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# LIGHT RAILWAYS

**Australia's Magazine of Industrial & Narrow Gauge Railways**



**Light Railway Research Society of Australia Inc.**



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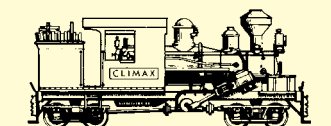
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### Conversions:

1 inch (in)	25.40 millimetres
1 foot (ft)	0.30 metre
1 yard (yd)	0.91 metre
1 chain	20.11 metres
1 mile	1.60 kilometres
1 ton	1.01 tonnes
1 pound (lb)	0.454 kilogram
1 acre	0.4 hectare
1 horsepower (hp)	746 Watts
1 gallon	4.536 litres
1 cubic yard	0.765 cubic metres
1 super foot (sawn timber)	0.00236 cubic metre

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## Comment

In Research (p.33) there's an interesting discussion on the importance of attaching accurate captions to one's photographic work. I couldn't agree more, having just spent an inordinate amount of time trying to fix a date for this issue's cover shot.

The original came from a roll of 35mm Ektachrome, later mounted in plain white mounts, on which I'd neglected to write anything! Following a lengthy research effort worthy of a feature article, I finally pinned it down to between early February and mid-April 1973. Now there's a piece of my life I'll never get back! *Bruce Belbin*

The Light Railway Research Society of Australia Inc. was formed in 1961 and caters for those interested in all facets of industrial, private, tourist and narrow gauge railways in this country and its offshore territories, past and present.

Members are actively involved in researching light railways in libraries and archives, interviewing knowledgeable first-hand participants and undertaking field work at industrial sites and in the forests.

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Articles, letters and photographs of historical and current interest are welcome. Contributions should be double spaced if typed or written. Electronic formats accepted in the common standards.

Material is accepted for publication in *Light Railways* on the proviso that the Society has the right to reprint, with acknowledgement, any material published in *Light Railways*, or include this material in other Society publications.

**Front Cover:** Opened to the public on 4 April 1970, The Museum of Historic Engines at Goulburn NSW was one of the first of its kind and, at the time, one of the few places in Australia where one could ride behind 2ft gauge steam. On a dry, dusty day in early 1973, a gargantuan Fowler ploughing engine (15504 of 1920) looks on as a train rolls into the museum compound, returning from a trip out to Crookwell Road. Curator and founder Bruce Macdonald, clad in his trademark blue dustcoat, is at the controls of Stella, a Krauss 0-6-0T built for Gin Gin sugar mill, near Bundaberg Queensland, in 1896 (B/N 3423). The open passenger carriages are also quite historic, the first two having once been man-riding cars at Maitland Main Colliery in the Hunter Valley of NSW, whilst the third served the same purpose at Excelsior B Colliery on the NSW south coast. Photo: Bruce Belbin

**Upper back cover:** Two years later, on a chilly morning in September 1975, Stella is busy raising steam, while on the adjacent track sits Krauss 0-4-0T 5945 of 1907, ex-Fairymead Mill No. 7, ex-Burrinjuck Railway ARCHIE (then on long-term loan from EM Baldwin). ARCHIE is now on display at the Burrinjuck Waters State Park (see LR 208, p.23) while Stella is currently stored at Echuca, Victoria, awaiting restoration. Photo: Graeme Belbin

**Lower back cover:** Former Quarries Ltd, Kiama, Davenport 0-4-0ST 1596 of 1917/1517 of 1915 (composite) was one of the first locomotives acquired for what would become The Museum of Historic Engines, having been rescued from storage at Pikes Hill back in 1956. It was in operation on the museum's opening day but, due to various mechanical issues, saw little use subsequently. In 1977 the Davenport was sold to the Illawarra Light Railway Museum Society, and it is now one of the star attractions on their railway at Albion Park, NSW. Robert Marczan photographed the loco at Yallah station on a wet Sunday 14 February 2010.



# Steam locomotives on Victorian timber tramways – Part 3

by Frank Stamford

## Rubicon and Yarra Valley

Another 2ft gauge timber tramway to use steam traction was the Alexandra–Rubicon tramway, owned by the Rubicon Lumber & Tramway Company, but its purpose was to carry sawn timber, not logs. The first locomotive was a Krauss 0-4-0WT (B/No. 2459 of 1891), which had had a number of previous owners including the Victorian Public Works Department and Tasmanian Government Railways (as H class No.3). This was the sole motive power until 1919 when a second Krauss 0-4-0WT was obtained (B/No. 2591 of 1891). It was identical to the first loco, and had already worked for at least six owners in Tasmania, Victoria and South Australia. The third locomotive came in 1926, again a Krauss 0-4-0WT (B/No. 4387 of 1900), but slightly bigger this time. This one had been purchased new by the Mount Lyell Mining & Railway Company for use in Tasmania, and had subsequently operated in South Australia before coming to Rubicon.

These three locomotives operated the tramway until 1935 when the RL&T Co.'s lease expired. The new lessees, Clarke & Pearce used purpose-built internal-combustion locomotives, and the three Krauss locomotives remained at their shed at Alexandra until the late 1950s, when they were cut up for scrap.<sup>1</sup>

In 1912 the Victorian Powell Wood Process Ltd (VPWP) was established to exploit the Powell wood preservation process at a large modern sawmill they were building at Powelltown.

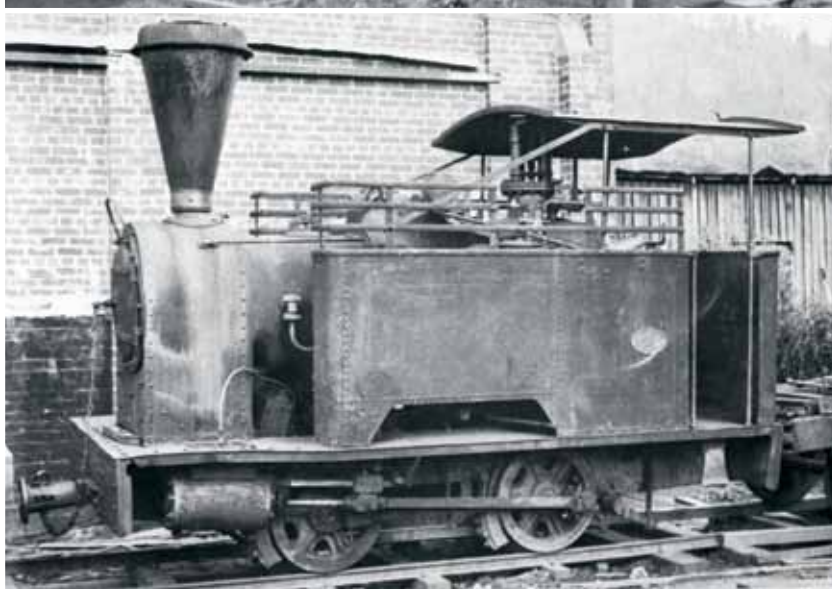
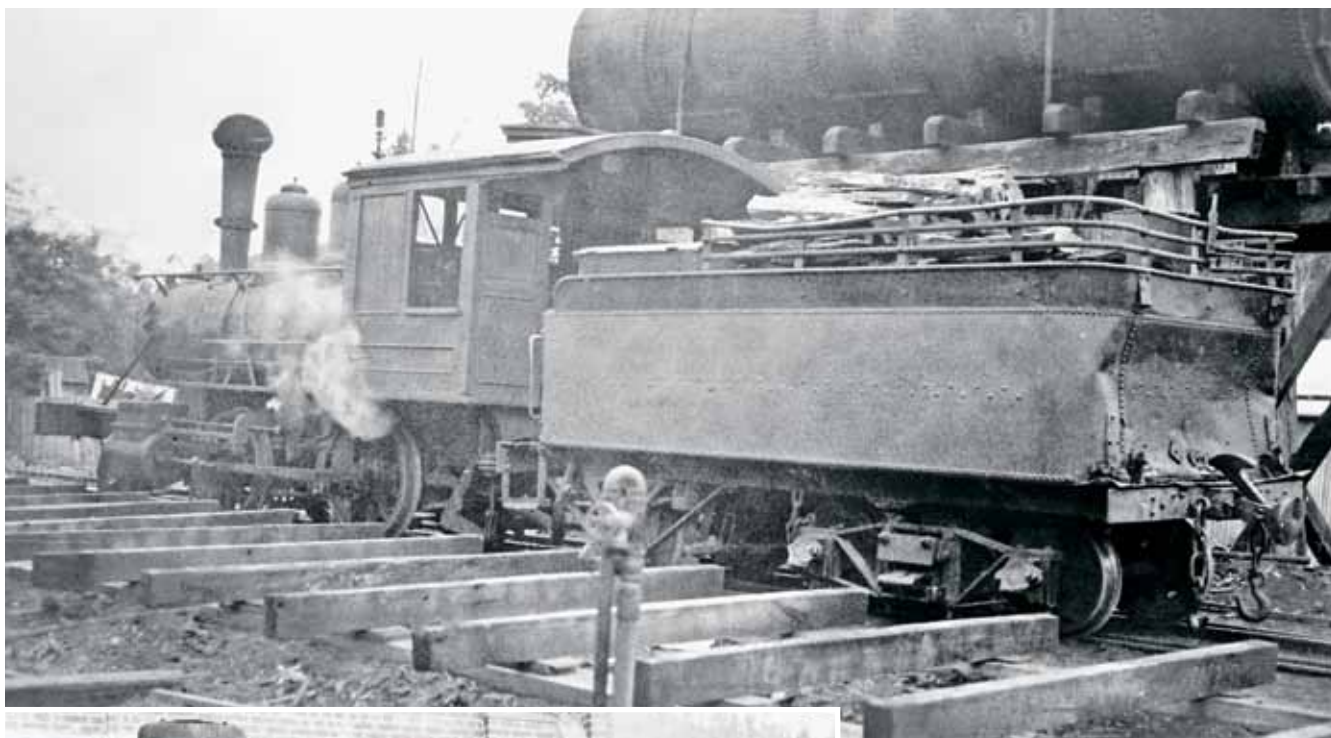
To carry the mill's output to the VR's Yarra Junction station, the company built a 10½ mile tramway, which for various reasons also ran a public passenger and freight service. The company also built tramways to reach their log supply beyond Powelltown.

The VPWP Company was mostly owned by Western Australian and New Zealand interests, and its management was primarily based in Western Australia. Like most sawmilling operations in the west (and unlike most in Victoria) it was a large-scale operation, and very well-financed. To all intents and purposes the Yarra Junction–Powelltown tramway was a Western Australian timber tramway transplanted to Victoria, and its standard of construction was more akin to a railway than a timber tramway. One would have expected the gauge to be 3ft 6in, as in WA, but as all the other timber tramways in the Yarra Valley were 3ft gauge, that gauge was chosen for the Powelltown tramway. To work the new line, the company purchased two brand-new purpose-built locomotives. The first was Baldwin 2-4-0 (B/No. 37718 of 1912) *LITTLE YARRA*, which was primarily intended to run the passenger trains (which always had freight attached). The second was Bagnall 0-6-0 (B/No. 1965 of 1913) *POWELLITE*, primarily intended to handle sawn-timber trains, but also used on log trains in the bush. *POWELLITE* was not delivered until 1914, and this delay in delivery may have been the reason the company purchased Andrew Barclay 0-4-2ST (B/No. 311 of 1888), apparently from the Warburton–Big Pats Creek tramway. This very small (4 ton) locomotive would have been surplus to the Warburton tramway company's requirements once their new Fowler (B/No.13576) was delivered. At Powelltown the Andrew Barclay was known by a number of



Krauss 2ft gauge 0-4-0WT (B/No. 2459 of 1891) takes water on the Rubicon – Alexandra tramway in 1934. The driver, Bob Rees attends to the engine, while brakeman Hayden looks on.

Photo: W Jack



Baldwin 3ft gauge 2-4-0 LITTLE YARRA (B/No. 37718 of 1912) at Powelltown, c. 1937. The back of the tender has been dented as a result of a shunting accident, and the rails on the top of the tender have become very battered. Photo: JCM Rolland □ Kerr Stuart 3ft gauge 0-4-0T locomotive Coffee Pot (B/No. 643 of 1898) at Powelltown c.1937. The loco was painted green and traces of lining on the tank sides appear to be visible. Photo: JL Buckland □ Bagnall 3ft gauge 0-6-0 POWELLITE (B/No. 1965 of 1913) at Powelltown c.1937. The oversized funnel was fitted in the late 1930s by the Victorian Railways when the loco was overhauled at Newport Workshops, and in this view the pancake shaped object on top appears to be a Cheney spark nullifier. Photo: JCM Rolland







3ft gauge Shay locomotive (Lima B/No. 2575 or 2576 of 1912) at Powelltown c.1937.

Photo: JCM Rolland

names, many unprintable, but 'Squirt' was the most widely used. Despite its small size, the locomotive was capable of hauling empty log bogies uphill to the logging area, and the logs were then gravitated back to Powelltown.

The Powell wood preservation process failed in 1914 and the company became insolvent. Its assets were taken over by the Victorian Hardwood Milling & Seasoning Company, which had far less capital than its predecessor. As a result future locomotive acquisitions were second-hand. In April 1916 a Kerr Stuart 0-4-0T locomotive (B/No. 643 of 1898) was obtained from the Tasmanian Gold Mining Company, Beaconsfield, Tasmania. This was followed in 1919 by a Shay loco, (Lima, B/No. 2575 of 1912) from the Abercrombie Copper Mines Limited of Burruga, NSW. In 1927 another Shay locomotive was obtained (Lima, B/No. 2576 of 1912), from Hoskins Steel Works, Lithgow, NSW. This was identical

to B/No. 2575 and both had originally also been owned by the Lloyd Copper Company. Whilst at Lithgow it had been involved in a fire, destroying all the wood work and bending the frames. The workshops at Powelltown were sufficiently well set up to be able to repair it. The damaged section was cut out of the frames, and as a result it was slightly shorter than 2575, with less room in the cab. At Powelltown it was known as 'Green Beetle'. Apart from 'Squirt', which was taken out of service and dismantled in the 1930s, all the other locos survived until the closure of the tramway in 1944. The only one to see any further service was *POWELLITE*, for a few years on the phosphate railways of Nauru.<sup>2</sup>

It is reported that at Higgs Mill near Whittlesea an attempt was made to convert a traction engine into a locomotive around 1916, but it was apparently not very successful due to frequent derailment.<sup>3</sup>



Baldwin 3ft 6in gauge 0-4-0ST (B/No. 9086 of 1888 or 12007 of 1891) working on the Loch Valley Timber Company's tramway at Noojee station, c.1923. The working life of both locomotives ended in 1926 when they were badly damaged in a bushfire. Photo: LRRSA collection





Ex-South Australian Railways 3ft 6in gauge 0-4-4WT (James Martin B/No. 67 or 69 of 1893) at Goodwood, c. 1934. Photo: LRRSA collection □ Sharp Stewart 3ft 6in gauge 0-6-0ST (B/No. 2030 of 1870) on the Elphinstone tramway c.1925. It had been rebuilt from a 4ft 6in gauge 0-4-0ST originally built for the Mersey & Deloraine Tramway in Tasmania. Photo: LRRSA collection □ Goodwood tramway 3ft 6in gauge 2-6-0 at Noojee in 1936. The Beyer Peacock 2-6-0 with leading Bissell truck was a very successful type, which was used in every Australian state and the Northern Territory. This (B/No. 2245 of 1882) was the only one to work in Victoria. It was an extreme example of the rough life experienced by steam locomotives on timber tramways. At some time it had lost its tender and ended its working life in a bridge collapse in 1936. But it had already experienced at least one bridge collapse on the Goodwood tramway, which was possibly when it lost its tender. Photo: John Buckland



### Noojee 3ft 6in tramways

Following the extension of the Victorian Railways Neerim South line to Noojee in 1919 two steam operated timber tramways were established at Noojee. The first was the Loch Valley Timber Company, which built a 3ft 6in gauge tramway running north of Noojee in 1921. For locomotives it used two Baldwin 0-4-0STs (B/Nos 9086 of 1888 and 12007 of 1891). These had come from the Sorrento steam tram. They were similar to the Baldwin 0-4-0ST used near Wandong, and subsequently on Sanderson's tramway at Forrest.<sup>4</sup>

The Loch Valley Timber Company's operations were brought to an abrupt halt in February 1926 when bushfires destroyed the mill, tramways, and much of the forest they were cutting. The locomotives were badly damaged in the fires, and remained abandoned for many years before being cut up for scrap.

