



Cruising the Union Canal Aqueducts

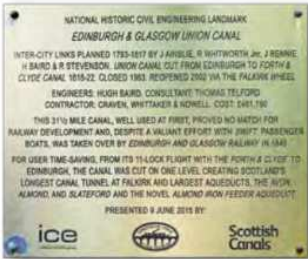


Moored in Avon Aqueduct

Photo by A. Paxton

As a sequel to Helen-Jane's "Canal Builders" article in September's issue, readers might enjoy a leisurely canal boat cruise on a Linlithgow Union Canal Society boat to the 204-year-old Avon Aqueduct, or a visit to the Slateford and Almond Aqueducts. All three are of the same construction.

On a recent visit to the Avon Aqueduct, passengers were introduced to the book, *Civil Engineering Heritage* which features the Aqueduct, with details of the iron trough in which we were afloat! Also shown was



ABOVE: Plaque at the Linlithgow Canal Centre

▶ a rare ticket for the Glasgow to Edinburgh Night Passage, dating from around 1830. At that date, the Glasgow to Edinburgh journey took twelve hours and cost one shilling. Three hours of this travel time was taken with an eleven-lock flight near Falkirk, navigating the 110ft level difference between the two canals. The world-famous Falkirk Wheel boatlift opened in 2002, replaced the eleven locks and now takes only fifteen minutes! The Wheel is designated an International Historic Landmark.

The Avon Aqueduct is the longest and the highest of the three, at 250m long and 26m above the River Avon. The innovative cast iron boat troughs are 4m wide and 2m deep. They were designed in 1817 by the engineer Hugh Baird and erected in 1819-21 by Craven, Whitaker & Nowell. The ironwork was made at Anderson's Foundry, Leith Walk, Edinburgh.

The design was influenced by Telford's Pontcysyllte Aqueduct (1805) but differed in having curved-sides, being wider and simply supported on hollow masonry spandrels with strong external walls and two tow paths. This concept enabled the Union Canal to be made without locks on the 242ft countour above sea level. In terms of travel time this was convenient for the service between Falkirk and Edinburgh, about 30 miles. The illustration shows the 16mm thick cast iron troughs with side 'A' frames, as inspected by myself during maintenance c.1974. A salvaged screw-bolt is now curated at ICE Scotland Museum. (ice-museum-scotland.hw.ac.uk/item/1994-003/)

Unfortunately the Canal was not commercially successful, despite a valiant effort to compete with the rapidly expanding railways of the 1830s and 40s. The Edinburgh & Glasgow Railway ran to Haymarket by 1842, and seven years later acquired the Union Canal Company.

The Linlithgow Canal Society opens for the season on 4th April 2026 with a timetable of cruises including Linlithgow to the Avon Aqueduct and Linlithgow to the Falkirk Wheel.

Cruises start at Linlithgow Canal Basin, where a plaque at the door to the Society's Tea Room and Museum celebrates the Canal as a

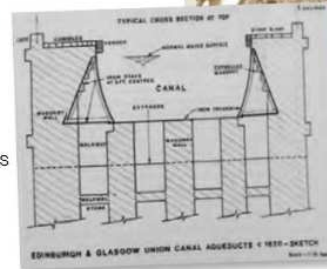
Approaching Avon Aqueduct



Photo by A. Paxton



ABOVE: Canal ticket circa. 1830



ABOVE: Avon Aqueduct (photo from Civil Engineering Heritage Scotland)

ABOVE: Union Canal Aqueducts Trough (illus. from Civil Engineering Heritage Scotland)

National Historic Civil Engineering Landmark. The Linlithgow Union Canal Society is to be congratulated for its dedicated and valuable service to the promotion of canal heritage. For cruise bookings and information please visit www.lucs.org.uk

* Paxton, R. and Shipway, J. *Civil Engineering Heritage Scotland, Lowlands 2007* (Available new and used from Amazon).

This article was contributed by Professor Roland Paxton of the Institute of the Sustainable Built Environment, Heriot-Watt University. Roland is an engineering historian and Bonaly resident.