VERADO REVISITED

The cyborg muscularity of the massive Verado supercharged outboards made a huge impact upon their launch in 2003. Five years on, Mike Taylor takes a look at just how far Verado has come.

Mercury Marine was founded in 1939 by Carl Kiekhaefer. Together with a small but dedicated crew, he set out to design and produce the best possible outboard engine of the day. Almost 70 years on, there are those who would say that the ambition has been achieved. The company is among the world's leading manufacturers of recreational marine engines and now employs around 6,200 people, providing engines, boats, services and parts for markets worldwide.

In 2002/3 Mercury set out to design a new brand of outboard engines. Called 'Verado', it was the result of the adoption of some stringent challenges. High on the list was the need for the new product to have a significant lead on the competition in key areas, including performance and customer perception. Significantly, they had to satisfy the traditionally demanding US 'fast fisher' customer who spends considerable sums of money replacing his engines year-on-year. But equally important was the European customer

'The aggression of the pick-up from these supercharged outboards is deliciously reminiscent of a snarling two-stroke'

whose expectations when buying outboard engines, while acknowledged as being markedly different from the US counterpart, were no less demanding.

For the Verado team, set against the well-established Japanese manufacturers, it was going to be a tough call. Mike Williams, Area Sales Manager for EP Barrus, the UK distributor for the Verado range, takes up the point: "When it comes to outboard engine innovation, UK customers are not keen on change," he says. "They take some convincing. So the Verado range had to hit hard in the areas that are important to British customers: namely, reliability and refinement. From a sales perspective, the engines have to speak for themselves."

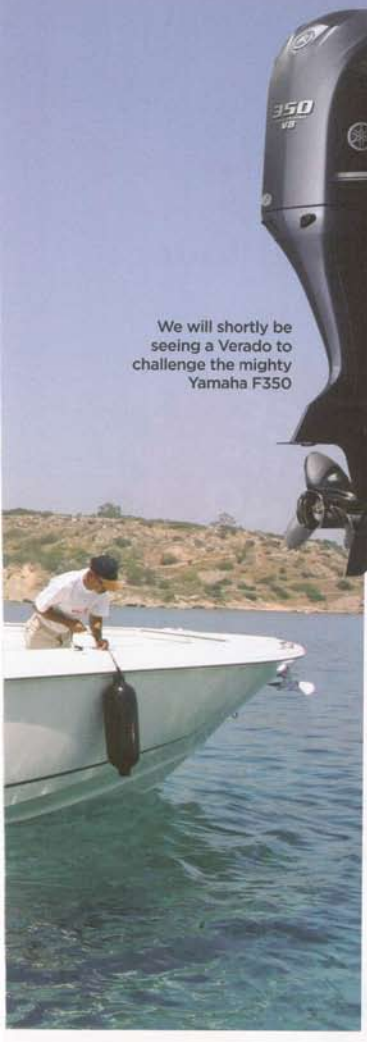
The basis for the engines is an in-line four and six-cylinder four-stroke layout, an inherently refined and more balanced configuration than the more compact V engine, simply because crankshaft rotation is smoother. Power options for the four-cylinder unit range from 135 to 200hp, while the bigger engine is available from 200 to 300hp.

The Verado team did a lot of work on the induction tract design to attenuate noise by 14dB, as well as tuning the engine exhaust note to create a less harsh sound. Acoustic foam was specified for the upper and lower cowlings, helping to reduce high-frequency drive-shaft noise. To round off the specification, the units also featured twin overhead camshafts and fuel injection. Adding a little spice from the automotive world, Lotus and Cosworth, both very highly respected UK companies, got involved in the engine development stages, so the signs looked positive right from the start.

To further reduce vibration on the larger units, the Verado engineers set about isolating the powerhead (the source of the problem) and the engine leg by introducing special aluminium three-point perimeter engine mountings, almost twice the size of conventional mounts, located at strategic points. But the big talking point was inevitably the use of supercharging, a world first on an outboard engine, to considerably increase power output. It was designed to allow the torque to come in right from low revs, giving both the four and the six 'pot' engines formidable bottom end acceleration.