The second steam tramway to be established at Noojee was that of the Goodwood Timber & Tramway Company—the same company that operated the Port Albert–Mullundung tramway. The new tramway which commenced working around 1923, operated in much more rugged country than at Port Albert, and wisely the company adopted 3ft 6in gauge for the new line. It was a gauge with which the company's WA owners were very familiar, as that was the gauge of the Kalgoorlie & Boulder Firewood Company's main firewood tramway operations in the Kalgoorlie area. Locomotives for the new tramway consisted of two ex-South Australian Railways V class 0-4-4WTs (Martin & Co B/Nos 67 and 69 of 1893), and a Western Australian Government Railways A class 2-6-0 (No.5, Beyer, Peacock B/No. 2245 of 1882). For many years this had been on the roster of the Kalgoorlie & Boulder Firewood Company, before coming to Noojee. There was also a third ex-SAR V class (Beyer, Peacock B/No. 1599 of 1876) but this was without boiler, and appears to have been used as a source of spare parts. After the move to Noojee, the Goodwood company fell on hard times, and became financially very weak. In the 1930s the 2-6-0 became the only serviceable loco, but it was in appalling condition. It had lost its tender in a derailment, and a home made one was built to replace it. The regulator was jammed in the half-open position, the brakes were weak, and the locomotive

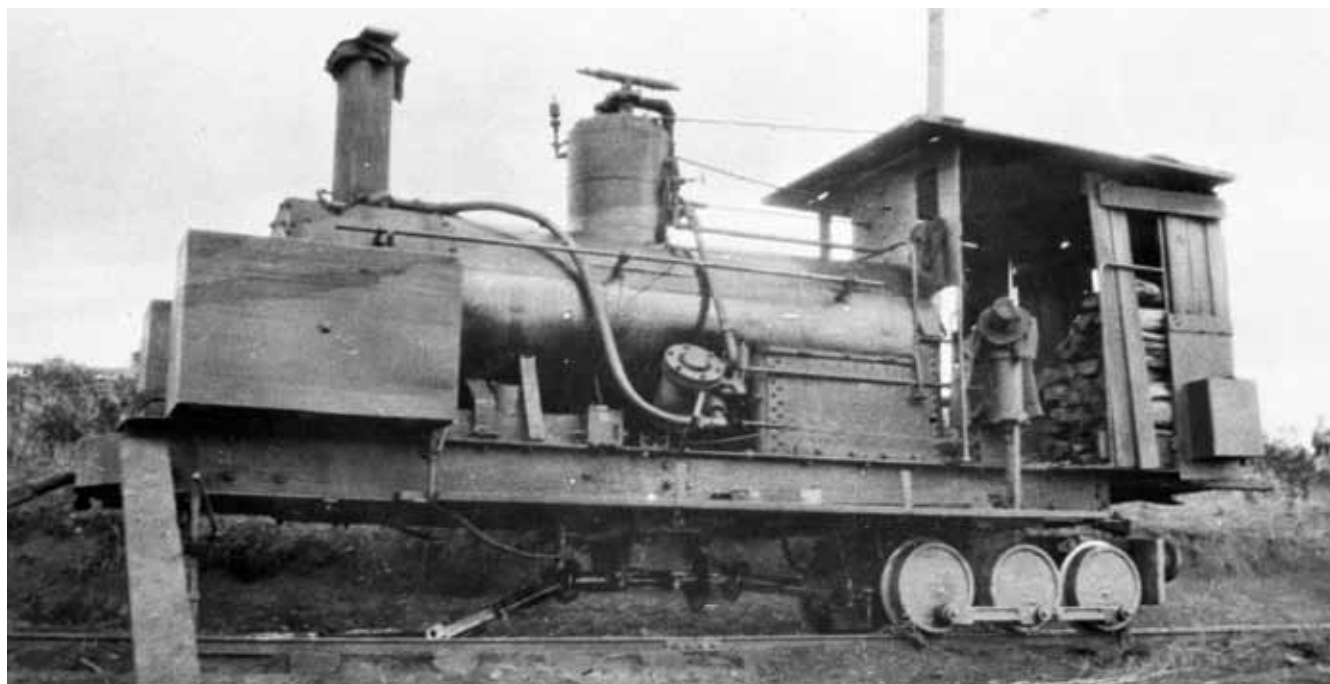
was controlled with the reversing lever. Its operation ended in 1936 when a trestle bridge collapsed under it, killing the driver. It was replaced by a Day's rail tractor.<sup>5</sup>

The last 3ft 6in gauge steam operated timber tramway to open was that of the Elphinstone Redgum Sawmilling Co. from Elphinstone to Granite Hill. The line was about 6km long, and the locomotive a Sharp, Stewart 0-6-0ST (B/No. 2030 of 1870), which had previously been used in Tasmania. This locomotive was originally built as a 4ft 6in-gauge 0-4-0ST for the Mersey & Deloraine Tramway, and was converted to 3ft 6in and rebuilt as an 0-6-0ST following the closure of that line. Following use on the west coast of Tasmania it came to Elphinstone. The tramway only lasted until 1928, the quality of the timber being much poorer than expected. The locomotive remained in its engine shed at Elphinstone until 1940 when it was sold to Dickson Primer Industries for scrap.<sup>6</sup>

### The final fling – geared locomotives

In 1926 EAC Russell built a new 3ft gauge steel-rail tramway from Gembrook railway station along Black Snake Creek for about 14 km. It was to carry sawn timber from his own sawmill, and other sawmills in the area. He obtained a second-hand Kerr Stuart 0-4-2T loco, (B/No. 797 1902). It had been built to 2ft gauge, and had had an eventful life working on mining company tramways in the Northern Territory, Western Australia, and New Guinea. Miller & Co. of Melbourne purchased it, and re-gauged it to 3ft before selling it to Russell.

After a few trials, Russell considered it a total failure, as it was grossly underpowered. Much of the tramway had a grade of 1 in 29, with the steepest 1 in 14, and much of the grade was against the load. Apart from being underpowered, the locomotive also derailed at the slightest provocation, including on bridges. It was little used, and was finally cut up at Gembrook around 1953. To solve his immediate motive power problems, Russell bought two 6-wheel Day's rail tractors, which performed very well. But he needed something more powerful. As a result Day's Engineering built for him a steam geared locomotive running on two 6-wheel bogies with outside coupling rods – much like a normal Day's rail tractor. Two cylinders were arranged in a vee fashion under the boiler driving a central



*3ft gauge 0-6-6-0 geared locomotive built by Day's Engineering for Russell's tramway. It is seen here at Gembrook in 1936, with the front bogie removed for maintenance.*

*Photo: Ray Pearson*





*Kerr Stuart 3ft gauge 0-4-2T (B/No. 797 of 1902) abandoned at Gembrook. Photo: Andrew Lyell*

shaft, similar to that of the American Heisler. It was geared 3.5:1 giving a top speed of about 5 mph. It performed very well, not being taken out of service until 1939, and was cut up for scrap in the early 1950s.<sup>7</sup>

In 1928 the 2ft gauge Orenstein & Koppel locomotive 'Amy' from the Port Albert–Mullundung tramway was purchased by Jack Ezard. He arranged with Day's Engineering Company in conjunction with Messrs George & George to produce a 3ft gauge geared locomotive, using parts from the Orenstein & Koppel. The resulting locomotive ran on two 4-wheel bogies with coupling rods, using the O&K's boiler, which had been extended. The design of the locomotive was broadly similar to a B-class Climax, except for the outside coupling rods on the bogies, and the cylinders being horizontal instead of steeply inclined. The locomotive worked successfully between Big Pats Creek and Starvation Creek and could cope with the extremely sharp curves and steep grades on Richard's Tramway just beyond Big Pats Creek. On occasions, it also ran from Big Pats Creek to La La Siding. The locomotive remained in use on the Starvation Creek tramway until 1934, when it was stored for some years at La La Siding, Warburton. However, in 1938 Ezard moved it to his Erica–Rocky Knob tramway, where he used it until around 1944.<sup>8</sup>

The success of Ezard's geared locomotive may have given Bill Richards inspiration for his extraordinary creation – the aptly named 'Lumbering Liz'. It was a geared locomotive consisting of a Davey Paxman portable engine, with cylinder on top of the boiler, two large flywheels just behind and on each side of the chimney, and drive transmitted by three chains. It also had changeable gears. It looked incredible, but worked, and remained in use until about 1934. It mainly worked in the McMahons Creek logging area east of Warburton, but occasionally ventured to Big Pats Creek. It was out of use by 1937 and scrapped at about that time.<sup>9</sup>

And finally the last steam operated timber tramway to open was the 2ft 6in gauge Tyers Valley Tramway, which was covered at the start of this article.

One thing is clear from this history; Victorian sawmillers were prepared to improvise and experiment to lower their transport costs. Many of these experiments took place in remote places. As a result it is quite likely there were other examples of the use of steam locomotives on Victorian timber tramways. For example, there is a reference to Byrne & Gracey experimenting in 1926 with 'a steam haulage system suitable for use on wooden rails' in the Black Range.<sup>10</sup>

### Acknowledgments

I would like to thank John Browning, Phil Rickard, Colin Harvey, Norm Houghton, and Mike McCarthy for providing information and assistance in the preparation of this article.

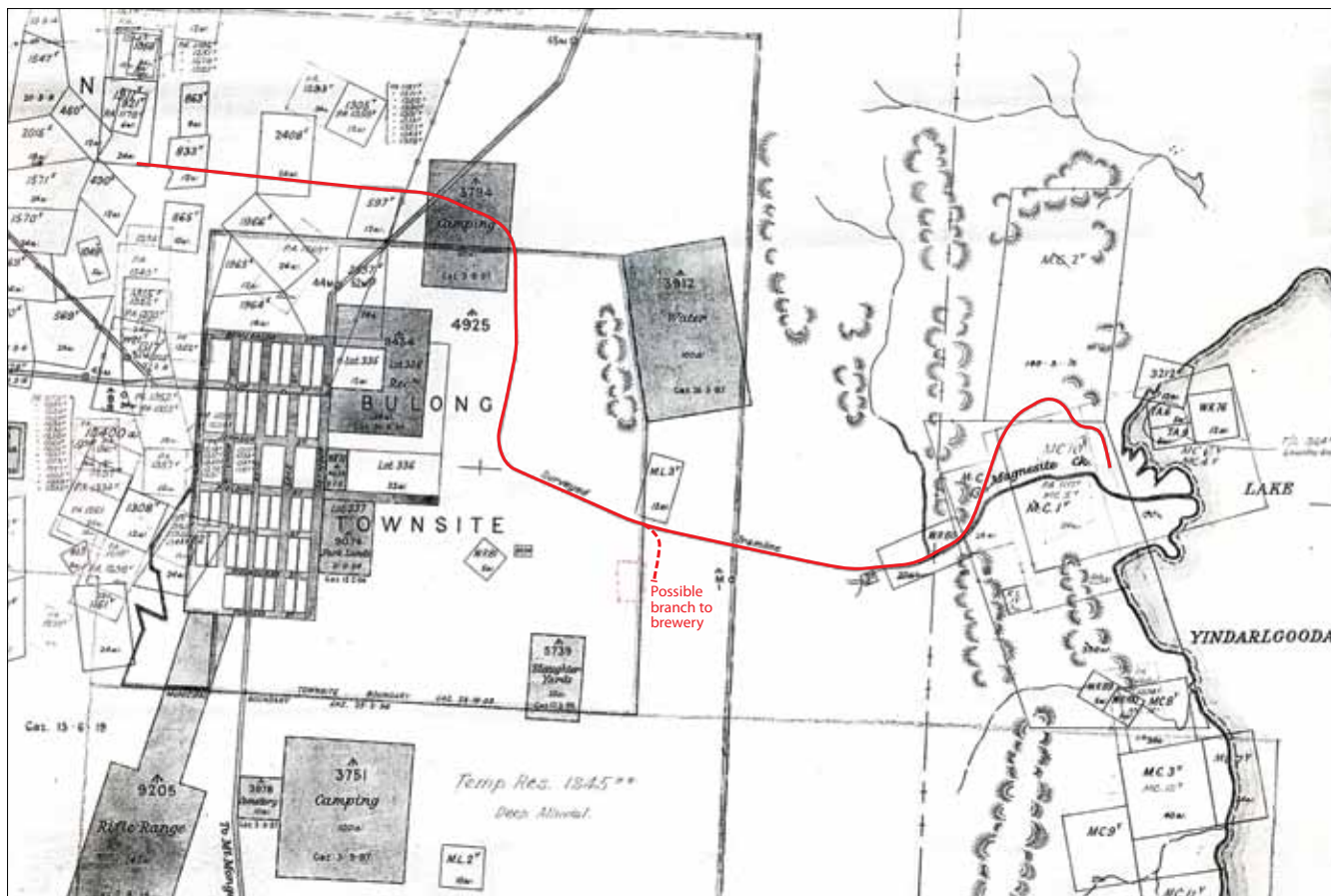
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10. Victorian Public Records Office FCV file 25/1369



*3ft gauge 0-4-4-0 geared locomotive built by Day's Engineering seen on Jack Ezard's Starvation Creek tramway, east of Warburton. The driver is N Hooper, and the fireman is T Hill. Photo: LRRSA collection*





Contemporary map, showing the route of the tramway as surveyed. To aid legibility, the route has been overlaid in red. David Whiteford collection

# Bulong's battery – boom to bust

by David Whiteford

*Bulung is a rather pretty little town on the North-East Coolgardie Goldfield. The streets and footways are well made and kept and ornamental trees are planted on both sides of the streets. The natural timber and bush surrounding the town have been well preserved, giving the place a rural rather than a mining appearance. . . . A group of gold-mining leases, situated about one mile West from the town are being worked. . . . The population of the municipality is 300. . . . Just recently two prospectors, named Fogg and McLearn, have discovered what appears to be a rich lode two miles north of the town.*

So said the *Western Australian Year Book 1902-1904*, by which time Bulung had already peaked as a mining area. This article records some of the development and optimism of only some eight years earlier as well as the decline that came soon after. Bulung was first known as I.O.U., the first gold find at the town being in August 1893, and the actual I.O.U. claim registered in November. The first maps of the newly gazetted townsite in 1895 were headed *Townsite of Bulung (I.O.U.)*. The change of name unfortunately did not change the fate of the centre and, indeed, I.O.U. came, within a few years, to be a most appropriate name.

## Tramway proposal

The North-East Coolgardie Goldfield had only been declared by proclamation gazettal on 20 March 1896, with Kanowna, Bulung, and Kurnalpi as three administrative districts. The

declaration took effect from 15 April and on the very day before, George Edmund Lane of Kalgoorlie signed a Notice of Application to construct a tramline at Bulung.

Lane owned a mining lease, water right and machinery area at Bulung. He proposed to erect a 40-head battery on the machinery area at Lake Bulung and connect it with Lease 426E (The Last Chance) by a four mile long 2ft 6ins gauge tramline. Stone from his own and other mines would be crushed and the line used solely for mining purposes. The steepest grade along the route was 1 in 33, a £200 survey and plan having been prepared.

The Warden North East Coolgardie Goldfield wrote to the Under Secretary for Mines supporting the application and adding that every inducement should be afforded to lessees for treatment of their ore. Getting impatient, Lane wrote to the Minister of Mines on 3 July saying that since posting notice of the application at the Warden's Court, Kanowna, no objection had been lodged against it.

Although Lane had stated he owned the various leases, it was the Mount Charlotte Gold Mining Company Ltd that was raising capital of £60,000 to complete the flotation of a new company to operate the battery and tram. A letter of 4 July 1896 from RD Thompson of the Company to the Minister of Mines, also seeking the tramway right, said that £36,000 had been subscribed to date. Approval of the Governor-in-Council for the tramway lease was advised to Mr Lane in a letter of 10 October. Later that month the Mines Department was asked to grant a transfer of the concession to the Bulung Mining Tramway and Ore Reduction Company of Western Australia Limited, a company formed in London with a registered office in Kalgoorlie, to acquire and work the concession in conjunction with various leases, the water right and machinery area. The new company also wanted

an extended concession so that passengers and goods might be carried over the line. A document in the Department of Mines files for 1896 commented:

*Passengers are not likely to be numerous and the power would probably be merely formal, but on the other hand it would be a great benefit to Bulong if backloading of wood and condensed salt water from Bulong Lake [now Lake Yindarlgooda] could be carried over the line thereby avoiding the expense attendant upon heavy haulage over a steep road.<sup>1</sup>*

It was explained that there would be no competition with a possible government line from Kalgoorlie to Bulong, which would come in from the west, the lake being to the east. The concession does not appear to have been approved although the company seems to have been hopeful, as indicated later.

### Construction and operation

Construction began early in 1897, an April report stating that *the . . . company have a large number of trucks and rails for the tramline here and are making good progress.<sup>2</sup>* In early June the line was within a quarter mile of the lake, with 40 head of stamps on their way to Bulong. On 24 June it was reported that *the locomotives should be hauling stone to the mill well within three months.<sup>3</sup>*

This proved a hasty prediction and also exaggerated the motive power on order. Also, from the likely identification of the single locomotive that worked the line (Krauss 2181 of 1889) the gauge of the line as constructed had been changed to 2ft from the intended 2ft 6ins.

Other major works were being completed in Bulong at the same time. The Bulong Water Supply Company had begun to deliver water to various mines. The Queen Margaret and Great Oversight mines both had batteries which would begin to work continuously and the Great Eastern and Great Oversight Extended were to erect expensive machinery. The Queen Margaret's ten-head battery started up in March and a short tramway ran from the main shaft to the battery. This

work, and the subsequent crushing power to arrive in Bulong, seems to have had a bearing on the fate of the Ore Reduction Company.

Newspaper reports tell of The Last Chance raising good payable dirt with 24 extra men being put on. The Melbourne United was sending 200 tons per month to the Seabrook Battery near Northam pending completion of the Ore Reduction Company's mills. The Company was arranging to run ten head of stamps continuously and solely on Melbourne United ore.

By July 1897 all the machinery for the battery was reported to be at Bulong, with the battery site selected and erection commencing at once. About 40 men were cutting out the foundations and a lot of blasting was required through solid rock. The railway had been surveyed and was being constructed over the various mines to be served. Some miners were anxious to be connected to this railway and even advocated an extension from Hannans Lake to enable Golden Ridge and Balagundi mines to send ore to the new crushing works (a steam locomotive powered mining railway was later to operate in this area). Such a railway, south-west from Bulong town, could have totalled between 15 and 20 kilometres. Major progress was noted in November when on 19 November 1897, the Western Argus reported:

*a small locomotive . . . passed through Kalgoorlie Friday evening. Powerful and about ¼ size an ordinary engine, very similar to Tarrawingee quarries. The Carter who is carrying the locomotive . . . informed all and sundry who crowded about him in Hannan Street during a halt that the engine was intended for the 300' level in the Queen Margaret to carry the ore to the shaft, but it is improbable that he found many who believed him.<sup>4</sup>*

After a trial run late in October, the battery was started on 24 November 1897 with ten stamps crushing for The Last Chance, and with ore from Mount Craig and White Horse mines to be crushed soon after. The tramway had not yet been used as the locomotive was to be overhauled,<sup>5</sup> the following report of 22 November showing the need of this work:



A Share Certificate, as issued by the Bulong Mining, Tramway & Ore Reduction Company of Western Australia.

