JOHN MUSGRAVE & SONS LTD

ENGINEERING DRAWINGS

MS 0281, MS 0648, MS 0668, MS 0690

MS Number	Drawing Number	Customer	Detail	Date
0281/1	9707		Drawing of Loose Valve Box Cut off Valves, for Patent Slip Motion for, (12" Cylinder – 2ft. Stroke). N.S.P.2	July 12 th . 1887.
0281/2	9729	FLADEN	Drawing of Excentric Rods, Valve Spindles for Engine with Cylinder21" dia, 4' 0" Stroke.	July 18 th . 1887.
0281/3	9730	FLADEN	Drawing of Spring Box.	July 8 th .1887.
0281/4	11,327		Drawing of Steam Pipes for A21.	April 25 th . 1890.
0281/5	11,328		Plan Showing Arrangement of Injection and Overflow Pipes for A21.	April 23 rd . 1890.
0281/6	11,320		Drawing of a 15" Back Clack for Injection for SS32.	Modified. Dec. 1905.
0281/7	8351		Drawing of 10" Stop Valve Box Fixings. Wheels &c. For EW .	April 22 nd . 1884.

0281/8	1731 1732	1 – 27" H P Cylinder Same as drawing for OB .	Feb. 28 th . 1888.
0281/9	1730	16" Cylinder for Single Vertical Engine. C. N. No.3.	n/d
0281/10	1729	Drawing of Air Pumps and Injector Condensor for No. 16 Mill.	Mar. 5 th . 1888.
0281/11	1728	1 – 31" H. P. CYLINDER SAME AS DRAWN FOR No. 16 Mill.	Feb. 2 nd . 1888.
0281/12	1727	1 – L. P. CYLINDER &c SAME AS DRAWING FOR No. 16 Mill.	Jan 31 st . 1888.
0281/13	1726	[Cylinder detail?]	Jan 26 th . 1888.
0281/14	1726	28" L. P. Cylinder Valves. Full Size.	n/d
0281/15	1724	Drawing of Air Pump and Condenser for M 1.	Mar. 16 th . 1888.
0281/16	1793	1 – Low Pressure Cylinder same as drawn for M1 .	Jan. 31 st . 1888
0281/17	2400	Drawing of 25" Air Pump 16" Stroke & Condenser for M155 .	Aug. 4 th . 1896.

0281/18	2402		19" High Press Cyl. 4' - 0" Stroke. M163.	Aug. 28 th . 1896.
0281/19	2403		29" Inter Cylinder 4' - 0" Stroke M163.	Aug. 25 th . 1896.
0281/20	2404		Drawing of 32" Dia. 4' - 0" Stroke L. P. Cylinders for M163.	Aug. 4 th . 1896.
0281/21	2406		Drawing of 17" H. P. Cylr. 3' - 6" Stroke. M157.	Aug. 25 th . 1896.
0281/22	2407		32" Cylinder L. P. Cylinder 3' - 6" Stroke. M157.	Aug. 28 th . 1896.
0281/23	8350	Eden & Thwaites	Drawing of Cross'd Arm'd Governor.	April 21 st . 1884.
0281/24	8407		DRAWING OF foundation Plate for horizontal Condensing Steam Engine. Cylinder 14" dia. 3' – 0" Stroke. Air Pump 12" dia. & 10" Stroke for H. O. M.	June 12 th . 1884.
0281/25	8412		Drawing of Connecting Rods for a Horizontal Compound Steam Engine, Cylinder 19" & 38" dia. 5ft. Stroke for W .	June13th. 1884.
0281/26	8415		Drawing of Connecting Rod for a Horizontal Compound Steam Engine	July 9 th . 1884.

		with Cylinders 28" & 52" dia. 6' – 0" Stroke for U. B.	
0281/27	8417	Drawing of Slide Valves, Cut off Valves, Loose Plates &c for W . Cylinder 19"dia. 5ft. Stroke.	May 22 nd . 1984.
0281/28	8420	Drawing of Slide, Rocking Lever, Valve Work for L. P. Cylinder 30"dia. 5ft Stroke for W.	June 27 th . 1884.
0281/29	8427	Drawing of details of slip motion for H. M. B.	June 25 th . 1884.
0281/30	11,329	Drawing of Back Slide & Beam for 60" L. P. Cyl. 7' – 0" Stroke for H41.	April 30 th . 1890.
0281/31	8024	Drawing of F. I. Fork for Governor Safety Gear &c for M. C., K. B. & B.M.C.	June 28 th . 1883.
0281/32	8275	Drawing of Governor 4½ Balls for CC. No. 4 Size	March 3 rd . 1884.
0281/33	8276	Drawing of H. P. Sidepipes for 26" Cylinder 2ft. – 6in. Stroke for No. 95 Mill.	n/d
0281/34	8278	Drawing of Air Cylinders &c for H. P.	March 5 th .

		Sidepipes for 95 Mill.	1884.
0281/35	2925	H. P. Cylinder 28" Dia. 4' – 0" Stroke for T.93/04.	Oct. 24. 1904.
0281/36	2925	Valve Sections for 28" H. P. Cylinder for T.93/04.	Oct. 25. 1904
0281/37	2926	L. P. Cyl. 57" Dia. 4' – 0" Stroke for T. 93/04.	Oct. 31 st . 1904.
0281/38	2926	Valve Sections For 57" L. P. Cylinder 4' – 0" Stroke for T. 93/04.	Oct. 28 th . 1904.
0281/39	2926	L. P. Cylinder 57" Dia. 4' – 0" Stroke for T.93/04.	Oct. 28 th . 1904.
0281/40	2927	30" Air Pumps 15"Stroke and Condenser for T. 93/04.	Dec. 15 th . 1904.
0281/41	2930	Drawing of a 14" H. P. Cylinder 2' – 6" Stroke for T.93/04.	n/d
0281/42	2974	Drawing of a 31" L. P. Cylinder 4' – 0" Stroke for G.85/05.	Oct. 14 th . 1906.
0281/43	1722	1 High pressure Cylinder &c same as drawn, for M-1	Jan 23 rd . 1888.

0281/44	8197	Drawing of W. I. Work for Working L. P. Corliss Valves for G B S.	Dec.17 th . 1883.
0281/45	8198	Drawing of W. I. Work for Working H. P. Corliss Valves for G B S.	Dec. 19 th . 1883.
0281/46	9200	Drawing of Gearing for working Indicator for a Horizontal Tandem Steam Engine for C C.	Dec 22 nd . 1883.
0281/47	8203	Drawing of Levers for Working H. P. Corliss Valves for P.	Dec. 21 st . 1883
0281/48	8204	Drawing of Crank Shaft Pedestal 15" dia. 2ft. – 2in. long for P.	Dec.22 nd . 1883
0281/49	8205	Drawing of Levers for working L. P. Corliss Valves for P.	Dec. 22 nd . 1883.
0281/50	2919	16" H. P. Cylinder (Jacketted) 4' – 6" Stroke for T. 92/04.	Aug 26 th . 1904.
0281/51	10460	Drawing of Crank Oil Dripper for C 24.	Dec. 14 th . 1888.
0281/52	8017	Drawing of Delivery Valve for G B S .	n/d
0281/53	10378	Drawing of Eccentric and Coupling Rods for HP and LP Cylinders for C 20.	Dec. 28 th . 1888

0281/54	10417	Drawing of Indicating Tackle for C 23.	Oct. 26 th . 1888.
0281/55	8003	Drawing of Spring Box for L. 25 in. Cylinder 7' – 0" Stroke	June 4 th . 1883.
0281/56	15656	Drawing of Platform round Standards for S 59 .	May 20 th . 1895.
0281/57	15735	Drawing of Low & Int. Pressure Eccentric & Coupling Rods for No. 123 Mill. Used for No. 74 Mill and No.13 Mill.	June 14 th . 1895.
0281/58	15730	Drawing of W. I. Work for Air Pump. No. 123 Mill. Used for No. 74 Mill.	June 11 th . 1895.
0281/59	15729	Platforms, Ladders, etc. round Standards for No.123 Mill. Used for No. 74 Mill.	June 3 rd . 1895.
0281/60	15727	Governor Stand, Levers etc. for No. 166 Mill.	June 18 th . 1895.
0281/61	15720	Corliss Valves & Bonnets for No. 166 Mill.	June 19 th . 1895.
0281/62	15719	Connecting Rod, Crosshead, Crank Pin	June 3 rd .

		etc. for No. 166 Mill. Blueprint of drawing with same number attached.	1895.
0281/63	15717	Drawing of Foundation Plate for Hor. Cond. Engine for No. 166 Mill. 28" Cyl. 4' – 0" Stroke. 75 Revs. 22" Air Pump 16" Stroke.	May 31 st . 1895.
0281/64	15716	Drawing of 8" Stop Valve for No. 123 Mill. Used on No. 74 Mill.	May 31 st . 1895.
0281/65	15715	Drawing of Governor Stand etc. for No.76 Mill.	May 30 th . 1895.
0281/66	15711	Drawing of Pipes Receiver etc. for No. 123 Mill.	May. 28 th . 1895.
0281/67	15710	Drawing of Corliss Valves and Bonnets etc. for Intermediate Pressure Cyl. of No. 123 Mill. Used on No. 74 Mill and No. 13 Mill.	May 27 th . 1895.
0281/68	15692	Drawing of Governor Stand, etc. No. 123 Mill. Used on No. 74 Mill.	May 28 th . 1895.
0281/69	15689	Drawing of Connecting Rod etc. for Comp. Engine.	May 20 th . 1895.

		Cyls. 12 ½" and 25" Dia. 3' – 0" Stroke. For S. 96.	
0281/70	15677	Drawing of Entablature Beam for No. 123 Mill. Used on No. 74 Mill.	May 20 th . 1895.
0281/71	15676	Drawing of Hollow Steel Crank Shaft for No. 123 Mill.	May 17 th . 1895.
0281/72	15675	Drawing of Standards for No. 123 Mill. Used on No. 74 Mill.	May 17 th . 1895.
0281/73	15668	Drawing of Governor Stand etc. for D49 . No. 2 .	June 15 th . 1895.
0281/74	15745	Drawing of Standards for Vertical Triple Exp. Engine. H. P. Cyl.16" x 3' – 01/4". Int. Cyl. 21 1/2" x 3' – 6". L. P. Cyl. 351/2" Dia. x 3' – 6" Stroke. For SS. 106 & SS. 141.	Aug 21 st . 1895.
0281/75	15744	Drawing of Foundation Plate for H. P. Cyl. 16" dia., 3' – 01/4" Stroke. Int. Cyl. 21 1/2" Dia. L. P. Cyl. 35 1/2", 3' – 6" Stroke. For SS. 106.	Aug. 22 nd . 1895.

0281/76	15743	Arrangement of Driving 3 1/2" Feed Pump 12" Stroke, Beams, Pedestals, etc. for No. 123 Mill.	June 14 th . 1895.
0281/77	15409	Drawing of Injection Tackle for No. 150 Mill	March 28 th . 1895.
0281/78	15401	Connecting Rods, Crossheads, etc. for a Horizontal Side by Side Triple Expansion Engine. For B. 110.	Feb 21 st . 1895.
0281/79	15399	Arrangement of Replacement Pipework for G.49? . [Drawing Incomplete].	n/d
0281/80	15379	Drawing of 9" Injection Valve & Wrote Iron Work for B. 110.	March 15 th . 1895.
0281/81	15378	Drawing of 9" Slide Wedge Stop Valve Box etc. for B. 110.	April 24 th . 1895.
0281/82	15377	Drawing of Governor Stand & etc. for B . 110 .	March 1 st . 1895.
0281/83	8023	Drawing of Fixings for Governor Shafts, Oil Cylinder etc. for AB .	June 22 nd . 1883.
0281/84	8019	Drawing of 7" Stop Valve Box & Injection Tackle for BMC .	June 20 th . 1883.

0281/85	8018		Drawing of 7" Stop Valve Box, Fixings, Wheels etc. for K.B.	June 28 th . 1883.
0281/86	8326		Drawing of Air Cylinder for Single Spindle Slip Motion for KP . Used on ISP.	April 5 th . 1884.
0281/87	8320		Drawing of Cross Armed Governor with Balls 5" dia. for M. H.	March 31 st . 1884.
0281/88	8458		Drawing of Crank Shaft Pedestal 12" dia. 24" long for CD. Used on S81, M49, C30, L32 & H65.	July 18 th . 1884.
0281/89	8446	SB & Co.	Drawing of Governor Stand Pillar.	June 30 th . 1884.
0281/90	8445		Drawing of Stop Valve Box for W.	June 30 th . 1884.
0281/91	8440		Drawing of 39" Air Pump Bucket for G. S. 2 Rings 40" dia. Turned – "Brass".	June 28 th . 1884.
0281/92	8438		Drawing of Connecting Rod for a Horizontal Condensing Steam Engine, 25" Cylinder 5' – 0" Stroke for C. D.	n/d
0281/93	8437		Drawing of Wrot Ironwork for Cut Off Valves for F. K.	June 25 th . 1884.

