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IGHT RAIWAY

Australia's Magazine of Industrial & Narrow Gauge Railways

Light Railway Research Society of Australia Inc.



LIGHT RAILWAYS

Australia's Magazine of Industrial and Narrow Gauge Railways

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Imperial to metric conversions:

1 inch (in)	25.4 millimetres
1 foot (ft)	0.30 metre
1 yard (vd)	0.91 metre
1 chain	20.11 metres
1 mile	1.61 kilometres
1 ton	1.01 tonnes
1 pound (lb)	0.454 kilogram
1 acre	0.4 hectare
1 horsepower (hp)	746 Watts
1 gallon	4.546 litres
1 cubic vard	0.765 cubic metres
1 super foot	0.00236 cubic metre
(sawn timber)	

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So long, farewell, auf wiedersehen, goodbye

As George Harrison once sang, all things must pass, and my editorship is no exception. Way back, 16 years ago, I accepted an invitation to join John Browning and Bob McKillop as part of the team on the 'new' A4 *Light Railways* magazine. It turned out to be a steep learning curve, for although I'd had considerable experience with ads, brochures, annual reports and such; a fully-fledged bi-monthly magazine was something else again!

Right from the start, I followed founder and original editor Frank Stamford's philosophy that the magazine must always strive to be 'accessible' – in other words, that we produce a quality product that can be enjoyed by the widest possible audience. My fear was that, if we were not careful to be as inclusive as possible, we could end up playing a game of diminishing returns, producing one of those specialist journals where ageing cognoscenti talk to each other, until one day all of them are gone.

Any decent magazine, of course, prospers not because of its editor, but because of its contributors and readers. LR exists because you guys out there research and write the articles, and send in the news reports and photos, then you part with your hard-earned cash to buy the magazine. All I do is make it look nice!

Moving into the editor's chair will be Scott Gould, our former Research and Field Reports editor. Scott has not only proved himself to be extremely capable, but also brings a valuable combination of youth and enthusiasm to the task. He will be ably assisted by the impressive new-look team listed on the left of this page.

Thank you all for your support and good wishes over the past 15-and-a-bit years. Sincere thanks are also due to the LRRSA Council for having the courage and foresight to proceed with the 1998 upgrade of *Light Railways* and for their unstinting support in the years since. And to Bob and John, without whom the whole thing would never have been possible. It's been a true privilege to have played a small part in the 50-year history of such a well-respected magazine. My heartfelt thanks and best wishes to you all. *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.

Light Railways is the official publication of the Society. All articles and illustrations in this publication remain the copyright of the author and publisher. Material submitted is subject to editing, and publication is at the discretion of the Editor.

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: Puffing Billy Railway's NA Class 2-6-2T 6A (Newport 1901) makes a fine display as it crosses Monbulk Creek trestle with the 10.30 service to Lakeside on 22 June 2013. The lettering chalked on the smokebox door reads "R.I.P CHAS BEVAN 1926 to 2013" – a tribute to the long-time Puffing Billy and LRRSA member. Photo: Ewan McLean



The four 10-ton locomotives were the longest serving and best known of the MLMRC Krauss engines. Number 8 (5480 of 1906) sits outside Queenstown locomotive shed on 24 May 1963. Photo: Jim Stokes

The 2ft gauge Krauss locomotives of the Mt Lyell Mining and Railway Company

by Jim Stokes

Introduction

Bruce Macdonald's comprehensive history of Krauss engines in Australia was published in Light Railways 153 in June 2000. It was the product of many years of research and collaboration with other researchers and it is one of the outstanding Australian light railway history projects. In recent years I have worked through the extensive collection of records of the Mt Lyell Mining and Railway Co (MLMRC), which are now held by the University of Melbourne Archives (UMA). This has added quite a lot to what we previously knew about the eleven 2ft gauge 0-4-0T Krauss engines that worked at Mt Lyell between 1895 and 1963. This article summarises that information, but it is essentially a postscript to Bruce's article. In particular I have repeated Bruce's summaries of the later history of the Krauss engines disposed of by MLMRC, although in some cases I have been able to add to them. I am also grateful for the information provided by all the people named in the text and to the staff of the University of Melbourne Archives. Bruce's article gives detailed specifications for the various Krauss classes.

The Mount Lyell 2ft gauge railway system

The MLMRC 2ft gauge lines formed the most intensivelyworked industrial light railway network in Tasmania. They were built to supplement the role of the MLMRC's 3ft 6in gauge main line from the reduction works at Queenstown to the company's port at Regatta Point on Macquarie Harbour. They delivered ore, firewood, milling timber, limestone, silica and other materials to the reduction works from locations in the Queenstown area, and they also moved materials such as slag, coal and coke between the various elements of the reduction works and workshops complex. Some lines carried MLMRC employees and their families, but they did not carry general public passenger traffic.

The 2ft gauge operations were centred on the dual gauge lines built between 1894 and 1896 to link Queenstown station, the workshops and the reduction works. From Queenstown station a dual gauge line continued northwards up the valley of the Queen River for 1¹/₄ miles to the locomotive sheds, workshops and the converter buildings and pyrites bins at the lowest level (northern end) of the reduction works. Just south of the locomotive sheds, the dual gauge Abt Siding diverged north-eastwards from the valley line at a junction known as the Abt Points and climbed at 1 in 16 for 1/2 a mile to the higher levels of the reduction works, which was situated on a ridge on the east side of the Queen valley. In 1898 an additional dual gauge line was completed from Queenstown station to climb for 1¹/₄ miles up the eastern side of the valley at 1 in 29 to join the top of the Abt Siding at the reduction works. This enabled loads to be taken up to the reduction works on the 1 in 29 grade, with empty trains returning to the valley on the Abt Siding.

Mixed gauge lines also served the limestone and silica quarries on the west side of the valley line and there was a 2ft gauge branch from Queenstown station north-westwards up the valley of Ragged Creek, which was completed in 1894 for timber cutting and rebuilt in 1913-14 to serve a brickworks. The Ragged Creek line also had short cable-worked spurs up to the residences of the general manager and the electrical engineer.

The reduction works was linked with the Mt Lyell mine (known as the Iron Blow) by a 2ft gauge line. The first mile of this line, from the ore delivery bins at the top of the reduction works to sidings beside Newton Creek, was known as the Through Tram and was worked by Krauss locomotives on a 1 in 20 rising grade. The line then ascended the west side of Philosophers Ridge, which linked Mt Owen and Mt Lyell, on a 2,252 ft long cable-worked incline on 1 in 2 and 1 in 3 grades to the winding engines at the top of the ridge, and descended the east side of the ridge on a 1,484 ft long incline to ore bins at the Mt Lyell mine. The inclines were known as the Haulage Line or the Main Haulage. Ore transport between the mine and the reduction works began on 23 April 1896 and by 26 June 1896 two Krauss engines were bringing in ore from the mine and fluxes from the quarries.¹ Mining at the Iron Blow ceased in 1922, although some pyrites was quarried from the open cut part of the mine for flux and superphosphate manufacture until at least 1928.

In 1897 the North Mount Lyell Copper Co was formed to work the North Lyell mine, and in 1898 it began construction of a 3ft 6in gauge railway between Linda, below the mine on the eastern side of Philosophers Ridge, and Kelly Basin at the head of Macquarie Harbour. Until the company's smelters at Crotty, half way between Linda and Kelly Basin, were completed, North Lyell ore was sent to the MLMRC reduction works. The North Lyell company failed to reach an agreement with the adjacent Lyell Tharsis mine to transport ore via the latter's aerial ropeway and in July 1899 North Lyell began the survey of a 2ft gauge horse tram southwards for 1¼ miles from the mine to transfer bins at the summit of the Main Haulage. The line was formed and rails were being laid by early November 1899 and it was ready for use by March 1900. By then the company had decided to work the line with a Krauss engine instead of horses, the track was relaid where necessary and locomotive haulage began about July 1900.²

During 1900, the North Lyell company erected an aerial ropeway, which descended from a point about half way along the tram to the terminus of the North Lyell Railway at Linda. By early November 1900, ore was being sent to both Kelly Basin and the MLMRC reduction works. The Mt Lyell and North Lyell companies merged in 1903. Ore treatment at the North Lyell's Crotty smelters ceased on 31 May 1903 and all North Lyell ore was sent to the reduction works via the North Lyell tram and the Main Haulage from 3 June 1903. This involved relaying the southern half of the tram, which had been lifted about 18 months earlier when North Lyell ore had been diverted to Crotty via the aerial ropeway.³ A short branch line was built to the Royal Tharsis mine in 1906.

As MLMRC operations developed, two 2ft gauge lines were extended beyond the Queenstown area. The half yearly report for 31 March 1896 noted that the 2ft gauge line was being extended from the converters siding northwards up the two main branches of the Queen River to access additional timber supplies. In 1912 the company purchased the Lyell Comstock mine, which was situated some 3 miles north-east of the reduction works on the northern side of Mt Lyell.

The North Mt Lyell Copper Co's Krauss 0-4-0T 4087 of 1899 (later Mt Lyell's second number 6) outside the North Lyell mine in the early 1900s. Photo:Winters Studio, Burnie

The flux quarry at Mt Lyell about 1897. A Krauss 0-4-0T waits to take a train of limestone to the smelters. Photo: Tasmanian Archives and Heritage Office

The Mt Lyell smelters at Queenstown about 1897. On the top level a 7½ ton Krauss 0-4-0T hauls empty ore wagons towards the foot of the incline to the mine, while on the middle level a sister engine stands at the unloading chute with a train of firewood. Photo:Tasmanian Archives and Heritage Office

The 2ft gauge line up the main (Middle) branch of the Queen was upgraded and extended to Lyell Comstock along the route of a horse tram built by the Tasman and Crown Lyell mine in 1908-09. This gave a 5 mile steel tram route from Queenstown to Lyell Comstock, with two zig zags in the upper Queen valley to gain height. A long inclined haulage was built from the tram terminus up the side of the mountain to serve the various levels of the mine. A passenger service was provided for miners and their families, and employees also ran down the line in wagons by gravity, occasionally with alarming consequences.

Lyell Comstock became a vital source of ore for the year after the North Lyell mine was temporarily closed by the fire disaster of 12 October 1912, but was then worked only intermittently. In 1916 the mine began to send in 500 to 600 tons of ore each week to the new flotation plant at the reduction works, but mining was suspended again in 1921. The mine was redeveloped in the late 1920s and the tram was relaid with rails from the abandoned North Lyell Railway. By 1932 the mine was producing over 100,000 tons of ore per year. Mining ceased again in 1944, although the tram saw some use for access to the mine until the later 1950s. In 1929 the Comstock tram was linked directly with the Tunnel Yard at the reduction works by a new 3/4 mile section of line which contoured round the hills to the north of the reduction works. This avoided Comstock ore trains having to follow the valley line down to Queenstown station and then ascend the 1 in 29 line to the reduction works.

In 1904 a 2ft gauge line was built to access firewood supplies on the Howards Plains plateau to the north-west of Queenstown. It diverged from the valley line just north of the workshops and climbed to the plateau by a cable-worked counter-balance haulage line, with traffic on the plateau being worked by a Krauss engine. The Howards Plains line became the company's main source of firewood and a fleet of bogie wagons was built for it from 1904 onwards. In July1912 the company began construction of a hydro-electric power scheme at Lake Margaret, in the mountains some 5 miles north of Queenstown. The scheme was to provide electricity to replace wood and coal-fired steam power in the mines, reduction works and on the Main Haulage. From a point on the Howards Plains tram some 2 3/4 miles beyond the top of the incline, a spur line was completed for 4 1/4 miles to the power station site by the end of 1912; the new line included 2 miles of rails recovered from the former south branch of the firewood tram.

From the power station an electrically-worked cable haulage with steel rails ascended beside the pipes of the penstock for 37 ½ chains on grades as steep as 1 in 1.5. From the top of the haulage a 2ft 6in gauge wooden-railed horse tram ran for 1¼ miles to the dam site at Lake Margaret. The power scheme was brought into operation in November 1914 and in 1930-31 a second power station was built on the Yolande River below the original power station, served by a ½ mile branch. In 1920 a route was surveyed for a 1¾ mile adhesion-worked line to replace the Howards Plains haulage, but the deviation was never built.⁴ In 1925 MLMRC purchased a four wheel Nicola Romeo petrol locomotive to work the Lake Margaret line, in conjunction with the petrol railcar that had been on the line since it opened. It is probable that after this the line no longer had a resident Krauss.

In June 1934 MLMRC agreed to contribute to the cost of building the first section of a road from Queenstown to Strahan, together with a short spur road to connect with the Lake Margaret line on Howards Plains. This enabled the

An early view of the base area of the Mt Lyell haulage, with a 2ft gauge Krauss locomotive in evidence. Photo: LRRSA Archives

Howards Plains haulage and 1¼ miles of the tram beyond it to be abandoned, leaving the Lake Margaret line isolated, with road transport between Queenstown and the new railhead. MLMRC general manager Russell Murray reported on 18 December 1934 that the road had been completed recently and that the track from the valley line to the bottom of the haulage had already been lifted. The track on the haulage and the first 1¼ miles of line beyond it had been lifted by September 1935. The new arrangement must have been particularly welcome to the Lake Margaret children who came in to school in Queenstown and who had previously had to walk up and down the haulage, no matter how bad the weather.⁵

The last major development of the 2ft gauge system came with the opening of the electrically-worked North Lyell tunnel line in May 1928.6 The new line diverged from the Through Tram just east of the reduction works and ran through a 1¹/₄ mile tunnel to the 1,100 foot level of the North Lyell mine. Extensions to the Blocks shaft and spurs to the Crown Lyell and Royal Tharsis shafts brought the total length of the tunnel lines to 9,600 feet. Thereafter ore was lowered within the mines to the tunnel instead of being brought to the surface and taken to the reduction works via the North Lyell tram and the Main Haulage. From 4 September 1928 all miners entered the mine by the tunnel. The western side of the Main Haulage remained in use for miners living at Gormanston and Linda, who now came down the haulage to the Tunnel Yard change house at the reduction works. The North Lyell tram continued to see some use for at least the next few years. The Main Haulage, by then in need of extensive repairs, finally closed on 6 July 1936 when MLMRC road buses began services for employees living in Linda and Gormanston.⁷

The decline of 2ft gauge operations

In February 1945, AHP Moline, who had succeeded Russell Murray as general manager in 1944, advised that he was considering reducing operations on the non-electrified 2ft gauge lines. Moline said that five or six years before, the 2ft gauge lines had been carrying ore and passenger traffic from Lyell Comstock, slag from the 670 foot level at the reduction works to the bins on the 710 foot level, coke from the storage bins to the smelters, silica from the quarry to the smelters and timber and general stores to wherever they were required. However since mining at Lyell Comstock had been suspended in May 1944, the non-electrified lines had lost the bulk of their traffic. Stores and some timber were now being delivered by road and Moline was investigating whether silica could also be delivered to the smelters by road, which would enable one Krauss to handle the remaining 2ft gauge traffic. Handling of silica traffic was in fact improved in 1945 by the installation of an electric scraper on the quarry face, from where the silica was gravity fed to bins and delivered to the blast furnace in 10 ton hopper wagons.8

Moline again raised the future of the 2ft gauge lines in March 1946. He said that they were now handling only converter slag, silica and coke, and taking mining timber from the sawmill to the Tunnel Yard, with occasional movements of heavy machinery to or from the machine shops. Short distances and delays waiting for materials to be handled meant that steam engines were not well suited to the task, while the road transport option had also been discarded. Moline therefore suggested that the lines serving the reduction works, silica quarry, coke bins, sawmill and machine shops should be electrified. This would allow two of the four Krauss engines to be sold immediately and possibly a third one later. Electrification would cost between $\pounds 2,400$ and $\pounds 2,750$, depending on whether wooden or concrete poles were used, but it would pay for itself within a year. An electric locomotive was available because the capacity of North Lyell tunnel trains had recently been increased from seven to nine hopper wagons. The MLMRC Board approved the proposal in April 1946, although Moline noted that it would be some little time before the work could be put in hand.⁹

The electrification scheme did not proceed and the last two 10 ton Krauss engines operated around the reduction works and workshops until MLMRC's general railway operations ceased between 29 June and 10 August 1963. In its final form the non-electrified network consisted of the valley line from the northern end of Queenstown station to the workshops and the converters, and the line that climbed from Queenstown station to the upper levels of the reduction works and the junction with the tunnel line. The first section of the spur into the former limestone quarry also remained in use for materials storage. Apart from the 2ft gauge lines in the Tunnel Yard and in parts of the reduction works and 3ft 6in gauge lines in the workshops area, the network was mainly dual gauge and the Krauss engines spent a lot of their time moving 3ft 6in gauge wagons around the complex. The Lake Margaret line closed in April 1964 and MLMRC 2ft gauge operations finally ended with the closure of the North Lyell tunnel line in February 1987.

