THE SEA WARRIOR

Has the age old myth of the 'Amphibious Vehicle' finally been cracked? Has the true amphibian arrived?

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MAN HAS ALWAYS WANTED TO conquer the three mediums of locomotion — land, air and water. He has perceived, calculated and invented, based on his observations from nature. He started off with the invention of the floating log, the wheel and then wings; these inventions have evolved along with man's evolution. And finally he arrived at the question — could these mediums intersect? Could a vehicle replicate an amphibian — tread on land and water? Since then, the question has been asked many-a-time, and each time the outcome has fallen short of complete functionality and application.

The amphibious vehicle was first conceived in 1805 by Oliver Evans. Subsequently, many attempts have followed to bring the amphibious vehicle into production. The Amphicar and the SeaRoader were such endeavours. But it has always been an uphill task. To bring a concept into production, its purpose must be solidly defined. How many customers would pay an astronomical sum to only take their car into the water? I'd say a handful; unless you are Roger Moore in a Bond film with the best engineers in the world at your disposal who can convert a 1976 Lotus Esprit into an amphibian. "So if not a car into a boat, why not a boat which can tread on land as well?" thought Maurice Bryham and David McKee Wright one fine Sunday morning as they painstakingly towed their boat out to the beach house. Thus, Sealegs was born – the biggest manufacturer of amphibious boats today!

Literally, Sealegs is the illusion of motion on dry land after having spent considerable time at sea. And aptly, the Sealegs amphibious vehicle was specifically designed and developed by New Zealand based Sealegs Corp to take all the hassle out of the boat launching and retrieval process. Sealegs believed the boat has already been invented and its job was to extend the functionality of existing boats through their technology. It also understood that marine-oriented activities in recreation, search and rescue, law enforcement and military applications could be transformed by expanding the capabilities of water-borne crafts utilizing its amphibious technology.

But how good is the word of a sales executive and a brochure? So we set out and got our hands on a Sealegs craft, right here in our 'Bharat' in the muddy waters of Alibaug located close to Mumbai. As we set foot on the Alibaug beach, the first sight of a boat 'driving' toward us left an impression; but to be picked up on land and to be driven into the water was truly an edifying experience and contrasted wonderfully with the cumbersome use of a jetty we had hitherto been used to. The lady on board, Anu, in her first attempt, could operate the vehicle with ease both on land and sea, with a little help from the experts. It was quite evident by the end of the ride that for beach house owners, the Sealegs is a windfall, what with no need for a trailer, winch or moorings, and no trouble coming into a wharf. And… you can park it on your front lawn! Imagine the party around it.

The Sealegs Amphibious technology consists of motorised, retractable and steerable wheels which are fitted to specially designed boats to give users a fully integrated, turn-key package that can be operated by a single amateur operator. The system uses powerful motorised wheels which give a user max

speed of 10kph (forward and reverse) powered by an on-board 24bhp Honda-driven hydraulic power-pack. A Sealegs boat can be driven from a storage location, down a boat ramp or beach and into the water -- all with the occupants staying in the boat and remaining completely dry. Once in the water, the Sealegs' wheels are easily retracted into the UP position and are completely out of the water. As the wheels retract completely above the water line, the drag (which is a major source of concern in most amphibious vehicles) is completely eliminated. When approaching land, the Sealegs' wheels are lowered into the DOWN position whilst still moving in the water -- this is similiar to the lowering of the undercarriage in an aircraft. It is then simply a matter of trolling towards the beach and the Sealegs' motorised wheels drive the boat up onto land. The occupants can then disembark dry and safe. The on-board motor is a low speed, high torque one which enables Sealegs to successfully climb out of the water on to marshy beaches and rocky terrain alike. Sealegs utilises all submersible components and is salt-water ready.

