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**DEPENDABILITY IN PARADISE WITH ISUZU POWER SOLUTIONS**

After more than two decades of ferrying vehicles to and from the beautiful K’Gari (formerly referred to as Fraser Island), the Manta Ray One double-ended landing barge was getting a bit tired.

And it’s little wonder, the 180-tonne vessel takes up to 16 vehicles per trip between Rainbow Beach on the Queensland coast and the world’s largest sand island, K’Gari, which returned in 2021 to the Butchulla people’s original name for it, which translates simply to “paradise”.

With K’Gari being a significant cultural and tourist attraction for the state, the Manta Ray One completes as many as 20 crossings a day, 360 days a year.

Following a review of the organisation’s existing hardware, Manta Ray Barges Operations Manager Paul Ladas took ownership of the project to repower and restore Manta Ray One and created a wish list for the owners of the company, his dad Kosta Ladas, Eric Hume and Ray Maher.

The team settled on Isuzu Power Solutions (IPS) as the chosen engine supplier for the refit, guided by advice from Paul Nebauer, Parts Manager and Industrial Product Specialist at Brisbane Isuzu’s Burpengary dealership, who has more than two decades of experience in marine and industrial parts.

**OPTING FOR RELIABILITY**

“We went with Isuzu because you never see Isuzu trucks broken down on the side of the road,” Manta Ray’s Paul Ladas said.

“We run two Isuzu trucks and they just purr. We’ve never had a problem with them.

“We knew we’d get better customer service with Isuzu than from some of the bigger marine suppliers, so we thought it’d just be a more personal friendship and that turned out to be the case.

“Having an Isuzu engine means it’s just a one-stop shop for the boats and the trucks.”

Paul eventually specified the Isuzu 9.8 litre, 270 kW, in-line 6-cylinder 6UZ1 engine that delivers 1,435 Nm @ 1,500 RPM.

“It ticked every box and I really liked the look of this engine,” said Paul.

One of the best features of the powerful new 6UZ1 is its fuel efficiency. Manta Ray One now does 200 more crossings off a tanker-load of fuel than the previous engine!

“Over the course of a year, there are going to be a considerable savings for the business, that’s for sure,” he said.

**CUSTOMISED FITOUT**

The refitted vessel now runs four engines with Twin Disc marine gear, meaning that two engines ‘push’ the barge and two ‘pull.’

The IPS Power Unit comes standard with a ComAp Control Panel which is mounted in the machinery space near each engine allowing complete control of a number of engine variables.

But Manta Ray’s Paul Ladas also specified a number of electronic upgrades to the ageing systems that were heavy and clunky to use.

The barge refit was done at the Hervey Bay Marina precinct earlier this year, ahead of the company’s busy Easter holiday period.

The old engines were removed, and the entire machinery space and hull was sandblasted and prepared for the new engines. The vessel was completely repainted inside and out and then the real work began.

**PRECISION ENGINEERING**

The structural frames that become the engine beds run the full hull length and the team decided to make the new beds 150 mm wider to allow for better servicing access.

Each engine was lowered into the machinery space in turn, maneuvering into position past some of the hull framework - a serious challenge but one the team took in their stride.

So much needed to be considered in the design of the new install as the starboard engines run hydraulic pumps for the landing ramps and anchor winches from the front crank pulley, and the port engines run fire suppression and deck wash pumps from their crank pulleys.

Manta Ray One’s keel cooling means the engine doesn’t need the heat exchanges that you see in typical marine engines. The keel cooling acts as the radiator for Isuzu 6UZ1 unit, keeping it at a very stable 80 degrees Celsius running temperature all day, every day.

**DELIVERING MORE GRUNT**

Paul Ladas explained that Mata Ray’s hull speed of seven knots, or about 13 km/h, hadn’t changed with the new engines. However, before the refit, the barge captain needed to use all four engines to achieve full speed.

With the new Isuzu 6UZ1 set-up, the barge only needs two engines for 99 per cent of its daily operations, and the captain only needs to engage all four engines in extreme tidal or wind conditions.

“The engines don’t miss a beat,” he said.

**Ends**

**For further information, please contact:       For Isuzu Trucks releases and photos:**

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