

INDUSTRIAL REVOLUTION: A DOCUMENTARY HISTORY

Series One: The Boulton and Watt Archive and the Matthew Boulton Papers from Birmingham Central Library

Part 5 : Engineering Drawings: Watt Engines of the Crank Type : Canal Engines; Dock and Harbour Engines; Engines for Water Works; Mint Engines; Small Side-Lever, Blowing and Pumping Engines erected between 1775 and 1800, the period of Watt's partnership with Boulton

DETAILED LISTING

Note of Explanation

The following list has been compiled from the Catalogue of Old Engines (which is reproduced at the start of Reel 29 of Part 3 of this microfilm project).

Data is provided under the following headings which run across a double page:

On the verso :

- * Portfolio Number
- * Approximate Number of Drawings in that particular portfolio
- * Earliest Date on the Drawings
- * Number of Engines covered in that particular portfolio

* Type of Engine

S = Single Acting : EB = Equal Beam
D = Double Acting : EBC = Equal Beam; Chain
SP = Sun and Planet : UBC = Unequal Beam; Chain
C = Crank : PM = Parallel Motion
B = Beam : SSL = Small Side Lever
CB + Chain Beam (or Chain) : AT = Atmospheric

* Cylinder Diameter x Stroke

* Horse Power

* RPM = Revolutions per minute

On the recto (and relating to entries on the left hand page) :

* Owner of the Engine

Other Details. This frequently gives information about the use of the engine e.g. was it a Colliery Winding Engine, a Distillery, a Lead Mine etc? any subsequent sale of the engine; site and location of the engine, amounts paid, height and weight and any other useful details.

Portfolio Number : Approx. No. of Drawings : Earliest Date on Drawings : No. of Engines :
Type of Engine : Cylinder Diameter x Stroke : Horse Power : RPM

REEL 60

CRANK TYPE ENGINES

Scotland:-

Ayr

279 : 4 : April 1800 : 1 : D : 14³/₄x3'0" : 6 :

Lanark

281 : 8 : July 1800 : 1 : D : 16" x 4'0" : 6 :

Edinburgh

290 : 4 : Oct 1800 : 1 : D : 14³/₄ x 3'0" : 3 :

Lancashire

259 : 4 : Dec 1798 : 1 : D : 21¹/₄ x 5'0" : 16 :

266 : 8 : March 1799 : 1 : D : 14¹/₄ x 3'0" : 6 :

270 : 11 : Oct 1799 : 1 : D : 16" x 4'0" : 8 :

272 : 15 : Dec 1799 : : : 19¹/₈ x 4'0" : 16 :

275 : 9 : Dec 1799 : : : 20³/₄ x 4'0" : 14 :

280 : 8 : April 1799 : : : 20³/₄ x 4'0" : 14 :

Owner of Engine : Other Details

Robert Reid Cunningham : Colliery Winding Engine, Saltcoates

David Mushet & Co. No. 1 : Lanark. Tilt Hammer. Calder Iron Works, near Airdrie. Unequal Beam.

Joseph Cooper & Son : Leith Walk Foundry. Leith. Since Cooper & Anderson.

Sarah Dunkerley : Parchment dated 1st December 1798. S Dunkerley of Mumps Brook in the township of Oldham, Prestwich, Lancaster, widow of Joseph Dunkerley. Cotton Mill. Mumps Brook. Payment £527. 53,000 lbs 10 feet. See also Portfolio No. 272.

William Clegg & Co. No. 2. See No. 90. : Parchment dated May 1st 1799. William Clegg of Oldham for Co. Cotton Mill at Prestwich Oldham. Payment £364. 19,800 lbs 10 feet.

Kennedy & Nuttall : Parchment dated 1st November 1799. James Kennedy & Christopher Nuttall, both of Manchester. Cotton Mill at their Colliery, situated in Manchester. Payment £444. 26,400 lbs 10 feet. (Parchment gives Sun & Planet). Sold to Westerman.

S. Dunkerley & Hage : Pit Bank Nr. Oldham. Old Order Book gives 12 HP.

Isaac & Samuel Horrocks : Preston.

Rigby & Chadwick : Cotton Mill. Ashton-under-Lyne.

Portfolio Number : Approx. No. of Drawings : Earliest Date on Drawings : No. of Engines :
Type of Engine : Cylinder Diameter x Stroke : Horse Power : RPM

287 : 6 : July 1800 : : : 20³/₄ x 4'0" : 14 :

288 : 15 : Oct 1800 : : : 33¹/₃ x 6'0" : 45 :

289 : 6 : Sep 1800 : : : 23³/₄ x 6'0" : 20 :

291 : 3 : Nov 1800 : : : 21³/₈ x 5'0" : 16 :

295 : 20 : April 1800 : : : 31¹/₂ x 7'0" : 40 :

542 : 8 : Aug 1796 : 1 : D : 14" x 4'0" : 6 :

542 : : May 1798 : 1 : D : 14³/₄ x 3'0" : 6 :

Yorkshire

254 : 7 : July 1796 : 1 : D : 23³/₄ x 5'0" : 20 :

255 : 11 : Oct 1796 : 1 : D : 23¹/₄ x 5'0" : 36 :

Cheshire

253 : 5 : July 1796 : 1 : D : 16" x 4'0" : 8 :

276 : 11 : Jan 1799 : 1 : D : 23³/₄ x 5'0" : 20 :

285 : 7 : July 1800 : 1 : D : 14³/₄ x 3'0" : 6 :

Owner of Engine : Other Details

Hibbert & Smethurst : Oldham.

Mitchell Holt & Co. : Holtown, Nr. Manchester.

Marsden & Nield : Manchester.

James Kennedy : Manchester.

A & G Murray : Manchester. See also No. 364.

Barrow, Lees & Co. : Parchment dated Jan. 1st 1798. James Lees of Clarkesfield Nr. Oldham for Colliery Winding & Pumping Engines at Werneth Colliery in the Parish of Prestwich. Payment (14" £450) (14³/₄ £450). 19,800 lbs 10 feet.

Barrow, Lees & Co. : Winding & Pumping Engine at Werneth Colliery.

Blagbrough & Holroyd's : Parchment dated March 1st 1796. Samuel Blagbrough of Leeds. John Holroyd and Joseph Holroyd of same place. Cotton Mill Leeds. Payment £697. 66,000 lbs 10 feet.

Holdforth, Wilkinson & Payel : A 20 HP was originally made for them in 1797 but never erected.

Thomas Marshall : Chester. Parchment dated 1st August 1796. Thomas Marshall of Northwich Salt Mine, Winding Engine, near Northwich. Payment £475. 26,400 lbs 10 feet requires to draw 1200 lbs 115 yards deep at the utmost.

Charles Lees & Co. No. 2 : Chester. Stockport.

Thomas Slate : Chester. Silk Mill. Congleton.

Portfolio Number : Approx. No. of Drawings : Earliest Date on Drawings : No. of Engines :
Type of Engine : Cylinder Diameter x Stroke : Horse Power : RPM

Cumberland

264 : 7 : June 1797 : 1 : D : 21³/₈ x 5'0" : 16 :

Northumberland

252 : 13 : March 1796 : 1 : D : 24" x 5'0" : 20 :

252 : : March 1796 : 1 : D : 24" x 5'0" : 20 :

252 : : 1796 : 1 : D : 24" x 5'0" : 20 :

252 : : 1796 : 1 : D : 24" x 5'0" : 20 :

262 : 4 : July 1798 : 1 : D : 23³/₄ x 5'0" : 20 :

263 : 5 : Aug 1798 : 1 : D : 17²/₃ x 4'0" : 10 :

Owner of Engine : Other Details

John Christian Curwen Esq. : Cumberland Colliery Winding Engine, Workington. No. 5.

Cowpen Colliery, Nr. Blyth : Parchment dated 1st March 1796. John Surtees of Newcastle for Colliery Winding Engines. Payment £615. 66,000 lbs 10 feet. Surtees, Rowe Morison & Co. To draw 2 Corfs 20 pecks each 100 fath. 35 per hour. In June 1798 it was applied to draw one Corf of 20 pecks and raised 55 in the hour.