0281/94	8436		Drawing of Spring Box, Loose Plate, Valve, etc. for F. K. 16 1/2" Cyldr. 4' – 0" Stroke.	June 24 th . 1884.
0281/95	8431		Drawing of H I Work for Governor & Safety Gear for HMB .	June 26 th . 1884.
0281/96	8403		Drawing of Levers for working High & Low Pressure Corliss Valves for U B .	June 12 th . 1884.
0281/97	8401		Drawing of Improved Governor with Patent Governor Gear etc. for H B	n/d
0281/98	8400	Crewdson Crosses & Co. Limited.	Detail Drawing of Patent Governor Tackle.	May 5 th . 1884.
0281/99	8399		Drawing of Governor Stand, Oil Cylinder, Wrot Iron Work Etc. for W.	June 17 th . 1884.
0281/100	8387		Drawing of 9" Stop Valve Box & Gearing for SS .	May 29 th . 1884.
0281/101	8384		Drawing of Governor Pillar Stand & Gearing for SS .	May 27 th . 1884.
0281/102	8383		Drawing of Cross Armed Governor with 5" Balls.	n/d

0281/103	8380	Drawing of 33" Air Pump Bucket for S.S.	n/d
0281/104	8376	Drawing of Levers for working High & Low Pressure Corliss Valves etc. for S.S.	May 22 nd . 1884.
0281/105	8373	Drawing of Connecting Rod for a Horizontal Compound Steam Engine with Cylinders 29" & 40" dia. 5' – 0" Stroke for S.S.	May 20 th . 1884.
0281/106	8372	Drawing of Valves & Bonnets for L.P. Cylinder for S.S.	May 19 th . 1884?
0281/107	8371	Drawing of Wrot Iron Work for 5½" Hot Water Pump 16" Stroke for GBS .	May 17 th . 1884.
0281/108	8370	Drawing of Valve Boxes for 54 inch Pumping Engine for B.T.	May 17 th . 1884.
0281/109	8365	Drawing of Wrot Iron Beam for Pumping Engine Cyl. 54" dia. 7 ft. Stroke for B.T.	May 14 th . 1884.
0281/110	8364	Drawing of W. I. Work for Ram & Bucket Pump for CWKB .	May 14 th . 1884.
0281/111	10421	Drawing of Wrot Iron Work for Working Air Pump, 28" dia. 18" Stroke for H24.	Oct 1 st . 1888.

0281/112	11317		Drawing of Back Slide, Beam, Piston Rod etc. H.P. Cyl. 22" Dia. L. P. Cyl.37" Dia. 4' 6" Stroke for No. 109 Mill.	April 8 th . 1890.
0281/113	11319		5" Slide Wedge Stop Valve, Injection Tackle, etc. for M34.	April 8 th . 1890.
0281/114	11320		[Part of a drawing and untitled. Air Pump Bucket?].	March 8 th . 1890.
0281/115	19184		Drawing of Bed Plate for a Vertical Compound Engine. Cylinders 25 1/2" & 52" Dia 4' 0" Stroke for H36.	Sept 22 nd . 1898.
0281/116	10419		Drawing of Delivery Valve and Ram for a 28" Air Pump 18" Stroke for H24.	October 26 th . 1888.
0281/117	23148		Drawing of 7" Hot Water Pump for C.161/02. & C171/03.	Jan. 20 th . 1903.
0281/118	23152	A. ORMEROD. BROS. TODMORDEN.	Drawing of 3¾" Feed Pump.	Jan. 20 th . 1903.
0281/119	9067		Drawing of Governor Stand, Pillar, Oil Cylinder and Wrot Iron Work for DB No.1.	March 8 th . 1886.
0281/120	2905		18" H.P. Cylinder 3' – 0" Stroke for A44/04.	May 23 rd . 1904.

0281/121	2904	Messrs. Thos. Cross & Co. Mortfield Bleachworks.	Drawing of Air Pump 22 5/8" Dia. [Blueprint].	May 6 th . 1904.
0281/122	2903		20" Cylr. 4' – 0". Stroke for Single Cyl. Engine Made 1880. For 140. Mill. [Blueprint].	May 10 th . 1904.
0281/123	2902	Messrs. W. Heaton & Son. Lostock	Horizontal Air Pump, Cylr. Cover, Piston, Rod etc.	April 18 th . 1904.
0281/124	2900		Drawing of High Pressure Cylinder 16½" Diam. 3' – 6" Stroke for BU12/03 .	April 5 th . 1904.
0281/125	2899		Drawing of Hotwell for Air Pump for B.238/04. [Blueprint].	March 21 st . 1904.
0281/126	2897		Surface Condenser for L.P. Engine for C171/03.	March 1 st . 1904.
0281/127	2896		Drawing of Surface Condenser for SS130 .	Feb. 25 th . 1904.
0281/128	2895		Drawing of Surface Condenser for H.P. Engine. C171/03.	Feb. 27 th . 1904.
0281/129	2894		Drawing of 48" L.P. Cyl. 4' – 0" Stroke for B.J.14/03.	Feb. 18 th . 1904.

0281/130	2893	24" H.P. Cylinder for B.J.14/03.	March 10 th . 1904.
0281/131	2892	L.P. Valve Sections for E.76/04.	Feb. 13 th . 1904.
0281/132	2892	L.P. Cyl. for E.76/04. 52" Dia. 3' – 0" Stroke.	Feb. 13 th . 1904.
0281/133	8430	Drawing of Governor Stand and Pillar for FK .	June 27 th . 1884.
0281/134	2975	H.P. Cylinder 25" Dia.4' – 6" Stroke for W135/05. 160 Lbs. B. P.	Oct. 18 th .
0281/135	2976	L.P. Cylinder 47" Dia. 4' – 6" Stroke for W135/05.	Sept.28 th . 1905.
0281/136	2968	60" L.P. Cylinder 5' – 0" Stroke for G84/05.	Aug 18 th . 1905.
0281/137	2969	2 – 30" x 8" Air Pumps and Condenser for G84/05 .	Aug. 28 th . 1905.
0281/137	2968	60" L.P. Cylinder 5' – 0" Stroke for G84/05.	n/d
0281/138	2970	Drawing of 18"High Pressure Cylinder	Sept. 21 st .

		(Jacketted). 3' – 0" Stroke for M.63/05	1905.
0281/139	18948	Drawing of Int.P. & L.P. Carrier Levers for A44 .	July 4th. 1898.
0281/140	2966	17" Air Pump, 17" Stroke for D113/05.	July 27 th . 1905.
0281/141	2965	Air Pump & Condenser for \$175/05	July11th. 1905.
0281/142	2964	Drawing of Low Pressure Cylinder 39" Dia., 3' – 6" Stroke for \$175/05	July 7 th . 1905.
0281/143	2963	Drawing of High Pressure Cylinder 19½" Diameter, 3' – 6" Stroke for S175/05. 120 Lbs. Boiler Pressure.	June 30 th . 1905.
0281/144	2972	Drawing of Air Pump & Condenser, 24" Diam. 14" Stroke for M63/05.	Sept. 22 nd . 1905.
0281/145	2971	Drawing of Low Press. Cyl. 36" Dia. 3' – 0" Stroke for M. 63/05.	Sept. 18 th . 1905.
0281/146	2953	Drawing of 23" H.P. Cylr.5' – 0" Stroke for Rivett.	May 9 th . 1905.
0281/147	2960	Drawing of 15½" H.P. Cylinder 3' – 0" Stroke. For W.133/05.	July 19 th . 1905.

0281/148	2961	Drawing of 32" L.P. Cylinder 3 Ft. Stroke. For W.133/05	June 14 th . 1905.
0281/149	2954	Drawing of 18" H.P. Cyldr. 4' – 0" Stroke. For P.94/05.	May 13 th . 1905.
0281/150	2955	Details of 38" x 4 '- 0". L.P. Cylinder For P.94/05.	May 15 th . 1905.
0281/151	2956	Details of 26" x 18" Air Pump. For P94/05.	July 28 th . 1905.
0281/152	2952	Air Pump 35" Dia. 18" Stroke For \$173/05. Attached is a Blueprint of the same number. COVER for Air Pump Hotwell for \$173/105.	May 12 th . 1905. & May 22 nd . 1906.
0281/153	2950	H.P. Cylinder 25½" Dia. 4' – 6" Stroke for S173/05.	May 9 th . 1905.
0281/154	2951	L.P. Cylinder 52" Dia. 4' – 6" Stroke for S.173/05.	May 1 st . 1905.
0281/156	2920	1 L.P. Cylinder 27½" Dia. 4' – 6" Stroke for T92/04.	Aug.27 th . 1904.
0281/157	8406	Drawing of Slide Valves, Cut off Valves	June 11 th .

		& Loose Plates, etc. For H O M. 14" Cyl. 3' – 0" Stroke.	1884.
0281/158	8317	Drawing of Foundation Plate for a Horizontal Tandem Steam Engine. Cylinders 28" & 50"Dia. 6' – 0" Stroke for E.W.	March 28 th . 1884.
0281/159	8316	Drawing of Spring Box, Slide & Slide Blocks for M.H.	March 28 th . 1884.
0281/160	8315	Drawing of Slide & Cut off Valves, Loose Plates etc. for M.H. 27" Cylinder 5' – 0" Stroke.	March 27 th . 1884.
0281/161	8312	Drawing of Wrot Iron Work for 5" Ram Pumps 8" Stroke for J.A.	March 21 st . 1884.
0281/162	8299	Drawing of Crank Shaft Pedestal. 12" dia. 22" long for A.T.	March 10 th . 1884.
0281/163	8297	Drawing of Quadrant for a pair of Winding Engines with cylinders 32" dia. 5ft. Stroke for A.T.	March 26 th . 1884.
0281/164	8292	Drawing of indicating Tackle for 5' – 0" Stroke for H.O.M.	March 14 th . 1884.
0281/165	8404	Drawing of Valve Work fro High & Low	June 17 th .

		Pressure Cylinders. 28" & 52" dia. 6' – 0" Stroke for UB.	1884.
0281/166	19183	Drawing of Crank Shaft Pedestel Neck 15" x 30 for H36? And for C109.	Sept. 16 th .? & May 19 th . 1899.
0281/167	19182	Drawing of Cast Steel Side Levers for a vertical compressing engine for H36 . And for C109 .	Oct. 5 th . 1898. & May 18 th . 1899.
0281/168	19181	Drawing of Steel Connecting Rod for vertical compound steam engine for H36, And for C109. And for H161.	Sept. 10 th . 1898, May 18 th . 1899. & Feb. 5 th . 1902.
0281/169	19180	Drawing of Piston Rod Sockets, Links & Piston Rods for H36.	Nov. 17 th . 1898.
0281/170	19174	Drawing of High & Low Press. Eccentric & Coupling Rods for B.145 .	Oct. 22 nd . 1898.
0281/171	19172	Drawing of Governor Gear Applied to Bates Engine for B.145 .	Oct. 19 th . 1898.

