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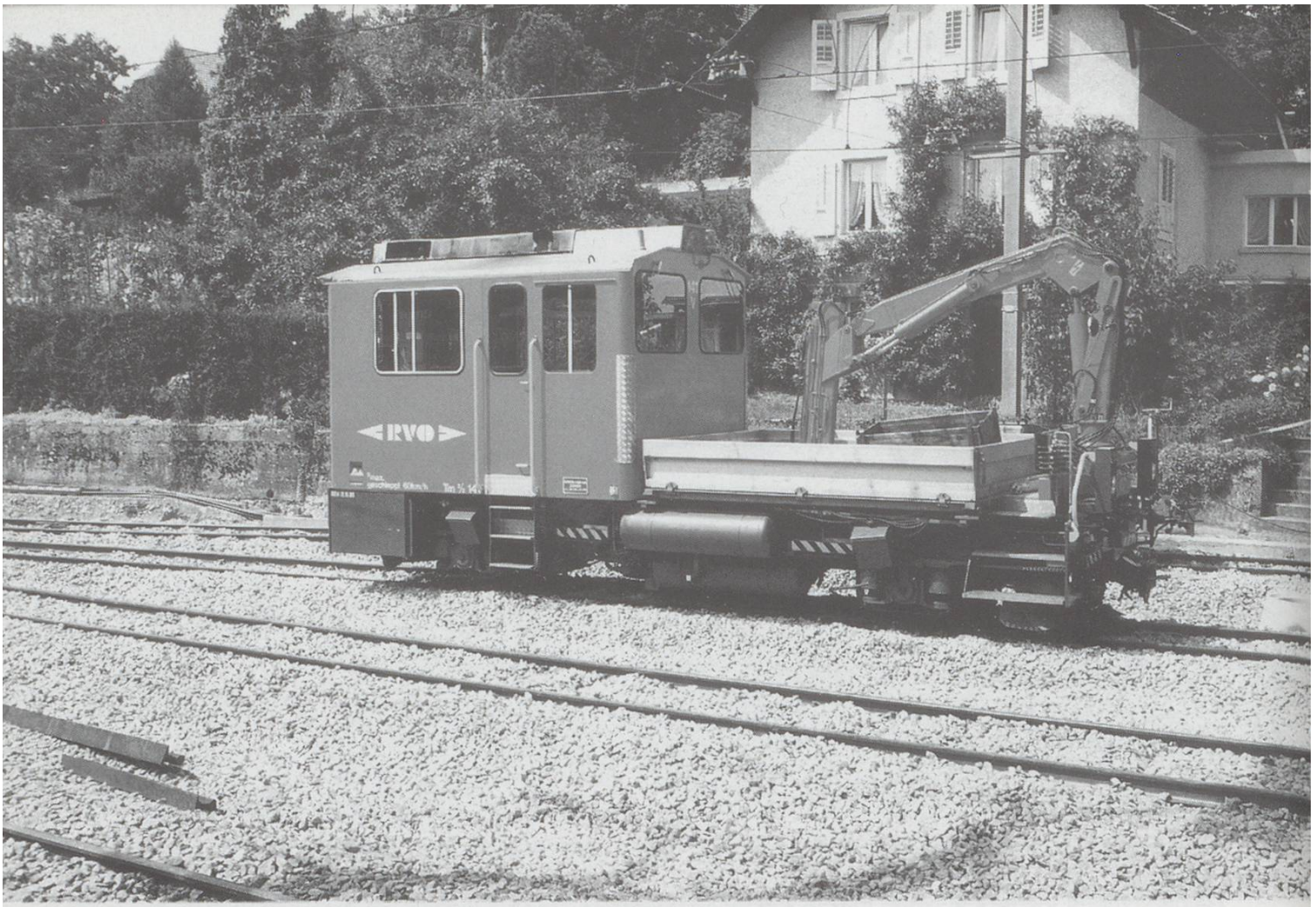

Private Railways in Switzerland - 14

by Brian Hemming

Above: RVO Tm2/2 141, built RACO/DZ in 1985, at Wiedlisbach on 15 August 1993

Photo: A.J.Pike O.B.E.

By sheer coincidence the private railways in this selection include that which is the oldest narrow gauge railway in Switzerland, the Lausanne-Echallens-Bercher (LEB) and one of the youngest, the Solothurn-Niederbipp-Bahn (SNB). Their openings were separated by some 45 years.

