



# Rebb'l with a cause

**ONE LOOK AT REBB'L PROVES HER designer/builder Richard Edlin is not afraid to push the boundaries of tradition.**

**T**he pilothouse motorsailer *Rebb'l* – an acronym of Richard Edlin Boat Builders Ltd – could also mean to rebel against tradition.

Traditionally, motorsailers have tended to be relatively modest performers thanks to smallish low aspect rigs, heavy displacement, and low resistance hulls incapable of being pushed past hull speed. With her tall rig, wide powerful hull, high pilothouse and 100hp engine, *Rebb'l* is far from the model of tradi-

tional motorsailer and, provided you get past her unusual styling, offers genuine advantages for cruising.

*Rebb'l* began 10 years ago, when Edlin and his good friend Rob Neeley decided to build a 10.5m race yacht in partnership. Edlin and Neeley designed a 2600kg displacement yacht, with a shallow hull, U sections forward, a flat bottom and flared topsides.

Edlin and Neeley built the boat to a bare hull stage before Neeley became involved in other

projects. Edlin also had other projects on the go and parked up the hull for several years – meanwhile, his needs changed.

He decided a pilothouse motorsailer had more appeal than a race boat, so he re-designed the boat using the existing hull. This included adding 150mm to the sheer, a new deck, cabin, interior and rig, and a hinging pod to the hull aft – more on the pod later. Edlin also wanted shallow draft and designed a lifting daggerboard and twin rudders.

However, Edlin was faced with a bigger challenge. Pushing the average yacht hull past its hull speed under power usually digs a big hole in the water. This is usually due to lack of buoyancy and/or lifting surface area in the aft sections of the hull.

Had Edlin started with a clean sheet of paper, he would have drawn a wider hull, with flatter, straight aft sections. However, constrained by the existing hull shape, he had to find another method to improve motoring performance.

His solution was a movable pod fitting into the aft section of the hull and hinging from the front. When the boat is sailing, the pod is fully up and remains fair to the original hull lines.

When down for motoring, the pod alters the water flow aft, forcing the bow down, which prevents squatting.

The pod was built in glass-sheathed plywood, hinged with twin stainless bolts in carbon fibre hinges. Fully deployed, the pod extends around 150mm, and is oper-

*Rebb'l*, the Edlin pilothouse motorsailer 10.66m; boatbuilder-designer Richard Edlin originally built the hull as a racing yacht. *Rebb'l* is an acronym for Richard Edlin Boat Builders Ltd. ABOVE LEFT: Richard Edlin and his partner, Julie Smyllie.

STORY BY JOHN MACFARLANE ■ PHOTOS BY MIKE HUNTER



ated by twin electric motors driving worm drives.

The hull was built in glass/foam epoxy sandwich, with Divinycell foam and West System epoxy. The decks are glass-sheathed plywood, the cockpit floor is foam/glass and cabin tops are ply/foam/glass. The large windows – so important on any pilothouse design – are six-millimetre safety glass, set into internal flanges.

The original daggerboard keel was assembled over a steel plate, with multiple

vertical steel stringers welded to each side. Timber fillers were then glued and bolted to the steel plate between the stringers, then faired to an NACA foil section.

As launched, the ballast was an 1100kg lead bulb bolted to the bottom of the board. The completed daggerboard, finishing up around 70mm thick with a chord of 500mm, was sheathed in carbon fibre and glass.

The JT Spars rig is soundly supported with twin, swept-back, 10-degree spreaders, topmast jumpers, and permanent and

running backstays.

By today's standards, the sail plan is relatively low aspect, although the working sail area is still generous. The emphasis is on simplicity and ease of handling. *Rebb'l* has a fully battened mainsail and a 120% genoa on a Profurl furler; the only downwind sail is a flat cut gennaker.

*Rebb'l's* interior layout uses different floor and seating levels. The seating/dining area is raised on a pedestal so those seated can easily see out through the windows. Opposite, the galley floor is set

MIDDLE LEFT: The boat has different levels in the sole to provide headroom in the galley while allowing diners to see out the window when seated, lead page. The sleeping accommodation is spacious, as are the head and shower.

lower to give full standing headroom.

Going forward past the pilothouse section, the floor level drops again to give full headroom in the shower/heads compartment and forward cabin. There's another even lower floor level immediately adjacent to the companionway to aid access into the aft double and pilot berths. The aft berth is a king size, with a mirror on the rear bulkhead making it seem even bigger.

