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# The Kriens-Luzern-Bahn

by R.Smith

Photographs by the author

**Switzerland** is full of interesting and unusual railways, and the most fascinating and least known must be the Kriens-Luzern-Bahn (KLB). The railway was conceived to link the two eponymous towns, which today are fused together by housing and factories at Kupferhammer.

The railway falls a total of 53 metres between Kriens and the SBB at Luzern, over approximately 2.3 kilometres of track, with no earthworks, tunnels or bridges. The line was therefore quickly built, and opened on 25 October 1886.

## The founder

Theodor Bell (1840-1933) was the force behind the creation of the KLB. He wanted his engineering firm at Kriens, and all the other industries which at that time made Kriens an important industrial centre, connected to the main rail network. Because of geography and cost, he had to compromise with a line to Luzern to feed into the network there.

Man holding button to keep traffic lights at red for KLB train returning to Eichhof with empty wagons from the Co-op at Kupferhammer. 31 August 1993.

His factory was, and still is, connected to the KLB by the line which continues up past the locomotive shed though the houses to his yard. He obtained the concession to build the line, as was vice-president and head of construction.

He also constructed the Lausanne funicular (the first in Switzerland), which opened on 13 March 1877, between Ouchy on the lake and Lausanne. This line was built to standard gauge to facilitate the passage of wagons over the line. One of the specialities of Bell's firm was water turbines and he installed a plant to provide power to the overhead wires at Lausanne.

## Sale of the company

Despite early optimism and promise, the line suffered some financial difficulties and was transferred in its entirety, including staff and goodwill, to Luzern Town Council on 1 January 1899. A condition of the sale was that there would be a minimum of two daily services. In the event the service was increased to a 15



minute frequency between 06:30 and 22:30 in summer and between 07:00 and 22:00 in winter. With a journey time of 12 minutes, the two tram engines were certainly intensively used!

Traffic consisted of passenger shuttles and freight. The latter was easily transferred with the SBB as the KLB was built from the outset to standard gauge.

Passenger traffic thrived and was so successful that it succumbed to the expanding electric tram network in 1889/1900 when the mixed gauge was laid down as the trams were metre gauge. The opportunity was taken to relay all the KLB tracks with heavier weight rails. The Brünig line link was introduced on 27 May 1897.

## Early motive power

Until 1926 the motive power had been steam tank engines. Starting with two tram engines (two of only three locomotives ever bought new for the line), these were supplemented in 1896 by a second-hand tank locomotive purchased from the Südostbahn (SOB). The two tram engines were sold in 1905 and

Combined offices and goods shed at Kriens depot. 31 August 1993

1906 respectively, and presumably the exSOB locomotive soldiered on alone as it was not until 1909 that KLB No.1 arrived from Maffei at Munich. This 0-6-0 tank locomotive is still going strong on the Oensingen-Balsthal-Bahn (OeBB). In 1912 the SOB locomotive was sold and another 0-6-0 purchased from the Seeltal-bahn.

In 1926 electrification provided the opportunity to utilise the tram supply. The two steam locomotives were sold to the SBB and a centre cab four axle electric locomotive was purchased from the Wohlen Meisterschwanden Bahn.

## Truncation of the line

With the electrification, the Luzern terminus was cut off as the trams fed into their network, so the KLB was truncated at the Eichhof brewery and branched off down to the SBB Luzern Brünig Interlaken line. As this section is laid to metre gauge, standard gauge rails were laid outside the metre gauge lines, which to this



day remain as the link between the KLB and the rest of the rail network. At the time this connecting link was not electrified which meant that an SBB steam locomotive had to venture as far as Kupferhammer to exchange wagons. Today this task is undertaken by diesels.

#### Dieselisation

In 1961 the trams gave way to electric trolleybuses which still ply the route today (Route No.1) In 1968 the motorway overbridge and associated junction network at Kupferhammer took away the catenary from the KLB. The opportunity was taken to construct the three-track yard there, just outside the Eichhof brewery. The loss of the overhead led to the purchase of a diesel locomotive, following the line's tradition, a second hand one was found which continued in service until 1979, when the current locomotive was found in Roumania.

