



**Blending Modern Technology
with Clyde-Built Craftsmanship**



A Word from Our CEO Gerry Marshall

A growing pipeline and diversification into key markets

Firstly, I would like to start by expressing my appreciation to Clyde Blowers Capital for their continued support and vision to help us diversify the business and secure the long-term future of the yard. I would also like to thank the Scottish Government for the recent funding facility which will enable us to implement our diversification strategy and capitalize on a huge array of exciting opportunities in a range of markets such as marine defence, ship repair, fishing vessels, decommission work, major fabrication and deployable resources.

I am extremely proud of the tremendous progress made by the team here at Ferguson Marine and have seen an astonishing advancement with innovation, first with the development of green propulsion technologies and then moving onto hydrogen powered vessels. Our recent announcement on securing the funding to lead a European consortium to develop the world's first hydrogen-powered ferry is testament to the incredibly talented and innovative team we have here in Port Glasgow.

Furthermore, I'm delighted to say that we have continued to strengthen our management team with key appointments aimed to capture new business and cement our position as a world leader in marine engineering technology.

The extensive and impressive redevelopment taken place at the yard in the last 12 months, coupled with an ever-growing pipeline of opportunities, signals exciting times ahead for all at Ferguson Marine as we strive to bring commercial shipbuilding back to the Clyde.



Ferguson Marine Engineering Joins Bid for £1.25bn MOD Contract

Ferguson Marine Engineering is delighted to announce they are officially part of 'Babcock Team 31' as the Team unveiled the Arrowhead 140 as its design for the UK Ministry of Defence's (MOD) new £1.25 billion Type 31e general purpose light frigate programme on May 31st.

Launching the new platform, 'Team 31' – led by Babcock and including fellow industry experts Ferguson Marine, Thales, OMT, BMT and Harland and Wolff – underlined the vessel's established, 'at sea' design baseline which can be developed to meet global requirements.

With UK engineering at its core, and developing OMT's Iver Huitfeldt hull form currently in-service for the Royal Danish Navy, Arrowhead 140 will lower programme risks through its tried and tested baseline design and is engineered to minimise through-life costs whilst delivering a truly leading edge frigate.

Arrowhead 140's distributed build and assembly approach, comprising Ferguson Marine on the Clyde, Babcock Appledore in North Devon, Harland and Wolff in Belfast with integration

at Babcock Rosyth in Fife, optimises the partners' first-class UK facilities, innovation and skills whilst cleverly ensuring capacity for parallel programmes remains. All of which is geared to generate a genuine resurgence in shipbuilding across the UK and when coupled with the virtual design alliance between Babcock, OMT and BMT it squarely supports the intent of the National Shipbuilding Strategy.

Based on Arrowhead 140, Team 31 can build modern platforms that navies can use to tailor to their own specifications and when you add world leading experience in naval platform in-service support with a deep understanding of support cost drivers, Babcock Team 31 offers a glimpse into an exciting new world of UK and international ship build delivery and intelligent ship support with Arrowhead 140.





The Rebirth of Commercial Shipbuilding on The Clyde

Redevelopment paves the way to an exciting future for Ferguson Marine

Since Ferguson Shipbuilders was rescued from administration in 2014 by the engineering investment firm, Clyde Blowers Capital, led by Jim McColl, the transformation that has taken place in just three and a half years has been nothing short of miraculous.



At the same time as completely demolishing the old yard and replacing it with a stunning, state of the art marine engineering complex, there was the small matter of building and launching CalMac's MV Catriona, the third Hybrid battery ferry to be built by the yard that gave the world its first Hybrid in 2012. The MV Catriona was launched in 2015 and impressively delivered 6 weeks ahead of schedule in 2016.

In response to this amazing story of transformation, the total employees has now risen to approximately 350, with more on the way over the course of 2018. Included in the revitalised workforce are no fewer than 38 apprentices, with a further intake planned for this summer. Yet another sign that Ferguson Marine is looking to the future, not only for itself and its employees but for the communities of Port Glasgow, wider Inverclyde and the river that started it all, over 500 years ago.

The last commercial shipbuilder on the River Clyde has seen a £25 million investment and the yard is totally unrecognisable from the aging facility inherited in 2014, as the company strive to bring back the glory days to the Clyde.