The engine, a 100hp 4JH3 Yanmar, is under the dining table, a position Edlin has used on several of his trimaran designs. This position keeps engine weight central, the shaft angle modest and allows easy engine access on all sides, when the table is lifted away.

The fuel and water tanks, as well as the batteries, are all in this area, again aiding



weight distribution. The keel-stepped mast is in the shower, so water leaking down the mast drains away. The interior has been finished in a stipple finish in high solids epoxy paint and re-coated in reaction lacquer, which has proved durable and easy to clean, as well as being forgiving of inevitable bumps and scratches.

Unusual features continue outside. *Rebb'l's* working cockpit floor is set high, and I was always aware of standing on the boat rather than in it. The twin tillers mount directly on the rudder shafts, and

*Rebb'l* averaged 5.5kts in light breeze but her owner says she's touched 15kts broad reaching in strong conditions.

either or both can be quickly removed to ease congestion. The box in the centre of the cockpit provides storage for drinks and life jackets, but its prime purpose is to give the helmsperson somewhere to brace his or her feet when the yacht's heeled.

Aft of the working cockpit is the fishing/diving/boarding area, also an excellent place to store the dinghy when cruising.

# SIDE-POWER Thruster systems

Now distributed exclusively by ATL

Confidence by Control



NEW 2006 - user friendly Side-Power Radio Remote control

For the ultimate shorthanded boating experience, get a Side-Power Radio Remote control! (Plug-and-Play installation with 1998 and newer thrusters).

Side-Power offers a comprehensive range of electric and hydraulic bow and stern thrusters – along with a wide range of accessories.



For further information or your nearest dealer, contact Advance Trident Ltd, 383 New North Rd, Kingsland, Auckland  
Ph 64 9 845 5347 Fax 64 9 845 5348  
Email: sales@advancetrident.com New Website Coming Soon: www.advancetrident.com

THE Hutchwilco NEW ZEALAND

# BOAT SHOW

FULL-ON FAMILY FUN

Come along and be in to **WIN** our biggest ever gate prize

The Boating Guy's own Stabi-Craft 659 Super Cab, with Yamaha F150 150hp 4-stroke outboard, full Raymarine electronics package, Hutchwilco fun & safety package, Kitwell game fishing equipment and much, much more.



Retail value: over \$100,000 (if bought new!)

New Zealand's favourite BOAT SHOW has a new date for 2007!

**May 17-20** (Thurs to Sun)

ASB Showgrounds, Greenlane  
www.boatshow.co.nz

**LATE NIGHT SPECIALS!**

Thursday, May 17 & Friday, May 18 5pm – 9pm

Take advantage of our Extended Late Night Hours & we'll DOUBLE your chances to win the Stabi-Craft Yamaha Gate Prize Package!

Hutchwilco Quality Lifestyle

SEAFURY

YAMAHA

SPORT Just Sport

Kitwell

The New Zealand Herald

Raymarine ON BOARD

7715



**RE**  
RICHARD EDLIN  
TELEPHONE : +64 21416531

Metcalfe Road, Matakoho, Kaipara

- Custom Designs • Consultancy • Builder of New Boats
  - Refits • Alterations and repairs
- Contact Ph / Fax 09 431 6368

7750

INTERNATIONAL MARINE BROKERS  
For the world's best yachts



An opportunity has arisen for the appointment of a suitable Broker to join the leading Imported Yacht Dealers in New Zealand to control the company sales of all brokerage boats exclusively.

With over 100 new boats sold by us, these boats represent captive sales in the future. Added to this are the boats we trade that are exclusive to this company and the listings of the many top quality boats that are for sale.

We have sales berths and a central Westhaven office with parking. We are prepared to back this position with extensive advertising and marketing support. The type of Broker we need must be able to create new deals and motivate prospects. We are looking for a mature person (with a sailing background) who has good marketing skills with an honest and professional approach to all endeavours.

We expect the income to exceed \$100,000 pa.

Please reply in confidence with your CV details to roger.wilson@internationalmarine.co.nz

127 Beaumont Street, Westhaven, Auckland • www.internationalmarine.co.nz

7749



I attended *Rebb's* launching party 18 months ago and, despite Edlin's enthusiasm, it was obvious not everything had gone fully to plan. Watching *Rebb's* motoring out of West Harbour, she was squatting aft more than would be desirable, and seemed excessively tender when underway and dockside.

