

TECHNICAL INFORMATION

Erected 1833 Ceased working in 1952
 20 H.P. 'A' frame low-pressure condensing beam engine by Buttery Company.

Cylinder Bore 35"

Cylinder Stroke 54"

Flywheel 186" dia. 6 spokes

5 tons weight

Beam 14'

Scoop wheel 22" dia. 40 ladles 2 1/2" wide

5 3/4" long 4' dip. 6.75 R.P.M.

Gearing 4.46-1 engine speed 30 R.P.M.

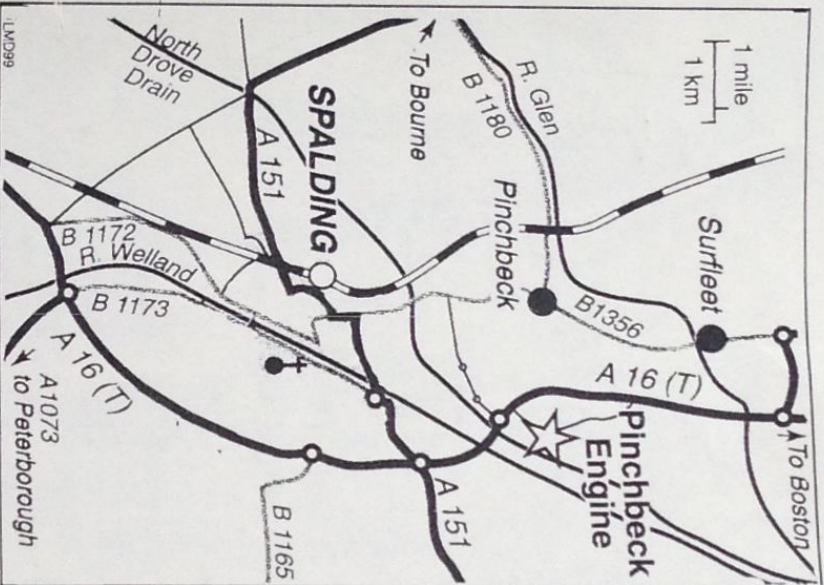
Originally a 'D' valve but in 1919 was fitted with a Worthington-Simpson piston valve.

Approx. fuel consumption 1 cwt. coal/hour.

Approx. pumping capacity 7,500 galls per minute. @ 8' head (20 cusecs.)

Approx. run 180 days per year.

Volume of water drained per year varied between 1,093,000 to 3,690,000 tons.