#### Location of line

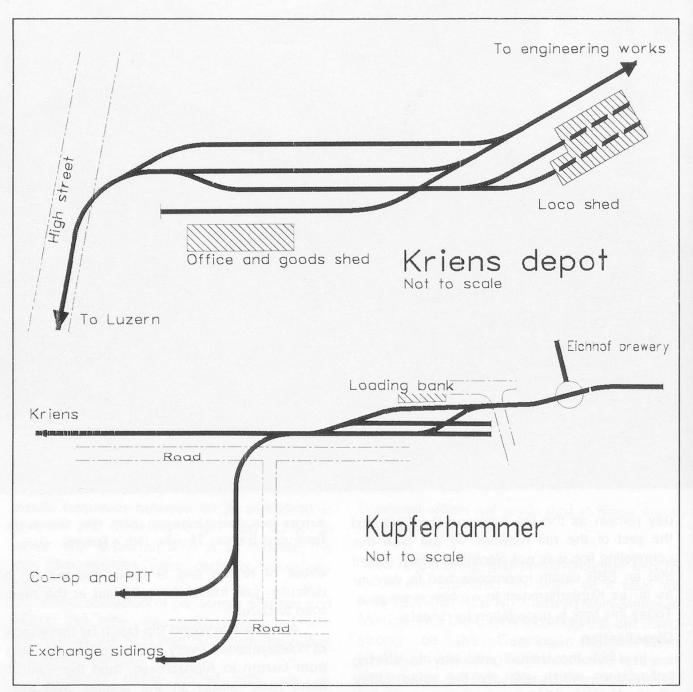
The headquarters of the railway, which is still owned and operated by the Luzern bus and trolleybus department of the local authority, is at Kriens, where the locomotive is shedded. The depot is just behind the shops in the main

Kriens loco shed 31 August 1993. The line in the fireground leads to Theodor Bell's factory.

street of Kriens and is easily located. If in difficulty, just follow the rails laid in the main road to Luzern.

An attractive round trip taken by thousands of holidaymakers every year is to take the boat from Luzern to Alpnachstad, then the Pilatusbahn rack railway to the summit and then descend by cable car and gondolbahn. The lower terminus is in Kriens, and it is just a short walk to the trolleybus stop. The stop faces some shops, behind which is the KLB depot.

The combined office building and goods shed is beautifully maintained, with flower boxes on the windows. This contrasts with the locomotive shed at the other end of the yard, which is a rather run down looking building. Although it is a two-road shed, only the larger part is used. Even this is a tight fit for the locomotive, as the photographs show. It must require careful handling to shunt it sufficiently to shut the doors without hitting the wall at the back. It is a tight squeeze to walk down the shed beside the locomotive.



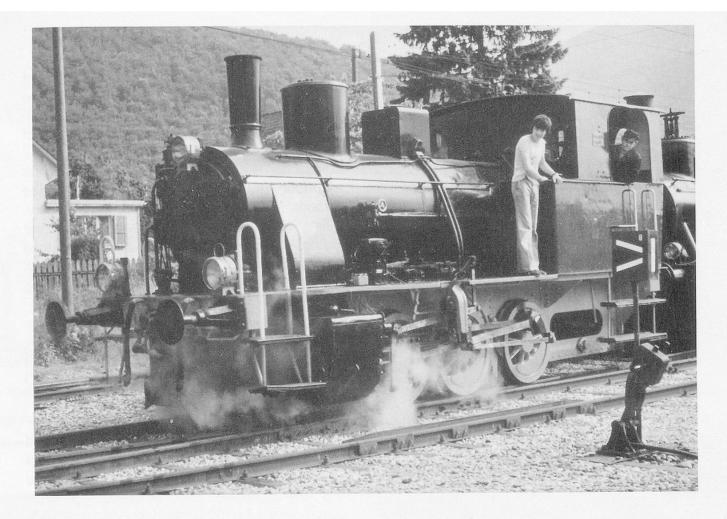
# Operation

The locomotive starts work at 06:00 hours each weekday and runs down the street towards Luzern. This is something that has to be seen to be believed, as it just sets off and road traffic has to get out if its way. This is particularly interesting for the Kriens bound trolleybuses, whose current collecting poles just stretch sufficiently to allow them to pass the train. It is comical to watch car driver not in the know, as the large orange locomotive bears down on them, with no flashing lights or warning flags.

Being worked on a "one engine in steam" basis, there are no signals on the KLB. All

points are iworked manually by the crew.

At Kupferhammer an unusual sequence of events occurs. The locomotive, plus its wagons, has to cross the main road, which includes the motorway junction. A crew member opens a box on a lineside pole and presses a button. A gong sounds and all lights go to red, totally paralysing the road traffic. The locomotive then roars across the road and down a line with a branch going off to the Co-op and PTT, then over another road and along to the exchange sidings. Wagons are brought back and shunted into place, as required by the various customers. The loco-



motive then charges back up the street to Kriens depot for the crew's lunch break. At 13:00 hours the sequence is repeated, with loaded wagons being taken to the SBB for onward shipment.