Although he didn't show it, Edlin must have been disappointed. Undaunted, he set about making alterations. First, he lengthened the pod by 660mm and increased its buoyancy to cure the excessive squatting. As launched, *Rebb's* daggerboard drew 2.8m fully down, but Edlin

found he didn't need this feature. He converted the daggerboard to a 2.4m draft, fixed keel by cutting the board down, then gluing it into its case. To increase stiffness and improve upwind pointing, he added another 240kg of ballast in the form of a shoe to the existing bulb. The upper section of the daggerboard case was converted into an air intake for the engine. Finally, 18 months after launching, Edlin announced *Rebb's* was ready for a sea trial with *Boating New Zealand*.

I'd deliberately arranged the boat review on a day with a forecast of 25 knots. Unfortunately, no one told Huey, who

sent a beautiful Indian summer's day of brilliant sunshine and an eight-knot NE breeze. Scratch plan A for *Rebb's* seaworthiness, instead substitute plan B for how a family might use this craft on a typical weekend day.

This is how it went. We climbed aboard at Westhaven, dropped the mooring lines and motored out past the moles. Oh dear, it was a head wind and not much of it. We brought *Rebb's* to a stop, lowered the pod, put it back into gear, and applied throttle.

We watched as the rev counter climbed to 2800rpm—equating to 8.5 knots on the log—and aimed for the sharp end at Motuihe.



The 100hp Yanmar is installed beneath the dining table to keep weight central, shaft angle modest and for easy access.

One hour, 10 minutes later off Motuihe beach, we watched Edlin lower the anchor and idle down the engine before we all trooped below for chilled drinks. Edlin's partner Julie Smyllie prepared a lovely lunch while we perched up in the pilothouse out of the sun and watched all the comings and goings.

Lunch over and there was a fair eight-knot NE breeze. We raised the anchor, hoisted the main, and hoisted the gen-



naker, and sailed back to Westhaven on a series of broad reaches, averaging 5.5 knots all the way.

Edlin prefers to tack the gennaker to a spinnaker pole, which means dropping and rehoisting the gennaker when gybing, but that's a personal thing. The tack could have easily been attached to the bow of the yacht so that gybing could have been accomplished by letting go one sheet, and hauling in the other. Alternatively, a symmetrical spinnaker could be added to the wardrobe to enable running straight downhill in light conditions.

Let me flesh out these impressions. Under power at low speed, *Rebb's* felt like any other light displacement yacht, initially slightly tender, and affected by cross winds when docking and undocking. When powered up in launch mode, *Rebb's* sounded more like a launch than a yacht, giving a feeling of urgency. At more than seven knots under power, the boat tends to wander a little on the helm, not enough to be an issue but enough to notice.

The 4JH3 Yanmar turns a Flex-O-fold three-bladed, fully feathering propeller 18x11 inches, which drives *Rebb's* to just short of 10 knots at full speed. This is well down on Edlin's pre-launch predictions of 15 knots, however, in hindsight, this original goal was unrealistic with 100hp. Nevertheless, a cruising speed of 8.5 knots under power is not to be sneezed at.

After 18 months experience, Edlin believes the 125hp 4JH4 Yanmar would have been a better match for the boat, and that 15 knots under power is achievable with 180hp.

Under sail, *Rebb's* went where she was told. The twin rudders angle out 10 degrees from vertical, and although they draw only 1.3m, the lee rudder is deeper than this when the hull is heeled, steering the boat well. The hull has a buoyant motion and seemed dry, although the

conditions we had were hardly a true test of dryness. Upwind in the light, *Rebb's* gave a much better VMG, sailing low rather than pinched.

The keel has only a 500mm chord and consequently requires reasonable boat speed to provide lift. The light conditions on the day meant we never saw anything much over 5.5 knots on the log when sailing, however Edlin says he's regularly had *Rebb's* up to 15 knots when two-sail reaching in a heavy breeze.

In conclusion, no question, the concept of a light displacement, pilothouse motor-sailer is highly valid. While *Rebb's* didn't meet Edlin's admittedly high, pre-launch performance target under power, her current ability to cruise at 8.5 knots under power regardless of what Huey delivers or doesn't deliver on the day, opens up cruising possibilities. As for next time, given a little design tweaking, the 15-knot target under power is achievable while retaining the more than acceptable sailing performance. With most families experiencing increasing pressure on their leisure time, there's a definite niche market for the light displacement, performance motor-sailer. Well-spotted, Richard.

