THE RAILWAYS and LOCOMOTIVES AT CROSSNESS

by Robin Parkinson

CROSSNESS RAILWAY HISTORY

Since its inception in 1860 Crossness Pumping Station has been supported by rail transport for construction materials to build this masterpiece of engineering. Moving coal and ash removal and it is hoped that within the next two years, another, new track of dual 18”/24” gauge will be achieved, the first rail to transport passengers at Crossness. Planning permission has been granted by The London Borough of Bexley in conjunction with the approval of site owners Thames Water Plc. to lay a 700 meter track which almost follows the alignment of the former temporary contractors railway of 1904 built to assist the construction of the sewage works during the late nineteenth century, running from the mainline of the South Eastern & Chatham Railway at Plumstead station.

The Southern High Level Sewer construction of 1904/06 used this original alignment to bring in the materials for the construction of this majestic sewer from Catford and further west. It is believed that this standard gauge contractor’s line has been laid and lifted at least three times. The construction of the first railway by Lucas & Aird in the 1860’s has not been confirmed by current research, however it is proven that this Plumstead – Crossness contractors line did not join into the metals of the South Eastern & Chatham Railway Company, stopping some 200 yards north of their tracks, with a loading platform, head shunt, engine shed and water cistern, clearly shown on the 25” scale Ordnance Survey map of 1867/69.

When the “Additional Pumping Power Contract” of 1912/14 was awarded to the contractor Dick Kerr & Co. and during this works at least two or maybe three short standard gauge lines were laid around the Beam Engine House for steam cranes used in excavation. In addition following the conventional fashion of those days a narrow gauge railway was installed to carry away the spoil. Motive power here was by WG Bagnall (0-4-0ST) 2 foot gauge # 1740 of 1903, GLADYS, which had previously been with Wrexham & East Denbighshire Water Works, was first acquired by Dick Kerr in 1912, so yet another new gauge (24in.) had been introduced to the site, which RANG are about to re-produce in 2017.

