer layout as a result. It also has two large lockers under the decks right at the transom for stowing gear, whereas the other two boats do not have these.

Cockpit layout is IOR-style, with a wide trench between the side decks. The mainsheet traveller is at floor level, with a manual coarse and fine adjustment system using a full Harken block set-up.

The winch system is from Barient, with three self-tailers each side on the deck for sheeting and running backstay work and another single winch either side of the companionway for halyard and spinnaker pole controls. All control lines are led to banks of jammers each side of the companionway.

The deck layout is simple, with a single genoa track for the headsail. A large anchor well at the bow of *Total Recall* and *Terminator*, each with an anchor winch, is different to *Sassy*, which has no well the interests of weight saving and distribution.

## Construction

*Total Recall* was built by Alexander Boats using the strip-planked cedar method, inside female frames. *Terminator* was built over male frames by Wilson Boats. The laminate for both boats is the same. The outer skin com-

prises a fine satin weave glass cloth and a 770gm triaxial and the inside skin is another 770gm triaxial. The cloth used is known as a weft triaxial, in which half the fibres run across the fabric and the others are at 45 degrees. The cloth can be laid longitudinally along the boat so the fibres run across it and this eliminates the need to fair in overlaps.



*Total Recall* (pictured) and *Terminator* have double quarters aft.

The boat's internal structure is a mixture of timber and foam. The bulkheads are plywood. There are keel floors and ring frames through the boat at approximately 400 centres and these are a mixture of foam/triaxial glass and laminated timber. There is a sister keelson of Iroko hardwood running through the boat from the toilet bulkhead through to beneath the engine. The floorboards are teak/holly finished ply.

The deck was made by Cookson Boats

from the male mould and is 10mm to 25mm Divinycell with unidirectional and woven cloth each side.

The interior furniture of all three is plywood and Duracore.

The keels on all three boats have a steel stub 1m deep with the lead ballast bulb bolted to the bottom using four 1" high tensile bolts. The lead was poured by Geary & Sherson.

## Terminator

*Terminator's* interior is similar to *Total Recall's* though it weighs a bit less, and has more of a "lacquer" style of finish. The forward area remains true to Elliott's layout with a large open sail stowage area with a pair of simple pipe frame berths. The saloon layout differs only marginally, as does the galley, though *Terminator* has a little more food stowage area, and a single sink with a plug hole at each side so the water will completely drain when the boat is heeling.

The navigation area is also similar, though access to chart stowage and the freezer are through the table top rather than the table lifting.

The engine is also a Yanmar 35hp, but Bob Wilson preferred to install a conventional shaft/propeller than a sail drive.

On *Terminator*, the twin after cabins go right through to the transom rather than to a bulkhead which forms the storage bins on *Total Recall*.

The deck layout is the same though *Terminator's* cockpit has quite a different layout. The mainsheet arrangement has a single sheet led to a winch on a central pedestal and Bob Wilson reports that this is a good arrangement. There is no pile of rope in the cockpit and the winch is fast and powerful, enabling the crew to easily control the main during manoeuvres, particularly gybes.

In the helmsman's area of the cockpit, *Terminator* has two returns into the cockpit, one containing the gas bottle and the other protecting the throttle. These are to narrow the cockpit down for the helmsman and provide seats for him, and again, they work well.

## Rig

As appropriate for the three boats, there are two types of rig, both from Matrix Masts. *Total Recall* and *Terminator* have a slightly heavier Sparcraft Kenyon 4470 section rigged with two spreaders and substantial topmast jumpers for carrying masthead chutes, if required. They are keel stepped into the head compartment where any water ingress is not a problem. *Sassy's* rig is identical in size, though with a slightly smaller Sparcraft Kenyon 4270 with triple spreaders, and topmast jumpers. All the boats have Riggarna rod rigging and bottlescrews, as well as running backstays and checkstays; *Total*

*Recall's* set-up includes an air vang to support the boom.

## Sails

The sails come from two lofts, *Total Recall* and *Sassy* have North inventories, while *Terminator's* are from Hood sails.

The North sails are "Librah cut" which is basically radial clew and head with a biased luff. Interestingly, the sails design on *Sassy* are almost identical to those carried by the One Tonner, *Matenrow*, which top-scored at last year's Kenwood Cup.

Tom Dodson from Norths explains that while the light displacement yachts used to be much more tippy, requiring sails which were flatter and more open in the head, the new Elliott designs are at least as powerful upwind as an IOR boat and the sails are very similar.

