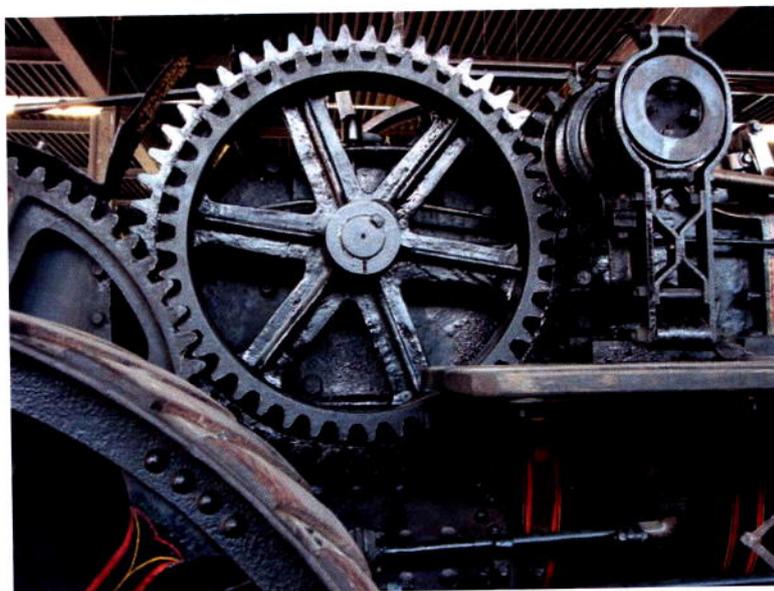


Lincolnshire's Industrial Past



A guide to 12 tours arranged by

The Society for Lincolnshire History and Archaeology

for the Annual Conference of
The Association for Industrial Archaeology

Lincoln 2009



Tour notes for the Annual Conference of the Association for Industrial Archaeology held in Lincoln, September 2009

First published by The Society for Lincolnshire History and Archaeology 2009
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ISBN 978 0 903582 38 4

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ACKNOWLEDGEMENTS

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Illustrations: Anderson & Glenn (Fig. 106); Eric Croft (Figs. 129, 130, 132); SLHA members

References in the text, e.g. *EL71*, are to *Lincolnshire's Industrial Heritage – A Guide*, edited by Neil Wright, published by SLHA in 2004.

Front cover illustration: Maud Foster Windmill, Boston

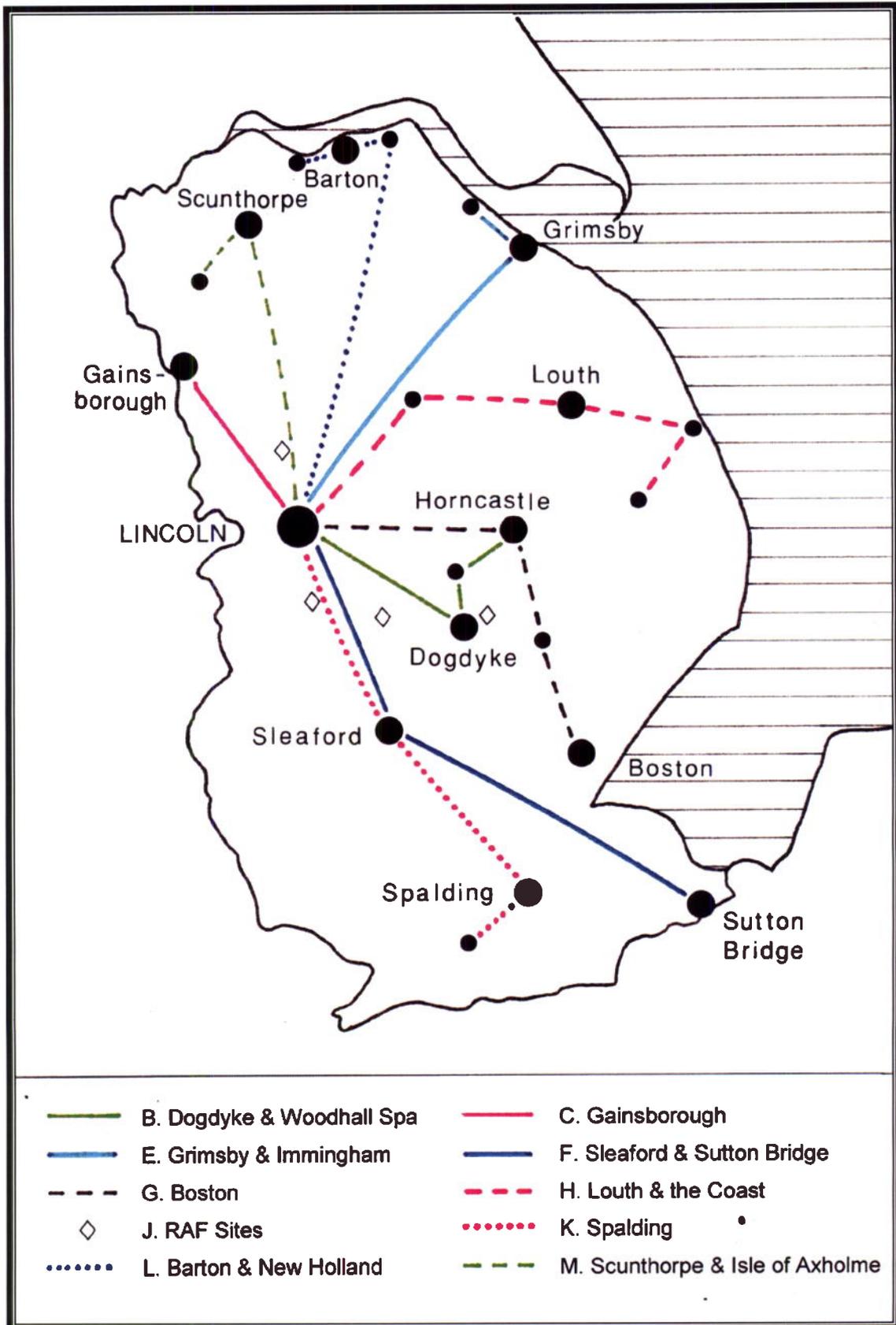
Printed by Ruddocks of Lincoln



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TOUR ROUTES



Tour A

LINCOLN (Walking Tour)

