

KNUCKLAS VIADUCT

History & statistics

Information provided by HOWLTA for the viaduct walk in 2011.

Knucklas Viaduct, situated on the Heart of Wales Line about two and a half miles north-west of the market town of Knighton in Powys, crosses the lower end of the Heyope Valley close to the point where that valley meets the Teme Valley and is just half a mile from the border with the English county of Shropshire.

The viaduct, built by the Central Wales Railway Company, was one of two major engineering works which were necessary for the construction of the railway from Knighton to Llandrindod Wells that took place between 1860 and 1865. The other major project was the boring of Llangunllo Tunnel.

The company's chief civil engineer was the Scottish railway pioneer Henry Robertson (1816 – 1888). He had already gained considerable experience in the design and construction of railways in the Welsh Marches and is generally credited with the design of Knucklas Viaduct. It is also said that the design features of the viaduct were heavily influenced by the then owner of the remains of Knucklas Castle; these remains were situated close by on the summit of Castle Hill which overlooks the village. He insisted that if stone from the castle remains was required for use in the construction of the viaduct, then the viaduct must include some of the features of a castle. There is certainly strong evidence that some of the stone used as the viaduct's core material which was examined during maintenance works carried out as recently as 2010 was indeed quarried from the castle remains.

The construction of the viaduct commenced in the spring of 1860 and the structure was substantially completed and track laid over it by the late summer of 1863.

In October 1864 the viaduct began carrying freight traffic and the passing of the first locomotive across it is recorded in a poem written by Thomas Corbett, a postman from Dolau near Llandrindod Wells, and which begins:

*'They started from Knucklas o'er a viaduct grand
Where the scenes of the Teme are at your command;
In the month of October in the year of Sixty-Four
An Engine they started which ne'er ran before...'*

On 10th October 1865 the railway between Knighton and Llandrindod Wells was officially opened and from that date the viaduct began carrying both passenger and freight trains.

Knucklas Viaduct is a straight structure 190 yards in length and is built principally of rough stone although it includes some brickwork within its piers. It has thirteen arches each spanning 35 feet 9 inches and at its maximum height it is about 75 feet above the valley floor. At both ends there are substantial twin semi-circular towers each of which has a large Christian cross incised deeply in the stonework. The viaduct also has smaller semi-square towers at its buttresses. All the towers and the parapets of the viaduct are crenellated in the style of traditional British castle battlements.

The viaduct, although level itself, is situated on a four mile stretch of the Line where there is a rising gradient of 1 in 60 from east to west. On the eastern approach to the viaduct, the track

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possesses a significant cant, the outer rail being almost 6 inches (150 millimetres) higher than the inner rail at one point, to allow train speeds to be maintained on what is a sharp curve. Trains in both directions are restricted to a maximum speed of 45 miles per hour across the viaduct.

The Class III Knucklas to Heyope road passes beneath the second arch from the viaduct's eastern (Knucklas Station) end and the Ffrwdwen Brook runs beneath the third arch from the viaduct's western (Castle Hill) end.

Just beyond the western end of the viaduct and immediately before Castle Gardens Level Crossing is reached (where the 'railway' part of today's walk ends) there is solar powered equipment which is used at certain times of the year, particularly during the autumn leaf fall, and is activated by the passage of trains, discharging quantities of sandy material onto the track to enable west bound trains to have better adhesion on the long and tortuous climb to Llangunllo summit.

The viaduct underwent a major refurbishment in 1997 when the track was removed to permit the installation of a waterproof membrane and new drainage on the deck of the structure. Other work at that time included the re-pointing of the stonework and the filling with concrete of the hollow centres of the piers. Further significant re-pointing of the stonework took place last year.

The viaduct is well known locally for an incident which occurred in 1925. A fox, which was being pursued by the local hunt, ran onto the western (Castle Hill) end of the viaduct to escape. Its route ahead was, however, blocked by permanent way staff who were walking towards it from the Knucklas Station end. Faced with no escape, the fox jumped off one of the parapets into the valley below. It is not clear whether it was killed outright but it is thought that initially it survived, seriously injured from the fall, and was quickly dispatched by the hounds as it lay helplessly on the ground. Local animal lovers were angered by this event and it was condemned by a local headmaster in an article to the press. It was also the subject of a poem entitled 'Blackguard's Bridge' written by Miss Mary Bowen of Cwmgilla, Knighton. In June 1964, nearly 40 years after the incident took place, there was a public commemoration of the event held close to the viaduct itself and organised by a clergyman named Reverend Proctor. The word 'fox' is said to have been scored into the stonework at the point on the parapet from where the animal leaped to its demise.

The 'thirteen arches' of Knucklas Viaduct were even mentioned by the British traitor William Joyce ('Lord Haw Haw') in one of his infamous Sunday evening radio broadcasts during World War II. Not surprisingly the viaduct was guarded closely at that time.

Knucklas Viaduct, which was designated a Grade II listed structure in 1985, is almost certainly unique in this country in terms of its design. Today, almost 150 years after its completion, this historic structure still carries trains across the Heyope Valley.