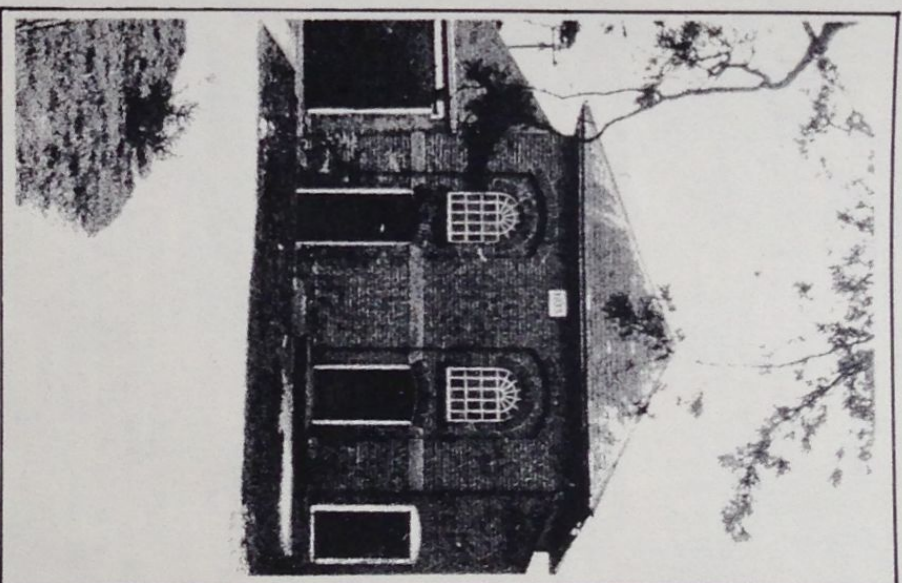
OPENING TIMES

Daily April to October 10.00 am to 4.00 pm
 other times by arrangement

Further information from

01775 725861

The Pinchbeck Engine



PINCHBECK MARSH
 SPALDING

THE PINCHBECK ENGINE

The Pinchbeck Engine was preserved by the Welland and Deepings Internal Drainage Board when the new electrically powered pumping station was opened in 1952. In 1988 the Drainage Board entered into partnership with the South Holland District Council to restore the steam engine and create a land drainage museum.

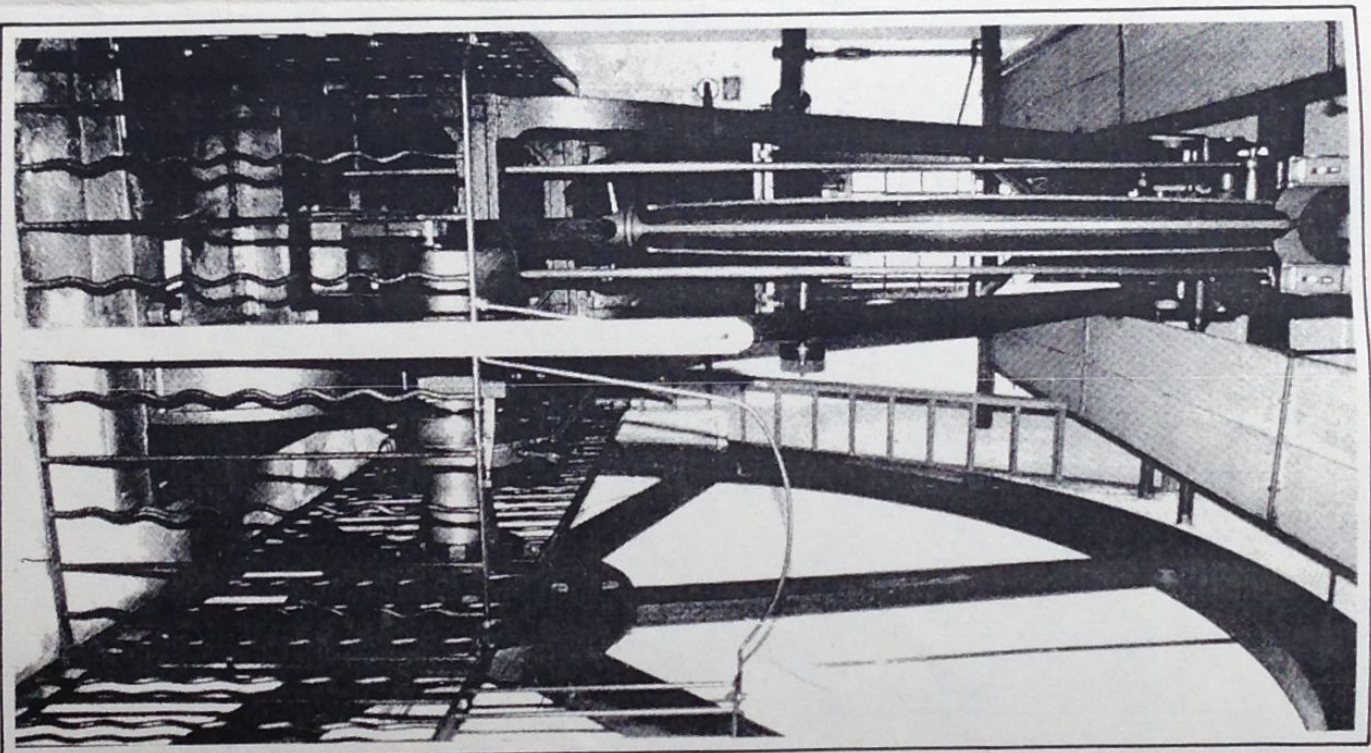
Pinchbeck Engine is situated in an area of ancient fenland which was created following the retreat of the Ice Age some 10,000 years ago. The southern fenland had a variety of fresh water and marine and brackish environments which the earliest inhabitants attempted to control and drain in various ways. The Romans made the first major attempt to control Fenland Waters: there is evidence of extensive Roman settlement in Pinchbeck.

