

NUMBER 261
ISSN 0 727 8101

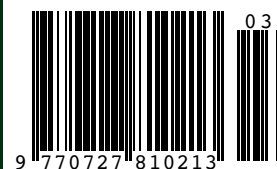
JUNE 2018
\$7.95 Recommended
retail price only

LIGHT RAILWAYS

Australia's Magazine of Industrial & Narrow Gauge Railways



Light Railway Research Society of Australia Inc.



Editor: Richard Warwick
PO Box 21, Surrey Hills Vic 3127
editor@lrrsa.org.au

Associate Editors:
Mike McCarthy and Frank Stamford

Field Reports Editor: Peter Evans
fieldreports@lrrsa.org.au

Industrial Railway News Editor:
Chris Hart
industrial@lrrsa.org.au

Research Editor: Stuart Thyer
research@lrrsa.org.au

Heritage & Tourist Editor:
Andrew Webster
heritagetourist@lrrsa.org.au

Distributor: Gordon and Gotch Limited.
ISSN 0 727 8101, PP 100002829
Printed by Focus Print Group.

COUNCIL

President: Bill Hanks (03) 5944 3839
Secretary: Phil Rickard (03) 9870 2285

New South Wales Division
c/o PO Box 674 St Ives NSW 2075
President: Jeff Moonie (02) 4753 6302
Secretary: Ross Mainwaring 0415 995 304

South Australian Group
9 Craiglee Dr, Coromandel Valley SA 5051
Secretary: Les Howard (08) 8278 3082

South-east Queensland Group
365 Fairfield Rd, Yeronga Qld 4104
Secretary: Bob Gough (07) 3848 3769

Tasmanian Representative
11 Ruthwell St, Montrose, Tasmania 7010
Ken Milbourne (03) 6272 2823

MEETINGS

Regular meetings are held in Adelaide, Brisbane, Melbourne and Sydney. See LRRSA NEWS, page 33.

SUBSCRIPTIONS

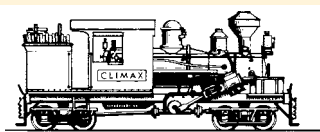
Contact the Membership Officer,
PO Box 21, Surrey Hills, Vic 3127;
e-mail: subscriptions@lrrsa.org.au
internet: www.lrrsa.org.au
or use the coupon on page 40.

SALES

Back issues of *Light Railways* and other publications available from LRRSA Sales, PO Box 21, Surrey Hills, Vic. 3127, or visit www.lrrsa.org.au/LRR_Online_shop.html

Imperial to metric conversions:

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



**Light Railway Research Society
of Australia Inc. A14384U**
PO Box 21 Surrey Hills Vic 3127
www.lrrsa.org.au

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.

LIGHT RAILWAYS

Australia's Magazine of Industrial & Narrow Gauge Railways

No 261 June 2018

Contents

Hunslet locomotive 1239 (WD327)	3
Early days of Mount Read, Williamsford and Rosebery	9
Munitions Factory light railways at Villawood and St Marys	15
Wooden tram to the Elliott River	18
Industrial Railway News	24
Letters	29
Book Reviews	32
Field Reports	34
Heritage & Tourist News	36

Editorial

Over the years many volunteer groups across Australia have restored light railway rolling stock and established and operated tourist railways. Some have prospered but many have not survived, bowing to the pressures of a lack of patronage, safety accreditation requirements, or simply that the task was just too large. For almost the life of *Light Railways* magazine we have endeavored to feature these restorations and museums and record their development. This is still true to this day and we regularly feature many of the museums and operating tourist railways. A detailed collection of reports and photos recording their development has been created.

We constantly strive to bring our readers up to date information on the railways, but sometimes struggle to get this information. The recent establishment of the *Light Railways of Australia* Facebook Group has certainly assisted in this process where readers are constantly posting photos and stories of the museums that they visit.

However, if you are aware of any such organisations or museums, or simply of someone who is restoring any rolling stock or track work relating to any aspect of light railway operations, we would love to hear from you. If you have any such information, please send it to our Heritage and Tourist Editor, Andrew Webster at heritagetourist@lrrsa.org.au or get in touch with me at editor@lrrsa.org.au.

Richard Warwick

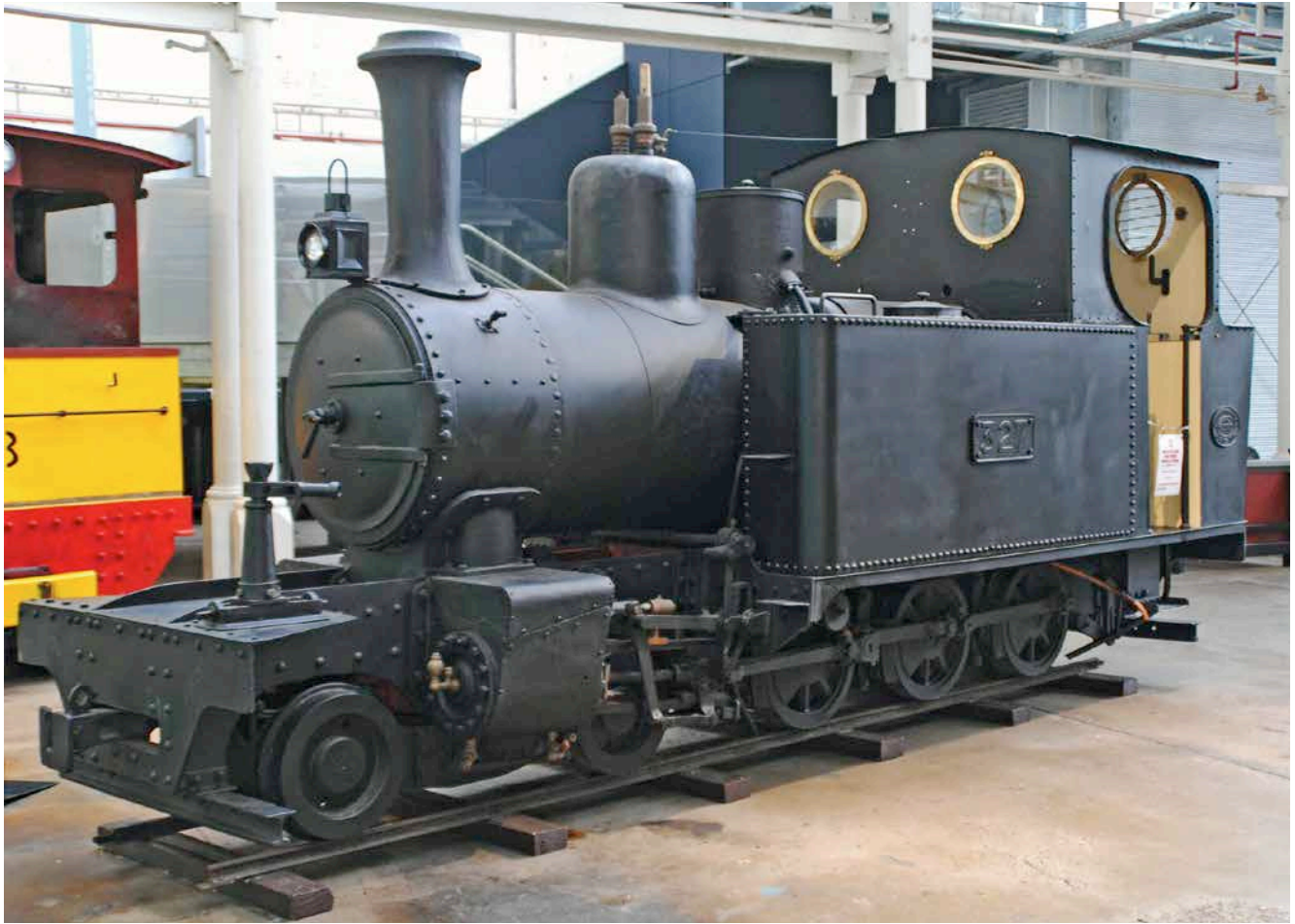
Front Cover: Marian Mill's EM Baldwin B-B DH 16 Charlton (9562.1 6.81 of 1981) and George Moss 4 wheeled + 4 wheeled brake wagon BVAN 2 (CV001-WR20911-85 of 1985) at Shannons Junction on their way to Mackay Sugar's Pleystowe depot on 20 February. Photo: Steven Jesser

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 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



Hunslet 4-6-0T locomotive No.1239 at the Workshops Railway Museum, Ipswich, 5 April 2018. Cosmetic details were still to be finished, like picking out the numberplate in white.
Photo: John Browning

Hunslet locomotive 1239 (WD327)

On the Western Front and in Queensland

by Robert Shiels

Built by the Hunslet Engine Company of Leeds as its builder's number 1239, the locomotive has had a long and varied life, from supplying the war effort on the Western Front in France, to hauling in the sugar cane harvest in Queensland year after year, and then retirement to a park where time and the weather took its toll. The Workshops Rail Museum at Ipswich, in collaboration with Queensland Rail, has restored the locomotive to its original WW1 appearance and in November 2017, it was installed inside the museum as a display.

In the decades before the outbreak of WW1 railway building caused international tensions throughout Europe. Railway expansion was viewed as a threat to national interests and defence. The Germans viewed Russian railway expansion heading westward towards them, made even worse when they were funded by French loans, and even though the gauge was different, as a threat to German interests. Even the mighty British Empire was intimidated by the announced Berlin-Baghdad railway and feared a lessening of its influence in the east and a way of bypassing the Suez Canal.¹

During the pre-war years, French spies also reported irregular railway infrastructure in Western Germany – sidings

with no commercial reason for being there, large platforms in areas where population was low and depots and refuelling spots in locations that made little sense for the movement of civilian and goods traffic.

By early September 1914 the German forces were stretched to their limits. The prompt arrival of the British Expeditionary Force thanks to excellent wartime railway timetabling (they had transferred 120,000 men over 620 trains to the ports for the crossing to France by the end of August), the Germans were surprised to see the British so soon on the battlefields. The battle of Marne had a huge impact on the future of the war, the British and French had managed to push the German advance back, but the British were 40 miles ahead of their railhead and had to wait for resupply. The break allowed the Germans to dig in and the beginning of the trench warfare iconic of the western front had begun.

German ambitions to destroy the French army in less than 40 days before turning their attention to the vast Russian Empire never eventuated. And although the German plan failed virtually from the beginning, it was the railway that helped create the situation on the Western Front – all sides were able to mobilise their troops thanks to meticulous pre-war planning and in the case of the British and French, the military were quickly able to control the private railway networks. It was the railway that moved the soldiers in such vast numbers to face off. And once the stalemate of trench warfare developed, it was once again railways that would feed this epic conflict for another 4 years. But it would be a smaller railway system that would help fuel this often static war; it would be narrow gauge or light railways.

Development of narrow gauge (or light) railways for war

Narrow gauge railways were vital to both sides to supply the trenches and it can really be argued that without the narrow gauge railways to move the huge volumes of food, fodder, ammunition and men to the front that the opposing armies would not have been able to continue as long as they did. In 1920 the *Railway Gazette* published a special War Transportation edition and it was clear in the immediate aftermath of the war the role that rail had played in the various theatres of war:

While the railway cannot claim the speed of the aeroplane, nor the mobility of the motor vehicle, it can definitely be affirmed that, for any prolonged transport function, the railway has proved to be the most satisfactory means, and this fact was abundantly established during the Great War... Throughout the course of the Great War the railways – both at home and abroad – successfully met the heavy obligations imposed upon them. Both in trench warfare and in the wars of movement, they performed astonishing transport feats.²

In years prior to the outbreak of the Great War, Germany had already gained valuable operational experience using light railways in its colony in south-west Africa. In preparation for the outbreak of an expected European war, Germany stockpiled large quantities of 60cm narrow gauge railway track and light rail locomotives and rolling stock, as military planners foresaw the value which this type of easily constructed and portable railway system would play in the logistics for the coming war.

So definitive was the German vision of needing to move supplies from standard gauge railheads to the battle zones on *Feldbahnen* (field railways) that light railway supplies were placed strategically around the country, virtually in full view.

The American author Roy Norton stumbled across one of these Feldbahn depots:

On February 14 of this year (1914) I was in Cologne, and blundered, where I had no business, into what I learned was a military-stores yard. Among other curious things were tiny locomotives loaded on flats which could be run off those cars by an ingenious contrivance of metals, or, as we call them in America, rails. Also there were other flats loaded with sections of tracks fastened on cup ties (sleepers that can be load on the surface of the earth) and sections of miniature bridges on other flats. I saw how it was possible to lay a line of temporary railway, including bridges, almost anywhere in an incredibly short space of time, if one had the men... Before I could conclude my examination I discovered that I was on verboten (forbidden) ground; but the official who directed me out told me that what I had seen were construction outfits.³

Although the Germans were experienced with light railways prior to 1914, the pioneers of the light rail system were the French. French company 'Decauville' designed ready-made 60 cm light railway products including track, locomotives and wagons and the French military saw the military application of this railway system as far back as the 1880s. The French fortress network was serviced by this Decauville system and there was some prefabricated track stockpiled prior to the outbreak of war in 1914. France's previous experience with the Decauville system and the difficulties they experienced supplying its forces during the first winter of the Great War convinced the French to quickly extend its 60 cm network in the rear areas behind its armies.⁴ The French also had a metre gauge railway system in regional areas that was utilised during the war.

