



VARLEY

Varley: more than modules

AS a 130-year-old Australian business still in the hands of the family that founded it, Varley Group is a rare beast in today's world of international conglomerates, buy-outs and consolidations. The business still serves the maritime industry, just as founder George Varley intended when he opened his plumbing and boiler-making business in King Street, Newcastle in August 1886. But through organic growth and acquisition it has expanded its scope to include projects and products across defence and aerospace, specialised vehicles, power services, rail services, electric vehicles and elevated work platforms.

Varley has built landing gear handling systems for the F-35 Lightning II, fatigue test rigs for the BAE Hawk lead-in fighter, docking stations for AP-3C Orion maintenance and transportable air operation towers. The company has supplied customised shelters, specialist vehicles and more than 550 stores and maintenance modules for Army vehicles acquired under Land 121, plus ship gangways and even Nulka missile shipping containers for the Navy.

Outside defence, Varley is known as a ship repair and modification house, and particularly as a builder of specialist vehicles such as fire trucks, ambulances and mobile health vehicles. What is less well known is that the company is also Australia's largest manufacturer of electric vehicles.

The company's survival has been an exercise in foreseeing and adapting to the future. Initial growth through ship repair led to status as a "Priority One" company

PHILIP SMART | ADELAIDE

There's a saying that goes something like good engineering can engineer anything. The sentiment is that good engineering principles can be applied to any application. The proof is Newcastle based Varley Group.

during WWII, when Varley was involved in maintaining the Australian naval fleet. In the early 1950s the company was contracted to maintain 24 ships for BHP, a relationship which provided Varley with the continuity and security to diversify. Its foray in to aluminium fabrication secured more work with BHP onshore and established the company's reputation as an all-round engineering firm. It also presaged the closing of the company foundry, which had operated almost continuously since the first days in business.

By the time the early 1970s brought a decline in ship repair work Varley had diversified enough to survive, including the addition of an electrical division prompted partly by the growth of electric and electronic systems in ships. The division was up

and running just in time for the New South Wales government to commission a series of power stations, which provided a steady stream of fabrication, maintenance and upgrade work.

In the late 1970s Varley acquired a stainless steel fabrication firm, virtually completing its ownership of an entire industrial block in Newcastle.

Varley now

Varley now employs around 650 people in seven locations including Brisbane, Sydney and Perth. And although the company is still active in heavy industries such as ship repair and rail, current managing director and former electrical engineer Jeff Phillips, who joined the firm as head of the aerospace division in 1993, believes Varley has a firm eye on the future. And the future is digital.

"When I first started running Varleys I'd joke that I was running a metal bashing shop," he said. "But these days you can't say that anymore. Now we employ electronics and mechatronics engineers. Our products we build now have just so much embedded data systems within them. I recall when we first built one of our fire trucks, there were four onboard computers sitting in that fire truck, controlling different aspects of it."

Electrics and electronics have a special place in Varley's future, with Phillips believing the technologies of energy generation and the capture and analysis of data from systems large and small in every field from transport to agriculture, will be critical for the future.



MAIN: Varley Group has built more than 550 stores and maintenance modules for the Australian army's Mercedes G-Wagons, acquired under Project Land 121.

LEFT: Varley built its eVR450 electric sports car in 2011, to learn first hand the issues associated with electric power's applications and manufacture.

"You'll start to see products coming out where they will be energy self-sufficient," he said. "They will be getting their energy through solar power, or by capturing vibration, or through thermal change. You're going to start to see greater emergency of these technologies that can be put in to products."

To get to grips with the possibilities, Varley created its own electric car as part of its 125th

anniversary celebrations in 2011. It was no shopping trolley – the eVR450 is a low-slung sports car in the best tradition, with an Australian made 280-kilowatt electric powertrain driving it from standstill to 100 km/h in just 4.5 seconds. Initially created just to learn about applications of electric power, the car has since encouraged Varley to begin selling its own range of electric vehicles (with

considerably more sedate performance) for industrial, sport and resort markets.

"The car itself was an application of applying that technology, but we really did it to celebrate our 125-year anniversary," Phillips said. "I didn't want us to be seen as an old company. I wanted to also show that we had a future that was heading down a path of higher technology and staying ahead of what was happening in the game."

Varley has maintained development with electrical vehicles, running two electric motorcycles as part of Australia's new Australian Electric Superbikes series. Again, it's more about experience than trophies.

"Part of that is there is nothing like the racing environment to push technology and push our learning within it," Phillips said. "And I guess we're learning a lot and gathering a lot. The challenge now is how we're going to take that and get commercial application and return on that investment."

"It's part of looking ahead in to the future and believing that electric technology is going to come back in a much bigger way and trying to understand the technology and be ahead of it." *

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