

Heavy engineer shores up business from waves of naval shipbuilding

By Steel Australia editor, ALAN MARSHALL

Industry commentators have been predicting the death of shipbuilding in Australia for decades as the local companies with those industrial capabilities and resources face long intervals between naval projects being tendered out.

The peaks and troughs of defence maritime contracts have meant that over the years, east coast-based heavy engineering manufacturer and ASI member, Forgacs Engineering has kept its business diversified covering large project engineering for mining and industrial sectors to counter-balance its Defence work.

It's a strategy that has allowed the company to survive for 50 years since a young Hungarian immigrant **Stephen Forgacs** came to Australia and bought Ullman Engineering in Newcastle, the business he built into the country's largest privately-owned ship build, repair and heavy engineering company, before passing away recently.

It's a canny approach that has greatly contributed to the company staying strong despite market volatility, currently employing over 1000 skilled workers at seven locations in Queensland and NSW with approximately 10 percent of its workforce at any one time indentured as apprentices.

Located close to major mining regions and ports, the company has performed maintenance work for the mining sector since its inception, so was well placed to realise opportunities from resource booms that have differing cycles to the Defence work.

But with in-water ship repair teams based in Sydney, Newcastle and Brisbane and large shipyard facilities at three locations on the Eastern seaboard, naval shipbuilding and maintenance still accounts for about 65 percent of its business, currently the largest module block supplier to the national Air Warfare Destroyer (AWD) project.

The construction of three Hobart Class AWDs for the Royal Australian Navy (RAN) is the largest naval shipbuilding contract ever undertaken in Australia and the largest Defence procurement project. The three ships are to be assembled by ASC in Adelaide on a hardstand using a modular block construction method which will see 31 ship blocks brought together. Each AWD vessel requires some 2500 tonnes of structural steel to build. According to Forgacs Defence Managing Director of Shipbuilding, **David Miller** the company secured the manufacture of 15 additional AWD blocks over its original contract for 29 through ongoing and unmediated collaboration with the Defence Materiel Organisation. It is building 44 modular steel blocks of a total of 93 being constructed for the three vessels, each block fitted with electrical services and plumbing.

"Whether you're a multinational or an SME, the lesson to learn from our success is to build a genuine relationship based on hard work and trust and amazing things can happen," Mr Miller said.

He said there were many advantages working in the Hunter including the deepwater harbour facilities and the region's industry-ready labour force, skilled in steel manufacturing and fabrication and that steel knowhow helped it to secure the region's role in the AWD build project, offering a precision approach to steel fabrication.

"We excel in large steel structures such as the huge blocks where dimensional control is critical employing advanced welding techniques and complex three-dimensional shaping of the steel," he said.



Artist's impression Hobart Class Air Warfare Destroyer



Inset: Turning of AWD block 113 in August 2012 at Forgacs Shipyard Newcastle

Three Forgacs staff joined some of Australia's brightest scientific engineers in a team that took out the 2012 Capability Improvement Award organised by Defence Materiel Technology Centre (DMTC) recently, a joint venture initiated by the Australian Government that brings together the defence industry, universities and government research agencies to develop new materials and manufacturing.

Forgacs naval architects, **Kristoffer Grande** and **Andrew Horton**, and welding expert **Darren Lang** were part of the Lean Automation for Defence Manufacture team investigating alternative high productivity, low distortion joining technology for AWD steel ship bulk heads production. Miller said Forgacs is looking strategically at other Defence contracts such as the patrol boat replacement program, future frigates and submarine work.

However, he said that whilst the company would obviously like to see the contract value of Defence projects maintained or increase, overall it would like to see Defence's percentage of its 'business pie' reduce by continuing to grow the other heavy engineering markets on the back of its considerable capabilities and facilities.

Forgacs is busy using its networks in Defence and mining and also chasing work in the steel and aluminium industries, power generation and with original equipment manufacturers (OEMs) who are increasingly doing overhaul work for coal mine owners.

At least one of the secrets to Forgacs' success over the years has been its dedication to training apprentices. Occasionally those highly trained apprentices are subsequently snapped up by companies or OEMs which have not had the same foresight regarding training. But in many cases apprentices who started at Forgacs – some up to 30 years ago – are still with the company today maintaining a strong identity and culture for the business.



Newly joined Forgacs tradesperson, **Anna Williams**

The business has always had an active program of bringing in European workers under Australian 457 visas, importing skills developed in other countries. This broadens the company's workforce skills. For the future, Forgacs is looking at the potential of its 15-hectare Cairncross dockyard on the mouth of the Brisbane River.

"Large licks of flat land and ease of direct loading onto barges and ships make it ideal for modular steel construction, whether that includes participation in other shipbuilding programs or fabrication related to large infrastructure projects such as offshore gas processing plants," Mr Miller said.



Main image: Handling of Caterpillar mining equipment overhauled at Forgacs

Facts on Forgacs

- Deep-water ports for building and shipping of large fabricated structures
- Major ship repair and maintenance for naval vessels and cruise liners
- One of Australasia's largest graving docks at Brisbane taking Panamax-sized ships
- Over 50,000sqm of well-equipped undercover workshops
- Quality Management System with Lloyds accreditation to AS/NZS ISO 9001:2008
- Flexibility of one Enterprise Bargaining Agreement with workers across the Company