0281/172	19165		Drawing of Rocking Lever for L.P. Cylinder for B145 .	Oct. 14 th . 1898.
0281/173	19163		Drawing of L.P. Carrier Levers for Bates Corliss Engine for B145 .	Oct. 13 th . 1898.
0281/174	19159	Peter Crook.	1 Delivery Valve (in parts).	Sept 27 th . 1898.
0281/175	19157	A. & G. Murray Limited.	Drawing of Pedestal for Air Pump Shaft. 5 7/8" Dia. 11 1/8" Long.	Sept 19 th . 1898.
0281/176	19156	A. & G. Murray Limited	Drawing of Drag Crank, Pin, Clip and Steps.	Sept. 16 th . 1898.
0281/177	19151		Drawing of Warming and Draining Pipes for \$\$27 .	Sept. 6 th . 1898.
0281/178	19148		Governor Tackle etc. for No. 67 MILL.	Sept. 10 th . 1898.
0281/179	19147		Drawing of Safety Gear for 67 MILL.	Sept. 9 th . 1898.
0281/180	6683		Drawing of Corliss Valves, Bonnets etc. for 22 Cylinder 5ft. Stroke for No. 16 MILL.	Aug 23 rd . 1881.
0281/181	6683		Drawing of Corliss Valves, Bonnets etc.	March 17 th .

		for H.P. Cylinder 22" dia. 5' – 0" Stroke for No. 16 MILL.	1880.
0281/182	11103	Drawing of 60 ins: Piston for L.P. Cylinder for H41.	1890.
0281/183	2918	Drawing of Surface Condenser for L.102/03.	May 12 th . 1904.
0281/184	2917	Drawing of Air Pump and Condenser for H179/04.	Aug. 5 th . 1904.
0281/185	2916	L.P. Cylinder 90 revs. 38" dia. 3' 0" Stroke for H179/04.	Aug. 10 th . 1904.
0281/186	2915	H.P. Cylinder 18½" dia. 3' – 0" Stroke. 165lbs. press. 90 revs. for H179/04.	July 19 th . 1904.
0281/187	2914	Drawing of 10" Horizontal Air Pump 3' – 0" Stroke for C181/04.	Aug. 6 th . 1904.
0281/188	2914	Drawing of 10" Horizontal Air Pump 3' – 0" Stroke for C181/04.	Aug. 8 th . 1904.
0281/189	2913	35" L.P. Cylinder 3' – 0" Stroke for C181/04.	July 6 th . 1904.
0281/190	2912	Drawing of 19½" H.P. Cylinder for C181/04. 3' – 0" Stroke.	July 8 th . 1904.

0281/191	2910		H.P. Cylr. Chain For Beam Engine	May 23 rd .
			N.C.M. [Blueprint].	1904.
0281/192	2909		Drawing of Surface Condenser for B.J.12/03.	May 20 th . 1904.
0281/193	2907		Drawing of Air Pump 16" Dia. x 15" Stroke and Surface Condenser for A44/04. & A44/06.	June 20 th . 1904?
0281/194	2906		37" L.P. Cylinder 3' – 0" Stroke for A44/04. & A44/06.	May 18 th . 1904.
0281/195	11333		Drawing of Back Slide and Beam for 32 H.P. Cyl. for H41.	May 1 st . 1890.
0281/196	1226	R. Fletcher & Sons.	Drawing of Air Pump & Condenser.	Nov 19 th . 1877.
0281/197	1225	The Britannia Spinning & Manufacturing Co. Ltd.	Drawing of Cylinder etc.	Nov.16 th . 1877.
0281/198	1228	Wm. Johnson. Esq. Wigan.	Drawing of Shell for Air Pump.	Dec. 20 th . 1877.
0281/199	1227		Drawing of Air Pump Condenser etc. for THC.	Nov. 29 th . 1877.

0281/200	8016	Drawing of Spring [Chamber?] for S.2. 17" Cylinder 3' – 0" Stroke.	n/d
0281/201	8014	Drawing of Governor Pillar, Fixings etc. for K.B.	June 12 th . 1883.
0281/202	8010	Drawing of Governor Fixings for W. I. Work etc. for L.	June 12 th . 1883.
0281/203	8006	Drawing of Governor Stand & Gearing for No. 15 Mill.	June 9 th 1883.
0281/204	8004	Drawing of Wrot Iron Work for working Cut of Valves for L.	June 6 th . 1883.
0281/205	7202	Drawing of Cold Water Pump Bucket etc. for F.M.	June 1 st . 1881
0281/206	7204	Drawing of Radius Pedestals for a 25" Cyldr. for No. 123 Mill.	June 3 rd . 1881.
0281/207	7205	Drawing of Gearing for Working Lubricators for FM .	June 3 rd . 1881.
0281/208	7211	Drawing of Valves & Bonnets for L.P. Cylinder 54" dia. 6' – 0" Stroke for No. 13 Mill.	June 8 th . 1881.
0281/209	7210	Drawing of Corliss Valves Bonnets etc.	June 7 th .

		for No. 13 Mill.	1881.
0281/210	7209	Drawing of Gearing for Working Indicator for FM. And 77Mill, 107Mill, 144Mill, 184Mill, B11, FB No.2 & TJL.	June 7 th . 1881. Jan 5 th . 1882. April 13 th . 1887.
0281/211	8319	Drawing of Governor Stand & Pillar for M.H.	March 20 th . 1884.
0281/212	[No number]	Drawing of Corliss Valves & Bonnets for a 46" L.P. Cylinder 5' – 0" Stroke for B38. And B52.	May 25 th . 1889. Aug. 20 th . 1890.
0281/213	11001	Corliss Valves and Bonnets for 26" H.P. Cylinder 6" – 0" Stroke for B38. And P31.	Aug 29 th . 1889. March 25 th . 1891.
0281/214	19041	Drawing of Eccentric & Coupling Rods for C.89. And W110. And H36. Attached to drawing a Blueprint No. 37297. H.P. Ex Eccentric Rod for W110/13.	n/d. May 1901. May1916.
0281/215	19040	Drawing of Entablature for C.89.	June 20 th .

			1898.
0281/216	19036	Drawing of Governor Stand & Gear for C89.	June 23 rd . 1898.
0281/217	11137	Drawing of Crosshead, Back Slide Block, Slides Etc. for SS.40/09. (Blueprint).	May 12 th . 1909.
0281/218	11141	Drawing of 30" Air Pump Bucket for \$\$40.	Oct. 29 th . 1889.
0281/219	11143	Drawing of Indicator Gear for SS40 . And SS50 .	Dec. 18 th . 1889.
0281/220	11019	Drawing of Gearing for working Indicator for a Horizontal Compound Tandem Steam Engine for H33 .	Sept. 9 th . 1889.
0281/221	11023	Beam, Plate, etc. for 15" H.P. Cyl. 4' – 0" Stroke, for G24.	Sept 16 th . 1889.
0281/222	11024	Governor Shaft, Pedestals, Stands, etc. for G24.	Sept. 13 th . 1889.
0281/223	8336	Drawing of a 9" Clack Box for Injection Pipes for C.C.	April 15 th . 1884.
0281/224	1234	Air Pump Condensers etc. for O .	March 7 th .

			1878.
0281/225	1233	Cylinders for O.	Feb. 20 th . 1878.
0281/226	1232	H.P. Cylinder for O .	Feb. 18 th . 1878.
0281/227	1231	L.P. Cylinder for No. 123Mill.	March 22 nd . 1878.
0281/228	1230	Cylinder for TG .	March 22 nd . 1877.
0281/229	1229	Cylinder etc. No.2 Engine for F. [Two drawings with the same number fastened together].	Dec 24 th . 1877. Sept. 6 th . 1888.
0281/230	1235	Air Pump Condenser etc. for No. 123Mill.	March 26 th . 1878.
0281/231	1236	H.P. Cylinder for No. 154Mill. And No. 168Mill.	April 3 rd . 1878.
0281/232	2399	Drawing of 36" L.P. Cylinder. 4' – 01/4" Stroke for M155 .	July 28 th . 1896.
0281/233	2398	Drawing of Int. Press. Cylinder 221/2"	July 30 th .

		dia. 4' – 01/4" Stroke for M155.	1896.
0281/234	2397	Drawing of 16½" H.P. Cylinder, 3' – 5½" Stroke for M155.	July 27 th . 1896.
0281/235	2394	Air Pump & Condenser for R49.	July 20 th . 1896.
0281/236	2393	43" Low Press Cylinder 3' – 6" Stroke for R49 .	July 4 th . 1896.
0281/237	2392	Drawing of 27" Inter Press. Cylinder. 3' – 0" Stroke for R49.	July 7 th . 1896.
0281/238	2391	17" high Pressure Cylinder 3' – 6" Stroke for R49 .	July 9 th . 1896.
0281/239	2388	Inter. Cylinder. 22" dia. 4' – 0" Stroke for M.99 & M. 150.	June 25 th . 1896.
0281/240	2389	Drawing of 24" Air Pump 17" Stroke and Condenser for M.99 & M150 .	July 9 th . 1896.
0281/241	2387	Drawing of High Press. Cyl.14" dia. 4' – 0" Stroke for M99 & M150.	July 1 st . 1896.
0281/242	2350	1 – 44 Low Press. Cylinder 4' – 0" Stroke for SS.37. No. 2 Engine.	March 5 th . 1896.

0281/243	2351	Drawing of Air Pump & Condenser 30" Dia. 16" Stroke for \$\$37.	Feb. 14 th . 1896.
0281/244	2353	Air Pump 17" dia. 10" Stroke for A40. N.D.C. Engine.	March 19 th . 1896.
0281/245	2359	AIR PUMP and CONDENSER for No. 192 MILL.	April 8 th . 1896.
0281/246	2360	New Valve Box for K42. Cylinder 22" dia. 3' – 6" Stroke.	March 12 th . 1896.
0281/247	2361	Drawing of 16" H.P. Cyl. 3' – 6" Stroke for M.80.	March 20 th . 1896.
0281/248	2363	Air Pump 20" dia. 16" Stroke and Condenser for M.80.	March 24 th . 1896.
0281/249	2365	26" Intermediate Cylinder 5' – 0" Stroke for A 38.	April 24 th . 1896.
0281/250	2366	Drawing of 40" Low Pressure Cylinder 5' – 0" Stroke for Triple Expan. Engine for A.38 .	April 13 th . 1896.
0281/251	2370	1 H.P. Cylinder for M.96. And M.158. And M.160.	May 5 th . 1896.

0281/252	2367	Drawing of Bucket & Plunger Air Pump for A38.	May 7 th . 1896.
0281/253	2372	Air Pump and Condenser for F. 54.	June 4 th . 1896.
0281/254	2373	1 L.P. Cylinder for M.96. And M.158. And M.160.	May 6 th . 1896.
0281/255	2377	17" Air Pump 15" Stroke and Condenser for M.96 . And M.160 .	May 22 nd . 1896.
0281/256	2381	Drawing of 13" H.P. Cylinder for K.44 .	June 19 th . 1896.
0281/257	2374	Drawing of 27" H.P. Cylinders 36" Stroke for S98.	May 20 th . 1896.
0281/258	19006	Drawing of 6" Stop Valve etc. for FROST.	n/d
0281/259	19185	Drawing of Enablature Beam for H36 .	Sept. 29 th . 1898.
0281/260	19186	Drawing of Connecting Rod etc. for a 38" Air Pump 15" Stroke for H36.	Oct. 7 th . 1898.
0281/261	19187	Arrangement of 4" D.A. Feed Pump 10"	Oct. 6 th .

		Stroke for H36 .	1898.
0281/262	19115	Drawing of Safety Gear for SS 27.	Aug.17 th . 1898.
0281/263	19117	Drawing of Steam & Waste Water Piping for H.P. Cylinder Covers & Jacket for SS129.	Aug. 16 th . 1898.
0281/264	19118	Bed Plate for H.P. Cylinder and Back Slide for SS. 149.	Aug. 16 th . 1898.
0281/265	19123	Drawing of Injection Tackle for SS27 .	Aug. 25 th . 1898.
0281/266	19130	Foundation Plates for H.P. Cylinder and Cross Shaft for H.126.	Aug. 31 st . 1898.
0281/267	19114 & 19114A	Governor Stand & Gear for SS27 . Blueprint attached. Bevel Wheels for Governor for SS27/11 .	Aug.15 th . 1898.
0281/268	19007	Drawing of Back Pedestal. Neck 10" dia. 16" Long for No. 154 Mill.	June 30 th . 1898.
0281/269	15646	Drawing of Cast Steel Side Levers for a pair of Triple Exp. Steam Engines. H.P. Cyl. 21½" dia. 3' – 10½" Stroke. Int. 30½" dia. L.P. 47½" dia. 4' – 6"Stroke for No.123 Mill. And No. 74 Mill.	May 1 st . 1895.