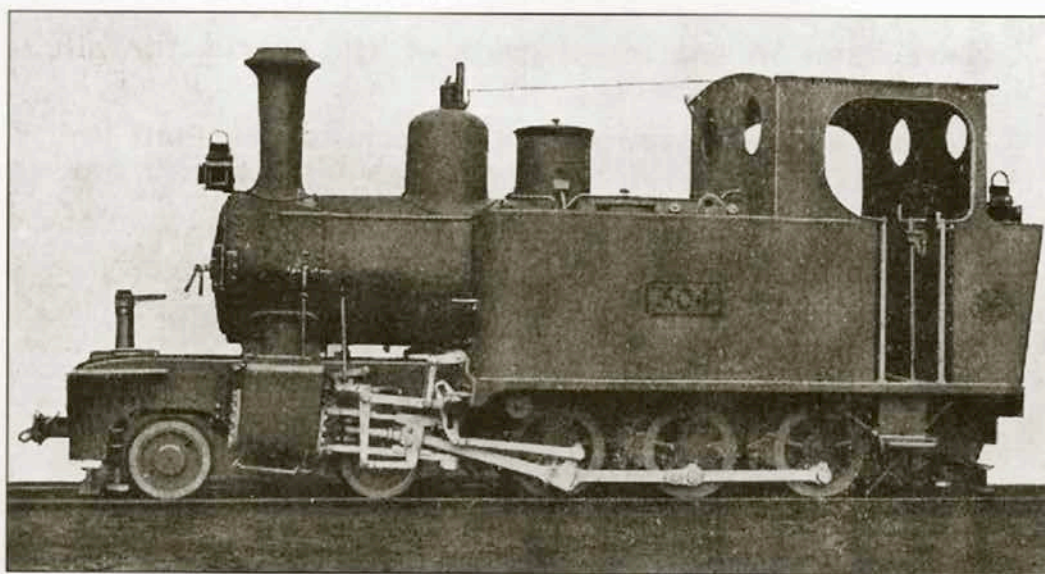
Britain since the early 1900s had an official policy that favoured the use of motor vehicles over light railways in battle zones.

THE HUNSLET ENGINE CO., LTD.,

LOCOMOTIVE BUILDERS,
LEEDS, ENGLAND.

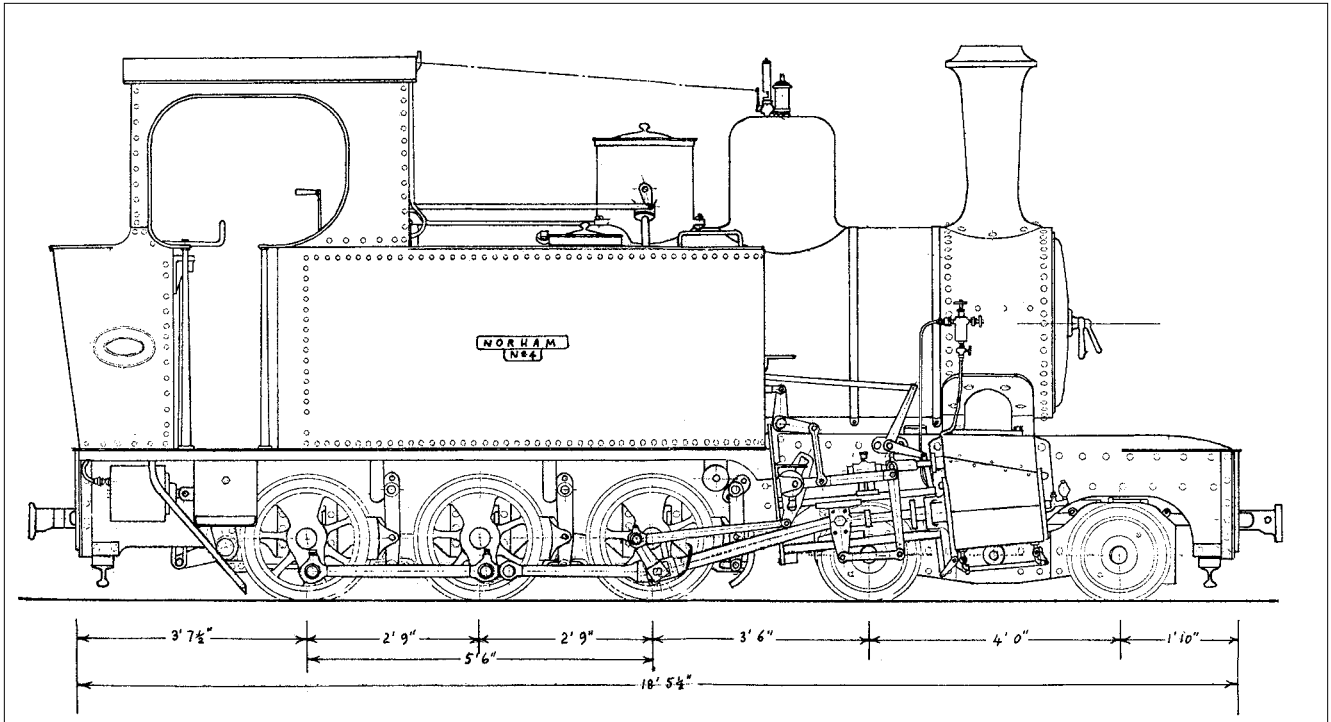
Telephone :
20877 (3 lines).

Telegrams :
"ENGINE, LEEDS."



4-6-0 Side Tank Locomotive as built for service on British War Fronts—60 cm Gauge.

Hunslet's catalogue photograph of their 4-6-0T built for the British War Department.



Scale drawing of the Hunslet War Department 4-6-0T from Stack Talk, August 1976.

The theory was that if the fighting was rapidly moving, railways would be pointless for supplying rapidly moving forces. The British concept was to use motor vehicles as the linkage between its standard gauge railheads and the forward areas. This decision would lead to serious failings in its logistical capacity on the Western Front by 1916 as the war front stagnated into hellish muddy and static trench warfare. Britain was forced to reconsider the operational role and efficiency of railways, but especially tactical light railways. Although the first British light rail companies were formed in 1916, it was not until 1917, that light rail expanded and helped transform the often extreme difficulties of movement and supply on the Western Front. Many light rail companies were formed during this period to assist the British war effort, including South African, Canadian, Australian, and New Zealand units.

British narrow gauge locomotives

After realising that light railways were the way forward in 1916 after a report by Sir Eric Geddes, Deputy General Manager of the North Eastern Railway, the British War Office ordered: 665 steam locomotives, 1803 petrol locomotives, and 12,960 wagons all 60 cm gauge.⁵ Rolling stock was also necessary in the other theatres of war including standard gauge, metre gauge, and 2 ft 6 in as well as 60 cm gauge. In total 3655 locomotives and tractors, 81,076 wagons and 9124 miles of track were supplied to France, Italy, Mesopotamia, Salonica and Egypt.⁶

The Hunslet Locomotive Company of Leeds was engaged by the War Office to build a 60 cm gauge tank locomotive with a maximum axle loading of four tons. Modifying the design of one of its existing locomotives, the 0-6-0T *Hans Sauer*, which had been built for use in Rhodesia, Hunslet came up with the 4-6-0T 'War Office'.⁷ The addition of a bogie reduced the axle load and by lengthening the new design, larger side tanks were able to be fitted and coal bunkers moved to the rear of a new larger cab. The War Office type could haul 286 tons on flat track.⁸ According to the War Office's specifications the Hunslets were to be painted dead black over all, with khaki used inside the cab and red oxide for inside the frames.⁹ The War Office

type also featured a bumper bar on both ends at a height of 2 ft 3 in [690 mm] for both reducing dropping during derailment and working as a cow catcher to push debris out of the way.¹⁰ Two jacks were fitted, with built in jacking points to assist in rerailing.¹¹ Cleverly, water lifters were included so crews could take on water from shell holes and where ever else they could whilst on a run.¹² The War Office type also had a large sand box attached to the boiler which gave the crews a healthy supply of dry sand to assist with traction.¹³ The locomotive in the collection of The Workshops Rail Museum was constructed by Hunslet as part of the War Office's second order of locomotives and was given the job number of 1239 by Hunslet, and later given the running number 327 by the War Office.¹⁴

After winning the contract, it became clear that Hunslet Locomotive Company would be unable to quickly build enough locomotives for the War Office's needs. All the workshops in Britain were already undertaking vital work for the war effort and were unable to increase production any further. The Baldwin Locomotive Company in America was then given a contract to also build 4-6-0T 60 cm gauge tank engine. While it took Hunslet a year to build 75 locomotives, Baldwin was able to produce 495 locomotives in seven months, without affecting its other production requirements.¹⁵ Yet the Hunslets were very popular with the men who operated the light railways; they were nicely built, reliable and perhaps most importantly, relatively stable on poor track, especially compared to the wider Baldwins which had a reputation of toppling over very easily.¹⁶ Another factor in the soldiers' preference for the Hunslet over other locomotives must have also been its fully enclosed cabin that at least provided a degree of cover from the elements.¹⁷

Work on the light railways would have been highly demanding, as well as extremely dangerous at times. By September 1917 the light railways were on average transporting nearly 211,000 tons of goods per week.¹⁸ Amidst a variety of different steam locomotives and petrol powered tractors, Hunslets would have been involved in hauling artillery shells, water, fodder, food as well as soldiers and anything else needing to be returned to rear areas, including casualties from the front lines.

Writing in 1931 about the experiences of the 19th and 31st Light Railway Companies, Royal Engineers, T R Heritage compared the drivers of the steam locomotives and the petrol tractors:

The locos Cooke, Hunslet and Baldwins did the lion's share of the haulage, but naturally being more or less in the back area, their drivers did not have the hair-raising thrills experienced by the tractor men.¹⁹

We do know, however, that the steam locomotives were also targeted by the enemy, and their crews also experienced dangers and hardships while operating. Arthur Stead, a member of the Light Railway Directorate in France recalled in 1946 that his company:

operated about twenty miles of track... We handled about 1000 tons of traffic with our steam and petrol locomotives every 24 hours, and looking back it seems miraculous how sometimes we managed to keep traffic moving with enemy shells falling all around, sometimes half-burying train crews in the debris. Many routes were under direct enemy observation and could be worked only at night.²⁰

The breakdown of rail derived transport as you got closer to the front line was as follows:

Standard Gauge (or Broad Gauge) supply trains railhead and exchange with the 60cm Light Railway [steam] locomotives were anywhere from 12 km to 5km from the front line; then to Forward Exchange yards where 60cm light railway internal-combustion locomotives or tractors took over which were about 3.5km from the front line; and then finally, push trolleys or ropeways of the trench railways carried the supplies for the final kilometre or so from the actual front line.²¹

This arrangement worked in reverse with regard to removal of the wounded. Men could be pushed out on hand-trolleys to meet up with the powered tractors and put into an open wagon (horse-drawn power was also utilised to remove the wounded).²² From there the wounded could be treated at dressing stations and at Ambulance Control Points and if not fit for return to the front, were then delivered to a Casualty Clearing Station.²³ Casualty Clearing Stations were often

located close to the rail network so injured soldiers could travel via standard gauge ambulance trains to base hospitals in the distant rear areas and then if strong enough, travel by train to ports to be evacuated back to England via hospital ship.²⁴

Having survived the war, a miraculous feat in itself, locomotive 327, along with other War Office engines, was returned to the Hunslet Locomotive Company in Leeds via the War Stores Disposal Board (WSDB) for overhaul and to be put on the open market for purchase.²⁵ w

The Workshops Rail Museum, having acquired an inspection report for engine 327 from late 1918, has been able to gain an understanding of its condition after finishing active service.

Repair work began in 1919 and included:

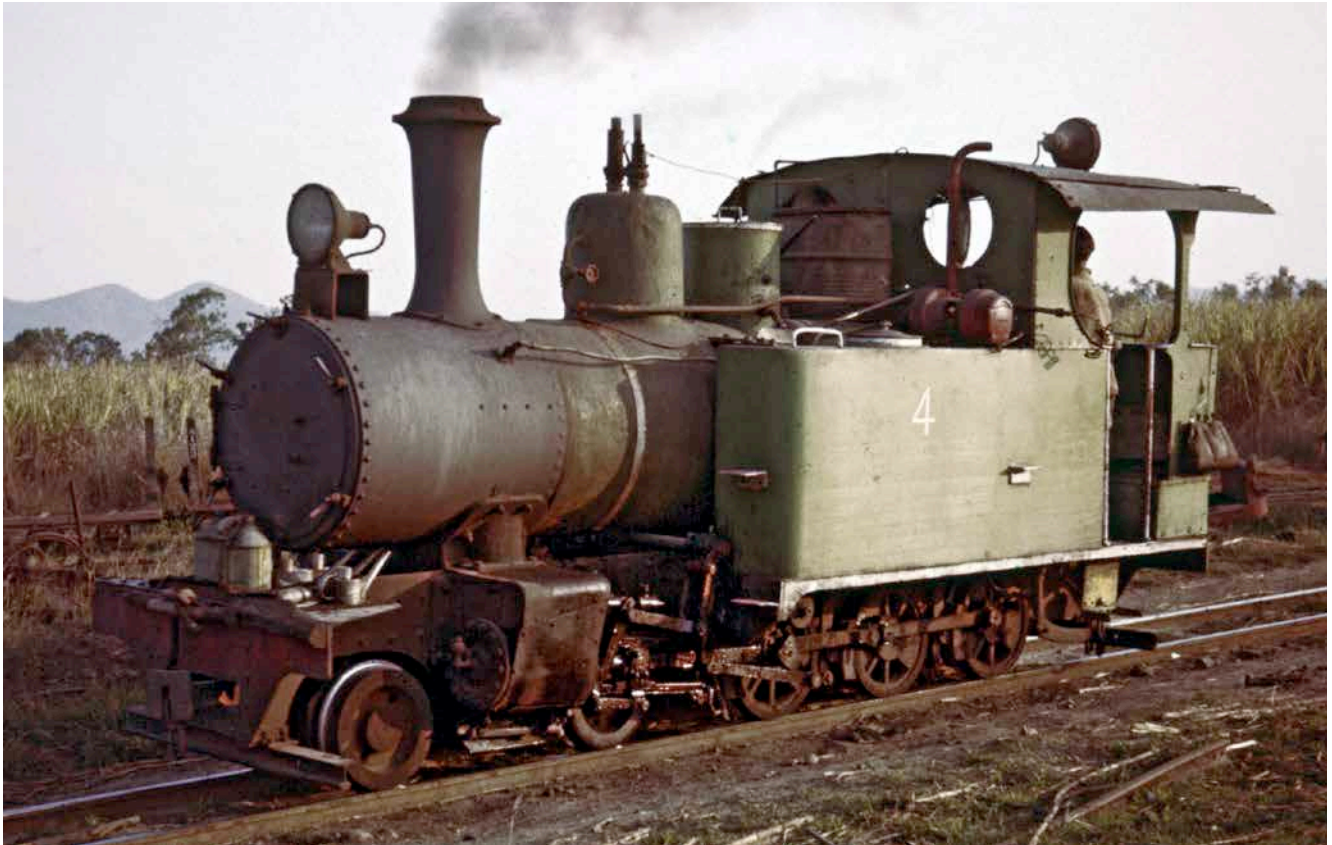
- The boiler clothing had bulges due to incorrect lifting and had to be re-rolled to take out the bulges.
- The front buffer beam needed straightening and one derailment beam was missing.
- Left hand cylinder needed replacement as well as a new left hand front cylinder cover.
- The sidebars needed re-grinding and two oil syphons were missing.
- The motion work was generally in good condition but required re-fitting and new bushes to the radius link brackets. The left hand eccentric rod was missing and was replaced by a spare rod returned from France.
- The boiler, firebox and tubes were in good condition.
- The gauge was slightly widened from 60 cm to 2 ft (61cm).²⁶

