




Slinden Services Ltd




Cast Iron Welding and Metal Stitching

Westminster Bridge, London




Slinden Services are proud to have recently carried out repairs on behalf of Transport for London to Westminster Bridge.

Westminster Bridge is a Grade II listed structure in the heart of London, over the River Thames. It was opened in 1862 and is painted green, the same colour as the leather seats in the House of Commons!





The bridge had recently been damaged by a sightseeing cruiser and sustained damage to the facade and supporting structure.



An initial site visit revealed that there was a piece of the structural cast iron flange which was missing, in need of replacement - we were also faced with a deadline of 2 weeks to complete the whole process!

Initially our engineers travelled to site to make a detailed pattern of the missing section.



Once they were happy with this, it was taken to our preferred foundry for re-casting.

The new piece was then taken back to London for re-fitting by way of fettling until we had a fit that was within .3mm fit ready for our metal stitching process

*Breathing new life into
damaged cast iron components*

L3 Olympic House, Westminster Industrial Estate, Measham, Derbyshire, DE12 7DS

Telephone: 00 44 (0) 1530 274646 Fax: 00 44 (0) 1530 274647 Email: info@slinden.co.uk



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Our Metal Stitching procedure was used as follows:

Inspection of the structure was undertaken to SNT-TC 1A to ensure no cracks are evident that would cause a failure in the future.

Stitching was undertaken by using a drilling fixture that is attached at right angles to the crack, a set of holes are drilled and repeated at a set spacing apart depending on the locks used, material between each drilled hole is removed by gouging out with air tools to form a wave form slot.

Then preformed special steel locks are inserted into the material, three locks deep in this case and peened to ensure a mechanically tight fit.

After the locks are installed, holes are drilled along the fracture line, then special threaded steel pins are inserted, and peened to ensure a mechanically tight fit, these are inserted along the entire length of the crack, with a slight overlap.

The repaired area is finish dressed to follow the original profile.

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