The LEB has different types of traffic depending on the day of the week. On working days it is very much a commuter line serving Lausanne, with heavy morning traffic into the city and evening traffic out of the city. At weekends the situation is very much reversed with the service catering for leisure travel to the Gros de Vaud region to the north west of Lausanne. Additional interest for the railway enthusiast is the provision of an advertised steam train between Cheseaux and Bercher (Kursbuch table 101) without a fare supplement on Sundays from the end of June to mid September.

The OSST, or to give it its full name, Oberaargau-Solothurn-Seeland-Transport, was formed with public support in 1984 and provides a network of 34km of metre gauge railways. It is very much a regional transport undertaking comprising three railways which are dealt with in the following text (BTI, RVO and SNB) and their bus operations, a funicular railway and its bus operation, a bus operator and the shipping operator on the Bielersee. It has recently embarked on a programme of reorganisation and modernisation of its railway interests to which it has given the overall project name of OSST 2000. It is hoped that reports on progress will appear from time to time in future issues of Swiss Express.

LEB

Chemin de fer Lausanne-Echallens-Bercher

Above: Echallens Depot and Station on 14 february 1988. The area is substantially the same today.

Photo: A.J.Pike O.B.E.

In 1871 a census was taken which demonstrated the large movements of goods and people between the Gros de Vaud region and Lausanne. This brought pressure for the building of a railway between Echallens and Lausanne and a committee was formed which recognised that for cost reasons any line built would have to be narrow gauge. After examining a number of operations throughout Europe, they recommended that the System Larmajat, under test in an area of Paris, be adopted. This was effectively a guided tramway having vehicles with flangeless running wheels and a centrally located double flanged inner wheel running on a single raised track. The proposal was rejected by the Confederation and a concession and finance were only granted when the committee agreed to build a conventional narrow gauge railway.

The Chemin de fer Lausanne-Echallens (LE) was formed in 1872 and construction of the line commenced in 1873. The line was opened from Lausanne Chauderon to Cheseaux in late 1873 followed in 1874 by the continuation to Echallens. The track and sleepers as well as two steam locomotives and a selection of rolling stock were acquired from the Mont Cenis Railway which had closed in 1871. The worn out nature of all this equipment and material created many early problems for the LE.

In 1875 a suggestion was made to extend the LE to Bercher and on to Cugy-Montet on the standard gauge Payerne-Yverdon line. In the event, largely because of financial considerations a concession was granted in 1886 for an extension of the line only as far as Bercher The Chemin de fer Central-Vaudois (CV) was formed in 1887 and construction took place in 1889. From its opening the CV line was operated by the LE. Financial problems of the CV forced it to merge into the LE in 1913 to form the LEB. A severe financial blow to the new company was the closure in 1921 of the Nestlé condensed milk factory at Bercher which was one of its major customers.

The need for renewal of both track and rolling stock as well as the pollution caused by smoke from steam locomotives in Lausanne became major issues. A modernisation programme was therefore necessary. Expert opinion recommended diesel-electric traction be adopted, but the Kantonalbank only sanctioned the necessary finance for modernisation when the LEB agreed to electrification. The works were put in hand and completed at the end of 1935 with full electric operation at 1500v DC commencing in early 1936.

Following the opening of a Tramways Lausannois (TL) line adjacent to the LE station at Lausanne Chauderon a connection was built between the two in 1903. The LE was then able to modify its freight operations by obtaining running powers over the TL lines from Chauderon to the main line freight centre at Renens. In 1952 the SBB opened a new freight depot at Lausanne Sébeillon which was on the TL tram route to Renens and shortened the journey by 1km. LEB freight was now carried to this new depot and continued, despite the closure of the TL in 1964, until 1970 when it was transferred to lorries carrying special containers. The connection to the rest of the railway network was severed and the LEB left isolated.

It had long been the ambition of the LEB to extend its route further into Lausanne. With the support of the local municipal authorities an underground section was opened from the old Chauderon station to a new one some 710m distant in 1995. This tunnelling is being continued and by 1999 will enable the LEB to be extended a further 450m to Lausanne Flon. Here passengers will be able to interchange with the Lausanne-Gare (LG), Lausanne-Ouchy (LO) and Tramway Sud Ouest Lausannois (TSOL) lines. A north east tramway is also projected to commence at Flon.