In its place, one of the world's most advanced shipyards now proudly graces the Port Glasgow waterfront. The entrance into the revitalised town is marked by a stunning new office block, shoulder to shoulder with one of Europe's largest module halls, built to allow the construction of tiered vessel blocks under cover - something that will be essential for the potential work on any new vessel for the Royal Navy, now a distinct possibility as the new Ferguson Marine competes for a share in the creation of the all new Type 31e Frigates.



Before



After



 FERGUSON
marine

A £25m Investment Has Seen an Incredible Transformation

- Awarded EU grant funding to design and construct the world's first hydrogen powered ferry
- Increased working area from 39,000 to 113,000 sq ft
- Increased weekly output from 13 to 150 tonnes
- Increased yard capacity
- Launched the first LNG fuelled ferry designed and constructed in the UK
- Successfully launched hybrid battery vessel, MV Catriona, 6 weeks ahead of schedule

All have helped to develop a modern, capable, world-class shipyard



Pushing the Boundaries of Innovation

Ferguson Marine to develop world's first renewables-powered hydrogen ferry - HySeas III

Over the past few years Ferguson Marine has pushed the boundaries of innovation, particularly in the development of green propulsion technologies – first diesel-electric hybrid and then liquefied natural gas, demonstrated by the recent successful launches of MV *Catriona* and MV *Glen Sannox*. Next on the hit-list is hydrogen, a gaseous fuel that can be produced using curtailed renewable energy, stored and then used on board a zero-emission vessel with fresh water as the only by-product.



The first of these, HyDIME, will see Ferguson Marine working with our project partners to install a small hydrogen injection system on board an existing vessel within the next year, reducing the carbon footprint of the vessel while at the same time allowing us to learn all about the challenges involved with storing and using hydrogen gas on board a ship.

This will put us in a fantastic position to deliver HySEAS III, a much more significant project that will deliver the world's first zero emission seagoing passenger ferry powered entirely by hydrogen developed from renewable sources, designed and built in Port Glasgow by the Ferguson Marine team. This is ground-breaking technology that once again positions us at the forefront of marine innovation, leading the world in the race to develop sustainable and affordable zero-emission marine transport.

There is a growing interest in the potential of hydrogen powered vessels within both Scottish and UK governments, as well as among industry players and research institutions, and we face a unique moment of opportunity for positioning Ferguson Marine Engineering as the hydrogen leaders in the maritime sector.

With this as the goal we have developed two significant hydrogen projects, and are delighted to announce that both have been successful in attracting the necessary funding to allow them to go ahead.





Ground-Breaking New Vessel Launched

On Tuesday 21st November 2017 at the Ferguson Marine shipyard First Minister, Nicola Sturgeon officially announced the successful launch of the MV Glen Sannox. The environmentally-friendly, vehicle passenger ferry is the first of two vessels which are the first LNG fuelled ferries designed and constructed in the UK, demonstrating Ferguson's cutting-edge design and building capabilities.



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Today represents another landmark in the impressive Ferguson Marine growth journey as we look to bring back shipbuilding to the Clyde. Significant investment has been made into the yard, capabilities and skills. The successful launch of MV Glen Sannox is further confirmation of the vast capabilities we can now offer in Port Glasgow. I would like to thank all of our workforce and subcontractors for their significant efforts in ensuring the successful launch and also their commitment to ensuring we continue to develop the company into a world leading shipbuilding and marine engineering business.

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Gerry Marshall,
Chief Executive of Ferguson Marine

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The successful launch of the MV Glen Sannox marks an important milestone in Ferguson Marine's journey to becoming a world-class shipyard. As this is the first ferry in the UK capable of being run on liquefied natural gas (LNG) and marine gas oil, not only has this been an extremely exciting and ambitious project for both FMEL and CMAL, but it has been an extremely complex one as well.

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Jim McColl,
Founder, Chairman & CEO of Clyde Blowers Capital





Michael Makes It Two Years in a Row for Ferguson Marine

History repeated itself last month, when Project Planner Michael Sinclair, our first Graduate level apprentice, picked up the 2018 Hammermen Certificate. Michael's was actually the second FMEL Hammermen Award, with apprentice Jennifer Mackay picking up the accolade in 2017.