The Mt Lyell Company's smelters at Queenstown were perched on the western slopes of the mountain. In this view from the 1930s, a 10-ton Krauss 0-4-0T (probably number 10) is marshalling ore hoppers over the delivery bins, while the mixed-gauge branch to the pyrites bins can be seen far down in the valley of the Queen River, to the right. Photo: AR Lyell

Largely eclipsed by the arrival of the 7¹/₂ ton engines, number 1 was sold to Melbourne machinery merchants Miller and Co in 1908 and then resold to Wadey and Co for construction of the Heatherton Asylum at Cheltenham, Victoria, where it was christened The "NANCY". The 'sunflower' stack was a typical feature on the early Krauss locomotives. Photo: Bruce Macdonald Collection

The 6¹/₂ ton Krauss engine: number 1 (2591 of 1891)

The origin of number 1 remains a mystery. It is not clear whether it had had a previous owner or whether, in the economic depression of the early 1890s, it had either failed to find a buyer or the sale for which it had been imported fell through. The engine must have been shipped to Strahan in late 1894 or early 1895 and was carried to Queenstown in dismantled form over the cart track from Strahan.¹⁰ The MLMRC's half yearly report for 31 March 1895 noted that the engine was now running and the report for 30 September 1895 noted that the 6½ ton loco 'on hand' had been 'of the greatest service'. *The Zeehan and Dundas Herald* reported on 3 August 1895 that the six ton locomotive was in use between the smelters site and the haulage, bringing in logs for the sawmill. The report for 30 September 1897 noted that it had been thoroughly overhauled.

Delivery of the 71/2 ton engines seem to have eclipsed number 1 to some extent, as I have not found any written or photographic evidence of its later years at Mt Lyell. The upper part of the rear of the cab was probably enclosed while it was at Mt Lyell, as it appears in this form in later photographs. The report for 30 September 1908 noted that one of the older 2ft gauge locomotives had been sold. The later history of number 1 has been documented by Bruce Macdonald, Arnold Lockyer and Peter Evans. It was sold to Melbourne machinery merchants Miller and Co and then to Wadey and Co for construction of the Heatherton Asylum at Cheltenham (Vic) in 1908. It went to Wadey's Gepps Cross (Adelaide) abattoir contract in 1911, followed by construction contractors FA McCarthy (Keswick railway underpass), Joseph Timms (Marino-Willunga railway) and H Teesdale Smith (apparently not used). It was purchased by the Australian Salt Co in 1917 for use at Lochiel (SA) and then by the Rubicon Lumber and Tramway Co in 1919 for its tramway out of Alexandra (Vic). It was taken out of service at Rubicon in 1935 and scrapped around 1955.11

The $7\frac{1}{2}$ ton Krauss engines: numbers 2 (3267 of 1895), 3 (3549 of 1897), 4 (3644 of 1897), 5 (3729 of 1897) and the first number 6 (4387 of 1900)

The half yearly report for 3 March 1896 and the Zeehan and Dundas Herald for 8 April 1896 reported that the new 7½ ton engine recently received from abroad was in active service. The report for 31 March 1897 noted that the third 2ft gauge loco, to be used for ore traffic on the Through Tram, was expected from Germany any day. In fact it arrived in late May 1897. Number 4 Krauss arrived in October 1897. Number 5 Krauss was part of the cargo of the steamer *Grafton* when she was wrecked at Macquarie Heads on 13 June 1898. The company bought the cargo in the wreck from the insurers and some parts of the locomotive were salvaged, but replacement parts had to be ordered from Germany and the engine did not enter service until the half year ending 31 March 1899.

The 7^{1/2} ton engines were central to MLMRC 2ft gauge operations in the company's early years of rapid growth and they appear in a range of impressive photos, lined up outside the locomotive sheds or posing high on the massive timber trestle structures around the reduction works. They were all fitted by MLMRC with backsheets for the upper section of the rear of the cab. However their dominance was relatively short-lived, because delivery of the four 10 ton engines between 1906 and 1911, and changing fuel supply strategies, allowed the company to gradually dispose of them.

MLMRC general manager Robert Carl Sticht reported in February 1909 that number 2 Krauss was being sold to Lohmann and Co in part payment for a new 10 ton Krauss (number 9). Number 2 was dismantled, put into saleable condition and appearance, and shipped from Regatta Point to Melbourne on the *Wainui* on 22 February 1909.¹² Bruce Macdonald noted that number 2 was then sold to Wadey and Co for the Heatherton Asylum construction, went to Gepps Cross abattoir construction in Adelaide in 1911 and to Mourilyan sugar mill in north Queensland the same year. It was eventually dismantled in 1955 and the frame used to transport mill rollers.

The report for the half year ending 30 September 1910 noted that a 7½ ton Krauss had been sold and the report for 31 March 1911 noted that a new 10 ton engine (number 10) had been received to replace the 7½ ton engine sold in the preceding period. The engine sold was presumably the first number 6,¹³ which Bruce notes as having gone to Wadey and Co in 1910 for the Gepps Cross abattoir construction and thence to the Hasell Marion Bay Gypsum Co in South Australia in 1912 and to the Rubicon Tramway in 1925. It was taken out of service at Rubicon in 1935 and scrapped in 1957.¹⁴

For some reason Wadey and Co asked MLMRC in July 1924 to provide details of the three Krauss engines disposed of in 1909-10. Russell Murray, who had succeeded Sticht as General Manager in 1922, advised that 6½ ton engine number 1 (Krauss 2591) was sold to Lohmann and Co in 1909 and went to Wadey in Adelaide, 7½ ton engine number 2 (Krauss 3549) was sold to Lohmann in 1909 and 7½ ton engine number 3 (Krauss 4387) was sold to Lohmann in 1910, going to an unidentified buyer in Adelaide. Murray said that the information came from company records, but in fact it was partially incorrect: they had given number 2 the maker's number of number 3, while 4387 was actually the first number 6.¹⁵

In August 1912 the company offered Sydney machinery agents Diercks and Co number 4 Krauss (identified as 3644) and number 5 Krauss (identified as 3729) for £450 and £500 respectively; Sticht had originally sought £500 for each engine, but Diercks reminded him that he had offered 3644 to them a year ago for £450. Sticht noted that these were the only Krauss engines that he was prepared to dispose of at that time. He said that both engines were in good order and could haul 35 tons on 1 in 40 grade and 100 tons on the level.

In November 1912 Mr Diercks advised MLMRC that he was no longer with Diercks and Co (although the company continued to trade under the Diercks name) and asked if the two engines could be placed under offer to him, as he had a prospective buyer; the company agreed to do so. ¹⁶ In September 1913, Diercks and Co asked if any Krauss engines were for sale. Sticht advised that he was prepared to sell one Krauss, but that it was under offer to Toole and Co of Sydney. Diercks and Co were offered the engine, subject to it being unsold. On 10 October 1913 the company secretary noted Sticht's advice that Toole and Co had been unable to sell the engine and that nothing further had been heard from Diercks.¹⁷

In January 1914 Diercks and Co again approached the company. They had been negotiating with the Corrinal Coal Company for the engine priced at $\pounds,500$ (presumably 3729) and asked for MLMRC's bedrock price, since Corrimal had received a more favourable offer. They also asked for a bedrock price on the engine priced at £450. However Basil Sawyer, the MLMRC local superintendent at Queenstown, advised that they were not prepared to sell any engines at present, although they might dispose of one after the Lake Margaret hydro-electric scheme had been completed. The report for the half year ending 30 September 1913 noted that two engines were working firewood and construction traffic on the Lake Margaret line. The outbreak of the First World War had in any case changed the company's attitude to selling engines, since new engines and parts were no longer available from Germany. In December 1914 Sawyer advised Diercks and Co that MLMRC would not dispose of the two 71/2 ton engines previously on the market, as they might be required to provide spare parts for engines in service.

Number 4 was eventually sold in 1916 to the Australian

Estates and Mortgage Co through the Melbourne machinery agents Cameron and Sutherland. The engine was overhauled at Queenstown in January and February 1916 and it was reported that the boiler had been fully repaired seven years previously.¹⁸ Sawyer advised on 25 January 1916 that the engine would be shipped on the next sailing of the *Karitane* in a few weeks' time. The boiler would not be separated from the frame, but the wheels, motion, axle boxes and chimney would be packed separately. This would enable two competent men to reassemble the engine in one day.¹⁹ Bruce Macdonald noted that number 4 went to Palms sugar mill in Queensland, thence Pleystowe mill in 1924, Farleigh mill in 1953, Cattle Creek mill in 1957 and that it was out of service by the mid 1960s.

MLMRC constructed a number of boilers in their workshops for 7½ and 10 ton Krauss engines, but the records do not give a complete picture of reboilering work. They do show that number 5 and the second number 6 (see below) received new boilers in 1910, number 3 received one in 1920, and the second number 6 received one in 1923. They also record that a boiler from a 7½ ton Krauss was repaired during 1915 and sent to Kelly Basin to power the derrick on the lighter *Kate Kelly*, which was used by Charles Doherty to bring in logs for MLMRC from around the shores of Macquarie Harbour. There is a photo of the Krauss boiler and derrick loading logs onto a North Lyell Railway wagon on Kelly Basin pier in Garry Kerr and Harry McDermott's history of the Huon pine industry.²⁰ It is likely that numbers 2, 4 and the first 6 still had their original boilers when they were sold.

In March 1916 Mr Diercks advised that he had a definite buyer for number 5, but he was told that it was no longer for sale. The company had in fact advised Cameron and Sutherland in September 1915 that number 5 had been withdrawn from sale because of the protracted outlook for the war and the unlikelihood that Krauss engines could be obtained in the future.²¹ Number 5 was overhauled in January and May/June 1918.²² On 8 November 1918 Sawyer reported that the boiler of number 5, which was employed on the Lake Margaret line, had developed a weakness in the barrel and temporary repairs had been effected. On 22 November 1918 Sawyer reported the repairs to the boiler of number 5 had been completed and the engine was back in traffic.²³ Number 5 was overhauled again during August and September 1920, probably having been replaced on the Lake Margaret line by number 3, and again early in 1921.²⁴ A boiler inspection in July 1922 identified the need for repairs to the tubeplate.²⁵

In February 1924 number 5 was offered for sale through Cameron, Sutherland and Seward. Russell Murray advised that it had been put into traffic in July 1898 and had been fitted with a new boiler in September 1910. It was now being overhauled and the boiler repaired. In July 1924 Murray said that the engine, for which the company was asking \pounds 700, had been practically rebuilt during the last few months and was in first class working order. He also said that the company would prefer not to deliver number 5 to a buyer for six weeks, to allow time for repairs to the only other spare Krauss to be completed.²⁶ In September 1926 a list of locomotives the company was offering for sale included two Krauss engines, each with a copper firebox, 7¹/₈ inch by 12 inch cylinders, 24³/₈ inch wheels, 4,240 pounds tractive effort and able to haul 34 tons on a 1 in 40 grade.²⁷

During the second half of 1933, MLMRC negotiated through Knox, Schlapp and Co to sell number 5 for \pounds 425 to Great Boulder Proprietary Gold Mines Ltd in Kalgoorlie. The engine was thoroughly overhauled at Queenstown, dismantled, and shipped to Melbourne in December 1933 on the *Kakariki*

One of the remaining three 7¹/₂ ton Krauss locomotives (3, 5 and second 6) at the reduction works, probably some time in the 1930s, but possibly late 1920s. Photo: Dargaville, Queenstown, from Andrew Lyell Collection

for transhipment to Fremantle. In February 1934 Great Boulder asked MLMRC to refund some ± 38 of the purchase money because parts of the engine were in an unsatisfactory condition and they would have to purchase seven new boiler tubes. Russell Murray refused to pay. He said that the boiler supplied with the engine had seen only two years' traffic service; it had been steamed five times before being shipped and all the tubes were sound. Even if Great Boulder considered the tubes to be faulty they should have re-ended and bronzed them. If the axle brasses required refitting the problem had been caused by careless and incorrect fitting at Great Boulder.²⁸

The final disposal of number 3 has always been uncertain. In an article in the Australian Railway Historical Society's Bulletin for August 1943 (p.25) Cedric Thomas stated that it was badly damaged when it was struck by two runaway trucks at the foot of the Main Haulage on 18 June 1909 and that it was sold for scrap the following month. This information has reappeared in definite or tentative forms in a number of subsequent publications, although Bruce Macdonald expressed doubts about it. I have never found information about an accident in 1909, although this does not prove that some sort of accident did not take place. However there is substantial evidence that number 3 worked at Mt Lyell for many years after 1909. MLMRC records show that it received a new bunker and chimney and had its firebox stays renewed in 1913 and passed boiler inspections in April and October 1916, and during the half years ending 30 September 1917 and 1918.29 The locomotive had its boiler certificate renewed in the year ending 30 September 1919 and received boiler repairs in October 1919.³⁰ It underwent an overhaul between January and August 1920, in the course of which it received a new boiler built in the workshops, and was then sent to the Lake Margaret line.³¹ In March 1922, number 5 replaced number 3 on the Lake Margaret line and number 3 was overhauled before being transferred to the Mine Department for the North Lyell line.³²

On the morning of 22 March 1928 a 7½ ton Krauss was derailed while hauling ore wagons from the North Lyell mine to the top of the Main Haulage. A wagon being propelled in front of the engine derailed and became wedged between a rock cutting and the engine; the engine then derailed and slid some 15 yards down the hillside. The crew jumped clear and the engine does not appear to have been badly damaged. Even if this incident did involve number 3 it does not appear to have ended the engine's career, since in March 1931 the Phoenix Insurance Co's list of insured MLMRC equipment included seven Krauss engines insured for a total value of $\pounds 4,200$. The seven must have consisted of the four 10 ton engines and 7½ ton engines 3, 5 and second 6.³³

In May 1934 Russell Murray reduced the number of Krauss engines insured from seven to five, reflecting the sale of number 5 and some kind of demise for number 3.³⁴ The most likely explanation of the disappearance of number 3 is that its boiler and perhaps other parts were transferred to number 5. MLMRC regarded the engine sold to Great Boulder in 1933 as number 5,35 but it may well have included parts of number 3. Bruce Macdonald noted that in 1920 number 3 was carrying a boiler built by MLMRC and that the Western Australian boiler records recorded that the boiler of the Great Boulder engine was new in 1920. As can be seen from the notes above, number 5 was carrying a 1910 boiler at least until 1924, but the correspondence with Great Boulder in 1934 indicated that number 5 by then had a boiler that had seen only two years' service. The latter statement raises problems, since if this was the 1920 boiler it must have had considerably more than two years' service.

The former North Lyell Krauss, 4087 of 1899, Mt Lyell's second number 6, outside Queenstown locomotive shed in February 1937, with what appears to be a Malcolm Moore unit parked in front of it. Photo: JLN Southern

North Mt Lyell's 7½ ton Krauss 4087 of 1899 (later Mt Lyell's second number 6)

The Mt Lyell Standard reported on 26 April 1900 that the small locomotive intended to replace horse haulage of ore from the North Lyell mine to the Mt Lyell haulage had been delivered 'at the junction'. It reported on 22 May 1900 that it had been put together and was ready for use and on 16 June 1900 that it had made a trial run to the mine the previous afternoon; it was stated to be of the same make and size as those on the MLMRC lines. On 31 July 1900 the Mount Lyell Standard reported that the North Lyell mine was sending 100 tons of ore to the MLMRC smelters each day; the Krauss was hauling the ore for most of the distance over the tram, but horses were still being used at the Main Haulage end of the tram pending the laying of heavier rails. Ken Milbourne noted that 4087 was tested at North Lyell on 15 June 1900 and that the boiler was tested annually thereafter until it was condemned in September 1910 and replaced with a new one. The report for the half year ending 30 September 1910 also noted that a new boiler had been fitted to the locomotive in use by the MLMRC's Mine Department.³⁶

Tracing the history of the North Lyell Krauss is complicated by the fact that for most of its life it was regarded as the property of the Company's Mine Department and not the Railway Department. It was generally referred to as '*the Mine Department's engine*' rather than by a specific road number, probably because the two departments were separate cost centres and the Railway Department charged the Mine Department for repairing it. In February and March 1918 there were five references to the overhaul of the Mine Department's Krauss engine.³⁷ There were further references to the Mine Department's Krauss being overhauled and undergoing boiler repairs between May and July 1920. Sticht noted on 30 July 1920 that the Mine Department Krauss had been returned '*and the relieving engine brought back to Q'tourn*'.³⁸ The Mine Department's engine was overhauled again in both early and late 1922 and it was in the workshops for several months in 1923, in the course of which it was fitted with a new boiler. Murray noted on 29 March 1923 that a boiler was being constructed for the Mine Department Krauss, and on 14 April 1923 that construction of the new 7 ton Krauss boiler was nearing completion.³⁹ In December 1923 the boiler removed from the Mine Department's Krauss was being overhauled.⁴⁰

Number 6 was involved in a curious standoff on 5 November 1918 when government mines inspector HA Vaudeau, with whom the company had a less than cordial relationship, came up the Main Haulage and then climbed into the cab of the Krauss to be taken to the North Lyell mine. On the company's orders the driver refused to move the engine, but Vaudeau sat in the cab for five hours before he finally admitted defeat; the matter later went to court.⁴¹

I did find references to number 6 Krauss being overhauled in April 1917 and to its receiving repairs in November 1920.42 This suggests that the North Lyell engine became the second Mt Lyell number 6 fairly soon after the first was sold in 1910, but I found no information about what (if any) road number the North Lyell engine carried in its earlier years. It is also possible that references to 'the Mine Department's engine' may not always refer to the second number 6, but in some cases to whichever 7¹/₂ ton Krauss was allocated to the North Lyell line at the time. In January 1927 Russell Murray said that the construction of the North Lyell tunnel would release two 10 ton engines from the Through Tram and two 71/2 ton engines from the North Lyell tram.43 This statement could be read to indicate that a spare Krauss was kept at North Lyell, but it seems more likely that there was only one engine on the line at a time and that if it failed another engine was sent up from the valley lines.

