



The Junction Lock Story

To complement the recent restoration of the lock on the Stroudwater Canal at Saul Junction, Hugh Conway-Jones explains the origins of the lock's unusual features.

The lock at Saul Junction was built in the 1820s to raise the level of the Stroudwater Canal by four feet to match the planned level of the Gloucester & Sharpness Canal.

It had gone out of use by 1945, when the canal from there to the Severn at was closed, and its condition deteriorated.

After several years on Historic England's 'At Risk' register, the lock has recently been restored, with the help of a grant from the Heritage Lottery Fund.



It is now an interesting feature at what has become a popular leisure destination.

Although the lock was on the Stroudwater Canal, it was built by the company that was building the Gloucester - Sharpness Canal. This led to the structure having several unusual features.

Firstly, it was built in stone rather than the brick used for the other Stroudwater locks.

When the water was drained down during the restoration, it was found that the face of each wall stone was embellished with a lined pattern in a margin around the edges.



The original drawing of the lock showed that the pipe passed under the Sharpness Canal to a sluice in the wall just above a stop gate in the Whitminster pound of the Stroudwater Canal which is still in situ. This arrangement enabled the water level in the Whitminster pound to be lowered when needed for maintenance purposes.

Because of its origin, the lock has always been maintained as if part of the Sharpness Canal, and so it has fallen to the Canal & River Trust to arrange for its restoration.

Another unusual feature of the lock is that the upper gates are almost as deep as the lower gates. This was necessary because the upper cill had to be low enough to allow barges to pass while the lock was commissioned with water at the original level of the Stroudwater Canal before the Sharpness Canal was raised four feet to its planned level. Perhaps the most interesting feature of the lock is that the flow of water into and out of it is controlled by large swinging paddle boards rather than the more usual vertical lift paddles.





The swinging paddles are similar to those seen on some northern canals, and this led to a story that this feature came to Saul post nationalisation when surplus gates were available from up north.

However, Gloucestershire Archives has drawings dated 1880 showing gates for the Junction Lock with swinging paddle boards.

When the existing gates were lifted out, it was found that they were consistent with those drawings.

The gates were also consistent with the specification for the original gates in 1824 which required the paddles *"To be of good Memel timber three inches thick, built and bolted together as per plan"*.



MEMEL is the most northerly town in Germany, and the principal seat of the Baltic timber trade

Although this plan has not survived, when the lock was drained, it was found that the recesses in the chamber walls were shaped very specifically to accommodate the distinctive outline of the paddle boards when the gates were open.

It is thus clear that the swinging paddle boards were a feature of the original gates.

But where did the design come from?

The specification for the lock and the associated drawing that has survived were prepared by Thomas Fletcher who was the resident engineer working on the last phase of constructing the Sharpness Canal from 1820 to 1827.

Recent enquiries revealed that his previous job before coming to Gloucester was working on the Glasson branch of the Lancaster Canal where swinging paddle boards are still in use today.

He evidently used a design he was familiar with!

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