Walls End Colliery : Parchment dated March 1st 1796. William Russell of Newbottle, Durham for Colliery Winding Engine. Payment £615. 66,000 lbs 10 feet. To draw a 24 Peck Corf 104 fathoms 50 per hour. (Same pattern as Cowpen above).

Wellington Colliery : Parchment dated March 1st 1796. Matthew Bell of Wolsington, Richard Bell of Carville and William Brown of Longbenton. Winding engine. £615. 66,000 lbs 10 feet. To draw a 24 Peck Corf 100 fathoms 50 per hour.

Heaton Colliery : Parchment dated March 1st 1796. Robert Smith of Shotton, William Row of Dentshole and George Johnson of Byker. Winding engine. 66,000 lbs 10 feet. Payment £615. To draw a 24 Peck Corf 85 fathoms 50 or 60 per hour.

Walkers, Fishwick & Co. No. 2 : Parchment dated July 1st 1798. Joshua Walker of Eastwood, York; Thomas Walker Holmes, Yorks; Richard Fishwick of Low Elswick Northumberland; Archer Ward of Derby, White Lead Makers and Thomas Malby of Red-Bull Wharf, London; Engine erected at Low Elswick. Lead Mill. Payment £698. 66,000 lbs 10 feet. (See also No. 119).

Liddle & Reaveley No. 1 : Kenton Colliery Winding Engine. To draw Coals. Circumference of Rope 4.5", depth 55 fathoms. Balance pit 10 fathoms deep. (See also No. 586).

Portfolio Number : Approx. No. of Drawings : Earliest Date on Drawings : No. of Engines :
Type of Engine : Cylinder Diameter x Stroke : Horse Power : RPM

Durham

248 : 20 : July 1795 : 1 : D : 19"1/8 x 4'0" : 12 :

249 : 20 : Oct 1795 : 1 : D : 24" x 5'0" : 20 :

250 : 12 : Jan 1896 : 1 : D : 21"1/4 x 5'0" : 16 :

251 : 6 : Jan 1796 : 1 : D : 24" x 5'0" : 20 :

256 : 8 : Dec 1796 : 1 : D : 23"3/4 x 5'0" : 20 :

271 : 3 : Nov 1799 : 1 : D : 14"3/4 x 3'0" : 6 :

Middlesex

283 : 4 : July 1800 : 1 : D : 20"3/4 x 4'0" : 14 :

286 : 4 : July 1800 : 1 : D : 12"1/8 x 4'0" : 4 :

Surrey

257 : 4 : March 1797 : 1 : D : 12" x 3'0" : 4 :

Owner of Engine : Other Details

William Hawks & Co. : Parchment dated August 1st 1795. William Hawks, Thomas Longridge, George Hawks and William Train all of Gateshead, Durham. Ironmongers and Steel manufacturers. Engine erected at New Greenwick, Nr. Gateshead. Payment £497-17-0. 39,500 lbs 10 feet. Unequal Beam. Sold of Mr Millbank.

Sheriff Hill Colliery : Parchment dated January 1st 1796. William Surtees of Newcastle-upon-Tyne, Northumberland, George Waldie, ditto and Japer Harrison of Wickham, Durham. Engine erected at Sheriff Hill. (Colliery Winding Engine). 66,000 lbs 10 feet. Payment £615. (see also No. 225).

East Rainton Colliery : Sir Henry Vane Tempest. Colliery Winding Engine. S.H.V. Tempest of Winyard.

Pontop Pike Colliery : Parchment dated March 1st 1796. John Gray of Newcastle for self and on behalf of the Most Noble John Marquis of Bute, the Most Noble Francis Marquis of Hertford and John Simpson of Bradley, Durham. Winding Engine at Pontop Pike Colliery. Payment £615. 66,000 lbs 10 feet. To draw a 24 peck corf 90 fathoms 55 to 60 per hour.

Hebburn Colliery : Colliery Winding Engine. Messrs. Peareth, Wren, Wade and General Hales. To draw 20 peck corf 130 fathoms, 30 per hour.

Salvin Bros. : Cotton Mill. Countermanded and re-ordered May 14th 1800. (see also Nos. 80 and 128).

Huddart & Co. : Patent Ropery. Limehouse.

Bryson & Son : Dyers. Rose Lane. Spittal-fields.

William Moormans & Son : Parchment dated October 1st 1796. William Moorman of Old Street, London, Iron Founder. Grinding and Turning Iron, Old Street, St. Lukes.

Portfolio Number : Approx. No. of Drawings : Earliest Date on Drawings : No. of Engines : Type of Engine : Cylinder Diameter x Stroke : Horse Power : RPM

265 : 11 : Jan 1799 : 1 : D : 25" x 4'0" : 20 :

268 : 8 : Oct 1799 : 1 : D : 12" x 3'0" : 4 :

274 : 10 : Dec 1799 : 1 : D : 17"¹/₂ x 4'0" : 10 :

Nottinghamshire

277 : 13 : Feb 1800 : 1 : D : 14"³/₄ x 3'0" : 6 :

Staffordshire

246 : 24 : June 1792 : 1 : D : 14" x 4'0" : 6 :

382 : 13 : June 1800 : 1 : D : 30"³/₄ : 36 :

538 : 40 : Feb 1792 : 1 : D : 36" x 6'0" : :

Berkshire

258 : 7 : Aug 1797 : 1 : D : 12"¹/₈ x 3'0" : 4 :

Devon

260 : 15 : June 1797 : 1 : D : 12" x 3'0" : 4 :

273 : 5 : Dec 1799 : 1 : D : 12"¹/₈ x 3'0" : 4 :

Owner of Engine : Other Details

: London. Payment £364. 13,200 lbs. 10 feet.

Lingard & Were No. 2 : Parchment dated February 1st 1799. John Lingard of St. Saviours Churchyard Southwark and Samuel Were of Union Street Oil and Mustard Manufactory in the Parish of St. Mary Overy, Southwark. Payment £660. 66,000 lbs. 10 feet.

Joseph and Thomas Foster : Bromley Hall Nr. Stratford-le-Bow.

Arkley and Child : Dyers. Bank-side. Southwark.

William and John Elliott : Brewery Nottingham. Joseph (?) Cooke will erect this engine.

John Sparrow & Co. No. 2 : Winding Engine. Cockshead Colliery. Near Norton-in-the-Moors, Nr. Burslem.

John Addenbrook, Wollaston Nr. Stourbridge : Iron Works. Moor Croft Nr. Wednesbury.

Cliffe, Hodgson, Hunt and Thompson : Brades Iron Works. Rowley Nr. Dudley.

Ramsbottom and Baverstock : Brewery. Windsor, Berkshire.

Langmead & Co. : Brewery at Plymouth. Philip Langmead, James Elliot and John Clark Langmead all of Plymouth. Parchment dated June 1st 1797. Payment £386-8-0. 13,200 lbs. 10 feet.

Samuel Rendle : Plymouth. Purchased by Richard King & Co. in 1810.

Portfolio Number : Approx. No. of Drawings : Earliest Date on Drawings : No. of Engines :
Type of Engine : Cylinder Diameter x Stroke : Horse Power : RPM

Hampshire

278 : 16 : March 1800 : 1 : D : $28\frac{1}{8}$ x 6'0" : 30 :

Kent

269 : 9 : Dec 1799 : 1 : D : $23\frac{3}{4}$ x 6'0" : 20 :

Cambridgeshire

294 : 16 : Feb 1800 : 1 : D : 43" x 8'0" : 80 :

Monmouth

327 : 7 : Feb 1798 : : : $33\frac{1}{3}$: 45 :

Holland

261 : 5 : Feb 1797 : 1 : D : $12\frac{1}{8}$ x 3'0" : 4 :

REEL 61

CANAL ENGINES

Canal/Canal Company

Birmingham Canal Company

596 : 10 : 1777 : 1 : S : 32" x 8'0" : 21.8 :

596 : : 1788 : 1 : S : 20" x 6'0" : 4.2 :

635 : 53 : 1784 : 1 : S : 46" x 8'0" : 45.1 :

643 : 11 : 1790 : 1 : S : 32" x 8'0" : 21.8 :

Owner of Engine : Other Details

Hon. Commissioners of the Navy : Portsmouth Dockyard.

