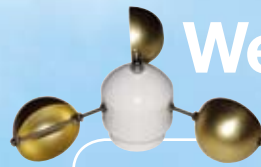


Surf & TURF



As the application of Sealegs amphibious boats broadens, so too does the outlook for the New Zealand company. **Steve Raea** takes a closer look at the company that defines “outside the square” in our industry...



Weather conditions

Average windspeed 10 knots & variable
Sea state Calm



Boat Test Sealegs

Aptly described as a “surf and turf” hybrid, Sealegs amphibious RIBs (Rigid Inflatable Boats) have garnered a reputation for robust engineering and excellent build quality and this has led in part to export sales growth in 22 countries.

Central to its export hopes has been securing international certification and compliance in the European, Asian, Canadian and United States markets that allows Sealegs product to compete more effectively for emergency vessel contracts.

Once considered a gimmick, the three-legged “land crab” has taken the concept of amphibious craft from the realms of cinematic fantasy to the practical world of medivac rescue in difficult and sometimes extreme environments.

From flood-prone deltas of Malaysia to the streets of India, Sealegs amphibious boats are now relied on by military and civilian rescue authorities in many countries, proving the “real world” application for amphibious craft.

As the largest and most successful amphibious manufacturer, Sealegs founder Maurice Bryham is ever mindful that Sealegs’ future rides on its boats’ functionality and reliability in all extremes.

This, he says, is why Sealegs has concentrated its resources on developing robust engineering and a quality build programme, and securing compliance at the exclusion of almost everything else.

“If we get the engineering right then we believe the rewards will follow. If we get it wrong and our reliability and operating capability is called

into question then the consequences are not worth discussing.”

Now six years in production, Sealegs management believes the company has turned a corner, transitioning from start-up to a period of expansion and diversification. This, says Bryham, reflects Sealegs’ confidence in its manufacturing processes and quality control.

TRADE-A BOAT says...

The practicality and application of Sealegs amphibious boats speaks for itself and it is these attributes that put Sealegs in a unique class of its own. As a boat it's comfortable and capable, and with 400 RIBs operating in 22 countries, we'd know by now if there were any major vices.

Signs of expansion are evident in the release of a 6.1m pontoon-style aluminium D-Tube amphibious craft providing a broader range of recreational and emergency service applications than its traditional RIB designs.

The development and launch of an all-wheel-drive configuration late last year further expands Sealegs’ operating capability in difficult terrain. Add to the mix a future option for diesel jet propulsion for shallow water rescue and flood



BOAT REVIEW



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from only \$92.97
per month*



mariner marine insurance
Ph (09) 360 1010
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Smart console with finger-tip controls for all functionality

Land crab

While no café cruiser, Sealegs RIBs have a curious charm that draws in passersby who collectively “ooh and ah” as the Tonka-like RIB rolls in and out of the tide.

A little daunting at first, Sealegs are no more difficult to operate and drive than a mobility scooter. Simply press a toggle switch on the centre console and the twin-cylinder air-cooled engine bursts into life. Press another switch and the wheels drop down and lock into position. As the wheels touch the bottom simply throttle forward and you're on your way.

And like a Thai elephant you can kneel your Sealegs at the bow by retracting the front wheel so that the RIB lowers and rests on its bow, allowing passengers easier access on and off the boat.

Using a trailer is no fuss either. Steer the RIB on and attach the winch cable to the bow, lower the wheels and you're on your way.



The torque is impressive, and there is an all-wheel-drive version in the pipeline

relief and a 7.5m alloy cuddy cabin cruiser for the recreational market, and Sealegs' aspirations are clear.