In January 1933 Russell Murray advised that he had deleted one of the 7¹/₂ ton engines from the list of machinery for sale, since it was considered that one of these engines (presumably the second number 6) should be retained as a standby; he noted that one of the engines was still in occasional use.⁴⁴ The Institution of Engineers party of some 70 people that visited Lake Margaret on 24 February 1934 travelled behind a steam engine, so second number 6 was probably taken up to Howards Plains to work the train.⁴⁵ Jack McLean noted it at Queenstown on 14 May 1940.

In December 1941 Murray advised that he was prepared to dispose of one 7½ ton Krauss for a price of $\pounds650$, which would include necessary repairs. Nothing further seems to have come of this and a list dated 27 November 1944 of items not insured against fire includes five Krauss engines; the company had ceased insuring locomotives against fire in 1937 because of the very low risk.⁴⁶

Number 6 was sold to Renison Associated Tin Mines some time in 1945 for £450. John Buckland noted a Krauss without a visible number at Queenstown on 1 March 1945 being prepared for sale to Renison Bell.⁴⁷ Number 6 worked on the 21/2 mile line between the Renison Bell mill and the Boulder tin mine.⁴⁸ George Sweetapple inspected the engine at Renison Bell in 1948 and noted that the number 6 was still visible on the cab side and Krauss number 4087 was stamped on the motion in several places. On 21 January 1949, Barrie McMillan photographed 4087 on a flat wagon at Queenstown and northbound on the TGR Regatta Point-Zeehan mixed train, so it had presumably been back to Queenstown for repairs. It was later sent to Launceston, allegedly for repairs by Salisbury's Foundry that did not eventuate. It was photographed in Launceston yard on TGR flat wagon KG126.49 In the later 1950s it was combined with parts of Krauss 0-4-0T 5800 of 1907, which had entered service as Zeehan Tramway Company number 2 and then worked for Dunkley Bros and RJ Howard before going to Renison Bell in 1952.⁵⁰ The combined engine was left at Renison Bell when

the line closed in 1960, but it was moved to a park at Mersey Bluff, Devonport, in 1965. Its remains were transferred to the West Coast Pioneers' Museum at Zeehan in 1983.

The 10 ton Krauss engines: numbers 7 (5479 of 1906), 8 (5480 of 1906), 9 (5988 of 1908) and 10 (6067 of 1910)

The four 10 ton engines were the longest serving and best known of the MLMRC Krauss engines and more than a century later three of them still survive in preservation. Their main task was to work ore trains between the foot of the Main Haulage and the reduction works and also to work the Lyell Comstock trains when the mine was producing. They do not appear to have worked on the North Lyell or Lake Margaret lines. They gained an additional duty on 28 May 1912 when a workers' passenger service was introduced between Queenstown and the foot of the Main Haulage. Mine workers living in Queenstown still had to ride up the west side of the Haulage in empty ore bins and then walk along the ridge to the mines, but they could at least avoid a long walk in the rain from Queenstown to the Haulage. No return service was provided, apparently because there were no time constraints and the walk was downhill!⁵¹ In 1913 a workers' passenger service was introduced on the Lyell Comstock line.

The First World War left the company unable to obtain spare parts or new engines from Krauss in Germany. In September 1915 Sawyer predicted that the company would have to prepare drawings of the 10 ton engines to see if British manufacturers were prepared to build engines to the Krauss specifications, thus avoiding the need to keep stocks of spare parts for more than one type of engine. On 11 November 1919 Sticht noted that the Railway Department had submitted an order for motion parts for Krauss locomotives.

A 10-ton Krauss takes water at the lower points on the zig zag at the head of the Queen Valley, on the Lyell Comstock line. The train consists of open wagons loaded with mining supplies, and passenger cars, and was probably photographed in the 1930s. Photo: Tasmanian Transport Museum Society

It was intended to build an exact replica of a Krauss in the workshops at Queenstown, but parts such as cylinders and motion were difficult to manufacture locally and would have to be ordered from the United Kingdom.⁵²

The plan to build a new Krauss seems to have been modified to building new boilers for the existing engines. During the year ending 30 September 1920 two 10 ton engines (one of which was number 9) were fitted with new boilers built in the workshops. Number 10 received a new boiler in January 1921, but this was apparently transferred to another engine, as in February 1922 a new boiler just completed was to be fitted to number 10, which was then being dismantled. Another new boiler was completed in 1923.⁵³

The completion of the North Lyell tunnel in 1928 meant that the 10 ton engines could handle almost all of the remaining work for the 2ft gauge steam engines. There is little about the 10 ton engines in MLMRC records during the 1930s, apart from an incident on 14 January 1935 when one of them was moving 24 wagons of slag from the converters to the smelter bins. The train was inadvertently switched onto the Abt Siding and ran away on the 1 in 16 downgrade. The engine and 16 wagons derailed near the Abt Points at the junction with the valley line, fortunately without serious damage to either the crew or the train.⁵⁴ The end of Lyell Comstock ore traffic in 1944 further reduced traffic needs and John Buckland noted on 1 March 1945 that number 9 was the only Krauss at work.

As noted above, MLMRC considered ending steam working on the remaining 2ft gauge lines in the mid 1940s. This did not happen, but the company did begin to dispose of the 10 ton engines. In January 1947 the Australian Commonwealth Carbide Company's manager, AJ Gillies, inquired about buying a Krauss for use on the Ida Bay limestone tramway. AHP Moline told the MLMRC secretary that there was no likelihood of MLMRC needing more than two Krauss engines unless mining resumed at Lyell Comstock. He had therefore told Gillies that, while they were not particularly anxious to sell engines, he could have one if it was worth $\pounds 800$ pounds to him. Gillies sent his engineer to Queenstown and the company purchased number 9 Krauss on 9 April 1947.55 It proved to be too heavy for the Ida Bay line, which was in any case being taken over by Malcolm Moore petrol units, and it was sold again in 1949 to the North Farrell tramway at Tullah, where it was a backup for Fowler 0-4-0WT WEE GEORGIEWOOD until the line closed at the beginning of 1962. As at Ida Bay, it was considered heavy on the track. The locomotive was donated to the Van Diemen Light Railway Society at Evandale in 1972, moved to the Don Railway Museum in 1977 and then went to Burnie for restoration at the Emu Bay Railway workshops in 1987. It returned to the preserved section of the North Farrell tramway (now the Wee Georgie Wood Steam Railway) in 1993, but requires a new boiler.⁵⁶

Number 7 was scrapped in or about 1954. Numbers 8 and 10 worked on until mid 1963 when the 3ft 6in gauge railways closed and operations on what was left of the non-electrified 2ft gauge system at Queenstown ceased. Number 8 went to the West Coast Pioneers Museum at Zeehan in 1964 and number 10 went to the Queen Victoria Museum in Launceston in July 1966. Number 10 was stored for some years and was then loaned to the Tasmanian Steam Preservation Society to work on their Second River line at Karoola. It moved with them to the Redwater Creek Railway at Sheffield in 1993, but returned to the Queen Victoria Museum in 2001 for display at their Invermay railway workshops site in Launceston.

Number 10 Krauss shunting two 3ft 6in gauge wagons of coke on the siding at the Queenstown end of the smelting loop line to the reduction works, on 27 May 1963. Photo: Jim Stokes

Above: The former Mt Lyell Railway number 9 Krauss went to the North Farrell Tramway in 1949. It is seen waiting to leave Farrell Junction for Tullah in 1957. Photo: AR Lyell

Below: Tasmanian Government Railways 2-6-0 C28 at Koyule with the Regatta Point–Zeehan mixed on 21 January 1949. The train includes TGR, EBR and Mt Lyell (ex-North Lyell) wagons. 2ft gauge Krauss 0-4-0T 4087 of 1899, on the leading wagon, is en route from Queenstown to its new home at Renison Bell. Photo: RB McMillan

Above right: The Renison Associated Tin Mines Krauss, seen at Renison Bell on 8 March 1964, was a combination of 4087 of 1899 (Mt Lyell second number 6) and 5800 of 1907 (Zeehan Tramway Co. No.2). Photo: Jim Stokes

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3. Mercury, 11 April, 11 August and 6 November 1900; 28 May, 1 and 4 June 1903. For a detailed history of the North Lyell Railway and associated mines and trams see Ray Ellis, the North Mount Lyell Railway, in Light Railways No 105, July 1989, No 106, October 1989 and No 109, July 1990.

4. UMA, MLMRC, Letters from Queenstown, Vol 85, 9 and 23 April and 21 May 1920; Vol 87, 12 November 1920. For space reasons UMA and MLMRC have been omitted from citations of letters to or from Oueenstown in subsequent endnotes. Letters from Queenstown are abbreviated as LFQ and letters to Queenstown as LTQ. From 1943 LFQ are arranged in unnumbered folders.

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9. LFQ, unnumbered folder January - June 1945, 8 January 1945; unnumbered folder 1946, 12 and 26 March and 9 April 1946.

10. Geoffrey Blainey, The Peaks of Lyell, Melbourne, 1959, p. 71.

11. Arnold Lockyer, Krauss Locomotive The Nancy, Light Railways, No 110, October 1990, pp. 19-20 and Peter Evans, Rails to Rubicon, LRRSA, Melbourne, 1994

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25. LFQ, Vol 100, 27 July 1922. 26. LFQ, Vol 112, 19 February 1924; Vol 114, 24 July 1924. The date 'in traffic' of July 1898 may have been based on when the salvageable parts of the engine were removed from the wreck of the Grafton!

27. LFQ, Vol 128, 28 September 1926. 28. LTQ, Vol 172, 3 August 1933; LFQ, Vol 168, 15 August, 31 October and 1 December 1933; Vol 175, 13 and 16 February 1934.

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30. LFQ, Vol 82, 3 October 1919 and annual railway report 30 September 1919. 31. LFQ, Vol 84, 16 and 22 January, 20 and 26 February, 5, 12, 19 and 26 March 1920; Vol 85, 9 and 30 April 1920; Vol 86, 6 and 13 August 1920; Vol 87, annual railway report 30 September 1920. However the MLMRC workshops manager

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33. LFQ, Vol 139, 23 March 1928; Mercury 23 March 1928 p. 9; LFQ, Vol 157, Phoenix Assurance to Murray 31 March 1931.

34. LFQ, Vol 175, 18 May 1934.

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22 and 30 July 1920. 39. LFQ, Vol 98, 24 February and 4 and 10 March 1922; Vol 101, 1, 8, 15 and 22 December 1922; Vol 105, 5, 12, 19 and 25 January, 2, 9, 16 and 23 February, 2, 9, 15, 22 and 29 March 1922; Vol 106, 12 April and 22 and 29 June 1923.

40. LFQ, Vol 108, 14 December 1923; Vol 112, 1, 8 and 14 February 1924.

41. Mercury, 6 November 1918 p. 8 and 21 November 1918 p.6; 21 March 1919 p. 2 and 29 March 1919 p. 6.

42. LFQ, Vol 59, half year railway report 31 March 1917; LFQ, Vol 87, 5 and 12 November 1920.

43. LFQ,Vol 133, 10 January 1927. 44. LFQ,Vol 167, 24 January 1933.

45. A full account of the Institution of Engineers' visit was published in their Journal for March 1934 and parts of the West Coast section were reprinted in Light Railways No 181, February 2005.

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47. LFQ, unnumbered folder 1946, 12 March 1946.

48. See LB Manny, The Boulder Tramway, Australian Railway Historical Bulletin, February 1962, pp. 17-19; Ray Ellis, The North Mount Lyell Railway: Part 3, Light Railways No 109, July 1990, pp. 6-7.

49. Tasmanian Archives and Heritage Office (from National Archives of Australia), series P1300, photo 1L90. The photo is reproduced in Thomas CT Cooley, Railroading in Tasmania, Hobart, 1963, plate 40, but is described incorrectly as a Tasmanian Government Railways' Krauss

50. Bruce Macdonald gives the year of rebuilding as 1959. However Len Manny, whose visit to Renison Bell appears to have been made in January 1958, noted that 5800 was then the only surviving engine and that the other two had been reduced to spare parts; this suggests that the rebuild might already have taken place. See LB Manny, The Boulder Tramway, Australian Railway Historical Bulletin, February 1962, pp. 17-19.

51. LTQ, Vol 34, 28 May and 4 June 1912; Mercury, 28 May 1912 p. 5 and 30 May 1912 p. 6.

52. LFQ, Vol 31, 28 September 1915; Vol 82, 11 November 1919.

53. LFQ,Vol 87, annual railway report 30 September 1920;Vol 91, 20 January 1921; Vol 98, 3 February 1922;Vol 107, 31 August 1923.

54. LFQ, Vol 183, 15 January 1935

55. LFQ, unnumbered folder 1947, 25 January 1947; information from MLMRC workshops manager 1963.

56. For the later history of No 9 see John Peterson, Wayne Chynoweth and David Beck, The Ida Bay Railway and its Locomotives, *Light Railways* No 157, February 2001, pp. 3–8; LB Manny, The Tullah Tramway, Australian Railway Historical Society *Bulletin*, April 1960 pp.49–56 and August 1960 pp. 128–131.

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QUEENSLAND

Sugar Research and Development Corporation

The automatic scheduling programs developed from the 1970s made a big difference to the efficiency of cane transport in terms of the co-ordination of cane bin delivery, loading and unloading. This basic system remains in use today so subsequent improvements in computer power and mathematical methods have not been fully utilised. Recently, good progress has been made through SR&DC funding towards a new automatic scheduling method that better takes account of the fact that sidings are not isolated points but form part of a unified rail network.

Cane transportation is reckoned to constitute about 20 per cent of total milling costs. The elimination of one locomotive shift can save about \$100,000 a year to a factory from reduced crew wages and

LOCOMOTIVE, ROLLING STOCK & EQUIPMENT MANUFACTURERS/SUPPLIERS

IBS ENGINEERING SUPPLIES PTY LTD, Innisfail, Qld

(see LR 231 p.20)

610mm gauge

The ex-Millaquin Mill Clyde 0-6-0DH (65-441 of 1965), being rebuilt for Fiji Sugar Corporation, was nearing completion in early July. It has been given the name *DAMO*. It has been fitted with very large sunshades above the front and rear cab windows. Luke Horniblow 6/13, 7/13

fuel costs while a 10 per cent reduction in cane bin fleet size is worth about \$60,000 a year in capital replacement and maintenance savings. This means that a more efficient scheduling system can bring significant dividends.

An associated project is to develop ways of using real time locomotive GPS data in order to take account of emergent changes of circumstances that can affect scheduling on a daily basis. It is hoped that the use of real time GPS data will enable more efficient adjustments to be made in the course of the working day and also to assist with more accurate schedule planning. As a first step, 2012 GPS data from Farleigh, Plane Creek and Bingera Mills is being analysed to compare the planned locomotive run times to what actually occurred.

Sugar Researcher Edition 2: 2013

BUNDABERG SUGAR LTD, Bingera Mill & Millaquin Mill (see LR 231 p.21)

610mm gauge

Bingera Mill's EM Baldwin 0-6-0DH *PERRY* (6/1576.1 8.66 of 1966) was in use for track repair work from the Booyan bridge back towards Moore Park during May. Booyan Siding, to the south of the Kolan River, was completely washed away by the recent flooding and will not be reinstated. At this time, Com-Eng 0-6-0DH *SHARON* (A1935 of 1959) was the only occupant of the loco shed at Fairymead, with the other locomotives normally based there over at Bingera for annual maintenance.