David Whiteford collection



a number of the prominent citizens of Bulong assembled at The Last Chance mine . . . with the object of tripping down to the lake battery per newly imported locomotive. . . Unfortunately however, the wild Irishman on the rails did not answer to expectations - a loud toot toot . . . then away down the lake in festive order at the wild rate of at least five miles an hour. About a dozen more or less expert advisers clustered around the engine and all manner of inducing methods were tried to get the necessary way on, but without avail. Some said the guilder-flaker was wrong, and others thought the flipper-flapper wanted readjusting; but whatever was right we narilly know, only that she wouldn't go, and the result was that those who had taken box and other seats in the trucks had to give up the . . . journey to the lake, and walk back to town instead. Here . . . the disappointment of the unrealized trip was eliminated to some extent in liquid refreshment.<sup>6</sup>

### A swift demise

Although it is presumed that the locomotive was soon hauling trains, the company's operations were to be short-lived. The N.E. Coolgardie Goldfields Mining Registrar annual report for 1897 says that the: *Company opened their works during the year . . . [with] rolling stock of 48 trucks and an engine. It is stated that this Company has expended £70,000 in the district, and it is regretted that the works soon came to a standstill.* The Company was in liquidation by the end of the year.

In early January, the *Bulong Bulletin* reported on a 'recent' Extraordinary Meeting in London of the Water Trust & Public Crushing Coy, now the parent company of the Bulong Mining Tramway and Ore Reduction Company.<sup>7</sup> A resolution was passed that it is desirable to reconstruct the company, and that the company be accordingly wound up voluntarily; also that Anthony Stanley Rowe [of London] be appointed liquidator: . . . that the said liquidator be, & is hereby authorised to consent to the registration of a new company to be called the Northam Milling & Mining Co. Ltd. A week later the paper reported that the reorganisation was complete and that the Northam battery was being overhauled by Bewick Moreing & Co. The Golden Pig (Southern Cross) and Bonnie Vale (Bonnie Vale, near Coolgardie) mines were expected to supply ore to the battery. The parent company had been quickly dealt with but the local company lingered a little longer.

A petition to wind up the Bulong Mining Tramway and Ore Reduction Company of Western Australia Limited was presented to the Supreme Court in May 1898 and an Order to wind up was issued on 8 June. On 27 June an order was issued appointing John Lee of Perth to be official liquidator and he called all creditors to send details to him by 2 August when a determination of allowance of debts and claims would occur.

A public meeting in Bulong on 25 April 1898 had called for a public battery to be provided and recommended the government purchase the Ore Reduction Co. plant, it being expected to be sold at a low figure. Many holdings were being abandoned as men could not get their ore crushed. The Mines Department was already operating public batteries in some smaller mining centres throughout the state and would continue to do so for most of the 20th century. The Bulong Municipal Council further called on the Government to purchase the battery at its 8 August meeting and a special meeting on 3 September resolved that a deputation wait on the Minister for Mines to urge the necessity of the purchase. The council said that the price asked for the plant was only a quarter of what it cost twelve months ago and all the work it had done was to crush under 400 tons of ore.

Various issues of *The West Australian* newspaper in February 1899 advertised tenders, closing on 16 March, for the purchase

of the assets mentioned hereunder, now in possession of the Official Liquidator of the Bulong Mining, Tramway and Ore Reduction Company of Western Australia, Ltd., in Liquidation, as the same now stands on the Tramway Rights of the Company, at or near Bulong; the Tramway Rights held by the company, and all privileges attaching hereto; the Plant and Machinery, consisting of: About 4 miles of 2ft gauge tramway, laid from near the Bulong Public Battery to or near the Last Chance Mine, constructed of 21 lb steel rails and iron sleepers, with points, sidings and appurtenances; a quantity of 21 lb steel rails and iron sleepers not laid, 1 locomotive (2ft gauge) with about 42 iron trucks. Pilkington & Hall, Kalgoorlie, were agents for the tender.<sup>8</sup>

### Government intervention

David L White, Superintendent of Public Batteries, reported on an August visit to Bulong.<sup>9</sup> There was a well about 100 yards from the battery with a salt and surface condenser by Thompson & Co, Castlemaine, but these facilities were unable to provide suitable boiler fresh water. He reported on the tramline and rolling stock but did not 'for the present' advocate its purchase. Even if it were purchased, the Mines Department should not incur any working expenses on it but simply allow it to remain in the district as a cheaper means of cartage to those it would suit.

The battery plant was considered agreeable as was the likely output of the district for some considerable time to come and White recommended the purchase of the battery. The plant, machinery areas, tailings, and water rights were purchased by the end of the month and the watchman who had acted for the company was placed in charge. £800 was authorised for a proper condensing plant with £2500 for the existing assets, not including the tramway. The Bulong correspondent to *The West Australian* newspaper wrote . . . the tramway was not bought owing to the fact that, as constructed, it only tapped two mines namely the Esmerelda and Last Chance and was not suited to supply direct cartage to the battery from the majority of Bulong's mines.<sup>10</sup>

The tramway was purchased by a syndicate that intended to cart ore to the Government Battery for the public.<sup>11</sup> Some 1100 tons of stone had already been booked for the battery by 22 September but when it was still not in use by mid-November, there was talk of another private enterprise battery being started. The Mines Department was installing some new machinery in its battery that began to arrive in December. Among the work done was the lowering of the stone wall supporting the tramline on the west side [where ore was supplied to the battery] by three feet and the tramline removed out of the way.<sup>12</sup> This indicates that the tramway syndicate had already failed and nothing more of it, including the removal of the line and stock, has been located in the press or official documents.

The Christmas 1898 issue of the *Western Mail* had a special report on Bulong as follows:

*Two months ago most of the abandoned properties were taken up owing to the Government having purchased a 20 head battery, erected in the pristine days by the Bulong Tramway and Ore Reduction Co. on the edge of the lake three miles from the town. Here it is proposed to crush ore for the public at a rate which should convert many of the forfeited leases from worthless into payable properties.*<sup>13</sup>

At the same time, the Warden of the N.E. Coolgardie Goldfield wrote in his 1898 annual report that at the end of the year [the battery] was not in readiness to begin work; no doubt it will be kept fully employed when it gets started and will prove a great boon to the alluvial miner, and in a lesser degree to the reef miner also. Bulong's total gold yield for 1898 was 16,145ozs 14dwts, with 51 claims being worked and approximately 1250 miners

employed. There were three batteries with a total of 50 head of stamps on the field for the deep mines.

In January 1899, the major mining weekly newspaper, *The Western Argus*, had a very disparaging editorial on public batteries, apparently aimed at the Bulong plant:

*It was pointed out [by this paper] that the public works when undertaken by the Government itself under direct Ministerial control, were heavily weighted from the start, and that failure, or partial failure, was almost certain to ensure . . . when these Public Batteries start, if they ever do start, which seems by no means certain. At Bulong there are many thousands of tons awaiting treatment. According to first arrangements the battery should have been ready some weeks ago and now the completion seems as far off as ever - further off perhaps.*<sup>14</sup>

A trial run of the battery finally occurred on 15 February 1899 and on 1 March public crushing commenced. Only ten head were in use, with some small further repair needed to allow 20 head to crush. Large supplies of stone were available for a month's full time work at the battery. However there were many complaints about the very bad state of the road to the battery, some places reported as being almost impassable. The state of the road was making carting 40 per cent more costly than it otherwise would be and the N.E. Coolgardie Roads Board and Government were called on to repair the road. Near the end of February, carting to the battery had been almost entirely suspended owing to heavy rains rendering the tracks virtually unusable.

The siting of, and access to the battery, was problem enough but the ten-head Melbourne United's battery had been purchased early in 1899 by Kanowna man Mr Holt and he was re-erecting it near the mines for public crushing. Holt's Battery was trialled on 13 March and worked very smoothly. Large supplies of ore were on offer and the battery booked nearly three months ahead. Three days earlier, operations at the Government Battery had been entirely suspended pending the arrival of Mr D White, Superintendent of State Batteries.

Almost every issue of local newspapers in February and March had further tales of woe on the Bulong Battery. Equipment failures, water shortages, strained management/client relations and transport problems were frequently aired. When Mr White arrived on 20 March he was met by a deputation of about 60 alluvial miners and leaseholders who told of their great losses due to the battery failures. Large parcels of ore were being sent to Kalgoorlie and Holt's battery was now booked four months ahead. Within two days Mr White completed his investigations, the manager resigned, and a new manager was ready to take charge.

It was not until 17 April 1899, following installation of new pumping machinery for a regular water supply, that the Government Battery recommenced crushing. The plant worked trouble free for almost two weeks but in April the main driving wheel broke and, as there was no spare, a new wheel would need to come from Melbourne. During its brief April crushing period the battery crushed 250 tons of ore for 170ozs while Holts took 638 tons of ore for 645ozs in the month.

On 22 May the Government Battery recommenced and had 1200 tons of ore lying awaiting treatment. Within two weeks it had crushed 217 tons, but the recently created Bulong Roads Board and the miners continued to hold grievances over the state of the road and the crushing charges. Both matters received attention with the road considerably improved by August and a sliding scale of charges introduced at the battery to assist those crushing lower grade ore. In August 1899, 380 tons were crushed for 261ozs of gold but in December it was only 75 tons for 66ozs. By comparison, Lennonville State Battery near Mount Magnet crushed 182

tons for 235ozs and Mt Ida (west of Leonora) 525 tons for 705ozs. Superintendent White paid another visit to Bulong in February 1900 and crushing was suspended. At the end of the month it was reported that *both Holt's and the Government batteries have been lying idle for some time past. The Government Battery will probably be shifted to some other district in the near future. Latterly the Queen Margaret having 10 head of stamp idle has done any public crushing required.*<sup>15</sup>

Even in September 1898 White had recommended partial removal of the Bulong equipment. *The promise made by the prospectors of this district have not been fulfilled and as I am informed that there seems no likelihood of keeping a ten head going the other ten head may be brought into service elsewhere.*<sup>16</sup> During 1899 Bulong battery had managed to crush 2059 tons of ore for 2136ozs of gold. This was the second highest tonnage and fourth highest yield of the nine State Batteries but the bulk of the crushing was in the first half of the year and, as noted earlier, tonnage had greatly decreased by December.

## Aftermath

Dismantling of the State Battery had almost been completed by the end of June 1900. Ten head went to Widgiemooltha, ten to Mulline, and parts of the crushing gear and machinery went to Yerilla and Norseman batteries. The condensing plant and coolers were purchased by the local Queen Margaret G.M. Co. The Last Chance mine, which had been holder of the principal lease of the Bulong Mining Tramway & Ore Reduction Company, had continued to operate, being transferred to new owners at least twice. But it never proved to have a good reserve of gold. Bulong generally declined in the early years of the 20th century and the area lay almost undisturbed for many decades.

In more recent years Bulong, and in particular the Lake Yindarloada shores, has seen a huge nickel plant constructed but it is far enough from the former tramway line not to affect it. The tramway operated for less than two months but 100 years on, the Bulong Mining Tramway & Ore Reduction Company has left a fascinating railway legacy.

Although proposals for a WAGR branch to Bulong never gained favour, another railway did later operate through the town. The Westralia Timber and Firewood Company was established in 1902, first operating out of Kanowna and laying railways up to 40km distance into the bush. In September 1907 the company relocated to Kurramia, about 12km from Kalgoorlie on the Kanowna branch railway. The company's main line ran south-east, through Bulong townsite, with various branches being laid to reach new cutting areas. Construction of the Trans-Australian Railway from 1913 blocked access to the company's intended areas of expansion and although some lines were laid to the north-east away from the new railway, it could not reach sufficient good stands of timber. This together with a mining decline and a timber hewers' strike in 1919 resulted in a merger with the Kalgoorlie & Boulder Firewood Company and a shift of all operations to Lakeside, south of Boulder. The last rails, including those through Bulong, were lifted in 1920. In 2005 there was still some evidence of the formation running through the centre of the former mining town.

## The locomotive

The locomotive, so briefly reported in contemporary press, remained a mystery and some rail historians confused the Bulong operation with the Hampton Plains Company's King Battery system. However, it seems certain it can now be identified as Krauss 2181 of 1889, imported into Australia for





Looking towards Lake Yindarlgooda, over the Battery, from the cliff top. □ The Battery terminus of the tramway. The line is thought to have been raised here to assist unloading the hoppers. □ The Battery remains at Lake Yindarlgooda. The tramway was at the top. All photos: Bernie Morris, September 2007.





the Victoria Docks construction in Melbourne. It then was at the Happy Valley Reservoir in South Australia until 1896 when it 'disappeared' until recorded at the East Murchison United mine, Lawlers, WA, from 1906.

The locomotive must have awaited a buyer for some years following the Bulong closure, perhaps in a Kalgoorlie machinery dealer's yard along with the track, but this must remain conjectural in the absence of any clear evidence.. It was used at Lawlers until 1919 and then languished unused in the Goldfields until purchased by Lew Whiteman in 1963. It was later transferred to his Mussel Pool, Caversham, property which is now part of the government's Whiteman Park. The locomotive is undergoing cosmetic restoration by members of the Western Australian Light Railway Preservation Association, operators of the Bennett Brook Railway at Whiteman Park, led by Charles DeBruin, one of the founding members of the Association.

### The formation today

LRRSA Kalgoorlie member Bernie Morris took Jeff Austin, Garry Howieson and the writer to Bulong in August 1983 and we walked along much of the remarkably well-constructed and preserved formation of the tramway. In the intensely hilly country between the town and lake shore are high embankments, deep cuttings and many small bridges, some with extensive stone abutments. The lake terminus of the line was very high up on the cliff side, and ore would have dropped down to the crushing plant. A second visit was made in April 1988, and since then there has only been some slight erosion due to weathering to alter the condition of the formation. It was noticeable on both visits and previously to Bernie, that no dogspikes or other physical remains of track remained along the line. From the description of the track in the tender notice quoted earlier, the track must have been completely removed and probably went into storage with the locomotive, subsequently going to Lawlers where it is known such track was in use.

The mines terminus was not studied during the 1980s visits as there had been much prospecting over the area. Goldfields historian Scott Wilson has a current mining lease at Bulong, on former 'Last Chance' land and the formation of the tramway passes onto his lease, with the terminus believed to be located on it. The formation is not clear and there is no obvious run-around or sidings to be made out. However as it leaves the former Last Chance lease area, the formation is clear and elevated above ground level.

### The brewery branch

Another mystery to the Bulong story is the existence of an apparent rail formation from the 'main line' to the site of Bulong's brewery. No documentary proof has been located but the formation, about 150 metres in length, is clear. It is possible that the company laid in a formation under the belief that it was going to have the rights to haul other freight; with firewood to the brewery being a likely freight for trains returning from the battery, and possibly also kegs of beer to the town.

The brewery was on an elevated site on the furthest eastern slope of the jumble of hills lying between the town and the flat country that separated these hills from the other hilly section leading to the lake edge. Steep up and down grades faced brewery products going to the town. The same grades faced firewood drays should they be coming from the direction of the town. If they were coming from the direction of the lake the haulage was much easier. Rails may never have been laid on the branch due to approval for general freight haulage not



Partly restored Krauss 0-4-0WT 2181 of 1889 displayed at Whiteman Junction station, Bennett Brook Railway, prior to the WA Light Railway Preservation Association dinner, 1 December 2007. Photo: Neil Blinco

being given and the short operating life of the company, but as noted earlier there are no physical remains of rails, sleepers or spikes along the entire route.

### Acknowledgements

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Bernie Morris and Jeff Austin provide some scale to one of the Bulong bridges with intact beams and stone abutments in 1983. □ Part of the formation has become well wooded but the embankment runs straight and clear, with another small bridge opening, 1983. □ This impressive embankment runs through the hill country near the lake. In 1988, Garry Howieson seems dwarfed by it. All photos: David Whiteford



# Westfalia Baldwin

## Westfalia Pty Ltd mining business 1989-1991

by Craig Wilson

### Going forward

In 1986 when Theo Lutterbeck brought Westfalia Pty Ltd to Kellogg Road, Rooty Hill, his objective was to occupy premises that allowed for expansion of the core Westfalia longwall mining business. This gained, he also found greater advantage there in the presence of the ongoing activities of EM Baldwin, then still under the control of the Receiver.

In their now rented half of the workshop, Baldwin had a fully equipped machine shop. For Westfalia this meant that work subcontracted out did not have to go off-site. If the price was right, the work could just be walked through the roller shutter dividing the two areas direct to the machine tool required, with consequent cost, time and quality advantages. Over time, this led to closer contact between the two groups of staff and management. Theo Lutterbeck gained an appreciation of the available skills and the quality of work undertaken on the other side of the workshop. Here, already developed, was a potential base of mining repair work with just the customers that Westfalia wanted to build relationships with. If it could be accessed, that repair work would carry Westfalia between longwall contracts and be profitable as well.<sup>1</sup>

There was only one problem to be surmounted. EM Baldwin could be purchased from the Receiver, but the company was restrained by the sale agreement with Hexham Engineering from building or rebuilding powered railway vehicles. Here fate was to take a hand with Hexham Engineering commencing their ill-judged facilities expansion in 1987. Hexham were to be left with a state of the art workshop facility at the same time as its parent sold off or closed the underground collieries that had provided the bulk of work. Nor would external customers take up the slack. There was little business from third party collieries as Hexham usually found itself the most expensive tenderer. The Baldwin sugar business was now negligible due to the state of the industry, and the naval frigate fit outs that had been hoped for had gone to Melbourne. As Adelaide Steamship, the conglomerate that included Hexham, crumbled in the crash of the late eighties, everything was up for sale. This included the Baldwin license.

In 1988 enquiry was made of the Receiver and of Hexham Engineering to purchase both businesses simultaneously. Hexham Engineering was by now a shadow of its former self. Most of the staff had been retrenched, work was not being sought, and the orders on hand were being farmed out to subcontractors. Theo Lutterbeck visited Hexham with Frank and Maurice Baldwin, who were to review the spare parts available with the purchase. He was offered the license at the price Hexham had paid for it. That was now a ridiculous value as there were no orders held and no business in the offing. In the end financial pressures told on Hexham and a realistic price was negotiated.

By June 1989, Westfalia Pty Ltd was the owner of EM Baldwin Pty Ltd with the uncontested ability to supply the underground rail market.