Bryham says the company's sales growth

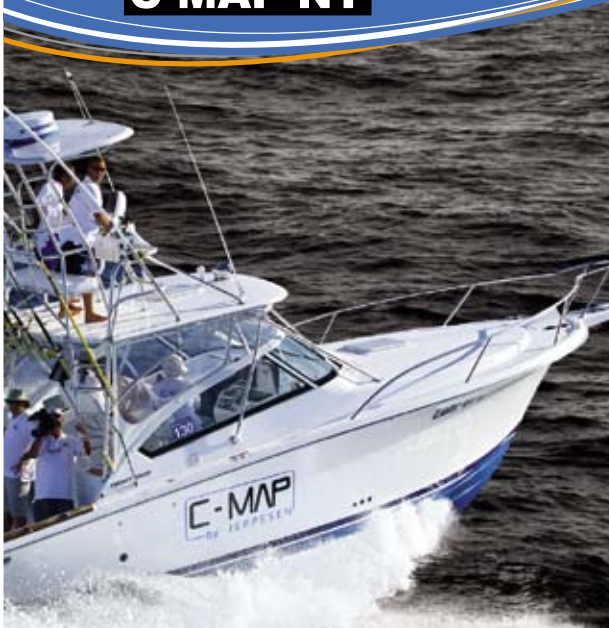
year-on-year reflects increasing awareness and confidence in the Sealegs brand and improved production and operating efficiencies. The brand has had its challenges and has put in place measures to trade through the recession but Bryham says the company is well positioned to ramp up production as certainty returns to the market. Sealegs' focus is now firmly on the United States market, where the combination of achieving official US Coast Guard certification

and the appointment of a New York-based vice president to drive sales will further raise Sealegs market profile.

What's the guts?

For those who haven't experienced a Sealegs amphibious RIB, they're quite simply an aluminium hull with two large inflation tubes attached to each side between which you

MAX C-MAP NT



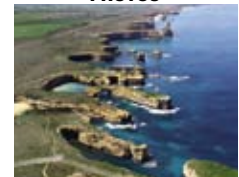
FISHING ZONES



TIDES & CURRENTS



PHOTOS



PC PLANNER



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Marine

C-MAP
by JEPPESEN

Jeppesen Marine Australia Pty. Ltd
Unit 1, 41-43 Higginbotham, Rd. Gladesville NSW, 2111
+61 2 9808 6200 (p)
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cmapinfo@c-map.com.au

Jeppesen is a Boeing Company

TBZ-HP-GNMAI-5050767-CS-166X

Boat Test Sealegs

SPECIFICATIONS

SEALEGS 7.1M AMPHIBIOUS RIB

LOA	7.13m (23"5')
Beam	2.61m (8"7')
Draft	0.41m (16")
Deadrise	21 degrees
Weight	1220kg (inc outboard and fuel)
Engine	150hp Evinrude Etec
Max payload	700kg

place people and possessions. The Sealegs difference is that most RIBs require a trailer to get them into and out of the water. With a Sealegs you don't. You simply hop on board, press a few buttons and switches, and drive the boat in and out of the water.

This, of course, is overly simplistic because boats don't have wheels or any means of self-propulsion on dry land. Sealegs boats have both. They are equipped with three mini-tractor wheels: two drive wheels at the rear and a third at the front to prevent the boat toppling over and to provide the steerage necessary to negotiate your Sealegs safely into the water.

So how does it work?

Sealegs RIBs have two engines; a conventional outboard engine hung off the transom for powering the boat in the water and a second, smaller air-cooled petrol engine placed in a central compartment within the boat.

The air-cooled Honda engine powers the hydraulics



This second air-cooled Honda engine creates hydraulic pressure, which powers the rear wheels and lifts them out of the water once the RIB is floating and has sufficient depth to lower and start the conventional outboard engine.

It is a remarkably simple concept but don't be fooled. The design, engineering and marinisation of the components necessary to ensure reliability and longevity is considerable indeed. In land-mode don't expect to shoot off to the dairy or drive it home unless you live very close to the beach because Sealegs are neither road legal nor designed for extended operation.

The standard Sealegs RIB will operate comfortably on land for about 10 minutes every hour at a maximum speed of 10km/h, after which you run a risk of overheating the air-cooled Honda engine.

As Bryham explains, speed is a distant cousin to torque, which is where Sealegs excels. Despite the standard inboard engine developing just 24 horsepower it has remarkable torque for crawling through mud, sand and shingle.

While speed and range might be limiting, Sealegs offers an upgraded option providing continuous land operation. This is achieved by larger engine cooling fans and a second fuel tank increasing reserves from 80 to 180 litres. This option, says Bryham, is recommended for operation in higher ambient temperatures and is typically specified by emergency services and commercial operators where increased operational capability and range is required.



We liked...

Diverse range of applications

Looks great on the water

Will look even better at the beach!

We didn't...

Short run-time on the land

Noise of generator

Bullet-proof

Sealegs designers have catered for the additional weight of its RIBs by substantially increasing the number and size of longitudinal and transverse frames built into the hull and continuously welded to prevent hull deformation due to wracking. All alloy work is from 5083 marine-grade aluminium and fabricated on site using the latest CAD router, which cuts and numbers every component with overall tolerances within one millimetre.

