Sliding rail bridge



Overview

A moveable rail bridge in England has been completely overhauled. The UK''s only sliding canal bridge has been improved, ensuring trains can cross safely for years to come.

Key Takeaways

Sliding railway bridges, such as the Vazon Sliding Railway Bridge and Keadby Sliding Drawbridge, are unique structures that allow trains to cross while enabling boats to navigate beneath them.

Vazon Sliding Railway Bridge

Location: The Vazon Sliding Railway Bridge spans the Stainforth and Keadby Canal near Keadby, England. It was originally constructed in 1925 to replace an older swing bridge, minimizing disruption to rail services during its installation. Operation: This bridge operates by sliding sideways to create a passage for boats.

It is battery-operated, utilizing a set of 64 batteries that provide power to the motors controlling the sliding mechanism. The bridge is managed by a railway signalman, ensuring that it can only be opened when rail traffic is halted. Recent Updates: The bridge has undergone maintenance and improvements, including the replacement of wooden track beams with metal supports and the installation of new rails to withstand high temperatures.

These updates ensure the bridge's functionality and safety for both rail and waterway traffic.

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Keadby Sliding Drawbridge

Historical Significance: The Keadby Sliding Drawbridge is notable for being the only sliding railway bridge over a canal in the UK. It has been in operation since the 1860s, with the current sliding mechanism introduced in 1925. Mechanism: The bridge features a hydraulically driven system that allows it to slide open for boats while maintaining the integrity of the railway above.

This design minimizes the need for extensive downtime for rail services.

Challenges and Concerns

Operational Issues: There have been concerns regarding the bridge's opening times, particularly for boaters. Previously, the bridge was opened as needed, but recent maintenance has limited its availability to specific times, raising safety concerns for nighttime navigation. Community Involvement: Local groups have been active in assisting boaters during these limited opening times, highlighting the importance of maintaining access for waterway users.

In summary, sliding railway bridges like the Vazon and Keadby bridges are essential for facilitating both rail and waterway traffic, showcasing innovative engineering solutions to meet the needs of different transportation modes. Their ongoing maintenance and operational challenges reflect the balance between historical significance and modern functionality.

Article Content

Network Rail admits ''significant challenges'' maintaining

Network Rail has discussed the “significant challenges” in maintaining a unique sliding bridge over a Lincolnshire canal as it has suffered multiple

Rare sliding canal bridge in the UK gets a major update

A moveable rail bridge in England has been completely overhauled. The UK''s only sliding canal bridge has been improved, ensuring trains can cross safely for years to come.

Vazon Sliding Railway Bridge

Vazon Sliding Railway Bridge across the Stainforth and Keadby Canal, near Keadby. Boaters must wait until there is a long enough gap between trains on this busy line before the bridge is opened.

Work completed on Stainforth and Keadby canal''s

The sliding railway bridge, near Scunthorpe, carries trains over the Stainforth and Keadby canal. More than 100 engineers have been carrying out a

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Keadby Sliding Drawbridge

One of the main reasons for using a sliding bridge was to facilitate replacement of the old swing bridge, minimising disruption to rail services. The sliding bridge

Engineering work at sliding bridge will affect services this weekend

Improvement work at Keadby sliding railway bridge will mean changes to journeys between Doncaster and Cleethorpes this weekend (16-17 May). The unique structure – connecting

Freyssinet sliding and rotation techniques

This patented method developed by Freyssinet enables the installation of a structure entirely prefabricated on a nearby base -usually next to the road or railway track

sliding railway bridge

Railway engineers are working to repair a historic sliding swing bridge that takes trains over the Stainforth & Keadby Canal in the village of Keadby

Rare sliding canal bridge in the UK gets a major update

The original Keadby sliding bridge dates to the late 1800s and is the only bridge of its kind in the UK. The railway it carries is one of the busiest routes for freight services on Britain''s rail

Network Rail completes major engineering work at UK''s

The original bridge dates to the 1860s, before being converted into a sliding bridge in 1925. It connects Doncaster with Scunthorpe and the

Major engineering work at Keadby sliding bridge means

Network Rail engineers will be carrying out an extensive programme of engineering work at Keadby sliding bridge, near Scunthorpe, which will result

Slide-in Bridge Construction

Slide-in Bridge Construction competes with conventional construction on a first-cost basis. Using SIBC, a contractor can build the structure using conventional equipment and still

Rail-Structure Interaction Analysis of Sliding Slab Track on Bridge

Sliding slab track system is developed to reduce the effect of rail-structure interaction through the application of a low-frictional sliding layer between slab track and bridge structure.

Major engineering work completed at UK''s only sliding bridge

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Network Rail engineers have completed a mammoth nine-day programme of engineering work at the UK''s only sliding canal bridge in Keadby, near Scunthorpe. Teams have worked around

Canal closed for faulty sliding bridge repairs

A canal has had to temporarily close after a fault was detected on the UK''s only sliding swing bridge. Network Rail said a key component in the mechanism, which allows the unique railway

Technical Sheets

Bridge Joints and Expansion Rail Joints Expansion rail joints are recommended to protect bridge joints, crossings and other critical track work assemblies. Assemblies include both solid manganese

Understanding Movable Bridges and a Guide to Design and Preservation

Movable Bridges Cont. In some instances, these structures are historic, and it is required to implement a preservation approach that adheres to the Secretary of the Interior''s Standards and does not

Proceedings of

Sliding slab track system is developed to reduce the effect of rail-structure interaction through the application of a low-frictional sliding layer between slab track and bridge structure.

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