		And No. 13 Mill.	
0281/270	156454	Drawing of Bedplate for a Triple Exp. Steam Engine for No. 123 Mill.	May2nd. 1895.
0281/271	15643	Drawing of Connecting Rod for Triple Exp. Eng. Cyls. 21½", 30½", 47½" dia. 4' – 6" Stroke for No.123 Mill. And No. 74 Mill.	Feb. 5 th . 1896.
0281/272	15638	Drawing of Wrot. Iron Work for 3½" Double Acting Pump 12" Stroke. T.P.	May 13 th 1895.
0281/273	15636	Wrot Iron Work Air Pump 28" (29") dia.16" Stroke for \$59. And \$\$48. And \$\$130. And \$\$110/08.	May 11 th . 1895.
0281/274	2349	1 – 44" Low Press. Cylinder for SS.37 No. 1 Engine.	Feb. 24 th . 1896.
0281/275	2348	Drawing of 38" Int. Cylinder for SS37.	Feb. 20 th . 1896.
0281/276	2347	Drawing of 24" H.P. Cylinder for SS37.	Feb. 24 th . 1896.
0281/277	2346	Air Pump 32" dia 18" Stroke &	Feb.13 th .

		Condenser for No. 74 Mill.	1896.
0281/278	2345	24" Air Pump and Condenser 17" Stroke for M95. & M100.	Feb. 22 nd . 1896.
0281/279	2344	[Drawing of Cylinders]. For M.95. And M 100.	Feb 4 th . 1896.
0281/280	2343	1 Int. Cylinder, 22" dia., 4' – 0" Stroke for M.95. And M 100.	Feb. 4th. 1896.
0281/281	2342	1 H.P. Cylinder 14" dia. 4' – 0" Stroke for M.95. And M100.	Feb. 2 nd . 1896.
0281/282	2341	Air Pump and Condenser for No. 128 Mill.	Feb. 9 th . 1896.
0281/283	2340	Air Pump 23"dia. x 16" Stroke for C.77.	Jan. 31 st . 1896.
0281/284	2339	35" Low Press. Cylinders 3' – 6" Stroke for C.77.	Jan. 31 st . 1896.
0281/285	2338	18" High Press. Cyl. 3' – 6" Stroke for C 77.	Jan. 31 st . 1896.
0281/286	2336	Drawing of Air Pump & Condenser for	Jan 31 st .

		190 Mill.	1896.
0281/287	2335	Drawing of 17" H.P. Cyl. 2' – 6" Stroke for No. 190 Mill.	Dec. 31 st . 1895.
0281/288	2334	Drawing of Air Pump and Condenser for M.78.	Dec. 23 rd . 1895.
0281/289	18937	Bed Plate for Vertical Triple Exp. Engine. Cyls. 13", 18½" and 29" dia. 2' – 7" and 3' – 0" Stroke. For A.44.	June 14 th . [1898].
0281/290	2933	H.P. Cylinder 17½" dia. 3' – 0" Stroke 140lbs. Press. 95 Revs. for K 69/04.	Feb. 21 st . 1905.
0281/291	2932	Drawing of 22" H.P. Cylinder 5' – 0" Stroke for C186/05.	Jan. 12 th . 1905.
0281/292	2934	Drawing of 34" (34 1/8") L.P. Cyl. 3' – 0" Stroke for K.69/04.	Feb. 18 th . 1905.
0281/293	2936	Valve Sections for a 31" x 3' – 6"H.P. Cylr. For C152/05.	Feb. 9 th . 1905.
0281/294	2936	31" H.P. Cylinder 3' – 6" Stroke for C152/05.	Feb. 10 th . 1905.
0281/295	15581	Drawing of Corliss Valve Bonnets etc. for 12½" dia. Cyls. By 3' – 0" Stroke for S.96.	April 29 th . 1895.

0281/296	15579	Drawing of L. P. Foundation Plate for	April 26 th .
0201/290	13379	S.96. Cylinders 12½ and 25 Dia. 3' - 0" Stroke.	1895.
0281/297	15578	Drawing of H. P. Foundation Plate for S.96. Cylinders 12½" and 25" Dia. 3' - 0" Stroke. 96 Revs.	April 29 th . 1895.
0281/298	15557	Drawing Of Pipes, Receiver, etc. \$.59 .	May 13 th . 1895.
0281/299	15556	Governor Stand for S.59 .	May 23 rd . 1895.
0281/300	15555	Corliss Valves & Bonnet for 20" High Press Cylinder for S.59 . And 74 . Mill. And SS.130 . And SS.110 . And No. 13 Mill . And 123 . Mill. And Refers to B1761 .	April 30 th . 1895.
0281/301	15547	[Title Lost]. Drawing shows Crosshead, Levers, Rods, etc. for S.59 . And SS110 .	April 9 th . 1895.

			And SS130. And SS130/15. And SS110. And SS110/98. And B1761. AndEJ1108/35.	
0281/302	15590		Governor Stand Levers, etc. S96.	May 3 rd . 1895.
0281/303	15629		Drawing of 4" Double Acting Feed Pump 12" Stroke. 3½" Dia. 12" Stroke for T.P. 4" Dia. 9" Stroke for B110.	May 10 th . 1895.
0281/304	15649		Drawing of Crank Shaft Pedestal. 17" Dia. 34" Long. No. 123 Mill.	May 3 rd . 1895.
0281/305	15648		Crossheads, Links, etc. No. 123 Mill. And 74 Mill. And B468/17.	April 23 rd . 1895.
0281/306	1749		25¾" H. P. Cylinder for BROOKE.	May 5 th . 1888.
0281/307	8264	Messrs Pilkington Bros.	Drawing of 30" Air Pump Bucket.	Feb 13 th . 1884.
0281/308	8263		Drawing of Governor Stand Pillar	April 17 th .

		Fixings and W. I. Work for Governor for EW .	1884.
0281/309	8261	Drawing of Wrot Iron Work for working L. P. Corliss Valves. EW.	April 29 th . 1884.
0281/310	8260	Drawing of Wrot Iron Work for Working H. P. Corliss Valves. EW.	April 28 th . 1884.
0281/311	8255	Drawing of Gearing for Working Indicators for H.C.	Feb. 4 th . [1884].
0281/312	8251	Drawing of W. I. Work etc. for BLD .	Feb 7 th . 1884.
0281/313	8250	Drawing of Fixings Governor Bush etc. for BLD .	Feb. 4 th . 1884.
0281/314	8248	Drawing of Crank Shaft Pedestal. 13 inch Dia. 24" long for R. C. S.	n/d.
0281/315	8244	Drawing of a 4½ in. Governor. No.4 Size for H.C.	Jan. 25 th . 1884.
0281/316	8241	Drawing of Air Pump Slides, Blocks, etc for J A .	n/d.
0281/317	8240	[Title Lost]. Drawing shows Wheels, Eccentrics and Fixings for 41/4 " Pump,	n/d.

			8" movement.	
0281/318	8239		Drawing of Cross Armed Governor with 4" Balls for HOM . And BE . And F.B .	March 7 th . 1884.
0281/319	8238		Drawing of Governor Fixings, Wheels, etc. for H.C.	Jan. 25 th . 1883.
0281/320	8233		Drawing of Gearing for Working Indicators for P. And G.S.	Jan 18 th 1884.
0281/321	8232	Messrs. Counsell & Company.	Drawing of Crank Shaft Pedestal 7½" dia. 11" long.	Jan 18 th . 1884.
0281/322	8229		Drawing of Safety Gear W. I. Work for Governor etc. for BLD .	Jan. 29 th . 1884.
0281/323	8225		Drawing of 10" Stop Valve Box and Injection Tackle for P .	Jan 28 th . 1884.
0281/324	8222		Drawing of Foundation Plate for 29 in. L. P. Cylinder 3' 0" Stroke for H.C.	Jan 14 th . 1884.
0281/325	8213		Drawing of Governor Pillar Stand & Gearing for P. And G.S.	April 8th. 1884.

0281/326	7212		Drawing of Levers for Working Valves for H. P. & L. P. Cylinders for No. 13 Mill.	n/d.
0281/327	6688		Drawing of 10½" Cold Water Pump 2' 3" Stroke. Bucket, Clack, etc. for No. 16 Mill.	April 22 nd . 1880.
0281/328	6687		Drawing of Connecting Rods etc., for a Horizontal Compound Steam Engine. Cylinders 22" & 37" dia., 5' - 0" Stroke for No. 16 Mill.	April 16 th . 1880.
0281/329	6684		Drawing of L. P. Corliss Valves & Bonnets for 37" Cylinder, 5ft. Stroke for No. 16 Mill.	Aug 22 nd . 1881.
0281/330	6684		Drawing of L. P. Corliss Valves & Bonnets for 37" Cylinder, 5ft. Stroke for No. 16 Mill.	March 18 th . 1880.
0281/331	10461		Drawing of Air Pump Overflow Pipe for C.20.	March 25 th . 1889.
0281/332	10461	H. Hoyle & Co. Melrose Mill.	Drawing of Crosshead for Air Pump & Glands & Bushes for Valve Boxes.	Dec 18 th . 1888.
0281/333	10465		Corliss Valves and Bonnets for H. P.	Dec. 19 th .

			Cylinder 19" diam. 4' - 0" Stroke for W23. And D28. And E3188.	1888.
0281/334	10466		Drawing of Slide Valve Rod Guide for W23.	Dec. 27 th . 1888.
0281/335	10471		Arrangement of Governor Gear Applied to Present Governor for W.23.	Feb. 12 th . 1888.
0281/336	10472		Drawing of Alteration to Governor Gear for B24 .	Dec. 22 nd . 1888.
0281/337	10473	R. Briercliffe & Co. Limtd. Moses Gate.	Drawing of Air Pump Rod, Crosshead etc. for No. 2 Engine.	Dec. 24 th . 1888.
0281/338	10475		Drawing of H. P. Air Cylinder etc. for W.23.	Dec.27 th . 1888.
0281/339	10476	R. Briercliffe & Co. Limited.	Drawing of Air Pump Tackle for No. 1 Engine.	Dec 28 th . 1888.
0281/340	10488		Drawing of Governor Stand Fixings etc for FISH .	Jan. 14 th . 1888.
0281/341	10483		Blueprint of Foundation Plate for a Horizontal Steam Engine. Dia. of Cyl. 14ins. Stroke 24ins. For H28.	Jan. 11 ^{th.} 1889.

0281/342	8273	Drawing of Musgrave's Patent Corliss Valves Traverse Motion, Valves etc for CC. 38" L. P. Cylinder.	Feb. 28 th . 1884.
0281/343	8269	Drawing of Musgrave's Patent Corliss Valves Traverse Motion, Valves etc for CC. 22" H. P. Cylinder.	Feb. 26 th . 1884.
0281/344	10503	Drawing of W. I. Work for Corliss Valves for SS28. H. P. Cylinder 35" dia. 7' - 0" Stroke. L. P. Cylinder 60" dia 7' - 0" Stroke.	Jan. 30 th . 1889.
0281/345	10504	Drawing of Back Slides for SS28. H. P. Cylinder 35"dia. L. P. Cylinder 60" dia. 7' - 0" Stroke.	Jan. 28 th . 1889.
0281/346	10505	Drawing of Connecting Rod for SS28. Cylinders 35" & 60" dia. 7' – 0" Stroke	Dec. 15 th . 1888.
0281/347	19030	Drawing of Corliss Valves & Bonnets for C.89. HP.	June 17 th . 1898.
0281/348	11104	Drawing of Injection Tackle. Valve, Pipe etc. for H.41 .	Nov. 18 th . 1889.
0281/349	11105	Drawing of 10" Slide Wedge Stop Valve for H.41.	Dec. 2 nd . 1889.

0281/350	11106	Drawing of L. P. Rocking Levers. For H.41.	Nov. 15 th . 1889.
0281/351	11110	Drawing of Packing Stages, Stairs etc. for SS32. [Drawing is in two parts].	Nov. 21 st . 1889.
0281/352	11111	Drawing of Flooring etc. for SS32.	Nov. 25 th . 1889.
0281/353	11113	Drawing of Crank Shaft Pedestal. Neck 17" dia. 2' – 10" long for H41. And I21. And SS39. And H91. And B110. And SS30. And EJ 8358/38.	Nov. 23 rd . 1889.
0281/354	11117	Drawing of Slide Block, Valve, Spindles for Single Spindle Slip Motion for I.S.P.	Nov. 27 th . 1889.
0281/355	11118	Drawing of W. I. Piping for Jackets for \$\$32.	Dec. 2 nd . 1889.
0281/356	10506	Drawing of Crosshead Slide Blocks etc. for SS28. Cylinders 35" & 60" dia. 7' – 0" Stroke.	Dec. 17 th . 1888.