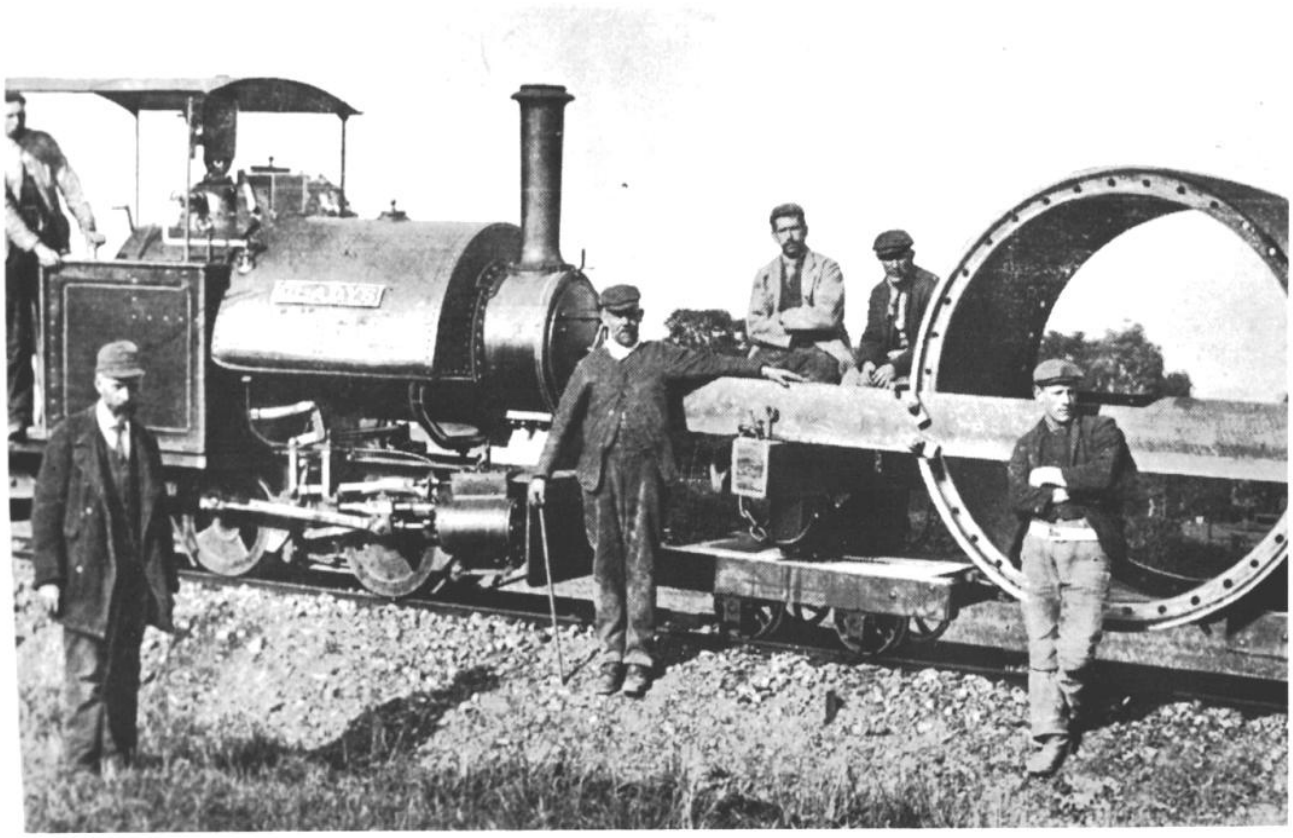