### Realignment at Rooty Hill

Westfalia had purchased Baldwin for their ability to access the coal mining industry. All other Baldwin projects outside

this would have to justify their further existence or ultimately cease. Immediately sales staff Allan Brown and Steve Lewry went into the field to visit colliery offices and seek orders. Indeed at the time of the negotiations being undertaken with Hexham, they seem to already have moved in anticipation, with a number of the orders taken from Bellambi Coal Co at least having been placed during the negotiation period for the license purchase from Hexham.<sup>2</sup>

The sales environment they entered was much changed from that which Baldwin had exited four years before. While Colliery Engineers still talked about new equipment, there was now universal pressure to restrain spending by any means available. New open cut mines were opening, mines that were able to produce more coal at lower prices, negating the traditional transport advantage enjoyed by the underground mines close to the coast.

Underground mines were changing too. The large traditional colliery had full workshop facilities and undertook all equipment maintenance short of full overhauls. However, workshop staffing had been cut and workshops were now bare areas where fitters and colliery engineers did service checks and from where they sent out any work needing complex repairs.

While there was much talk but little action on new equipment, the converse was true with overhaul work. Previously it usually only came when major design upgrades were undertaken. Now it was there to be quoted for in bulk. Minor work was done by sending a couple of fitters and apprentices on site with a service truck. For the major jobs the equipment was loaded and despatched to the contractor's workshop.

In the absence of Baldwin, other suppliers had been active. While most of the traditional competitors had closed, Fox Manufacturing Co Pty Ltd still tendered and did limited work. On the South Coast, Hunter Hydraulics, which had employed Steve Lewry in 1986, had taken over the Vernier Engineering business and serviced the southern collieries. On the north, a number of companies took individual jobs with no dominant player emerging. It was into this market that the Baldwin sales team went looking for business.

### The Job listing

A listing of known rail related jobs for this period appears at the end of this article. Job numbers for 1990 deliveries were extracted from a job listing maintained for the period up until 1991. They should be regarded as reasonably complete. No listing has been sighted beyond this time and all entries arise from observations of equipment on the workshop floor by the author during visits commencing in March 1991. This has resulted in what is an incomplete list of major work undertaken, as visits were made to the works irregularly. Equipment often only entered the works over a number of weeks, or even days, and consequently was missed between visits. Job numbers were noted where possible. However when equipment had just arrived or was not in need of labelling for identification, job numbers were often not yet allocated or were not ascertainable from staff or available records. Forty-two line items are listed for the period and, while each has an individual story, it is more appropriate to describe them grouped by their owners.

### Bellambi Coal Co Ltd, South Bulli Colliery

For thirty years Bellambi had been a loyal customer and they welcomed the sales call by Allan Brown. On re-commencing rail work, the first eight jobs booked were for South Bulli and it was just the start of this work, with 22 of the jobs in this





**Above:** AI&S Cordeaux Colliery man car AIS 139. Built by Vernier, the man car came to Rooty Hill for accident repair and overhaul. With repairs completed the man car awaits return to the colliery on 17 April 1991.

**Left:** South Bulli Colliery SBC 23 (13800.2 5.91) under construction at Rooty Hill on 17 April 1991.

**Below:** Ellalong number 2 (14526.1 3.92) was returned to Rooty Hill in October 1992 for warranty repairs on the gearboxes and is pictured here on 9 October 1992 at the works. Photos: Craig Wilson



period for South Bulli Colliery. They can be split into three groups,

- locomotive repair
- Fox man car refurbishment program
- the building of two new man cars

With a Baldwin diesel locomotive fleet, the expectation was that South Bulli's locomotive work would return to Rooty Hill and it did. After the company purchase, locomotive D3 became the first rail vehicle to go through the works, receiving limited repairs on Job 13261. Rooty Hill next saw D4, the Fox Tyrant locomotive. This was a win for the sales force as the locomotive builder, Fox, had done the previous overhauls. This locomotive had been purchased for South Bulli Colliery in 1983 much to the annoyance of Frank Baldwin who had exerted his best efforts to keep their diesel locomotive roster wholly Baldwin. It had grated further when, as he had predicted, Fox sent their staff to South Bulli armed with tape measures and cameras to reverse engineer the design for their new locomotive from D3. However ten years on, the refurbishment work had come back to Rooty Hill. The instruction from the colliery staff was that D4, not considered the equal of D3, be brought up to Baldwin standard.<sup>3</sup> This was undertaken on two jobs with general modifications on Job 13477 and the complete replacement of the locomotive's flameproofing and exhaust conditioning system on Job 13551.<sup>4</sup>

After the overhaul of D4, the two Baldwin sixteen-ton locomotives, D1 and D2, were received in 1989 for upgrading. On Job 13559 the existing Staffa motors and pumps of their hydrostatic drives were replaced by a new hydrostatic drive of Rexroth Radial Piston Motors, type MR combined with Variable Displacement Pumps Model A4V/DA.<sup>5</sup> The overhaul went further with the hydraulic circuit, radiator fan drive and air circuits and dump brakes being rebuilt.

Tandem drive through air controls was also fitted to allow the two locomotives to be driven as a single unit during longwall changeouts. On implementation, all seemed successful until the two locomotives were tested at the colliery. Steve Lewry went down with the two locomotives for the final commissioning and Mines Department testing. The problem only seemed to occur when the locomotives were working in tandem. *'We had a problem, when we were undergoing the testing of the locomotives and we put a roof support on a flat top and towed it into the mine. It just went in brilliantly. When you turned around to come back out it would only go one or two kilometres and then it would just lock up and grind down to a couple of kilometres an hour struggling and overheating. The biggest problem was finding (what was wrong). I eventually asked Maurice (Baldwin) to come down there; I thought if anybody could help me, he can. It was the flow control valve. We'd replaced the aluminum block with a steel one and the rate of expansion of the aluminum with the steel spool was much greater. Once we found that the machines (operated) successfully, we ran the machines in tandem and did all our tests. The Mines Department (then) came out to do a braking test and because there was a delay (between) the braking action of one locomotive and the second of less than two seconds, the Mines Department wouldn't pass them for tandem operation.'*<sup>7</sup> Both locomotives were to revisit Rooty Hill again during this period for minor adjustment.

The work on them was also to lead to an interesting discovery. Both locomotives were still powered by the Cummins NHH220 motor that had been out of production for many years. Consequently, colliery staff were on the lookout for replacement second-hand flameproofed motors to purchase. Coal & Allied Industries Ltd had a number of Baldwin locomotives with this motor, and still had one in service at Liddell Colliery. They had also been concerned to have spare motors

and actually had two on hand. In these cash restricted days, one was available for purchase. Steve Lewry and Brian Hobbs from South Bulli went north in 1990 to inspect the motor.

They had been led to expect a fully overhauled motor in storage. However on enquiry it had been already taken away for use and they were directed to the Colliery storage yard where they found it partially installed in ex-Lithgow Valley Colliery 2604 (EMB serial 2350.1 6.68) which Liddell had also purchased presumably for its Cummins NHH220 motor. The motor was what the visitors wanted, but they would have to remove it from the locomotive. Liddell staff were no longer interested in a possible additional locomotive and to save additional effort were happy to send the motor plus locomotive south for the same price. So in 1990 after having disappeared for over a decade, 2604 resurfaced for a short period at Rooty Hill. The motor was removed there and the balance of the locomotive was sent for scrap.<sup>8</sup>

The locomotives were only part of the story at South Bulli. While the Baldwin man cars at the colliery had been overhauled recently, the Fox man cars were now due for refurbishment. These were major overhauls involving the complete stripping and overhaul or replacement of all equipment. Man car 15A was to follow D3 to Rooty Hill in 1988 and on Job 13308 underwent a full overhaul. Seven more man cars would follow by November 1991, profitable work won from Fox and Hunter Hydraulics.

The other work obtained in this period was for the construction of two new man cars. South Bulli Colliery had received the last two cars built at Castle Hill, 20B and 21B (EMB serial 10454.13.83 & 10454.2 3.83). These were to an old design dating from the 1970s, powered by a Perkins 4-cylinder motor rated at 43HP. In contrast these new cars were of advanced design. The cars were powered by a Caterpillar 3304PCNA motor rated at 100 horsepower with a Borg Warner PR1 transmission.<sup>9</sup> The general specifications were:

<b>Length</b>	5,500mm
<b>Width</b>	2,000mm
<b>Height</b>	1,400mm
<b>Wheel base</b>	1,450mm
<b>Track clearance</b>	130mm
<b>Tare weight</b>	6.3 tonnes
<b>Speed</b>	22kph
<b>Capacity</b>	14 man

The two cars were built on Job 13800 and entered service in May 1991 at South Bulli with success.

### **AI&S Cordeaux Colliery**

With all the business received from Bellambi, it took nearly a year for a second colliery to appear on the customer list. AI&S Cordeaux Colliery had never actually been a Baldwin customer, with their first order being for two locomotives that was transferred to Hexham in 1985. It was these locomotives that provided further work. Their first job undertaken also illustrates the degree of change in the industry. On Job 13637, AIS 24 visited Rooty Hill for compressor repair,<sup>10</sup> a job that would in the past been done by colliery staff. However small it was, it was the first job for a new customer and both of the Hexham built locomotives were to visit Rooty Hill for repairs by the end of the period. There was also a third vehicle that came from Cordeaux with AIS 139, a Vernier man car, brought in for overhaul and accident repair. Unhappily this was new business that was not repeated and AIS 139 remained the only Vernier product to visit Rooty Hill.





**Above:** South Bulli Colliery Fox man car 5A nearing the completion of repairs in the assembly area at Rooty Hill on 20 August 1991. **Left:** Working on Ellalong number 1 in January 1992. The lifting legs, which were a feature of these rack locomotives, can be seen partially extended. They could be used to rerail locomotives derailed underground and also to raise the locomotive in the surface colliery workshops to facilitate access. **Below:** Ellalong number 2 rigged up to a final drive gearbox test rig on 11 February 1992. The locomotive was delivered two months later. Photos: Craig Wilson



### **Coal & Allied Industries Ltd, Chain Valley Colliery**

Not only were colliery work practices changing, the colliery groups and working arrangements that had long dominated the industry were breaking up. Chain Valley Colliery would be in the Coal & Allied group for nearly three years before its sale, but the requirement to use fellow subsidiary Hexham Engineering for repair work had gone with that company's demise the previous year. Chain Valley had a fleet of modern Baldwin diesel locomotives and man cars, some transferred from closed pits and some the result of recent re-equipment, with a number of Baldwin-design Hexham battery cars that earned a visit from Allan Brown. He was able to add Chain Valley as a customer with an order to refurbish six Baldwin man cars over a planned two year period.<sup>11</sup> The first man car under this order was 2632 which was stripped and quoted upon on Job 13724 with the overhaul proceeding on Job 13778.<sup>12</sup> By June 1991, three further man cars had followed.

### **Liddell Joint Venture, Liddell Colliery**

Liddell Colliery had already been sold out of the Coal & Allied group in 1989 and was another prospect for work with Hexham Engineering now gone. Indeed in the early days of contact it appeared that it might even generate new equipment orders with a contract for three man cars considered certain at one point. Their first work was on Job 13810 when EMB man car 2629 was sent down for a 'strip and quote'. Unhappily for those at Rooty Hill the reality was that there was no money to proceed further. The frame and cab units would be stacked neatly at the back of the workshop surrounded by pallets of the equipment stripped out. There was little point in going further.

However, this didn't stop Allan Brown trying to solve the problem. The Liddell Joint Venture had as one of its partners the owners of Metropolitan Colliery, and not only were they a potential customer but they also needed additional equipment. Contact was made and options canvassed. Ultimately a new customer was obtained and an order obtained to solve the problem of 2629, but that will be detailed later.

There was to be a further arrival from Liddell. Baldwin man car 2604 was at Rooty Hill by August 1991. It had been partially refurbished by Baldwin in 1988 under sub-contract from Hexham Engineering. Only two years later major work was not required, and this visit was only of short duration.

### **Metropolitan Collieries Ltd, Metropolitan Colliery.**

Metropolitan Colliery, located south of Sydney, had been sold out of AI&S ownership in 1987. Over the years the rail system had been neglected, with the equipment limited to ten-ton battery locomotives and six Baldwin man cars purchased in 1971, supplemented by transfers of man cars from other collieries. By 1990, the man car fleet was reduced to two Baldwin and two Fox cars and they needed rebuilding or replacement. The colliery sent the last of the original Baldwin cars, AIS 69, for evaluation on Job 13827. After report, rebuilding proceeded on Job 13953 with the car emerging as DMC 2 in a new car numbering system. Not forgotten was Liddell Colliery's 2629 on which the decision was also to proceed. It emerged fully overhauled from Rooty Hill early in the following year as DMC 03.

### **Coal & Allied Industries Ltd, Wallarah Colliery**

Despite a similar history and roster to that of the nearby Chain Valley Colliery, Wallarah Colliery was never destined to be as good a customer for Rooty Hill. There was work obtained,

but it was limited to repairs on their two Baldwin locomotives and then usually limited to the overhaul of specific equipment. On this occasion in 1991, it was to be 3406 that visited the Works.

### **Newcastle Wallsend Coal Company Pty Ltd, Ellalong Colliery**

As a newly developed colliery, Ellalong was still in the market for rail equipment. This was especially true because they had opted for rack on their haulage system. The colliery had purchased an adhesion Baldwin diesel locomotive for the initial development work and followed its purchase with a pair of rack-adhesion locomotives from Fox Manufacturing. These locomotives handled the longwall change-outs and materials transport, with man haulage done by rubber-tyred PETs (Personnel & Equipment Transporters).

The colliery development plan had scheduled a further rack locomotive purchase and Allan Brown visited the colliery. In discussion, he was advised of problems with the operation of the two Fox locomotives and concern that the addition of only a single rack-adhesion locomotive might not be enough to cover the next longwall move. However the colliery capital budget was tight and only one locomotive could be purchased at this time. In the light of this information, the consequent Westfalia offer was to supply a new rack-adhesion locomotive and, as the conventional Baldwin locomotive was due for a major overhaul, to offer to rebuild it as a rack-adhesion locomotive at the same time. This offer was accepted.

Under Job 14460, the existing conventional adhesion locomotive, number 1, came back to Rooty Hill and was stripped and stored awaiting the finalisation of the design. Brian Watts, who had returned to Rooty Hill after a stint working for Eimco, considered this his last design challenge. *'I'd done the design for the rack six or seven years before and Fox got the job. Then we did it the second time. You could clutch in or out of the rack drive or you could drive with the wheels. You can also brake either the wheels or the rack. So I designed clutch brakes for it and clutches on the inside. Basically it worked quite good.'*<sup>13</sup> By August 1991 the frames for both locomotives had been prepared and awaited fitting out. The two locomotives, while fitted with the same equipment, were different in their weight due to the use of the old frame. Caterpillar 3306PCTA motors rated at 270 HP powered both. For Job 14460 (the existing locomotive), this was a replacement as the locomotive had been powered by a lower power Caterpillar 3306TA rated at 250HP. The motors drove a hydrostatic transmission consisting of three Rexroth variable displacement axial piston pumps driving two Rexroth fixed displacement axial piston pumps. The model AD11/B final drives were of Baldwin design. The general specifications of the two locomotives were<sup>14</sup>

<b>Length</b>	6,050mm
<b>Width</b>	2,200mm
<b>Height</b>	1,670mm
<b>Track clearance</b>	130mm
<b>Speed</b>	15kph
<b>Weight (job 14460)</b>	26.1 tonnes
<b>Weight (job 14526)</b>	22 tonnes

The locomotives were completed early in 1992. Ellalong number 1 (Job 14460) was delivered on 10 February and was followed by number 2 on 23 March 1992.<sup>15</sup> Number 1 was to be an immediate success, eliciting the comment from the colliery that it *'went up 1 in 9 without rack.'* but warranty problems appeared with the bearings in their gearboxes, causing problems that brought them back for warranty work within months.<sup>16</sup>



## Name changes and mergers

The Australian activities operated against the background of the re-organisation of the international group in the major European and American markets. In Germany there was a concerted effort to merge the larger mining equipment suppliers and so create an integrated and commercially viable mining house. This flowed through to each company's Australian representation as it happened overseas. In 1991, as part of a worldwide merger, Westfalia Pty Ltd merged with Klockner Becorit Pty Ltd, and in recognition of the merged activities the Westfalia Pty Ltd company name was changed on 14 August 1991 to Westfalia Becorit Pty Ltd.<sup>17</sup>

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13. B Watts interview 27/5/94
14. Spares manual extracts Jobs 14460 & 14526
15. D Jehan conversation notes 10/2/92 & 23/3/92
16. D Jehan conversation notes 23/3/92 & B. Watts interview 27/5/9
17. ASIC Return dated 15/8/91

