

Visit **Lancashire**



Beacon Fell Country Park



The Tolkien Trail - in the Footsteps
of J.R.R. Tolkien



Singing Ringing Tree - Panopticon

<https://www.visitlancashire.com/things-to-do/beacon-fell-country-park-p1730>



The Mythic Coastline

Privacy

The Visitor Economy of Lancashire

This is a summary of the annual tourism economic impact research undertaken for Marketing Lancashire for the calendar year 2018, with comparisons to 2017. Outputs in this report have been generated using STEAM, the tourism specific economic impact model, owned and operated by Global Tourism Solutions (UK) Ltd. The geographical scope of this report is the ceremonial county of Lancashire.



Steam Driven Cotton

Queen Street Mill, a case study from East Lancs.

Heather Davis Conservation and Collections Manager

Philip Butler Curator

Queen Street Mill, Harle Syke, Burnley

- Queen Street Manufacturing Co Ltd ceased production in March 1982
- Saved with English Heritage designation – ‘The Queen Street Mill engine and its associated steam power plant including the engine house, boilers and boiler house, economiser and economiser room and the mill chimney...’ – English Heritage 1982
- Burnley Borough Council – opened as a museum by Prince Charles in 1986 operated by Pendle Heritage
- 1992 saved again Lancashire County Council – extensive renovation with funding from English Heritage



Just a typical late 19th Century cotton weaving mill

- Unique selling points
- ... the last surviving working 19th century steam-powered textile weaving mill... its assemblage of working machinery including steam engine, boiler, economiser, line and cross shafts, looms and other assorted machinery is unsurpassed in any other British textile weaving mill. Historic England Dec 2013 – Grade 1 listing
- Lancashire Textile Industry Collection – Designated collection under the Arts Council England scheme which '...identifies and celebrates outstanding collections... to raise the profile of these vital collections and encourage everyone to safeguard them'



Stationary Steam

- Steam since 1992
- Environmental issues – Burnley Borough Council
- Boiler issues and maintenance – 120-year-old riveted boiler
- Chimney issues and maintenance
- Staff & skills



Coal-Fired Lancashire Boiler

- Twin Tinker, Senton & Co Ltd of Stockport boilers
- Original installed 1894, no 2 installed 1901 on extension to weaving shed
- Both still complete in situ
- No 2 boiler ticketed and running the mill engine
- Capacity 22,500 gallons



Coal – consumption and output

2000 – 2017

- average of 280 running hours per year
- Average of 100 tonnes of coal per year
- Equates to three hours running per tonne
- Last run on a 50/50 blend of Scottish coal and ovoids
- Emissions – not measured... estimated
- Max boiler output 12,000 lbs steam per hour at 120-150 psi
- Run at approximately 3,000 lbs per hour at 60 psi for demonstrations



40 metre mill chimney

- Brick fall – 2016
- Full refurbishment required
- Work in 5 phases
 1. Inspection
 2. Making safe top 20 mtrs
 3. Clean & inspect inside
 4. Repairs to inside
 5. Repointing from scaffold to base
- Completed August 2020





Steam Engine 'Peace'

- William Roberts of Nelson 1894
- 14 foot, 16 tonne flywheel coupled directly to the first motion shaft
- 500hp to run over 900 looms
- Demonstrated at a steady 68 rpm maintained by Whitehead governor, powering the line shafting and a maximum of six looms



Cost of Carbon

- Cost of 100 tonnes of coal per year
- Cost of staff to run power plant, boiler and engine
- Cost of maintenance
- Cost of insurance
- Cost of annual boiler inspection
- Cost of ten-year boiler inspection
- 2020/21 – valves, rivets, seating blocks, flue walls, and chimney



Challenge of Carbon

- The value of our heritage in the hands of a responsible Local Authority contributing to the wider economy
 - Visitor numbers, school visits & other indicators
- Educate our visitors – explain what we burn, how much CO2 it releases and what we are doing to offset this
- Power generated used to produce cotton cloth as by product of demonstration. Income used to offset carbon emissions?
- The ability of the wider organisation to cite other power generation, environmental measures and carbon capture



Carbon Neutral?

- Future regulations and supply of coal
- Power alternatives
 - Gas
 - Electric
 - Renewable
 - Static
- ... the last surviving working 19th century steam-powered textile weaving mill...