This prestigious recognition is awarded each year to the one person the Hammermen see as offering the greatest potential in the shipbuilding industry.

Upon receiving the award, Michael commented:

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It's a great honour to be recognised for my university studies and the work I carry out in the marine engineering field.

It shows my company and the rest of the engineering industry just how good this course is.

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World-Class Standards

Having set ourselves the target of achieving the highest possible standards as an accepted principle, we are now continually signing off owners' and classification surveys without defect or non-conformance, demonstrating the empowering Right-First-Time culture that is now the norm on-site.

The days of the "Hammers ding dong" as the song of the Clyde have long since passed into history with the ever-improving sophistication of advanced welding techniques now producing a standard of vessel construction that was only dreamed of in those pioneering days.

Quality is key to welding procedures and welder qualification and testing is completed and controlled entirely within our in-house training centre.

Here, the most experienced craftsman and the latest apprentices work side by side, with the opportunity to continuously upskill

and expand their range of approvals, from light gauge TIG welding to MIG/MAG welding in excess of 100mm in thickness.

Also, formalising the survey and workshop instruction standards ensures we have repeatable processes and by continuously challenging how we do business, we have introduced modern 'know how' and equipment, leading to increased production efficiency and higher quality standards. For example, being the introduction of a suite of flexible vacuum box testing equipment to weld-free joint faring aids.

By empowering our workforce to continually review and refine our processes, we will continue to see huge quality improvements which will become the norm.

Our Mobile Team on the Scene

In March, Ferguson Marine launched a brand-new service which has already proved to be a runaway success.

The Ferguson Marine, Man-in-a-Van concept, is a new turnkey service offering all the engineering skills and maintenance expertise of the Port Glasgow yard, delivered to the customer's door - anywhere in Scotland, or the UK.

Already the first van in a planned fleet has travelled as far south as Blyth in Southeast Northumberland, to Rosyth on the East coast to Lochboisdale in the Outer Hebrides, delivering either welcome reinforcements to pressurized engineering teams or a solution to an engineering task, where one didn't previously exist.

Ranging from ship repair services to major painting and blasting operations on complex engineering projects. From specialist jigs to site maintenance and refurbishment activities, fully supported in all aspects from our in-house teams across design and procurement to engineering and fabrication, from non-destructive testing to finishing trades, outfitting and joiner services.

Our Mobile Team on the Scene taskforce leader, David Henderson said,

"We offer a turnkey service, bringing new construction standards to ship repair, indeed any engineering task, offsite.

The standards we work to are the same demanding standards we set for ourselves in the yard and we challenge our own performance with QC surveys of every job. I'm glad to say, with successful results on every project so far.

With the nature of the tasks we have undertaken to date, we see how vital it is to offer customers a quick response job done on time and on budget.

I don't know of any other competitor that offers this kind of service with this level of quality control."





Investing in Our Future

At Ferguson Marine, we recognise our workforce to be our biggest asset. Which is why we are more committed than ever to recruiting and developing the very best in the business, across all age groups and all levels of skill.

In September 2014, the rescued shipyard had only seven employees. By December, key workforce had been recalled and that number had risen to 47, with an average age of 58 - welcome experience for a new start but not offering many long-term prospects. Since then, a combination of aggressive but selective recruitment and the addition of new apprentices has brought the current workforce to approximately 350, dramatically reducing the average age to 46. Our expectation is for 500 employees by 2020, laying a long-term skills foundation to take Ferguson Marine into the next decade.

