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PRESS INFORMATION

From S ng: Memories, Amusements and the Next Chapter

Interview with David Blackwell, Belzona Engineering Director

David Blackwell joined Belzona in 1987 after spending 13 years with Shell in the Merchant Navy and rising through the ranks to a Senior Engineering Officer. In Belzona, David has occupied various positions over the years and now heads the company's Engineering Services Department. We had a chance to catch up with David and ask him some questions about his long-lasting experience in d some trends he is currently observing in the market.

Q) As you spent over a decade in the Merchant Navy, can you please tell us a little bit about your life at sea?

A) I joined Shell Tankers fresh out of school as an Engineering Cadet. It was just a great life being at sea. Until you've been out of sight of land for two weeks at a time, you just don't realise how big the world is, how much ocean there is out there.

You also get a chance to observe some spectacular sights – like the green flash. When the sky is perfectly clear and as the sun sets, all the different colours you have in the spectrum of light start to disappear over the horizon, and the green one is always the last one. Just as it disappears, the whole sky goes bright green and back to blue again before the darkness falls.

I also vividly remember the stars at night. At midnight, after finishing a late shift in the engine room, we'd come out, make a cuppa and sit out on the deck in the middle of the ocean in pitch black. Nobody that lives on land can ever see that amount of stars because of the lights from the cities. It is just awe inspiring, it really is. And obviously you see a lot of the world when you're travelling, and I think the only continent that I haven't visited now is Antarctica. That's on the bucket list.

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Q) How did you come to trade the sea for a life on land?

A) I traded my life at sea for an opportunity to see my son grow up, so I accepted a voluntary redundancy as the Company I was working for were reducing their fleet. The idea was then to get any odd job to give me time to look for a position on a rig supply vessel or a cross channel ferry to carry on my marine career. But I applied for a job at Belzona and have been here ever since, because I just enjoy the job so much. It is very interesting, very varied, always busy; it just grabbed my attention and I decided to stay and build my career here.

From left to right: David Blackwell, Engineering Director; Geoff Binks, Technical Service Coordinator; Ron Campbell, Managing Director, circa 1988

Q) Throughout your career at Belzona, do any memorable moments in particular come to mind?

A) I was once asked to accompany an Independent Consultant down a coal mine to look at a job on a coalface on one of the coal conveyor machines. As the lift took us to the bottom, I was told that the coalface is actually four miles away, so we had to hitch a ride on a conveyor belt 1200 feet underground. After jumping off the belt, I was looking at the potential job and they failed to mention that they were just about to knock all the props out from behind the coal face. So as I turned away, the roof in the middle just collapsed in one big slab, creating a noise I will never ever forget. At that moment I really thought my end was nigh.

Talking of mining I am often asked to visit diamond and platinum mines when I visit South Africa. This is not something for the faint-hearted, trust me. The security as you can imagine is very strict and you are not allowed to take anything into the mine – including your belongings or your clothes! You have to strip off totally and be searched on the way in and again on the way out – not the most dignified of sales appointments I can tell you!

Diamond mine

I also remember my first application offshore, on a deaerator in the North Sea, which was also the first ever application we did in the Oil and Gas industry. The process vessel was

