

BRUNEL SWIVEL BRIDGE NEWS

October 2026

PERO'S BRIDGE FAILURE



The bridge is named after the Pero Jones who lived from around 1753 to 1798, arriving in Bristol from the Caribbean Island of Nevis in 1783. He was enslaved by merchant John Pinney (1740–1818) who lived at 7 Great George Street near Brandon Hill.

The bridge was designed by the Irish artist Ellis O'Connell, in conjunction with engineers Ove Arup & Partners and opened in 1999.

In July 2025 an inspection found "major structural issues" which led to the introduction of a one tonne weight limit and a "no lift" notice. Then during a test of the bridge's opening mechanism on 13 August 2026, the rolling bascule appears to have slid or jumped out of its tracks and dropped, becoming wedged at an angle between the fixed abutments.

Walters U.K. Ltd, who have repaired Bathurst Bridge recently, have been appointed to repair it within a £1.5m budget. Keynvor MorLift (KML) based at Appledore in Devon will crane out the bascule using a floating crane.

The lifting bascule of Peros Bridge is believed to be unfixed, its curved toothed arms running on a track. The design is well-established but clearly something has failed, demonstrating the risks associated with an ageing movable structure.

The Brunel Swivel Bridge has much more conventional design, and the restoration design-team are incorporating modern working parts to provide maximum reliability.

JOHN CRAVEN SUPPORTS THE SWIVEL BRIDGE



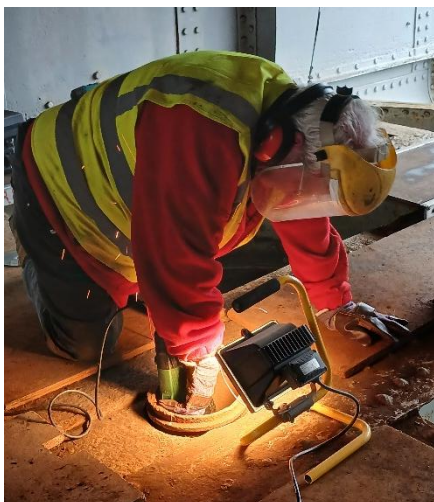
John Craven is one of the BBC's best known and loved presenters. Older folk will remember *Multicoloured Sway-Shop*, *Saturday Super-Store* and *John Craven's News Round*, of which he presented over 3,000 episodes. He currently presents *Countryfile* and the BBC *Children in Need* appeals. He is a self-confessed Brunel enthusiast, and appeared on BBC Radio 4 with our Patron Julia Elton extolling Brunel's capabilities in 2014.



On 10th September John and Julia Elton met at the Bridge to record a piece about the importance of the Bridge and its restoration for public use, alongside Geoff Wallis. Our long-term volunteer Charlie gave a younger person's perspective, expertly interviewed by John. All presentations were unscripted.

Riley and Ollie who produced our successful fund-raising video, directed to action. Thank you everyone for volunteering their time so generously. We look forward to seeing the final edit.

A HARD GRIND



Following successful drilling out the core of Brunel's central adjuster (see September Newsletter), Geoff Wallis has been laboriously grinding and drilling away the remnants of this giant wrought iron 'bolt', taking great care not to damage the original female thread that will be reused.

Interestingly, a small section cut out shows that Brunel or his staff designed a special 'buttress thread' to carry the 70T deck-load. This shape allows brittle cast iron to carry a greater force, demonstrating how much attention was paid to engineering details.



TRISTAN RALPH - CLIFTON SUSPENSION BRIDGE MASTER



On we were delighted to show Clifton Suspension Bridge Master Tristan Ralph around the Swivel Bridge and Knuckle. He and his team have been very supportive of our project, and we look forward to further cooperation. Tristan wrote:

"It was a huge pleasure to spend a few hours with Geoff and Bob at the Brunel Swivel Bridge and to find out more about the plans for its refurbishment and subsequent re-introduction into service. It was also fascinating to be given such a well-informed tour of the other historic infrastructure in the immediately surrounding area. My sincere thanks again for taking the time to show me around".