0281/357	10510		Drawing of 30" Air Pump Bucket for SS28.	Jan. 9 th . 1888.
0281/358	10514		Drawing of 11" Slide Wedge Stop Valve and Injection Tackle for SS28 .	Feb. 5 th . 1889.
0281/359	10518		Drawing of Gear for Indicators for SS28.	Feb. 8 th . 1889.
0281/360	10520		Drawing of Covers for L.P. Cylr. for SS28.	n/d.
0281/361	10525		Drawing of Crank Shaft Pedestal for B22 .	Jan. 15 th . 1888
0281/362	10528		Drawing of Cross-head Slide Block & Piston Rods B22 .	Dec. 22 nd . 1888.
0281/363	10529		Drawing of Connecting Rods for a Horizontal Compound Steam Engine with Cylinders 28" & 50" dia. 5' – 0" Stroke for B22 . And SS50 .	n/d
0281/364	10344		Drawing of 6" Slide Wedge Stop Valve Box & Injection Tackle for B24.	Oct. 1 st . 1888.
0281/365	10349	Lee Spy Co. Atherton	Drawing of Connecting Rod etc. for Horizontal Tandem Steam Engine with	Sept. 3 rd . 1888.

		Cyl. 18" & 34" dia. 4' – 0" Stroke for No.7.	
0281/366	10355	Drawing of Corliss Valves and Bonnets for H. P. Cylinder 18" dia. 4' – 0" Stroke for No.7 . And H.58 .	Sept. 17 th . 1888.
0281/367	10356	Drawing of Corliss Valves and Bonnets for L. P. Cylinder 34" dia. 4' – 0" Stroke for No.7.	Sept. 19 th . 1888.
0281/368	10358	Drawing of Air Cylinder, Slide and Block, etc. for L.P. Cylinder for No. 7.	Sept. 21 st . 1888.
0281/369	10359	Drawing of Pedestals & Fixing for Carrying Diagonal and Cross Shafts for No.7.	Sept. 15 th . 1888.
0281/370	10360	Drawing of Governor Stand, W. I. Work, etc. for No.7.	Oct. 1 st . 1888.
0281/371	10362	Drawing of 6" Stop Valve & Injection Tackle for No.7 .	Nov. 27 th . 1888.
0281/372	10368	Drawing of Details of Back End Framing and Back Slide for H. P. Cylinder for C.20.	Jan. 19 th . 1889.

0281/373	10370		Drawing of Wrought Iron Crank for C.20.	Oct. 9 th . 1888.
0281/374	10371		Drawing of Crank Shaft for C.20.	Oct. 10 th . 1888.
0281/375	10372		Drawing of Connecting Rod, Crosshead, etc. for Horizontal Compound Steam Engine. Cylinders 33ins. and 63ins. dia. 7' – 0" Stroke. for C.20.	Dec. 5 th . 1888.
0281/376	10375		Slide Block and Air Cylinder for H. P. Cylinder 33" dia. for C.20.	Oct.2 nd . 1888.
0281/377	10376		Slide Block and Air Cylinder for L. P. Cylinder 63" dia. for C.20.	Oct. 3 rd . 1888.
0281/378	10377		Rocking Levers for H. P. and L. P. Cylinders for C. 20.	Oct. 8 th . 1888.
0281/379	8484	The Whitelands Twist Co. Limited.	Rearrangement of Governor Gearing.	July 30 th . 1884.
0281/380	8480		Drawing of Corliss Valves, Bonnets, etc. for H. P. Cylinder 25" dia 5' – 0" Stroke for C. A.	July 23 rd . 1884.
0281/381	8405		Drawing of Governor Stand Pillar	Aug. 30 th .

		Fixings etc. for UB .	1884.
0281/382	11161	Drawing of Governor Stand W. I. W. etc. for C 30.	Dec 10 th . 1889.
0281/383	10418	Drawing of Knock off Motion for a pair of Beam Engines for K21 .	Oct. 30th. 1888.
0281/384	8329	Drawing of Cross Armed Governor with 5" Balls for G B S. And SS. And W. And B.B. And DS. And EW. And C.A. And JC. And WB. And WB. And No.123 Mill.	April 4 th . 1884.
0281/385	8328	Drawing of Slide Fixing for Single Spindle Slip Motion for KP . And I.S.P .	April 10 th . 1884.
0281/386	8327	Drawing of Slide Blocks, Valve Spindles, etc for Single Spindle Slip Motion for KP .	n/d
0281/387	11193	Drawing of 36ins. Air Pump Bucket etc.	Jan. 17 th .

		for SS.50 .	1889.
0281/388	11191	Drawing of Back Slides for Compound Engine for SS50. L. P. Cyl. 50" dia, H. P. Cyl. 25" dia 6' – 0" Stroke.	Jan. 28 th . 1890.
0281/389	11190	Drawing of Crosshead, Slide Blocks & Piston Rods etc. for SS50.	Jan. 15 th . 1890.
0281/390	11186	Drawing of Rocking Levers for L. P. Cylinder 50" dia. 6' – 0" Stroke. for SS50.	Jan. 11 th . 1890.
0281/391	11185	Drawing of H. P. Rocking Levers. Cylinder 25" dia. 6' – 0" Stroke for \$\$50.	Jan. 17 th . 1890.
0281/392	11183	Drawing of Trunk Frame for 50" L. P. Cyl. – 6' – 0" Stroke for SS50.	n/d
0281/393	11182	Drawing of Trunk Frame for 25" H. P. Cyl. – 6' – 0" Stroke for SS50.	Jan. 29 th . 1890.
0281/394	11181	Drawing of Crank Shaft Pedestal. 14"dia. 2' – 4" Long for SS50 . And B103 .	Jan. 13 th . 1890.
0281/395	11179	. Drawing of Wrt. Iron Drag Crank and	Jan. 7 th .

			Crank Pin for P27 .	1890.
0281/396	11178		Drawing of Bed Plate for Carrying New Drag Crank Shaft Pedestal for P27 .	Dec. 31 st . 1889.
0281/397	11175	A. KNOWLES & SONS LTD.	Drawing of 32" Piston.	Dec. 28 th . 1889.
0281/398	11173		Drawing of Eccentric & Coupling Rods for H. P. & L. P. Cylinders for SS40.	Dec. 19 th . 1889.
0281/399	11170	Messrs. Hetherington & Sons.	Drawing of Gearing for Working Indicator on H. P. & L. P. Cylinders for H & S.	Dec. 17 th . 1889.
0281/400	11169		Drawing of Gearing for Working Indicator for Horizontal Compound Engine for C. 30.	Dec. 17 th . 1889.
0281/401	11165		Drawing of a 29 in. Air Pump Bucket for C30.	Nov. 21 st . 1889.
0281/402	11162		Drawing of 7" Slide Wedge Stop Valve box & Injection Tackle etc. for C 30.	Dec. 12 th . 1889.
0281/403	10459		Drawing showing Arrangement of Hot Water Pump, Pipes and Details for H. H. ?	Dec. 10 th . 1888.
0281/404	8176		Drawing of Governor Stand Fixings,	Feb.27 th . 1884.

		W. I. Work etc. for CC.	
0281/405	1576	Drawing of Air Pump & Condenser for No.1 Engine and No. 2 Engine for CD.	June 27 th . 1884.
0281/406	1582	Drawing of Air Pump 16" dia. 18½" Stroke Condenser 19" dia. for W.C.No.1.	Aug. 16 th . 1884.
0281/407	1581	1 Cylinder for R.H.A.	Aug 11 th . 1884.
0281/408	1586	Drawing of 2 – 40" H. P. Cylinders for T.H.G.	Sept. 5 th . 1884.
0281/409	1587	1 H. P. Cylinder for W.C.No.2.	Sept. 27 th . 1884.
0281/410	1588	1 High Pressure Cylinder for J.C.	July 8 th . 1885.
0281/411	1588	Drawing of High Pressure Cylinder for J.C.	July 8 th . 1885.
0281/412	1589	Drawing of Horizontal Air Pump & Condenser 6 in. dia. 4ft. 0in. Stroke for W.C.No.2.	Oct. 14 th . 1884.
0281/413	1500	Drawing of 30" H. P. Cylr. 5' – 0" Stroke	Oct. 16 th .

			for M.B.C.	1884.
0281/414	8054		Drawing of Eccentric Coupling Rods for A.	n/d.
0281/415	8049		Drawing of Levers for working Valves for High & Low Pressure Cylinders for A .	July 17 th . 1883.
0281/416	8048	Messrs. Winder & Mc.Kean.	Drawing of Fixings, Governor Bush etc.	July 17 th . 1883.
0281/417	8047	Messrs. Winder & Mc.Kean.	Drawing of Governor Pillar, W. I. Work etc.	July 16 th . 1883.
0281/418	8044		Drawing of a 42" Patent Air Pump Bucket for G.B.S.	July 12 th . 1883.
0281/419	8032	Messrs. James Kenyon & Son Bury.	Drawing of Pedestals Framing, Shafts etc. for Working Present Cold Water Pump.	Sept. 4 th . 1883.
0281/420	8031	Messrs. James Marsden & Sons.	Drawing of Oil Cylinder Wrot Iron Work etc.	July 2 nd . 1883.
0281/421	8030		Drawing of Governor Pillar, Fixings etc. for BMC .	July 2 nd . 1883.
0281/422	8028		Drawing of Rocking Levers for Tandem	June 25 th .

			Engines 24" & 40"cylinders 5ft. Stroke for B.M.C.	1883.
0281/423	8025		Drawing of Fixings Governor Bush etc. for MG . And B.M.C . And K.B .	n/d.
0281/424	8107		Drawing of Governor Stand Pillar & Gearing for GBS .	April 3 rd . 1884.
0281/425	8105		Drawing of Wrot Iron Work for Working Cut off valves for No.76 Mill.	Sept. 4 th . 1883.
0281/426	8101		Drawing of Levers for working H. P. Corliss Valves for GBS .	Sept. 18 th . 1883.
0281/427	8099		Drawing of Corliss Valves & Bonnets for H. P. Cylinder 34" dia. 7' – 0" Stroke for GBS.	Aug. 31 st . 1883.
0281/428	8095	Messrs. Barlow & Jones Ltd.	Drawing of New Hotwell for Old Air Pump.	Aug. 28 th . 1883.
0281/429	8092		Drawing of a 62" L. P. Piston for GBS.	Sept. 14 th . 1883.
0281/430	8084		Drawing of Connecting Rod etc. for a Horizontal Compound Steam Engine.	Aug. 22 nd . 1883.

		Cylinders 34" & 62" dia. 7' – 0" Stroke for GBS .	
0281/431	8082	Drawing of 4½" Pump 5½" Stroke, Fixings & Crank for RS .	Aug. 20 th . 1883.
0281/432	8081	Drawing of Levers for working L. P. Corliss Valves for GBS .	Aug 28 th . 1883.
0281/433	8078	Drawing of Corliss Valves for L. P. Cylinder 62" dia. 7' – 0" Stroke for GBS .	Aug. 18 th . 1883.
0281/434	8076	Drawing o9f Spring Box for No.135 Mill. 28 ½" Cyl. 4' – 0" Stroke.	Aug. 18 th . 1883.
0281/435	8073	Drawing of Crank Shaft Pedestal 16" dia. 2' – 8" Long for A.	Aug. 16 th . 1883.
0281/436	8070	Drawing of Foundation Plate for a Horizontal Condensing Steam Engine with Cylinder 25 in. dia. 4' – 0" Stroke. Air Pump 19" dia. 18½" Stroke for No.166 Mill 2.	Aug. 8 th . 1883.
0281/437	8069	Drawing of Governor Stand etc. for No.166 Mill No.2.	Aug. 16 th . 1883.
0281/438	8067	Drawing of Crank Shaft Pedestal Necks 9" x 16" Long for 166 Mill 2.	Aug. 7 th . 1883.

0281/439	8065	And F.W.M. And B11. And H. Drawing of 4¾" Improved Governor No.5 Size. 228 Revolutions per minute	Aug. 7 th . 1883.
0281/440	8059	Drawing of W. I. Work for Governor Safety Gear for A. And EW. And J.C. And ME. And GBS. And HB. And 123 Mill. And P. And CA. And DS. And UB. And 166 Mill. And Garnett.	July 28 th . 1883.
0281/441	8057	Drawing of 35 Air Pump Bucket for A.	July 31 st . 1883.
0281/442	8058	Drawing of Fixings Governor Bush etc. for A . And EW . And JC .	July 26 th . 1883.

