



Panel for Historical Engineering Works

for

Cleopatra's Needle

Details

Name of work:	Cleopatra's Needle
Place:	Westminster, London
HEW no:	2197
HEW class:	Z
PHEW area code:	13
Ordnance Survey sheet number:	176/177
National Grid Reference:	TQ 306805
Description:	
Significant features:	<p>An Ancient Egyptian pink granite obelisk transported from Heliopolis (now Alexandria) in January 1868 and re-erected on Victoria Embankment. Now known as Cleopatra's Needle the London obelisk was one of a pair</p> <p>Transportation from Egypt necessitated the design and construction of a unique cigar-shaped container vessel. On arrival in London, after an eventful sea journey, a timber cradle incorporating hydraulic jacks and trunnions was erected to enable the obelisk to be rotated into a vertical position on a pre-prepared foundation plinth.</p> <p>In 1880 the companion obelisk was transported to America on an ordinary steamer, dragged overland on iron balls and rollers and erected in Central Park, New York.</p>
Accessibility:	visible from place of public access
Owner	
County/Unitary Authority:	
District Council:	
SMR Office:	Greater London

Construction date:	Re-erection 1877/1878
Opening date:	1878Sep12
Designers, with dates:	Promoters: Erasmus Wilson, John & Waymann Dixon Container vessel: John Dixon, Benjamin Baker Erection cradle: Benjamin Baker Foundation plinth: G.F. Villiamy Bronze lions by sculptor C.H. Mabey
Resident Engineers, with dates:	Operations in Egypt: Waymann Dixon Re-erection on Victoria Embankment: Mr Double
Contractors, with dates:	Container vessel: The Thames Ironworks Company
Current status:	
Current condition:	Good
Subpanel grade	
Location of other records (e.g. manuscripts, drawings, technical papers, photographs, etc):	Lt Gen. Sir J Alexander (1879) Cleopatra's Needle, the Obelisk of Alexandria B Baker 'Cleopatra's Needle' MinProcICE (1879-80), 61/3.233-243 Thames Ironworks Gazette, 30Jun1900, 111-115 M JU T Lewis 'Roman methods of transporting and erecting obelisks' Trans.NewcomenSoc. (1984-85), 56.87-10
Illustrations attached (no.):	
Similar works:	Obelisks in New York and Paris
Recorded by:	D Smith
Date recorded:	01 Jan 2001
Amended by:	C R Cockerton
Revised by:	01/02/2015

Revision date:	
Latest inspection by:	C R Cockerton
Inspection date:	01 Feb 2017

Supplementary Record

Further description

This stone obelisk, quarried at Syene (now Aswan), was erected at Heliopolis about 1460BC. The transportation of the obelisk from Egypt and its erection in London was initiated by members of the Institution of Civil Engineers in 1877. By then there had long been a tradition of moving Egyptian obelisks to Europe, going back to Roman times. The promoters of this scheme were Erasmus Wilson and the brothers John and Waymann Dixon. In 1877 Wilson offered to pay £10 000 once the obelisk was erected in London, with John Dixon, civil engineer, taking all the risk on a no fee if unsuccessful basis. At this point John Dixon involved Benjamin Baker to design and supervise the engineering aspects of the project. The 68 ft 9 in. obelisk was lying; half-buried in Egypt and was estimated to weigh 186 tons. Baker designed a special vessel to transport the obelisk both on land and sea, this was a wrought-iron cylinder, 15 ft in diameter and 92 ft long, and pointed at both ends. In mid-March 1877 a contract to build the vessel, named the *Cleopatra*, was placed with The Thames Ironworks Company and in August it was ready for use on site in Egypt. The obelisk was wedged securely inside the *Cleopatra* and reached the coast on 8 August, and on 21 September the obelisk began its journey to England being towed by the *Olga*. Baker blithely recorded 'All went well for the first 2400 miles', then the *Cleopatra* became adrift in the Bay of Biscay. The vessel and obelisk were considered lost, but she was later found and restarted her journey to England on 16 January 1878, arriving at Gravesend four days later. At the chosen site on the Victoria Embankment a 50 ft high timber structure was erected comprising four upright posts, diagonal bracing and raking struts. The obelisk was landed in the horizontal position and the central third was encased in a wrought-iron casing with knife-edged trunnions. The trunnions rested on iron box girders at the ends of which were hydraulic jacks. The Needle was lifted in the horizontal position and was swung effortlessly into the vertical position on 12 September 1878

A large number of items representative of the time were placed inside the pedestal in two jars, a list of which is reproduced in 'Engineering Wonders of the World' by A. Williams (Nelson 1909

ALEXANDER, LT. GENERAL SIR J. *Cleopatra's Needle, the Obelisk of Alexandria*. Chatto & Windus, 1879.

BAKER, B. *Cleopatra's Needle*. *Min. Proc. Instn. Civ Engrs*, 1879-80, 61, Pt. 3, 233-43. *Thames Ironworks Gazette*, 30 June 1900, 111-15.

LEWIS, M. J. T. Roman methods of transporting and erecting obelisks. *Trans. Newcomen Soc.*, 1984-85, 56, 87-110.

WILLIAMS A. *Engineering Wonders of the World*. Nelson 1909: *The Story of Cleopatra's Needle*.

Engineering, Sept 13 1878 'Cleopatra's Needle' pp 209-213.

The Engineer Feb 15 1878 Letters to the Editor 'Cleopatra's Needle'.