Thomas Philpott & Co. : Chatham.

Peckover & Bellamy : Corn and Oil Mill, near Wisbech. Later sold to Archer Nicolson & Co., originally intended for Kooops, Tak & Co. Sold to Kenyon Firth and Co. of Sheffield.

Tredegar Iron Works : Jeremy Homfray & Co. Rolling Mill Engine.

Mr Boon : Distillery. Rotterdam. Ordered by J.D.H. Van Leinder.

Birmingham Canal Company : Rolfe Street, Smethwick No. 1 Engine. Pump 30" x. To raise the water 19.5 feet, say 3 Locks and 1.5 feet allowance for Slope.

Birmingham Canal Company : Spon Lane.

Birmingham Canal Company : Ocker Hill. Pump 24" x 8'0". To raise the water 66 feet high at 13 to 14 Strokes per minute, say the height of 11 Locks of 6 feet each.

Birmingham Canal Company : One called the "Little Engine" which was sold to Dumeresque. Broadwaters, near Wednesbury.

Portfolio Number : Approx. No. of Drawings : Earliest Date on Drawings : No. of Engines :
Type of Engine : Cylinder Diameter x Stroke : Horse Power : RPM

1275 : 9 : 1789 : 2 : S : 10"½ x 3'0" : 6 :

Thames & Severn Canal Company

623 : 39 : 1791 : 1 : S : 50" x 8'0" : 53.2 :

Dublin Canal Company

567 : 2 : 1792 : 1 : SP : 10"½ x 3'0" : 3 :

Lancaster Canal Company

645 : : 1793 : : C : 10"½ x 3'0" : 3 :

645 : 5 : 1793 : 1 : C : 16" x 4'0" : 8 :

645 : : 1793 : 1 : : 24"½ x 2'0" : 3.2 :

Gloucester & Berkley Canal Company

1276 : 11 : 1794 : 1 : S : 23" x 2'0" : 2.8 :

1276 : 7 : 1796 : 1 : S : 28" x 2'6" : 5.2 :

Crinan Canal Company

571 : 3 : 1794 : 1 : C : 16" x 4'0" : 8 :

Warwick & Birmingham Canal Company

647 : 35 : 1796 : 1 : S : 46" x 8'0" : 45.1 :

Kennet & Avon Canal Company

1277 : 9 : 1796 : 1 : S : 28" x 2'6" : 5.2 :

Owner of Engine : Other Details

Birmingham Canal Company : Used in constructing the locks at the Summit. Sold to the Dublin Canal Co. See No. 567.

Thames & Severn Canal Company : Pump 26" x 8'0". Lift 70 feet, near Cirencester.

Dublin Canal Company : Made originally for the Birmingham Canal Co. See above.

Lancaster Canal Company : For grinding mortar. Made for the Bedworth Colliery in 1791. Sold 1809 : Ridgeway & Son.

Lancaster Canal Company : Sold to the Crinan Canal Company. See No. 571.

Lancaster Canal Company : Lift 26 feet.

Gloucester & Berkley Canal Co. : Boat Engine. Pump 20".

Gloucester & Berkley Canal Co. : Boat Engine.

Crinan Canal Co. : See above No. 645. Purchased from the Lancaster Canal Co. Transferred to Leith Dock in 1802. 22" Pump.

Warwick & Birmingham Canal Co. : Pump 30" diameter.

Kennet & Avon Canal Company : Boat Engine. Lift 8 to 9 feet. Pump 40" x 2'6".

Portfolio Number : Approx. No. of Drawings : Earliest Date on Drawings : No. of Engines :
Type of Engine : Cylinder Diameter x Stroke : Horse Power : RPM

Isle of Dogs Canal Company

579 : 11 : 1800 : 1 : S : 30" x 6'0" : 15.1 :

Oxford Canal Company

581 : 11 : 1800 : 1 : S : 26" x 7'0" : 12.5 :

DOCK AND HARBOUR ENGINES

Dock/Harbour/Company

West India Dock Company

664 : 70 : 1800 : 1 : S : 36" x 8'0" : 27.6 :

664 : : 1800 : 1 : C : 23³/₄ x 5'0" : 20 :

London Dock Company

658 : 10 : 1800 : 2 : S : 36" x 8'0" : 55.2 :

658 : : 1800 : 1 : C : : 20 :

Leith Harbour

659 : 3 : 1800 : 1 : SSL : 12" x 2'0" : 4 :

ENGINE FOR WATER WORKS

New River

1082 : 23 : : : : :

1082 : : 1794 : 1 : S : 32" x 8'0" : 21.8 :

1089 : : 1786 : 1 : D : 32" x 8'0" : 43.6 :

1090 : 47 : : : : :

Owner of Engine : Other Details

Isle of Dogs Canal Company : Made Double Acting in 1803. The 20 HP crank engine. This was then countermanded and a 30.75" single ordered.

Oxford Canal Company : Hill Norton, near Dunchurch, near Rugby. Drawing of an Atmospheric Engine in this Portfolio.

West India Dock Company : Wood Beam.

West India Dock : Suspended in 1799. Re-ordered in 1800. For grinding mortar. Purchased by Ralph Walker for the East London Water Works Co. in 1807.

London Dock Company : At Wapping.

London Dock Company : For grinding mortar.

Leith Harbour : Not erected in 1805. Sold to Messrs. G. Dunlop & Co. and erected by them at a Distillery near Linton, Haddingtonshire, Scotland in August 1806.

New River : Engines of early date, also miscellaneous drawings.

New River : Materials delivered in 1794.

New River : Lift 40 feet. 12 strokes per minute. A 48" x 7'0" engine was substitute in lieu of this in 1812.

New River : Engines of early date.

Portfolio Number : Approx. No. of Drawings : Earliest Date on Drawings : No. of Engines :
Type of Engine : Cylinder Diameter x Stroke : Horse Power : RPM

Chelsea

1103 : 29 : : : AT : : :

Stratford-Le-Bow & Richmond

1072 : 17 : 1776 : 1 : CB : 18" x 3'2" : 4.5 :

1072 : : 1778 : 1 : CB : 18" x 3'0" : 4.5 :

Shadwell & Chelsea

1101 : 1 : 1778 : 1 : CB : 27" x 8'0" : 15.5 :

1101 : : 1778 : 1 : CB : 30" x 8'0" : 19.1 :

1104 : 20 : 1798 : 1 : C : 21³/₈ x 5'0" : :

1104 : : 1798 : 1 : C : ? x 6'0" : :

Shadwell

1102 : 3 : 1784 : 1 : CB : 27" x 8'0" : 15.5 :

London Bridge

1098 : : 1785 : 1 : S : 32" x 8'0" : 21.8 :

1098 : 24 : 1786 : 1 : S : 34" x 8'0" : 24.6 :

Borough, Southwark

1100 : 22 : 1796 : 1 : CB : 30" x 8'0" : 19.1 :

Hull

1107 : 16 : 1779 : 1 : CB : 22" x 8'0" : 10.3 :

Owner of Engine : Other Details

Chelsea :

Stratford-Le-Bow : Taken at 4.5 HP. Lift 38 feet. 15 strokes per minute.

Richmond : Taken at 4.5 HP. Lift 84 feet.

Shadwell : Lift 30 fathoms at 7 strokes per minute.

Chelsea :

Shadwell : Taken at 16 HP.

Shadwell :

Shadwell :

London Bridge : Drawings of Pumps in the Arches in this portfolio.

London Bridge : 10 strokes per minute.

Borough, Southwark : Park Street, Southwark.

Hull : 12 strokes per minute.