NEWS FROM AROUND THE HARBOUR

It was reported at the Harbour Committee meeting on Tuesday 15 September that The council values its harbour assets at about £1bn and estimates a long-term lifecycle requirement of £8m to £10m a year. The current revenue maintenance allocation is £651,739, including staff costs, less than a tenth of that estimate.

In the Harbourmaster's report it was noted that the Entrance Lock is operating under restrictions after a dive survey found the sluice gates in poor structural and mechanical condition. Also, the Plimsoll Bridge operations are restricted when temperatures reach 30°C due to expansion of the steelwork which may cause it to jam.

Mooring occupancy is 88 per cent, with approximately 39 vessels waiting.

FREEZING PIPES

In 1983 South West Gas's magazine *Sou'wester* published an article about the water freezing in the hydraulic pipes that supply the equipment around Cumberland Basin. Naked gas flames called 'flares' were installed to keep the pits warm, but gas could leak into the pits causing an explosion risk. Read the article on the next page for the solution, suggested by David Blackburn, one of our Swivel Bridge supporters.

GAS BRIDGES THE GAP

GAS has been getting into hot water at the lock gates to Bristol's Floating Harbour.

The non-domestic sales team at Bristol has just completed one of the most unusual jobs they have ever been given — replacing the ancient gas burners which warm up the lock gate hydraulics and guarantee their use even in the frostiest weather.

The gates use a system of pistons, pulleys and chains which was first used in 1893. The 125 gas burners did their job but the gas pipes were often flooded in the high winter tides.

Technical consultancy engineer for Bristol **David Blackburn** heard that when the lockside burners were used most — in January and February — high tides poured water into the burners' pits and put them out. When the water went down the unlit burners and even the pipes themselves were filled with water.

David suggested a simple thermoelectric valve which shut off the pipe as soon as the flame went out stopping both gas escaping and water getting in.

The job was carried out by **Steve Hayes** and **Steve Wilson** from Bristol special services section who had to time their work around the tides.

Our picture, right, shows **Steve Hayes** working on the mechanism under the Junction Lock road bridge, a structure literally floating on water and kept moving at icy times by eight gas burners.

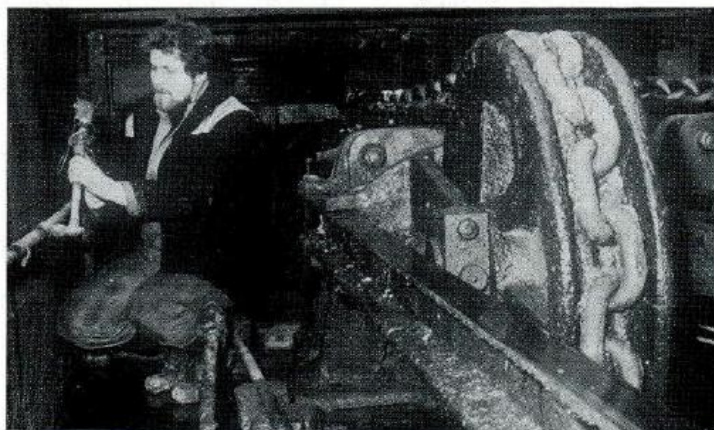
Although the lock system has remained much the same over the past century some improvements have been introduced. The water

is pressurised by electric pumps, for example, although the old pump house accommodating the original steam engines still stands.

Bristol docks were once the

second busiest in the country, and, despite falling in the trade league table since, are still used by commercial and leisure craft.

Let's hope that with the help of gas they will carry on working safely for ages to come.



PLEASE DONATE TOWARDS THE SWIVEL BRIDGE RESTORATION VIA THE WEBSITE OR TO:
Metrobank Sort: 23-05-80, Acct. name: Brunel Swivel Bridge Group. Acct. No: 56433724

THANK YOU, WE GREATLY APPRECIATE YOUR SUPPORT ! Geoff Wallis
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