## Westfalia Pty Ltd

### Known job list, June 1989-August 1991

Serial	Model	Customer	Roster	Built as
13261.1	90	Bellambi Coal Co Ltd, South Bulli Colliery	D3	EMB 7750.1 3.78
13308.1	90	Bellambi Coal Co Ltd, South Bulli Colliery	15A	Fox PC
13477.1	90	Bellambi Coal Co Ltd, South Bulli Colliery	D4	Fox Tyrant
13479.1	90	Bellambi Coal Co Ltd, South Bulli Colliery	9A	Fox PC 228 of 1968
13551.1	90	Bellambi Coal Co Ltd, South Bulli Colliery	D4	Fox Tyrant
13559.1	90	Bellambi Coal Co Ltd, South Bulli Colliery	D1	EMB 2047.2 10.68
13559.2	90	Bellambi Coal Co Ltd, South Bulli Colliery	D2	EMB 2047.1 9.68
13580.1	90	Bellambi Coal Co Ltd, South Bulli Colliery	18A	Fox PC
13637.1	90	Australian Iron & Steel Pty Ltd, Cordeaux Colliery	AIS 24	Hexham HE658
13699.1	90	Bellambi Coal Co Ltd, South Bulli Colliery	3A	Fox PC 328 of 8.73
13724.1	90	Coal & Allied Industries Ltd, Chain Valley Colliery	2632	EMB 9838.3 11.81
13772.1	90	Bellambi Coal Co Ltd, South Bulli Colliery	14A	Fox PC
13778.1	1.90	Coal & Allied Industries Ltd, Chain Valley Colliery	2632	EMB 9838.3 11.81
13782.1	90	Bellambi Coal Co Ltd, South Bulli Colliery	D1	EMB 2047.2 10.68
13782.2	90	Bellambi Coal Co Ltd, South Bulli Colliery	D2	EMB 2047.1 9.68
13790.1	90	Bellambi Coal Co Ltd, South Bulli Colliery	D3	EMB 7750.1 3.78
13800.1	4.91	DH100-14	SBC 22	
13800.2	5.91	DH100-14	SBC 23	
13807.1	91	Bellambi Coal Co Ltd, South Bulli Colliery	2A	Fox PC
13810.1	90	Liddell Joint Venture, Liddell Colliery	2629	EMB 8899.1 12.79
13815.1	10.90	Bellambi Coal Co Ltd, South Bulli Colliery	14A	Fox PC
13821.1	90	Australian Iron & Steel Pty Ltd, Cordeaux Colliery	AIS 23	Hexham HE657
13821.2	90	Australian Iron & Steel Pty Ltd, Cordeaux Colliery	AIS 24	Hexham HE658
13827.1	91	Metropolitan Collieries Ltd, Metropolitan Colliery	AIS 69	EMB 4199.4 11.71
13855.1	91	Australian Iron & Steel Pty Ltd, Cordeaux Colliery	AIS 139	Vernier PC
13862.1	91	Coal & Allied Industries Ltd, Chain Valley Colliery	2630	EMB 9838.1 11.81
13865.1	8.91	DH32C	STRATHALBYN	
13889.1	91	Bellambi Coal Co Ltd, South Bulli Colliery	4A	Fox PC
13921.1	91	BV Bogies		
		Haughton Sugar Co Pty Ltd, Invicta Mill		
		Bellambi Coal Co Ltd, South Bulli Colliery	2604	EMB 2350.1 6.68
13953.1	91	Metropolitan Collieries Ltd, Metropolitan Colliery	DMC 02	EMB 4199.4 11.71
13972.1	91	Bellambi Coal Co Ltd, South Bulli Colliery	D2	EMB 2047.1 9.68
13978.1	7.91	Coal & Allied Industries Ltd, Chain Valley Colliery	2630	EMB 9838.1 11.81
13979.1	91	Bellambi Coal Co Ltd, South Bulli Colliery	5A	Fox PC 203 of 1967
		Liddell Joint Venture, Liddell Colliery	2604	EMB 2301.4 2.68
		Coal & Allied Industries Ltd, Chain Valley Colliery	2631	EMB 9838.2 11.81
		Coal & Allied Industries Ltd, Wallarah Colliery	3406	EMB 3811.1 6.73
14460.1	92	DH26MR		
		Newcastle Wallsend Coal Co Pty Ltd, Ellalong Colliery	1	EMB 8179.1 3.79
14475.1	9.91	Bellambi Coal Co Ltd, South Bulli Colliery	D4	Fox Tyrant
14526.1	3.92	DH22MR Mk1		
		Newcastle Wallsend Coal Co Pty Ltd, Ellalong Colliery	2	
14980.1	12.92	Coal & Allied Industries Ltd, Chain Valley Colliery	2636	EMB 10398.1 2.83



*Unbraked wagons, coupled to the locomotive by only a chain, would have given the crew a very jerky ride.*

*Photo: AWM 004517*

## Australian timber tramways in Britain: 1939-1945

*by Jim Longworth*

### Timber and War

Wars are won or lost, not only on the battlefield, but through the ability of the homeland economy to produce the machines and supplies needed to maintain military advantage. At the outbreak of World War II, one of the vital strategic requirements for Great Britain was timber, of specific qualities, and in enormous quantities.

It was British forests that were called upon to make up the shortfall when restrictions on importing timber were imposed to free up scarce shipping space. Cargo space was required for higher priorities: food, fuel, guns, ammunition. The economy had to change rapidly from importing significant quantities for peacetime consumption, to meeting war-time demand primarily from its own forest resources.<sup>1</sup> Britain would need more forest workers and increased sawmill capacity.

Soon after the outbreak of war in 1939, the British government asked the Australian government to supply military companies of experienced forestry workers. The Australian government agreed and decided to raise two forestry companies in February 1940.

### The Australian Forestry Companies

The 1st Australian Forestry Company was raised in Sydney, drawing men from NSW, Queensland, and South Australia. Captain CE Cole, of the ACT Forestry Service, was placed in command. The 2nd Company raised in Melbourne drew men from Victoria, Tasmania and Western Australia. Captain AL Benallack, of the Forests Commission of Victoria, was its commander. The companies drew personnel from government forestry organisations and the sawmilling industry.

After military training, both companies sailed from Fremantle on 30 May 1940, bound for the south of France. As a result of the German invasion of France, the convoy was diverted to

Liverpool, where they landed in mid-July 1940. In the face of a threatened invasion of Great Britain, both companies were sent on arrival to Alton in Hampshire for further military training. The threat of immediate invasion had lessened by September, so both companies were sent north to carry out their originally intended work.

The 1st Company was sent to Seahouses, south of Berwick-upon-Tweed in Northumberland, where it recommissioned the then existing Chathill sawmill. This company was subsequently moved to Lockerbie in Dumfries-shire, Scotland, where it operated sawmills at Farquhar Moss and Wamphray.

The 2nd Company was sent to Hexham, west of Newcastle-upon-Tyne, also in Northumberland, where it built its own sawmill. In October 1941 the company moved to Thornhill also in Dumfries-shire.

As the need for forest workers in Britain persisted, a 3rd Company was formed in Melbourne during March and April 1941. A South Australian forester, Major MA Rankin, was placed in command. The company sailed from Sydney in June 1941, reaching Liverpool and then Glasgow early in August. The 3rd Company took over the mill at Chathill when the 1st Australian Company moved to Lockerbie. When the stand of Scots Pine at Chathill was cut out, the 3rd Company moved to Canobie in Eskdale, Dumfries-shire, where it designed and built a new mill capable of turning out 25,000 super feet a day.

All three companies were formed into a Group under the command of C Cole, who had been promoted to the rank of Lieutenant-Colonel.<sup>2</sup>

### Working in British forests

The Australians worked under direction of the Home Timber Production Department, of the Ministry of Supply with all equipment for their work being supplied by the British War Office. Trucks included British Fodens and American 6-wheel drive GMCs. Caterpillar D4 crawler tractors were used in logging operations. The troops spent one day a week in military training, taking part in manoeuvres every few months, with officers attending training sessions.





Logs were snigged out of the forest by crawler tractors. Australian hardwood logs usually required a loading platform to be constructed alongside the track, or were mechanically parbuckled up onto rail trucks. However, the lighter pine logs could be loaded onto the tramway trucks by using traditional logging cant hooks to manually roll the logs up an inclined plane as demonstrated here. Photo: AWM 004526 □ Lt Cooke, instigator of the mechanisation, trying out Motor Rail 4wPM locomotive 6036 of 1940. Photo: AWM 004513 □ Light and straight, these pine logs could be transported on a single short 4-wheel truck. The wide spaced sleepers seem to be supported on traditional forest tramway make-up track of logs laid along the ground surface. Photo: AWM 004520



Scots Pine was the dominant timber milled by the Australians, together with smaller amounts of spruce, larch, beech and oak. They mainly produced railway sleepers, railway crossing timbers, scantling, and round pit props for use in coal mines.

Working in snow was a severe test for the Australians, many of whom had not seen such conditions before. British forest practice was to cut the tree off at its base rather than well above the ground. The Australians therefore had to adapt to felling trees while on their knees, sometimes in snow.

Once cut, under British weather conditions timber quickly went mouldy, so it had to be transported from sawmill to end user quickly. However the Home Timber Production Department had difficulty distributing the sawn timber as fast as the Australians could produce it.

An output of 526,452 super feet for the week ending 14 July 1943 by the 1st Company set the record for military forestry companies operating in Great Britain during the war. Average weekly outputs were: 1st Company 85,871; 2nd Company 71,499; and 71,644 super feet for the 3rd Company. Total output for the three companies was 29,181,708 super feet of saw timber and 3450 tons of round timber.<sup>3</sup>

Sawmills at both Chathill and Brighton Wood were fair size mills requiring a full company to work them. While in Scotland, Lieutenant JG Saxon and Sergeant R Moon designed and built a small portable prototype sawmill that only required a platoon to work it, including logging. Its design utilised modules that enabled it to be loaded onto a standard ERF 6-ton British Army truck. The mill could be assembled and commence sawing in 24 hours and could produce 6000 super feet a day.

Friendly rivalry was maintained between Australian and New Zealand forestry workers, with periodic competitions of axemanship and sawing. Of the 600 Australian and New Zealand forestry workers, 205 married English and Scottish girls while in Britain. Other Dominion forestry troops working in Britain during the war came from Canada and Newfoundland.<sup>4</sup>

## Timber tramways

Unfortunately only limited information has been located on the timber tramways.

After felling, de-limbing and docking to length, the logs were generally snigged by caterpillar tractor to the mill, although in some areas loading points were established beside the 2ft gauge timber tramways.

The available records show that while at Sawmill No. 44 at Hexham, men of the 2nd Company spent November 1940 engaged in falling, logging, mill maintenance, mill extension and tramline construction.<sup>5</sup> Troops from the 3rd Company spent April 1943 working at Canobie on a new logging railway commenced at Unthank.<sup>6</sup>

During World War II, many small narrow gauge diesel locomotives were produced for the British Ministry of Supply and some of these have been identified as being delivered for forestry service. In particular, Motor Rail Ltd of Bedford supplied a number of its small four-wheeled petrol- and diesel-mechanical *Simplex* locos to the Ministry of Supply for timber production.



Motor Rail 20/28hp 4wDM 2½ ton locomotive.

Photo: John Browning collection

Of these *Simplex* locomotives, it is likely that two 20/28hp 4wDM locomotives ex-works on 20 June 1941 were used by the Australians. Motor Rail 8734 was consigned to the 3rd Forestry Company, Royal Australian Engineers Timber Supply Department, Lockerbie, while Motor Rail 8735 was consigned to the Ministry of Supply Timber Supply Department, Chathill Station in Northumberland.<sup>7</sup>

A third *Simplex* locomotive seen in the accompanying photographs can certainly be identified because it is one of the rare 12/20hp 4wPM type (see LR 175), in fact the last one built. Although it was supplied to the order of the Ministry of Supply 'for timber operations' on 17 October 1940, its destination was not recorded. It was photographed being used by Australian troops somewhere in 'North Britain' in December 1940.

## Returning home

After three and a half years in Great Britain, the 2nd and 3rd Forestry Companies returned to Australia via America, reaching Brisbane on 4 November 1943. The 1st Company arrived home several weeks later. Two of the small portable mills were brought to Australia with the return of the companies.

After taking home leave, the Forestry Group assembled at Kapooka for re-equipping and refresher training. I have not found any evidence of the Australian military using timber tramways in subsequent logging during the Pacific War.

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### MOTOR RAIL 'SIMPLEX' 2FT GAUGE LOCOMOTIVES PROBABLY USED BY AUSTRALIAN FORESTRY COMPANIES IN BRITAIN IN WORLD WAR II<sup>9</sup>

B/no.	Ex-works	Type	Model	Engine	Engine No.	Weight
6036	17/10/1940	4wPM	12/20hp	Austin	IH40362	2 tons
Ministry of Supply, Timber Control, 2/7 Elmdale Road, Bristol 8. No despatch details. Pencil note in MR records - loco scrapped 1951.						
8734	20/6/1941	4wDM	20/28hp	Dorman 2DWD	MD33867	2½ tons
Ministry of Supply, Officer Commanding, 3rd Forestry Company, Royal Australian Engineers Timber Supply Department, c/- Stationmaster, Lockerbie Station, Dumfries-shire. Returned to MR at unknown date. Later sold by MR as reconditioned loco.						
8735	20/6/1941	4wDM	20/28hp	Dorman 2DWD	MD33868	2½ tons
Ministry of Supply, TPD01, Timber Supply Department, c/- Stationmaster, Chathill Station, Northumberland. Returned to MR at unknown date. Later sold by MR as reconditioned 3½ ton loco						





# Industrial Railway NEWS

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## QUEENSLAND

### CSR sugar spinoff

(see LR 211 p.25)

After CSR spurned an offer from Chinese conglomerate Bright Foods to purchase its sugar and energy interests in January, most observers were surprised when on 3 February the Federal Court refused permission for the company to demerge its business. The judgement highlighted concerns regarding future unknown asbestos compensation for which CSR would be liable. CSR announced that it would appeal the decision, although some commentators believe it may simply choose to sell off the sugar division.

*Business Spectator* 29/1/10; *The Australian* 4/2/10; *North Queensland Register* 11/2/10

### BUNDABERG SUGAR LTD, Bingera Mill

(see LR 211 p.25)

610mm gauge

About 1200 extra hectares of cane has been planted to supply Bundaberg mills in 2010 and the outlook means that Bingera Mill is likely to crush in the 2011 season. However, the district crop is still about 400 000 tonnes short of what is needed to provide the mill with a long-term future. ABC News 22/2/10

### BUNDABERG SUGAR LTD, Innisfail District

(see LR 211 p.25)

610mm gauge

South Johnstone Mill's Baguley 0-6-ODM 10 (3390 of 1954) has been acquired for preservation and restoration by Lake Macquarie Light Rail in NSW, and left the old Mourilyan mill site in early February.

Grahame Swanson 2/10

### CSR SUGAR (HERBERT) PTY LTD, Herbert River Mills

(see LR 211

610mm gauge

During the 2010 slack season, 200 of the newer 4-tonne bins are to be joined up to make 100 8-tonne bins. The remaining 4-tonners will be permanently coupled in pairs, Tully style, eliminating single 4-tonne bins. The pairing is quite a simple procedure involving the removal of the number plates from one bin and moving one plate from one bin to the other. The coupler handles are shortened so that there is no inadvertent separating of the pairs. 200 new build 8-tonne bins will be added to the roster during 2010.

The Plane Creek Mill track equipment was still in the Herbert district in mid-February. On 18 February, the Plasser Model KMX-08 (415 of 1995) was in use tamping the relaid line in the mill side cutting at Macknade while the Tamper



*In the Macknade Mill loco shed, EM Baldwin 0-6-ODH HOBART (4413.1 7.72 of 1972) awaits the fitting of its new Mercedes-Benz engine on 15 February 2010.*

*Photo: Luke Horniblow*



*On 20 September 2009, South Johnstone Mill's Com-Eng 0-6-ODH 38 (AH4695 of 1965) was pushing 40 empty bins up the Little Tableland line when some became derailed because of dirt over the rails at a banana shed. The offer of the farmer to pull the bins up with his tractor was accepted and here it heads up the rake with one full bin in the lead while the locomotive crew look on from the rear.*

*Photo: Scott Jesser*





EM Baldwin 0-6-0DH HOBART (4413.1 7.72 of 1972) crosses the Macknade bridge over the Herbert River as it undertakes the end-of-season task of collecting chocks, on 29 October 2009. Photo: Scott Jesser

## Industrial Railway NEWS

Model BESM1 ballast regulator BREG2 (1775577 of 1977) was stabled between the 1 Mile and the 2 Mile in the Victoria 4 Mile area.

Slack season maintenance work at Macknade Mill has seen EM Baldwin 0-6-0DH HOBART (4413.1 7.72 of 1972) gutted in preparation for its new Mercedes-Benz engine. It is being fitted with outwards swinging doors in place of gull wing doors.

The proponents of a new sugar mill for the district have suggested that they anticipate cane will be transported to the mill over the district's CSR cane railway system.

Chris Hart 2/10; *North Queensland Register* 22/1/10

### GYMPIE ELDORADO MINING PTY LTD

(see LR 210 p.25)

610mm gauge

The company storage site in Gympie was visited on 13 January 2010 and the following locomotives were noted stored in the open. The battery locomotives are stored separately from battery boxes. It is understood that the equipment may be advertised for sale in the near future.

Also stored on site were about a dozen Granby cars and ten Atlas Copco boggers, many of them dismantled. Numbers noted carried by the boggers were B5603, B5604, B5608, B5611, B5699, B5705, B5706 & B5712.

Editor 1/10

ID	Type	Builder	B/n.	Date	Weight	Notes
-	4wDH	Bermagui Fdry		2002	4.5 tonnes	(a)
-	4wDH	EM Baldwin	4661.7 7.72	1972	3 tonnes	(b)
5C	4wBE	George Moss			5 tonnes?	(c)
9C	4wBE	George Moss			5 tonnes?	(c)
C10 10C	4wBE	George Moss			5 tonnes?	(c)
12C	4wBE	George Moss			5 tonnes?	(c)
15	4wBE	George Moss			5 tonnes?	(d)
16	4wBE	George Moss			5 tonnes?	(d)
18	4wBE	George Moss	2751.52.65.80	1980	5.5 tonnes	(e)
19	4wBE	George Moss			3 tonnes	(f)
20	4wBE	George Moss			3 tonnes	(f)
ZGM 301	4wBE	George Moss			3 tonnes	(g)
ZGM 501	4wBE	George Moss	2371.72.60/78	1978	5 tonnes	(h)

(a) Built for Gympie Eldorado by John Dunlop of Bermagui Foundry. John had previously built amusement park locomotives while based in Sydney.

(b) One of two built for Pearson Bridge Pty Ltd in Sydney and used for sewerage tunnel construction at Tuggeranong in Canberra. They were hired to the Sydney Metropolitan Water, Sewerage & Drainage Board in 1979. By 1991, they were in use by Costain for sewerage tunnel construction at Faulconbridge in the Blue Mountains. In 1993, it is believed that one good locomotive was made out of the two by Costain. The locomotive was acquired by Peabody Mining Services in 1993 and by 1997 it was at their Eagle Farm yard in Brisbane, coming to Gympie Eldorado shortly after.

