

Land Rover History

The One Ton Amphibious Land Rover

In 1965, in response to an Army requirement, Land Rover designed and built an Amphibious Land Rover rated at 1 ton capacity, and that did not require any special preparation before crossing waterways.

Unlike the earlier Land Rover amphibian which was built in 1962, the Air Portable General Purpose, which used 2 inflated bags to allow the vehicle to float, the OTAL had a boat shaped flotation hull like the GPA jeep had used. This also negated the long setup times that the APGP required to fit and inflate it's flotation bags that it needed to be able to float.

The vehicle kept to more or less the same dimensions of the regular Land rover. However it was not built on an existing 88" or 109" chassis, indeed the chassis for the OTAL was a purpose built chassis with a 97" wheelbase. The body is built in four separate units, all sealed and made from aluminium. The rear body with sealed tailboard, a central section with controls and seating for three, and the two front wings. Unusually however the engine bay had an open bottom, so when in the water, the water actually came half way up the engine block. This was to be changed in the production model.

To make the OTAL as attractive as possible to the Australian Army, as many existing major assemblies as possible and conventional construction techniques were used. As a result a standard six cylinder 2.6 litre engine was used, along with standard transmission, axles and suspension components to name a few.

All available space in the OTAL, including the front wing buoyancy tanks, large areas around the chassis and under the floor, are filled with polyurethane foam to provide buoyancy that would not be affected by small arms fire as flotation bags would be.

Distinctive differences between the OTAL and a regular land rover included the large winch and bumper on the front of the vehicle, the fold down doors and the snub nose hull on the front. Propulsion and steering was affected by the road wheels, however some experiments with PTO driven propellers, and deflectors near the rear wheels led Land Rover to believe that the OTAL could manage enough speed to cope with most inland water flows.

Although extensively tested, including a run on Canberra's Lake Burly Griffin, the vehicle was not adopted by the army, and no production models were ever built. Of the two prototypes, one is part of the Dunsfold Collection in the UK, and the second it rumoured to still be in the Australian region, possibly on one of the islands in the vicinity of Australia.

The vehicle in the Dunsfold collection returned to the UK after trials in Australia had been completed, and went to Eastnor castle, where it worked as an estate maintenance truck for some years until it was acquired by the Dunsfold collection for restoration.

Another oddity about the OTAL was one warning given to the Dunsfold Collection. They were warned only to drive the OTAL into the water forwards, as reversing it in would result in water coming over the tailboard!

If anyone knows the location of the second prototype, please let me know as I'd like to track it down, even if you've heard a rumour about an amphibious Land Rover, I'd like to know.

The images on the next page include images from the brochure that accompanied the OTAL and of the OTAL in the Dunsfold Collection.

Article by **Phoenix**

Images and information courtesy of the Dunsfold collection and ANZAC Steel.

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Factory Trials of the OTAL



The OTAL being trialed in Australia



The OTAL in the Dunsfold collection as it looks today.