At IBS Engineering, Innisfail, Clyde 0-6-0DH DAMO (65-441 of 1965), for Fiji Sugar Corporation, nears completion, 2 July 2013. Photo: Luke Horniblow

The season began badly on 24 June with the derailment of Bundaberg Foundry Engineering B-B DH *BOOYAN* (001 of 1991) on a split set of points at Cox's Siding near Moore Park. Track repair work on the Millaquin lines included the removal of a stranded yacht from the line. Luke Horniblow 5/13; Lincoln Driver 6/13; *Fraser Coast Chronicle* 22/5/13

ISIS CENTRAL SUGAR MILL CO LTD

(see LR 231 p.21)

610mm gauge

Isis Mill has made a contribution of \$100,000 towards the Isis Highway overpass project (not Burnett Highway as previously recorded) Cordalba. By mid-June, a 25-metre long concrete box structure had been erected over the cane railway to the west of the highway between Hapsburg and Swantons Roads, and earthworks were progressing to relocate the highway over it at a height of more than 5 metres.

Unfortunately, visibility when coming from the mill side is very limited so the locomotive must halt at a stop board on arriving at the 'tunnel' and the driver's assistant must walk through to the road to call the train on when there is a suitable break in the traffic. The assistant then checks that the flashing lights are working before boarding the locomotive, with crossing speed limited to 5 km/h. The level crossing at Ridgeway Street, Childers, was closed on 13 May to allow for rail upgrading work there.

Walkers B-B DH No.4 (656 of 1970 rebuilt Walkers 1994) and its bogie brake wagon (Hexham Engineering 684 of 1987) have been repainted in safety yellow.

Isis Town & Country 9/5/13; *Gladstone Observer* 18/6/13; Luke Horniblow 5/13

MACKAY SUGAR LTD, Mackay area mills

(see LR 230 p.21)

610mm gauge

EM Baldwin B-B DH *BALMORAL* (10684.1 4.83 of 1983) has been repaired at Farleigh Mill following the collision damage of last year. EM Baldwin B-B DH *INVERNESS* (10123.1 5.82 of 1982) has had its GM 3406 engine replaced by a Caterpillar C15, also at Farleigh.

Farleigh Mill's EM Baldwin B-B DH *FOULDEN* (7220.1 6.77 of 1977) and Racecourse Mill's EM Baldwin B-B DH *SHANNON* (7126.1 5.77 of 1977) were observed on ballast haulage in early May.

On 22 May, Marian Mill's Walkers B-B DH *CALEN* (682 of 1972 rebuilt Bundaberg Foundry 1995) was on tree trimming duties with two 6-tonne bins on the Jukes line.

Mitch Zunker 5/13; Hayden Quabba 5/13; Scott Jesser 5/13

Top: A more recognisable section of Bingera Mill's Booyan siding following the major flooding that occurred early in the year. Much of the rest was swept away almost completely. This siding will not be rebuilt, another casualty of the greatly reduced former Fairymead Mill rail system. Photo: Luke Horniblow, 17 May 2013

Left: A flock of cattle egrets stand sentinel on the very first rake of cane for the 2013 season to be loaded at Mackay Sugar's Racecourse 4 siding, Tuesday 18 June 2013. Photo: Scott Jesser

Below: At approximately 6pm on 18 July, Mackay Sugar's Clyde 0-6-0DH locomotives PLEYSTOWE (64-321 of 1964) and PALYMRA (63-273 of 1963) pull the first rake of cane of the 2013 crush into the Farleigh full yard. Photo: Hayden Quabba

MACKAY SUGAR LTD, Mossman Mill

(see LR 231 p.21) 610mm gauge

Three locomotives have been repainted in Mackay Sugar yellow, green and red livery. These are multi-pair Com-Eng 0-6-0DH locomotives *DOUGLAS* (AL2562 of 1963) and *FAUGH-A-BALAUGH* (AL4190 of 1965), together with EM Baldwin B-B DH *DAINTREE* (7303.1 7.77 of 1977). The remaining locomotives are still in the Mossman pale yellow and light blue livery. Hayden Quabba & Luke Horniblow 7/13

MSF SUGAR LTD, Mulgrave Mill

(see LR 231 p.21)

610mm gauge

New 6-tonne Bradken bins that were noted parked around the South Johnstone Mill network on 1 June were delivered by rail to Mulgrave once the connecting line was available for traffic.

Clyde 0-6-0DH 16 *KAMMA* (56-96) was on track maintenance duties in the Babinda area around the end of May. During the first week of June, Clyde 0-6-0DH *CUCANIA* (63-289 of 1963) was used on tree trimming duties between the mill and Redlynch while Clyde 0-6-0DH 18 *BARRON* (64-379 of 1964) was on weed spraying duties from north of Redlynch back to Russell Road. By mid-June, the rebuild of Com-Eng 0-6-0DH 17 *DEERAL* (AD1453 of 1962) was complete and

Clyde 0-6-0DH 13 (64-316 of 1964) was under overhaul.

Above: A new look at Mossman. Twin Com-Eng 0-6-0DH units DOUGLAS (AL2562 of 1963) and FAUGH-A-BALAUGH (AL4190 of 1965), hauling a rake of cane down Mill Street on 1 July, have been repainted in Mackay Sugar livery. It looks as if the names have not been reapplied at this stage. Photo: Hayden Quabba **Below:** Mackay Sugar's Walkers B-B DH TANNALO (705 of 1972 rebuilt Bundaberg Foundry 1995) on Farleigh Mill's north coast line, crossing the Floodway bridge after doing a job at Ossa 2, 16 June 2013. Photo: Hayden Quabba **Below right:** Mackay Sugar's EM Baldwin B-B DH SHANNON (7126.1 5.77 of 1977) stowed with a train of nine fur-wheel ballast hoppers at Hampden 7 Siding in Kuttabul on the Marian Mill network on 5 May 2013. This locomotive normally hauls cane for Racecourse Mill during the crushing season. Photo: Scott Jesser

A new line has been built to provide a cutoff from the old Babinda north line to Clyde Road. This enables trains to run directly from Mulgrave to South Johnstone without having to cross the QR and reverse in the old Babinda Mill yard. The condition of the old Babinda northern line has been upgraded to a much higher standard than that seen under Bundaberg Sugar.

It is understood that the official boundary between the two mill areas is at Babinda Creek, which means that the area immediately south of Babinda, and The Boulders and Happy Valley areas to the west, are served from Mulgrave.

Crushing commenced (briefly) on 17 June and on the following day, Com-Eng 0-6-0DH locomotives 8 *CHARINGA* (A1926 of 1958) and 9 *MEERAWA* (FC3473 of 1964) were working in the Babinda area, with 8 heading out to Happy Valley. Carl Millington 5/13, 6/13; Editor 5/13; Luke Horniblow 6/13; Shane Yore 7/13

MSF SUGAR LTD, South Johnstone Mill

(see LR 231 p.22)

610mm gauge

At the end of June it was noted that Clyde 0-6-0DH 12 (55-60 of 1960) has been stripped for a rebuild. The Niigata torque converter will be removed and replaced by an Allison automatic unit as has been done with loco rebuilds at Mulgrave.

On 25 April, five bins similar to the Moreton Mill type of bin were seen in a rake at Sandy Creek.

These bins are to the same design as the Moreton bin, only higher to suit the South Johnstone tippler. It seems that more than the one prototype was built several years ago.

The ex-Moreton Mill Gemco track jack (R916-93 of 1993) seems to have been fairly substantially rebuilt and now appears to incorporate part of a steel cane truck chassis.

On 1 June, it was noted that the two EM Baldwin brake wagons (6575.1 5.76 and 6575.2 5.76 of 1976) had been joined by the Clyde Queensland brake wagon (CQ2413 of 1972) in the old Mourilyan Mill locomotive shed.

During the maintenance season, a bridge was replaced at Tirendi Siding near Innisfail so the new bins for Mulgrave Mill could not be delivered from Bradkens at Boogan until the work was completed during June, shortly before the start of crushing.

Carl Millington 5/13; Luke Horniblow 5/13, 6/13; Shane Yore 7/13

WILMAR SUGAR (HERBERT) PTY LTD, Herbert River Mills

(see LR 231 p.22) 610mm gauge

Macknade Mill's bogie brakewagon 3, built by Solari Engineering in 1994, has recently been fitted with new bogies. The bogie frames are ex QR. Three sets of wheels are from Clyde 0-6-0DH DHI.2 of 1954 and the fourth set was

previously the centre set from Clyde Queensland brake wagon 4 (CQ3426 of 1975). The axles and tyres are new. The air reservoirs on the bogie brake wagon from new were also taken from Clyde DHI.2.

Crushing commenced in mid June and on or about 23 June, Clyde 0-6-0DH *INGHAM* (64-382 of 1964) was sent over from Victoria Mill to Macknade to cover for a loco breakdown. Chris Hart 5/13, 6/13

WILMAR SUGAR PTY LTD,

Pioneer Mill, Brandon

(see LR 228 p.22) 1067mm gauge

An overpass is being constructed to take the Bruce Highway over the cane railway at the BSES crossing as part of extensive road works which are expected to be completed by mid 2014. Luke Horniblow 5/13

WILMAR SUGAR (INVICTA) PTY LTD, Invicta Mill, Giru

(see LR 230 p.21) 610mm gauge

Plane Creek's ballast regulator (Tamper 1775577 of 1977) was on loan early in the year, but had

Industrial NEWS Railway

returned south by early May. Noted at the mill at the end of May was Inkerman Mill's 0-6-0DH *OAKENDEN* (FB3169 of 1963). Luke Horniblow 5/13

WILMAR SUGAR PLANE CREEK PTY LTD, Plane Creek Mill, Sarina

(see LR 230 p.22)

610mm gauge

The ex-Racecourse Mill ballast regulator (Tamper 1775577 of 1977) was on loan to Invicta Mill earlier in the year, but had returned by early May to assist with work on relaying the full yard lines at the mill. Long welded rails were laid on concrete sleepers and Com-Eng 0-6-0DH D8 (FC3777 of 1964) was on ballasting duties with a long train of 16 ballast wagons.

Clyde 0-6-0DH D1 (56-101 of 1956) was returned to the outer section of the Plane Creek line on 20 June in preparation for the start of the crushing season on 26 June. It serves sidings at 5, 4 and 3 Plane Creek and pushes loaded bins across a weak bridge over Plane Creek that cannot carry locomotives.

Luke Horniblow 5/13; Scott Jesser 6/13

TULLY SUGAR LTD

(see LR 231 p.23)

610mm gauge

On 20 June, the first 30 new 10-tonne bins were delivered by Bradken. They are fitted with automatic couplings unlike the rest of the Tully stock which is link-and-pin coupler fitted. The tare weight of the design has also been reduced. These bins are replacing older 4-tonne bins. http://english.tunhe.com/index.php/en/ allnews-2/allnew-3/1360-20130627

VICTORIA

CRAIGS MINING SERVICES, Cassilis Mine, Swift's Creek

610mm gauge

(see LR 197 p.22)

The locomotive in use at Cassilis in 2007 has been identified as one of the four 3-tonne Gemco locomotives sold at auction at Hillgrove, NSW, in 2002, numbered LOT 58. It is believed to have been operated by the contractor Craigs Mining Services rather than Mutiny Gold. Phil Rickard 6/13

MITCHELL KERMOND, Sambas Gold Mine, Harrietville

(see LR 193 p.21) 610mm gauge

The January Alpine fires brought disaster to the Sambas gold mine. On February 10, the mine's processing shed was burnt out, causing \$200,000 worth of damage. On February 27, a torrential downpour led to a landslide of the burnt out hillside above the mine, dislodging the old mullock heaps and burying the surface installations, causing an additional \$300,000 damage.

The mine had a 2ft gauge tramline and two battery electric locomotives.

Sunday Herald Sun 16/3/13 via Phil Rickard

MT WILLS GOLD MINES PTY LTD, Maude Gold Mine, Glen Wills

610mm gauge?

Underground drilling work was taking place at this historic gold mine in 2012. Photographs show what appears to be a Gemco 0-4-0BE 'trammer' locomotive dumping material removed from cross cuts driven off the number 5 adit. http://smlcorporation.com/our-business/ photo-gallery

WESTERN AUSTRALIA

THE PILBARA INFRASTRUCTURE PTY LTD (see LR 231 p.25)

1435mm gauge

Two junior miners, Brockman Iron and Flinders Mines have made formal requests for access to the Fortescue rail network for ore transportation, and the State regulator has demanded that Fortescue provide more a transparent schedule of its proposed access charges. Meanwhile, Atlas Iron appears to be interested in acquiring a stake in The Pilbara Infrastructure as a way of obtaining transport for the production from its mines but third party access could reduce the value of the asset to potential buyers of a share in the company.

Meanwhile, on 7 June, the High Court sent Fortescue's own long-running legal bid to gain access to the rail networks of BHP Billiton and Rio Tinto back to the Australian Competition Tribunal, upholding all but one of Fortescue's grounds for appeal.

The Australian 16/5/13, 30/5/13; Business Spectator 16/5/13; The Age 20/5/13; Rail Express 29/5/13; The West Australian 5/6/13; Mining Business Media 11/6/13; Mining Weekly 12/6/13; The Lawyer 11/6/13

PILBARA RAIL

(see LR 231 p.25)

1435mm gauge

A new overpass to be constructed just west of Roebourne by early 2014 will take the North West Coastal Highway over the Rio Tinto iron ore railway connecting to Cape Lambert and eliminate a level crossing.

Rio Tinto Iron Ore media release 6/5/13

OVERSEAS

FIJI SUGAR CORPORATION

(see LR 231 p.25) 610mm gauge

A proposal to use the cane railway lines for passenger and goods transportation has re-emerged. However, there appeared to be no clarity on whether a commuter passenger service or tourist service was what was envisaged.

It appears that the much-vaunted sugar quality method of cane payment will not be fully operational until the 2014 season. During the current season, the quality payment system is being run in parallel with the weight payment system to provide feedback to growers on what returns they could expect in the future and to encourage the growing of sweeter varieties of cane.

Radio New Zealand International 19/6/13; *Fiji Times* Online 25/6/13

PT FREEPORT INDONESIA, Grasberg Mine, Irian Jaya

(see LR 227 p.24)

1435mm gauge

On 14 May, the roof of an underground training room deep within the mine collapsed, killing 28 people and temporarily trapping 10 others. Underground operations were immediately suspended and it is not clear when they will be resumed. The mine is the world's second biggest copper producer and holds the world's top gold reserves. A very large underground rail system is currently on order. *Engineering & Mining Journal* 25/5/13, 1/6/13,

Engineering & Mining Journal 25/5/13, 1/6/13, 14/6/13

With a background of banana trees and a foreground of mud, South Johnstone Mill's Tamper Model STM-XLC tamping machine (94962 of 1995) parked up at a section of track where new concrete sleepers have been installed, 1 June 2013. Photo: Luke Horniblow

Please send contributions to research@lrrsa. org.au or to P.O. Box 21, Surrey Hills, Vic 3127.

I am excited to introduce myself to the *Light Railways* readership as the new research editor. My excitement stems from joining the team responsible for an amazing publication and historical resource, a result of much hard work that has occurred over the last 52 years of the Society.

Although I have been a member since 1998, I am not an active *Light Railways* researcher. My research experience was formalised completing my honours thesis, after many years as a scientific photographer. When I look back at Light Railways magazines over the years, I wonder "what is left to research" and "where to begin?" Talking to experienced researchers though, I discover there are still many new areas to be researched as well as expansion of previously researched areas and, most importantly, advice is always freely given.

In future editions, I want to look at issues for new researchers. So, if you are new to the field and want to know more about how to carry out various aspects of research, have questions or advice, drop me a line. Your thoughts will help me seek out and write articles to help researchers, new and experienced alike. I look forward to working with all researchers as they share aspects of their knowledge with a wider audience.

Stuart Thyer

More Online Mapping Resources

John Cleverdon's Research article from LR231 provided a number of URL's of mapping websites; to assist readers, he has now provided links to most of these sites (plus many other government & commercial mapping sites) at:

http://users.cdi.com.au/~johnc/4wd_links.htm and http://users.cdi.com.au/~johnc/spatial.htm Chris Wurr also provided some of his favorite mapping resources. Spatial Vision's DVD VicMap Books is an interactive digital mapping program available at: http://www.spatialvision. com.au/index.php/software-a-data/vicmapbook-imagery.html It is a single disc version of the printed VicMap Books and covers the whole of Victoria, with generous overlap into adjoining states. Latitude and Longitude can be easily obtained and are as accurate as the digital mapping will allow. Additionally, UTM grid references can be derived from the program. Maps, or portions thereof, can be printed for use in the field. DVD media is cost-effective and is comparable to the price of just one regional hard copy map book.

Geodata Raster 250k maps are available for purchase on DVD at: http://www.gpsoz.com. au/raster250k.htm. They cover the whole of Australia with 1:250,000 maps. Researchers will find them of greatest use in covering areas where 1:100,000 (or better) sheetmaps have not been produced. Accuracy of Latitude and Longitude derived from these maps is limited, due to the nature of large-scale mapping.