(c) Inside framed locomotives believed built for the Zinc Corporation at Broken Hill in the period around 1961 to 1963.

(d) Inside framed locomotives.

(e) Outside framed locomotive.

(f) Outside framed locomotives with the traction motor mounted at an inclined angle between the battery box and the driving position.

(g) Inside framed locomotive built for the Zinc Corporation at Broken Hill. Sold from there in 1989 and was with Jack Kennedy, a dealer in Broken Hill, by 1993. By 1996, it was in the yard of Mine & Quarry Equipment Pty Ltd at Wacol in Brisbane. It was acquired by Gympie Eldorado and rebuilt by them in 1998.

(h) Outside framed locomotive built for the Zinc Corporation at Broken Hill. Sold from there in 1989.



## MACKAY SUGAR LTD

(see LR 210 p.26)

610mm gauge

Mackay Sugar was replacing a large number of concrete sleepers on the Sunnyside line at Marwood in mid February. Green and yellow Clyde 0-6-0DH *RACECOURSE* (65-440 of 1965) was seen there in heavy rain with two navy wagons.

Carl Millington 2/10

## THE MULGRAVE CENTRAL MILL CO LTD, Gordonvale

(see LR 211 p.26)

610mm gauge

Mulgrave Mill has appealed against council approval for a water park development close to the Barron River north of Cairns, citing its proximity to the cane railway serving the Machans and Yorkeys Knob areas north of the river. The developer claimed that the rail track was used for only about three weeks a year.

Cairns Post 30/1/2010

## NORTH QUEENSLAND BIO-ENERGY CORPORATION, Ingham

(see LR 211 p.26)

In mid-February the directors of the proposed NQ Bio-Energy Corporation mill advised intending suppliers that because of a moratorium on any new water development in the Wet Tropics, the mill would not now be able to enter production before 2013.

The company has indicated that it intends to use the CSR-owned rail network to deliver cane to the mill, and that it has been talking to CSR about this possibility.

North Queensland Register 22/1/10, 25/2/10

## CSR PLANE CREEK PTY LTD, Sarina

(see LR 211 p.26)

610mm gauge

The Herbert River Plasser Model GWS-75 spot tamer (434 of 1997) was still at Plane Creek Mill in February, and was thought to be operating in the Koumala area. Com-Eng 0-6-0DH 4 (FA1037 of 1960) was working ballast trains on the main line and around Cliftonville in mid-February.

Carl Millington 2/10

## TULLY SUGAR LTD

(see LR 211 p.27)

610mm gauge

Queensland Sugar Ltd, marketer of most of Queensland's bulk sugar production, took around a 10% stake in Tully Sugar during January. It is understood that these holdings were purchased from canegrowers who otherwise may have sold to Maryborough Sugar Factory. This move has been variously described as 'strategic' or 'blocking' in relation to the takeover offer for Tully made by Maryborough. Maryborough had



Locomotives once used underground by Gympie Eldorado Mining in storage at Gympie on 13 January 2010. Photos: John Browning **Top:** The unique Bermagui Foundry 4wDH of 2002. **Centre:** The EM Baldwin Model DH3T of 1972 believed to be a combination of 4661.1 7.72 and 4661.2 7.72. It was the success of this locomotive that led to the request to Bermagui Foundry to supply a diesel locomotive. **Above:** One of eleven Gemco battery locomotives on site. This one, number 19, (and the similar number 20) show the late design development by which Gemco fitted an electric motor larger than would readily sit inside the frames.



## Industrial Railway NEWS

extended its bid until 26 February, and this was later extended again to 9 April.

*Australian Financial Review* 19/01/10 via Carl Millington; Maryborough Sugar Factory 18/2/10.

### SOUTH AUSTRALIA

#### BHP BILLITON, Olympic Dam

(see LR 211 p.27)

914mm gauge

The five sets of batteries supplied by Clayton Equipment, as mentioned in LR 210, were intended for the two new locomotives, which were designed to operate as wire/battery electric. Two batteries are used with each locomotive and another is kept in reserve. It is understood that two four-wheel battery carriers, one for each locomotive, have been built in South Africa. Locomotives from the initial batch of four may be converted to WE/BE configuration at a later date.

Bob Darvill 11/09, 1/10

### WESTERN AUSTRALIA

#### BHP BILLITON IRON ORE PTY LTD

(see LR 211 p.28)

1435mm gauge

Contrary to a previous report, it is stated that ten of the remaining General Motors EMD Model SD-40 Co-Co DE locomotives remain serviceable and still see occasional use on iron ore trains



**Top:** Racecourse Mill's Clyde 0-6-0DH RACECOURSE (65-440 of 1965) coupled to an antique navy car and a 14-tonne bogie bin chassis being used as a flat wagon near Munburra 6 siding on 5 March 2010. A resleeper machine is behind the locomotive. Photo: Carl Millington **Centre:** Invicta Mill's Westfalia Model DH32C B-B DH STRATHALBYN (13863.1 8.91 of 1991) hauls a train on the McLain Road branch well after nightfall on 17 October 2009. Photo: Scott Jesser **Above:** Not properly repainted since well before the closure of Hambledon Mill in 1991, Mulgrave Mill's Clyde Model HG-3R 19 (65-435 of 1965), is seen here in the mill yard on 17 September 2009, looking much more presentable after a recent makeover. Photo: Carl Millington



according to operational requirements. Those still in service are listed as 3078, 3079, 3087, 3089, 3091, 3093, 3094, 3095, 3096 and 3097. WA Railscene e-mag 64, 67

#### THE PILBARA INFRASTRUCTURE PTY LTD

(see LR 211 p.29)

1435mm gauge

The new Mesa A branch off the Deepdale line was

officially put into operation with on 19 February when a 163-wagon train left the Mesa A mine on its way to Cape Lambert. The train was driven by Shane Edwards, a local Aboriginal man, as requested by the Kuruma and Marthudunera traditional owners. The Mesa A mine will replace the almost exhausted Mesa J mine.

*Railway Gazette International* 26/2/10; WA Railscene e-mag 67



*Fiji Sugar Corporation: Lautoka Mill's 1975-built Clyde linecar number 124 in attendance at a derailment site at Sabeto on 7 September 2009.*  
Photo: Kevin Waid

## Industrial Railway NEWS

### FIJI

#### FIJI SUGAR CORPORATION

(see LR 211 p.29)

610mm gauge

A visitor to Lautoka Mill in January was told that 13 mainline locomotives were in use at Lautoka in 2009 and that it was hoped to reduce this to ten in 2010.

A grower in the Rarawai Mill area recently commented on the growth in popularity of mechanical harvesting and requested that arrangements be made to transport chopped cane to the mill by rail.

Lautoka Mill's Clyde linecar, numbered 124, was noted in the depot at Natova, near Sabeto, in January. It has a Toyota K70 diesel engine and gearbox mounted transversely, outside sprung wheels and a central driving position. Also at this depot is a Wickham Type 17A linecar, number 123, which has been rebuilt following a similar basic mechanical layout to the Clyde although fitted with a 20hp Lister-Petters diesel engine. Number 122 at Navo (just south of Nadi) is a similar rebuilt Wickham 17A. Another Wickham 17A, minus engine and gearbox, was noted in the now closed depot at Cuvu.

John Peterson 1/10; *Fiji Times* 3/2/10



## Book Reviews

### Tall Timber & Tramlines Queensland

By John Kerr

A4 size, 104 pages, soft cover, 90 photographs, 28 maps and diagrams, references, bibliography, and index. Price \$29.95 plus postage (price to LRRSA members \$22.46 plus postage).

'Tall timber and tramlines' and 'Queensland' are not commonly linked. Even people highly knowledgeable about more southerly operations are not likely to be able to name more than a couple in the Sunshine State, apart from the Canungra operation.

John Kerr's scholarly book establishes two reasons for such ignorance: (a) there were not many operations in Queensland, and (b) very little is known about a significant proportion of those that did exist.

Consequently, the reader will have mixed feelings

after studying this book (and 'study' is an apt word, because it deserves thorough attention). First, one will be assured that the current state of knowledge has been revealed; second one will be aware of the limitations of that knowledge. One can only hope that this stimulates further research, both about the operations that are identified and to discover others that very probably existed (a footnote even identifies one discovered since the book was written).

The coverage extends over the whole eastern part of the state, with a variety of clearly-drawn maps to give geographical perspective on both large and local scales. Some of the lines are aptly called "engagingly primitive", while others verged on being full-scale railways (indeed the Barakula line is conventionally considered as a railway). All are described with great thoroughness so far as the state of knowledge permits, even if that may be as little as one paragraph or as much as many pages, and the author 'left no stone unturned' in his search for comprehensiveness.

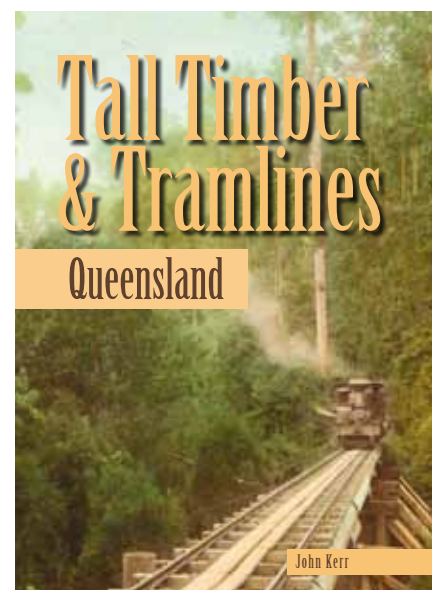
John Kerr manages to describe the flavour of each operation in a picturesque way, which leaves the reader with a clear mental image, well supported by a wide range of very well reproduced photographs. Indeed it is a pleasant surprise to find vivid illustrations for some places where details are otherwise very fragmentary; the most extreme case shows a lengthy incline whose location is not conclusively known.

So are there negative aspects? Yes. The book is at times so scholarly that it needs thorough attention to extract the subtleties, especially when one's

geographic knowledge of the areas is less than comprehensive. Proofreading of maps and captions is less than perfect, even though the text itself has very few faults. Some may deem the cover insipid. But these are small prices to pay for the overall excellence.

The combination of startling revelation and deep mystery makes the book unique. Anyone with even a vague interest in light railways in a timber environment can thus be guaranteed that their investment will be rewarded, at a very reasonable cost.

Eddie Oliver





## LETTERS

Dear Sir,

### Hen and Chicken Mine (LR 210)

The Hen and Chickens mine is located about 15 km northeast of Silverton. KJ Dickinson, in *Mining History of the silver, lead, zinc and copper mines of the Broken Hill district to 1939, excluding the main line of lode* published by the Department of Mines in 1972, places the Hen and Chickens in the Day Dream group with the Day Dream mine.

The Hen and Chickens was held by Crisp Bros in 1883 and the Barrier Ranges Silver Mining Association from 1884 to 1889. The latter company also operated a smelter from 1885 to 1886, and 'in 1889 the smelter slag dumps were picked over by the Day Dream Slag Dump Company'. The total output from the Hen and Chickens was 250 tons of ore from an underlay (inclined) shaft near the smelter.

The 1927 edition of the *Mining Engineers' Handbook*, edited by R Peele, states that 'Water hoisting is especially useful for unwatering flooded mines; regular drainage of very wet mines, of such depth as to require more than one pumping lift; and for mines liable to sudden innushes of water, or where water is notably acid' (page 1174). The use of the dewatering truck in the underlay (incline) shaft at the Hen and Chickens would, however, have been regarded unfavourably, as 'Water hoisting in inclined shafts is unsatisfactory, except as an emergency device for unwatering flooded mines. The difficulties are in the relatively slow speed permissible, liability of tanks to derailment in hoisting and frequency of derailment in entering the water, particularly on flat pitches'.

Tanks for water hoisting had a valve or valves at the base, which allowed the tanks to enter the water, which then closed automatically as the tank was hoisted. The tanks took the place of a shaft cage or were suspended under a cage.

Tony Weston  
Melbourne, Vic

Dear Sir,

### Date of reopening Belgrave-Menzies Creek line (LR 210)

In your editorial 'Our Maturing Preservation Movement' in the Heritage & Tourist section of *Light Railways* 210, December 2009, you mention that the Puffing Billy reopened as a heritage and tourist line on 28 July 1962.

This is not completely correct.

Unfortunately, even the PBPS seems to have lost sight of the facts.

The Victorian Railways officially reopened the narrow gauge line between Belgrave and Menzies Creek on Saturday 21 July 1962,

the date of the first passenger trains, albeit they were members' specials.

It was the reopening ceremony with the accompanying publicity that was held on 28 July.

Ted Godwin  
Cockatoo, Vic

Dear Sir,

### The Neilson Twins (LR 208)

I refer to my article entitled 'The Neilson Twins' which appeared in the August 2009 issue of *Light Railways* (LR 208). In it I set out the known history of two Neilson-built tank locomotives once owned by the Newcastle Coal and Copper Company.

My article included several photographs, one on page 8 showing a locomotive under repair at Morison and Bearby's works at Carrington, and another on page 16 of what appears to be the same locomotive on a train at Prospect.

Two other photographs have recently come to my attention which throw new light on the appearance of the Neilson engines. In turn, this now casts doubt on the identification of the locomotive(s) in the earlier photographs.

The first enclosed photo, a much enlarged section of a panorama of the Eskbank (Lithgow) Ironworks, if closely examined, shows, part hidden but still identifiable, a small outside-cylinder box-tank locomotive.

The second photograph gives a clear view of a similar Neilson industrial locomotive, and it is significant that the builder's number is given as 370, very close to the numbers 364 and 365, quoted for the Newcastle Coal and Copper Company's locomotives.

As a result, I am now of the opinion the Coal and Copper Company's engines were more than likely conventional Neilson box-tanks, similar in appearance to those supplied to numerous British mines and ironworks around that time, and that they both ended their days at the Lithgow ironworks.

I would emphasise that this new discovery

in no way invalidates the information in the text of the article, save for the final paragraph which speculates on the locomotives' eventual fate. Perhaps this goes to show that to preserve one's reputation, one should always preface research findings with "it is believed" or some similar escape clause.

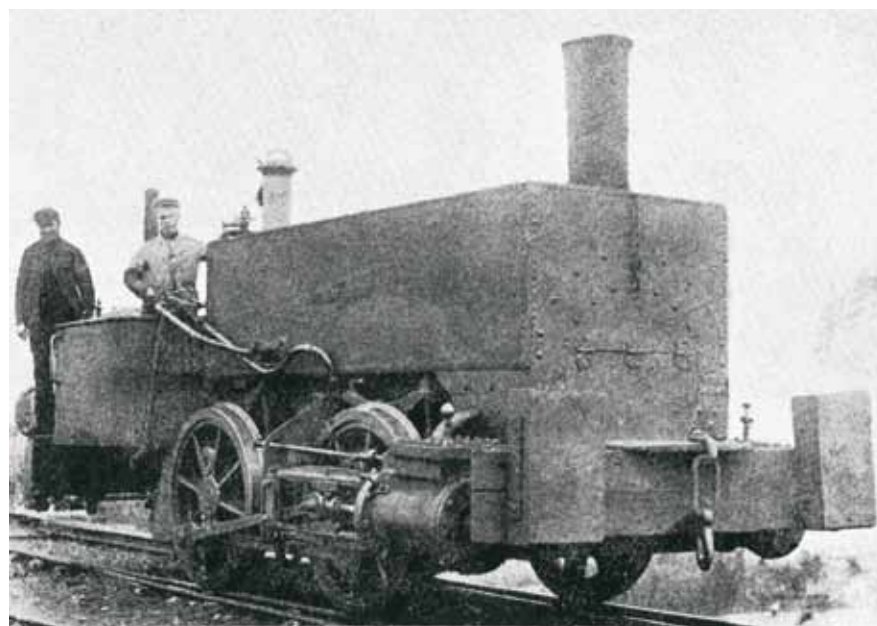
But the error has occurred, and I can only apologise to anyone who has been misled, and especially to my friend Howard Civil, who several times questioned my identification. I am only sorry that he is no longer with us so I could tell him he was more than likely correct.

As to the correct identification of the locomotive(s) at Carrington and Prospect, that wise girl, Prudence, suggests I await further information before giving my opinion.

John Shoebridge  
Dora Creek, NSW



A small section of the panoramic photograph of Lithgow Ironworks, taken in 1885. The locomotive in question appears to be standing at a water tank, coupled onto a train of Government Railway trucks. Photo attributed to Ralph Snowball, Newcastle University Archives, Community Collection



This box-tank locomotive was built by Neilson in 1858 (Builder's number 370) to handle iron ore trains on the West Somerset Mineral Railway in England. The similarity to the locomotive at the Lithgow Ironworks is quite apparent. Photo: HH Hole courtesy Russell Wear



## OBITUARY

### Frank Baldwin (1916–2009)

Franklin Ernest Baldwin was born at the Sydney Adventist Hospital on 22 April 1916 to parents Ernest and Rita Baldwin, who were employed at the hospital as Engineer and nurse respectively.

After education at the Adventist School and Chatswood High School he began studying as an Electrical Fitter, apprenticed to his father who had recently set up an engineering business at Castle Hill with a few machines and much perseverance.

At that time Castle Hill was a rural area and most of the work was for the locals but the good reputation spread beyond.

In due time Franklin was joined by his two brothers, Stanford and Maurice, as apprentices. A family interest in music led to his learning to play the pipe organ and this 'hobby' together with his engineering knowledge later led to the acquisition of some Cinema organs which television made redundant in the 1960s. Over time, these were rebuilt and each of the boys had one in their homes as well as in the Adventist Church.

It must be noted that in this story, I have found it difficult to refer to Franklin as an individual because the family was so involved as an entity.

The 1960s also saw the introduction of the manufacture of small and medium size diesel locomotives and vehicles for use in the sugar, mining and construction industries and which story is fully covered in the late Craig Wilson's book *Built by Baldwin*.