The Sealegs boats come in two kinds—the D-Tube and the RIB (Rigid Inflatable Boat). The RIB has inflated tubes made of Hypalon, a rubber compound, compared to a D-Tube which is an all-aluminium boat made from Marine Grade aluminium. Hypalon is a high-strength rubber compound that is resistant to UV rays, abrasion, fire and hydrocarbons. Its use makes Sealegs

SPEC CHECK: SEALEGS AMPHIBIOUS VEHICLE

Price (lakh):	Rs 50 (ex-factory)
Engine:	
ON-BOARD:	Honda, 2 cyl, 4-stroke, 24bhp
OUT-BOARD:	Evinrude E-Tec, Direct Injection, 2-stroke, 115 bhp
Drive:	Rear-wheel drive
Fuel Cap:	80litres + 100litres (Auxiliary)
Dimensions (mm):	
Length:	D-Tube: 6400 6.1m RIB: 6100 7.1m RIB:7100
Height:	D-Tube: - 6.1m RIB: 2320 7.1m RIB:2370
Kerb weight (kg):	D-Tube: 1090 6.1m RIB: 990 7.1m RIB:1220

unyielding in most situations and allows for its extensive and exclusive use in various hazardous conditions.

David McKee Wright is the CEO and MD of the Sealegs Corp Ltd. He is an ACA qualified accountant with a commerce degree and extensive overseas experience in manufacturing, assembly and financial analysis with two Fortune 500 companies. He has piloted the Sealegs past several world records including the fastest crossing of the English Channel in an amphibious vehicle. In conversation with David, we asked him how Sealegs can revolutionise urban inland water transport in a metropolitan city like Mumbai. He said: "The rest of the world has realised the importance of water transport. For a thickly populated city like Mumbai, where the roads are congested and infra-structure prevents the free flow of traffic, it's a matter of time before people turn to the water. The Mumbai police have already made a prudent choice in equipping themselves with the Sealegs patrolling crafts. We have also seen the repercussions of the Mumbai floods in 2005 and other such natural disasters in India. The Government needs a feasible solution, and Sealegs has their concerns answered. So not only are we looking at Sealegs as a recre-ational vehicle, but one with importance in servitude for society". He is also keen to create another record by circumnavi-gating Mumbai in a Sealegs craft. This will also help drive home his point of it being a feasible solution.

We all know 26/11has changed the security scenario. The Mumbai Police got a wakeup call when terrorists entered the heart of Mumbai city through unmonitored waters. They realised that beefing up coastal security was as important as fortifying the land. So in November 2009, they procured four D-Tube Sealegs flagged off by the Commissioner of Police P Sivanandan, to scrutinize the important beaches and water fronts of Mumbai. The policemen have welcomed the introduction of Sealegs as not only are they more mobile than before but can also engage enemies more efficiently. They can also be relieved from time to time with the easy access to land. It is, after all, no joke to be stationed on water for 12-hour shifts! The onset of the monsoon will also necessitate the use of Sealegs as an Urban Rescue craft with cities like Mumbai being prone to high tides and floods. Besides the Mumbai police, Sealegs' clientele includes the Malaysian Fire Department, the Australian State Emergency services and the New Zealand Coast Guard. As the monsoons arrive, we really hope we don't have to witness another 26/7 flood for the Government to realise that Indian coastal metropoli-tan cities need Sealegs for urban disaster management as well.

David McKee Wright
CEO & MD, Sealegs

Simply put, you ought to have one of these for yourself:

1. In situations where getting from water to land and vice-versa as quickly and easily as possible is paramount – for pure convenience or in emergency roles.
2. When you can't be bothered with the hassles of trailer boating - getting wet, waiting for boat ramp access, parking the trailer, using a busy jetty, etc.
3. For applications where young children are safer in the boat during launching and retrieving.
4. For applications where senior citizens wish to enjoy boating but may not be able to manhandle the boat during conventional trailer launching/retrieval.

SEALEGS MILESTONES

May 04 : First Sealegs production boat delivered to customer.

22 June 05 : Sealegs sets World Record for crossing of English Channel.

17 Jan 06 : Sealegs secures first sale in Rescue Sector to the Italian Fire Department.

8 Dec 07 : Sealegs Amphibious 6.1m RIB establishes a new world record for the fastest crossing of the Malacca Strait, linking the Indian and Pacific Oceans, by an amphibious vehicle.

9 Dec 07 : Sealegs Amphibious 6.1m RIB establishes new world record for fastest on-water speed by an amphibious vehicle.

29 Jan 08 : Sealegs Amphibious 6.1m RIB establishes new world record for the fastest crossing of the Cook Strait, New Zealand, by an amphibious vehicle.