



Humber Bridge

VolkerLaser is proud to have successfully delivered key maintenance works on the iconic Humber Bridge, working as the principal contractor on behalf of the Humber Bridge Board.

Opened in 1981, Humber Bridge stands as the UK's longest single-span suspension bridge and is a vital link across the River Humber. This Grade I Listed Structure is supported by two 155-metre-high towers, designed to account for the Earth's curvature, with their tops positioned 36 millimetres further apart than their bases.

The project involved relocating and removing four underdeck inspection gantries as part of essential maintenance.

The Hessle Side Span gantry was hauled 280 metres and lowered onto trestles in the north anchorage compound for storage. The Hessle Main Span and Barton Main Span gantries were moved 50 and 80 metres respectively into the estuary and lowered onto barges for transport. The Barton Side Span gantry was hauled 530 metres to the south anchorage compound, where it was dismantled and disposed of.

Rope access teams began by inspecting the central bolted splice of each gantry. Using tirsors and rigging systems, the gantries were then moved to their designated lowering points. A lifting cradle and Tirak winches were used to safely lower each gantry. The Hessle Side Span was first, retained by Humber Bridge Board, followed by the Barton Side Span, which was dismantled using an excavator fitted with hydraulic shears.

Lowering the main span gantries required a 35m by 11m barge, supported by two tug vessels, with operations timed precisely to the morning high tide. This complex task involved close coordination with the Port Authority, marine contractors, crane hire firms, and salvage yards, accounting for weather and tidal conditions.

Despite the challenges of working in a busy shipping lane with a 5m tidal range, our specialist team completed all gantry relocations and removals within tight tidal windows. To minimise disruption, work was carried out from one side of the bridge footpaths, keeping the east footpath closed during operations, while the carriageway remained fully open throughout. The project was delivered on time and within budget.

