



## Boat Torque Cruises and Gavin Mair Marine Design

Three successful ferries in three seasons

By MIKE BROWN

**B**oat Torque Cruises, the leading Fremantle ferry operator, has been linking its many years of operating experience with the design skills of Gavin Mair, the naval architect to most recently spring to prominence in Western Australia. The result has been a series of vessels outstanding for their performance and operating economics.

In 1992 the partnership opened with Gavin Mair's design for 'Underwater Explorer II', a 22 metre semi-submersible for reef and wreck viewing around Western Australia's resort island of Rottnest.

Boat Torque and Gavin Mair pooled their expertise in 1993 to develop a new-style ferry for the Rottnest Island route. Designed with operating economy in mind, 'White Dolphin', a 25 metre aluminium catamaran, carries 240 passengers. The modest power of two MTU 12V183 engines gives a continuous loaded speed of 24 knots.

In 1994 Mair designed a new catamaran, 'White Dolphin II' using extensive computer resistance evaluation and modelling a series of trial designs using 'White Dolphin' as the base vessel.

A shade larger at 27 metres, she carries the substantially larger complement of 312 passengers at 28.5 knots. To further enhance the economics, the owners and designer chose to power her with Wärtsilä 970kW engines. Initial and operating costs for these engines were significantly lower than those of any alternatives.

'White Dolphin II's' design also took into account the needs of an operator on a tight schedule. Cargo handling and passenger movement were carefully separated and organised for maximum speed.

Both 'White Dolphins' were built to Bureau Veritas classification by WaveMaster International.

Boat Torque operate from two mainland marinas, including one giving a long and exposed ocean crossing. Building on the success of their recently-sold monohull 'Sea Raider', the company decided to stay with that hull form for the replacement vessel on the arduous route.

Relishing his opportunity to start with a clean sheet of paper, Gavin Mair has created one of the most visually stunning 35 metre ferries Australia has seen. Again using 970kW Wärtsilä engines, the new vessel carries 270 passengers at a continuous speed of 26 knots.

She also carries 10 baggage crates in her cargo hold, up to 150 bicycles, 7,000 litres of fuel, 2,000 litres of fresh water and has a 1,200 litre sullage capacity. She features dedicated whale watching decks above the forward lower lounge and aft main deck lounge.

The vessel, operating on nominally semi-protected waters, sets exceptional standards in passenger safety. She carries inflatable life rafts for 100% complement, has true stairway escape exits for lounges below the main deck, and complies with IMO two-compartment damaged stability requirement. Structural design was to DnV Light Craft Code. She was also built by WaveMaster International at their Henderson yard.

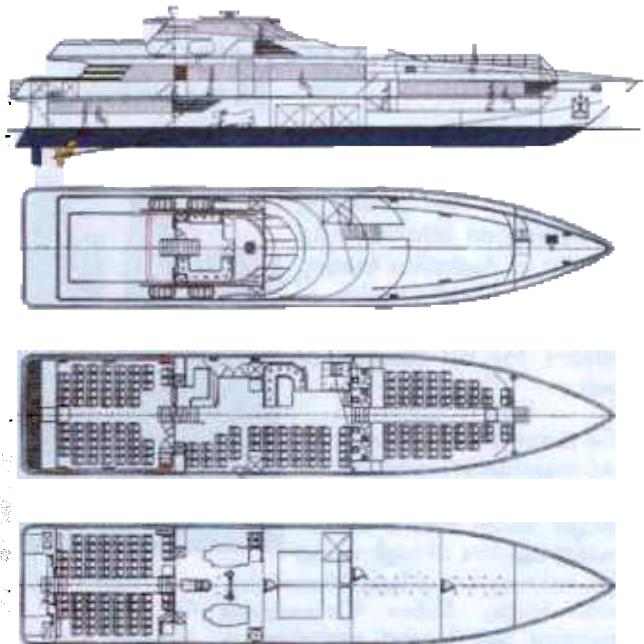
Gavin Mair sees a wide application for the basic design, and has designed a range of configurations. Powering options are also diverse, including triple V-drive propellers and twin or triple waterjets. Passenger numbers are variable up to 300.

The partnership continues, and both Gavin Mair and Boat Torque promise something special on Western Australian waters for 1996.

Gavin Mair has developed an extensive portfolio of designs for catamaran and monohull passenger ferries, with car/passenger ferries currently undergoing design evaluation. The portfolio features practicality above all, and never loses sight of an owner's first requirement - that a ferry must earn. The association with Boat Torque Cruises has given Mair exceptional insight of an operator's needs.

Gavin Mair's opportunities to constantly develop and innovate in new construction for Boat Torque is due to the company's vessel replacement policy which makes most of their vessels available for sale after two seasons, and even after only one season at special request. To a buyer, this means virtually new ferries with all their minor engineering and operational problems already solved.

At any time there are usually three ferries available for sale, subject only to their completing seasonal commitments.



For information on purchasing ferries,  
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