Off to Queensland

After repairs, 327 was returned to the British War Department for sale. It was subsequently purchased by the Agent-General for the Queensland Government in June 1920 and shipped to Queensland to work in the sugar industry at the North Eton Mill near Mackay.²⁷ It was one of 15 War Office Hunslets which were purchased and transported to Queensland, and was also part of the first batch that arrived in 1920, with more arriving in Queensland in 1924.²⁸



*Hunslet 4-6-0T No. 1239 as North Eton Sugar Mill No. 4, in black livery on 23 June 1958. A large section of gloss black paint has fallen off the smokebox!
Photo: John Browning collection, courtesy of Jim Longworth*



In Queensland, engine 327 was given the number '4' by the North Eton Mill and was used to transport sugar cane to the mill for crushing. A number of modifications were undertaken by the mill during its working life there. The most notable modification was the extending of the smokebox and removing the rear spectacle plate. Undoubtedly the boiler was replaced (with Walkers Limited of Maryborough reconditioning the boiler at least once in 1945 and perhaps it was during this time that the opportunity to extend the smokebox was taken) and also the side tanks.²⁹ When The Workshops Rail Museum acquired the locomotive in 2005 one of the side tanks was welded and the other riveted, but both were undoubtedly replaced by the Mill during its 44 years of Queensland sugar industry service.

It is fair to say that this Hunslet locomotive had a hard life at the mill; many modifications and repairs were done in-house with limited resources with the mentality of keeping it running year after year without much thought to its past war-time heritage. In 1964, number 4 was finally retired with more modern diesel locomotives taking over and it was installed at Langford Park in Eton near Mackay as a War Memorial.³⁰ After suffering deterioration, number 4 was entrusted to the Mackay Sugar Co-operative Association in 1999 and placed in covered storage. The Mackay Sugar Co-operative then generously donated the locomotive to The Workshops Rail Museum in 2005.

After a few years sitting under cover at The Workshops Rail Museum, the Museum attempted to raise funds for a restoration project. After securing funding, the locomotive

Above: Hunslet 4-6-0T No.1239 as North Eton Sugar Mill No.4, in green livery on 20 September 1963. Photo: John Browning collection, courtesy of Jim Longworth

Right: Hunslet 4-6-0T No.1239 at Langford Park, Eton, 15 September 1964. It had just recently been placed there to form part of a War Memorial display and it was put undercover with a descriptive plaque. Photo: Frank Stamford



was moved to the Erecting Shop at the Ipswich Railway Workshops, where restoration work commenced in June 2012. A lot of research at The Workshops Rail Museum went into this restoration project prior to its commencement. Museum staff and volunteers travelled to the Australian War Memorial in Canberra to discuss with its staff about its own Hunslet restoration project (1218/306). The Hunslet Archives in the United Kingdom were also contacted and The Workshops Rail Museum was able to purchase a number of plan drawings to help with the fine details of the restoration work and so help distinguish features and components on the engine to determine between its original design and those added later during its long post-war life in the Queensland sugar industry.

During the restoration some of the work to return the locomotive to its original appearance included:

- returning the smokebox to its original size
- the purchase of new side tanks after deciding not to alter its more recent tanks
- cutting down the cabin roof to original size by removing the awnings
- soda blasting rather than sand blasting parts including – the boiler assembly, smokebox door, the fire grate and ashpan, and the cabin.
- many other parts were steam cleaned to remove years of grease and grime.
- having the window frames fabricated based on the original drawings.

One of the more fascinating aspects of this restoration process has been the discovery of a number of parts which derive from Hunslet locomotives other than 1239 (engine 327).

Identifiable parts from other Hunslets include:

- 1240: which came to Queensland in 1924, and ended up employed at the South Johnstone Mill near Innisfail.³¹
- 1219: which also came to Queensland in 1924, and was sent to work at the Proserpine Sugar Mill.³²
- 1334: which was originally sent to the Buenos Aires and Great Southern Railway in South America, between 1921 and 1923.³³

It will always be a mystery as to how these parts were acquired. Was it while serving on the Western Front during 1917-18, back at Hunslet in 1919, or were these components acquired later on? Parts from 1240 and 1219 may very well have been acquired after arrival in Australia with the mills swapping or selling parts amongst themselves. The part from 1334 is perhaps more of a mystery. From a later batch, 1334 never saw any war work, and perhaps parts from it were used to repair returning war service locomotives during 1919. Ultimately we will never know for sure but it adds further intrigue to the story of engine 327.

This restoration project has been a considerable labour of love for many of those involved. The dedicated input to the project by Queensland Rail and its heritage volunteers, who have been working away on locomotive 327 for the last several years, should be commended, and The Workshops Rail Museum, part of the Queensland Museum Network, is extremely grateful.

Right: Hunslet 4-6-0T locomotive No. 1239 at the Workshops Railway Museum, Ipswich, 5 April 2018. Photo: John Brouning

References

1. J Higgins, *Great War Railwaymen: Britain's Railway Company Workers at War 1914-1918*, (London: Uniform Press, 2014), p.27.
2. *The Railway Gazette and Railway News: Special War Transportation Number* (Cheshire, UK: The Moseley Railway Trust, 2013 facsimile reprint of original 21 September 1920 special issue), , p.5.
3. Roden, *Trains to the Trenches*, p.32.
4. D Bishop & WJK Davies, *Railways and War before 1918*, (London: Blandford Press, 1972), pp4.-5.
5. Cliff Thomas, 'Tracks to the Trenches', *The Railway Magazine*, (The Remembrance Issue: Railways at War, July 2014), p.30.
6. *The Railway Gazette and Railway News: Special War Transportation Number*, op.cit., p.14.
7. W J K Davies, *Light Railways of the First World War: A History of Tactical Rail Communications on the British Fronts, 1914-1918*, (Newton Abbot, Devon: David & Charles, 1967), p.145.
8. Ibid.
9. Hunslet Painting records, 1916, courtesy of Ian Hughes, Moseley Railway Trust.
10. Davies, *Light Railways of the First World War*, op.cit., p.145.
11. Ibid.
12. Ibid.
13. Ibid.
14. I G Hughes, *Hunslet 1215: A War Veteran's Story*, (Usk, United Kingdom: The Oakwood Press, 2010), p.13.
15. Ibid.; & Davies, *Light Railways of the First World War*, op.cit., p.145.
16. Hughes, Hunslet 1215, op.cit., p.15.
17. R C Link, *WDLR Album*, (Garndolbenmaen, Gwynedd Wales: RCL Publications, 2014), p.149.
18. Ibid., p.74.
19. T R Heritage, *The Light Track from Arras*, (East Harling, Norwich: Plateway Press, 1999), p.19.
20. K Taylorson, *Narrow Gauge at War*, (East Harling, Norwich: Plateway Press, 2008), p.12.
21. Ibid., pp.78 & 84.
22. J Higgins, *Great War Railwaymen: Britain's Railway Company Workers at War 1914-1918*, (London: Uniform Press, 2014), p.91.
23. Ibid.
24. Ibid.
25. Hughes, Hunslet 1215, op.cit., p.19.
26. Hunslet Locomotive Works, Order Number 39222 Report November 1918 (Hunslet Archive).
27. <http://www.wdlr.org.uk/wdlr/> WDLR Hunslet 4-6-0T Database compiled by Ian Hughes (accessed July 2015).
28. Ibid.
29. Ibid.
30. Hughes, *Hunslet 1215*, op.cit., p.52.
31. Ibid.
32. <http://www.wdlr.org.uk/wdlr/> WDLR Hunslet 4-6-0T Database.
33. Ibid. War-type locomotives were sent post-war to many parts of the world including the United Kingdom, Australia, the Middle East, Nepal, Argentina and Chile.





Part of a much larger John W Beattie glass lantern slide (one of two near-identical pictures taken a few minutes apart – cf. *Tasmanian Mail*, 10 Aug 1901), showing a Sharp Stewart 0-4-2T G-class on a short mixed train heading to Zeehan and the smelters, circa 1900. The original (damaged) print includes the full height of Montezuma Falls – all 340 ft. The 10-span Montezuma bridge was on a two-chain curve and a 1:43 grade. The train consist comprises open wagon AA3 containing bulk ore, AB2 – a 1st/2nd passenger car, and AD1 – a combined 1st-class/guards van. Photo: State Library of Victoria H92.350/164

Early days of Mount Read, Williamsford and Rosebery West Coast of Tasmania

by Les Morley

There have been numerous publications on the North-East Dundas Tramway (NEDT), that once ran from Zeehan to Williamsford on the West Coast of Tasmania. It was a two-foot gauge line, 18 miles in length and part of it wound around the foot of Mt Dundas following the Ring River and passing in front of the Montezuma Falls, reputed to be 104 metres high. The line was opened on 18 June 1898 and closed on 5 July 1932, though regular services had ceased three years earlier.

The line was built by the Tasmanian Government Railways principally to transport ore from Williamsford to smelters at Zeehan. At this time the West Coast was in a real mining boom and the smelters had been built to treat the ore from the Zeehan and Dundas fields including the ore from Mount Read and later the Hercules mine. Later, both of these mines would be connected to the North-East Dundas line by a self-acting haulage opened in 1899.

The 2ft-gauge haulage rose 1642 feet in almost exactly one mile (500 metres in 1.6 kms) with an average slope of about 15 degrees (1:3.2 grade) and a maximum of 30 degrees (1:1½). Both the Mount Read and the Hercules mines had narrow-gauge tramways running from the mine face, and underground, to the surface; the ore being moved by horses pulling about ten mine skips at a time.

The first of these mines was the Mount Reid Mining Company [sic] which was an English financed mine that was

working the claim, high on an exposed ridge of Mt Hamilton, a spur of Mt Read, 1123 metre high (3684 ft). Despite the working problems in one of the hardest of conditions, the determination of the miners won out.

Mount Read settlement was one of the highest mines and towns in Tasmania and the wettest, but the mine was worked even with around 3,657 mm rainfall a year. Along with being the wettest it is also the coldest, but in the summer the view from the mountain is breathtaking. This high, wind- and rain-swept mountain town had a hotel, general store, a substantial mine manager's house and about 20 or so wooden and corrugated huts scattered around the mountain side.

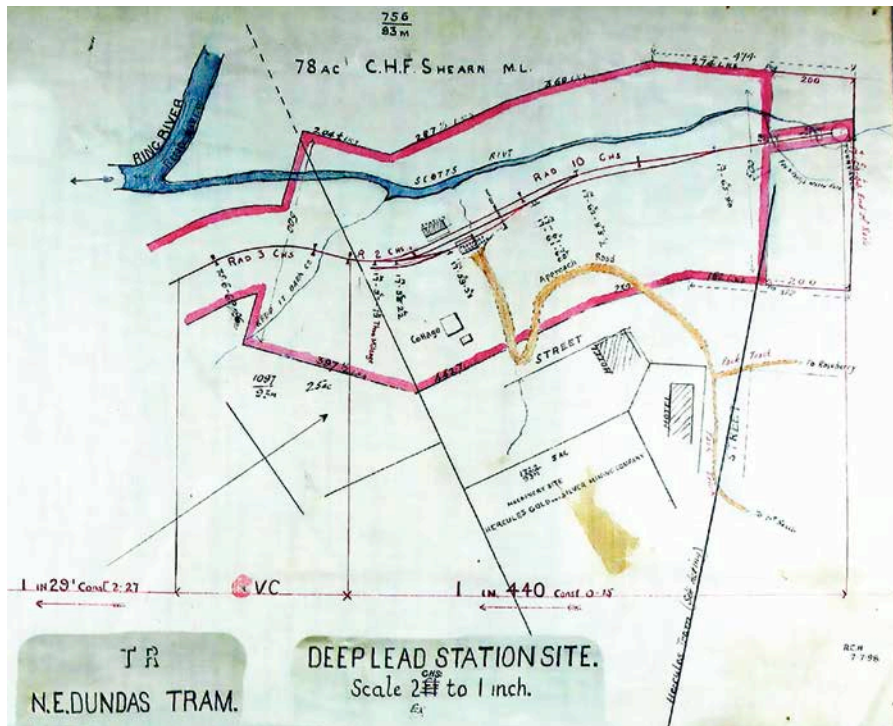
Yet in summer it could be hot and bushfires were not unknown. In January 1908 a large fire from the north swept much of the area and many of Hercules workers and women-folk took refuge in No.4 tunnel for a while, along with all their house-hold chattels. A group of workers fought the flames to save a number of key buildings – the fire burning right to the edge of the haulage and severing the telephone line to Williamsford.

Before the North-East Dundas line and the haulage were built, all commodities had to be transported over the Dundas and Mount Read overland track that climbed through mountainous rough country. The ore from Mount Read had to be transported over the track to Dundas on pack horses. The ore then had to be transported to Zeehan, then from Zeehan to the Port of Strahan for both the Strahan and South Dundas lines were opened in 1892.

