

Reminders of Scotland's reputation as a ship-building nation can still be found - John Yellowlees

Amid the furore surrounding the CalMac vessels being built by Ferguson at Port Glasgow, it is easy to forget that Scotland was once one of the greatest shipbuilding nations in the world.

Thankfully, initiatives like the National Transport Trust's Red Wheel scheme exist to shine a light on the UK's most important sites of engineering and transport development. Recently that light fell on one of the most influential of the Clyde shipbuilders, William Denny, and, what is today, the world's oldest working model experiment tank.

The fiercely progressive Victorian shipbuilder founded William Denny and Brothers Shipyard of Dumbarton in 1844. As well as pioneering advances in shipbuilding, Denny designed and constructed one of the first helicopters to fly and the Denny Hovercraft. Key to the success of the yard was the Denny Test Tank.

Inspired by inventor William Froude who had established a formula to determine the resistance of a vessel from the results of a model, Denny built the 73 x 6.7 x 2.75 metre tank "to determine with commercially acceptable accuracy the power required to achieve the contract speed and to reduce that power to a minimum".

The Tank cost £6,000 and the first model test ran on 21 February 1883. Over the years, improvements were made to the Tank, the recording truck which towed and tested the wax model hulls and the narrow-gauge railway suspended from the roof powering it.

The Tank was electrified in 1908 and, after a fire in 1924, the length of the deep water section was extended to 94.5 metres. The wave-maker was mechanised in 1935. When Denny's shipyard closed in 1963, the Tank was purchased by Vickers-Armstrong then fell out of use.

Recognising the historic importance of the building and tank, the National Maritime Museum in Greenwich, National Museums [Scotland](#) and the Scottish Maritime Museum came together to save them. In 1984 the doors opened once again, this time as part of the Scottish Maritime Museum. Today, visitors can see the Denny Tank in action and immerse themselves in life at the Victorian shipyard. Highlights include the 'Drawing Office' and 'Manager's Office', model propellers that it took a skilled technician a week to cast, fair and balance before testing and the double-ended brass standard model used to ensure constant results.

Whilst the Scottish Maritime Museum in Dumbarton celebrates West Coast shipbuilding, the Museum's second collection, on Irvine Harbourside in Ayrshire, features some of the UK's most historic vessels and the largest collection of shipbuilding tools in Scotland.

Vessels include the 150 year old MV Kyles, the oldest Clyde-built vessel still afloat in the UK and recognised as one of Britain's most important historic vessels; SY Carola, possibly the world's oldest seagoing steam yacht; sailing boat Lady Guilford, thought to be the oldest surviving Scottish-built boat; and Spartan, the only surviving Scottish-built 'puffer' in Scotland.

Inventions housed within a former Engine Shop, the Linthouse, include the first steam turbines and engineering for the swing bridge at Glasgow's first dock. Along with a year-round exhibitions and

events programme and children's trails, the Museum features a recreated 1920s Shipyard Worker's Tenement Flat.

As well as the Scottish Maritime Museum, many other Clydeside locations remind us of Scotland's maritime significance including the mighty cranes at Finnieston, Scotstoun, Clydebank and Greenock. There is no better way of seeing these than onboard the world's last seagoing paddle-steamer, the Waverley, as she passes the working shipyards at Govan, Scotstoun and Port Glasgow. Only when viewed from this fine old lady of the seas can such reminders of the Clyde's marine heritage be appreciated in the right perspective.

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