The line starts from its present underground terminal in Lausanne and reaches the surface close to the now demolished station of Chauderon. It then assumes the identity of a tramway, proceeding along the main road to Echallens until reaching roadside reserve track at Montéten. Apart from a short diversion at Cheseaux, the reserve track runs alongside the main road to a point beyond Assens where it heads across country for Echallens. After passing Echallens, where the depot and workshops are located, the railway passes through the rich agricultural area of the Gros de Vaud, before reaching the terminus at Bercher.

An hourly daily service operates between Lausanne and Bercher, which on working days is increased to half hourly between Lausanne and Echallens. There is also steam operation on the line as mentioned in the introduction.

Length: 23.53 km
Gauge: 1000 mm
Voltage: 1500v DC
Maximum gradient: 40‰
Depot: Echallens
Works: Echallens
Nearest SBB station: Lausanne (via LO)
Kursbuch table: 101

Powered Stock (livery: green & white, tractors - red/brown)

Class	Numbers	Built
Tm2/2	1	1966
Tm2/2	2	1988
BDe4/4	21, 25	1935, 1947
Be4/4	26 - 27	1966
Be4/8	31 - 33	1985
Be4/8	34 - 36	1991

Notes: 21 is an historic car in special livery

Please submit articles for the December "Swiss Express" by the 20th October.

THANK YOU

Above: RVO (SNB) Be4/4 302, built SWS/MFO/BBC in 1966, at Langenthal on 5 May 1994.
Photo: A.J.Pike O.B.E.

OSST Group

BTI Biel-Täuffelen-Ins-Bahn

The first concessionary petition for a line linking Biel/Bienne with Ins was submitted in 1908, but it was a further four years before the Seeländische Lokalbahn Biel-Täuffelen-Ins (SLB) was formed and construction did not commence until the summer of 1914. The first section from Nidau, on the outskirts of Biel, to Siselen opened in 1916, followed a year later by the extension to Ins. The line was constructed to metre gauge and electrified at 1200 volts DC from the beginning.

The proposed extension of the SLB from Nidau to Biel/Bienne was delayed by the rebuilding by the Federal Railways of Biel/Bienne station. However a connection was made at Nidau with the Biel Tramways (TrB) which enabled freight traffic to be moved over the TrB tracks to Biel/Bienne. Passengers had to wait until 1926 before the SLB could complete a new line to the forecourt of the rebuilt Biel/Bienne station. With the opening of this new section the TrB took over the old SLB terminus at Nidau, whilst in Biel/Bienne station forecourt both used a short section electrified at 600V DC.

The lack of finance which had delayed the extension of the SLB to Biel was a continuing problem and was reflected in an inability to replace ageing rolling stock. The name of the company changed to the Biel-Täuffelen-Ins-Bahn (BTI) when in 1944 the regional authorities provided funding for new stock and gave a 10 year guarantee against debts. On the expiration of this guarantee in 1954 serious consideration was given to the substitution of the BTI service by buses but with local support the rail service remained. The BTI came under the management of the OJB in 1960 and experimental bus substitution did actually take place in 1961. Because of traffic congestion this was not successful and local pressure brought about the implementation of a reconstruction programme for the railway. Much of the street running was removed by the provision of reserve track, and in conjunction with the Biel/Bienne authorities an

Above: An RBDe4/4 leaves Moutier for Solothurn on 20 May 1992.
Photo: A.J.Pile O.B.E.

underground station was opened for the BTI in 1975 at the main line station. The costs incurred in reconstruction left little for the purchase of new rolling stock and a number of second hand vehicles were acquired. In 1974 a reorganisation of the Solothurn-Zollikofen-Bahn (SZB) resulted in the release of some relatively new railcars, five of which were acquired by the BTI to replace the older second hand stock. These remained in regular service until the arrival of new GTW stock in 1997.

Starting from the single track underground station, the BTI line passes firstly through the urban suburbs of Biel/Bienne before running mainly on roadside reserve track through open countryside to Täuffelen. Beyond Täuffelen, where the main depot and workshops are located, the line continues with roadside running before reachung Ins Dorf. From here it descends on a steep incline to its terminus situated in the station forecourt at Ins where connections can be made for Bern, Neuchâtel and Fribourg. The line is single throughout with passing facilities at Nidau, Lattrigen, Täuffelen, Siselen, Brüttelen and Ins Dorf. With the exception of Täuffelen, all halts along the route are conditional. However stops are frequent indicating the true value of the BTI to the communities in the largely rural area through which it passes.