Once the Hercules haulage opened in early 1899, both the Hercules mine and the Mount Read mine (who had built a 2ft-gauge line around the hillside from their mine to the Hercules haulage) immediately started using it. Stockpiled bagged ore was lowered down the self-acting incline, to Deep Lead station

Right: TGR plan for Deep Lead (later renamed Williamsford) station. Dated 7 July 1897. Note lack of detail for transfer facilities between the NEDT and the Hercules Company's haulage, though TGR engineers were cognisant of its intended alignment. Later, more sidings were built to cater for the ore traffic. In 1900 the other major mine, the Mount Reid Mining Co Ltd, built 29 chains of 2ft-gauge adhesion line from the south end of the station, intended as the first of a three part-plan, to provide rail access to its own mine, situated just below the Hercules mine. Plan: Tasmanian Archive and Heritage Office P1330-1-5433

Below: In the early years of West Coast mining much of the business dealing was through Melbourne. This led to many visitors from Victoria, one of whom was John Henry Harvey. In this detailed scene, photographer Harvey has set up his camera near the Elliott Street bridge and the Terminus Hotel – the favoured place for many a miner's farewell over the years. Mining timbers, awaiting transport uphill, are in abundance. The date is c1900 as the lower end of the haulage is yet to be re-graded, that being done under mine manager Sydney Thow's direction in 1901-02 (see LR260). Photo: State Library of Victoria H91.300/600



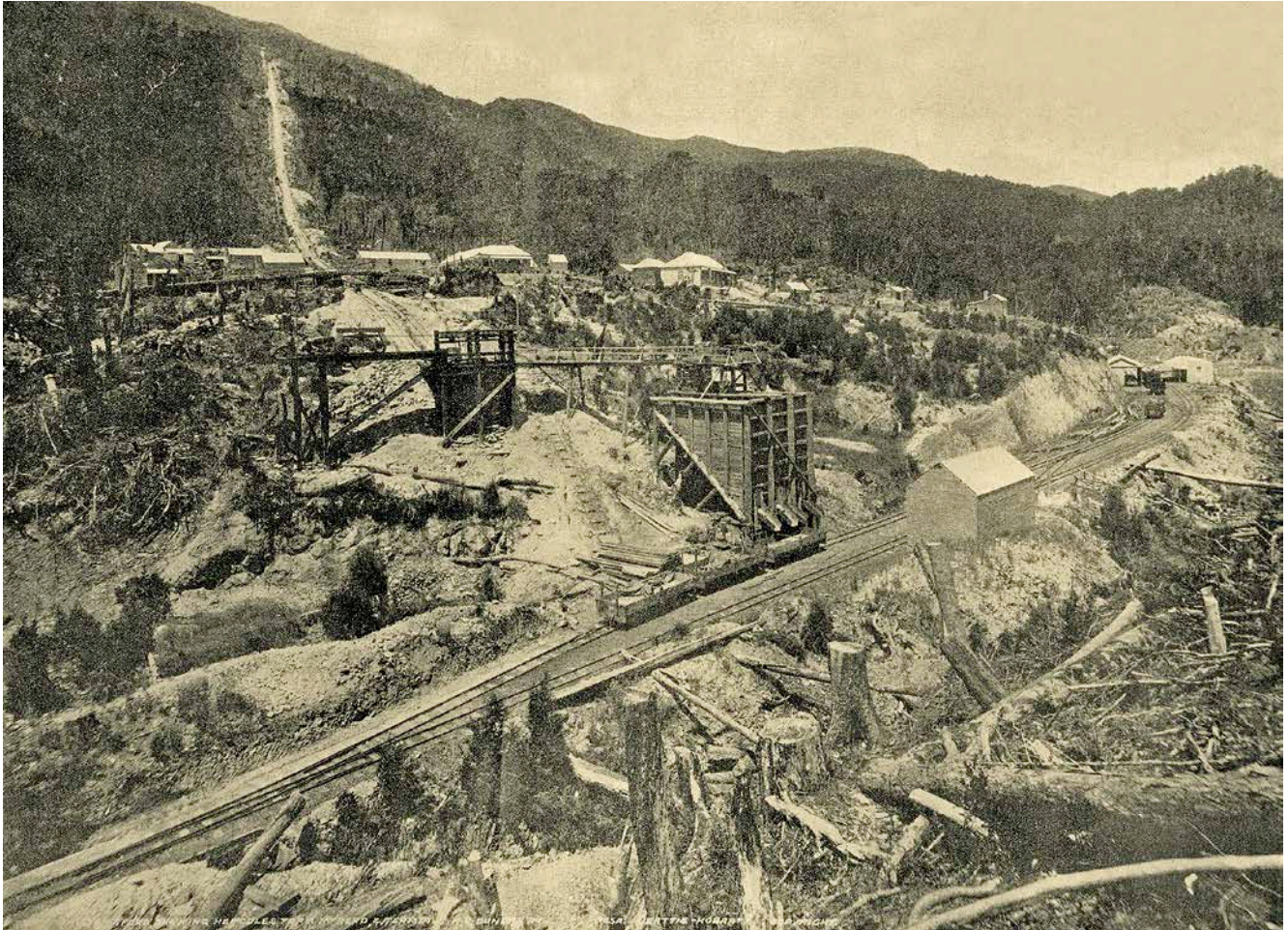
(later renamed Williamsford) where it was transferred to NEDT trucks for transport to Zeehan. Later in the year ore bins were built overlooking the siding, a Mr Waller getting the contract. This enabled most ore to be handled in bulk though a wooden chute was retained for bagged ore.

By 1915 the population of Mount Read settlement had dropped to less than 10 occupants and within a few years it was empty; virtually all miners preferring to live in Williamsford, and use the haulage to go to work. Williamsford, was named after Luke Williams, the mine manager and now became the

miner's town. Williams later moved to Catamaran to manage a coal mine that operated at the southern end of the State.

The outcrop that was to become the ore body for the first Company to work the field, the Mount Reid Mining Company, was discovered in 1891 by A E Conliffe, who pegged the first claim on Mt Read on 17 March; a 332 ha section. Several other claims and mines were later established from Dundas to Mt Black, which was to be the ore body for the Rosebery mines. Gold was later found in the Ring River and Bakers and Tipperary Creeks, and this set off a major gold rush, which





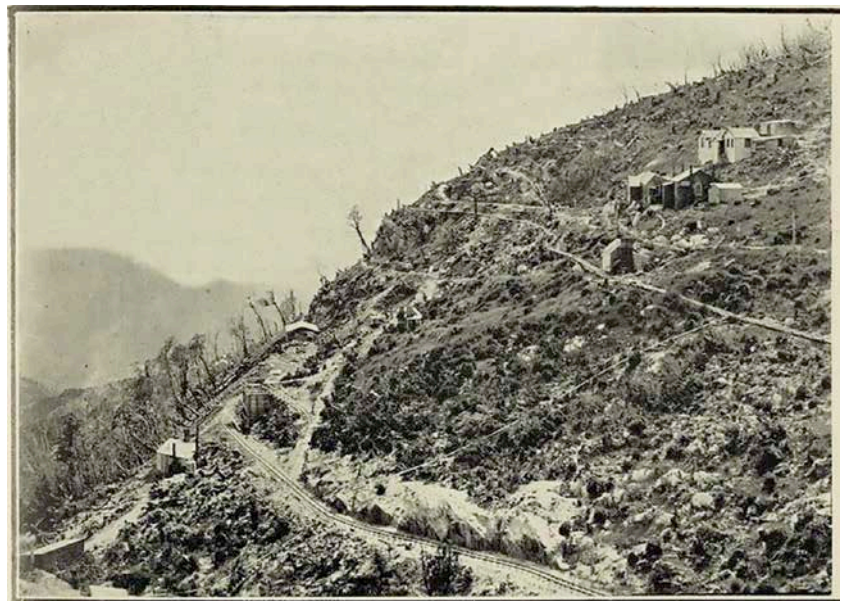
Above: Early view of Williamsford station, sidings, ore bins and haulage. The fencing along the lower part of the incline divided the town, the only access to the smaller southern parts, including hotel and railway station (right of picture), being over the Elliott Street bridge. To the left, the street runs through the town and is the main 'road' to Rosebery. The lower end of the haulage is yet to be re-graded, and the counterpoise carriage and associated works yet to be installed, that work being done by Sydney Thow in 1901-02. Photo: J W Beattie, Tasmanian Mail 29 Dec 1901

soon petered out as no large quantities of gold were found.

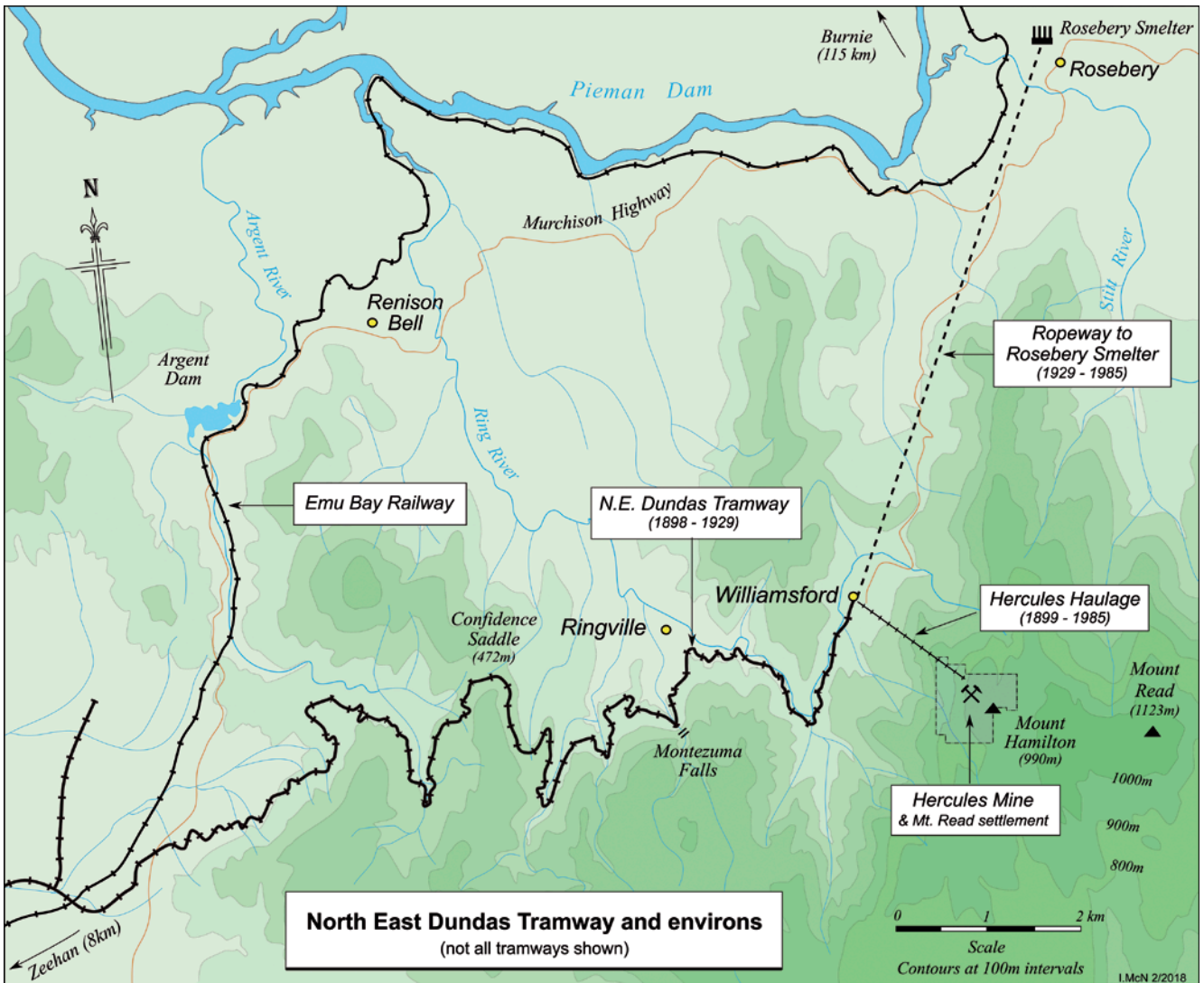
The Hercules deposits were discovered in 1894. A prospector, Joseph Will, working for the Mole Creek and Zeehan Prospecting Association, discovered an outcrop of 'gossan' about an inch wide on the western slopes of Mt Hamilton (a spur off

Mt Read) below the outcrop being developed by the Mount Reid Mining Company. The Mole Creek syndicate did not invest in Will's discovery but a few more speculators showed more interest so they paid Will to return to the mountain and investigate the seam more closely. An explosive was used to

Right: In the early 20th century, the Hercules' workings were spread over several hundred vertical feet of hillside. The No.1 and No.3 adits were close to 2800 ft elevation, whilst the No.4 was at 2750 ft and the No.5 at 2625 ft. The ore storage paddock, served by the No.5 tramway was below the 2600 ft level. The manager's (Moxon) house is uppermost; below it are the company's offices. Claude Moxon was originally the underground boss, became caretaker when the mine was closed during the 1905 strike and was later appointed mine manager. Photo: Henry W Judd, Tasmanian Mail 26 March 1910



HERCULES MINE, MOUNT READ. THE HIGHEST BUILDING IS THE RESIDENCE OF THE MANAGER, MR. C. MOXON, AND JUST BELOW THAT THE CO.'S OFFICES.



open up the seam that proved to be a good find for when samples were assayed it showed 60% lead, 365 ounces of silver and 22 ounces of gold per ton. The Hercules Gold and Silver Mining Company was subsequently formed in January 1895.

Between 1897 and 1913 a great deal of work was carried out spasmodically at Mount Read and at nearby Rosebery; 280,000 lbs of ore had been won at Mount Read mine at £400,000 pounds expenditure. At Rosebery things were grimmer as experiments had been made to try and treat the ore, a smelter having been built by the Tasmanian Metals Extraction Company (TME) that had been formed in 1908 in London. This Company was set up to treat the Rosebery and Mount Read ores. From 1909 to 1914 this Company invested in the vicinity of at least £650,000 with a return of 383 lbs.

This smelter turned out to be a failure as it could not treat the ore satisfactorily so most of the ore was sent to the Zeehan smelters along the North-East Dundas line that did not make a profit either so they all missed out. The smelters at Zeehan had borrowed £20,000 from the State Government to keep them viable but the smelter was seized by the State Government in 1914 as a war "prize", as it was German owned. Also all work at Mount Read had ceased in 1913.