Frequent flooding and incursions from the sea followed the Roman occupation, it proved beneficial however as the resulting silt ridge around the Wash provided ideal settlement sites for the Anglo Saxon villages such as Pinchbeck which expanded at this time as land was reclaimed from the Wash and Fen.

In Pinchbeck there are land and sea banks which date from this period, the West Marsh Road forms part of the Anglo Saxon bank. In the 9th century the Danish invasion made it's mark, Pinchbeck is an Anglo Saxon/Danish name and the administrative boundaries of South Holland date from this period.

Pinchbeck was well established by the time the Domesday Survey was taken in 1086: it was a village part-nucleated and part settled along droves with many small manors which increased as land was reclaimed from the fen and salt marsh. The early Middle Ages was a period of great prosperity in southern fenland and churches such as St. Mary's at Pinchbeck reflected this wealth. There was also however severe flooding and the failure to maintain the drainage led to the introduction in the 13th century of the Court of Sewers who were the forerunners of the modern Internal Drainage Boards.

The natural wealth of the area, especially fish and wildfowl were controlled by a remarkable series of Fenland bye laws for Spalding and Pinchbeck: the earliest in 1422 and the latest in 1734 and the area around the Pinchbeck Engine was from the earliest times used for the production of salt: some of the finest salterns in South Lincolnshire are close by.



Beam Engine

By the end of the 16th century it was recognised that the remaining undrained land, particularly in Deeping Fen would need capital and experienced drainers in order to succeed. The schemes of Thomas Lovell and the first Adventurers failed, local opposition being a factor. As Cornelius Vermuyden began work in the Bedford Levels in the 1630's Sir Philibert Verratti started to drain Deeping Fen cutting Verrat's Drain through Pinchbeck to join the Welland below Spalding.

The unexpected result of successful drainage was land shrinkage which meant the land could no longer be drained by gravity (90% of the area of South Holland is below high tide level). Windmills were the answer and from the 17th century they appear in increasing numbers to be used for raising water into the rivers and drains. The land continued to shrink and as water had to be lifted higher with often no wind available flooding increased in the Fenland.

Steam power came to the fens in the 1820's: it was described as a 'turning point and a great milestone in the development of farming in the Fens'. At Podge Hole the first steam engines were installed in 1826 and the Pinchbeck Engine was built in 1833.

The Pinchbeck Engine was built because the drainage of the Parish had not improved as had been envisaged in the 1801 Enclosure Act. This was for the improvement of Spalding and Pinchbeck by the deepening and widening of the Blue Gowt drain. This was not successful because of the height of water impeded the drainage at the Glen outfall. An Act of 1832 appointed Trustees 'for the better effecting the drainage of the lands of Spalding and Pinchbeck', and to 'make and build on the Blue Gowt one or more good and substantial engines to be worked by steam or otherwise'.

At the end of the 19th century dozens of steam powered scoop wheel pumping stations were at work in the Fens: their tall chimneys a familiar sight above the flat landscape, the preservation of the Pinchbeck Engine and the creation of a Museum of Land Drainage is a recognition of their importance and their contribution towards the prosperity of the Fens and contrasts with the work of the modern Internal Drainage Board.

The Welland and Deepings Internal Drainage Board maintain 450 miles of drains and dykes, operating 13 pumping stations and 3 tidal sluices: and are actively involved in conservation and preservation of the flora and fauna of the area.

Visitors to the Pinchbeck Engine Museum will be given a demonstration as to how the Beam Engine worked and be able to view the displays on land reclamation, drainage and modern conservation programmes.