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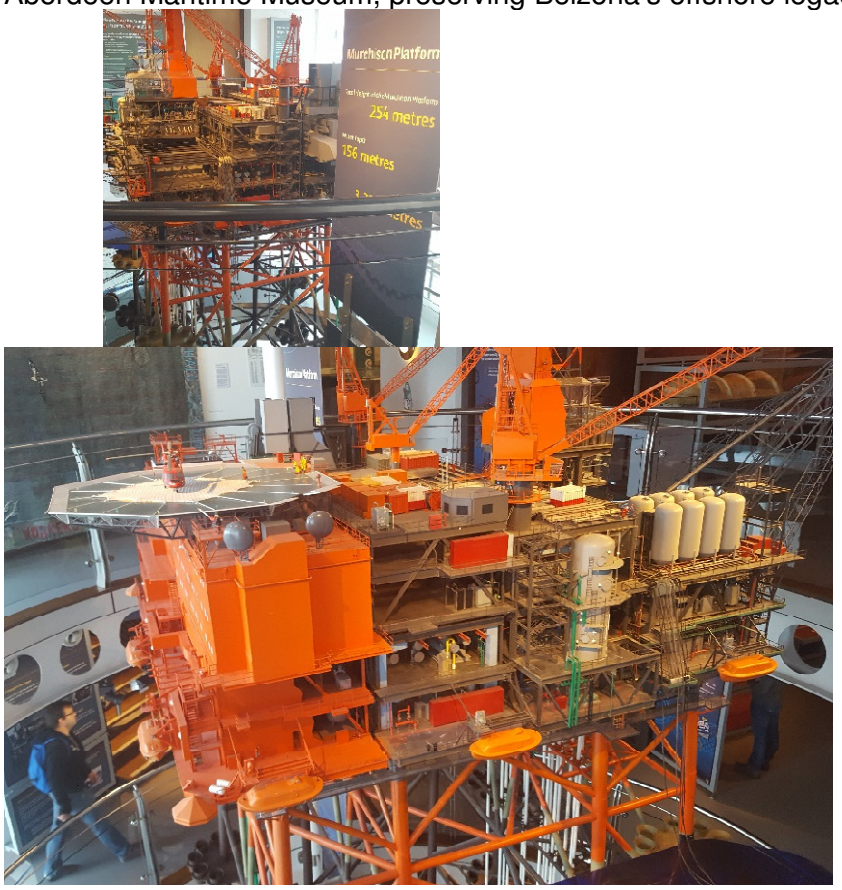
17m (55.8ft) high and 6.5m (21.3ft) in diameter and we coated the whole thing top to bottom. Up until we lost track when the asset owner sold the rig it was still in service after 12 years. It had a few patch repairs done because of mechanical damage, but the coating itself was intact. I put that down to the way that we held the blasted surface. We wrapped the entire vessel in electric blankets, heated the skin up to 25°C (77°F) and held it there. Even in the harsh climate above the Arctic Circle, we were able to hold the blast to ensure a good application. This platform has now been decommissioned, but a replica is installed in the Aberdeen Maritime Museum, preserving Belzona's offshore legacy, so to speak.



Murchison platform replica in the Aberdeen Maritime Museum

Q) How has the Belzona business changed over the years?

A) We are now getting into bigger types of business, where the applications are getting larger and more complex. And it's a challenge; particularly in my position, to train people to recognise what the issues with large applications are. It is a major challenge to not only provide the materials, but to also provide the service to make sure the applications are done correctly. The validated training we offer helps a lot. The next stage is to propose a system whereby we can provide trained application teams that can help Belzona distributors who need them on a global basis.

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Validated training in action

Q) Can you comment on how some of the key industries that Belzona is involved in changed over the years?

Q.1) Oil and Gas

A) The Oil and Gas industry has certainly changed. Previously, we saw a greater demand for just product with people employed by the industry taking care of specification. I'm finding now that a lot of people who are in charge of writing coating specifications are relying more on coating manufacturers to provide guidance on when to use and when not to use their products. I think it's a big change, as they want more service when it comes to the practical side of things.

Obviously Health and Safety has taken off now, resulting in a move away from hot work, which gives us a bigger opportunity to develop our solutions in all industries especially since our solutions are cold and our materials are solvent-free, so from an environmental point of view we should be leading the change in the mind set of our customers towards new technologies and solutions to problems.

Belzona bonding application for riser bearings and caissons

Q.2) Marine

A) The Marine industry has changed a huge amount as well. When I was at sea, there was probably a complement of 30 people aboard. These days the crew consists of 10-12,

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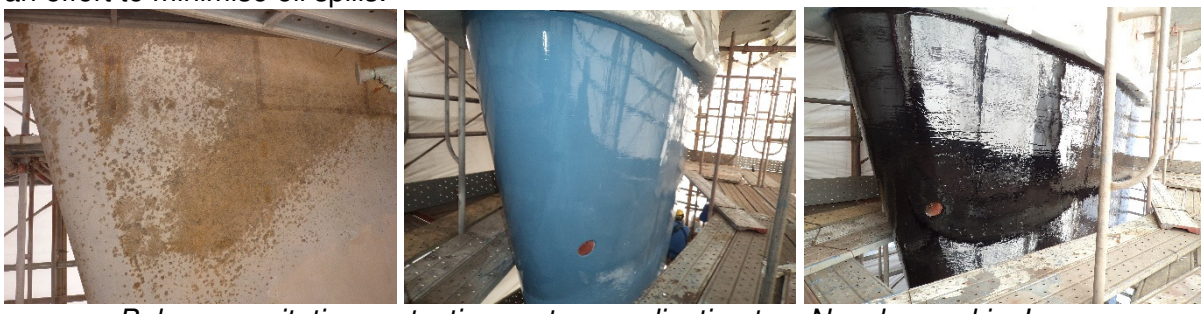
sometimes less, because everything is automated. Ships in the 1970-80s were being built bigger and bigger, because it was more economical to transport large amounts of oil slowly, conserving high cost fuel. But now the ships are getting smaller and faster, because the engines are becoming more economical and efficient. Safety also played a big part. The National Maritime Organisation, the policeman of the seas, have introduced a vast amount of legislation. The paint systems have changed, eliminating heavy metals like lead or copper. Ship designs have changed as well with the introduction of double bottoms and wing tanks in an effort to minimise oil spills.



