

review

Penguin 4m  
amphibian

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PHOTOGRAPHY SUPPLIED

# ROAD RUNNER

It so simple, you wonder why no one's done it before. But this Kiwi invention – a 4m amphibious inflatable with an integrated trailer – has been five years in the making.



A family-size, easy-to-use amphibious inflatable  
at an affordable price point



W

e've all been there: waiting on the boat ramp for the guy who's parked his trailer half a kilometre away. The queue to retrieve is backing up as Mum stands up to her thighs in the water, hanging out the boat, while the kids wriggle and whine and want to get out NOW!

A better way? What if the trailer was actually part of the boat? A simple idea, but it's taken thousands of hours of design work and years of development to get the first Penguin amphibious inflatable on the road – and on the water.

Former investment banker David Gibson has turned his long-term interest in amphibious craft into reality, working with Craig Loomes and Andre Moltschaniwskyj at LOMOcean Design to develop the first production boat, launched in May. Loomes and Moltschaniwskyj are also shareholders in the Penguin venture. The first batch of 15 boats is now under construction in Indonesia, and will be ready for new owners in August.

Gibson is a lifelong boatie, having owned a range of vessels, including a 7m Sealegs which he kept at his bach at Onetangi, on Waiheke Island. "It's the capital of amphibious craft – there are 25 or 30 Sealegs at Onetangi. At every barbecue all the boys stand in one corner and talk about their Sealegs and amphibious vehicles. There's something about the transformation from land to water that makes everyone go 'wow, that's cool'. I love the Sealegs and it's a great



product, but few people can afford \$200,000.”

So Gibson became interested in producing an “affordable amphibian” – a family-sized inflatable which would transition easily from road to water.

The Penguin has a conventional fibreglass hull, but is beamier than a similarly-sized inflatable. It also has a ‘chassis’ component to provide structural strength and make it towable on the road.

Under the water, much thought and testing has gone into creating a hull shape which will encourage the water flow to ‘jump’ the gaps where the wheels are recessed into the hull. “From a design point of view, when you put two holes in the boat for the wheels, you get horrible hull performance. It sits on its arse and doesn’t plane,” Gibson says. “So we had to think about the ways we could fix that.”

The hull design has additional buoyancy aft to make the stern sit higher in the water. Much research went into the hull’s hydrodynamics, to maintain the surface tension of the water rushing past the gap.

“It took three years to get it right, and it was the biggest challenge in getting the boat to perform,” Gibson says. “But now, when we put a camera in there and film the surface of the water underneath the holes, it’s like a sheet of glass.”

The arrangement for raising and lowering the wheels is so simple it almost seems agricultural. Above the axle, a laminated lever arm (called the WAL – wheel activation lever) is attached to a carbon tube from Kilwell.

All the user does is remove the loop of Dyneema rope securing it upright (attached to the transom with a couple of knots) and push it down once the boat is afloat. To redeploy the wheels, you just lift it up and secure it with the rope loop, which can double as a towing harness while you’re on the water. Simple? Genius.

“We had to design the trailer suspension differently, as traditional suspension has springs or levers made of steel, which rust or add complexity,” says Gibson. “One of our innovations was to put the spring in the lever arm, which provides suspension for both wheels, and you can do it with composites.”

A simple pin and split-pin hold the drawbar in position. The design team worked with mechanical design engineers TSV to certify that the trailer is legally compliant, safe and roadworthy. When boats are delivered to new owners they are road-registered as trailers and have a WOF.

As well as simplicity, weight saving was another design driver: all up, the hull, hard-wearing Hypalon synthetic rubber tubes and the integrated trailer drawbar and wheels weigh just 151kg – “and a lot of thinking has gone into every one of those kilos,” says Gibson.

A 15–25hp engine adds another 38–48kg, keeping the whole package less than 200kg and easily manoeuvrable by one or two people – easy to pull up the beach or boat-ramp on its fat, jetski trailer-style tyres.