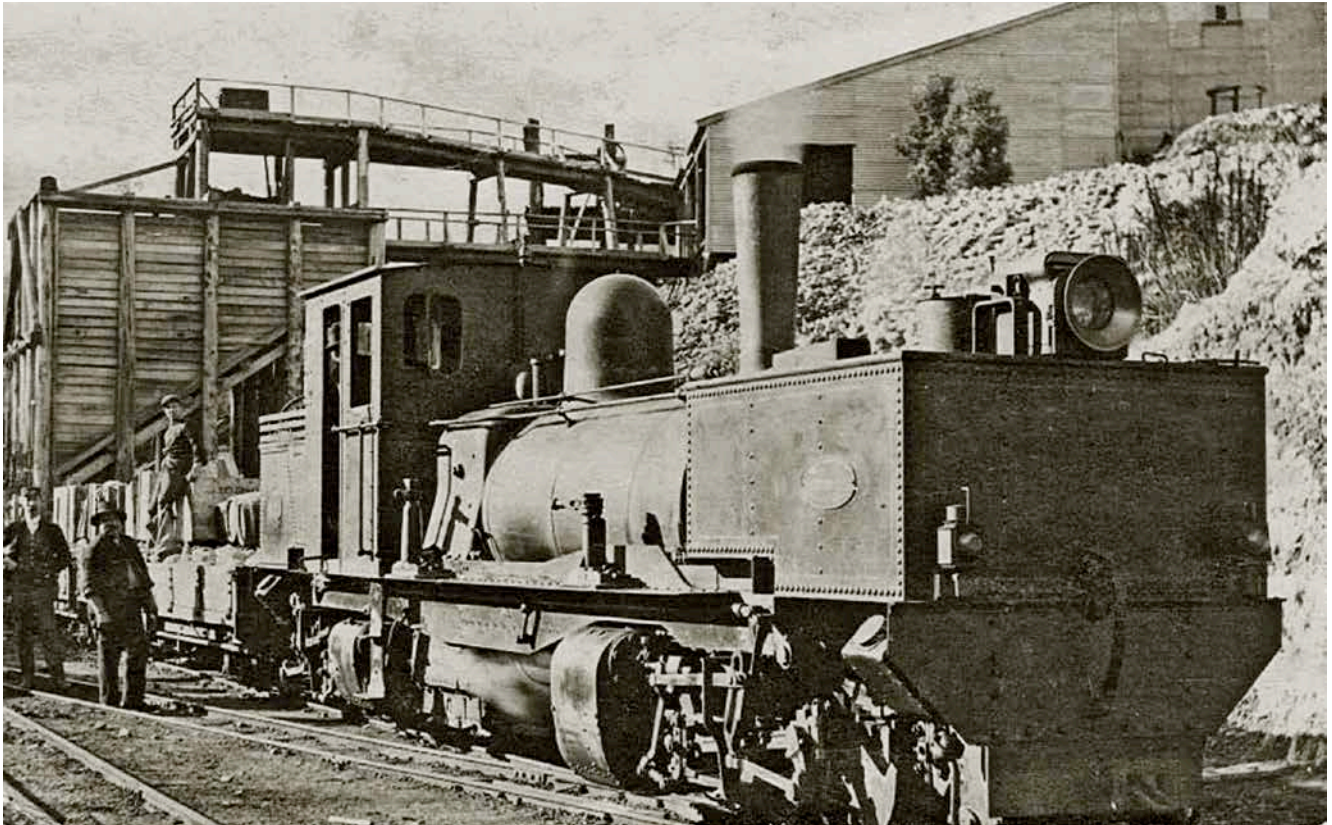
In 1916, after long negotiations, the mines that showed any promise (as there were three or four mines on the Rosebery site) were purchased by the Mt Lyell Company who formed the Mount Read and Rosebery Mines Limited. This Company had big plans for a reduction works that required electric power and negotiations with the State Government to put a

power scheme on Lake Rolleston and the King River were investigated but proved unsatisfactory. By this time Mt Lyell had second thoughts about the Mount Read and Rosebery mines and in 1920 the Company assets were sold to the EZ Company (Electrolytic Zinc Company of Australasia Pty Limited) which started to treat its ore at the Zeehan smelters.

The Company operated with Government assistance being for a new transmission line from Lake Margaret as the smelters were now using 3,000hp to run the smelters. The EZ Company upgraded and fitted new roasting ovens as in the past a percentage of ore was lost in the old process. With the EZ Company takeover things improved and by 1923 EZ had confidence in the mines. This was the best news concerning the west coast, for most of the mines on the Zeehan and Dundas fields had petered out by the early 1920s.

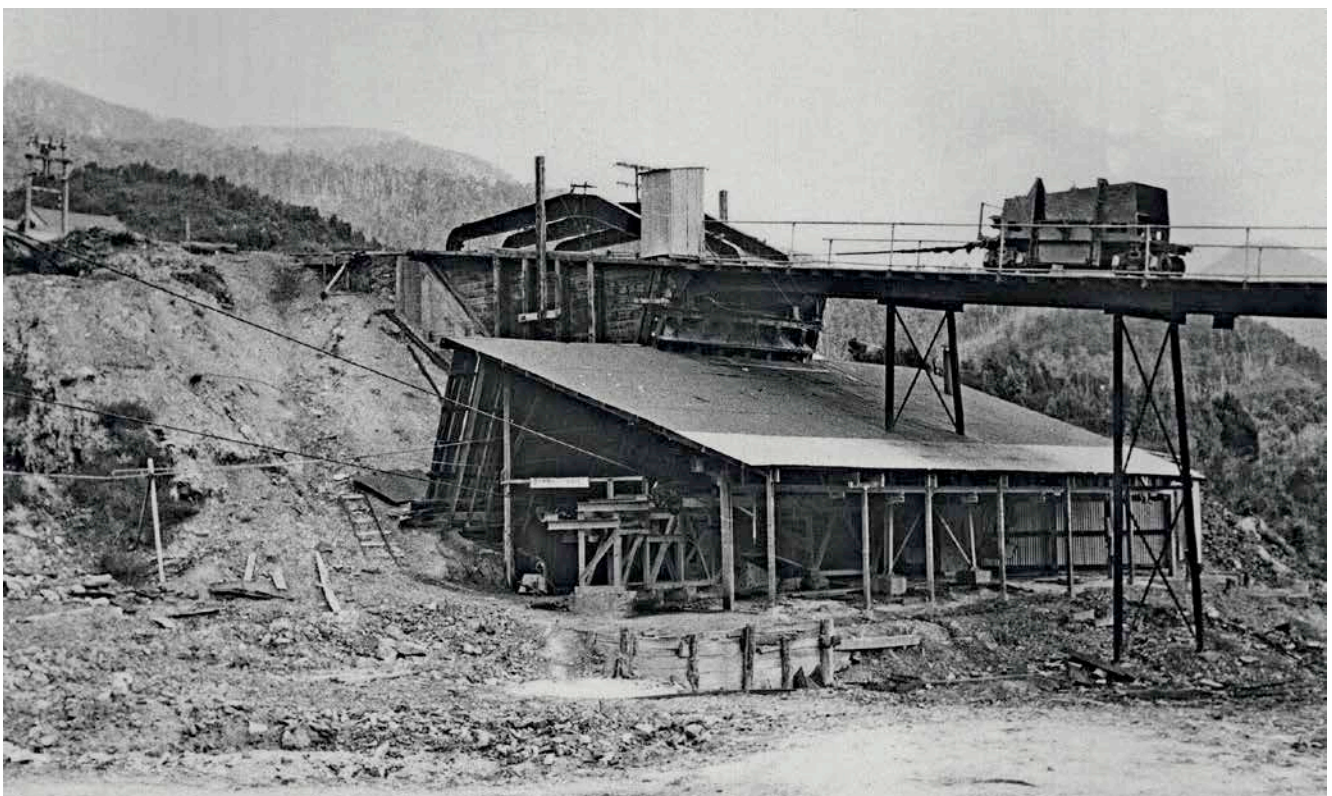
This was why the smelter at Zeehan had to borrow from the State Government as there was not the ore being delivered to keep it producing at a profitable rate. This was because the smelters purchased the ore from three-quarters of the mines and at one time there was up to 80 mines on the field, both big and small, and now the future looked rosy for both Rosebery and Mt Read.

The EZ Company went from strength to strength with infrastructure being its top priority. With the construction of a processing mill and an aerial ropeway, this put paid to the North-East Dundas line as the ore was now milled at Rosebery but it took up to the early 1930s to see it completed due to the Great Depression which started in 1929. After the



Above: On a sunny West Coast afternoon, God's own articulated locomotive – a TGR K-class compound Garratt – shunts open wagons under the ore shoots at Williamsford. In addition to their bulk loading of ore, a number of barrels and wooden crates are balanced on top of the load. The front unit of the Garratt still has its original small sand boxes behind the buffer beam. In later years it will get a large, locally-made, sand box (of similar shape as added to the G-class tank locomotives.) This will be fitted on the front tank, replacing the 'Phos' patent acetylene headlamp, and rather spoiling the loco's appearance. Photo courtesy: Trainiac, Flickr

Below: The closure of the North-East Dundas Tramway to ore trains from 1929 was caused by the transfer of outward Hercules ore traffic from the railway (to Zeehan) to an aerial ropeway (to Rosebery). This change saw the construction in the early 1930's of new ore bins and a transfer station on the former NEDT formation at Williamsford, as seen in this image taken by the late Ray Graf c1964. The incline haulage has been extended across the former tramway yard, to a shed where the workers' carriages were stored. Each line on the double-tracked haulage had an ore truck and a workers' carriage. Photo: Ray Graf colln, LRRSA Archives



ore had been put through the mill, it was then transported to Zeehan over the Emu Bay Railway to be refined. The EBR had been opened to Zeehan from Burnie in December 1900. Once the ore had been smelted at Zeehan it was then transported to Burnie to be shipped to the Zinc Company at Risdon, near Hobart.

At the Hercules Mine there were, initially, no underground locomotives and all movement of ore was done by horses. The horses pulled the trucks from underground and from the open cuts on the side of the mountain. During my time on the West Coast they never left the mine and worked and lived there till they passed on but they were well looked after by two good handlers. I knew them both, Billy Doe and Louie Rosler. Later, from 1966, the company did put two locomotives underground (3-ton Mancha BE's from Rosebery) for by this time the world had changed, the old ways of mining had passed.

The Hercules mine worked for another 20 years before it was closed down in late 1986. The incline haulage to Williamsford had closed in February the previous year, along with the ropeway to Rosebery; the ore being trucked by road for some twenty months. This was the death knell for Williamsford and in time the town below the mountain was slowly sold off by the mining company – today there is only four inhabitants in the town.

Mining continued at Rosebery and is still in operation today after going through about four different owners. But how could one forget that little town up in the mountains for in winter with snow it was heaven but in the summer it was

beautiful. Williamsford and Mt Read were a part of our West Coast heritage, I saw the mine trucks travelling up and down the haulage and the men disembarking from the mine's man car after spending a day working up there on the mountain.

Bibliography

A History of Railways and Tramways on Tasmania's West Coast – Lou Rae, self published, 1983, vii, 197 pp., 4 pp. of col. plates : ill., maps ; 30 cm., ISBN 0959209808

The Emu Bay Railway: VDL Company to Pasmenco – Lou Rae, self published, 1991, v, 274 pp. : ill. (some col.), maps (some col.), ports. ; 31 cm., ISBN 0959209824

A Window on Rosebery : a pictorial review of the 100 years in and around the environs of Rosebery on Tasmania's rugged West Coast, 1893-1993 – Lou Rae, self published , ii, 94 pp. : ill. (some col.), ports. ; 32 cm., ISBN 0959209840

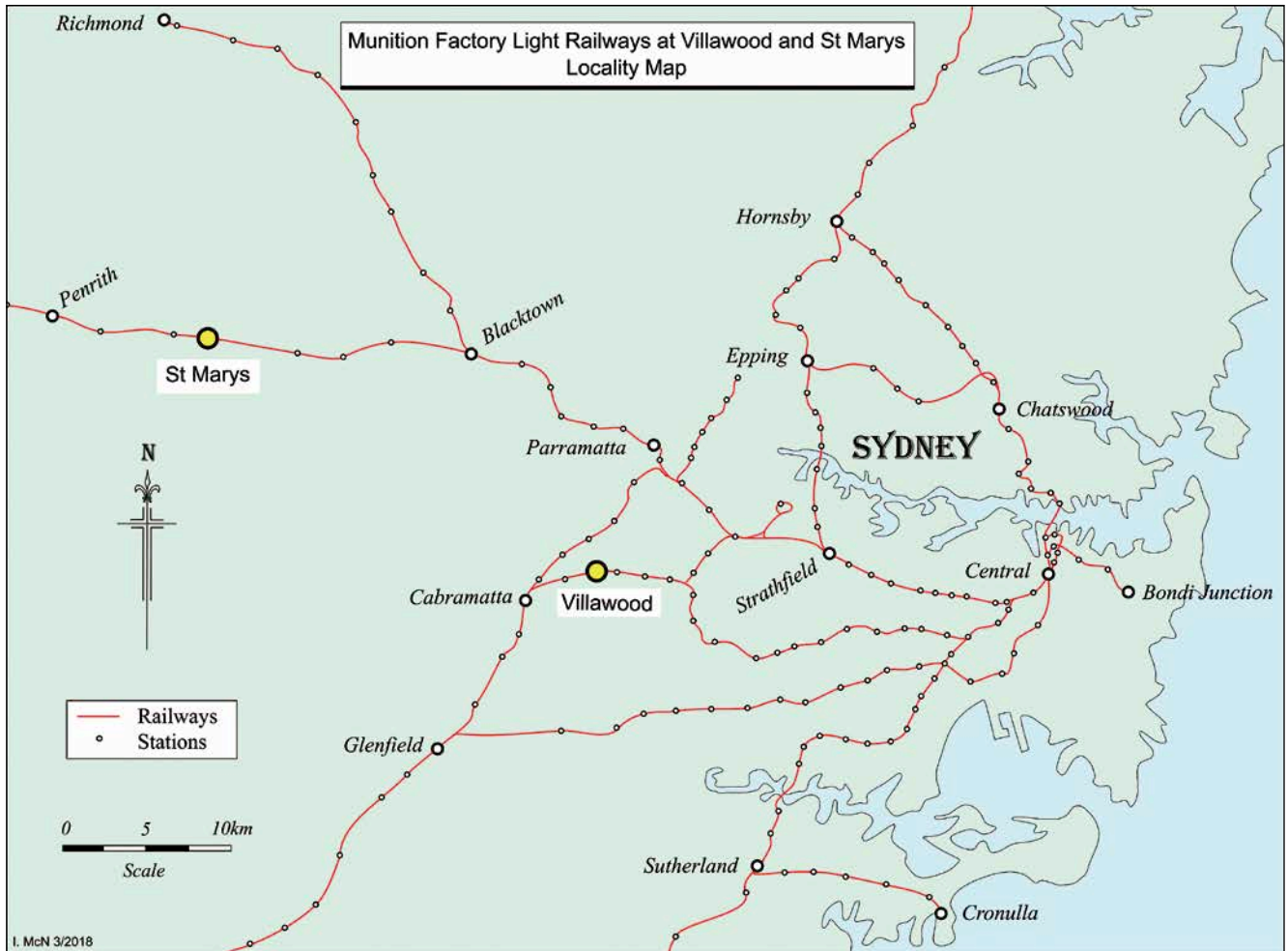
The Lost Province: exploration, isolation, innovation and domination in the Mount Lyell region 1859-1935 – Lou Rae, 2005, PhD thesis, 490 pp. University of Tasmania. [contains 17 pages of bibliography, references, published and unpublished reports, papers, articles and thesis, online at <https://trove.nla.gov.au/version/183195694>]