It's not just talk either. Having used various Verado engines in the past couple of years, both on RIBs and hard boats, in single and twin configurations, the aggression of the pick-up brings these four-strokes closer than ever to that delicious immediacy of a snarling old-style two-stroke.

The reason for choosing supercharging



We will shortly be seeing a Verado to challenge the mighty Yamaha F350

rather than turbocharging is simple in Tim Hart's eyes. The Divisional Manager for EP Barrus says: "You don't have to wait for the exhaust gas volumes to build up before spinning the turbocharger and increasing fuel vapour pressure into the engine. While the supercharger does take a little power from the engine, the result is more than justifiable while the engine management system ensures good fuel economy at all throttle openings."

During those early days, Verado's development team paid heed to its customers for another key aspect of the package - namely that it should be easy for anyone to drive, even if you don't have hairy forearms and tattoos of anchors on your biceps. Gone are the days of the need for huge strength to handle a 300hp outboard. Controls for Verado engines use the company's electronic Digital Throttle and Shift (DTS) system that delivers great precision with minimal effort. Rapid throttle response and smooth gear selection eliminate the delay associated with traditional mechanical cable systems, while giving extra confidence when controlling the engine. To complement the revamped engine controls Verado also introduced an electro-hydraulic steering system, which considerably reduced the effort required to turn the wheel. And in practice, the ease and accuracy with which you can set the revs or spin the wheel really is excellent.

As for the downsides, well some people find the controls too light, particularly on a lumpy sea when the throttle has no base against which to rest the heel of your hand. But most criticisms of the Verados have tended to revolve around two more objective concerns - firstly, the fact that the weight of many of the models in the range looks excessive compared to their competitors and secondly, the fact that the price often looks a bit rich in the context of the market average. But Williams remains happy that the Verados are doing everything they were intended to do: "When you're in the market to buy an engine in this category you have to look at the whole package: performance, refinement, reliability record and control systems. In this respect, when you consider what is included, the price compares very favourably."

Verado did more than 50,000 hours of testing and took into account four years of consumer feedback in an attempt to make DTS the best control system on the water and, if you like lightness of control and accuracy of throttle settings at the helm, then it would be difficult to suggest that they had failed.

As for the 2008 model year, the changes are small but significant. Alterations to the crankcase lubrication system will beef-up the oil flow, reduce friction and increase fuel economy, with the likely outcome that reliability should also be improved. But on a considerably more exciting note there is news that ought to be of interest to us all: "There will be a 350hp engine on the market at the end of the year," says Tim Hart. Expect a full analysis as soon as the details emerge . . . ■

MERCURY STATS

Mercury's brand portfolio includes Mercury and Mariner outboard engines, MerCruiser sterndrives and inboard engines, MotorGuide trolling motors, Mercury and Teignbridge propellers, MotoTron electronic controls, Mercury inflatable boats, Mercury SmartCraft electronics and Mercury and Quicksilver parts and oils.

In 2006, Mercury Marine's OptiMax engine was ranked "Highest in Customer Satisfaction with Two-Stroke Outboard Engines" by JD Power and Associates, and Mercury MerCruiser engines were ranked "Highest in Customer Satisfaction with Sterndrive Engines". In 2008, Mercury Marine's OptiMax engine was ranked "Highest in Customer Satisfaction with Two-Stroke Outboard Engines" by JD Power and Associates for the third consecutive year.

CURRENT VERADO RANGE

Model	Capacity	Cylinders	Weight	Gear ratio	Package price
135	1732cc	4-cylinder	231kg	2.08:1	£10,862
150	1732cc	4-cylinder	231kg	2.08:1	£11,380
200	2598cc	6-cylinder	288kg	1.85:1	£12,622
200 L4	1732cc	6-cylinder	231kg	2.08:1	£12,622
225	2598cc	6-cylinder	288kg	1.85:1	£16,037
250	2598cc	6-cylinder	288kg	1.85:1	£16,555
300L6	2598cc	6-sylinder	288kg	1.85:1	£17,486
350	watch this space . . .				

CONTACT

EP Barrus
Launton Road, Bicester
Oxfordshire OX26 4UR

01869 363636
www.barrus.co.uk