The Christian ethic predominated with all their products and the present writer, who had the privilege of being employed there, saw the profit margin in some cases severely reduced through the necessity that the product achieved satisfaction in service. This was particularly so in the case of the development of final drive gear boxes for some early cane-field locomotives in which the initial use of heavy truck gear boxes proved totally unfit to handle the shocks transmitted by the following train.

Later expansion and diversification did not bring satisfaction, profit, or peace of mind. Stanford's death in 1990 affected the trio. However, like the phoenix, they rose and remained servants of industry until they finally withdrew on the 30 June 2009.

Franklin suffered a fall in 2008 in which he fractured his hip and from which, sadly, he did not fully recover. For a man who had such a mentally and physically active life, relegation to the Mowll Village was somewhat boring. He passed quietly to his rest on 15 February and was privately interred at Castle Hill on the 18th, followed by, expectedly, a respectful gathering of some 500 people at the Adventist Church at Wahroonga with the sound of 'his' pipe organ as its own fitting tribute.

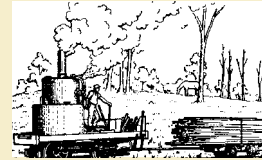
We at *Light Railways* express our condolences to Franklin's wife Annette, daughters Elizabeth and Yvonne and their respective husbands, son Stuart and the close family remaining.

*Bruce Macdonald*



*In June 1972, Frank Baldwin (centre) proudly poses with brothers Maurice (left) and Stanford (right) beside B-B DH KILRIE, the first bogie cane-field locomotive built by EM Baldwin. The delivery of this locomotive, to Kalamia Mill, was the culmination of eight years work designing, building and, most significantly, selling the concept of bogie locomotives to the sugar industry.*

*Photo: F Baldwin collection*



## LRRSA NEWS

### MEETINGS

#### **ADELAIDE: "G42 and Platform 1"**

A video featuring Victorian narrow-gauge locomotive G42 will be presented, and the possibility of a visit to Platform 1 at Littlehampton will be discussed. Members are also invited to make contributions on any light railway topic.

**Location:** 150 First Avenue, Royston Park.

**Date:** Thursday 1 April at 8.00pm.

Contact Arnold Lockyer on (08) 8296 9488.

#### **BRISBANE: "Railways around the world"**

For the April meeting, Dave Rollins will show 100 slides from around the World, all gauges.

**Location:** BCC Library, Garden City Shopping Centre, Mount Gravatt.

After hours entrance (rear of library) opposite Mega Theatre complex, next to Toys'R'Us.

**Date:** Friday 9 April at 7.30pm. Entry from 7pm.

#### **MELBOURNE: "NORWAY! Why Norway"**

Frank Stamford will give a presentation on pioneering attempts to develop practical narrow gauge railways, the birth of 3ft 6in gauge in Norway, and its spread to Queensland and many other parts of the world – with some thoughts on whether it was a good idea or not.

**Location:** Ashburton Uniting Church Hall, Ashburn Grove, Ashburton.

**Date:** Thursday, 8 April at 8.00pm

#### **SYDNEY: "The Light Railways of Sydney Harbour."**

Jim Longworth's fascinating presentation will reveal an interesting array of industrial light railways, and their remains, that once could be found on the shores of Sydney Harbour, serving the many and varied industries.

**Location:** Woodstock Community Centre, Church Street, Burwood, (five minutes walk from Burwood railway station).

**Date:** Wednesday 28 April at 7.30pm

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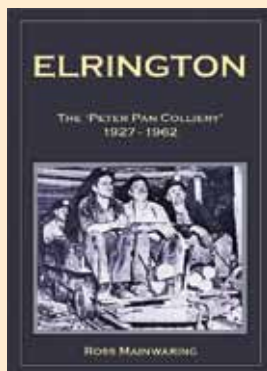
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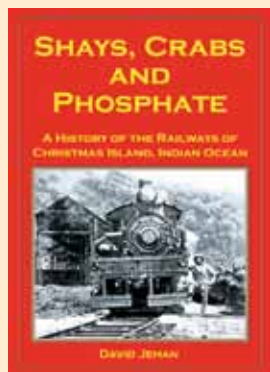
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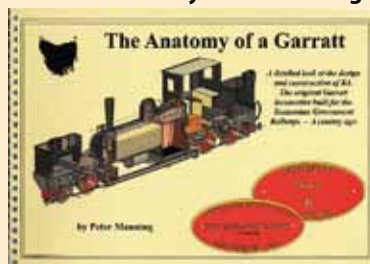
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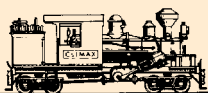
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## RESEARCH

### Target trolleys and photo captions, VIC [LR 211]

Judging by the comments posted on the LRRSA Yahoo Group website, the article on target trolleys in LR 211 generated considerable interest among readers. Much of the comment was focused on the caption, as I used the wording provided by the National Library of Australia for the photograph, namely that the men pushing the trolley were 'Australian Army officers'. Respondents were keen to point out that the men would have been privates, or certainly no more than junior non-commissioned officers (NCOs).

That evidently established to the satisfaction of our correspondents, the focus of the discussion then turned to the question of the accuracy of the captions given to photographs held by various archives. Several contributors felt that the officials managing these collections are reluctant to update or correct captions when errors are brought to their attention by members of the public, while others offered examples where their contributions had been welcomed by specific archives and corrections were readily taken up.

Lynn Zelmer and Bill Hanks commented that their own descriptions of photographs in their collections were often less than satisfactory when they went back to check them some time later. Bill added that there does not appear to be a standard description format for photographs that would ensure that accurate and useful information available to researchers and others who may subsequently wish to use the image. It was pointed out that each photographer is likely to record the information of interest to them personally and other key information, such as the specific location or the relationship of the photographer's position to the subject (perspective) may be overlooked.

Editor

### North East Dundas Tramway rolling stock [LR 128, 196]

While visiting the Ida Bay Railway in February 2010, a reader noted that the axle-box covers of the passenger vehicles carried the inscription 'ZN & NT DS ML TRAM 1896'. This refers to the Zeehan & North Dundas Tramway which was opened in stages between January 1897 and June 1898. It was a government owned 2ft [610mm] gauge line and is remembered for the photographs of a train crossing a bridge 'in front of' the Montezuma Falls and for being the line for which the world's first Garratt locomotive was built. It seems to have been referred to as the North East Dundas Tramway in official information. Most of the line closed on 30 June 1929 when the mine at the terminus commenced using an aerial ropeway to Rosebery instead of rail transport.

The Ida Bay Railway's maintenance manager indicated he had seen similar covers at the Redwater Creek Railway at Sheffield. He believed that not just the covers, but also the underframes and bogies came from the North Dundas Tramway but was unaware of their intervening history. Can any reader offer an explanation of the 'ML' notation in the inscription shown in the accompanying photograph?

Brian Webber

### Exhibition Buildings tramways, Melbourne, VIC

A recent visit to the Royal Exhibition Building in Melbourne's Carlton Gardens by LRRSA member Mal Dow, brought forth a query about whether tramways depicted in various photos on display had been used in the construction of the buildings. This prompted me to resurrect my scant files on the subject and made me realise how little we know. Hopefully these research notes will prompt others to add their knowledge.

Melbourne in the 1870s and 1880s was one of the fastest growing cities in the world, thanks largely to gold. To celebrate its wealth and optimism for the future it was decided to hold an International Exhibition, of the sort then current around the world, for displaying the progress of Victoria and its industry. Thus was born the need for a really large exhibition pavilion, along the lines of a number of other such buildings built in Europe and North America since the first exhibition at the Crystal Palace in London in 1851. Construction started in 1879 under the auspices of David Mitchell, a well-known local contractor. During the early years annexes covering many acres were constructed on the northern side of the building that we see today, the main hall and dome. All these annexes have now gone.

The Melbourne International Exhibition opened in 1880 and was a big success; it was followed by an even bigger exhibition in 1888, the Melbourne Centennial International Exhibition. In 1901 it was the venue for the opening of the first Australian Commonwealth Parliament and in 1956 it was used for basketball matches during the Olympic Games. Despite some ups and downs in the 1960s and 70s when it was suggested that the entire building be demolished, it finally came to be treasured and, as the world's last great 19th century exhibition pavilion, has now been fully restored. In 2004 it became Australia's first World Heritage Listed Building.

The task of organising the two exhibitions, in 1880 and 1888, entailed a massive amount of cartage and heavy lifting of exhibits into and out of the building and its annexes. Exhibits from other colonies and countries would arrive by sea and were conveyed initially by rail to Spencer Street goods yards from where heavy drays were used to cart them to one of the two entrances, Rathdowne Street on the west side of the building or Nicholson Street to the east. Heavy lifting machinery was installed at each entrance and exhibits were transferred to massive four-wheeled rail trolleys to be run into the buildings. Early on during construction it was decided to install tramways within the buildings. In August 1879 the managing committee ordered "... laying down a tramway from Nicholson and Rathdowne streets into the Exhibition buildings in order to prevent the cutting up of the grounds and flooring by the passage of heavy exhibits".

A plan of the 1880 exhibition from *The Illustrated Australian News* of 9 Oct 1880, shows one through tramway line from Rathdowne Street to Nicholson Street, about 350 metres. At each end, outside the building, the line divided into two sidings beneath the loading gantries. Within the building, this east-west line was intersected by four north-south lines by means of wagon turntables each of about 16ft diameter. Total length appears to be about 1¼km. Once all exhibits were in place a removable floor was installed, leaving the rails and turntables hidden but in place until required after closure of each exhibition.

Most industrialised countries and all Australian colonies were represented, Victoria's exhibits forming the largest



An axle box on a carriage at the Ida Bay Railway in Tasmania showing the North East Dundas Tramway markings.

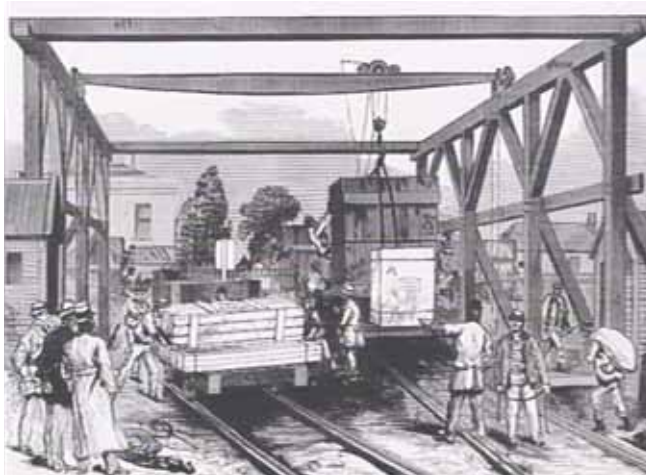
Photo: Brian Webber

## RESEARCH

single display. By the time of the 1888 exhibition, an even larger event than that of 1880, a travelling steam crane was used within the building for unloading and positioning large exhibits. It is thought the gauge in the main halls was 5ft 3in (although some sources have cited anything from 4ft to 7ft). In 1888 a newly-built locomotive from the Phoenix Foundry Company was raised down to Melbourne from Ballarat and positioned within the Victorian exhibits in the hall. This light 4-4-0 loco (B/N 219/1888) was brought from Spencer Street yards on a heavy low wagon made by the foundry. (The Phoenix Foundry did not require such a vehicle in Ballarat any longer as, since March 1883, they had a tramway from their works, along Armstrong Street South, connecting to the Victorian Railway's line near Ballarat station.) In addition to the broad gauge track, a tantalising snippet appears in *The Argus* (26 April 1888); "Some of the exhibits which have arrived have been transferred to them from the machinery annexes, and a portable railway with trucks, which has been lent by an exhibitor, is being laid down". This is almost certainly some Bochum Union material that was subsequently exhibited by its Australian agents, Shadler, Koeniger and Aron, close by the switchback railway (roller coaster) on open grounds on the northern side of the buildings.

The first public demonstration of the Bochum Union portable narrow gauge railway was on 10 September 1888 before an invited audience including the Victorian premier, Duncan Gillies, and the mines ministers from Victoria and New South Wales. They witnessed a small Krauss 0-4-0WT locomotive (B/N 1824/1888) hauling a number of side-tipping skips along a circuitous route representing the sort of terrain that such a line could overcome. A report appeared in *The Argus* the following day, with a more detailed report a week later.

In LR150, Peter Evans, in his article 'A Question of Influence', about the agents for Krauss locomotives and Bochum Union rolling stock, cites a length of 2000 yards for the exhibition line. Given the limited space on the northern side of the buildings, which also accommodated



*Receiving crated exhibits at the Heavy Goods Loading Dock, Nicholson Street. Rails appear to be laid on longitudinal baulks.*

*From The Australasian Sketcher, 14 August 1880*

the switchback railway (roller coaster and the electric street tramway (see below), it would be interesting to know how Shadler, Koeniger and Aron fitted that length of track into an area of just 270ft by 55ft even with minimum curves of 16ft radius. During the 1920s another narrow-gauge loco made an appearance at the Exhibition Buildings. This was an Orenstein & Koppel 0-4-2T used by Australian troops in Palestine during

the Great War. It was stored on the grounds for some years pending establishment of an Australian War Memorial in Canberra, a journey it never made. It is said to have been scrapped in 1937 (see LR133 and 143 for details).

During April 1888, the Exhibition commissioners received a request from W H Masters & Co to set-up and operate an electric street railway. The syndicate proposed a

line about 1000 feet long and a fare of 1d per trip. After discussion a fare of 3d per trip was agreed upon, half of which was to go to the exhibition trustees—this was accepted by Masters & Co (soon to be incorporated as the Southern Electric Co. Ltd). The electric tramway, using Thomson-Houston equipment, was duly erected on open ground on the northern side of the buildings. The exhibit guide advises that it ran the whole width of the property which confirms a length of about 340 metres. It was Melbourne's first experience with an electric street tramway, predating the Box Hill & Doncaster electric tramway opened in 1889.

It is not known when the external broad gauge lines and gantries were removed. In 1899 the tramway was still in existence at least at the eastern, Nicholson Street end of the building—it is shown on the Melbourne & Metropolitan Board of Works map of that year. Over the years many of the many annexes on the northern side of the main building were removed—one such removal, the last of the western annexes, was accompanied by the discovery of railway lines and a turntable under the floor, and resulted in some discussion in the local press (*The Sun*, 14 April 1967) about their origin.

According to the Puffing Billy Preservation Society's magazine, *Narrow Gauge*, for May 1967, the wagon turntable was purchased by the PBPS from Whelan the Wrecker and the pieces removed to Emerald for preservation. At the time it was hoped to restore and install the turntable, said to have 'Barlow' rails set to 5ft 3ins gauge, for display purposes. We would be very interested to hear about the current whereabouts of this very historic item.

A cursory examination of *The Argus* via the National Library of Australia's newspaper digitisation program elicited most of the above information and I suspect that a detailed examination may add more to the story. Readers contributions are eagerly awaited. *Phil Rickard*

### LRRSA ONLINE DISCUSSION GROUP

Have you joined the LRRSA's email discussion group yet? See: <http://au.groups.yahoo.com/group/LRRSA/> and click on "Join This Group"!

**A NARROW-GAUGE RAILWAY.**  
At the north-west corner of the space bounded by Carlton-street will be found one of the most important exhibits in the whole Exhibition. It is a complete narrow-gauge railway, constructed on a piece of ground 270ft. in length by 55ft. in breadth, very wisely granted by the commissioners for the purpose. There are eight railway roads in all, with rising and falling gradients, turnouts, points and signals, and all the apparatus of a great railway system. The railway shown here is not a mere model, or scientific toy, but a genuine working line capable of doing excellent service in districts to which a large railway would not be applicable, and at a rate of speed less than is required for passenger traffic. The gauge upon the line is 24in., and the rails, which are of steel, are 14lb. to the yard. The sleepers are also of steel, 2½ft. in length, 5½in. in breadth, made of 3-16th metal, returned at the sides and ends to the extent of about an inch. The rails are fastened to the sleepers by means of improved fish-plates and hook-headed bolts. The minimum curve shown on the line is an arc of a circle of 16ft. radius, and the maximum gradient 1 in 25. The line is so con-

*This report appeared in The Argus of 11 September 1888, following the first public demonstration of the Bochum Union portable narrow-gauge railway, which took place the day before.*





## Heritage & Tourist

News items should be sent to the Editor, Bob McKillop, Facsimile (02) 9958 8687 or by mail to PO Box 674, St Ives NSW 2075.

Email address for H&T reports is: rfmckillop@bigpond.com

Digital photographs for possible inclusion in Light Railways should be sent direct to Bruce Belbin at: boxcargraphics@optusnet.com.au

## NEWS

### Queensland

#### BALLYHOOLEY STEAM RAILWAY, Port Douglas

610mm gauge  
Following the recommendations made by the annual accreditation audit (LR 210, p.34), upgrading of the track infrastructure, commenced on 20 November 2009. The Ballyhooley Steam Railway entered into a contract with Mossman Central Mill to undertake the work, which entailed removing old timber sleepers and replacing them with concrete sleepers, and replacing suspect rails with 60lb rail. The track upgrade was completed on 23 December and the results have been outstanding. The BSR is looking forward to successful operations during 2010, with bookings for six wedding charters and two railway tour group charters from England already on the schedule.

Peter Lloyd, 01/10

### New South Wales

#### ILLAWARRA TRAIN PARK, Albion Park

610mm gauge  
**Illawarra Light Railway  
Museum Society**  
The 'Wings over the Illawarra' event on 28 February 2010 saw the rail-bus transfer system between the Illawarra Train Park and the airfield activities in operation. The 'Tully twins', namely *Tully 6* (Perry Eng. 7967/49/1 of 1949) and *Tully No 8 SHELLHARBOUR* (John Fowler

21912 of 1937, rebuilt EM Baldwin 1963), handled passenger operations, being utilised top-and-tail to transport visitors from the main platform at Yallah Station to the bus terminal transfer station in the triangle area. The Train Park site featured a number of displays, with Hawthorn Leslie 0-4-0ST *BURRA* (3574 of 1923) and Ruston 4wDM *CONDONG* (371959 of 1953) on display in the triangle. Baguley/Drewry 0-6-0DH *SEYMOUR* (2392 of 1953) was at Yallah Station with the Innisfail sugar bins, while the ex-Foresters Beach Ruston 20 DL (304455 of 1951) was displayed with water board wagons outside the main running shed. It was a hectic day from ILRMS volunteers running the trains

and servicing the large number of visitors who visited the Train Park during the day.