And price of course. The base package is \$10,000 ex GST, so depending on the outboard you select, the whole thing comes in around \$15,000 plus GST – boat and integrated trailer.



**TOP** The wheels are retracted/deployed with a simple lever mechanism, held in place by a rope stop.

**RIGHT** Fat tyres make beach launchings/retrievals very easy.



Boats are delivered to owners, road-registered as trailers, with a WOF



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“To achieve that price point we’ve had to use an overseas manufacturer – we did try to do it locally but we just couldn’t make it worthwhile,” Gibson says.

Consequently, the boats are built at North Sea Boats in Indonesia, which specialises in military, SAR and law enforcement craft. The aim is to build 15 boats in each production run, which can be shipped to New Zealand in a single 40-foot container.

Gibson has worked with several local agents to develop a selection of outboard packages. “You decide what you want, we put it together and deliver it to you with the outboard, registered and warranted.” The ‘road kit’ includes the trailer drawbar and a light board, or for tender use you can buy the basic boat with wheels but without trailer capability.

### OFF THE RAMP

So, enough standing around looking at it – how does it work in practice?

We take the boat out for a spin off the Takapuna boat ramp, on Auckland’s North Shore – a typically steep, sometimes slippery and often congested ramp, which is mercifully free of other traffic on a sunny Wednesday morning. We sleeve the drawbar by the car then easily pull the boat across to the ramp.

“I’ve got two girls and a wife who are not much help around the boat ramp, and I can do it myself,” Gibson says, then demonstrates this. I’m no Valerie Adams and he’s got a broken arm, yet we have absolutely no trouble launching and retrieving.

Hopping aboard, lifting up the wheels is incredibly simple using the WAL then we are off in ‘boat mode’, without anyone

having to run and stash the trailer. The ride is smooth and dry and feels no different to a conventional inflatable, with a nicely elevated and comfortable helm position provided by the fibreglass chassis construction.

Now for the reverse process. As we approach the beach, it’s a simple matter of putting the wheel down by lifting and securing the WAL, tilting the outboard to shallow mode – no need to tip it right up – and literally ‘hitting the beach’.

The key is to keep the boat moving, jumping out as soon as grounding occurs and guiding the boat up the beach out of the soft, wet sand at the water’s edge as quickly as possible. It’s very easily pulled up by Dave and I; one full-strength person could do it easily. And suddenly we have a boat on wheels again – without anyone having to go and get the trailer.

There’s no doubt that the Penguin could be a game-changer in the small-boat market, here and overseas, both as a trailerable craft and tender. Interest has already been high even though the brand’s online presence went live only in May; the Facebook page received 30,000 visits in its first few weeks.

“It definitely fires people’s imaginations, especially the affordability of it,” says Gibson.

Like all of the best ideas, this one is simple: producing a family-size, easy-to-use amphibious inflatable boat at an affordable price point. But as jazz great Charlie Mingus once said, “Making the simple complicated is commonplace; making the complicated simple, awesomely simple, that’s creativity.” With the Penguin 4m amphibious inflatable, Gibson and the LOMOcean Design team have hit that nail right on the head. **BNZ**



### Penguin 4m amphibian

PACKAGES FROM \$10,000

PRICE AS TESTED \$15,000

MANUFACTURED BY North Sea Boats [www.penguinboats.com](http://www.penguinboats.com)

#### HIGHLIGHTS

Ease of launching/retrieval

Superior performance

Affordability

#### SPECIFICATIONS

loa 4.0m  
 beam overall 1.96m  
 internal beam 1.2m  
 internal length 2.8m  
 construction Fibreglass hull with 1050 gsm ORCA Hypalon tubes  
 weight (no engine) 151kg  
 horsepower 15hp–25hp

#### BOATING VERDICT

A true game-changer. The Penguin will appeal to those looking for an affordable, easy-to-use package – and you can tow it behind a conventional car.

#### WATCH IT



The Penguin is fitted with the owner’s preferred outboard brand.