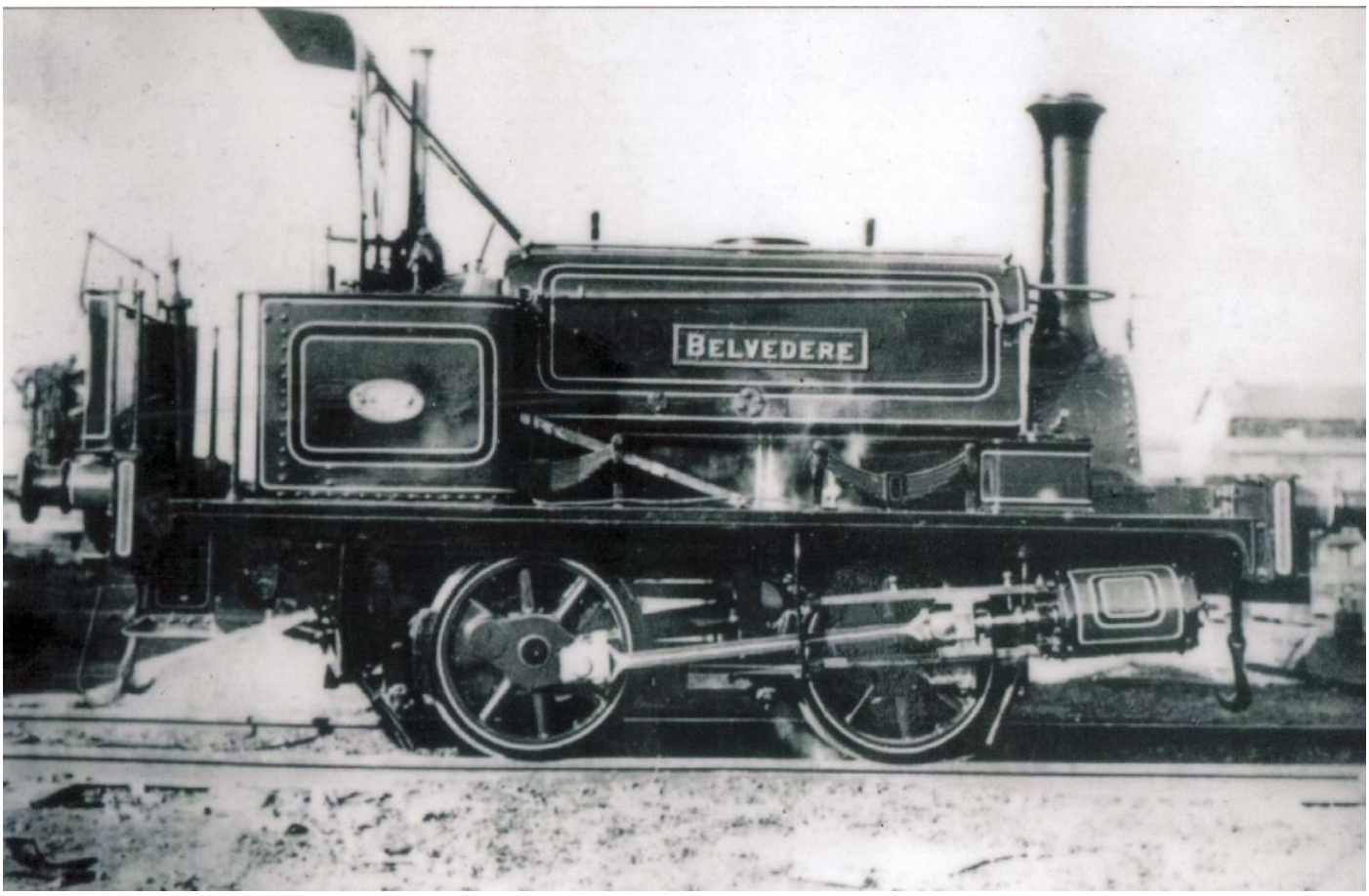