Although not a resource available to most researchers, it is worthwhile noting that old Country Fire Authority (Victoria) 1980s series maps have found their way into limited unofficial use. Out of date, but still highly accurate, the maps at 1:25,000 scale, are not (and never were) available for purchase by the general public. The datum used is no longer current, but they are still highly prized by detailed researchers. *John Cleverdon, Chris Wurr*

Using satellite and aerial imagery and GPS

Precisely locating sawmill and mining sites, as well as tramway routes which have been long abandoned, has been made much easier over the last few years, thanks to satellite imagery and aerial photography. Previously the domain of Government departments and the military, this technology has evolved along with the internet to allow ordinary citizens to survey the world. Once the desired geographic feature has been located, its position can be entered into GPS units and found on the ground, in theory at least.

The old stalwart, *Google Earth*, is the mainstay for finding and tracking locations. It is free to use via the internet and its controls are the most user friendly in terms of its interactive functions. Latitude and Longitude (Lats & Longs), also called co-ordinates or waypoints, are easily established on the satellite imagery on your monitor. Features can be flagged and named, this will record the lats & longs of the site.

There are other useful tools including the 'Ruler Feature' which draws a straight line between two locations, with both distance and bearing being automatically derived. Distances can be set to imperial or metric, and bearings are accurate to decimal points.

There are however, drawbacks and weaknesses. Accuracy of lats & longs can vary greatly, and if transferred to a hand-held GPS receiver, can potentially cause problems for researchers out in the field. Variations may be as little as a few or as much as hundreds of metres. The most glaring anomaly I have discovered was 740 metres. For this reason, when deriving co-ordinates from *Google Earth*, I notate them 'G.E.' to indicate that they may not be precisely accurate. The sharpness of the image quality can vary greatly too. Some areas are pinpoint sharp, while others are so poor, they are of no use to researchers. While quality varies, *Google Earth* covers virtually every inch of Australia and the world. NearMap is a far more accurate program for our type of research and is actually aerial photography, rather than satellite imagery. Until recently, it was free to use via the internet. While lacking the interactive features available on Google Earth, the lats & longs obtained from NearMap are always pinpoint accurate. The consistent sharpness of images is brilliant. Two downsides to NearMap are that it doesn't cover most of Australia, especially the less settled areas, and secondly it has now moved to a 'user pays' basis, aiming itself at the commercial and government users. Researchers (in Victoria at least) have participated in NearMap's recent on-line questionnaire, seeking free or concessional use of the program for not-for-profit research, such as that used in Light Railways. We await their reply.

Flash Earth is a relatively unknown satellite imagery website, which is now being embraced more by amateur researchers in our field. It uses Microsoft image data and while image quality varies from quite good to excellent, coverage of Australia is limited. Certainly more area is covered than *NearMap*, but not at the maximum obtainable on Google Earth. Its drawbacks are that some areas suffer from sporadic cloud cover and that the only interactivity is in obtaining lats & longs, but these are extremely accurate.

The above-mentioned programs, used in conjunction with digital mapping (Spatial Vision's DVD VicMap Books, Geodata Raster 250k maps) and Country Fire Authority 1980's series are what I use in locating and tracing ground based features. For areas not covered by digital or conventional maps, *Google Earth* imagery printed out hard copy is the next best thing. However it is often difficult to determine from satellite imagery what are abandoned tramway formations and what are vehicle tracks, watercourses, fencelines or merely big long scratches on the ground.

Waypoints for likely or suspicious-looking features found can be logged to GPS units, which then guide the user to an approximate or precise location on the ground. Conversely, ground based features which are found while out on reconnaissance can be precisely marked by using the GPS unit and later mapped onto computer, to see how it fits into the bigger picture of things.

Cross referencing details from accurate old maps (e.g. inch to the mile Army Ordnance series) with modern digital mapping and imagery can be very rewarding too. Most of the Army Ordnance maps of varying scales are viewable on free State Government websites.

Chris Wurr

The Langley Vale Tramway (LR 226, 227)

On 28 May 2013, about 35 people interested in the local timber industry met at the Coopernook Forestry Headquarters in the Lansdowne State Forest for a history and fact gathering day. Some very interesting historical photographs on the Langley Vale Tramway surfaced during the meeting. I was unable to attend but was fortunate enough to obtain digital copies through the kind offices of the editor of the

Workmen pose for the camera on the jib of an ingenious piece of bush engineering, a travelling crane being used to construct the well-known Curved Bridge on the Langley Vale Tramway. The crane consists of a long log chained down onto a pair of log bogies with a hand winch mounted over the rear bogie. It was towed into position by bullock team. Photo courtesy of the Manning River Times

The partly completed Curved Bridge with the travelling crane perched on the southern approach. The jib extension was used to lower bridge timbers onto piers beyond the reach of the main spar. A handy tree stump serves as the first bridge pier, a technique used by William Langley on more than one occasion. Photo courtesy of the Manning River Times

Manning River Times newspaper. According to the editor, the provenance of the photographs is not known.

These two photographs show views of William Langley's well-known Curved Bridge under construction on the 4ft 2in (1270mm) gauge wooden-railed Langley Vale timber tramway on the NSW mid-North Coast. The bridge was a 77m long by 10m high trestle construction on a 4-chain (80m) curve and became the subject of many period photographs. It was built circa 1912 to replace a large 1898-era pigsty bridge with steeply graded approaches located a short distance downstream, which was destroyed in a bush fire. The construction of this bridge enabled Langley's newly acquired A-class Climax steam locomotive to replace the horse teams employed for the previous 15 years. The large bed logs at the base of the piers can still be seen in situ over 100 years later.

Of considerable interest is the travelling crane being used to position and lower bridge timbers into place. It is an ingenious piece of bush engineering, consisting of a long log jib chained down onto a pair of log bogies. A hand-operated winch, mounted above the rear bogie, was used to raise and lower loads, while the whole contraption was towed into position by bullock team. A third photograph shows the jib extension spar being used to lower a timber cross piece, or corbel, onto the top of a bridge pier.

The Curved Bridge remained in use on the main line for over 25 years, right up until the end of the tramway era at Langley Vale. Being built on a sharp curve and steeply graded, it was not an experience for the faint-hearted to cross. As the late Arthur 'Tab' Newman, timber worker at Langley Vale in the 1920's recalled: "That curved bridge, that was all done by hand and bullocks. My father helped build that curved bridge. They had steel rails round it. It used to give you the biggest thrill you ever got in your life. Don't matter how many times you went over it, your hair still fly up under your hat. Say you was on the middle truck of seven trucks. This truck you were on would be going one way, by gee, we were going. All of a sudden it'd come back like that. Your hair stands straight up on end! You get that fright!" lan McNeil

Wright Stephenson Pty Ltd , Pulbeena Tas

Tony Weston has found a listing in the Tasmanian Director of Mines 1960 report regarding a limesands operation at Pulbeena, north west Tasmania. The operators, Wright Stephenson & Co (Australia) Pty Ltd. was a subsidiary of the large New Zealand stock and station company of the same name established in Dunedin during the 1860s. In 1920 the company opened a fertiliser works in Auckland, making it one of the pioneers in the use of fertilisers. With only two employees, it was clearly a small-scale operation, for which a small locomotive would suffice. Any further information on this site would be appreciated.

WRIGHT STEPHENSON PTY. TD., PULBEENA

Production totalled 4443 tons of limesands valued at £5554 for use in agriculture. Employment remained stable at 2 men. An addition was a petrol driven locomotive for transferring full rakes to the foot of the haulage.

1960 Report of the Director of Mines, Tasmania http://www.mrt.tas.gov.au/mrtdoc/dominfo/ download/AR1960_OLD/AR1960.pdf p.15 *Tony Weston*

A dry-stone walled culvert on a quarry branchline north of Tarrawingee. L.R 209 contains my report on the 2'gauge limestone quarries system at Tarrawingee, north of Broken Hill. The extensive system of tramlines connecting the numerous quarries with the loader to the 3'6" line to Broken Hill was only discovered by browsing Google Earth. From initial knowledge only of one line running north from Tarrawingee, a whole 6 + miles network of lines was discovered while browsing satellite imagery. Such browsing can lead to discoveries like this.

Gemco locomotives

A reference to use of a Gemco battery locomotive in a 'deep lead' diamond mine in northern NSW has recently been found.

Audimco Ltd used a Gemco one tonne battery locomotive at its Copeton mine near Tenterfield from around 1976 to 1980. Material was loaded underground by an Eimco 12B bogger into 0.4 cubic metre kibbles mounted on flat trucks. The loaded trucks were hauled to the shaft by the locomotive and the kibbles were then lifted from the trucks up the shaft to an automatic tipping device. (S G Gemmell, 1985. *Deep Lead Mining* – *Is it limited to the past*? Paper presented to the Aus.I.M.M. Kalgoorlie Branch, Underground Operators' Conference, October 1985.) *Tony Weston*

Hattah – Spectacle Lake Tramway

A recent discussion on the LRRSA Yahoo group looked at the possibility of a salt tramway running from the Hattah station yard to nearby Spectacle Lake. Hattah, on the Victorian Railways (VR) Melbourne to Mildura railway line, is 65 km south of Mildura.

Ricky Luke found the Spectacle Lake tramway marked on the 'Mourpoul -3 Parish Plan' on the Public Record Office Victoria (PROV) website. The plan showed a proposed tramline, around 6 kilometres long, commencing from the Hattah station yard, running in a northerly direction on the east side of the VR line. It then crossed over the VR line and continued west to Spectacle Lake. Ricky visited Spectacle Lake and found traces of what was possibly a tramway formation, but nothing to indicate definitely that a tramway was once there. The route of the proposed line, crossing over the VR line in order to terminate in the Hattah railway yard, on the east side of the mainline, is unusual. If it had been built, it would have likely been one of very few in Victoria.

A review of Trove by Phil Rickard found a 1918 advertisement from Crown Lands calling for tenders for the removal of salt from the various Spectacle lakes (North and South). Subsequently, Colin Harvey located notes in the Lands Dept. tramway licence file at the PROV (VPRS 5357/P0, Unit 2831, File 6021/129). These indicated that on 1 Mar 1922 MacLeod, Carney & Co. applied "... to lay down a bush tram line of wooden rails and sleepers" to transport salt to Hattah railway station. Heavy sand in the area made transport by horse or tractor impractical thus "... the laying down of a tramline is the only feasible means of transportation."

There was no objection from the Mildura Shire Council, but the VR raised a number of technical objections in Sept 1923. MacLeod, Carney & Co accepted all these objections in Feb 1923 and the Lands Dept. issued a tramway licence on 1 April 1923, to Donald MacLeod & Co (Carney no longer appeared in the business name).

By 19 June 1923, the VR reported to the Lands Dept. that the company did not intend to construct the tramway. In Dec 1925, Donald MacLeod & Co wrote that they did "...not propose to renew the licence for proposed tramway as we no longer hold the licence of the salt lakes". The company appears to have lost rights to lease the lakes, and subsequent rental from the new leaseholders made the venture unprofitable.

The Argus (accessed via Trove), 27 Nov 1926, ran an advertisement notifying the company of Donald Macleod And Co Pty Ltd salt merchants was in liquidation. Items for disposal were at Pink Lakes, Underbool, Hattah and Melbourne. There was no mention of tramway or associated plant, however Norm Houghton's article states "McLeod [sic] used a tramway". Presumably this was only for salt harvesting as the article refers to Linga being the only Victorian lake operation having a dispatch tramway ("The Cheetham Chronicles, Part 1: Victorian Lake Salt Tramways", LR112, page 7).

In reviewing the evidence, it appears probable the line was never built by MacLeod. Whether a line was built by a subsequent venture is a point for future research. Salt is still harvested at Spectacle Lake, currently by Larmon Pty Ltd, trading as SunSalt.

Compiled from information provided by: Ricky Luke, Phil Rickard, Colin Harvey

Lauriston Reservoir, Vic

Darryl Grant recently picked up the accompanying photo at a postcard fair in Melbourne, showing

extensive tramway operations. There is a small internal combustion loco that may be a Malcolm Moore product to the right of the pole near the top right corner of the photo. At least some of the wagons carry a number on a light coloured patch of paint on the end of the wagon body. The mystery location was identified as Lauriston Reservoir, on the Coliban river, west of Kyneton Vic. which was constructed between 1938 and 1940.

Do any readers have any information on the use of the light railways in the construction of the dam?

Darryl Grant, Colin Harvey, Phil Rickard

Wombat Woodsmen: Sawmills and timber tranways of

the Wombat State Forest 1853 to 2008

by Norman Houghton

Published by the author. A4 size, soft cover, 166 pages, 161 photographs, 40 maps and diagrams, references, and index. Available from LRRSA Sales, price \$47.50 (\$42.75 to LRRSA members) plus postage.

This is a total rework of the author's *Timber* and Gold, a book published by the LRRSA in 1980. Since then many more historical records have become available, and the author has also spent much time in field work, seeking many of the mill locations, tramway routes, and associated features, such as bridges and snig tracks. As a result, this is a greatly expanded publication, with many more maps, diagrams, and photographs, and with a much greater degree of accuracy and detail. For anyone with a copy of *Timber and Gold* wondering if it is worth investing in *Wombat Woodsmen*, the answer is an emphatic "yes".

The area covered by the book is from Ballarat in the west, Woodend in the east, and from Ballan in the south to Glenlyon (north of Daylesford) in the north. This encompasses the Wombat State Forest, and this area, along with Mount Macedon, was where Victoria's first timber tramways were built, starting about 1855. As a result, this book covers an historically important part of Victoria's timber tramway and timber milling history, when experiments were being made and techniques being learnt. Many of the names mentioned in the text, such as Blake, Witnish, and Hayden, became significant players in sawmilling in other parts of Victoria. After a brief introductory chapter, chapter 2 covers "the forest use and management". It includes a detailed review of the types and layouts of sawmills, transport, including many details of tramway construction, forest management and forest disputes. Initially the sawmillers were given an almost free rein in the forest, resulting in much waste, and the book describes the way the government gradually imposed controls, enabling the forest to regenerate itself. The author is critical of the decision to close the forest to logging in 2008, a decision which appears to have been emotional rather than rational, and resulted in the premature end of a number of well-managed and sustainable businesses.

I found this chapter extremely interesting, particularly the information on the construction of the early tramways, which were of 4ft 6in gauge. I wonder if there was a Tasmanian

influence on the choice of this gauge? There were many timber tramways of this gauge in southern Tasmania, dating from the 1840s, I believe, and their method of construction had much in common with that used in the Wombat Forest, using longitudinal stringers on transverse bearer logs spaced at about 12ft intervals.

The great majority of the tramways were wooden-railed and horse-hauled. The most common gauges seem to have been 4ft 6in and 5ft 3in, with 3ft 6in coming later. The author suggests 5ft 3in was used because of the availability of rolling stock from contractors who had built the nearby railways, but the tramways had nothing else in common with the VR, and there does not seem to have been a logical reason to change from 4ft 6in. The railway profile wheels on contractors' wagons would have created problems on wooden-railed bush tramways.

Chapter 3 covers Ballarat and district; chapter 4 covers Daylesford, Bullarto and Blakeville; and chapter 5, Trentham and Blackwood. Each of these chapters is introduced by a beautiful full-colour map, and there is also a full-colour fold out A3 size map in the back of the book. All of these were prepared by Mike McCarthy. These chapters give a detailed description of each major operation, including archaeological survey plans of mill sites. (many of which were prepared by Peter Evans for the Victorian Department of Conservation, Forests & Lands in the 1990s), and lots of photographs, some historical, but many of surviving earthworks, foundations and other remains. Many of the tramways had guite heavy earthworks, which have survived for well over a hundred years, making for some impressive photographs, especially those taken just after the 1983 and 2009 bushfires. Unfortunately in most cases the author has not mentioned what year he took the photographs. Amongst the historical photographs there are a number of gems, like an amazing bridge on page 104. At times I had some difficulty locating on the maps mills and tramways mentioned in the text; this was partly because creeks identified in the text were not named on the maps, and in others because of the large number of mills owned by one person or company.

This is a long way from being a traditional railway book. There is very little on locomotives and rolling stock, and the only steam locomotives used were the two on Anderson's tramway at Barkstead. Sadly, no photographs have surfaced of these. Those looking for pictures of strange locomotives, steam or internal combustion, will be disappointed. This is not a criticism of the book; horses reigned supreme on the tramways, and rolling stock was very simple. The book is an excellent and thorough work of industrial archaeology and historical research.

But there is one feature of this book which to me detracts from its historical integrity. Mercifully, in chapter 2 the original Imperial measurements have been retained, which makes it easier to understand the logic behind the track construction methods. But in other

chapters there has been an overzealous conversion of measurements into metric, which hides the logic behind certain dimensions. An example is on page 58: "the sleeper and rail sections used sleepers of 2.74 to 3.05 metres length at 1.2m centres to which were affixed 152mm x 100mm wooden rails". In fact, the sleepers were 9ft to 10ft long, at 4ft centres with 4in x 6in rails. The metric dimensions give the impression that the tramway builders were working to tolerances of 1mm in cutting rail, whereas in truth the whole construction was much rougher than those dimensions would imply. In a serious historical work, which this undoubtedly is, the original figures should be retained, and the conversion given in brackets if the author feels this is needed. Similarly the power of sawmills is given in kW, a meaningless conversion from the nominal horsepower figures used in the nineteenth century. Currency figures have all been converted to dollars at 2 = £1, a conversion which is practically meaningless, and confusing due to inflation. Frank Stamford

The Anatomy of: The Darjeeling Garratt and the locomotives it was built to replace

by Peter Manning

Published 2013 by the Peter Manning Design & Drafting. 64 pages, A4 size landscape format, card cover spiral bound. Available from LRRSA Sales \$A39.95 (\$35.96 to members), plus postage.