Portfolio Number : Approx. No. of Drawings : Earliest Date on Drawings : No. of Engines :
Type of Engine : Cylinder Diameter x Stroke : Horse Power : RPM

Paris, France

1070 : 1 : 1779 : 1 : CB : 63" x 8'0" : 84.6 :

REEL 62

MINT ENGINES

Soho Mint

714 : : 1785 : 1 : SP : 12" x 1'0" : 7 :

714 : 25 : 1788 : 1 : SP : 16" x 4'0" : 8 :

714 : 7 : 1798 : 1 : SP : 19" x 4'0" : 12 :

714 : 3 : 1788 : 1 : SP : 18" x 4'0" : 11 :

714 : 1 : : 1 : SP : 26" x 6'0" : :

714 : 1 : : : 16" x 4'0" : :

SMALL SIDE-LEVER ENGINES

Bristol or Bath

718 : 2 : 1800 : 1 : : 11" x 2'0" : 3 :

? exact location unclear

719 : 2 : 1800 : 1 : : 11" x 2'0" : 3 :

Reading

720 : 7 : 1799 : 1 : : 11" x 2'0" : 3 :

Owner of Engine : Other Details

Paris, France : Ordered by James Constantine Perrier.

Soho Mint : Sold to Thomas Fenton of Morrision, near Swansea, South Wales in 1793 or 1794.

Soho Mint : Sold to Mr Monach, Cotton Mill, Glasgow, (Portfolio No. 216) in 1801.

Soho Mint :

Soho Mint :

Soho Mint :

Soho Mint :

William Clark : Bath or Bristol

Sayce & Kelson : -

Mr Symonds : Reading

Portfolio Number : Approx. No. of Drawings : Earliest Date on Drawings : No. of Engines :
Type of Engine : Cylinder Diameter x Stroke : Horse Power : RPM

VACUUM & BLOWING ENGINES

Scotland

Lanark

675 : 16 : 1799 : 1 : 70" x 8'0" : 40" x 8'0" : 68.2 :

Yorkshire

548 : : 1782 : 1 : : 40" x 8'0" : 34.1

688 : 9 : 1799 : 1 : 48" x 5'0" : 24" x 5'0" : 20 :

Staffordshire

695 : : 1799 : 1 : : 40" x 8'0" : 34.1 :

700 : : 1790 : 1 : : 42" x 8'0" : 37.8 :

Shropshire

681 : 6 : 1797 : 1 : 48" x 5'0" : 23³/₄ x 5'0" : 20 :

683 : 23 : 1800 : 1 : 84" x 8'0" : 44" x 8'0" : 82.4 :

694 : : 1780 : 1 : : 40" x 8'0" : 34.1 :

695 : : 1776 : 1 : 72" x 7'0" : 38" x 8'0" : 30.7 :

695 : 5 : 1777 : 1 : : 36" x 8'6" : 27.6 :

695 : : 1778 : 1 : : 58" x 8'0" : 71.7 :

695 : 6 : 1780 : 1 : : 58" x 8'0" : 71.7 :

Owner of Engine : Other Details

Edington & Co. : Clyde Iron Wrks. Lanarkshire. Parallel motion on wood beam.

Samuel Walker & Co. : Holmes Iron Works. Rotherham Yorkshire.

Joshua Walker & Co. : Milton Furnace. Near Rotherham Yorkshire. Parallel motion on wood beam. (Taken at 20 HP).

John Wilkinson Esq. : Bradley, Staffordshire.

John Wilkinson Esq. : Bradley, Staffordshire.

Jessons & Wright See also No. 703. : Barnets Leasowe, Shropshire. Parallel motion on wood beam. (Taken at 20 HP).

Homfray, Addenbrook & Co. : Lightmore Co. Shropshire. Parallel motion on wood beam.

John Wilkinson Esq. : Snedshill, Shropshire.

John Wilkinson Esq. : At New Willey, Shropshire.

John Wilkinson Esq. : Snedshill. Later sold to Messrs. Bishton & Onions. Chain and wood beam.

Richard Reynolds & Co. No. 1 : Ketley, Shropshire.

Richard Reynolds & Co. : Ketley, Shropshire.

Portfolio Number : Approx. No. of Drawings : Earliest Date on Drawings : No. of Engines :
Type of Engine : Cylinder Diameter x Stroke : Horse Power : RPM

699 : 31 : 1783 : 1 : 72" x 8'0" : 48" x 8'0" : 49.1 :

700 : 2 : 1790 : 1 : Bellows : 14" x 2'6" : 2.8 :

Wales

Glamorgan

701 : 34 : 1791 : 1 : 70" x 8'0" : 40" x 8'0" : 68.2 :

704 : 23 : 1798 : 1 : 90" x 7'0" : 40" x 8'0" : 68.2 :

705 : 19 : 1798 : 1 : 84" x 8'0" : 40" x 8'0" : 68.2 :

Monmouth

673 : 15 : 1800 : 1 : 80" x 8'0" : 40" x 8'0" : 68.2 :

685 : 20 : 1799 : 1 : 52" x 5'0" : 23³/₄ x 5'0" : 20 :

691 : 15 : 1800 : 1 : 55" x 5'0" : 24" x 5'0" : 20 :

Denbigh

693 : : 1796 : 1 : : 48" x 8'0" : 49.1 :

France

694 : 20 : 1782 : 1 : : 42" x 8'0" : 37.8 :

Spain (Cadiz)

692 : 31 : 1791 : 1 : 60" x 8'0" : 34" x 8'0" : 49.2 :

693 : 18 : 1792 : 1 : 60" x 8'0" : 34" x 8'0" : 49.2 :

Owner of Engine : Other Details

: Donnington Furnace. Chain and wood beam.

: Shelve-Field Gravels. Roller and wood beam. (Taken at 2.8 HP).

Robert Ware, Fox & Co. : Neath Abbey Iron Works. Glamorganshire. Parallel motion on wood beam.

Lewis Taitt & Co. : Dowlais Iron Works. Glamorganshire. Wood beam.

Samuel Homfray Esq. : Pen-y-Sarran Ironworks. Glamorganshire. Wood beam.

Thomas Hill & Co. : Blaenavon Iron Works. Monmouth. Parallel motion on iron beam.

Fothergill & Co. : Sirhoury Iron Works. Near Abergavenny. Monmouth. Parallel motion on wood beam. Also separate beam with fly wheel. 16 strokes.

The Union Co. : Rumney near Abergavenny. Monmouth. Parallel motion on wood beam.

John Wilkinson Esq. : Brymbo.

John Wilkinson Esq. : Chain and wood beam. Called the French Engine.

Fermin de Tastet & Co. B.W.G. No. 1 : Cadiz. Parallel motion on wood beam.

Fermin de Tastet & Co. B.W.G. No. 2 : Cadiz. Parallel motion on wood beam.

Portfolio Number : Approx. No. of Drawings : Earliest Date on Drawings : No. of Engines :
Type of Engine : Cylinder Diameter x Stroke : Horse Power : RPM

PUMPING ENGINES

Scotland

Ayr

582 : 15 : 1800 : 1 : UBC : 56" x 7'0" : 63.8 :

Lanark

553 : : 1788 : 1 : EBC : 30" x 8'0" : 19.1 :

Edinburgh

638 : 16 : 1799 : 1 : EBC : 60" x 8'6" : 78.1 :

Fife

624 : 23 : 1776 : 1 : EBC : 44" x 8'0" : 41.2 :

Dumfries

558 : 26 : 1785 : 1 : EBC : 55" x 8'0" : 64.3 :

649 : 9 : 1778 : 1 : CB : 36" x 7'6" : 26.9 :

Renfrewshire

578 : 11 : 1799 : 1 : EBC : 33"1/3 x 7'0" : 22.0 :

Owner of Engine : Other Details

Robert Reid Cunningham Esq. : Colliery, Saltcoates, near Seabank, Ayrshire. Pit figured 40 fathoms deep.

Alexander Popham & Partners : Leadhills, Lanark. Originally erected at Whitgritt Mine No. 553 above. Altered to 33". Pump 40 fath. 9.75", 25 fathoms of 8.5 injection. Another new cylinder 33.33" x 8'0".

Trustees of Sir Archibald Hope (succeeded by Sir John). : Inveresk, Edinburgh. Mr Grieve went from Soho with the engine, afterwards became his agent, then set up himself in a Fire Clay Mine after being a very successful man.

Mr Colville : At Torryburn, Fifeshire.