Figure 1 GLADYS-WG Bagnall (0-4-0ST) Wks. #.1740 of 1903 From the catalogue of W.G.BAGNALL Ltd., Castle Engine Works, Stafford. (Library of ACBKR8)

One of the early maps by London County Council titled CROSSNESS OUTFALL WORKS date 1893, shows the whole pumping station site complex with 19 points/turnouts within its own, busy tramways of 3ft. 0in. gauge, these for

delivering coal from the barges (5000 tons/year) and removing ash and clinker to waiting lighters on the river's edge, some of these tramways are shown as running inside a larger tramway of 4' 8", possibly installed for the heavy lift riverside Hydraulic Crane. Although no photographs exist it is believed that the motive power for the 36" tramway was by horse and this is backed up by stables shown on a map of the eastern flank of the site, although from the complexity of the points and curves would have been tricky to navigate with an "Equine Rail Tractor".

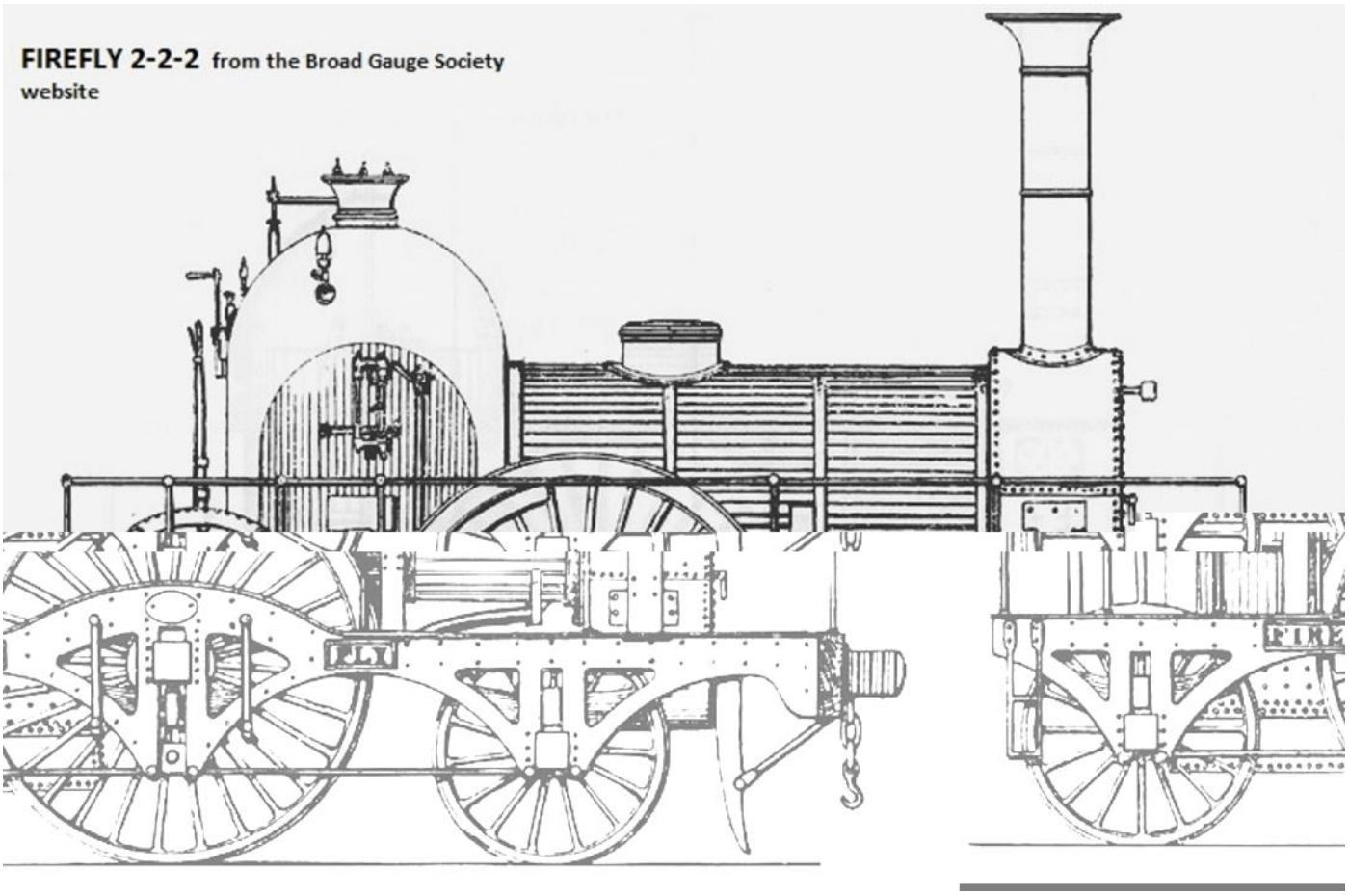


Manning Wardle Locomotive – BELVEDERE Wks. # 1318 built 1895 (makers photograph) Manning Wardle 0-4-0ST Wks. # 1318 BELVEDERE @ Crossness Doc. 02/017

BELVEDERE Manning Wardle locomotive Works # 1318 of 1895 was one of the first standard loco's on site, this 'D' Class (8"Ø x 14"stroke) was originally named as BOLTON ABBEY after being delivered to Bolton for J. Green & Son 15th October 1895 (presumably a contractor) The locomotive was later returned to Manning Wardle and resold to London County Council, being delivered through Abbey Wood station on the 29th July 1896 to be used on the first phase of the building work on the No.2 Outfall Sewer at crossness. At the end of the contract she was sold in 1909 to W.R. Cunis Ltd., at Rainham Marsh Rubbish Shoot where she worked hauling rubbish trains until the start of World War Two, and was finally scrapped in1939.