The ILRMS launched a public appeal in December 2009 to extend the existing track in order to link the Illawarra Train Park to the adjacent Illawarra Regional Airfield, the site of the annual 'Wings over the Illawarra' airshows. It is intended to undertake the project in two stages. Stage 1 will require construction of 350 metres of new track from the head shunt on the present triangle to the perimeter of the adjoining airfield. The Stage 2 extension will extend the tracks to the main hangar area of the airfield. The project has received strong support from local authorities and businesses, including Tourist

Shellharbour, the Albion Park Chamber of Commerce and community groups. Bendigo Community Bank has given strong support, with a team from the Victorian office visiting the site to film the rail operations. The product has been placed on the Big Plan website that promotes this type of activity by community non-profit groups.  
Brad Johns, 3/10

#### RICHMOND MAIN HERITAGE PARK, Kurri Kurri

1435mm gauge

#### Richmond Vale Preservation Cooperative Society Ltd

Ex-SMR 2-8-2T 30 (Beyer Peacock 6294 of 1924) was 'failed' during the open day on 18 October 2009 due to excessive knocking in the motion.



*The Mossman Central Mill track crew in action with the track repair task on the Ballyhooley Steam Railway at Port Douglas in December 2009. Tamping machine is Mossman's Plasser Model KMX-06 111 of 1976. Photo: Peter Lloyd*



*Perry 0-6-2T Tully 6 (7967/49/1 of 1949) heads the train preparing to depart the triangle during the 'Wings over Illawarra' event on Sunday 28 February 2010. Photo: Robert Marczan*



## Heritage & Tourist

An inspection revealed excessive clearance between all four driving wheel set axle boxes and their horn cheeks, together with worn down eccentrics and other parts of the motion. It is planned to have boiler inspections of the boilers of both 30 and ex-SMR 2-8-2T 24 (BP 6125 of 1922) in order to determine which is the most practical to repair. If the boiler from 30 is the better, it may be placed on the frames of 24, which is in better mechanical condition.

0-4-OST *MARJORIE* (Clyde Eng 462 of 1938) suffered a boiler leak during the open day on 20 December. The leaking tube will be replaced while the loco is out of service for its annual boiler inspection. It is hoped that *MARJORIE* can be returned to service in March, but the schedule for getting a former SMR 10 Class back in operation depends on the number of volunteers available for the required work. The former Lysaghts Port Kembla 0-4-OT *ALISON* (A Barclay 1738 of 1923 - LR 211, p.34) will be cosmetically restored and provided with a permanent cover, together with interpretation signage.

The RVR advises that it was unsuccessful in its application for a \$2 million Commonwealth Heritage Grant to rehabilitate its track and extend the line to Lang Street. It has received a \$40,000 grant from the NSW Government to carry out stage one of its water conservation project. This includes 90,000 litres of storage at the carriage shed, recycled water in the museum entry building and at the museum building.

A \$25,000 grant from Cessnock Council will replace funds used to purchase rail in 2009 and assist with various projects around the museum.

*Link Line 153, Summer 2009*

### STATE MINE HERITAGE PARK & RAILWAY, Lithgow

660/1435mm gauges

**City of Greater Lithgow Mining Museum Inc.**

**Lithgow State Mine Railway Limited**

The State Mine Museum's recent publications *Lithgow State Mine a pictorial history* and *Tyldesley: the village that disappeared* are selling well and a second edition of the 'pictorial history' will be released later

in 2010. A collaborative publication on the history of Invincible Colliery is being prepared by Ross Mainwaring and Ray Christison.

The Museum has signed an agreement with Biogas Energy Pty Ltd, which has recently obtained a Commonwealth research grant and will be establishing a research facility at the State Mine site. This company has coal and gas exploration licences covering most of the old State Mine lease and will be undertaking experiments in the gasification of coal using bacteria. They intend to sink two bores on the museum site. This is an interesting development that will be of mutual benefit to the company and the museum. Ray Christison, 2/10

## Victoria

### WAHGUNYAH BEACH TRAMWAY

610mm gauge

**GreenTrail Associates Group Inc.**

This museum presented its first 610mm gauge vehicle, a small four-wheel railcar numbered WBT NG10, to the public at the Corowa Federation Procession in January 2010. Complete with youthful 'passengers' the vehicle was on a transfer trailer hauled by the GTA Group's ex-V/Line Cantor hi-rail truck. Although finished cosmetically, WBT NG10 did not have its power plant and electrics installed at the time of the Corowa event. It has been designed for driver-only operation on the WBT, but has a

'second person' position installed. Construction of the 610mm gauge track at Wahgunyah is scheduled to commence in mid-2010 (LR 208 p.30). It will incorporate 1.5km of the former VR track formation with a reconfiguration of the Wahgunyah station yard to incorporate a circuit that will provide an extension to the environs of the Murray River.

David Mole, 1/10

## Tasmania

### WATER WHEEL CREEK TIMBER HERITAGE EXPERIENCE,

**Mawbanna**

1067mm gauge

**John and Sonya Cotton**

Tasmania has had a rich railway history with both government and



*With 'passengers' on board, the Wahgunyah Beach Tramway 610mm gauge railcar NG10 rests on a trailer awaiting departure in the Corowa Federation Procession in January 2010.*

*Photo: David Mole*



*Former Mulgrave Mill 'Rambler' passenger vehicle No 3 under restoration in Melbourne. Com-Eng 4wDH (GA1148 of 1961) formerly Fairymead Mill No 72 is in background also under restoration, awaiting the installation of a replacement Perkins R6 diesel engine.*

*Photo: Peter Newett*



private industry involvement and with trains running on several gauges to service a variety of transport needs in most parts of the island state. A segment of rail heritage that has almost completely disappeared from view is the considerable railway involvement with the timber industry in the past. The *Quail Railway Atlas - Tasmania* shows a significant network of (steel rail) tramways serving the timber industry in the north-west, beyond Stanley. Doubtless there were others serving isolated sawmills and those with timber rails.

During his working life, John Cotton became aware of the many timber tramways and was especially impressed by the ingenuity of

workers in the timber industry who used what was available to make rudimentary but practical rolling stock to run on timber track. As timber was removed from one area, the tramway was moved to a new location to be re-used to continue to provide transport to the mill.

John decided there was scope for a venture which would enable tourists to see, understand and appreciate the timber industry and tramways of the past. An appropriate block of land at Mawbanna (13km off the Bass Highway, east of Stanley) contained a variety of tree types and undergrowth and was ideal for the venture. John constructed a cafe/display building and a short walk away through the forest,

together with a log pulling machine and a section of timber tramway (LR 197, p. 27).

Visitors to the 'heritage experience' participate in a guided walking tour by John, who provides an interesting explanation of how the timber industry operated in the past and the role of the men who led their working life in the forests. He then operates the log puller to retrieve a log from 'the bush'. The log is loaded onto the 'tram' wagon alongside and the (replica) locomotive propels the wagon back to the starting point. This writer learnt much about the timber industry and the timber rails used for tramways. For instance, he was previously unaware that they consisted of two

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timbers, one above the other with joins offset to facilitate curves. Steel rails were laid on the outside of curves with the 'inside' timber rail curved precisely to maintain the correct gauge.

Water Wheel Creek offers a different experience with an appropriate mix of education and interest and can be thoroughly recommended. Sonya Cotton runs an efficient cafe there and it is a convenient place to have lunch on a day trip from Burnie. The attraction is open daily (10am - 5pm) between January and April, and Sunday to Friday between May and September (closed from 15 June to 14 September and Christmas Day, Boxing Day and Good Friday). For information, see their website: [www.waterwheelcreek.com.au](http://www.waterwheelcreek.com.au)

Brian Webber, 02/10

## South Australia

### NATIONAL RAILWAY MUSEUM, Port Adelaide

457/610/1067/1435/1600mm gauges  
**Port Dock Station Museum (SA) Inc.**

Your editor re-visited the National Railway Museum on 2 January 2010 following a gap of some years. It was pleasing to see ex-Qunaba Sugar Mill 0-6-2T *SKIPPER* (Perry Eng. 1850/46/1 of 1946) in pride of place at the entrance next to the water column with the Woodville signal box in the background.

It was a relatively quiet day in terms of visitor numbers, but the 457mm gauge miniature steam railway was operating with 0-4-0T *BUB* in action on the train. Large exhibits appear to be moved around on a regular basis and there have been additions to various exhibitions, thereby providing interest to those revisiting. The Commonwealth Railways pavilion, which was not finished at my last visit, houses the exhibits that will be of most interest to readers of *Light Railways*, namely the former ETSA 6wDH No. 1 (Clyde Eng. 61-237 of 1961); ex-BHP Whyalla 4-6-0 4 (Baldwin LW 41242 of 1916); and ex-BHP Iron Knob Bo-Bo steeple-cab electric E.1 (Metro. Vickers of 1928 - LR 149, p. 31; LR 160, p. 30); together with former Silverton Tramway locos, 2-6-0 Y 12 (Beyer Peacock



Ex-Qunaba Sugar Mill 0-6-2T *SKIPPER* (Perry Eng. 1850/46/1 of 1946) stands at the entrance of the National Railway Museum at Port Adelaide on 2 January 2010 with the Woodville signal box in the background. Photo: Bob McKillop



457mm gauge 0-4-0T *BUB* passes neatly landscaped garden areas on its circuits of the National Railway Museum on 2 January 2010. Photo: Bob McKillop

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3536 of 1893), 4-6-0 A 21 (Beyer Peacock 5913 of 1915) and 4-8-2 W 25 (Beyer Peacock 7554 of 1951). Other improvements that caught my eye were improvements in the safe working exhibition and some upgrades to the long-running 'Women and Railway' exhibition, notably the telephone exchange display with mannequin operator. The volunteers on duty were most helpful, particularly the President, Barry Marshall, who went out of his way to assist me with a research query.

That said, it was apparent that the NRM is struggling to maintain the human resource base to adequately maintain the exhibits, so a number of the displays were in need of a good clean up and reworking of interpretative signs. Clearly the management is well aware of the challenge and I note that it has recently initiated a quarterly 'Best Volunteer' award sponsored by the nearby Railway Hotel. I also found the lack of any decent facilities where visitors could relax over coffee and/or light meals to be a disappointment. In all probability running such a facility is seen as too challenging for existing volunteers and there are not sufficient visitors to attract a private caterer; but that begs the question of cause and effect.

More important challenges lie outside the scope of the NRM management. The Port Adelaide Heritage Precinct lies in an economically depressed area that lacks the vitality of Fremantle, Melbourne's Dockland and Williamstown or even the former Newcastle and Civic railway facilities. There is a wonderful array of fine heritage buildings in the area, but significant investment in public infrastructure, particularly transport, will be required in order to make it attractive to tourists and casual visitors, who are the lifeblood of the NRM and other attractions at the Port. I travelled to Port Adelaide by train, but had to change to a rail-bus at Woodville due to reconstruction of the viaduct at Port Adelaide. That provided the opportunity to see many wonderful stone houses in Cheltenham and Alberton, but the bus deposited me in an urban wasteland some distance from the NRM. Editor

## Western Australia

### BENNETT BROOK RAILWAY, Whiteman Park 610mm gauge WA Light Railway Preservation Assoc. Inc.

The track crew were active in January 2010 with remedial work on the section of the loop south between Whiteman Village Junction and the cutting. The work primarily involved regauging and spiking the track, together with some sleeper replacements. Despite extreme heat conditions, this project was completed in late January.

The workshop crew were kept busy over the summer months with repairs and maintenance tasks on the locomotives and rolling stock. The boiler of ex-Marian Mill 0-6-2T No.9 (Perry Eng. 2601.51.1 of 1951) was removed from the frames and placed on bogies on 17 February to await inspection and repairs. Ex-South African 2-8-2 Ng123 (Anglo Franco Belge 2670 of 1951) was undergoing repairs to superheater tubes and the ash pan, while 4wDM PW 27 (Gemco-Funkey 1963) was receiving attention to its final drive. Of the rolling stock, ex-WAGR four-wheel covered good van D33 has been repainted in white with the McPherson's lettering restored to authentic condition, while the four-wheel water tank J11374 has also received a repaint. The latter vehicle is used in demonstration freight trains and is hauled behind the NG15 locos on busy days to provide an additional water source that allows these large locos to operate all day without having to take on additional water.

*BBR Newsletter*, February 2010; BBR website News, 17 February 2010

### DON RHODES MINING MUSEUM PARK, Port Hedland

1435mm gauge  
Former iron ore railway locomotives preserved at this Mining Museum Park on Wilson Street for over ten years are ex-Goldsworthy Mining 2 (English Electric Australia Bo-Bo DE A.105 of 1965), the shell of former Mt Newman Mining GM EMD F7 5451 (Bo-Bo DE 10805 of 1951) and Comeng/MLW M636 5497 (Co-Co DE C6096-02 of 1975). In early October 2009 they were being repainted. The cab windows have been smashed over the years and metal grills had been welded over the windows. Low fences were also erected around each locomotive.

*WA Railscene* 54, October 2009

## Coming Events

### APRIL 2010

**1 Kerrisdale Mountain Railway & Museum, VIC.** This scenic narrow gauge railway and steam museum is open to the public from 1000-1600 Thursday to Monday and public holidays. Steam engines run in the museum each Sunday. Information, phone (03) 5797 0227 or website: [www.kerrisdalemtnrailway.com.au](http://www.kerrisdalemtnrailway.com.au).

**3-4 Red Cliffs Historical Steam Railway, VIC.** Narrow gauge train operations using Kerr Stuart steam and EM Baldwin diesel locomotives, 1100-1600 and the first weekend of following months. Enquiries: (03) 5024 1345.

**3-5 Alexandra Timber Tramway, VIC.** Easter Gala with narrow gauge steam train operations over three days. Also on 10 (market day with petrol locos), 11 (steam) and 25 (diesel). Phone 0427 509 988 for information and bookings.

**4 Wee Georgie Wood Railway, Tullah, TAS.** Narrow gauge steam-hauled trains from 1000-1600. Also on 24-25 April. Information: [www.tullah.org/wgw/](http://www.tullah.org/wgw/).

**4 Cobdogla Irrigation Museum, SA.** Open Day with Humphrey pump and narrow gauge steam train operations. Phone (08) 8588 2323.

**4 Ballyhooley Steam Railway, QLD.** This narrow gauge railway operates steam trains between Marina Mirage station and Port Douglas every Sunday and on selected public holidays from 1020 to 1500. Information: (07) 4099 1839.

**17-18 Richmond Vale Railway, Kurri Kurri, NSW.** 25th Hunter Valley Steam Fest with shuttle buses operating from Maitland railway station to the Richmond Vale Railway to enjoy the festivities during this special event. Entry \$15 adults, concession \$10, children (5-15) \$7 - all train rides are free.

### MAY 2010

**2 Wee Georgie Wood Railway, Tullah, TAS.** Narrow gauge steam-hauled trains from 1000-1600. Also on 29-30 May, last operations of 2009-10 season. Information: [www.tullah.org/wgw/](http://www.tullah.org/wgw/).

**2 Puffing Billy Railway, Belgrave, VIC.** The 29th Great Train Race will see 3000 competitors racing against Puffing Billy trains from Belgrave to Lakeside. Information: (03) 9657 0775.

**8-9 Alexandra Timber Tramway, VIC.** Narrow gauge train operations with petrol locos and markets on 8th and steam haulage on 9th (Mothers' Day). Also on 23rd with diesel-hauled trains. Phone 0427 509 988 for information and bookings.

**15-16 Richmond Vale Railway, Kurri Kurri, NSW.** Model Expo with model railways and standard gauge train operations. Phone (02) 4937 5344 or (02) 4358 0190.

**15-16 Campbelltown Steam Museum, Menangle, NSW.** Oil, Steam and Kerosene field days with 610mm gauge steam trains, traction engines, steam rollers, stationary and portable engines of all types, and machinery in operation. Information: [www.csmm.com.au](http://www.csmm.com.au)

**23 Bennett Brook Railway, Whiteman Park, WA.** *Friends of Thomas the Tank Engine Day* with unlimited narrow gauge train and vintage bus rides, live jazz from 0930-1600. Tickets \$15 per person for whole day (discounts for advance purchase). Bookings (08) 9534 3215.

### JUNE 2010

**12-14 Richmond Vale Railway, Kurri Kurri, NSW.** Coalfield Steam weekend with special steam and diesel-hauled passenger and demonstration coal trains. Phone (02) 4937 5344 or (02) 4358 0190.

**13 Cobdogla Irrigation Museum, SA.** Open Day with Humphrey pump and narrow gauge steam train operations. Phone (08) 8588 2323.

**13-14 Alexandra Timber Tramway, VIC.** Narrow gauge steam train operations. Also on 27th with diesel-hauled trains. Phone 0427 509 988 for information and bookings.

**Note:** Please send information on coming events to Bob McKillop – [rfmckillop@bigpond.com](mailto:rfmckillop@bigpond.com) – or the Editor, Light Railways, PO Box 674, St Ives NSW 2075. The deadline for the June issue is 1 May.





In February 2010 Brian Webber visited the Water Wheel Creek Timber Heritage Experience in north-west Tasmania. Here the loco, with loaded log bogies attached, is seen at the loading ramp between runs.

❑ At the ILRMS 'Wings over Illawarra' event on Sunday 28th February 2010, Perry 0-6-2T Tully 6 approaches the bus terminal transfer station with a load of passengers bound for the airfield, while Fowler 0-6-0DH SHELLHARBOUR waits to couple-up and return the train to Yallah for another load. Photo: Catherine Burke

❑ Former Emu Bay Railway 4-8-0 No.8 HEEMSKIRK (Dübs 3855 of 1900) on display at the Don River Railway, near Devonport Tasmania. Photo: Brian Webber