#### SPECIFICATIONS

lwd	10.66m
lwl	10.1m
boa	3.55m
draft	2.4m
displacement (light)	3600kg
ballast	1340kg
ballast ratio	36%
designer	Richard Edlin
engine	Yanmar 4JH3
horsepower	100hp
water cap	350L
fuel cap	280L

# RIB Boat Show Specials

Specials only available at the 2007 NZ Boat Show

Plus other specials at our stand

Visit us at stands 831-833-834 at the 2007 NZ Boat Show

QUALITY ACCLAIMED WORLDWIDE

<b>RAIDER 640 PVC</b> Dumbier Trailer, Yamaha 115hp 2 stroke Outboard installation RETAIL PRICE: \$49,100 AK Int Boat Show special <b>\$39,500.00 Incl GST</b>	<b>RAIDER 510 PVC</b> Dumbier Trailer, Yamaha 70hp 2 stroke Outboard installation RETAIL PRICE: \$31,991 AK Int Boat Show special <b>\$26,999.00 Incl GST</b>	<b>EURO 1401 PVC &amp; SKI ARCH</b> Dumbier Trailer, Yamaha 50hp 2 stroke Outboard installation RETAIL PRICE: \$29,756 AK Int Boat Show special <b>\$24,375.00 Incl GST</b>	<b>EURO 1301 PVC &amp; SKI ARCH</b> Dumbier Trailer, Yamaha 40hp 2 stroke Outboard installation RETAIL PRICE: \$27,576 AK Int Boat Show special <b>\$22,538.00 Incl GST</b>	<b>SEAMASTER 1401 &amp; SKI ARCH</b> Dumbier Trailer, Yamaha 50hp 2 stroke Outboard installation RETAIL PRICE: \$25,890 AK Int Boat Show special <b>\$22,538.00 Incl GST</b>
---	--	--	--	---

FOR MORE NATIONWIDE DEALERS CONTACT: 09 306 8608  
 30 Hargreaves Street, Ponsonby, Auckland • Ph: 09 306 8606 • Fax: 09 307 1012 • Email: sales@aquapro.co.nz

## Experience the value... ... value the experience

**CSB Huntsman Crusader**

Unequaled in finish, style and handling the Crusader is a big volume boat that can be transformed in a perfect weekend cruiser. A boat that lacks for nothing

**CSB Huntsman Dorado**

There is perhaps no better mid range cabin boat of this size on the market. The Dorado comes with a well established heritage and outstanding performance to match.

**CSB Huntsman Series 6000**

The Series 6000 transcends the size range between the Dorado and Crusader and encompasses the best attributes of both in a practical and well equipped package.

**CSB Huntsman 525 Sport**

Our 525 Sport is a nimble, fast runabout that is ideally suited for skiing, wakeboarding or just having fun on the water.

**CSB Huntsman La Plata**

Our newest model to the range, the La Plata is a seriously practical small yet affordable cabin boat that is designed with fishermen and family boaties in mind. Owning a La Plata is an investment in your future.

**CSB Huntsman approved agents:**

**NORTH ISLAND**  
 Woodbine Marine, Auckland Ph: 0-9-265 1693  
 Kev & Ian's Marine, Auckland Ph: 0-9-267 4999  
 City Marine, Palmerston North Ph: 0-6-354 9811  
 Hart Marine, Whakatane Ph: 0-7-308 6334  
 Power Boat Centre Ltd, Wellington Ph: 0-4-568 3181

**SOUTH ISLAND**  
 Powerboat Centre Ltd, Christchurch Ph: 0-3-389 1146  
 Marine and Auto Timaru Ltd, Timaru Ph: 0-3-688 6757

**AUSTRALIA**  
 Distributor: Huntsman Marine Australia email info@huntsmanmarine.com  
 Sydney: Boaters World Marine Centre email info@boatersworld.com.au  
 Melbourne: Inverloch Marine email tim@inverlochmarine.com.au

**Manufactured by CSB Huntsman Boats (NZ) Ltd**  
 Ph: 0-3-389 0256 Fax: 0-3-389 4371  
 email: info@csbhuntsmanboats.co.nz  
 Website: www.csbhuntsmanboats.co.nz