The mast bend characteristics on Elliott's swept-back spreader rigs are similar to the IOR in-line spreader rigs and the mainsail luff curve and profile are also very similar, says Dodson.

"Greg Elliott prefers to use swept-back spreader rigs and he has a good handle on that rig where some people have trouble getting them to bend properly," says Dodson.

*Sassy* has the full Kevlar inventory which will be necessary to compete at next year's Kenwood Cup, whereas *Total Recall* has Kevlar headsails, though its

mainsail is Dimension DI Dacron, a cloth which has lengths of Dacron fibre inserted in the warp direction to increase its strength while still giving longer life than Kevlar.

*Terminator's* sails are from the Hood loft and were designed by Rob Salthouse. The mainsail is a warp dacron, yarn tempered, with excellent warp and fill strength. It is a compromise between a full-blown exotic IMS sail and a club racing/cruising sail; a good price with good performance, according to Rob Salthouse.

The radial cut was chosen to distribute loads through the sail and contribute to a smoother, stronger sail with a long life.

The number one and three genoas are cut from high-performance Spectra fabric. The cut allows Hoods to use heavier cloth in leech and head areas and lighter fabrics on the luff. The number two genoa is Dimension DI dacron as it will be the sail used for cruising.

## Sassy

*Sassy* was built in a female mould and is described by Richard Honey of High Modulus as being 95 per cent of the way to a full-blown IMS laminate.

The hull is a mixture of 20mm and 25mm H80 and H100 divinycell foam, with the thicker foam used in the forward sections to minimise the number of frames and bulkheads.



Total Recall's galley with teak trimmed joinery.

The outer laminate is a satin weave E-glass cloth and two layers of 300g Kevlar. The inside skin is a layer of Kevlar and S-glass. The deck has an outer skin of glass cloth and one of Kevlar cloth with a foam core up to 30mm thick and an inside skin of multiple layers of 275gm S-glass unidirectionals. It also has an S-glass rudder stock. All resin used on Sassy is Adhesive Technologies' ADR30, a moderate cure temperature pre-preg laminating system. High Modulus did a comparison of costs and weights between the two laminates and found that material costs for Sassy were about two-thirds higher, but it weighed a third less.

The hull and decks were built by Cookson Boats and finished off by Geary and Sherson.

Sassy's interior is striking and purposeful, with the for'ard area completely open, an enclosed head to port, and basically the same saloon layout as the other two boats.

The navigation area is athwartships with a low seat and the aft area is open, rather than being closed off by bulkheads. The engine is a slightly smaller Yanmar 27hp/saildrive combination.

## Sailing

The truly striking thing about these boats is the power and pointing ability upwind and this is one of the big advances made in the performance of light displacement boats in the last five years.

The proof of the Elliott 12m performance will be in racing, but *Terminator* made a good start in the light weather Coastal Classic by finishing first over the line and on handicap in division 2 after a race long duel with Murray Ross in *Satellite Spy*.

We sailed on *Total Recall* in an Olympic triangle race with the Gulf Harbour Yacht Club in winds of up to 26 knots true. We weren't actually able to record the maximum wind while the kite was up but it was enough for the boat to top 14.5 knots in an exciting but controlled blast.

In those wind strengths we carried full main and number three upwind and the higher wind ranges of 33 knots apparent were the top end of the range for those sails. Despite this the boat maintained its balance and helm.

Upwind, *Total Recall* powered at 7 to 7.5 knots with impressive pointing ability. Stiffness and motion were good and working the boat, while acknowledging that it is a powerful big boat and loadings were high, was straightforward. The power is certainly impressive, though we were glad of the package of Harken deck gear and the Spectra rope to handle the equally impressive loadings generated by the big Elliott. □

## SPECIFICATIONS

<b>Elliott 12m</b>		
<b>LOA</b>	12.1m	(39ft 6in)
<b>LWL</b>	11.2m	(36ft 7in)
<b>Beam</b>	4.1m	(13ft 5in)
<b>Draft</b>	2.45m	(8ft)
<b>Displacement</b>	5500kg	(12,125lb)
<b>Sail area (main and foretriangle)</b>	82 sq m	(882 sq ft)

Designer Greg Elliott.



Full instrument package on Total Recall along with dual-lifting tops to the nav table, makes for a tidy navigation/fridge area.