Gilbert Meason (for self and partners) : Wanlock Head Lead Mine. See above No. 649. Stopped working in 1797, the mine being exhausted.

Gilbert Meason (for self and partners) : Wanlock Head Lead Mine. Sangution Village. Dumfries. The Right Honourable Margaret Countess of Dumfries, with consent of the Right Honourable Patrick Earl of Dumfries, her husband and the said Earl as taking burden on him for his said wife, also Ronald Crawford, Merchant, Glasgow and Gilbert Meason, Merchant, Edinburgh, lessees of the mine. Worn out and replaced by the one above, Portfolio No. 558.

George Houston Esq. : Quarrelton, near Johnstown, Renfrewshire. 12 strokes. Lift 40 fathoms, 30 fathoms of pump work made at Soho.

Portfolio Number : Approx. No. of Drawings : Earliest Date on Drawings : No. of Engines : Type of Engine : Cylinder Diameter x Stroke : Horse Power : RPM

Lancashire

550 : 29 : 1783 : 1 : EBC : 34" x 8'0" : 24.6 :

551 : 58 : 1783 : 1 : UBC : 12" x 8'0" : 24.6 :

560 : 26 : 1785 : 1 : EBC : 33" x 8'0" : 23.1 :

561 : 14 : 1785 : 1 : EBC : 25" x 8'0" : 13.5 :

569 : : 1793 : 1 : : : 13.0 :

585 : : 1800 : 1 : C : : 6 :

585 : : 1800 : 1 : : 40" x 8'0" : 34.1 :

633 : 18 : 1798 : 1 : EBC : 44" x 8'0" : 41.2 :

637 : 10 : 1799 : 1 : UBC : 31"½ x 7'0" : 20.1 :

646 : 23 : 1791 : 1 : UBC : 50" x 8'0" : 53.3 :

646 : 25 : 1793 : 1 : EBC : 31" x 7'0" : 19.5 :

646 : : 1793 : 1 : : 26" x 7'0" : 12.5 :

Owner of Engine : Other Details

Mr Joseph Crouchley : Leigh, Lancashire. Sold to Barrow Lees & Co. and erected at Werneth Colliery, see No. 551 below.

Messrs. Barrow Lees & Co. : Werneth Colliery. Near Oldham, Lancashire. Originally erected in 1783 for Mr Crouchley. See above Portfolio No. 550. Lift 70 yards.

Messrs. Stockdale, Thackeray & Co. : Cark, Lancashire. Lift 20 feet. 10 strokes, equal to the raising of 2900 ale gallons per minute.

Messrs. James Spedding & Co. : Crossgates Iron Ore Mine, near Dalton, Crossgates, Lancaster. James Spedding of Whitehave, Cumberland for self and partners. Lift 65 yards. 12 strokes.

Messrs. Clegg & Co. : Oldham. Used partially to assist Water Wheel. Lawson says the Water Wheel has not been used since 1799. New 20 HP nozzle and eccentric working gear added 1804. Iron beam 1806.

George Wright : Hornby Castle, Lancashire.

Messrs. Barrow, Lees, Jones etc. : Werneth Colliery, near Oldham, Lancashire.

John Lees, Esq. : Alkrington near Middleton, Lancashire. Lift 100 yards. (John Lees, Church Lane, Oldham).

Messrs. John and James Lees : Rocher Colliery between Oldham and Ashton. Lift 130 yards.

Messrs. Barrow, Lees & Co. : Werneth Colliery, near Oldham, Lancashire. Lift 107 yards. 6 to 7 strokes.

Messrs. Barrow, Lees & Co. : Werneth Colliery near Oldham, Lancashire. Sent in 1793 but not erected until May 1798.

Messrs. Barrow, Lees & Co. : Werneth Colliery near Oldham, Lancashire. Countermanded before it was finished. Nozzles in the Soho Yard for several years, then used for Oxford Canal.

Portfolio Number : Approx. No. of Drawings : Earliest Date on Drawings : No. of Engines :
Type of Engine : Cylinder Diameter x Stroke : Horse Power : RPM

REEL 63

PUMPING ENGINES (continued)

Yorkshire

548 : 14 : 1781 : 1 : EBC : 40" x 8'0" : 34.1 :

551 : 58 : 1783 : 1 : UBC : 53" x 8'0" : 59.7 :

555 : 12 : 1784 : 1 : EBC : 34" x 8'0" : 24.6 :

569 : 18 : 1793 : 1 : UBC : 60" x 8'6" : 78.1 :

632 : : 1779 : 1 : : 22" : :

Durham

570 : 23 : 1794 : 1 : UBC : 60" x 8'6" : 78.1 :

570 : : 1795 : 1 : EBC : 34" x 8'0" : 24.6 :

573 : 14 : 1796 : 1 : EBC : 49" x 8'0" : 51.1 :

574 : 4 : 1796 : 1 : EBC : 38" x 8'0" : 30.7 :

Owner of Engine : Other Details

Messrs. Samuel Walker & Co. : Holmes Iron Works. Holmes near Rotherham, Yorkshire. Messrs. Walker & Co. of Masbrough, Yorkshire for selves and partners. (Converted into a blowing engine, see No. 548). Lift 4 fathoms. 10 strokes.

Thomas Fenton Esq. : Rothwell Haigh Colliery. Rothwell. Yorkshire. Thomas Fenton of Rothwell Haigh on behalf of self and partners. Lift 78 fath. 10 stroke.

William Wood, Esq. : Craven Cross Mine. Burnsoll, near Applewick, Yorkshire. William Wood of Pately Bridge, Yorkshire. Lessee of the Mine. Sold to John Horner and erected at Durham 1795. Lift 43 fathoms. 10 stroke.

Charles Brandling Esq. : Middleton Colliery. Rothwell. Yorkshire. C.B., Gosforth House, Northumberland. Lift 260 feet. 10 stroke. Agent Richard Humble.

Mayson Wright : Cottingham, Sculcoates, St. Trinity, Kingston-on-Hull. 5 fathoms for lift. 10 stroke.

Charles Brandling Esq. No. 2 : Gateshead Park Colliery. Gateshead. Durham. Lift 26 fathoms. 10 strokes. Barnes says the engine, including house, pumps etc. cost £3,610. In 1798 it burnt a Chalder of 53 € per 12 hours.

John Horner Esq. : Durham. Originally erected for A. Wood Esq. See No. 555 above. Lift 55 fathoms.

Sir Thomas Henry Liddell, Bart. For self and partners : Shieldrow Colliery, near Tanfield, Durham. Sir T H Liddell, Bart. Of Ravensworth, County Durham. Proposed to work a 12 inch pump. 45 fathoms. 14 strokes. In June 1797, it was working a 13.5" pump, 48 fath. At the rate of 14 strokes when wanted.

William Reynolds :

Portfolio Number : Approx. No. of Drawings : Earliest Date on Drawings : No. of Engines :
Type of Engine : Cylinder Diameter x Stroke : Horse Power : RPM

575 : 51 : 1797 : 1 : UBC : 63" x 8'6" : 172.2 :

576 : 17 : 1799 : 1 : UBC : 60" x 8'6" : 78.1 :

Northumberland

572 : 14 : 1795 : 1 : UBC : 63" x 8'6" : 86.1 :

577 : 12 : 1799 : 1 : UBC : 63" x 8'6" : 86.1 :

630 : 9 : 1777 : 1 : C : 52" x 8'0" : 57.6 :

Cumberland

570 : : 1791 : 1 : D : 33" x 6'0" : 42.0 :

Shropshire

245 : : 1791 : 1 : : 36" x 8'0" : 27.6 :

547 : 20 : 1781 : 1 : UBC : 66" X 9'0" : 102.6 :

Owner of Engine : Other Details

Messrs. Peareth, Wren, Wade and General Hales : Hebburn Colliery. Durham. Lift 125 fathoms.

Trustees of the Late William Henry Lambton : Burnmoor Colliery. Durham. Lift 40 fathoms.