This book contains so much information for the serious modeler of this famous railway and its locomotives, that it's a must if you are contemplating modelling it or just want to know how it worked, or why certain things on the locomotives were made or modified.

Not much has ever been published with technical detail of this, the second Garratt type locomotive ever built. Very few photographs and detailed drawings are now in existence, but the author through his painstaking research using what little information is available, has added a wealth of information on the working parts of the Garratt and the B class locomotives using 3-dimensional drawings to clearly outline how these parts worked and were constructed.

The reversing gear, which was redesigned and added to the Garratt after the original Beyer Peacock design proved unsatisfactory, is clearly shown in detail, and for anybody wishing to replicate it in model form the explanation provided by the drawings makes it easy to understand.

The Darjeeling railway was unique in its construction having sharp curves and reverse curves with short sections of straight in between the many curves. This called for different thinking in construction of the Garratt, especially with the pivot point locations of the front and rear engine units, compared to that of its predecessors, the Tasmanian K class Garratts. Because of the reverse curves the engine virtually had to swivel and bend in three

different directions at the one time and Beyer Peacock solved the problem in their design. This book sets this out showing the curves and their relation to the pivot points of the locomotive while negotiating the track work as well as the design of the two types of swiveling joints.

The reasons for the modified locations of the vacuum brake cylinders are shown and why they were placed on top of the tanks instead of underneath is shown in clear detail.

The B class tank locomotive, which has been modeled in many scales, is also treated in a similar way with 3D drawings, If you are intending to build a very detailed locomotive, then unless you actually travel to Darjeeling with camera in hand to capture those parts which you cannot see in the thousands of photos taken over the years, or be lucky enough to live near one in preservation, this book will show you every angle of detail to enable you to gain so much information for that model masterpiece.

To both the historian/modeler and those just plain enamored with everything Darjeeling, this book adds a whole different wealth of information that has not been published before. *Bob Farquhar*

110 degrees in the waterbag:

a history of life, work and leisure in Leonora, Gwalia and the northern goldfields.

by Lenore Layman and Criena Fitzgerald

Published 2012 by the Western Australian Museum. Paperback, 24 cm x 16.5cm, 461 pages, maps and black and white photographs. Price \$ 39.95 Available from the Western Australian Museum, 49 Kew Street Welshpool, WA 6106, or online at www.museum.wa.gov.au

Much has been published in *Light Railways* and other journals about the railways and tramways that served the Leonora and Gwalia areas and mines including the Sons of Gwalia operation. This book is a comprehensive history of the gold mining activities and the lives of those who lived and worked in the area either directly with the mines, or supporting businesses and other organisations.

One chapter is devoted specifically to the firewood tramway operations of the Sons of Gwalia mine and includes an extensive map of the extent of the tramways built over time to transport firewood back to the mines. Included is information on the living arrangements of the cutters and how hard life was in areas even more remote than Gwalia and Leonora.

The book also covers the short lived, but well known, 'municipal' tram that operated between the two towns, as well as the WAGR rail services.

Overall this is an interesting and thoroughly researched book with many personal anecdotes and recollections from those who lived and worked in the northern goldfields.

The photographs range from very clear to good depending on the original image. The binding and production are to a very high standard. *Steven Haby*

Field Reports

Please send any contributions, large or small, to fieldreports@Irrsa.org.au or to P.O. Box 21, Surrey Hills, Vic 3127.

Flinders St station milk dock tramway

Andrew Hennell wrote in LR 139 regarding a section of narrow gauge track in the area known as the milk dock, at the western end of Flinders St station. The 1906 drawings for the station show this as the parcels area, occupying two floors from the west end of the building to the Elizabeth St. subway. The lower floor was refitted in the late 1990's to create a depot for the signal maintenance staff when the old Batman Avenue depot was demolished as part of the Federation Square project.

As this is where Stuart and I now work, myself in the downstairs portion, and Stuart on the first floor, I had spent a couple of lunch breaks looking for plans showing the tramway, and was lucky enough to find one showing the construction of the track and flat wagons, and floor plans of the tramway. The tramway was constructed with a gauge of one foot, from rails of inch square bar, with an inch angle inside to provide a flange way. There were three separate tramways, one on the ground floor from the loading dock into the parcels room, one on the first floor directly above in the inward parcels storage area, and the third at the Swanston street end in the parcels room

The first floor tram rails have caused scuffing on the linoleum floor. The rails run from under the shelves, then turn towards the photographer in an S curve. The goods lift shaft is visible behind the cupboard on the right. Photo: Stuart Thyer

behind the booking office. Armed with this new information, what seemed like some sort of reinforcing near the fire fighting manifolds took on new interest, and proved to be the tramway. There is approximately seven metres of line outside the building at the loading dock which has been sealed over with asphalt, a forty metre gap where the new fit out covered the existing floor with concrete, beyond this the rails reappear for another eight metres before disappearing under another wall.

A survey of the first floor tramway took place on 24 May 2013. The internal walling has changed over the years, the eastern end of the inward parcels storage area was converted to a porter's

locker and change room by 1930. No trace of the line remains in this area, now a driver's locker room. The central section, adjacent to the goods lift, survives under the linoleum floor and is clearly discernable by wear marks on the flooring. The surviving line disappears under an office wall, built along the line of the track prior to 1930. The western end of the inward parcels storage area is now a driver's gym and this area has been re-floored, leaving no trace of the line. Further discovered plans show the archway to the loading bay bricked up by 1920, and one dated 1928 show no reference to the tramway, indicating that its use was relatively short lived. *Scott Gould and Stuart Thyer*

Crossover and Jindivick

24 May 2013

A foggy start was no impediment for Colin Harvey, Peter Evans and Mike McCarthy when on a mission to explore the possible whereabouts of Gunn's mystery 1907 'temporary' mill site at Crossover, and Fraser's 1885 log tramway at Jindivick on Friday 24 May 2013.

After a warming coffee at the Neerim South café we headed off along McDougal Rd to Gunn's 'Big Cutting', the site of the former road bridge over his tramway, where we met up with Keith Cook, a member of the local Rokeby and Crossover Friends Group. Keith has an interest in the local mills and tramways and had offered to guide us over what could be some treacherous tracks into the Crossover Creek valley.

By mid-morning we had safely arrived alongside the creek and had begun our search. The logical place for the mill, which Gunn used whilst digging the Big Cutting to carry his tramway through to the Shady Creek mill site, was close to where the tramway crossed Crossover Creek. A search to the north revealed signs of ancient logging and small sections of levelled ground which could have been hut sites but equally could have been associated with gold mining activity which was current in this area in the 1870s. Working back along the tramway, sadly, nothing definite could be found, but all was not lost. The junction of the 1925 diversion of Gunn's line was found and recorded. The diversion was necessary because of the excavation of the massive Red Hill Cutting, aimed at reducing the grade for outbound timber trams (see LR 227). Previously the junction was thought to be much closer to the east end of the cutting.

Bidding thanks and farewell to Keith we found our way out of the valley by midday and headed off to Jindivick via the bakery in Neerim South.

We arrived at Nangara Reserve, the site of our planned exploration, around 12.45 in time to enjoy our lunch and await the arrival of the Friends of Nangara Reserve who were to join us for the afternoon's exploring. The reserve runs along Labertouche Creek at the bottom of a former quarry. The LRRSA has been assisting the Friends with some historical background for signage at the quarry given the proximity of Trinca/Fraser's 1881–1894 mill site, about a kilometre to the south-west. The log tramway serving the mill passed up the valley of the creek, so high hopes were held that we would find some evidence.

We didn't have to look very hard! A quick inspection prior to the arrival of our guests revealed a cutting alongside the creek on the south side of the Nangara Road bridge. By 1.30pm our dozen or so fellow explorers had arrived and we were able to show them the cutting to demonstrate what we were looking for. A cleared access track followed the north side of the creek and this was used to explore evidence of the tramway within the reserve. We were rewarded at a point about 50 metres along the track where it crossed the creek. The tramway formation was clearly evident on both sides of the crossing and subsequently the group followed the alignment over the river flat, through the scrub towards the south-west. Despite the bush foliage and the absence of a need for major earthworks the formation was detectable over most of the distance to the edge of the reserve.

Mid-afternoon, an inspection was made of Fraser's mill site to the south-west of the reserve. It is now cleared paddock alongside the creek but much of the earthworks associated with the mill remain, although quite subtle in places. Last visited some 20 years ago, the alignment of both the timber and log tramways could be still be found. The same could not be said for the outlet timber tramway formation at the powerlines a couple of kilometres closer to Longwarry. On our previous visit the tramway formation could be found crossing the paddock on the north side of the small creek that passes through the paddock. It seems that ploughing over the years since has destroyed all remains.

Peter Evans, Colin Harvey, Mike McCarthy

Illawarra Harbour & Land Corporation railway 1435mm gauge

On 23 April 2013, I explored a section of the Illawarra Harbour & Land Corporation railway connecting with the smelter at Kanahooka. The right-of-way has never been built on and is easy to follow. I only walked from Kanahooka Rd to just past Fields Street; the line continued from there into what is now the Eleebana Reserve, where it turned south following the creek between Bambil Crescent and Culgoa Crescent, crossed Byamee Street, and continued through the current reserve to Fowlers Road; where it joined the line from Elizabeth Point, and continued west along Fowlers Road, then crossed the Illawarra line and headed to the mine at Wongawilli. There was a junction with the main line; some of the rails were still in place when I photographed them about two years ago, as a short length of the line had been retained as a siding into the Avondale Colliery depot (which was located on Marshall Street). According to a book I have, the line was pulled up in the mid to late 1930s. Chris Stratton via LRRSA Yahoo Group

LRRSA EMAIL 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"!

editor@lrrsa.org.au

Dear Sir,

Ida Bay Railway (LR 35, 40, 157, 160)

In the past some confusion has surrounded the identification of two of the Ida Bay Railway Malcolm Moore locomotives. Thanks to the input of Greg Johnston through the LRRSAYahoo discussion group, I think the situation has become a lot clearer.

It should be understood that the chassis of the Malcolm Moore Ford V8 locomotive is easily separable from the upper parts, which are mounted on an independent sub-chassis. The upper part of these locomotives carried the builder's plate, on the cab console. From early times, the Ida Bay locomotives carried a running number in 'No.X' format on the end of the sub-chassis. At some later point in industrial days, a rectangular number plate was fitted to the cab side panel. This white rectangular plate simply carried the relevant numeral.

While it appears that, in at least one case elsewhere, the upper parts and chassis of a pair of Malcolm Moore locomotives may have been exchanged, there is no evidence to suggest that it happened in industrial service at Ida Bay, and the assumption here is that this did not occur.

In the late 1960s and early 1970s, the one operating Malcolm Moore that retained its open cab was noted with 'No.2' on the end of the sub-chassis. However, it appears that by this time it was officially number 4, and it also carried a cabside number plate to this effect until recent times. It seems that in 1971 it had a cabside number 4 as well as the 'No.2' on the sub-chassis end, causing some confusion that has continued ever since. This locomotive carried builder's plate 1052 and the upper section had been separated from the chassis by the 1980s.

A 1950 photograph shows Malcolm Moore No.4 with an enclosed cab and vertical windscreen. This locomotive carried builder's plate 1017. By the 1970s, it had a cabside number 2, which it retained at least up to being transformed by Peter Fell into a 'tram locomotive' named *TEDDY BEAR* in about 1993.

Because the sub-chassis and upper parts form a single unit, the case is very strong that the original locos No.2 and No.4 changed numbers, officially becoming 4 and 2 respectively. Greg Johnston believes this occurred around 1960. It seems that the other locomotive running numbers did not change. It is not clear why this renumbering occurred but the effect of it was to make the running numbers in sequence with builder's numbers.

Before the acquisition of the Ida Bay Railway lease by Meg Thornton in 2005, *TEDDY BEAR* had been dismantled. Its chassis can be recognised because the lifting lugs at each corner have been partially cut off. Meg confirms that the chassis has now been fitted with the upper parts of number 4, complete with open cab, and is scheduled to receive a new engine and to return to service.

Hopefully, this account will serve to clarify and correct previous understandings about the identity of these two locomotives.

John Browning Annerley, Q.

Dear Sir,

'Tom Thumb' at Botany (LR 158 & 223)

Back in April 2001, Jim Longworth detailed what is known about the origins of *Tom Thumb*, a small narrow-gauge locomotive that appeared in Sydney in the mid-1880s; the available evidence strongly suggesting Thomas Wearne as the manufacturer.

As is often the way, during a recent trawling of Trove (the National Library's digitised newspapers) on a completely different matter, the following item was located in an Adelaide paper, the South Australian Register, 13 February 1883. This confirms Jim's findings and also would seem to date the "construction" to early 1883 at Wearne's Glebe Foundry. Interestingly, in the six months previous to this Wearne had been hiring workmen from the trades usually involved in locomotive building.

Tramway Experiment — A novel tramway experiment was witnessed in the yard of Mr.Thomas Wearne's factory at the Glebe on Wednesday. It was (says the Sydney Daily Telegraph.) that of a model locomotive and carriages, just completed to the order of Mr. Hassell, who purposes using them as a speculation in the small "show business," his idea being to lay the rails, which form a complete circle, in places of public resort, and charge for riding on the tram, as they do with merry-go-rounds and such-like special attractions for the young. But of the work itself, as performed at Wearne's factory, it is most creditable. The engine is a miniature locomotive, perfect in every respect, and possessing all the latest improvements. It is, in fact, a beautiful specimen of engineering skill. There are three open carnages, with footboards, like a jaunting-car, and an awning overhead, capable of carrying sixty passengers. Several trials were made before a number of spectators and Messrs. Middleton and Downes, of the Railway and Tramway Departments respectively, who watched the experiment— a most successful one— with great interest.

As the Daily Telegraph is yet to be made available on Trove, this report was unable to be checked nor, unusually could I find confirmation in the SMH or any other Australian paper! The presence of officials from the NSW Railway and Tramway Dept is interesting. As Jim notes, it wasn't until January 1884, that Wearne produced his first full-size tramway motor, thus seemingly making *Tom Thumb* the first steam locomotive built at the Glebe Foundry.

However, could there be some truth in Ron Madden's theory about it being a re-badged Fowler? (see LR223) A quick look though available shipping records do not seem to support the bit about it coming via Cuba and Boston, however the query remains; was it a Fowler, but extensively modified by Wearne?

Phil Rickard Ringwood,Vic

Dear Sir,

Langley's Tramway Locomotive (LR 227 & 228)

In his account of the tramway operated by William Langley at Langley Vale, Ian McNeil correctly outlines the problems associated in identifying the Climax loco which worked on the tramway before coming to Tasmania in 1941. From the lack of information concerning this engine's arrival, regauging and working life in Tasmania, it appears that the uncertainty that masked the details of its early history accompanied it to Tasmania. No newspaper report of its purchase, arrival, regauging or entry into service appears to have been published. Photos of it

An unidentified gentleman provides some scale for the enigmatic TOM THUMB in this early publicity photograph. Photo: CBThomas collection, via Jim Longworth

working in Tasmania are likewise apparently non-existent or await discovery.

Some reasons can be advanced regarding the absence of information concerning its arrival and any photographic record of it at work. In 1941, Australia was at war and security restrictions disallowed the publication of shipping movements and cargoes carried. Supplies of photographic film for civilian use was severely limited and seldom available for private purchase. Although the local press of the time usually gave a good coverage of events in the timber industry in the Circular Head area, it appears to have been strangely mute in regard to the arrival of either this or the other second-hand Climax locomotive (1265/1914) that also came to Tasmania in 1941. Apparently the arrival of a second-hand locomotive to work in a very remote location and requiring modification would hardly be headline news.

Ian does state that the engine was regauged after its arrival in Tasmania, but does not give the source of this claim. The absence of any reports of such work being performed in Tasmania does not prove that it did not occur, and such work would have been well within the capacity of the bush mechanics working in the local timber industry at the time the Climax engines arrived in the area.

Department of Labour and Industry records show that this engine's boiler passed inspection on 21 October, 1941, and was inspected annually until November 1948. The boiler on the companion loco was first inspected on 4 August, 1941 - some eleven weeks prior to the inspection of the boiler on the ex-Langley Vale engine. This possibly indicates that the performance of the first Climax prompted the purchase of the second. However, there were other reasons for the purchase of a second loco. In 1941, three previously disparate timber millers, EH Fenton, Dunkley Bros and Circular Head Timber, combined to form Circular Head Amalgamated Timber (CHAT). The increased capital available and a projected increase in production made it both possible and logical to purchase a second locomotive, particularly as the converted Ramsome steam lorry, which had provided the haulage on Fentons Tramway since 1936, was nearing the end of its operational life.