The passenger service on the BTI between Biel/Bienne and Täuffelen is now half hourly throughout the day. It is extended hourly to Ins which is increased to half hourly at peak periods.

At an early stage in the development of the BTI freight transfer facilities were put in place at Ins to permit the movement of freight vehicles from the standard gauge Bern-Neuchâtel-Bahn (BN) to rollschemel for transit over the SLB. Transfer facilities also exist at Biel/Bienne. This traffic has always been hauled by railcars.

Length: 21.2 km
Gauge: 1000 mm
Voltage: 1200 v DC
Maximum gradient: 48‰
Depot: Täuffelen
Works: Täuffelen
Nearest SBB stations: Biel/Bienne (adjacent)
Kursbuch table: 261

Above: SMB Be4/ 172, built SLM/SAAS in 1932, at Moutier leads CFF Be4/7 12506 on a SVEA special on 23 April 1995

Photo: A.J.Pike O.B.E.

Powered Stock (livery: orange & white)

Class	Numbers	Built
Xe4/4	521	1963
Be4/4	523	1965
Be4/4	524 - 525	1970
Bre4/4	516	1947
Tm	541	1985
Tm	542	1929
Be2/6	5010	1997
Be2/6	5020	1997
Be2/6	5030	1997
Be2/6	5040	1997
Be2/6	5050	1997
Be2/6	5060	1997
Be2/6	5070	1997
Be2/6	5080	1997

Notes: 5010 to 5070 are the numbers of central power units which are normally coupled to coaches 5011 & 5012, 5021 & 5022 .....5071 & 5072 respectively. 5080 is a spare power unit.

RVO

Regionalverkehr Oberaargau

The RVO was until mid 1990 known as the Oberaargau-Jura-Bahnen (OJB); an identity which still appears on some stock. The OJB was formed at the beginning of 1958 by the merger of two separate railways, the Langenthal-Jura-Bahn (LJB) and the Langenthal-Melchnau-Bahn (LMB), which had from their inception been under common management.

The older of the two constituent railways was the LJB which was formed in 1905 to build a line from Langenthal to Oensingen by way of Niederbipp. The line, which was electrically operated at 1200v DC from the beginning, opened throughout for both freight and passenger traffic in the autumn of 1907 from a station adjacent to the SBB station at Langenthal to Oensingen Endhalt which was close to the

Embellishment to the doors of the BTI depot at Tauffelen

local school and 1.4km beyond the SBB station. Although both freight and passenger traffic initially developed steadily, the financial state of the company fell into decline which resulted in the closure in 1928 of the little used section from Oensingen SBB to Endhalt. Further financial problems and an urgent need for track replacement resulted in the abandonment of the section from Niederbipp to Oensingen SBB in 1943, which left the LJB with just a 10.9km route compared to the original 15km.

The LJB is particularly interesting in that it was the first railway in Switzerland to use rollschemel. Permission had been refused to use rollbocken for the transfer of standard gauge wagons on the grounds that the 65‰ incline at Aarwangen was too steep for safe operation, and therefore rollschemel, which were already in operation in Germany, were purchased and put into operation in 1909.

The LMB, formed in 1913, resulted from an initiative made by the community of Melchnau. The proposal was initially for a direct line to Langenthal, but this was later modified in the hope of providing additional traffic by including a diversion through St.Urban and Roggwil. The onset of World War I delayed construction, and so it was not until 1917 that the line opened with 1200v DC electric operation. From the beginning it was under the management of the LJB, and as well as sharing track from Langenthal Gaswerk to SBB, both shared the workshop and depot facilities at Langenthal.

Like the LJB, the LMB suffered financial difficulties and complete closure became a possibility after World War II. It was finally decided to retain both railways and in 1958 formally merge them with public financial support into the OJB. The nearby Solothurn-Niederbipp-Bahn (SNB) joined the OJB Group on 1959 and a modernisation programme was implemented in 1960 throughout the system. In 1982 the passenger service on the costly detour to Melchnau on the former LMB line was cut back to St.Urban, although the freight traffic was retained.

Passenger services on the lines to Niederbipp and St. Urban depart from adjacent platforms at

Langenthal; that to Niederbipp comprising a railcar with driving trailer, whilst the St.Urban line just a single railcar. The Niederbipp service is hourly throughout the day, being increased to half hourly on working days at peak periods. A reversal is made at Niederbipp for continuation to Solothurn. The St.Urban service is half hourly, being extended to St.Urban Ziegelei every hour. Freight traffic is normally handled by a De4/4 locomotive which is fitted with large buffers for the rollschemel traffic.