Messrs. Ord, Peareth & Reay : Walker Colliery. Newcastle-upon-Tyne, Northumberland. In January 1798, according to Barnes it raised 31 millions, 1 foot high with 1 € of slack. It did the same work in 12 hours which a 72" atmospheric of Smeaton's construction used to take 18 hours and burnt 400 Newcastle chalders per annum, in lieu of 1800. Drawings of atmospheric in portfolio. See also No. 169 in Part 3 of this project.

Christopher Blacket Esq. : Wylam Colliery. Northumberland. Christopher Blacket of Newcastle-upon-Tyne. To deliver 1000 ale gallons per minute, working 3 sets of pumps each 12" diameter x 26 fathoms high and one set 14" diameter x 15 fathoms high.

Messrs. Chapman's & Allen. : Byker Colliery, St Anthony Village, Newcastle-upon-Tyne, Northumberland. William and John Chapman, Merchants both of Newcastle-upon-Tyne and John Allen of Westhouse, Northumberland, Coal Master, lessees of Byker Colliery. Lift 156 yards. No vestige of this plant remains.

John Christian Curwen Esq. : Workington. Cumberland. Lift 90 fathoms.

Messrs. Wright & Jesson : Wrensnest. Shropshire. Altered to a Rotative and applied to work forge hammers.

Messrs. Rathbone Reynolds & Co. : Coalbrooke Dale Iron Works. Madeley. Shropshire. Joseph Rathbone and William Reynolds of Coalbrookdale. Lift 93 feet. 10 strokes.

Portfolio Number : Approx. No. of Drawings : Earliest Date on Drawings : No. of Engines :
Type of Engine : Cylinder Diameter x Stroke : Horse Power : RPM

553 : 45 : 1783 : 1 : EBC : 30" x 8'0" : 19.1 :

557 : 17 : 1784 : 1 : EBC : 20" x 6'0" : 7.7 :

558 : : 1785 : 1 : : 48" x 8'0" : 49.1 :

563 : 27 : 1789 : 1 : UBC : 45" x 8'0" : 43.1 :

568 : 27 : 1793 : 1 : UBC : 33" x 7'0" : 22.1 :

626 : : 1777 : 1 : : 36" x 8'0" : 27.6 :

628 : 10 : 1777 : 1 : UBC : 30" x 8'0" : 19.7 :

629 : 4 : 1777 : 1 : C : 24" x 7'6" : 15.0 :

630 : : 1778 : 1 : : 58" x 8'0" : 71.7 :

642 : 14 : 1788 : 1 : EBC : 24" x 6'0" : 11 :

648 : : 1780 : 1 : : 58" x 8'0" : 71.7 :

Owner of Engine : Other Details

Messrs. Blakeway, Lawrence & Anwyl : White Grit Mine. Parish of Shelve. Shropshire. Joshua Blakeway of Lythwood Hall, Shropshire. John Lawrence, Sheffield miner. Thomas Lloyd Anwyl, Shrewsbury for selves and others. Stopped on 11th June, 1785 and then sold to Popham and Partners. Lift 30 fathoms. 8 strokes.

Messrs. John Lawrence & Co. : Shelvefield Gravels Mine. Parish of Worthon. Shropshire. John Lawrence of Upper Shelvefield Shropshire, Joshua Blakeway of Lythwood Hall, Shropshire. Nathaniel Betton of the Abbey-Foregate, one of the suburbs of Shrewsbury, Tanner and Thomas Lloyd Anwyl, Shropshire. Partners. Lift 90 yards. 12 strokes.

Messrs. Richard Reynolds & Co. : Donnington Wood. Shropshire. Purchased by Bishton & Co. February 20th 1796.

Messrs. John Weston & Co. : Bog Mine, Shropshire. Sold to Alexander Donald and removed to Nuneaton in 1797. See No. 627.

Messrs. Robert, Lloyd, Jones & Co. : Pontosbury Colliery, Shropshire.

John Wilkinson Esq. : At Snedshill, Shropshire. Since purchased by Messrs Bishton & Onions.

Messrs. Scott & Jeffreys : Bog Mine. Wentnor. Shropshire. John Scott of Shrewsbury, Draper and Edward Jeffreys of Shrewsbury. 50 to 60 yards lift, 9 strokes.

Messrs. John Scott & Co. : Malehurst. Shropshire.

Richard Reynolds & Co. : Ketley Iron Furnace. Shropshire. "Originally applied to raise water to a wheel for blowing, but now applied directly to blowing". Shelvefields Gravels Mine.

Messrs. Richard Reynolds & Co. : Ketley Iron Furnace. Shropshire. Intended originally to supply a water wheel for blowing, now raises water for a slitting mill. (Called Ketley New Engine).

Portfolio Number : Approx. No. of Drawings : Earliest Date on Drawings : No. of Engines :
Type of Engine : Cylinder Diameter x Stroke : Horse Power : RPM

649 : : 1779 : 1 : : 30" x 8'0" : 19.7 :

Staffordshire

563 : : 1789 : 1 : : 42" x 8'0" : 37.8 :

563 : : 1789 : 1 : : 48" x 8'0" : 49.1 :

565 : 23 : 1791 : 1 : UBC : 30" x 7'0" : 20.8 :

566 : 35 : 1792 : 1 : UBC : 48"½ x 8'0" : 100.0 :

624 : : 1776 : 1 : : 50" x 9'0" : 55.3 :

Warwickshire

624 : : 1774 : 1 : : 18" x 5'0" : 4.5 :

625 : 36 : May 1776 : 1 : EBC : 58" x 8'0" : 71.1 :

626 : 8 : 1776 : 1 : C : 33" x 8'0" : 23.7 :

627 : 2 : 1797 : 1 : UBC : 45" x 8'0" : 43.1 :

Derbyshire

546 : 21 : 1779 : 1 : UBC : 45" x 8'0" : 43.1 :

Owner of Engine : Other Details

Messrs. John Gilbert & Co. : Donnington Wood, Shropshire.

John Wilkinson Esq. : Bradley. Staffordshire.

John Wilkinson Esq. : Old Hall Colliery Engine. Bradley. Staffordshire.

Fenton Park Colliery Co. : Fenton Park Colliery. Staffordshire. 32" Cylinder sent in 1800.

Messrs. John Sparrow & Co. : Cockshead Colliery, near Norton in the Moors, Staffordshire.
Messrs. John and Thomas Sparrow, John Repton, William Adams and Benjamin Goodwin.
Lift 240 feet. 12 strokes.

Messrs. Bentley, Banner & Co. : Bloomfield Colliery. Staffordshire. Intended to work a 14.5" pump, 85 yards with a 7.5 foot stroke, but they had mistaken the depth of their coal, which proved to be 112 yards deep = 11.75 to 12 lbs per inch.

Messrs. Boulton & Watt : Soho Manufactory. Lift 24 ft. Raised 16,000 cubic ft. Water with € Wednesbury Coal.

Messrs. Parrott, Whieldon, Fernyhough & Taylor : Hawkesbury Colliery. Near Coventry, Warwickshire. Francis Parrott of Hawkesbury, Coventry; Thomas Whieldon of Fenton, Stafford; The Rev. John Fernyhough of Newcastle, Staffordshire and George Taylor of Bedworth, Warwickshire. Lift 130 yards. This engine was called "The Bedworth Engine".

Messrs. Boulton & Watt : Soho Manufactory. Substituted in place of the above. Lift 25 feet.

Alexander Donald Esq. : Nuneaton. Warwickshire. Bought from John Weston & Co. See Portfolio No. 563.

Messrs. Banks Milnes & Co. : The Gregoryhead Mine in the Parish of Ashover, Derby. Joseph Banks of Soho Square Westminster, William Milnes and Samuel Kirk, both of Ashover and other Adventurers.