			And GBS. And HB. And 123 Mill. And P. And DS. And UB. And 96 Mill. And Garnett.	
0281/443	8056		Drawing of Governor Pillar Fixings for A. And Garnett.	July 24 th . 1883.
0281/444	8175		Drawing of Valve Work for High & L. P. Cylinders. 22" & 38" dia. 5' – 0" Stroke for CC.	Dec. 11 th . 1883.
0281/445	8173		Drawing of Levers for working High & Low Pressure Corliss Valves for CC .	Dec. 7 th . 1883.
0281/446	8160	Messrs. James Marsden & Sons.	Drawing of 28 & 1/16 in. Air Pump Bucket for No. 3 Mill.	Nov. 20 th . 1883.
0281/447	8157		Drawing of 2" Ram Pump. 3½" Stroke for WT . And D20 . And H28 .	Nov. 7 th . 1883.
0281/448	8153		Drawing of Eccentric & Beams for Air	Nov. 1 st .

		Pump for Barnes.	1883.
0281/449	8149	Drawing of Valve Box. Cut off Valves etc. for Barnes. 18" Cylr. 5' – 0" Stroke.	Oct. 31 st . 1883.
0281/450	8142	Drawing of Improved Governor. No. 3 SIZE.	Oct 1 st . 1883.
0281/451	8138	Drawing of Gearing for Working Indicator for GBS .	Oct. 1 st . 1883.
0281/452	8136	Drawing of Governor Stand, Oil Cylinder & Safety Gear for J.B.L.	Sept. 26 th . 1883.
0281/453	8130	Drawing of Crank Shaft Pedestal. Neck 7½ in. dia. 11 in. Long. To have Wedges on both sides for J.B.L.	Sept. 21 st . 1883.
0281/454	8126	Drawing of Valves and Bonnets for Cylinder 18 in. dia. 3' – 0" Stroke for J.B.L. And 188 Mill.	Sept 20 th . 1883.
0281/455	8123	Drawing of Foundation Plate for 18 in. H. P. Cylinder 3' – 0" Stroke for J.B.L.	Sept. 18 th . 1883.
0281/456	8120	Drawing of a 4½ in. Improved Governor. No. 4 SIZE.	Sept. 13 th . 1883.

0281/457	8119	Drawing of a Stop Valve & Injection Tackle for a Wedge Valve for GBS .	Sept 13 th . 1883.
0281/458	8118	Drawing of Governor Stand, W. I. Work etc. for 183 Mill.	Sept. 19 th . 1883.
0281/459	8112	Drawing of a 4½". Improved Governor. No. 4 SIZE.	Sept.11 th . 1883.
0281/460	8108	Drawing of Spring Box for No. 76 Mill. 19" Cylinder 4' – 0" Stroke.	Aug.31 st . 1883.
0281/461	10445	Drawing of Slide Valve, Cut off Valves, Loose Plate, for D26 .	Nov. 31 st . 1888.
0281/462	10446	Drawing of Air Cylinder, Slide, etc. for D26 .	Nov. 23 rd . 1888.
0281/463	10447	Drawing of Wrot Iron Work Slide Block etc. for Single Spindle Slip Motion for D26 .	Nov.30 th . 1888.
0281/464	10453	Drawing of Low Pressure Steam and Exhaust Levers for H24 .	Dec. 5 th . 1888.
0281/465	10454	Drawing of Wrot Iron Work for H. & L.P. Cylinders for H24.	Dec. 6 th . 1888.
0281/466	10455	Drawing of Governor. To lift 3 ins. and	1888.

		run 154 Revols. For H24. And B22. And C20.	
0281/467	10458	Drawing of Jacketted Pipe between H. & L.P. Cylinders for H24.	Dec.7 th . 1888.

MS Number	Drawing Number	Customer	Detail	Date
0668/1			Details of Hanger for A. Line For G.27.	July 10 th . 1890.
0668/2			Strap Fork Mo. For G.27.	Aug. 1 st . 1890.
0668/3			Drawing of Gutters for Engine House for M.49.	March 14 th . 1892.
0668/4			Section of Fire – proofing for G.52. [Blueprint].	Oct. 21 st . 1896.
0668/5			Plan of Steam Heating Pipes for M96.	Jan. 6 th . 1897.
0668/6	114		Plan of Fly Rope Pulley. 26 – 1¾" Ropes. 2¼" Pitch. 20 ft. Dia. For H161.	July 12 th . 1902.
0668/7	116		Plan of Fly Rope Pulley 18' - 0" Dia. 18	Aug. 8 th .

			- 1¾" Ropes 2½" Pitch 75 Revs. Per Minute. For 135 Mill.	1903.
0668/8	119		Plan of Fly Rope Pulley 18' – 6" Dia. 35 – 1¾" Ropes 2½" Pitch. 70 Revs. per Min. For T.89/03 . And. Sketch of Fly Rope Pulley Segments 18' – 0" Dia'r. 70 Revs. per Min. For T.89/03 .	March 28 th . 1904.
0668/9			Plan of Fly Spur Segment Wheel & Pinion. For B166.	Feb. 23 rd . 1900.
0668/10			Plan of Steam Heating Pipes for M 170.	July 31 st . 1897.
0668/11	235		Rope Pulley 20' – 0" Dia. 8 – 1½" Ropes. Revs. Per. Min. for V25/11 .	March 7 th . 1911.
0668/12	241		Plan of fly Wheel & Rope Pulley For \$107.	May 6 th . 1897.
0668/13	252	Messrs. The Whitworth Spinning & Manufacturing Co. Ltd.	Plan of Fly Spur Segment Wheel.	Sept. 6 th . 1900.
0668/14	252	Messrs. The Whitworth Spinning & Manufacturing Co. Ltd.	Plan of Fly Spur Segment Wheel.	Sept. 6 th . 1900.

0668/15	254	Plan of Fly Wheel 18ft. Dia. 90 Revs. Per. Min. For H.141.	Oct. 17 th . 1899.
0668/16	255	Plan of Fly Spur Segment Wheel & Pinion for A.57	Feb. 22 nd . 1901.
0668/17		Drawing of Fly Wheel 18' – 0" Dia. For B.186.	July 5 th . 1901.
0668/18	259	Plan of Fly & Spur Segment wheel For M.146.	Dec. 4 th . 1901.
0668/19	260	Drawing of Fly Wheel 18' – 0" Dia. For B.186.	June 21 st . 1901.
0668/20	261	Fly Wheel 19' – 0" Dia. 100 Revs. 1400 H.P. For G.71 . Ref. No. 457 .	Oct. 16 th . 1901.
0668/21	262	Plan of Spur Segment Wheel fro R.67.	June 4 th . 1902.
0668/22	263	Drawing of Fly Wheel 16' – 0" Dia. 90 Revs. For E.74.	May 7 th . 1902.
0668/23	264	Fly Wheel 19' – 0" Dia. 100 Revs. 1400 H.P. For G.71 . Ref. No. 457 .	Oct. 7 th . 1901.

0668/24	265	Fly Wheel 24ft. – 0in. Dia. Shewing Connections With Armature For M.123 . And, Fly Wheel 23ft. – 10in. Dia. Shewing Connections With Armature For C.125 .	March 15 th . 1900.
0668/25	266	Plan of Fly Spur Segment Wheel For M.146.	Dec.23 rd . 1901.
0668/26	267	Cast Iron SPUR WHEEL and Pinion for ATFEH PUMPING STATION.	n/d.
0668/27	268	Fly Wheel 23' – 10" Dia. Shewing Connections with Armature for C.161/02. And C. 171/03. And C. 171/05.	Nov. 29 th . 1902.
		[Sketch attached] Sketch of Dowell for Fly Wheel for C. 161/02.	Jan 12 th . 1903.
0668/28	269	Drawing of Fly Wheel 19' – 0" Dia. 90 Revs. For C.152 . Ref. No. 469 .	Feb. 27 th . 1902.
0668/29	271	Plan of Fly & Spur Segment Wheel For B.225/03. [Blueprint].	April 8 th . 1903.

0668/30	270		Proposed Plan of New Fly Spur Segment Wheel Pinion For N.C.M.	May 24 th . 1905.
0668/31	271		Plan of Fly & Spur Segment Wheel For B.225/03.	April 8 th . 1903.
			[Sketch attached] Sketch Showing Oak & Steel Wedges To Fill In Spaces Between Keys for B225 .	July 10 th . 1912.
0668/32	272	Messrs. Clark & Co. Paisley.	Sketch of Spur Segments & Pinion.	June 15 th . 1903.
0668/33	273		Plan of Fly Wheel, Rope Pulley etc. For M252/02.	Dec. 9 th . 1902.
0668/34	274		Fly Wheel 20' – 0" dia. 85 Revs. For B.222/03.	March 31 st . 1903.
0668/35	275		Drawing of Fly Wheel 28' – 0" Dia. for L.99/03.	Jan 23 rd . 1903.
0668/36	276		Plan of Fly & Spur Segment Wheels For S.S.27.	March 21 st . 1905.
0668/37	289	Messrs. T. Cross & Co. Mortfield Bleachworks.	Fly Segment Wheel 21' – 0"dia.34 R.P.M. Fly Spur Segment Wheel 11' – 7&3/16" dia. x 3"x 11"x 144 Cogs 34 R.P.M.	June 13 th . 1907.

		Spur Pinion 7' – 1&1/16" dia. x 3" x 11" x 88 Cogs. Hole 13¼" Cast in Halves 55 – 63 R.P.M.	
0668/38	291	Drawing of Fly Wheel 16' – 0" dia. 100 Revs. For E. 76.	March 8 th . 1904.
0668/39	292	Fly Wheel 20' – 0" Dia. 85 Revs. For B.233/04.	March 4 th . 1904.
0668/40	293	Fly Wheel 19' – 0" Diam. 94 Revs. per Min. for C.152/05 No.2 Engine.	Dec. 26 th . 1905.
0668/41	294	Fly Wheel 19' – 0" Diar. 94 Revs. per Minute For C.152/05. (No.1 Fly Wheel).	April 7 th . 1905.
0668/42	295	Proposed Arrangement of Magnet Wheel Coupling For C.152/05.	March 24 th . 1905.
0668/43	296	Plan of Fly Wheel 19ft. dia. 94 Revs. for C.152/05.	March 4 th . 1905.

0668/44	119/BE	Messrs. The Commissioners. – Water Beach Level – Stretham – Cambridgeshire.	10¼" Exhaust Pipes with Expansion Joint, coupling to New Side Pipes on Cylinder. For Repairs to Single Cylinder Beam Pumping Engine. [Blueprint]. S. O. 4040.	April 21 st . 1909.
0668/45	297		Drawing of Fly Wheel 18' – 0" Diam. for B.261/06. 100 Revs. 45 Tons in Rim.	July 18 th . 1906.
0668/46	298		Sketch shewing method of Coupling up Fly Wheel to Alternator for B261/06 .	July 11 th . 1906.
0668/47	299	The Electric Co. Ltd.	Proposed Fly Wheel 15' – 4" Dia. for 750 K.W. Set. For Penalita. Ref. No. 686.	June 21 st . 1906.
0668/48	302	City of London.	Fly Wheel 23' – 10" dia. 75 R.P.M. 66 Tons in Rim. For C.171/07.	Feb. 24 th . 1908.
0668/49	307		Fly Wheel 21' – 6" dia. 65 Tons in Rim. 83 R.P.M. for C199/06.	May 20 th . 1907.

0668/50	315		Steel Spur Segt. Wheel 22' – 6&19/64" Diam.3&11/16" Full Pitch. 14" Wide. 230 Cogs Machine Cut. Steel Spur Pinion 5' – 9&21/64" Diam. 3&11/16" Full Pitch 14" Wide. 59 Cogs Machine Cut. Reference L.49/07.	Sept. 23 rd . 1908.
0668/51	322		Fly Wheel 32' – 0" dia. 38 Revs. Per. Min. 64 Tons in Rim for S. 188/08	Oct. 27 th . 1980.
0668/52	325		Fly Wheel 24' – 0" Dia. 75 Revs. 31 Tons in Rim for WJ. 232/08.	Nov. 4 th . 1908.
0668/53	311	John Ashworth Ltd. Astley Bridge.	Proposed Fly & Spur Segment Wheel.	Dec. 29 th . 1908.
0668/54	313		Steel Spur Segt. Wheel 21' – 8&1/16"Diam. 4&17/32" x 15½" x 180 Cogs. Spur Pinion 6' – 5¾" Diam. 4 & 17/32" x 15½" x 54 Cogs. Reference W.145/08.	Dec. 14 th . 1908.
0668/55	314		Details of C.I. Segments. Spur Segt. Wheel 21' – 0" Diam. 5.3" Pitch, 20" Wide, 150 Cogs. For L.113/09.	Jan. 28 th . 1909.