The RVO, like the other railways in the OSST Group, is very much a local railway serving the needs of largely rural communities. It is single line throughout with passing loops in stations and has freight transfer facilities with the SBB at Langenthal and Niederbipp.

Length: 17.1 km
Gauge: 1000 mm
Voltage: 1200 v DC
Maximum gradient: 65‰
Depot: Langenthal
Works: Langenthal
Nearest SBB stations: Langenthal, Niederbipp (adjacent)

BTI Be 4/4 501, built SWS/MFO in 1965 outside Tauffelen depot

Kursbuch tables: 413, 414

Powered Stock (livery: orange & white)

Class	Numbers	Built
Be4/4	101 - 102	1966
Be4/4	103 - 104	1966
Xe4/4	107	1973
Bre4/4	116	1907
De4/4	121	1987
Ge4/4	126	1917
Tm	141	1985
Em3/3	326	1988

326 ex industrial user in 1997 and carries computer number Ee 837-826-7

SNB
Solothurn-Niederbipp-Bahn

The SNB was one of the last narrow gauge railways opened in Switzerland. Although the former Schweizerische Centralbahn (SCB) had connected Solothurn with Niederbipp in 1876 it did not serve the villages between these two points to the north of the River Aare. A concessionary petition was submitted in 1906 to build a light railway to serve the villages between Solothurn and Niederbipp, but because of differences between Kantons Solothurn and Bern it was not until 1912 that a railway company, the Solothurn-Niederbipp-Bahn (SNB) was formed. Construction was delayed because of the outbreak of World War I, and not completed until 1918. The lack of a suitable river crossing in Solothurn meant that the line terminated at Solothurn Baseltor until 1925 when a new river bridge was opened and it could be extended to the main line station.

From the opening of the SNB in 1918 until 1925 when the company became independent, management of the line was carried out by the Langenthal-Jura-Bahn (LJB). The early close link with the LJB resulted in the SNB offering a through service from Solothurn to Oensingen via Niederbipp where the two railways shared the narrow gauge station. On gaining its independence the SNB, as an economy measure, tried to withdraw from this service but was unable to do so because of contractual arrangements. Traffic declined seriously on the service to Oensingen during the 1930's, and it was therefore a much needed help to its financial position when the line was closed by the LJB in 1943. After World War II traffic had declined to such an extent and the rolling stock in urgent need of replacement that complete closure of the SNB became a real possibility. This was favoured by Kanton Solothun, but opposed by Kanton Bern who provided assistance by facilitating the acquisition in 1955 of second hand rolling stock from the Zug Tramways (EZB) and supporting a modernisation programme including the provision of long stretches of reserved track. In 1959 the SNB joined the OJB Group and further modernisation was implemented, including in 1969 the provision of a new terminus in the forecourt of Solothurn station.

In the late 1960's an industrial site had developed at Oberbipp, which was on the SNB but some 3km from the standard gauge main line at Niederbipp. A third rail was therefore laid in 1969 alongside the narrow gauge tracks between Niederbipp and the industrial site to enable the direct movement of standard gauge stock. A recent development is the acquisition by the hitherto narrow gauge OJB/SNB of a standard gauge locomotive for handling this traffic.

The passenger service between Solothurn and Niederbipp, which is operated by railcars with driving trailers, is half hourly throughout most of the day. Hourly daily and half hourly on working days the trains reverse at Niederbipp and proceed to Langenthal and vice versa. Freight on the SNB is confined to that between Niederbipp and Oberbipp.

The SNB line from Niederbipp to the outskirts of Solothurn passes through a rich agricultural area. The passenger traffic is generally to and from the main local centre of Solothurn where the railway is regarded as an important part of the local transport infrastructure.

Length: 14.4 km
Gauge: 1000 mm
Voltage: 1200 v DC
Maximum gradient: 45‰
Depot: Wiedlisbach
Works: Wiedlisbach
Nearest SBB stations: Niederbipp, Solothurn (both adjacent)
Kursbuch table: 413

Powered Stock (livery: orange & white)

Class	Numbers	Built
Xe4/4	108	1913 (1969)
Be4/4	301 - 302	1966
Be4/4	303	1971
Be4/4	304	1978
De4/4	321	1957