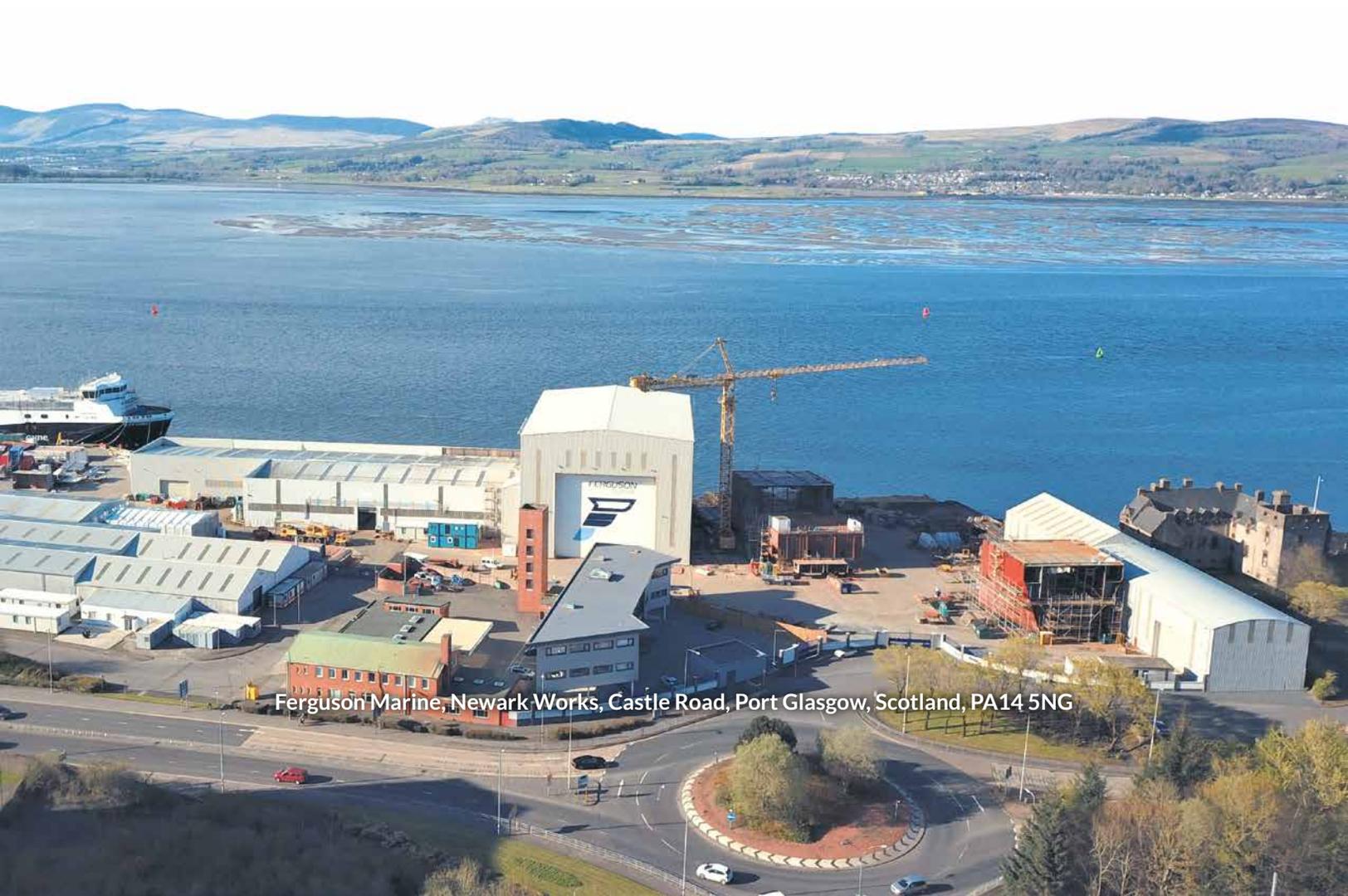
An Exceptional Apprenticeship

Working hand in hand with West College Scotland, we have been able to afford our growing number of Modern Apprentices the opportunity to absorb the disciplines and value of learning, mixed with the practical experience of one-to-one mentoring within

the shipyard. After three years of mixed college and shipyard experience, they have the opportunity to progress on to higher education. All apprentices work in the yard with experienced mentors, developing knowledge, gaining practical experience and honing all-important interpersonal skills.

We have also successfully extended the Apprenticeship programme to Graduate level - the only program of its kind in Inverclyde, creating the opportunity to obtain further education up to Masters level. This was recognised by Investors in Young People (IYYP) who have recommended Ferguson Marine to progress on to IYYP Silver Framework.

Our award-winning apprenticeship scheme has been crucial in achieving our growth aims and we can't wait to see their progress as they rise through the ranks at Ferguson Marine.



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