Like almost all the tramway locomotives that worked on the timber tramways of the Circular Head district, both Climax locomotives acquired what were probably appropriate but hardly complimentary names. For reasons that can only be guessed at, the Ransome conversion was known by the less than acceptable name of *HARLOT*. The smaller of the two Climaxes was dubbed *WEASEL*, while the ex-Langley Vale engine received the name *PADDYS POUNDER* – possibly a reference to its driver.

Mark Fry has established that the two Climax engines shared the haulage of logs to the Salmon River sawmill and sawn timber from the mill to Jaeger's Mill, where the tramway made an end-on connection with the short government line from Redpa. It appears that a loco was usually stabled at the sawmill. It would thus be available to bring in logs and to take sawn timber up to Jaegers to await delivery to Smithton via the Marrawah Tramway. By late 1949, the mill at Salmon River had closed and the Climax engines fell idle. They were brought up the line to a spot called Jolly's Corner, where they were simply abandoned. However, that was not quite the end of the story for the ex-Langley Vale Climax, which was purchsed by Britton Brothers, who removed the bogies for incorporation into a 'Traill' type diesel tractor to work on their timber trawmay at Christmas Hills.

Ken Milbourne Montrose, Tas

Dear Sir,

National Trust, Queenstown (LR 231) In relation to the Heritage & Tourist report on page 36, a contact in Queenstown has pointed out that the headframe on display besides the Lyell Highway on the northern approach to the town is not an 'imitation'. It actually came from the Crown Lyell Shaft at Mt Lyell, so it is the real thing.

Ross Mainwaring St Ives, NSW

Dear Sir

Langley Brothers (LR 226, LR 228, LR 229)

I have enclosed a picture [below] of the drogher *Bowra* and the bucket dredge *Iota* [mentioned in LR 229 and LR 228] at Rock Davis' slipway, Nambucca Heads, which was situated down the hill from the present-day RSL Club.

A book by the army on small ships mentioned that another Langley Brothers vessel, the *Cobaki*, was taken over by the army for training in Sydney's Middle Harbour, during World War II. At the end of the war, it was of no further use and was laid up, together with many other vessels. In April 1946, vandals scuttled the *Cobaki* in Salt Pan Creek.

Peter MacDonald Woodhouselee, NSW

Dear Sir

Chaplin Locomotive at Moonta Mines (LR 231, page 32)

Further to the Research note, I have now discovered that prior to the May 1883 report that the SA Marine Board had declined the offer of a tramway locomotive from Mr Stuckey, the Adelaide, Unley & Mitcham Tramway Co. had a month earlier offered its Baldwin tram locomotive. This was also declined, as noted in the South Australian Weekly Chronicle of 7/4/1883, the Board's Engineer-in-Chief having reported that it was 'unsuitable for use on the Germein Bay jetty'. As this locomotive was of standard gauge, this was not surprising, but whether the two locomotives that were offered were one and the same is impossible to know. If they were, then we are no nearer confirmation that the Kitson motor portion of the Glenelg & South Coast Tramway's Rowan car was sold to the Moonta Mines.

Richard Horne South Croydon Surrey, UK

Dear Sir,

Catamaran Colliery tramway

Phil Rickard's letter about the Ida Bay tramway in the June 2011 issue of *Light Railways* aroused my interest, since one day in late 1954 I travelled with my relative, Don Widdicombe, southward from Hobart down the Huon Highway and through Geeveston and Dover, as far as the level crossing where the Ida Bay railway crosses Cockle Creek Road. It was my furtherest point south at that time.

Several years previously, in Dec/Jan 1947/48, I obtained two photographs of a Krauss steam locomotive from the family photo collection held by my grandparents in Hobart. I was told that they were taken in the 1930s on the Catamaran Colliery tramway, which was, as far as I am aware, Australia's southernmost railway. One of these photographs has five people, at least four of whom are women, posing in the loco cab with the crew. The photographs of the locomotive interested me greatly –

The timber drogher Bowra and the dredge Iota on the slips at Rock Davis' Shipyard at Nambucca Heads in 1912. Photo: Peter MacDonald collection

These two photographs were obtained from the family collection of Michael Gourlay's grandparents, in Hobart in December-January 1947/48. The upper photo shows a group of visitors posing on the footplate of a Krauss 0-4-0WT on the Catamaran Colliery tramway, sometime in the 1930s. The locomotive is either 4080 of 1899, or 4526 of 1901 after it was rebuilt with parts from 4080, as a TGR number plate is visible on the cabside. The lower shot is thought to show the locomotive hauling three bogie wagons somewhere out on the tramway, and was probably taken on the same day. Photos: Michael Gourlay

much more than the names of the women in the photo, some of whom were identified by my relatives. Unfortunately I did not record their names. The photographer is also unknown.

In December 2002, after reading Chapter 6 'The Catamaran Colliery and its transport systems' in Lindsay Witham's book *Railways, Mines, Pubs and People,* I wrote to him, enclosing photocopies of the two photographs and asking whether he could confirm that these photographs were taken on the Catamaran Colliery tramway. He phoned back, telling me that the first photograph was recognisable as being on the Catamaran line in the 1930s. He was not certain about the other one.

However, the two photographs are a matching pair printed on the same unmarked paper, same size ($105 \times 60 \text{ mm}$ approx), with the same sepia toning. The locomotive and its crew are the same – bunker, cab, piping, etc and clothing are identical in the two photographs. So it appears that they were taken on the same occasion at different locations on the same railway.

If the time (1930s) and location are correct, then the locomotive in these two photographs must be the 'new' engine referred to by Witham, quoting Macdonald and Small, 'Krauss Locomotives in Australia' (ARHS Bulletin No. 391, May 1970). It had been reconstructed in the early 1930s from two Krauss locomotives, which were out of service at the Catamaran Colliery. The only other photographs I know of this locomotive are one published by Macdonald and Small and another by Witham in the sources quoted above. Both of these photographs are chimney first views, which makes identification harder, but it appears to me that they are pictures of the same locomotive as the one in the two photographs published here.

I would be interested to hear whether any other readers have additional information, including other photographs, which would confirm that these two photographs were taken on the Catamaran Colliery tramway in the 1930s.

Michael Gourlay The Gap, Qld

MEETINGS

ADELAIDE: "Brazil and Cuba"

There will be film shown of narrow gauge steam in Brazil and Cuba. Bring along an item of light rail interest. We would like to hear from any member who can supply current information on heritage or tourist light rail sites in South Australia. **Location:** 150 First Avenue, Royston Park. **Date:** Thursday 1 August at 8.00pm. Contact Les Howard on (08) 8278 3082

BRISBANE: "Song of the Rails"

David Rollins will present 'Song of the Rails'; a professionally-produced video about the early days of the Sandstone Estate railway, in South Africa.

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 16 August at 7.30pm.

MELBOURNE: "Annual General Meeting and Le P'tit train de la haute Somme"

Following our brief Annual General Meeting, Steve Holmes will be giving a presentation on Le P'tit train de la haute Somme (The small train of the Upper Somme) where many items of narrow gauge locomotives and rolling stock from World War I either operate or are on display.

Location: Ashburton Uniting Church Hall, Ashburn Grove, Ashburton. Date: Thursday 8 August at 8.00pm

SYDNEY: "Industrial railways in USA and Canada"

Ross Mainwaring will present an evening of industrial railway subjects from recent trips to the USA and Canada. States covered will be Pennsylvania, West Virginia, Montana, Idaho and a little of British Columbia. Detailed will be electric industrial rail systems, industrial archeology, a magnificent rail-to-trail journey along the old Milwaukee Road and a preserved steam tourist railway in BC. Most of the places photographed are off the beaten track and are of great historical interest.

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

Date: Wednesday 28 August at 7.30pm

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Heritage & Tourist

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QUEENSLAND

NAMBOUR TRAM PROJECT, Nambour

610mm gauge

The Nambour Tram Project is one step closer to becoming a reality. The local Council has announced that the Nambour Heritage Tramway group has been gifted a working diesel locomotive from Bundaberg Sugar. The locomotive will be either PETRIE or BLI BLI (EM Baldwin 0-6-0DH 6/2300.1 6.68 of 1968 or 6/1257.6 7.65 of 1965 respectively) both of which spent their working life hauling sugar cane through Nambour to the Moreton Central Sugar Mill. Volunteers will travel to Bundaberg soon to choose which locomotive is the more suitable. The Tramway Group hopes to utilise the loco on special monthly passenger runs along Howard Street between the Aldi and Coles supermarkets. The future goal is to have a regular permanent tram connection, carrying shoppers into the CBD.

The Sunshine Coast Sunday, John Browning 6/13

AUSTRALIAN SUGAR CANE RAILWAY Botanic Gardens, North Bundaberg 610mm gauge

Volunteers at the Australian Sugar Cane Railway took some time off to recuperate from the floods with Bundaberg Regional Council's R&R Checkpoint Fiesta. Last month the council called for community members and organisations affected by the recent disaster events to nominate to host an R and R Checkpoint Fiesta. The aim was to create neighbourhood celebrations nominated and hosted by the council and community members in local parks and streets. The council's Community Services portfolio spokeswoman Judy Peters said she was thrilled that both residents and community organisations were taking advantage of the opportunity.

"Council has had a fantastic response and so much positive feedback from participants," Cr Peters said. "The flood recovery work on the railway infrastructure in the Botanic Gardens is essential to restoring one of our very popular visitor attractions. The effort put in by the ASCR volunteers has been simply outstanding and is playing a vital role in returning visitors to the garden and its attractions."

ASCR secretary Ross Driver said the R and R Checkpoint Fiesta was a great community initiative. "It has been a case of all hands on deck with regards to repairing the railway infrastructure and to have time off for a social occasion is a bonus for our group," Mr. Driver said. "Having this event today further showcases the level of assistance Council has been prepared to provide since the flood event." *NewsMail* 5/13

FRIENDS OF ARCHER PARK STATION AND STEAM TRAM MUSEUM, Rockhampton

610mm and 1067mm gauge

The Purrey Tram has had a few problems with leaking glands and ineffective oilers in the pistons. A fitter spent a couple of days fixing the troubles, and the tram will be test run to make sure. Restoration of the Tamper section car is now nearing completion, so hopefully it will be operating next Family Fun Day. New sleepers and crossing timbers ordered some time ago have been delivered and John Kennedy and others have been busy putting some in the track over the past weeks. *Tram Tracks* 6/13

VICTORIA

PUFFING BILLY RAILWAY, Belgrave 762mm gauge

The 25 ton Class B Climax geared locomotive No.1694 will be officially launched back into service on Sunday, September 8, at 9.30 am with a special return trip from Belgrave to Emerald. This follows a 12 year restoration project, and the event will coincide with the 85th anniversary of the locomotive first entering service on the Tyers Valley timber tramway near Erica in Victoria. Only three other Climax locomotives are currently operational, all in the USA, and Climax 1694 is the only one known to have been built to 2ft 6in gauge.

On Sunday 19 May, Victoria's Gisborne Vintage Machinery Society held their annual steam rally and tractor pull, and Perry 0-4-2T number 9 (9737/45/1 of 1945) emerged from its shed to trundle up and down its few hundred metres of track on some demonstration runs. The loco was built for South Johnstone Mill as their number 6 and was sold to Millaquin Mill in 1967, where, because they already had a Bundy Fowler 0-6-2T numbered 6, it was renumbered 9. Photo: Scott Gould

More details of the relaunch can be found on the Puffing Billy Railway's website

www.puffingbilly.com.au/news-events/climaxlocomotive-recommissioning/

where bookings for the event can also be made online.

Frank Stamford 6/13

QUARANTINE STATION, Point Nepean 670mm gauge

The Victorian government has released a recreation and tourism master plan for Point Nepean National Park and Quarantine Station.

Included in the plan is the development of the former luggage tramway. The report states that the original luggage tramway rails should be preserved where intact from the jetty and throughout the disinfecting/bathroom complex. This will allow the original trolleys to be used with luggage and labels as part of an interpretation. The parallel rails are also ideal to guide people through the complex from the jetty through the strict stages of quarantine. Paving between the rails can also carry text and images to interpret the buildings and the sequence and purpose of quarantine operations.

Victorian Government Recreation and Tourism Master plan for Point Nepean National Park and Quarantine Station, Colin Harvey, 5/13

GISBORNE VINTAGE MACHINERY SOCIETY, Steam Park, Gisborne

610mm gauge

On Sunday 19 May 2013, the Gisborne Vintage Machinery Society held their annual steam rally and tractor pull. As well as the vintage

stationary engines, model boats and tractor pull demonstrations, 0-4-2T 9, Perry Engineering 9737/45/1 of 1945, was in steam. The loco was delivered new to South Johnstone Mill as their number 6, and was sold in 1967 to Millaguin Mill to become their number 9. The holes in the cab are clearly visible from where the brass number 6 was turned upside down to become 9 when it changed ownership. When withdrawn from service in 1974, it saw service as a stationary boiler, before being sold to the Essendon Steam & Oil Engine Society in 1981, and subsequently being donated to the then Gisborne Steam Club in 1990. Four years later it had been restored and according to the driver, it is only steamed once a year for the rally in May when it trundles up and down the few hundred metres of track on the site.

Scott Gould 5/13

BELLARINE PENINSULA RAILWAY, Queenscliff

1067mm gauge

Commencing on May 29 the Bellarine Railway proceeded to lift 4-8-2+2-8-4 Australian Standard Garratt G33 (built Newport 1945) over the fence and out of the Australian Railway Historical Society's North Williamstown Railway Museum. The loco has sat static at the North Williamstown Museum for some 45 years, having arrived there in 1968, two years after the closure of the Cement Works railway, where it was number 3.

The move of the locomotive to the Bellarine Railway is the culmination of the signing of a 21-year lease agreement with the ARHS and some 18 months of negotiations with stakeholders at Newport including Downer Rail, VicTrack and Metro Trains.

Onsite preparation included working days by Bellarine Railway members on the locomotive to separate all connections between the centre boiler/cab from the front and rear engine units. The move commenced with the removal of the coal bunker and the lift and dispatch of the original boiler just after midday on the Thursday. Complications with the lift of the centre unit, combined with the weather, saw this, the heaviest lift, not land on the bed of the truck until 6:15pm.

Due to a 38 ton weight and oversize dimensions this load could only travel between 9am and 4pm and so could not depart until the following morning. Work recommenced at the Newport site at 8am with the departure of the center unit at 9am followed by despatch of the rear engine unit and bunker at 10:30am and the front engine unit at 11:45am, with the crane de-rig finishing at 2pm. Friday saw the staged unloading of the components with the original boiler lifted off at Laker's Siding by 10:30am and the subsequent arrival and unload of the locomotive onto 1A Road at Queenscliff by 3:45pm.

A working day in December to remove the connecting rods had established that the locomotive was not going to roll freely - despite some 12 months of adding some 180 litres of diesel and oil into all lubrication points. As a consequence of this discovery, Number 3 was not reassembled when unloaded at Queenscliff but was unloaded in three separate sections to allow the engine units to be jacked up for cleaning and service all moving parts.

Fyansford Cement Works ASG number 3 (formerly G33, assembled by Newport Workshops, 1945) and 0-4-0T number 11 (Perry 276 of 1926) reunited after some 45 years – on Sunday June 2, at Queenscliff. Number 11 is the next restoration priority for the railway with boiler work about to commence. Photo: David Price

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Once this work has been done number 3 will be towed to undercover storage at Laker's Siding prior to completion of the remaining work required for its return to steam.

T251 (Walkers 276 of 1917) is now back in service after repairs to the inner firebox corners above the foundation ring and work will now focus on the completion of Fyansford Cement Works number 11 (Perry 276 of 1926).

Number 11 was last used as a stationary steam source at the cement works before moving to PBR's Menzies Creek Museum and then, along with cement works 2 (Beyer Peacock 6935 of 1926) and *POZIERES* (Andrew Barclay 1543 of 1919) to the Bellarine Railway.

In 2012, number 11 was completely stripped for a rebuild and is now back on its wheels with all of the motion reassembled; remedial work to date has included rust removal, painting, re-metalling a hot box on the rear driver's side axle box and replacing a bent RH valve rod and various pins and bushes in the motion.

The boiler has been thickness tested and now requires drilling of tell-tales in the firebox stays before preparation for hydrostatic and steam

tests. Number 11 will replace *KLONDYKE* (Perry 271 of 1927) for "Thomas" events with *KLONDYKE* returning to normal duties.

Normal services and driver experience trains are currently serviced by T251 and/or *POZIERES*. Sunday, June 2 saw double-headed mixed goods on two Drysdale trips for visitors who came to the Bellarine Railway after travelling to Geelong behind R707.

