



## **BARTON SWING BRIDGE BRIDGEWATER CANAL.**

**This Victorian engineering structure is just one of a series of opening bridges over the Manchester Ship Canal, a waterway that brought canal building in Britain to its peak and virtually its completion in 1894.**

**Brindley's old Barton Aqueduct had carried the Bridgewater Canal over the River Irwell for 130 years, but as the line of the river was to be absorbed into the channel of the Ship Canal, with its intended draught of 75ft, the old crossing was demolished in the 1890's.**

**One early plan was to build a high-level fixed aqueduct approached at each end by vertical lifts similar to that at Anderton. But this was rejected on account of the serious delays that would have been experienced by the then very heavy Bridgewater traffic.**

**Sir Edward Leader Williams was diverted from Anderton, being charged with the task of designing a trough of wrought-iron plates, pivoted at the centre on an island in the middle of the Ship Canal.**

**The tank, 234ft long with a navigation width of 19ft and 7ft depth of water, had to be swung full open, as to drain it and refill it would have been costly in supplies and wasteful of time. Total wt 1600 tons (good old-fashioned Imperial tons, that is!).**

**Wasteful of time & costly in supplies if had to drain & refill.**

**Wedges & rubber seals make gates virtually watertight.**

**Trouble-free operation depends on aqueduct swinging in a perfectly horizontal plain.**