0668/56	316		Spur Segt. Wheel 21' – 0" Diam. 5.3" Pitch, 20" Wide, 150 Cogs. 35 Revs. For L.113/09. No. 3 Mill.	Jan 28 th . 1909.
0668/57	323		Flywheel 18' – 0" Dia. 82 Revs. Per Min. for T109/09 .	April 28 th . 1909.
0668/58	326	Eastwood & Sager Ltd. Blackburn.	Proposed New steel Spur Segments and C.I. Weights & Steel Pinion. Ref. No. 822.	Feb 12 th . 1909.
0668/59		Messrs. M. Stuttard & Brothers Ltd. Underbank Mills, Whitworth.	Fly Rope Drum15ft. diam. Grooved for 19 – 1&5/8" ropes for New Horizontal Compound Tandem Engine. 600 IHP. S.O.381.	Jan. 7 th . 1908.
0668/60	BEP 563		Details for a pair of starting engines. 8" Cyls. 6 stroke with patent barring gear applied for Nos. 67 & 34 Mills. And 112 Mill.	Oct. 3 rd . 1882.
0668/61	BEP 564	Messrs. George Grant & Sons.	DETAILS of Patent Starting Gear.	March 14 th . 1882.
0668/62	BEP 565		Details of Patent Starting Gear for No.144 Mill.	Feb. 16 th . 1882.
0668/63	BEP 566	Messrs. James Echersley & Co. Limited.	Details of Patent Barring Engine etc.	May 11 th . 1882.

0668/64	BEP 567	Messrs. Wm. Calvert & Sons.	Details of Patent Starting Gear.	May 1 st . 1882.
0668/65	BEP 568	Messrs. Huntley & Palmer.	Details of Patent Hand Starting Gear.	Nov. 2 nd . 1882.
0668/66	BEP 569		Details for a Pair of Starting Engines 8" Cyls. 6" Stroke for No.166 Mill.	July 1882
0668/67	BEP 570		Details of Patent Starting Gear For No.13 Mill A.	Jan 17 th . 1882.
0668/68	BEP 571		[Starting Engine?].	June 2 nd . 1883.
0668/69	BEP 572		Details of Patent Starting Engine with Cylinder 8" dia. 6" Stroke for K. [Part of drawing missing].	May 9 th . 1883.
0668/70	BEP 574		Details of Patent Barring Engine. Cylinder 6 inch dia.6inch Stroke For No.15 Mill.	May 15 th . 1885.
0668/71	F.J.C. 11595		A Drawing of a Building from Felber, Jocker & Co.	May 15 th . 1893.
0668/72	17407		Drawing of Foundation Plates for a horz. Comp. Engine. Cyls. 18½" and 35"	Nov. 4 th . 1896.

		dia. 4' – 0" Stroke, 26" Air Pump 18½ " Stroke. For M154. And M151. And M181.	
0668/73	17445	Drawing of Foundation Plate for a Compound Engine For B120. Nov 1996	23 rd .
0668/74	17539	Drawing of Platform round Cylinders for Vertical Triple Expansion Engine – Cyls H.P.20" x 3' – 5½" I.P. & L.P. 28" & 43½" – 4' – 0¼" stroke. For SS130.	
0668/75	27160	Plan of Cap Stones of Foundations for Horiz. Comp. Engine for K70/05. May 1905	
0668/76	27230	Plan of Foundations for a Horizontal Side by Side Compound Steam Engine for SS.173/05. May 1905	23 rd . 5.
0668/77	31482	Connecting Rod and Crank Pin for H.192/07.	
0668/78	2669	Arrangement of Driving No.1 Triple Expansion Engine 18", 29" – two 32" Cylrs. x 4' – 0" Stroke. Arrangement of Driving No.2 Triple Expansion Engine 18", 29" – two 32" Cylrs. x 4' – 0" Stroke.	

0668/79	Beyer Peacock Drawing No. 62486		Alterations to Walking Crane. Cylinder Shop. No. 5355.	Sept. 29 th . 1902.
0668/80	9788	Mess. J. Hesketh & Sons.	Drawing of Governor Stand & Details. Ref. J.414.	Nov. 4 th . 1887.
0668/81	9843		Drawing of a 36" Air Pump Bucket for No.6. Ref. K.110.	Dec. 7 th . 1887.
0668/82	9847		Drawing of a Beam Centre Pedestal 6½" by 9" for a 40 Horse Beam Engine for T. and H. And H 58. Ref. D.113b.	Dec. 13 th . 1887.
0668/83	9885		Drawing of details of an Automatic Governor. Ref. I.40(a).	Dec. 19 th . 1887.
0668/84	9915		Drawing of Air Cylinder for H.P. Cylinders 16 ins. dia: 3' – 0" stroke for Single & Compound Engines for C.N.No.3. Ref. C(1).160.	Dec. 15 th . 1888.
0668/85	9916		Drawing of Air Cylinder for L.P. Cyl: 28"	February

			dia. 3' – 0" stroke for Compound Vertical Steam Engine for C.N.No.3. Ref. C(1).161.	1888.
0668/86	11912		Drawing of H.P, Steam Receiver for P31.	March 23 rd . 1891.
0668/87	11922		Drawing of Cut-off Tackle for 37" – 2 nd . Inter. Cyldr. for P31. Ref. O.162.	March 25 th . 1891.
0668/88	11953		Drawing of Piston Rods, Sockets etc. for a Vertical Quad: Exp: Engine for B59 . Ref. F.187.	April 10 th . 1891.
0668/89	11959		Drawing of Fenders for Rocking Levers for B59 . Ref. L.231.	May 14 th . 1891.
0668/90	11977	Messrs. The Union Spinning Co. Bolton.	Drawing of Crank Pin End of Connecting Rod. Ref. F.189.	May 7 th . 1891.
0668/91	11981		Drawing of Wrot Iron Work, for Corliss Valves, for L.P. Cyl. for B59 . Ref. Bo.183.	May 12 th . 1891.
0668/92	11994		Drawing of a 34&13/64" Piston for C.38.	May 12 th .

		Ref. L.79.	1891.
0668/93	11998	W. I. Cranks, No. 128 Mill. Ref. M.192.	May 15 th . 1891.
0668/94	11999	Drawing of Connecting Rod for No. 128 Mill. Cylrs. 24" dia., 4' – 0" Stroke. Ref. F.190.	May 13 th . 1891.
0668/95	12000	Drawing of Crank Shaft for No. 128 Mill.	May 13 th . 1891.
0668/96	12001	Drawing of Locking Lever on Cylinder for No. 128 Mill. Ref. L.238.	May 12 th . 1891.
0668/97	12002	Drawing of Rocking Levers on Standards for No. 128 Mill Ref. L.239.	May 12 th . 1891.
0668/98	12003	1 Air Pump Lever to drawing for No. 2 Engine. 1 Air Pump Lever "Reverse hand" No. 1 Engine. For No. 128 Mill. Ref. A.196.	May 14 th . 1891.
0668/99	12005	Drawing of Stay for top of Governor for	May 15 th .

			M.46. Ref. J.576.	1891.
0668/100	12006		Drawing of Eccentrics & Rings for No. 128 Mill. Ref. M.174.	May 15 th . 1891.
0668/101	12007		1 Air Cylinder to drawing for No.2 Engine. 1 Air Cylinder Reverse hand for No. 1 Engine. For No. 128 Mill. Ref. C.295.	May 7 th . 1891
0668/102	12020	Messrs. John Harwood & Sons.	Blueprint of 46" Piston & Cover for L.P.	April 24 th . 1914.
0668/103	12021		Drawing of 20" Air Pump Bucket for B59. Ref. K.211.	May 30 th . 1891.
0668/104	12022		Drawing of Delivery Valve for 20" Air Pump for B59 . And Z21 . Ref. K.212.	June 1 st . 1891.
0668/105	12023		Drawing of Foot Valve for 20" Air Pump for B59 .	June 5 th . 1891.

0668/106	12025		Drawing of Slides for Air Pump. 20" dia. 12" Stroke for B59 . Ref. A.197.	May 27 th . 1891.
0668/107	12028		Drawing of W.I. Crank for Quad. Exp. Engines for B59 . And for Horizontal Tandem Engine for E.20 . Ref. M.153.	May 27 th . 1891.
0668/108	12029		Drawing of Eccentric, & Coupling Rods for No. 128 Mill. Ref. G224.	May 27 th . 1891.
0668/109	12030	Messrs. The London & Manchester Plate Glass Co. Ltd.	Drawing of Siemens Steel Crank Shaft.	June 2 nd . 1891.
0668/110	12032		Drawing of Auxiliary Injection Tackle for L32.	March 19 th . 1891.
0668/111	12034	John Jackson & Son	Drawing of W.I. Crank. Ref. M.154.	June 3 rd . 1891.
0668/112	12038A		Crosshead Brasses for M45 .	June 25 th . 1913.
0668/113	12039		Drawing of Wrot Iron Cranks for M45 . And A38 . Ref. M.155.	July 22 nd . 1891.

0668/114	12040	Drawing of Whitworths Compressed Steel Crank Shaft for M45 .	July 22 nd . 1891.
0668/116	12041	Drawing of Eccentric Rods & Coupling Rods for M45 . Ref. G.225.	Aug. 14 th . 1891.
0668/117	12046	Wrot. Iron Work for Corliss Valves for 39" L.P. Cylr. for M45.	June 16 th . 1891.
0668/118	12049	Drawing of Slides for 28" Air Pump for M45. Ref. A.198.	June 26 th . 1891.
0668/119	12050	Drawing of Delivery Valves for 28" Air Pumps for M45. Ref. K.213.	June 25 th . 1891.
0668/120	12053	Drawing of Jacketted Steam Receiver between H.P. & Inter. Press. Cylinder for M45.	Aug 12 th . 1891.
0668/121	12054	Drawing of Strainer Box for Injection Water for M45 .	Aug 24 th . 1891.
0668/122	12055	Drawing of Carrier Levers for M45 . Ref. L1.241.	July 20 th . 1891.

0668/123	12057	Drawing of 6¾" Air Cylinder for 22" H.P. Cylinder, 5' – 0" stroke for [M45?].	May 30 th . 1891.
0668/124	12065	Drawing of Rocking Lever on Intermediate Cylr. for M45 . Ref. L1.242.	July 21 st . 1891.
0668/125	12066	Drawing of Rocking Levers for Low Pressure Cylr. for M45 . Ref. L1.243.	July 20 th . 1891.
0668/126	12068	Drawing of Safety Gear for No. 128 Mill. Ref. J.580.	June 10 th . 1891.
0668/127	12067	Drawing of 4" Stop Valve Box for Quadraple Expansion Engine for B59 . Ref. Q.130.	June 6 th . 1891.
0668/128	12074	Drawing of Rocking Lever for a 24" Mc.N. Cyl. 3' – 0" Stroke for B.64. Ref. L1.244.	June 11 th . 1891.
0668/129	12073	Drawing of Air Cylinder etc. for 24" H.P. Cylinder for B.64. Ref. C.297a.	June 13 th . 1891.
0668/130	12075	Drawing of W.I. Work for Corliss Valves for a 24" Mc.Naught Cyl. 3' – 0" Stroke	June 11 th . 1891.

		for B.64. Ref. B1.187.	
0668/131	12076	Drawing of Eccentric Rods etc. for B.64 . Ref. G.226.	June 12 th . 1891.
0668/132	12079	Drawing of Safety Gear for H.P. Beam Engine for B.64. Ref. J.582.	June 25 th . 1891.
0668/133	12083	Drawing of Safety Gear etc. for Vertcl. Engine for B59 . And E48 . And C52 . And C50 . And L49 . And H36 . Ref. J.584.	June 16 th . 1891.
0668/134	12085	Drawing of Receiver for H.P. & Inter. Cyl. for B59 . (37)	June 19 th . 1891.
0668/135	12086	Drawing of Steam Receiver between 2 nd . Intermediate and L.P. Cyls. for B59 . (38)	May 12 th . 1891.
0668/136	12088	Drawing of H.P. Air Cylinder for B59 . And E48 .	June 17 th . 1891.

