

New locomotives for Tata Steel under construction

In the Burton-upon-Trent works of Clayton Equipment Limited three of the largest locomotives built in the UK since 2003 are being constructed for TATA Steel.

Designated the CBD90, these 90-ton Bo-Bo hybrid locos are being built for use in the TATA Port Talbot steelworks, where they will be required to handle loads of up to 2,500 tonnes around the plant. Each locomotive is powered by batteries generating current to power the 416kW maintenance free high torque electric motors that are situated on each bogie. The batteries themselves are charged by an on-board low emission EU Stage V compliant diesel engine, which is positioned at the front of the locomotive. The first example of the three-strong order, No. 930, has already been delivered to TATA Steel, and the two remaining, Nos. 931 and 932, are currently in an advanced stage of construction.

Perhaps the next contract for Clayton Equipment is of even higher profile, as they will be building two new hybrid locomotives for the Snowdon Mountain Railway. The new locomotives will replace two of the current four diesel hydraulic examples, built by Hunslet Locomotive Company between 1986 and 1992. It is reported that these 800m gauge locomotives will be powered by batteries and a diesel generator on the ascent of the mountain, while on the descent the diesel generator will



Above: The final two locomotives for the order of three, are pictured under construction at Clayton Works in Burton-on-Trent on 7th January.

be turned off and the batteries will receive sufficient charge through the locomotive's regenerative braking system to cover the next ascent. The new locos could potentially allow the railway to operate emission free in the Llanberis area. Construction on the new locos is due to commence shortly.

Clayton Equipment Limited has a long pedigree in the railway industry dating back to its formation as the Clayton Carriage & Wagon Company in 1931. Through various guises and owners it has developed into

a provider of locomotives as well as powered equipment for other industries and enjoyed particular growth after the Second World War, which necessitated a move to larger premises at Hatton, Derbyshire.

The company built its reputation as a provider of specialist traction, particularly for the mining industry at the coal face, supplying both to the home and overseas markets. However, at home it is perhaps best known for the British Railways Class 17 centre-cab Bo-Bo locomotives, which

Below: With the first locomotive having successfully completed trials at the Tata Steel plant in Port Talbot, work on the final two is well underway. Here, the frames and bodysells are seen on assembly stands with the future bogie frames positioned alongside until the wheels can be fitted.





Above: The spacious factory at Burton-on-Trent is pictured on 7th January, with various items, including wheelsets, for the new locomotives awaiting fitting. *All: John Whitehouse*

unfortunately proved to be one of the short-lived products of the British Railways modernisation plan. One example, No. D8568 survives in operational condition, based on the Chinnor & Princes Risborough Railway and being used at various heritage railway galas across the country.

Nowadays, the company operates from smaller, modern premises in an industrial park situated on the outskirts of Burton-on-Trent. However, as the company's order book stretches to items of various gauges, a national rail connection is not important. An interesting feature of their erecting shop is a multi-gauge section of track that reflects the variety and size of their output. Clayton Equipment enjoys an enviable reputation for its ability to both design and build modern traction of all sizes, incorporating modern technology and meeting the latest emission standards.

Recent deliveries well illustrate their competencies, which include providing the first EU Stage IV diesel locomotives to haul

engineering trains within the CrossRail project, four new battery locomotives to work on the Waterloo & City Line, and the conversion of ten diesel locomotives to zero emission battery traction, with on-board charging facilities, for London Underground. Another notable contract is building the longest construction

train for the 'Eleclink' Channel Tunnel project. It is over 500 metres in length and capable of travelling up to 90km/h when required.

Looking into the future, the company is well positioned to take full advantage of the growing demand for new environmentally friendly traction, especially as there

remains a large worldwide fleet of 'dirty diesel' shunting locomotives still in service that at some time soon will either be replaced or upgraded. The company is not looking to enter the market for large fleet replacement, but more to satisfy the needs of individual customers with specific needs.

Below: The first locomotive to be constructed has already been delivered to Tata Steel and is pictured shunting between Port Talbot steelworks and Margam Yard on 21st January. *Mark Baldwin*

