

Investing in Plant and People

Multi-million pound ongoing investment in plant and people is driving export success at William Cook Rail and keeping the British company at the forefront of the design, manufacture and overhaul of safety-critical components for the global rail industry



William Cook Rail's world-leading foundry in Leeds, West Yorkshire

The company serves international rolling stock builders and operators including Alstom, Bombardier, Siemens, Stadler and Transport for London from its world-leading foundry, machining and workshop facilities in Leeds, West Yorkshire. Its products are on trains around the world, including the UK, France, Germany, Canada, India, Australia and the United States.

William Cook Rail has secured substantial new export orders recently. 2022 saw the company secure a multi-million dollar contract for traction motor components for the Long Island Rail Road in New York, one of the busiest commuter lines in the world. The company helped design the precision components in a specialist grade of stainless steel to help the M-7 rail cars overcome the challenges of operating in a corrosive maritime environment on the Atlantic coast. The components will extend the life of the fleet and reduce the noise of the trains to

improve comfort for passengers. William Cook Rail won the multi-year contract with Alstom North America thanks to its world-leading expertise in advanced metallurgy and precision machining.

In Europe, the company has won important new customers in Škoda Transportation Group of the Czech Republic and Pesa of Poland. It is supplying both train builders with complex bogie frame castings for trams and commuter trains.

William Cook Rail showcased British manufacturing excellence at InnoTrans, the international trade fair for transport technology which took place in Berlin in September 2022. The company exhibited alongside global industry giants such as Alstom, CAF, Hitachi, Siemens and Stadler.

Closer to home, William Cook Rail continues to maintain and overhaul a variety of coupler systems and other parts for London Underground trains across the network. In early 2023 the company

secured a multi-million pound contract for mechanical and electrical overhaul of Jubilee Line trains.

The export success comes as a result of sustained investment in plant and machinery at William Cook Rail. The most recent investment includes £1.25 million in new CNC machining centres, which will enable the company to deliver ever-tighter dimensional tolerances. The new machines will complement an already extensive and modern machine shop, which includes a Correa FOX gantry milling machine capable of accommodating complete bogie frames. The company is also commissioning a new paint facility, bringing in-house the capability to coat everything from individual parts to complete bogie frames, all to rail industry standards.

Against a backdrop of soaring energy costs and the UK's transition to net zero, William Cook Rail has successfully reduced its energy consumption by investing in high-efficiency equipment and reorganising its manufacturing operations. Its new high-efficiency heat treatment furnaces help achieve the superior mechanical qualities required for the ultra-high-strength but lightweight steel components demanded by the rail industry. Meanwhile new extraction units reduce the factory's emissions and improve working conditions for employees.

Combined, these efforts have led to a 60 per cent reduction in gas consumption and a 15 per cent reduction in electricity consumption over the last year, without any fall in production output. These efforts have been led by director William Cook, who is vice chair of the Net Zero Advisory Panel at the Cast Metals Federation industry group.

Mr Cook said: 'William Cook Rail is investing for the long term to develop our world-leading foundry, machining and workshop facilities and our workforce of highly skilled engineers, technicians and apprentices, helping to create a sustainable future for British manufacturing capabilities.'



Apprentice James Addaway operates the Doosan Mynx 9500 in William Cook Rail's extensive and modern machine shop



Apprentices Thomas Roberts (centre) and Brendon Dunbar (right) with a wedgelock coupler

'We are proud that the world's major train builders come to William Cook Rail for safety-critical components that they can rely on. We're also proud to manufacture all our products in Great Britain; with our base in West Yorkshire, we are extremely well placed to support the major investment in Britain's rail network to transform services across the North and Midlands.'

William Cook Rail holds certification from the Railway Industry Supplier Approval Scheme (RISAS), which ensures key suppliers can become recognised as best-in-class at delivering the most challenging and high-risk products and services. It is also one of only 19 British manufacturers to meet the International Railway Industry Standard (IRIS), the leading quality benchmark for the global rail sector. This covers the company's management systems for the manufacturing, machining, assembly and overhaul of safety critical components for rolling stock builders and operators across the world.

William Cook Rail is part of William Cook Holdings, a specialist manufacturing group serving the defence, rail and energy sectors. The Sheffield-headquartered group has 442 employees and four factories across the north of England, with sales of £60m per year.

Young engineers living the dream

As ambitious and enthusiastic young engineering apprentices, Brendon Dunbar and Thomas Roberts are living the dream at William Cook Rail. The trainee mechanical engineers are learning all about the design, manufacture and overhaul of safety critical components under the expert guidance of highly experienced hands at this leading supplier to the global rail industry.

Brendon and Thomas have joined a company with a strong track record of developing the next generation of engineering talent. In a workforce of 123 people, William Cook Rail has five active apprentices and eleven employees who have completed apprenticeships in the last five years. They are being guided by some of the

most experienced engineers in the industry: the company has just handed out long service awards to four members of staff with a combined tenure of 137 years at the company.

Barry Swift, executive director at William Cook Rail, said: 'We are great believers in giving young people an opportunity to develop careers as engineers. To succeed in the global rail industry, you need to invest in the future and bring young people into an environment where they can learn new skills. They find it very rewarding to be able to contribute to finished products that are running on railways throughout the world. Equally, our experienced engineers find it very exciting to be able to share their knowledge with the new recruits. It gives everyone a spring in their step.'

Alongside apprentice machinist James Addaway, Brendon and Thomas are products of UTC Leeds, a university technical college with a focus on engineering and advanced technology. William Cook Rail is developing closer links with the specialist education provider to encourage more ambitious and enthusiastic young engineers to pursue a career in the global rail industry.

The first fruit of this growing relationship is a new work experience programme. It launched earlier this year when William Cook Rail welcomed three year twelve students for a week-long placement. The team introduced the students to all stages of the production process from method design and pattern making to mechanical analysis and testing and then quizzed them about how much they had taken in.



William Cook Rail showcased British manufacturing excellence at InnoTrans in September 2022

Mr Swift added: 'We were really impressed with their detailed responses. All three actively engaged with us and were model students. They were a credit to UTC Leeds and their parents. We are looking forward to working more closely with UTC Leeds and in the coming months we hope to launch a new technical apprenticeship programme.'

William Cook Rail's apprenticeship scheme is proving to be a successful route into the rail industry. Products of the programme include Shivan Morkar, an award-winning apprentice who recently completed his engineering degree in mechanical manufacture at the University of Sheffield while working at the company. [RP](#)

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