Bryham says more than 500 components go into every boat and most are manufactured on site and stress analysed as part and parcel of Sealegs' QA programme. Major components forming the drive line are cast or milled from solid aluminium, with hydraulic hoses internally housed and sealed for durability and protection.

"Quality is everything. Every part, mechanical component and system that goes into our RIBs has been analysed, tested and punished in extreme salt water conditions."

Bryham says this engineering approach extends to the few out-sourced components, which include the inboard engines, which Sealegs fits with its own stainless steel exhaust and electronic choke solenoid for reliability.

The Sealegs 520mm hull pontoons are manufactured from chemical resistant Hypalon, which provides greater UV stability, strength and operating life than PVC materials. Each tube has three separate air chambers for improved safety and carries a robust full length rubbing strake.

The hull form is conventional with a 21-degree transom deadrise and a single flat continuous chine rail. All internal metal work including console, seating and locker bases and cabin sole are powder coated or painted in two-pot polyurethane with self-adhesive rubber deck tread in passenger areas.

Sealegs' internal configuration is a single stand-



On the water

Sealegs RIBs are necessarily heavier than similar-sized RIBs, with the 6.1m and 7.1m respectively weighting in at about 1000kg and 1200kg. While this impacts on hole shot performance the additional weight has its advantages.

While not excessive, the 21-degree transom deadrise puts more of the Sealegs hull in the water and this, particularly in the 7.1m RIB, equates to a softer more comfortable ride in choppy or confused conditions and less tendency to hobby horse.

Conerning is perhaps not as precise or snappy as it might be on a lighter RIB, but the bigger Sealegs shows a willingness to lean into the turn and stick to its work rather than skip off as some tend to do.

The steering is also a little heavier than what might be considered normal in an inflatable boat but it is precise and predictable and the RIB handles and feels solid and robust.

up helm console housing the switchgear and standard electronics package. A small acrylic windscreen provides minimal protection with the additional option for a canvas bimini cover. Seating and storage options are reasonable with a double box seat immediately forward of the helm station enclosing the batteries and a third single seat at the bow providing anchor and rode storage beneath.

The helm seat provides covered and vented protection for the inboard engine and is fitted with a stainless steel bolster support for the helmsman. A second stainless arch is fitted across the transom for aerial and optional halogen floodlighting. The hull is also fitted standard with twin halogen headlights.

Bryham says Sealegs provides a range of options designed around the specific requirements

of the operator and the application. This, he says, extends to detachable stretchers, davit lift slings, emergency lights and communications equipment. He says regardless of whether the Sealegs is used for recreational or rescue purposes every RIB is designed to the same plan and built from the same components.

Sealegs recommends and fits Evinrude E-Tec outboards as standard because of what the company says is their excellent power to weight ratio, reliability, world-wide parts availability and quiet vibration-free operation.

Power and engine

The Evinrude 150hp E-Tec outboard fitted to the 7.1m Sealegs demonstrator delivered a spirited performance during a flat-water run on Auckland's Upper Harbour.

The outboard remote, wheel and centre console layout is effective and practical but is not conducive to sitting at the helm. The transition from surf to turf and back again is a bit daunting at first but there is no real trick to it just a need for a little technique.

The only negative as I see it is the noise and heat emitted by the inboard engine and the requirement for a dedicated trailer if travelling cross country. These are minor irritations compared to the comparative luxury of being able to "drive" your boat onshore. This, of course, comes at a premium, but the quality of engineering and marinisation of

components is evident everywhere you look as it needs to be.

As pioneers of amphibious boats with real-world application, Sealegs continues a proud tradition of innovation and we can only hope that the company doesn't fall victim to New Zealand's basket case economy. ⚓



Specifications

Sealegs RIBs

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Deadrise	21 degrees
Weight	1220kg (inc outboard and fuel)
Engine	150hp Evinrude Etec
Max payload	700kg



Price as reviewed **\$148,000**

Vessel supplied by Sealegs International Limited. For more information ph 09 414 5542, email info@sealegs.com or visit www.sealegs.com.

TO OWN THIS BOAT:

	EXAMPLE BASED ON
Purchase Price of	\$148,000
Deposit	\$59,350
Final Balloon Payment	\$29,600
Term 60 months	
MONTHLY PAYMENT	\$1600*

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