Maps: Landranger 121; Explorer 272

Lincoln became a great engineering city in the middle of the nineteenth century and its early works were all in the flat Witham valley running through the centre of the city, later spreading east and west of the original area. Up to this time it was a cathedral city, market town and county town for Lincolnshire and its industries were those that might be expected in a large market town – mainly brewing, malting and flour milling. For communication it had the Fossdyke Canal westwards to the tidal Trent at Torksey, and the navigable river Witham south-eastwards to the port of Boston on the Wash. Then in 1842 Nathaniel Clayton and Joseph Shuttleworth started the Stamp End Iron Works next to the Witham east of the city centre. Within 20 years other works had been founded that grew into the great firms of Fosters, Rustons and Robeys, all with worldwide trade in agricultural engineering.



Figure 1: North-east corner of Brayford, c1905

This walking tour starts at Brayford Pool (LN7), the harbour of Roman and later periods at the confluence of the Fossdyke Canal (LN11) and the navigable river Witham. The 11-mile long Fossdyke is thought to date from Roman times and was made navigable again by Henry I in 1121. It later deteriorated until restoration in 1740-45 by Richard Ellison. At Lincoln there used to be several warehouses on the north bank of the canal but none of these remain.



Figure 2: High Bridge, Lincoln

Until the 1970s Brayford was lined with steam mills and warehouses but those have also gone, apart from one small building that is now the King William IV pub. The city's first electricity works (1898 LN9) was last to go, with permission for its demolition being given in 2009. It is ironic that at least one of the new buildings erected round the site has been designed to look like a Georgian warehouse.

East of Brayford the Witham flows past the eighteenth century Brush Warehouse (LN2) and then under High Bridge (LN1) of c1160 with later extensions in 1235 and 1540/50; it was comprehensively restored c1902. It is said to be the second oldest masonry arch bridge in Britain and the only bridge in the country that still has a medieval secular building on it. The river underneath was deepened and made navigable in 1795. Before then porters had carried goods between Brayford and the Witham east of the bridge. The navigation of the river Witham between Lincoln and Boston had deteriorated by the eighteenth century and in the 1770s was improved under a scheme devised by John Grundy, John Smeaton and Langley Edwards with a top lock at Stamp End on the eastern edge of Lincoln.



Figure 3: Doughty's Oil Cake Mill, Waterside South, 1900. Foster's Wellington Works are on the left.

Industrial buildings on both banks of the Witham started beyond Thorn Bridge. First on the south bank was Doughty's oil seed crushing mill (LN24). Next to the four-storey grey brick classical building of 1863 is a taller block of 1891, and both were converted to apartments in the 1990s. On the opposite bank low walls around a car park are all that remains of the original Wellington Works where William Foster & Co. started making steam engines in 1856. Because that site was restricted and had no railway access, the firm moved from there in 1899 to the western edge of the city next to the Midland Railway line to Nottingham.



Figure 4: Ruston & Hornsby Works, Waterside South

Beyond Doughty's Oil Mill are the Sheaf Iron Works (LN25), the original site of Ruston, Procter & Co. formed in 1857 when 22-year-old Joseph Ruston joined a small existing firm. His skill as an entrepreneur developed the firm, he bought out his more cautious partners and in the twentieth century it became the largest employer in the city. For some 50 years after 1918 it traded as Ruston & Hornsby and since then has gone through a number of metamorphoses as Ruston Gas Turbines, European Gas Turbines, Alstom and, from 2003,

Siemens. In 2008 Siemens decided to move to another site in the city and the future of the Waterside site is uncertain.

Beyond Rustons is the site of Clayton & Shuttleworth's Stamp End Works (LN26). The business was started in 1842 by Nathaniel Clayton and Joseph Shuttleworth and in the nineteenth century was the greatest engineering firm in the city. In fact it was one of the largest engineering firms in the world during the second half of the nineteenth century, with 940 employees by 1862. By 1900 they had 3000 employees in Lincoln and branches in Budapest and Vienna.



Figure 5: Edwardian office block of Clayton & Shuttleworth's Stamp End Works, Waterside South

There was a dock down the middle of the site and, as threshing machines were one of their main products, they established wood works on one side of their site and iron works on the other side. Early in the twentieth century they established their own electricity works on the opposite bank of the river, then built the Titanic works across the railway line from their Stamp End Works (LN29), and during World War I established the Abbey Works and Tower Works further east.

Clayton and Shuttleworth were ruined after the end of the First World War, though they suffered a lingering death and did not finally close until about 1929. After 1918 parts of their site were sold off or rented out to other firms, and some viable sections were later made separate businesses so they could survive the demise of the parent company. Many 1860s buildings survived until 2002/03 and part of the Edwardian offices at the front still remains.

Both families were millionaires in their time and the 1930s playboy heir spent part of the family money on what has become the Shuttleworth Collection at Old Warden in Buckinghamshire.