# Freight carried

The commodities carried are diverse. With Switzerland sticking to its 28 tonnes gross road vehicle weight limit, rail traffic has an advantage. Visits over the past two years have revealed traffics including dry goods and foodstuffs for the Co-op, beer wagons, cement tankers (road vehicles use them as silos and pump out sufficient to fill the road tanker, returning frequently for more supplies), engineering material for the factory at Kriens, which lies beyond the KLB depot, and compressors on flat wagons and other plant for the PTT.

On one Saturday I saw two bogie Enos open wagons, one FS, the other DB, in the loading dock at Kupferhammer, with teenagers climbing into them, throwing paper about. At last, I thought, vandals, just like at home. I was wrong, this was the Saturday in the month when the youth go round collecting waste

Above: Kriens-Luzern-Bahn No.1 on the OeBB. Below: KLB No.1 on the Centenary train. *Photo, collection R.Smith.* 





A tight fit! KLB diesel No.35 inside the shed at Kriens, 27 August 1993

paper and cardboard which the householders put out for recycling. It is taken to these wagons and thrown in, the KLB then take them to the SBB and onto the paper mill free of charge.

On my last visit in August of last year, the afternoon train consisted of nine loaded wagons (2 beer vans, 2 bogie cement tankers, 2 flats with compressors and 3 vans). When the Co-op and PTT wagons were added, the total length resulted in the train having to set back onto the main road junction before heading down to the exchange sidings.

Readers may like to refer back to the December 1993 *Swiss Express* and to my article *Visiting the Eichhof Brewery*, where I described the wagond and illustrated the HO model of one of them.

# Centenary

In 1986 the Kriens-Luzern-Bahn celebrated its centenary, and for the occasion No.1 of 1905 was brought down from the OeBB, where it is kept and occasionally steamed. A suitable coach was also brought along and the train steamed up and down Kriens high street, recreating the sights and sounds of earlier days. The accompanying picture was kindly given to me by an officer of Gmeinderhaus at Kriens who was riding on the open balcony of the coach as they ran down towards Luzern.

Type		Date	Origin	Date	
		acqrd.		dispased	
E2/2	Luzern 60 hp Tramengine	1886	Krauss Munich	1905	To Von Roll Steelworks, Bern for SFr.5300
E2/2	Kriens 60 hp Tramengine	1886	Krauss Munich	1906	To Aluminium Gesellkschaft, Chippis for SFr.6000
E2/2	Tankengine No.51	1896	Ex SOB (their N0.51?)	1912	To St.Gallen Gasworks for SFr.11,500
E3/3	Tankengine KLB No.1	1909	Maffei for SFr19,800	1926	Both No.1 and No.2 sold to SBB upon electrification for
E3/3	Tankengine KLB No.2	1912	Ex Seetalbahn No.8 for SFr.19,800	1926	SFr.32,000 the pair
Ee4/4	600 volt 4 motors 240 hp	1926		1968	Sold for scrap
Em2/2	MAK diesel 340 hp	1968	Built 1966 for Julicher Kreisbahn of Aachen Bought for SFr.20,500		Traded in as part exchange for No.35
Em4/4	Faur diesel type 35, No.35	1979	Built by 23 August Werke, Bucharest		



## The staff

The KLB operates with a finely honed degree of expertise, born of the team of four working expertly together. Their apparent disregard of road user hides a high degree of awareness and competence. When their locomotive has to go to the SBB workshops for servicing or repair, a replacement locomotive is hired from the SBB, who insist that their own men drive it. This causes a great deal of hilarity among the KLB staff, as the SBB men are not used to opening the throttle along inset street track or over open main roads. Consequently, they take a lot longer to complete the work.

# The latest locomotive

As far as I know, the current locomotive is unique. When the KLB wanted another machine, they searched about and discovered that one was available in Roumania. It was a type "Faur 35" and has kept its number 35, despite it being only the eighth locomotive of the KLB. As the original diesel engine was without guarantee, it was replaced by a Mercedes power unit, downrated to 450hp from its Swiss Express Vol.4/5 March 1995

No.35 shunting at the Eichhof brewery, Kupferhammer, 13:15, 18 August 1994.

original 750 HP, giving it the power required for an arduous work load.

# Visiting the line

The KLB has no fences or segregation anywhere. I thoroughly recommend that you see this local authority owned railway operation as it runs down the high street, paralysing road traffic in order to trundle a wheel-screeching rake of assorted wagons over a curve straddling a road junction. That they can continue to do so relies on the Swiss policy with regard to gross road vehicle weight, together with the attitude to pollution. Long may both continue. I for one look forward to the next occasion KLB's No.1 is brought back to steam up and down Kriens high street.

My grateful thanks are due to Jochen Kausch, whose help and detective work made this article possible,