Zeehan Mines – in *Australian Mining and Metallurgy*, 1904, Donald Clark
Hercules G & S M Co – in *Zeehan & Dundas Herald*, 10 Sept 1900, Sydney Thow
<http://nla.gov.au/nla.news-article83736360>

Light Railways: No.27 The Williamsford Haulage; **No.35** The Williamsford Haulage; **No.46** The Tasmanian 'G' class 2ft gauge locomotive; **No.91** North-east Dundas Tramway - a 1909 description; **No.128** North-East Dundas Tramway - an Engineering Account; **No.132** The Williamsford Haulage; **No.139** wrap-around cover - colour painting of NEDT Montezuma bridge and a Garratt loco; **No.185** The Jewel in the Crown - Pasmenco Roseberry mine railway Pt.1; **No.187** Recollections of Visits to the West Coast of Tasmania [incl 5 photos of Hercules haulage 1970/71]; **No.188** The Jewel in the Crown - Pasmenco Roseberry mine railway Pt.2; **No.196** Notes on North East Dundas Tramway composite cars AB1 and AB2 [incl. drwg]. **No.260** The Hercules Company's Self-Acting Tramway: Sydney Thow 1902 [inc 3 drwgs and 2 photos]



Around May 1976, Victorian rail enthusiast, the late Geoff Cargeeg, ventured across Bass Strait to sample Tasmania's rail heritage. In Williamsford he recorded this classic end-of-shift scene as workers from EZ's Hercules mine descend the haulage. The open-sided transport might be fine on a nice day, but I'm not so sure about the days when a sou'-westerly wind whistles across the slopes of Mt Hamilton, bringing with it a spatter of rain, sleet or snow. Where have Gladstone bags, airline bags and grey fedora hats gone? Coupled behind the car is one of the six-ton capacity bogie ore trucks. Photo courtesy: Geelong & South Western Rail Heritage Society, Geoff Cargeeg colln, image 7605C-14



Munitions Factory light railways at Villawood and St Mary's – an overview

by Jim Longworth

During the early years of World War II the Commonwealth Government sought to dramatically increase local production of munitions in case overseas supply lines were disrupted. In NSW munitions factories were established at Villawood and St Mary's, west of Sydney. The explosives manufacturing section was constructed at Villawood and the munitions filling factory at St Mary's.

Both sites provided sufficient space to allow for safety between individual factory buildings, and between the factory complex and any local residents. Both works were sited adjacent to, and connected with the standard gauge government railway network. As at Smithfield and Salisbury in South Australia,¹ (and most other government munitions factories and magazine areas in Australia) narrow gauge railways were provided extensively to carry chemicals and materials around the factory portions of the works sites, and munitions to and from storage magazines.

Explosives Factory No.3, Villawood

During 1941 the Commonwealth government compulsorily acquired about 816 acres of land between Villawood and Chester Hill railway stations, near Bankstown, for an explosives factory to be known as 'No.3'. The factory occupied land both

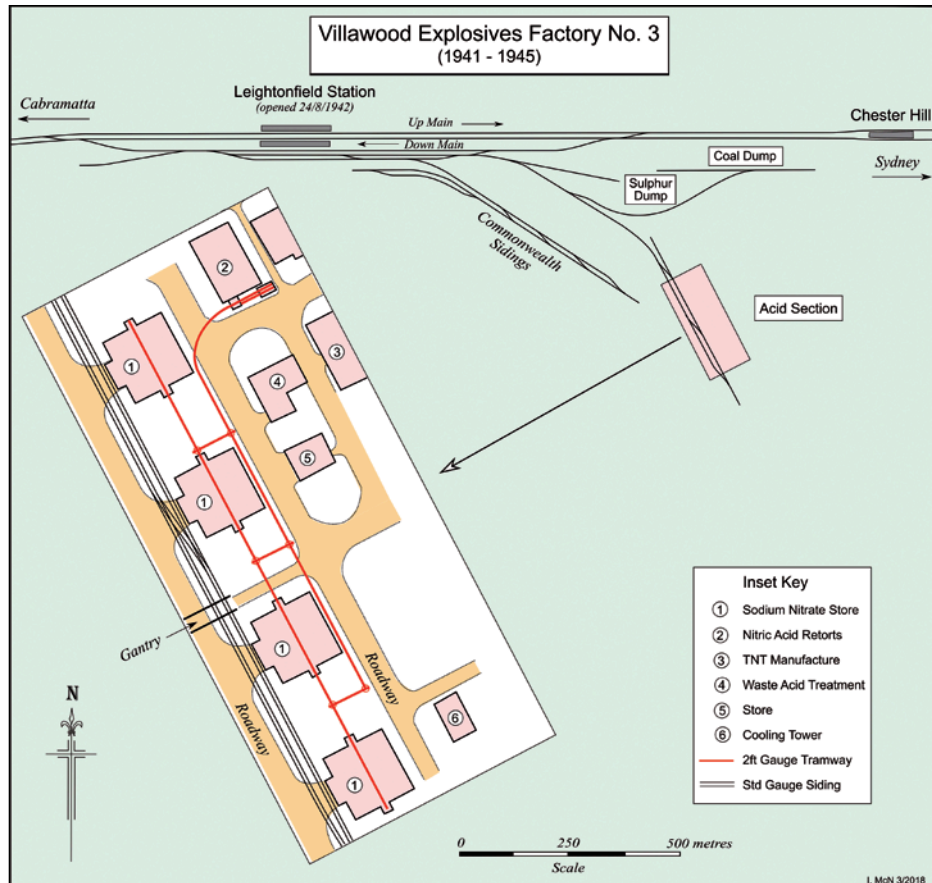
north and south of the Regents Park – Cabramatta railway line, about 24km west of Sydney.

South of the railway line, an Acid Section was built to produce nitric acid and sulphuric acid, a key component in the manufacture of explosives.

A network of standard gauge sidings was laid into and around the works, totalling about five miles of track. Coal and sodium nitrate (commonly known as nitre or saltpetre), were brought into the acid section by rail. Details on the shunting of wagons are not known.

In the acid retorts, sodium nitrate (NaNO_3) was combined with sulphuric acid (H_2SO_4) to produce nitric acid (HNO_3). The initial sodium nitrate was supplied in bulk and bags from Chile (hence one of its common names: Chile saltpetre), arriving late in 1941 before the four buildings to store it in had been completed. Constant rain wet the nitre, rotting and bursting the bags. Eight men were subsequently engaged to dig the agglomerated material from huge stacks, and bag it for sale to fertilizer manufacturing companies. Continuous shiftwork was worked in the Acid Section. The nitric acid was then further combined in other down-stream processes to manufacture explosives. Batches of TNT were trucked to the St Mary's ammunition filling factory – see following. Disposal of cake waste from the retorts was a problem in that acid seepage soured the surrounding land.²

A tramway, of 2ft gauge, complete with turntables, was installed to transport the Sodium nitrate from the four stores buildings to the nitric acid retorts. At some point later in the war, it appears that the original plant was duplicated and another tramway laid (see drawing). At these later N/A retort buildings trucks would pass over a weighbridge, do a 90 degree turn on a turntable and



then enter a truck lift to be raised about seventeen feet to the retort level.

Soon after the initial plants had been completed, it seems they were duplicated to try and meet the huge demand placed upon them. Yet just four years later, production was heavily curtailed and finally ceased. By June 1945 the factory had been closed and placed on a care and maintenance basis. After the war was over, the land was subdivided and sold to a range of companies involved in the manufacture of chemicals and building products. Industrial development in the Bankstown area boomed in the post-war years, providing jobs for the many new residents who were moving into the area.

Explosives Factory and Munitions Filling Factory, St Mary's

In the early stages of World War II St Mary's, about 50km west of Sydney, and near Penrith, was chosen as a site for the manufacture of munitions and explosives. The site was located adjacent to a railway line and convenient to Sydney's network of industry, yet was removed enough to offer a measure of seclusion. An irregularly shaped area of about 4550 acres was acquired, with additional areas designated for future expansion.

The factory area was located north of the Great Western railway line and was serviced by a double track branch line built from the mainline at St Marys, to Dunheved, Cochrane and Ropes Creek Stations with many associated sidings plus locomotive servicing facilities.³

Prior to completion of the railway stations, stores and personnel were transported to the factory area by road motor trucks. A road-ferry service was maintained between Parramatta and the Administration area, but was often interrupted by vehicles being bogged in the thick clay soil. Introduction of rail transport in December 1942, greatly reduced transit times to the surrounding settlements.

Four standard-gauge 44-ton Diesel-electric locomotives,

built for the USA Transportation Corp, were obtained from General Electric Company, USA, (B/n 17933, 34, 38, 39/1943) for use on the network around the factory and magazine areas. Pending commencement of factory production, the locomotives were loaned to the NSW Government Railways where they became the 79-class. One of the locomotives, with crew, was transferred back to work the factory network in November 1944, to reduce as far as possible steam locomotive and road truck transport between St Marys railway station, bulk stores, factory stores and magazine area. During late 1949 agreement was reached between the Department of Railways and Commonwealth Authorities for recovery of surplus railway track. The double track mainline was converted into single track and many unused sidings lifted.⁴ The actual factory area contained about 13 or 14 miles of standard-gauge railway.

An area between Queen Street and South Creek was set aside for hastily built cottages on small allotments called 'Duration Cottages', to house some of the labour force. Some 3600 people were employed.

Security of the site was a high priority, so very little contemporary information about the internal railway lines is publicly available. A rare railway enthusiast tour was permitted on 15 November 1975. The works' 6-wheel, 18-ton Clyde-built diesel locomotive hauled an old flat wagon and guards van conveying the passengers.⁵

The Magazine Section (at one time known as Kingswood magazines), some three kilometres west of the factory, on an undulating treed site, was a completely self-contained area, consisting of 105 magazines, ten igloos, thirteen drum yards, seventeen chemical stores and thirteen support buildings. A single-track branch, 4½ km long, connected the yard at Dunheved, to the Magazines area where explosives were transferred to a 2ft-gauge network serving the magazines. Explosives were first placed into the magazines in June 1942.

Following cessation of World War II, the facilities for filling

ammunition were closed down, leaving the explosives factory at Maribyrnong as the only ammunition filling and assembly plant in Australia. Buildings and sites were let for conversion into other industrial uses.

However, the early 1950s saw the Korean War and the 'Cold War', which created a need for a new factory – that was completed in 1957. This new factory, known as the Munitions Filling Factory – St Marys, was built north of the former wartime Explosives Factory and commenced production in 1958. In 1955 the NSWGR had electrified the Parramatta to Penrith section of the western line and the decision was made to also electrify the internal 'main line' from St Marys to Ropes Creek, avoiding any use of steam locomotives on the internal standard-gauge lines. Electrification also enabled suburban passenger trains to operate specifically for the workers. A six-wheel Clyde diesel locomotive was obtained in 1958 for shunting the non-electrified sidings. That locomotive was advertised for sale in 1987.⁶

In addition to the standard gauge lines, twelve miles of 2ft-gauge line connected the standard gauge transshipment point at the magazines with the works buildings, and ran around the Magazines section of the site. Track was dog-spiked to wooden sleepers, which by the late 1970s were mostly in poor condition. About 180 of the wooden sleepers had been replaced with concrete sleepers 3ft 6in x 6in x 4in. Track featured extremely sharp curves and some sections passed through concrete loading emplacements.⁷

Initial motive power on the 2ft gauge lines was provided by horses to pull the trolleys. The horses were later replaced by five electric locomotives.⁸ The five battery-electric locomotives are thought to have been British Electric Vehicles (BEV) built by Wingrove & Rogers Ltd., Liverpool, England. They were the maker's Type W.217, Builder's Numbers 2174, 2175, 2176, 2182 and 2215 of 1942.