Portfolio Number : Approx. No. of Drawings : Earliest Date on Drawings : No. of Engines :
Type of Engine : Cylinder Diameter x Stroke : Horse Power : RPM

Kent

585 : 16 : 1800 : 1 : EBC : 52" x 8'0" : 57.6 :

Wales

Carnarvon

545 : 10 : 1779 : 1 : UBC : 27" x 8'0" : 15.5 :

Denbigh

552 : 16 : 1783 : 1 : UBC : 50" x 8'0" : 53.3 :

563 : : 1789 : 1 : : 45" x 8'0" : 43.1 :

569 : : 1793 : 1 : 45" : 43.1" x 8'0" : :

Swansea

580 : 21 : 1800 : 1 : UBC : 66" x 9'0" : 102.6 :

N. Ireland

556 : 12 : 1784 : 1 : EBC : 32" x 8'0" : 21.8 :

Owner of Engine : Other Details

: Lift 47 fathoms and one yard. 10 strokes. Worked originally a 12.5" pump, 6'0" St. to the depth of 47.5 fathoms, 10.5 strokes. In October 1793 it worked the 12.5" – 70 yards, an 8" 40 yards for house water and was also intended to have 92 yards of 6" pumps = 8 lbs per inch.

: Gravesend Tunnel. Tilbury Fort. Materials purchased by Hawkes of Newcastle after the fire.

Messrs. Burroughs, Moore, Weston and Kemmett : Penryndee Mine. Carnarvonshire. N. Wales. Lift 54 fathoms. 10 strokes. Parish of Llewengan. Benjamin Burroughs of Gloucester, William Moore of the Parish of St. Clement Danes, London, Doctor of Medicine, John Weston of St. Mary Lambeth, Refiner and John Kemmett of Notcliff, Gloucester.

Messrs. Wilkinson, Stockinie, Thackeray, Burton etc. : Minera Mine or Maes-y-Fymion Wen and Caemyndd West End Mine. Denbighshire, Wales. Changed to a 52" in June 1793 by John Wilkinson.

Messrs. John Wilkinson & Co. : Caemoneth, Denbighshire, N. Wales. Erected by Mr. Wilkinson in 1789.

Messrs. Wilkinson & Co. : Minera Mine (No. 2). See above. Denbighshire. Erected by John Wilkinson in 1793, not worked until 1795.

Messrs. Lockwood, Morris & Co. : Morryston, near Swansea, South Wales.

Messrs. Staples & Cawfield. : Drumglass Colliery. Northern Ireland. "Messrs. S & C are gentlemen who have a lease from the Lord Primate of the Colliery".

Portfolio Number : Approx. No. of Drawings : Earliest Date on Drawings : No. of Engines :
Type of Engine : Cylinder Diameter x Stroke : Horse Power : RPM

Ireland

549 : 17 : 1781 : 1 : EBC : 32" x 8'0" : 21.8 :

REEL 64

PUMPING ENGINES (continued)

France

554 : 11 : 1783 : 1 : EBC : 13" x 3'0" : 3 :

648 : 12 : 1779 : 1 : EBC : 44" x 8'0" : 41.2 :

Holland

559 : 29 : 1785 : 1 : EBC : 34" x 6'0" : 22.3 :

564 : 31 : 1790 : 1 : EBC : 48" x 8'0" : 49.1 :

Italy

562 : 25 : 1788 : 1 : EBC : 36" x 8'0" : 27.6 :

Owner of Engine : Other Details

: John Staple MP in Marion Street, Dublin. Gratrix their Ground Bailey.

Messrs. P & A Colclough : Doonane Colliery. Queens County, Ireland. Patrick and Adam Colclough, Proprietors and Partners. See Boulton's correspondence. 12 strokes. Lift 18 fathoms.

: Rochfort. Taken at 3 HP.

Mr Jary : Mort near Nantes. France. Colliery. Lift 425 feet.

Batavian Society (or Government) : Hoogendyk. Rotterdam. Holland. To drain the Polder of Blydorp & Rool (not 8'0" stroke).

Mydrechtsche, called M.D.T. Engine : Engine erected at Mydrechtsche Polder or Mere by the River Amstel in the Province of South Holland in the Netherlands, near Withvorn States of Utrecht. 10 strokes. Lift 18 inches, engine sent in 1792 and erected in 1794.

King of Naples (ordered by Mr Poli) : Carditelli, near Capua, Naples. Ordered by Mr Poli, the preceptor to the Hereditary Prince. Engine to raise 400 cubic feet 27 feet high per minute, to water some large fields at one of the King's Palaces 15 miles from Naples. 10 strokes. See Boulton's letter to Watt, September 26th 1786.

Portfolio Number : Approx. No. of Drawings : Earliest Date on Drawings : No. of Engines :
Type of Engine : Cylinder Diameter x Stroke : Horse Power : RPM

ENGINES ERECTED ON CORNISH MINES

Cornwall

1281 : 8 : 1786 : 1 : PM : 63" x 9'0" : 190.2 :

1282 : : : 1 : PM : 20" x 4'0" : 8.4 :

1282 : 8 : 1787 : 1 : SP : 20" x 4'0" : 12.0 :

1283 : 2 : 1791 : 1 : PM : 36" x 8'0" : 55.2 :

1284 : 6 : 1793 : 1 : PM : 45" x 8' 0" : 86.2 :

1285 : 9 : 1795 : 1 : SR : 52" x 8'0" : 115.2 :

1285 : : 1793 : 1 : CB : 36" x 8'0" : 27.6 :

1285 : : 1798 : 1 : CB : 40" x 8'0" : 34.1 :

1285 : : 1798 : 1 : CB : 36" x 8'0" : 27.6 :

1285 : : 1798 : 1 : PM : 18" x 4'0" : 9.8 :

1286 : 21 : 1778 : 1 : CB : 63" x 9'0" : 95.1 :

1287 : 14 : 1781 : 1 : CB : 45" x 8'0" : 43.1 :

Owner of Engine : Other Details

Wheal Virgin : "Wheal Maid Double".

Wheal Reath Mine :

Prince George Mine : Pumping Engine.

Wheal Butson Mine : In the Parish of St. Agnes. Sir Christopher Hawkins of Trevithnan, Cornwall, David Jenkins of Truro, Banker and John James all of Cornwall acting for the Adventurers. Pump 8.25" diameter. Strokes per minute 10. Stroke 8'0". Lift 80 fathoms. See Portfolio 1285 below.

Hewas Mine : In the Parish of St. Mewan. Edward Fox, Merchant of Wadebridge acting for the Adventurers.

North Downs Consolidated Mines "Halesbeagle Mine" : Piston Rod Crosshead over cylinder with returning side rods to mine pump rods.

Cooks Kitchen Mine :

Wheal Jewel West Mine :

New Reskear Mine :

Herland Mine : See Portfolio No. 1294 above. Supposed not rotative as generally given in various books (see order books).

Poldice Mine "Eastern" : In the Parish of Gwennap. Henry Hawkins Tremayne, acting for the Adventurers.

Trevaskus Mine : In the Parish of Gurinear. Richard Lanyon of Lanyon and Richard Hictious of Poltair, both of Cornwall, acting for Adventurers. Pump 13" diameter. Stroke 7' 6" per minute 10. Lift 57 fathoms.

Portfolio Number : Approx. No. of Drawings : Earliest Date on Drawings : No. of Engines : Type of Engine : Cylinder Diameter x Stroke : Horse Power : RPM

1288 : 13 : 1777 : 1 : CB : 52" x 8'0" : 57.6 :

1289 : 18 : 1779 : 1 : CB : 48" x 8'0" : 98.2 :

1290 : 17 : 1779 : 1 : CB : 30" x 8'0" : 19.1 :

1291 : 8 : 1777 : 1 : CB : 63" x 8'0" : 84.6 :

1292 : 4 : 1779 : 1 : CB : 63" x 9'0" : 95.1 :

1293 : 29 : 1779 : 1 : CB : 58" x 8'0" : 71.7 :

1294 : 5 : 1799 : 1 : CB : 64" x 9'0" : 9.0 :

1294 : 2 : 1799 : 1 : CB : 30" x 8'0" : 19.1 :

1294 : : : 1 : PM : 63" x 9'0" : 190.2 :

1295 : 1 : : 1 : CB : 30" x 8'0" : 19.1 :

1296 : 15 : 1780 : 1 : CB : 63" x 9'0" : 95.1 :

Owner of Engine : Other Details

Ting-Tang Mine : In the Parish of Gwennap. John Beauchamp of Pengreep, acting for the Adventurers. Pump 10" diameter, stroke 7'9" per minute 10. Lift 108 fathoms.