Belzona cavitation protection system application to a Naval vessel in Japan

Q.3) Mining

A) The Mining industry has changed quite a lot. Health and Safety has modernised the industry, minimising the amount of accidents. The development of automation and conveying systems made the industry very efficient. Machines are now taking over from people, yet someone still needs to build and fix these machines and hopefully we will be on the forefront of that, especially because we can do it cold with minimal hazard.

Pump repair and abrasion protection at a Guatemalan gold mine

Q) What are some of the emerging industries you get involved in?

A) A lot of things are happening in the renewable energy sector, with wind and wave power. We are working on at least three major projects in that sector. There are two major wave generator manufacturers, which we are working with to specify Belzona to protect their machines and do some bonding applications. Another opportunity is the wind turbine blade's leading edge protection. We had meetings with the three major wind turbine manufacturers in Scandinavia and they have asked us to submit several coatings to go into their test program because they would like to prevent their blades from getting damaged.

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Q) As Belzona's primary business is mitigating corrosion, the company has a lasting relationship with NACE, the Worldwide Corrosion Authority. Can you tell us about your personal involvement with NACE?

A) In the late 90s, we decided that we were going to start to provide our customers with service as well as product, and I was put through NACE training together with several other Belzona Engineers, reaching Level 3 in one year. I was then approached by a NACE franchisee in the UK and we agreed that Belzona will host NACE courses. However, the franchisee insisted on one condition – that I would volunteer to become an instructor. My thought at the time was that the industry had given me so much in the last 30 years that I should start putting something back. Maybe this was the opportunity to do that and so I agreed. I then went through a lengthy and thorough process from becoming an Apprentice Instructor, to a Trainee, and finally to a fully qualified NACE Instructor. I have completed 5 years now as a NACE Instructor and have now been nominated for elevation to Lead Instructor. There are currently two Lead Instructors in the UK and in the near future there may be three!

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Q) And finally, what do you think will happen in the next 10 years in the corrosion and maintenance sectors?

A) If you look at the cost of corrosion worldwide, generally speaking, in any industrial country it is about 4% of their GNP. As far as Belzona is concerned, we haven't scratched the surface yet, we just stroked it gently. So there is a huge amount of potential there. I think we need to develop specific niche market products to address the issues that industry might have in the future. Health and Safety legislation starts to frown upon welding in the maintenance sector. Shutting the whole plant down for hot work repairs is also not economically viable and our kind of industry – repairs that are cold – will have the opportunity to advance faster than ever before.

If you look back in history, ships, tanks, bridges and everything in general construction used to be riveted together. Then we moved from rivets to welding and everybody initially

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distrusted it. Particularly after the First World War, when we were building a ship per week using welding, as it was quicker to join the metal together. But, unfortunately, welding was in its infancy and the technology was not there, people didn't fully understand the welding process. So a lot of those wartime ships broke in half and sank. As a result, people doubted welding, but gradually as we learned more about the process, we abandoned riveting and now you won't see many things being riveted at all. Industry is now moving away from welding to cold bonding. So in certain industries, in maintenance, I see cold bonding taking over from hot welding. Belzona, in turn, has all the necessary tools to make cold bonding a reliable alternative to welding – experience, high-performance materials, as well as application expertise and support.

Belzona cold plate bonding in action

Interviewed and written by: Marina Silva

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Notes

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- Established in 1952, Belzona has pioneered innovative polymer technology that has revolutionised industrial repair and maintenance procedures.
- Belzona is a leading company in the design and manufacture of polymer repair composites and industrial protective coatings for the repair, protection and improvement of machinery, equipment, buildings and structures.
- At Harrogate, the full Belzona product range is manufactured to stringent quality and environmental control guidelines complying with the requirements of ISO 9001:2008 and ISO 14001:2004.
- Belzona has over 140 Distributors in more than 120 countries ensuring not only the availability of Belzona materials, but also specification support, project management, application and supervision services. Distributorships and their teams are supported by Belzona Corporate offices in Europe, North America and Asia.

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