It is also thought that at least five small, 2ft gauge, internal combustion locomotives may also have been in the Commonwealth Department of Supply, Munitions Area at St Marys at various

times.⁹ However even if they were there, they may have only been passing through, rather than there for works operational purposes

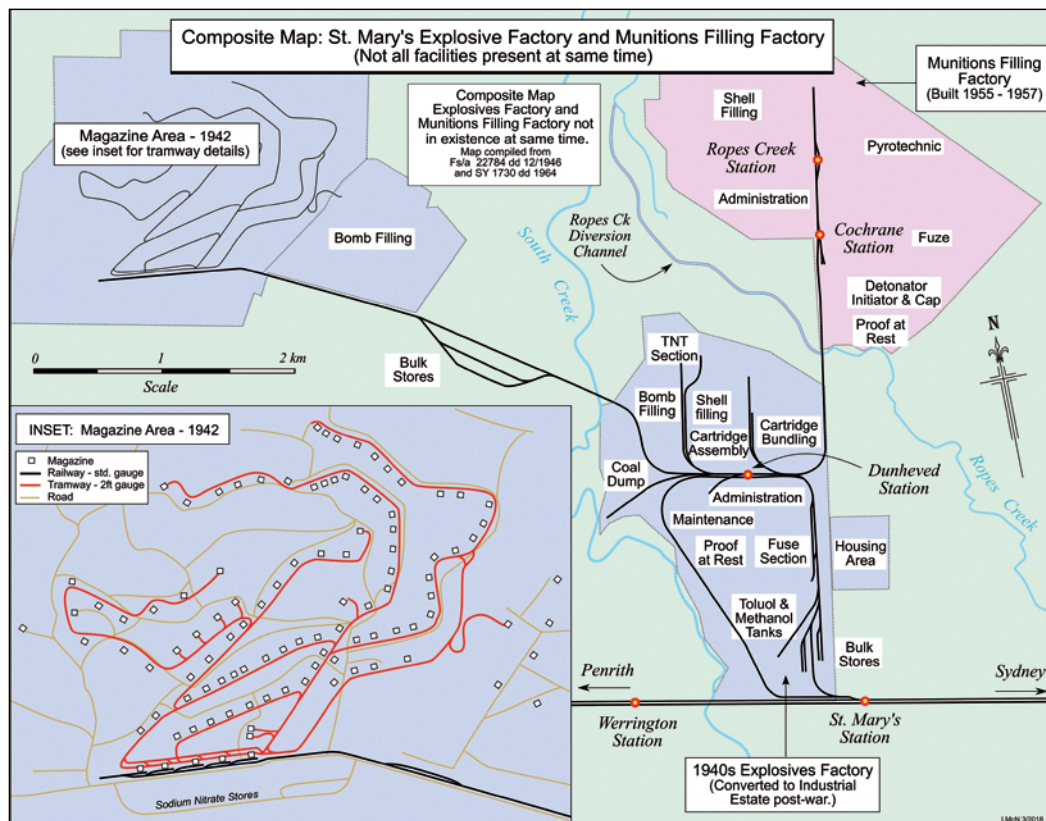
During 1978, tenders were called for purchase and removal of the following lightweight railway line items, ex-munitions filling factory, St Marys – a small part of what must have once been there:

- 1500 linear feet of 20lb/yd, curved rail in 30ft lengths.
- 4400 linear feet of 20lb/yd, straight rail in 30ft lengths.
- 8 right hand turnout section.
- 3 left hand turnout section.
- 12 ball levers with drag rods for opening the turnouts.
- 12 sets of points.¹⁰

During 1991, Australian Defence Industries (ADI) announced it would close the munitions factory at St Marys and build a new munitions factory on a 'greenfield' site near Benalla in regional Victoria. Toxic waste and explosives have been buried onsite over the years. The 1535 hectare ADI site is now covered by native eucalypt woodland and is a haven for wildlife, one of the few remaining green oases in western Sydney.

References

1. Lockyer A, Railways of the Smithfield Explosives Compound, South Australia, *LR*, No.148 August 1999; Andrews FB, The Salisbury Munitions Tramways, *LR*, No.187, February 2006; Andrews FB, The Smithfield Magazine Revisited, *LR*, No.196, August 2007.
2. Richardson J & Denovan AB, c.1945, History of Munitions Effort, Villawood Explosives Factory, NSW, 1941-1945, Unpublished report, National Archives.
3. ARHS, Tour Notes, 11 October 1997.
4. Memo from Works Superintendent, 3 August 1949; Department of Railways Plan No.1509-38,262, Author's collection.
5. *Rail Transport Museum Newsletter*, No.76/1, 1 February 1976.
6. Australian Financial Review 16 Nov 1987
7. *NSW Railway Digest*, March 1978.
8. Denovan AB, 1945, *History of Munitions Effort, St. Marys Explosives & Filling Factory, New South Wales: 1941 – 1945*, Penrith Library collection.
9. John Browning, 2005, personal communication.
10. *NSW Railway Digest*, January 1978; Department of Administrative Services, Tender No.N570/5/461, closing 12 January 1978, Paul Simpson collection.





Wooden tram to the Elliott River

by Phil Rickard

Sawmilling first commenced around Apollo Bay, on the southern fall of Victoria's Otway Ranges in the early 1850s. This was mainly in response to the gold rushes and the demand for timber created by the mines and the new railways. However, the steep and rugged coastal ranges were not conducive to land transport – all timber being taken out by coastal vessel to Geelong and Melbourne. Due to these transport difficulties, sawmilling tended to be a cyclic affair depending on the prevailing economic conditions in the colony.

By the 1880s Victoria was in a period of intense growth – the Land Boom – and several mills opened around Apollo Bay. In 1885, one of the largest was built by the Ballarat-based Apollo Bay Timber Company Limited, near the Elliott River, several miles to the south-west of the town. Once logs around the mill had been used, an incline was built down to, and across, the Elliott River and logging tramways extended along the valley. Sawmilling in such a remote location was not easy and the Apollo Bay Timber Co succumbed after a few years, the first of several ownership changes over the next twenty-five or so years of intermittent operations.

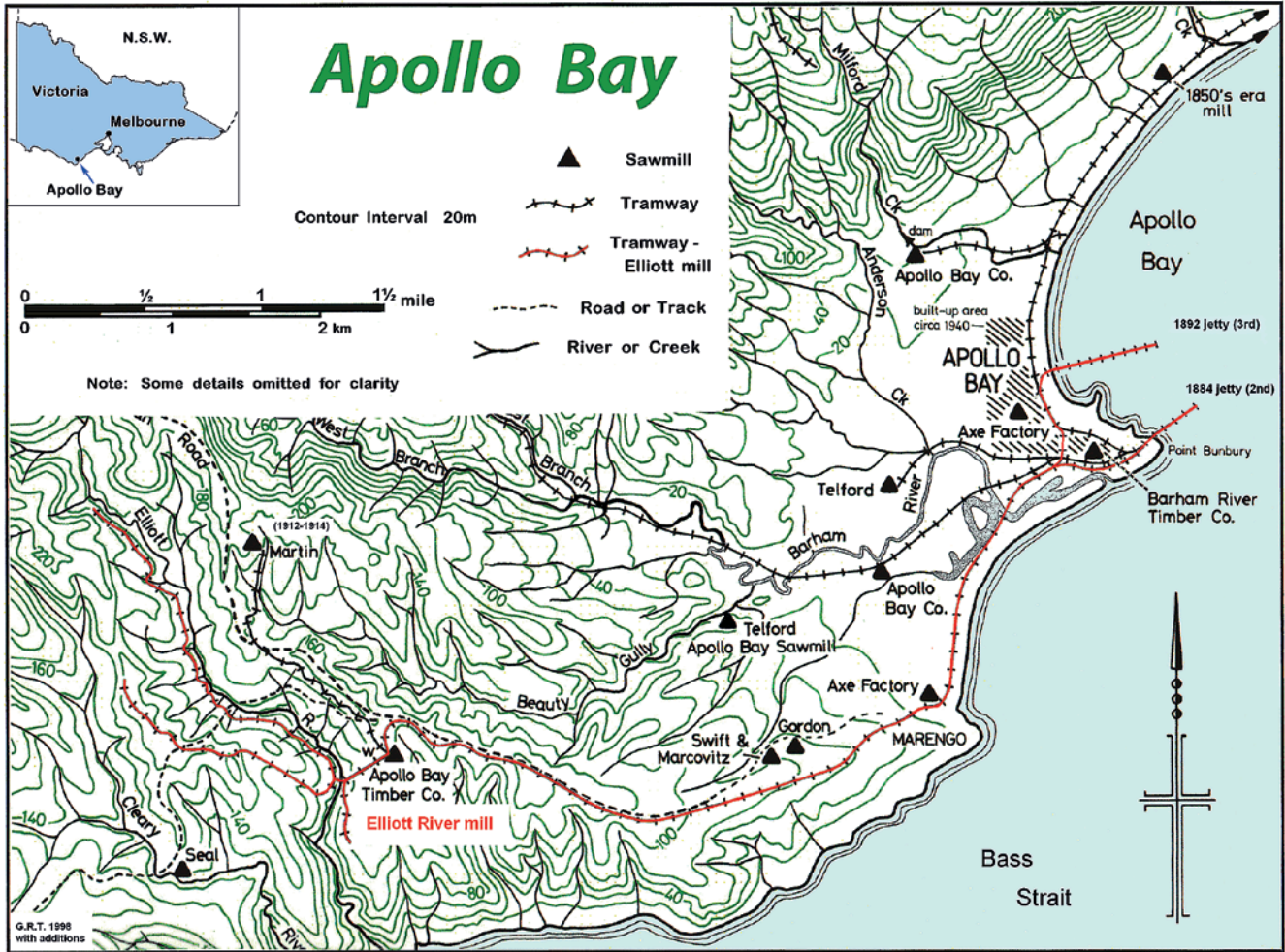
In the early years of the 20th century, John Henry Harvey (1855–1938) visited Apollo Bay with friends, possibly several times, during the tenure of the Apollo Bay Saw Mills Pty Ltd. Harvey, an architect with the Public Works Department, was a keen traveller and excellent photographer and took many of the photographs on these pages. The State Library of Victoria holds over 3650 of his images.

A concise biography of Harvey may be found at www.haldane.usvic.net/JohnHenryHarvey.html

For further details of the various sawmilling operations and their tramways around Apollo Bay (and indeed the eastern Otway Ranges) readers are referred to Norman Houghton's book *Sawdust and Steam* (2010) and available from our Sales Department.

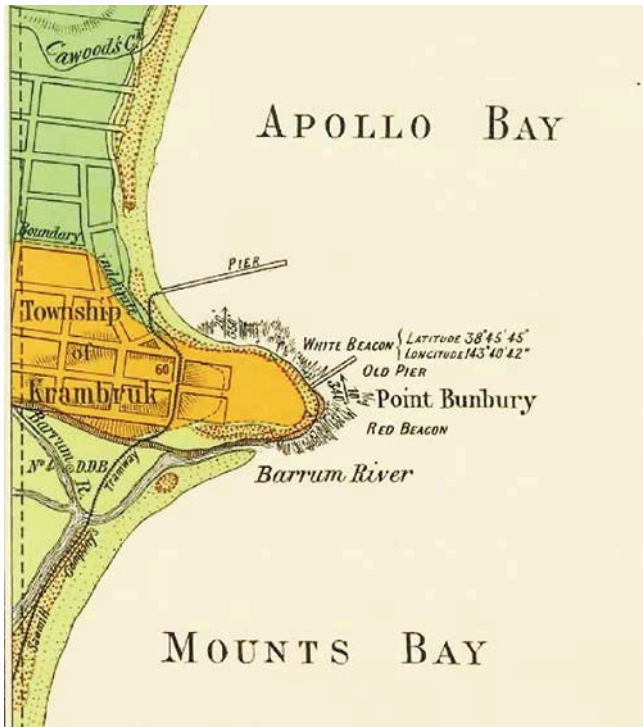
Above: A full load of bush walkers heading back to Apollo Bay atop a truck load of sawn timber that is assuming a somewhat lopsided appearance. Many of the group appear in Harvey's other photographs along this tramway, taken in 1902 – that date being chalked on the billy can in a group photo (H92.150/342) showing them having a cuppa in the bush. The same applies to the horses – the front two in this image are the same as in the photo of the tram loaded with sacks of horse-feed departing Apollo Bay. Interestingly, the 3ft 6in-gauge tram track shown here, which has recently been re-laid, is just a single running rail of 4in x 4in timber, unlike some of the logging trams that had double rails – a base rail and running rail. Apollo Bay and its tramways and sawmills would appear to be a good subject for a really in-depth research project.

Photo: State Library of Victoria H90.161/334



Above and Below: The above map of Apollo Bay tramways was drawn twenty years ago by long-time member Geoff Thorpe. With Geoff's permission we have highlighted the tramways of the Elliott River mill and added the 1899 connection by the sawmill company to the 1892 jetty, along Sylvester and Collingwood Streets, as detailed below on the Geological Survey of Victoria's 2in/mile sheet No.47 dated 1901. Krambruk was the old name of Apollo Bay. Below map: National Library of Australia, map RM 2335/47

Below right: Unlike some of the lines walked by photographer Harvey and his party, this tram was still in use – note the well-used path and chunks cut out of the fallen tree to accommodate the load or was it to appease a timid horse? This must be a logging line judging by the shape of the cut-out - it certainly would not fit the tram seen departing Apollo Bay piled high with sacks of horse-feed. Photo: State Library of Victoria H92.171/52





Left: Two members of Harvey's party walking a tramline that appears disused, or was it abandoned before use? At least the ground looks fairly dry – possibly late summer or autumn – nice walking weather. This photo clearly shows the high standard to which one of the later owners of the Elliott River mill built some of their wooden trams. Evidence the base rail, approx 3in high x 4in wide, to which an upper running rail of the same dimensions has been nailed making replacement easy when worn. It was common for wooden trams to be built with just a single running rail on each track. Single rails breaking under the weight of loaded trams were a fairly common event. This often resulted in overturned trucks and even the death of the brakesman and occasionally passengers they were carrying – even though that practice was discouraged and even forbidden on some lines. Photo: State Library of Victoria H92.171/26



Right: Another fine half-plate photograph by Harvey, showing the disused track which appears to have had very little use. Just beyond the chap on the right the track seems to have sunk severely – maybe a bridge had started subsiding. One wonders how many leech bites the ladies found on their fair legs at the end of the day! Photo: SLV H90.161/222



Above: On a heavily overcast day in 1902, a five-horse team on the Apollo Bay Saw Mills company's 3 ft 6 in-gauge tramway pause for photographer John Henry Harvey, near the Barrum Barrum (Barham) River bridge on the outskirts of town. The tram has come from the "new" (1892) jetty, and is heading for the Elliott River mill, 8km distant. One of the challenges of using animal power in the bush was their feeding. Here we see a pair of bush bogies under a makeshift truck, carrying some three dozen bags of chaff or oats, possibly off a visiting coastal vessel. A passenger, complete with his trunk, seems to have hitched a ride. Photo: State Library of Victoria H92.150/344