United Mines "Poldory" :

Tresavean Mine : In the Parish of Gwennap. John Williams of Burncoose acting for Adventurers. Pump 7" diameter, stroke 6'0". Strokes per minute 10. Lift 80 fathoms.

Wheal Union Mine : In the Parish of St. Hilary. George Blewett of Marazion, acting for the Adventurers. Pump 15.25" diameter, stroke 7'9". Strokes per minute 10. Lift 76 fathoms.

Wheal Chance Mine : This mine was known by the name of "Higher Rosewarne", otherwise Wheal Chance, situated and lying in the Parish of Camborne. Messrs. William Richards of Algarrack, William Harris of Rosewarne and John Stackhouse of Pendarvis all of Cornwall acting for the Adventurers. Pump 13" diameter. Stroke 6'0". Strokes per minute 10. Lift 126 fathoms.

United Mines "Ale and Cakes" :

Herland Mine : See Portfolio 1285 below.

Wheal Bussey Mine : Messrs. Scott & Co. mentioned on drawings.

North Downs Consolidated Mines "Wheal Hawk" : John Williams of Burncoose in the Parish of Gwennap, Cornwall acting for the Adventurers. Pump 162 diameter. Lift 84 fathoms.

Chasewater Mine : In the Parish of Kenwyn. Thomas Fenton of Rothwell Haigh, Yorkshire acting for the Adventurers. Drawings are also endorsed for Messrs. Scott & Co.

No. 2 Poldice Mine "Middle or Western" :

Portfolio Number : Approx. No. of Drawings : Earliest Date on Drawings : No. of Engines :
Type of Engine : Cylinder Diameter x Stroke : Horse Power : RPM

1297 : 14 : 1780 : 1 : CB : 60" x 9'0" : 86.3 :

1298 : 20 : 1780 : 1 : CB : 52" x 8'0" : 57.6 :

1299 : 12 : : 1 : CB : 56" x 9'0" : 75.2 :

1300 : 19 : 1784 : 1 : PM : 42" x 8'0" : 75.6 :

1301 : 16 : 1784 : 1 : PM : 45" x 8'0" : 86.2 :

1301 : : : 1 PM : 42" x 8'0" : 75.6 :

1302 : 26 : 1784 : 1 : SP : 18" x 4'0" : :

1303 : 26 : 1784 : 1 : PM : 18" x 4'0" : 9.8 :

1304 : 6 : 1785 : 1 : CB : 58" x 8'0" : 71.7 :

1305 : 10 : 1784 : 1 : PM : 20" x 4'0" : 8.4 :

1306 : 2 : 1786 : 1 : CB : 60" x 9'0" : 86.3 :

1307 : 13 : 1786 : 1 : PM : 60" x 8'0" : 153.4 :

1308 : 3 : 1786 : 1 : CB : 40" x 8'0" : 34.1 :

1309 : 10 : 1786 : 1 : PM : 45" x 8'0" : 86.2 :

1310 : 15 : 1786 : 1 : PM : 24" x 8'0" : 29.4 :

Owner of Engine : Other Details

Pool Mine : William Harris and Thomas Kevill both of Camborne for Adventurers. Pump 13.5" diameter. 6'0" stroke. Strokes per minute 10. Lift 100 fathoms. Trevithick signed parchment.

Consolidated Mines "West Wheal Virgin" :

Consolidated Mines "Wheal Virgin East" :

North Downs Consolidated Mines : Pump 15" diameter. Lift 84 fathoms. "Wheal Messa".

Wheal Fortune Shaft : Pump 16" diameter. Stroke 6'0" feet. Lift 84 fathoms. First Cornish mine engine fitted with a parallel motion.

Wheal Rose Shaft : Pump 15" diameter. 84 fathoms lift.

Wheal Crane Mine :

Wheal Town Mine : Pumping engine. Afterwards converted into a rotative.

Polgooth Mine : The ancient and celebrated mine of Polgooth is situated in the several parishes of St. Austell, St. Mewan and St. Ewe.

Wheal Mount Mine : Pumping Engine.

Wheal Crenver Mine :

Hallamaning Mine : See Portfolio No. 1316.

Retallack Mine : In the Parish of St. Hilary. James Yates and George Simcox, both of Birmingham acting for the Birmingham Mining and Copper Co.

United Mines "Polydory" :

No. 4 Poldice Mine : Double pump rod and parallel motion.

Portfolio Number : Approx. No. of Drawings : Earliest Date on Drawings : No. of Engines :
Type of Engine : Cylinder Diameter x Stroke : Horse Power : RPM

1311 : 18 : 1786 : 1 : PM : 58" x 8'0" : 143.4 :

1312 : 7 : 1800 : 1 : C 14³/₄ x 3'0" : 6.2 :

1313 : 5 : 1796 : 1 : PM : 52" x 8'0" : 115.2 :

1313 : : : 1 : CB : 64" x 9'0" : 98.2 :

1314 : 7 : 1793 : 1 : SP : 20" x 5'0" : 15.2 :

1315 : 9 : 1778 : 1 : CB : 63" x 9'0" : 95.1 :

1316 : 8 : 1778 : 1 : CB : 40" x 8'0" : 34.1 :

1317 : 12 : 1780 : 1 : CB : 58²/₂ x 9'0" : 80.6 :

1318 : 4 : : 1 : CB : 58" x 9'0" : 80.6 :

1319 : 20 : 1780 : 1 : CB : 50" x 9'0" : 59.9 :

1320 : 16 : 1780 : 1 : CB : 36" x 8'0" : 27.6 :

1321 : 6 : 1780 : 1 : CB : 63" x 9'0" : 95.1 :

1322 : 10 : 1781 : 1 : CB : 48" x 9'0" : 55.2 :

1323 : 13 : 1783 : 1 : CB : 63" x 9'0" : 95.1 :

Owner of Engine : Other Details

No. 5 Poldice Mine : Double Pump Rod and Parallel Motion.

United Mines : Winding and Pumping.

North Downs No. 3 :

Manor Mine : "They have taken the engine to this mine which was originally Poldice No. 3 to have a new 64" cylinder".

Cardrew Down Mine : In the Parish of Redruth. John Williams of Scourier House, Cornwall, acting for the Adventurers. Pumping engine.

Chasewater Mine : Contains drawings of a 72 inch atmospheric engine.

Hallamanning Mine : In the Parish of St. Hilary. James Yates and George Simcox both of Birmingham. Acting for the Birmingham Mining and Copper Co.

"Wheal Virgin" : Also known as "Old Wheal Maid" and "Wheal Maid East".

Consolidated Mines : Wheal Virgin "Elvan".

"Wheal Virgin" : Known as the "New Wheal Maid" or "Wheal Maid West".

Wheal Treasury Mine : William Richards of Halgarrack acting for Adventurers. Pump 12" diameter. Stroke 6'0". Strokes per minute 10. Lift 42 fathoms.

Dolcoath Mine :

Wheal Crenver Mine :

No. 3 Poldice Mine : Erected in place of the two eastern engines. Pumps 17" diameter. Stroke 5'6". Strokes per minute 10. Lift 70 fathoms below the audit. A new 64" cylinder added and removed to the Manor Mine.

Portfolio Number : Approx. No. of Drawings : Earliest Date on Drawings : No. of Engines :
Type of Engine : Cylinder Diameter x Stroke : Horse Power : RPM

1324 : 10 : 1783 : 1 : CB : 63" x 9'0" : 95.1 :

1324 : : : 1 : PM : 45" x 8'0" : 75.6 :

1325 : 9 : 1783 : 1 : CB : 45" x 8'0" : 43.1 :

1326 : 15 : 1783 : 1 : SP : 18" x 4'0" : :

1339 : 15 : : : : :

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Unfortunately this item had to be omitted as it was impossible to film.

Owner of Engine : Other Details

Polgooth Mine :

North Downs Consolidated Mines "Wheal Brigan" : John Williams of Burncoose in the Parish of Gwennap, acting for the Adventurers in the several mines of North Devon.

United Mines "Poldory New" :

Dolcoath Mine : "Wheal Maid Rotative"

Miscellaneous Drawings.