		And \$72. And 112 Mill. Ref. C.299.	
0668/137	12089	Drawing of 1 st . Inter. Air Cylinder for a Quad: Exp: Steam Engine for B59 . And S72 . And 112 Mill . Ref. C.300.	May 9 th . 1891.
0668/138	12099	Drawing of Steel Crank Shaft for Patent Compound Vertical Engine for Z20 .	July 14 th . 1891.
0668/139	12100	Drawing of 18" 1st. Intermediate Piston for B59 . Ref. L.82.	June 26 th . 1891.
0668/140	12105	Drawing of Connecting Rods, Cross – Heads, Piston Rods, etc. for C44. Ref. F.194.	June 20 th . 1891.
0668/141	12107	Drawing of Eccentrics and Rings for C44. And M.G.53. And R39. Ref. M176.	July 8 th . 1881.
0668/142	12106	Drawing of Eccentric and Coupling Rods for C44 .	July 22 nd . 1891.

		And M.151. And M.154. And L31. And M.86. And M.G 53. And M.64. And M.82. Ref. G.229.	
0668/143	12108	Drawing of H.P. Rocking Lever for C.44. Ref. L1.245.	June 22 nd . 1891.
0668/144	12117	Drawing of H.P. Air Cylinder for Cyl. 22" dia. 4' – 6" Stroke for C44 . And M.49 . And M.G.53 . And Z.21 . Ref. C.301.	June 26 th . 1891.
0668/145	12120	Drawing of Air Pump Beam for Air Pump 24" dia. 24" Stroke for C.44. Ref. A.199.	July 8 th . 1891.
0668/146	12122	Drawing of Wrot Iron Work for 24" Air Pump 24" Stroke for C.44. Ref. N.109.	July 10 th . 1891.
0668/147	12123	Drawing of Air Pump Slides for Air Pump 24" dia. 24" Stroke for C44. Ref. A.200.	July 15 th . 1891.

0668/148	12124	Drawing of Air Pump Bucket for C44 . Ref. K.126.	July 2 nd . 1891.
0668/149	12125	Drawing of Delivery Valve etc. for 24" A.P. for C44. Ref. K127.	July 6 th . 1891.
0668/150	12126	Drawing of Injection Tackle for C44.	July 28 th . 1891.
0668/151	12129	Drawing of H.P. Piston for a 24" Cylinder for B64. Ref. L.85.	June 28 th . 1891.
0668/152	12130	Fixings etc. for Staircase for W. 41.	June 29 th . 1891.
0668/153	12132	Drawing of L.P. Air Cylinder etc. Cylinder 38" dia. 4' – 6" Stroke for C.44 . And L31 . And M.G.53 . And M.49 .	June 30 th . 1891.
0668/154	12133	Drawing of Back Slide for C44. Ref. B.96.	July 8 th . 1891.
0668/155	12134	Drawing of Safety Gear for Governor for C.44.	July 30 th . 1891.

		Ref. J.588.	
0668/156	12136	Drawing of Back Slide Block for C44 . And C77 . Ref. B. 97?.	July 7 th . 1891.
0668/157	12138	Drawing of Beams for carrying Air Pump for C44 .	July 10 th . 1891.
0668/158	12139	Drawing of 22" Air Pump Bucket for S.59. Ref. K.218.	June 17 th . 1891.
0668/159	12145	Drawing of 22" H.P. Piston for C44. And M.G.53. And M49. And R.39. Ref. L.86.	July 22 nd . 1891.
0668/160	12146	Drawing of 38" Piston & Cover for C.44. And also Barlow & Jones. Ref. L.87.	July 24 th . 1891.
0668/161	12149	Drawing of Connecting Rod for a Vertical Non-Condensing Compound Engine for H.71 . And H.81 . Ref. F.195.	July 23 rd . 1891.

0668/162	12150	Drawing of Side Levers etc. for a Vertical Non Condensing Compound Engine. Cyl. 15" & 24" dia. 3' – 0" Stroke for H71. And D41. And C68. Ref. F.195a.	July 24 th . 1891.
0668/163	12160	Blueprint Drawing of a Slide Wedge Stop valve Box for L32 . And M.G.53 . Ref. Q.135.	Aug. 7 th . 1891.
0668/164	12163	Drawing of H.P. Rocking Lever etc. Cylinder 15" dia. 3' – 0" Stroke for H.71. Ref. L1.249.	Aug. 6 th . 1891.
0668/165	12164	Drawing of L.P. Rocking Lever etc. Cylinder 24" dia. 3' – 0" Stroke. for H71. Ref. L1.250.	Aug. 6 th . 1891.
0668/166	12165	Drawing of Air Cylinder H.P. for H.71. Ref. C1.302.	Aug. 6 th . 1891.
0668/167	12166	Drawing of Air Cylinder L.P. for H.71. Ref. C1. 303.	Aug. 7 th . 1891.
0668/168	12167	Drawing of Crank Race Drippers, Pillars, Rails etc. for C.44.	Dec. 21 st . 1891.

0668/169	12169	Drawing of Stuffing Box on H.P. Cyl. for C.44. Ref. P1.2.	Aug. 10 th . 1891.
0668/170	12170	Drawing of a Stuffing Box etc. for C.44. And M.49. Ref. P1.3.	Aug. 8 th . 1891.
0668/171	12171	Drawing of Piston Rods, Socket etc. for Compound Vertical Steam Engine for H.71. Ref. F.196.	Aug. 12 th . 1891.
0668/172	12172	Drawing of Pistons for H71. Ref. L.88.	Aug. 19 th . 1891.
0668/173	12175	Drawing of Crank Shaft for H.71 .	Aug. 19 th . 1891.
0668/174	12177	Drawing of 4½" Stop Valve etc. for H.71. Ref. Q. 136.	Aug. 20 th . 1891.
0668/175	12178	Drawing of Fender for Rocking Levers for H.71 . Ref. L1.251.	Aug. 14 th . 1891.
0668/176	12179	Drawing of Eccentrics & Rings for H.71.	Aug. 19 th .

			And H.81. Ref. M1. 177.	1891.
0668/177	12180		Drawing of Eccentric and Coupling Rods for Compound vertical Steam Engine for H. 71. Ref. G. 230.	Aug. 21 st . 1891.
0668/178	12181		Drawing of Safety Gear for Vertical Engine for H.71 . Ref. J.590.	Aug. 28 th . 1891.
0668/179	12182		Drawing of crank & Pin for H.71. And H.81. Ref. M. 157.	Aug. 13 th . 1891.
0668/180	12183		Drawing of Steam Receiver between Low Pressure Cylinders for M. 45.	Aug. 14 th . 1891.
0668/181	12185	Dronsfield, Oldham.	Drawing of Fixing & Shaft for Higginson's Regulator. Ref. J. 591.	Aug. 20 th . 1891.
0668/182	12186		Drawing of Corliss Valves & Spindles for W.47 . Ref. Z.235.	Aug. 20 th . 1891.
0668/183	12187		Drawing of Boiler Feed Pump 4" dia. 6" Stroke for B59 .	Aug. 21 st . 1891.

		And S87.	
0668/184	12192	Drawing of 22" H.P. Piston for M.45. Ref. L.90.	Aug. 28 th . 1891.
0668/185	12194	Drawing of 39" L.P. Piston for M.45. Ref. L.92.	Aug. 31 st . 1891.
0668/186	12195	Drawing of Details for working Waste Water Taps from Cylrs. for M45 . Ref. HD233.	Aug. 28 th . 1891.
0668/187	12197	Drawing of Beams etc. for Air Pumps for M45. Ref. HD234.	Sept. 1 st . 1891.
0668/188	12200	Drawing of Crosshead, Slide Blocks, & Piston Rod for a Horizontal Non-Condensing Steam Engine with 18" Cyl. 3' – 0" Stroke. For SS79. Ref. F.198.	Sept. 9 th . 1891.
0668/189	12204	Drawing of Crank Shaft Pedestal with Neck 7½" dia. 15" long for S.S.79 . And M.88 . Ref. D.161.	Sept. 7 th . 1891.
0668/190	12212	Drawing of a Siemens – Martin Steel Crank Shaft for SS.79 .	Sept. 5 th . 1891.

0668/191	12213	Drawing of Wrot Iron Crank for SS.79 . And M.88 . And B125 .	Sept. 1 st . 1891.
0668/192	12216	Drawing of 18" H.P. Piston for S.S.79. And B.82. And M 64. And M.88. Ref. L.93.	Sept. 11 th . 1891.
0668/193	12218	Drawing of Connecting Rod etc. for Horizontal Steam Engine 19" Cyl. 3' – 0" Stroke for B.66. Ref. F.199.	Sept. 9 th . 1891.
0668/194	12225	Drawing of Air Cylinder 5" dia. for Cylinder 18" dia. 3' – 0" Stroke. for SS.79. And B.82. And M.88. Ref. C1.304.	Sept. 9 th . 1891.
0668/195	12228	Drawing of Air Cylinder for B66 . And L31 . And M64 . And M82 . Ref. C1.305.	Sept. 16 th . 1891.

0668/196	12230	Drawing of Indicating Tackle for 18" Cylinder 3' – 0" Stroke for S.S.79. And SS96.	Sept. 15 th . 1891.
0668/197	12231	Drawing of Knock off Tackle for SS.79 . And S.S.96 . And M88 . Ref. J.594.	Sept. 18 th . 1891.
0668/198	12233	Drawing of Pump Rod for 4" Feed Pump for SS.79 . And S.S.96 . And M88 .	Sept. 14 th . 1891.
0668/199	12235	Drawing of Indicating Gear for B.66 . And B.125 . Ref. J.172.	Sept. 21 st . 1891.
0668/200	12240	Drawing of Crank Shaft for E.32.	Oct. 19 th . 1891.
0668/201	12241	Drawing of Stuffing Box for M45 . And M49 . Ref. P1.7.	Sept. 22 nd . 1891.
0668/202	12242	Drawing of Stuffing Box for M45 .	Sept. 22 nd . 1891.
0668/203	12244	Drawing of Rocking Lever on L.P. Cyl.	Sept. 22 nd .

		for E32. Ref. L1.254.	1891.
0668/204	12250	Drawing of Eccentrics & Rings for E.32 . And P.43 . And B82 . Ref. M1.179.	Sept. 25 th . 1891.
0668/205	12255	Drawing of H.P. Piston for E.32 . And M.61 . And M.80 . Ref. L.95.	Sept. 29. 1891.
0668/206	12256	Drawing of L.P. Piston for E.32. And S.66. And M.61. And M.80. Ref. L. 96.	Oct.1 st . 1891.
0668/207	12257	Drawing of 1 st . Inter. Stuffing Box for P31. Ref. P1.10.	Sept. 29 th . 1891.
0668/208	12260	Drawing of Back Pedestal 8½ by 17 for B66 . And No. 166 Mill . And M74 . Ref. D.162.	Oct. 1 st . 1891.

0668/209	12262	Drawing of H.P. Air Cylinder for E.32. And S.S.85. Ref c1.306.	Sept. 25 th . 1891.
0668/210	12263	Drawing of L.P. Air Cylinder for E.32 . And W56 . And B82 . And M61 . And M80 . Ref C1.307.	Sept. 23 rd . 1891.
0668/211	12275	Drawing of L.P. Rocking Lever for H.65 . Ref. L1.256.	Oct. 12 th . 1891.
0668/212	12276	Drawing of Carrier Levers for H.65 . Ref. L1.257.	Oct. 9 th . 1891.
0668/213	12289	Drawing of Air Pump Beam for working Air Pump 27"/30" dia. 15" Stroke for H65. And S81. Ref. A.201a.	Oct.13 th . 1891.
0668/214	12295	Drawing of fixing & Springs on Governor rod. For W.32 . Ref. J.598.	Oct.16 th . 1891.
0668/215	12297	Drawing of Stop Valve and Pillar for E.32.	Oct. 19 th . 1891.

		Ref. Q.143.	
0668/216	12302	Drawing of Safety Gear for Governor for H65 . And N28 . Ref. J.599.	Oct. 23 rd . 1891.
0668/217	12312	Drawing of H.P. Air Cylinder. Cylinder 14½" dia. 4' – 0" Stroke for C.49.	Oct. 28 th . 1891.
0668/218	12313	Drawing of Rocking Lever for H.P. Cyl. for C.49. Ref. L1.258.	Oct.28 th . 1891.
0668/219	12314	Drawing of H.P. Carrier Levers for C.49 . Ref. L1. 259.	Nov. 2 nd . 1891.
0668/220	12316	Drawing of Wrot Iron Work for Corliss Valves for H.P. Cyl. 14½ dia. 4′ – 0″ Stroke for C.49 .	Nov.3 rd . 1891.
0668/221	12320		