FIREFLY Broad Gauge Engines In 1878 a Metropolitan Board of Works minute calls for Additional Power at Crossness to cope with any stoppage of the main engines or excessive rainfall. This "Additional Power" was to take the form of two ex-Great Western Railway broad gauges engines, they were from the marvellously wide Brunel Railway to Bristol of gauge 7ft. 0¼in. The renowned original FIREFLY class is said to have covered the 30.75 miles (49.49 km) from Twyford to London Paddington in 37 minutes, an average speed of 50 miles per hour (80 km/h), which in 1840 was unprecedented speed. Between 1840 and 1878, 62 of this class were built which only confirms they were of a proven & successful design.

Their wheels were 2-2-2 configuration with massive 7ft. 0in. dia. driving wheels, and 4ft. dia. leading and trailing wheels, cylinders of 14in.dia. X 18in. stroke. A brass domed boiler that would need a gallon of Brasso to clean, weighing in at 24 tons 4 cwt. Horn blocks hung in beautifully fabricated horn suspension frames combining strength, lightness and symmetry. Operating with a boiler pressure of 120 lbs. per sq. inch. A truly beautiful locomotive stationary, it must have been a sight to behold in steam! (A replica now runs in steam @ Didcot)



FIREFLY CLASS (2-2-2) LOCO – Grace's guide British Industrial History.

Converted into stationary engines, mounted on foundations so as to drive four centrifugal pumps, two for each engine. The engines and pumps were set up in what we know as today, the Valve House, which was originally called the Auxiliary Engine House and is shown as such on the earlier site plan. The engines and pumps would lift the incoming sewage into the internal sewage system. Moving 6,500 cubic feet of sewage to a height of 28 feet, the pump impellors being 50" in diameter.

This really was a great example of early 19th century re-cycling.

The two locos that were obtained for Crossness by the Metropolitan Board of Works in 1879 were:

CHARON built by Fenton, Murray & Jackson as wks. # 25 – delivered to Great Western Railway May 1840, Re-built at Swindon Works 1863, ceased rail working June 1878. Ex. Xness 1903.

LETHE built by Fenton, Murray & Jackson as wks. # 45 -delivered Great Western Railway April 1842, Re-built at Swindon Works February 1862, ceased rail working October June 1878. Both were apparently worn out at Crossness by 1903.

CROSSNESS Andrew Barclay Locomotive (0-4-0ST) Wks. # 994 built 1904 was delivered on 9th March of that year to London County Council, Works Department @ Abbey Wood through the South Eastern & Chatham Railway there. She was to haul building materials for construction of the second phase No.2 Southern Outfall Sewer at Crossness Water Treatment Works, which is now referred to as the High Level Sewer.

That contract complete she was transferred in 1909 to the LCC Asylums Committee for use on the Horton Estate Light Railway in Epsom

when she arrived wearing a livery of dark green (with a No. 61 small back plate on the tender), here she joined Manning Wardle HOLLYMOOR. In 1903 the London County Council had decided to build a new hospital @ Horton Lane, near Epsom. The contractor Forster & Dicksee experienced utmost difficulty moving building materials along what was just a mud lane just over a mile long, and applied to the Board of Trade to build a standard gauge line from the LSWR station at Ewell West to the hospital site.

On this short but busy 1½ mile line the first locomotive employed was a Manning Wardle HOLLYMOOR, Wks. # 1519 of 1901, also known by the locals as “Puffing Billy” as it always took off in a cloud of steam and a multitude of running boys, HOLLYMOR was sadly involved in a pedestrian fatality running down a partially deaf 64 year old Mary Tobin at the Hook Road crossing. In 1907 HOLLYMOOR was sold to the Austin Motor Company in Birmingham leaving CROSSNESS in sole command and very busy, hard work and maybe not full attention to maintenance she gradually wore out and a Manning Wardle (0-6-0) HENDON Wks. # 2046 of 1926 saddle tank was obtained from C. J. Wills & Son. Ltd, St Helier (Epsom) to help out #994 with operations. Sadly the last seen pieces of #994 CROSSNESS remained on site for some years, where she as lying after being cut up by Fraser & Co.in 1935 by the Engine Sheds. w