David Price, 6/13

ALEXANDRA TIMBER TRAMWAY, Alexandra

610mm gauge

The ATT is now the proud owner of a 1984 Mitsubishi FK tip- truck. The vehicle was donated by Metro (the operators of Melbourne's suburban train service) through a scheme overseen by T&H railway registrar Adrian Ponton. Metro left the tray full of rubbish, but removed the battery. The only cost to the ATT was moving the vehicle to Alexandra. Only a battery and some minimal work are required to make this vehicle operational.

The Metro fleet number of this truck was 4188, and the ATT have service sheets going back ten years to show it has been regularly maintained. Its odometer shows 260km and the truck has travelled only 20km in the last four years. It has had a fair bit of money spent on it to replace several major components. Peter Evans reports on the reconstruction of the Beech Creek Bridge at Rubicon:

Late in 2012 I was invited to attend the erection of the last of the new trestles for the Beech Creek Bridge at Rubicon. Originally constructed in the 1920s, this bridge was burnt in the 1939 bushfires and rebuilt under the direction of the late Ernie le Brun (who was a founding and, later, a life member of the ATT). Ernie rebuilt the bridge again in the early 1960s. The bridge was burnt again in the days following the Black Saturday bushfires in 2009. In 2010, the Victorian Department of Sustainability & Environment secured a grant of \$405,000 from the bushfire recovery scheme to re-instate this link in the former SECV tramway, which is listed with the rest of the historic hydro-electric scheme on the Victorian Heritage Register. The work was put out to tender, and that tender was won by the Puffing Billy bridge construction crew under the direction of John Shaw. There would be few organisations today as well qualified to reinstate this bridge as the PB bridge team, with the reconstruction of all of the bridges on the extension from Lakeside to Cockatoo under their collective belts. In the early 1990s, I was lucky enough to be able to record Ernie Le Brun's description of how such bridges were built. So it was a real privilege to watch the PB bridge crew put these traditional skills to good use. The same basic techniques of a flying fox (to place

At Marysville, the fire-damaged Day's tractor and two log bogies have now been restored and placed on short lengths of track behind the new information centre in Murchison Street. As yet, no suitable replacement log appears to have been located to complete the display. Photo: Geoff Earl

the structural elements in place) were used, but with the addition of some modern technology. Chainsaws replaced the crosscut saw, electric drills the old-fashioned auger, and a hydraulic porta-power proved useful for finally positioning the trestles. But I was not that surprised that human muscle applied strategically to crow bars and the use of a trained eye to line everything up still had important uses. I was allowed free access to all parts of the sites and had the opportunity to sit down and discuss the work with the bridge crew over a lunch seated next to the water race, with the regrowth Mountain Ash forest towering overhead. I thoroughly enjoyed the day and the hospitality of John Shaw and the PB bridge crew. This leaves three of the four trestle bridges in trafficable condition. The Royston Bridge was rebuilt under the supervision of ATT member John Horn in the dying days of SECV ownership; the 15,000 syphon bridge was reconstructed in the summer of 2003-2004, and now the Beech Creek Bridge is completed. The Lubra creek bridge still stands (this was also reconstructed in the dying days of SECV ownership), but requires re-decking. The PB bridge crew has been asked to quote on this, and I was privileged to accompany John Shaw on his first inspection of the structure. Should all four bridges be completed, this opens the way for the historic SECV Rubicon tramway to be reinstated for use.

Peter Evans 6/13, Timberline 6/13

CARIBBEAN GARDENS RAILWAY, Scoresby

610mm gauge

Stephen Haby visited the Caribbean Gardens complex on 9 December, 2012, to inspect the miniature railway and reports that the main locomotive (Motor Rail 'Simplex' 4wDM 3711 of 1924) and carriage set have been repainted in a new livery of blue with white roof and two red stripes, with one below the window line and the other on the bottom of the skirt. The rear carriage has the stripes extending across the back of the carriage with signwriting for Caribbean Gardens and Market. The locomotive has the top stripe extended on the front downwards in a 'V' in line with the white extending from the roof. The bottom of the locomotive including the 'cow catcher' was black.

The track appeared to have been recently re-ballasted and some sleepers replaced.

The spare set of carriages and the Malcolm Moore 4wPM locomotive (1092 Of 1943) were on the only siding on the line which runs off the main line into what was probably the original station site behind the restaurant and café area. It appeared that these had not run for some time and the carriages were in the earlier livery of red body, white roof and a yellow stripe below the window line.

The Malcolm Moore locomotive had a sign on the front stating, "Proudly on display from Caribbean Gardens" indicating that it may have been offsite at a display at some point.

The train was in operation on the day I visited and appeared to be carrying reasonable loads. Stephen Haby 6/13

Marysville

915mm gauge

Further to previous update (LR215), the fire-damaged Day's tractor and two log bogies have now been restored and placed on short lengths of track behind the new information centre in Murchison Street. As yet, no suitable replacement log appears to have been located to complete the display. Geoff Earl 6/13

WESTERN AUSTRALIA

SOUTH WEST RAIL AND HERITAGE CENTRE, Boyanup

1067mm gauge

Forging new partnerships in the local community, the former Boyanup Museum, now known as the South West Rail and Heritage Centre, has reopened to the public each month starting with a big re-launch day last November. With this increased local involvement there is a sense of optimism for the future. The 2-6-0 steam locomotive 'Leschenault Lady' (Martin 174 of 1898) is very popular in the south-west and plans are in hand to see it returned to serviceable condition.

ATHRA News 5/13

TASMANIA

WEST COAST WILDERNESS RAILWAY, Queenstown

1067mm gauge

Federal Hotels ceased operating the West Coast Wilderness Railway on 30 April, citing issues with the infrastructure not being fit for purpose and degrading far faster than they were anticipating. The predominant activity for TATRail over the last few months has been lobbying the State government to have some involvement in the re-establishment of an operator and services at the West Coast Wilderness Railway.

Progress to date has seen the Federal Government commit \$6 million on the proviso that the State Government establishes a sustainable operator and contribute a similar amount over four years to the operation. Key staff have been assured of their positions, and from 1 May a maintenance shut down over winter commenced to allow for the infrastructure to be brought up to a reasonable standard. Expressions of interest for a private operator of the railway were called and received by the Government which is currently asking for proposals from applicants. It remains to be seen what the result of this process will be.

The preservation sector have highlighted that should the operator be a not for profit entity, similar to say Puffing Billy's Emerald Tourist Board, that there could be benefits across the state's mainline capable groups if the West Coast resources can be allowed to work on operations other than the West Coast Wilderness Railway on a commercial basis. ATHRA Newsletter 5/13 **DON RIVER RAILWAY, Devonport**

1067mm gauge

The Don River Railway runs diesel or rail car services daily. Steam power is still to make a return. A recent volunteer drive has recruited additional volunteer resources but there is still a shortage of skilled staff to maintain rolling stock.

ATHRA Newsletter 5/13

TASMANIAN TRANSPORT MUSEUM, Glenorchy

1067mm gauge

The Tasmanian Transport Museum at Glenorchy continues to run steam operations on a regular basis. They have completed construction of a \$400,000 federally funded package of works that has a 500 square metre display hall as its centrepiece. The new Road Transport Display Hall was officially opened on 7 April. Steam operates on the third Sunday of each month and the diesel rail car operates on the first Sunday of the month.

ATHRA Newsletter 5/13

WEE GEORGIE WOOD, Tullah

610mm gauge

WEE GEORGIE WOOD is still to return to steam following construction of a new boiler by Ainsworth Engineering in Goulburn. Delivery is expected by June and the engine is expected to return to steam for the next tourist season. The Romeo diesel engine, ex Lake Margaret Power Scheme, is still running trains on their regular schedule.

ATHRA Newsletter 5/13

IDA BAY RAILWAY,

Lune River

610mm gauge

IBR, against all odds, continued to operate every day over the summer period October to 6 May for four trips a day and an occasional evening or early morning trip for a special group. They have managed to do any urgent maintenance whilst still operating to keep up the integrity of the track which at the moment in the best condition for 30 years. Mostly this is due to the great work Mike Birks put into the track during the two years he was there. The organisation also had some volunteer help from Puffing Billy and Redwater Creek members. That work is now being built on by staff with the help of some volunteers.

The problem is that now they have 2500 50 year old sleepers to replace of the approximately 11,000 sleepers in the line to get it to optimal condition. Most of the track concerned is heavy rail. The situation is further complicated as it is in an area where little of the formation is left, so it will entail pulling up rail and reforming the bed, and replacing fishplates, bolts, spring washers and nuts.

To operate every day next summer they need to get this done over the five months of winter timetable of operating four days a week with three days of total maintenance and restoration. To do this they require the owners of the track

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and the entire infrastructure since 1976, the Tasmanian State Government, to step up to the plate and give financial support as they did for the West Coast Wilderness Railway. WCWR managed to get Federal Government funding as well for a track built 12 years ago. Last year the Federal Government sent the Ida Bay Railway a letter stating that it was a State Government Asset and responsibility and that they could not help.

The Ida Bay Railway and the Far South in the Huon Valley are just as important historically and to the economy as the West Coast and WCWR. Even though it is smaller, the IBR gives a very affordable journey for families, groups and everyone else as part of Tasmania's Great Rail Experiences. They have a petition circulating with great support which has been given to a minister to be tabled in the House.

A Public Meeting held at Dover recently, which unanimously carried a motion to be presented to the Minister. Dave Collins, of the Friends of Ida Bay Historical Society which support IBR in working towards having a museum and preserving the history of the area, has assisted greatly with letter writing, submissions and grant writing. Grants always elude IBR as the money is always for infrastructure and the railway is owned by the State Government.

The IBR has almost been made to feel that the government hopes it will go broke and then they will have an excuse to close it all down. They need to get all the infrastructure in good condition so then they can work on enhancing the experience. The rolling stock is being kept operational with the dedication of the work force but now they need a third loco and a fourth carriage. The old shunting locomotive from the limestone shipping days at the Deep Hole is being looked at for restoration. Workers and volunteers are keen to get on with this. They have an old bogie flatbed which is going to be checked for the feasibility of getting it operational. Carriage 14 was renovated and looks great.

All they need now to keep operating is support from the governments as they allowed it to be run down. They do not need millions like WCWR but proportionate money would help greatly. Passenger numbers remain good and equal if not a little better than last year and the café with local produce and home-made food is very popular. They will improve their patronage when the infrastructure of buildings and track is up to the standard of being able to market to the bus tours and cruise ships. This will make the IBR more viable and able to manage maintenance programs without having to chase government funding.

For eight years IBR has been doing major capital works but the government calls it all maintenance. This has been funded mainly by the leasee, Meg Thornton, personally with a little funding from the government for new septic systems, dangerous tree removal and trimming, fixing collapsed drains and digging out and replacing large culverts.

The Friends of Ida Bay Historical Society Inc. was formed four years ago with the view of preserving the IBR history and all the surrounding area and to build a museum. They are now fund-raising for preservation of this great historical site. The group meets bi-monthly at the railway.

IBR has seven kilometres of track, plus yard and loops, and seven full-time equivalent staff plus about 10 active volunteers.

IBR, 5/13

NEW SOUTH WALES

CAMPBELLTOWN STEAM AND MACHINERY MUSEUM, Menangle

610 mm gauge

Alf Atkin attended the CSMM Field day on May 18 and reports he was impressed with both the extension to the railway and the new station of Central. The railway was in operation all day with most trips from mid-morning onwards being full until mid-afternoon. The Hudswell Clarke 0-4-0T (1423 of 1922) was on the Menangle end of the train with the Simplex diesel (11023 of 1955) being on the Central end. On display at Central was the 1926 Fowler 0-6-0DM 16830 of 1926. This loco had been used at Condong Mill, near Murwillumbah, and prior to that at Childers Mill near Bundaberg. There was a very informative display of photographs of the loco in use at the mill as well as a description of its life and specifications. There were also a couple of mine locos on shed. It is a pity that these are not put in a location for public display that is suitable for photography. The display of the other exhibits was not as big as it had been previously, although it was still very entertaining. Alf Atkin, 6/13

LITHGOW STATE MINE MUSEUM, Lithgow 1435 mm gauge

Updating the report in LR 230 (p 36), the new SpectraVision feature in the theatrette, 'Fire in the Mine' was officially launched by Wayne McAndrew representing the major sponsor of the new feature, the Mine Workers' Trust, on Friday 8 March 2013. The event kicked off with songs by local musicians Martin Doherty and Leigh Birkett, who launched their new album A tribute to Woody Guthrie at the occasion.

'Fire in the Mine' provides the museum with an entrancing and deeply moving feature that focuses on key events in the history of the State Mine. The 8-minute show developed by The Shirley Spectra Australia is a pepper's ghost presentation of three events that shaped mine safety regulations and impacted on the local community. It relates stories of the working lives of coalminers and the horses they worked alongside through the persona of Marion Curry. Marion is the wife of Ned Curry who worked as a wheeler at the Lithgow State Coal Mine from 1946. As coal mining is a very 'blokey' industry, filled with hard working, coal-dusted men it was decided that the story should be told through the eyes of a miner's wife.

Marion's character recounts the dangers of life in the mines and the comradeship of the men and women associated with coalmining. She also talks of Ned's love for the horses he was privileged to lead. Her account culminates in the tragic story of an underground fire in 1953 that took the lives of 27 "of the best horses a man could ever have". Both Marion and Ned Curry were guests of honour at the launch.

'Fire in the Mine' runs at the museum each weekend from noon to 4pm. Bob McKillop, 4/13

OVERSEAS

BUSH TRAMWAY CLUB, Glen Afton, New Zealand

1067 mm gauge

February 13 was a momentous day, as the boiler of Peckett 0-6-0T 1630 of 1923 (ex-Pukemiro Colliery) was passed by the inspector and a certificate issued. Previous work on the locomotive, during 2012, had included rebuilding the ashpan, completing the air and steam brake pipework, installing the lubrication lines and refitting overhauled connecting and coupling rods. The loco still has a few problems to sort out but was in steam during April open day, running up and down the Junction yard. A large part of the year will be spent sorting out the problems and training crews who haven't ever fired a steam loco before.

New Zealand Railfan, FRONZ JOURNAL 5/13

LYNTON & BARNSTAPLE RAILWAY, Devon, England

610mm gauge

Ex-Victoria Mill Baguley/Drewry 0-6-0DM 2393 of 1953, formerly named LEICHHARDT, was sold by the Illawarra Light Railway Museum Society to the Lynton & Barnstaple Railway Trust in 2001, as reported in LR 158. It has recently been refurbished and re-engined at Statfold Barn. A Cummins diesel has replaced the original Gardner 8LW. It has been finished in a black livery with red headstocks, counterweights and rods. It arrived at Woody Bay on the Lynton & Barnstaple Railway in April and is currently being fitted with brake equipment and couplers to enable it to haul the line's heritage bogie carriage stock, of which two vehicles are on site and another is under construction. Renamed PILTON, it will be the main reserve locomotive when the heritage stock goes into service with steam haulage, most likely next year. John Browning 6/13

LRRSA EMAIL 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"!

Railway, in Staffordshire, England, held an open day at which 16 locomotives were in steam. Here, a diverse collection of 2ft gauge motive power lines up for the visitors' cameras. Photo: Michael Chapman Left: Ex-Victoria Mill Baguley/Drewry 0-6-0DM 2393 of 1953, formerly named LEICHHARDT, has recently been refurbished and re-engined at Statfold Barn for use on the Lynton & Barnstaple Railway. Now named PILTON, it is seen at Woody Bay, awaiting the installation of drawgear and continuous brakes. Photo: John Browning Below: During the Festiniog Railway's FR150 event, on 4/5 May, celebrating 150 years of steam haulage on the pioneering Welsh railway three of the early George

the pioneering Welsh railway, three of the early George England 0-4-0ST+T locomotives line up outside the old loco shed at Boston Lodge. Photo: Michael Chapman

Above: Flour miller and agricultural products company, the Manildra Group, is a significant user of rail transport in NSW, owning its own wagon fleet and using Pacific National (PN) for its line-haul operations linking its plants at Bomaderry, Narrandera, Manildra and Gunnedah. However, Manildra uses its own locomotives to shunt at those plants. At Manildra, on Thursday, 9 May 2013, Manildra's Goninan/GE L80T shunting unit, MM 03 (4970-015 of 1961), ex-BHP Newcastle BHP 51, is ready to commence shunting duties when the PN train from Manildra's Bomaderry plant arrives later that morning, while MM 01, formerly 49 class Clyde/EMD unit 4907 (62-257 of 1962), also awaits its shunting turn in the background. Photo: John Hoyle **Below:** Mackay Sugar's Clyde 0-6-0DH SUNNYSIDE (57-160 of 1957) shunts empty bins at the entrance to Racecourse Mill yard on 22 May 2013. Photo: Scott Jesser

STOR ON REL SIGNAL