Right: 'On the Saw Mill Tram, Apollo Bay' is the title Harvey assigned to this carefully composed photo. Judging by the well-used tram track it is the main tramway from the jetty at Apollo Bay to the Elliott River mill. The camera has been set up on a fully decked bridge in a well-shaded gully. The actual rails seem to have been recently re-laid and the bridge re-decked. Photo: State Library of Victoria H90.161/52



Left: Around 1904-6, the Rev John Flynn (1880-1951), during his early ministry training work in the Otways, photographed a number of scenes around the Beech Forest area. Many of these images were later used in his pastoral work in Central Australia with the Australian Inland Mission. The photos were hand tinted by Thomas Cameron of Lygon Street, Carlton and made into lantern slides. This image, of the Elliott River mill, seems to be in its later years. By this time it had been in the one place for around twenty years and a certain amount of regrowth is evident. Note: this image may be back-to-front (as was the one below until we reversed it back to normal) Photo: National Library of Australia obj-142435804



Above: Hauling a log up to the Elliott River mill. Note that the tinter has omitted the very top of the incline and turned it into sky! The bridge over the Elliott River has incurred a sideways kink when compared with earlier photographs (see *Sawdust and Steam*, Norman Houghton, 2010). Both timber and steel strap rails seems to be in evidence. Note towards the bottom left of the bridge the wooden upright which has been attached - this was probably to keep the cable in place when going round the curve. And on the right hand side of the bridge is either a telephone line or whistle rope to communicate between the bottom and top of the incline. Photo: National Library of Australia obj-142426403



Above: A disused logging tramway. Various owners of the Elliott mill invested much capital, trying to make it a 'goer'. The last of them, in 1907, was Henry Teesdale Smith (not as sometimes said, Millars' Karri & Jarrah Company – Smith had 'retired' from that company). Despite employing well-known sawmiller Alexander Clark Mackay as manager, Teesdale Smith also failed to make the venture profitable. Photo: State Library of Victoria H2011.40/16



Industrial Railway NEWS

Please send contributions to:
 Industrial Railway News Editor, Christopher Hart
 15 Dalrymple St, Ingham, QLD 4850
 Phone: (07) 47766294
 e-mail: industrial@lrrsa.org.au

Special thanks to contributors to the Sugar Cane Trains/Navvy Pics 2ft Facebook page.

QUEENSLAND

BUNDABERG SUGAR LTD, Bingera Mill

(see LR 259 p.26)

610 mm gauge

A visit to this mill on 16 March saw the following locos scattered in and around the loco shed. Com-Eng 0-6-0DH *Burnett* (AH2967 of 1963), EM Baldwin 0-6-0DH *Manoo* (3875.1 7.71 of 1971), EM Baldwin B-B DH locos *Moorland* (5565.1 10.74 of

1974), *Givelda* (5800.2 6.75 of 1975), *Delan* (5800.3 7.75 of 1975), *Bucca* (6104.1 8.75 of 1975) and *Miara* (8988.1 6.80 of 1980), Bundaberg Foundry B-B DH *Booyan* (001 of 1991) and Walkers B-B DH *Kolan* (633 of 1969 rebuilt Bundaberg Foundry 1996). A couple of other locos were out of clear view and could not be identified. During the 2017 crushing season, *Burnett* was based at Wallaville and Com-Eng 0-6-0DH *Invicta* (A1513 of 1956) was spare loco at the mill.

Alan Shaw 3/18; Bob Walker 3/18; Geoff Driver 3/18

DOWNER EDI, Maryborough

(see LR 256 p.28)

1067 mm gauge

On 28 March, works' shunter Walkers B-B DH DH73 *Hugh Boge* (718 of 1974) delivered Queensland Rail's SMU 202 to Maryborough West. Downer staff refer to DH73 as '*Thomas*'.

Carl Millington 3/18; Luke Lawrence 3/18

ISIS CENTRAL SUGAR MILL CO LTD

(see LR 259 p.26)

610 mm gauge

During March, the herbicide spraying train was seen being towed around by Walkers B-B DH 2 (598 of 1968 rebuilt Walkers 1994). Not stated in the previous report is the addition of an extra tank mounted on a cane bin frame which acts as a reservoir for the main spraying tank. Earthworks for the new line to Duingal from Cordalba were seen near the southern side of the Bruce Highway Burnett River bridge in December and January. There is expected to be

a road/rail interchange at this location. The mill has secured a \$2.5 million government grant to assist with the cost of construction of this line. Isis Mill has trial sugar cane plots at Byrnestown, Ideraway and near Claude Wharton Weir, all within 30 kilometres of Gayndah. These were doing well about 12 months after planting and it is hoped the area will become a new source of cane for the mill in the future with an existing unused QR line being part of the transport link.

Arthur Shale 2/18; Carl Millington 3/18; Brian Bouchardt 3/18; Eric Perkins 4/18; *News Mail* 7/3/2018; *Queensland Country Life* 24/8/2017; Childers Chitchat 18/4/2018

MSF SUGAR LTD, Mulgrave Mill

(see LR 260 p.24)

610 mm gauge

A visit to the loco shed area on 17 March produced the following items of note. Since May of last year, the motor and torque converter have been removed from Com-Eng 0-6-0DH 3 (A1003 of 1955). NQEA 6 wheeled brake wagon 2 (built in 1972) has been converted into a 4 wheeled track measuring vehicle with the middle wheelset replaced by a small floating wheelset which measures the irregularities of the track. It carries the title RAIL MONITORING VEHICLE and is painted in the standard Mulgrave livery of yellow body with green top and red and white headstock stripes. Prof B-B DH 22 *Aloomba* (P.S.L.25.01 of 1990 rebuilt South Johnstone Mill 1993) looked to have been its tow around loco. A new herbicide spraying wagon has been built on what appears to be the shortened frame of a 4 wheeled 10 tonne bin.



Downer EDI works shunting loco Walkers B-B DH DH73 Hugh Boge (718 of 1974) at Maryborough West on 28 March.

Photo: Carl Millington



Mulgrave Mill's Rail Monitoring Vehicle, converted from NQEA 6 wheeled brake wagon 2 (built in 1972), outside the loco shed on 17 March. Photo: Luke Horniblow

It was partnered up with Clyde 0-6-ODH 13 *Hambledon* (64-316 of 1964). Flooding from the Barron River in March caused some serious washout damage to track in the Smithfield area. As well, at least two spans of the Barron River bridge were knocked out of alignment. Luke Horniblow 3/18; John Mann 3/18

PACIFIC NATIONAL, Moolabin

1067 mm gauge
A Zephyr LOK 16.300 road/rail shunt loco numbered LOK 1601 and built in 2010 was seen parked here between duties on 22 February. Leon Harris 2/18

TULLY SUGAR LTD

(see LR 260 p.24)
610 mm gauge
Com-Eng 0-6-ODH *Tully-11* (AD1347 of 1960) was seen stabled along the main line to El Arish with a couple of four wheeled flat trucks for transporting sleepers on 17 March. The next day, Com-Eng 0-6-ODH *Tully-18* (AO60113 of 1977) was seen stabled with the herbicide spraying wagon on the southern side of the Tully River. Luke Horniblow 3/18

WILMAR SUGAR (HERBERT) PTY LTD, Herbert River Mills

(see LR 260 p.24)
610 mm gauge
The repowering and refurbishment of EM Baldwin B-B DH 19 (7070.3 4.77 of 1977) is on going with the frame back at the Macknade Mill loco shed from sand blasting and painting by

April. The frame of Solari bogie brake wagon BVAN 3 (built in 1994) was also back from the same treatment. Victoria Mill's empty yard loco Clyde 0-6-ODH *Centenary* (64-381 of 1964) has been stripped down and is going to receive a new Mercedes Benz 906 motor, the same as that which is already in it and a new cooling package. The torque converter will get a new overhaul kit through it as well. The engine bay doors have been changed to the two big doors per side that were laying around and look like what Clyde 0-6-ODH *Dalrymple* (70-709 of 1970) already has on it. It will be sandblasted and painted but note that it is not classed as a full strip and rebuild. For example, the controls in the cab are to remain the same with no Allen Bradley touch screen or Twin Disc controls for throttle and brake and none of the wiring that goes with it and the PLC's. It is being kept simple for the yard and basically getting a sand blasting and painting to make it look respectable from the outside. A few little modifications have been done like making the fuel tank removable as it was solid with the frame and repairs to the horn cheeks are being carried out. EM Baldwin 4wDH *Sugarworld Shuttle* (9109.1 9.80 of 1980) was seen on a rail train at Yuruga on 3 April having a break from its herbicide spraying duties. When necessary to get it round closed sections of line nowadays, this loco is dragged up onto a tilt tray truck. Flooding in the Herbert River district during March caused damage of varying degrees to 20% of the rail network. Progress on the assembly of one hundred and eighty new 11 tonne bogie bins at Macknade Mill has been

slow with about forty completed up to mid April. Fifty sugar boxes are due to be fitted onto new chassis and bogies here before the crushing season starts.

Editor 4/18; Luke Horniblow 4/18; Peter Phillips 3/18; Sam Torrisi 3/18; John Macarone 4/18; ABC News 15/3/2018; ABC Rural 23/3/2018

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

(see LR 260 p.27)
610 mm gauge
Clyde 0-6-ODH *Kalamia* (67-569 of 1967) was seen with the ballast train stabled at Mulgrave 1 on 17 February. On the same day, Walkers B-B DH *Piralko* (677 of 1971 rebuilt Bundaberg Foundry 1995) and Invicta Mill bogie brake wagon *Piralko* built in 1995 were stabled on the line to McClain Road 3 where they had been used for RSU remote control crew training. At least three ballast hoppers and the ballast plough were seen in use at Kalamia Mill on 10 March. Luke Horniblow 2/18, 3/18

WILMAR SUGAR (KALAMIA) PTY LTD, Kalamia Mill

(see LR 260 p.27)
610 mm gauge
Com-Eng 0-6-ODH *Chiverton* (C1030 of 1958) was seen stabled with the ballast train near the mill full yard on 10 March. The train consisted of three hoppers and plough on loan from Invicta Mill. Also here was the mill's Tamper 4375626SVT-JW tamping machine (562 of 1976). Luke Horniblow 3/18



Above: Tully Mill Com-Eng 0-6-0DH Tully-11 (AD1347 of 1960) parked for the weekend on the main line north to El Arish on 17 March. **Below:** On 3 April, Victoria Mill's EM Baldwin 4wDH Sugarworld Shuttle (9109.1 9.80 of 1980) is seen with a rail train at Yuruga where a track relay is being performed this slack season. Photos: Luke Horniblow





Above: Mackay Sugar's Clyde 0-6-0DH Palmyra (63-273 of 1963) shunts Clyde 0-6-0DH Seaforth (61-233 of 1961) round at the Racecourse Mill loco shed on 27 February. Photo: Mitch Zunker **Below:** Sitting around at South Johnstone Mill on 17 March were, left to right, Com-Eng 0-6-0DH multi-unit locos 38 (AH 4695 of 1965) and 39 (AH4688 of 1965) and Clyde 0-6-0DH locos 18 (56-83 of 1956) and 2 (55-56 of 1955). Photo: Luke Horniblow





Bluescope Steel's Clyde Bo-Bo DE Y148 (65-414 of 1965) is seen shunting at their Western Port Steelworks, Hastings on 24 February. Photo: Andrew Dale

**WILMAR SUGAR PTY LTD,
Pioneer Mill, Brandon**

(see LR 258 p.28)
1067 mm gauge

Half of the connecting line from the mill to the QR line is being rebuilt using concrete sleepers this slack season. The other half had been done in a previous slack. Walkers B-B DH 5803 (682 of 1972) was seen here on 17 February. It has changed little since its purchase from Mount Isa Mines Ltd in 2007 and still carries its identity. During the crushing season, it sees occasional use in the mill yard system but is rarely seen on the outside network as it is too heavy for some of the sidings and has no Railsafe or vigilance fitted. It also overheats when towing a decent load of fulls.

Luke Hornblow 2/18; Clinton Briant 2/18; Ray Hall 2/18

**WILMAR SUGAR (PLANE CREEK) PTY LTD,
Plane Creek Mill, Sarina**

(see LR 260 p.27)
610 mm gauge

Extra cane from a 2000 hectare farm owned by Racecourse Projects at Clairview will come on line from 2019 and reach 150,000 tonnes by 2020. *Daily Mercury* 22/2/2018

**WILMAR SUGAR (PROSERPINE) PTY LTD,
Proserpine Mill**

(see LR 260 p.27)
610 mm gauge

As of early April, the repowering of Walkers B-B DH 11 (628 of 1969 rebuilt Walkers 1996) and Plane Creek Mill's 4 *Carmila* (676 of 1971 rebuilt Bundaberg Foundry 1996) was ongoing. 11's bogie mounted sand boxes are being replaced by 73 class type sandboxes mounted amongst the walkway hand rails.

Tom Badger 4/18

NEW SOUTH WALES

BLUESCOPE STEEL, Port Kembla Steelworks
(see LR 260 p.27)

1435 mm gauge

Rail operator Pacific National scrapped English Electric Australia Bo-Bo DE locos D17 (A-031 of 1960), D19 (A-033 of 1960) and D28 (A-053 of 1961) and General Electric Australia Bo-Bo DE locos D36 (A-237 of 1971), D38 (A-239 of 1972) and D45 (A-273 of 1975) on site during February and March. Cutting up of D45 had commenced by 27 February and was completed by 6 March. D38 was commenced by 6 March and completed by 13 March. D19 was almost gone on 13 March. Scrapping of D17, D28 and D36 commenced on 22 March. This leaves English Electric Australia Bo-Bo DE D27 (A-040 of 1960) and General Electric Australia Bo-Bo DE D40 (A-241 of 1972) in service as back up to the PB class locos. Chris Stratton 2/18, 3/18

**MANILDRA FLOUR MILLS PTY LTD,
Narrandera**

(see LR 253 p.29)

1435 mm gauge

Walkers B-B DH 7340 (702 of 1972) was at work here on 12 April. The last report from here had it as being possibly sold to K & H Ainsworth Engineering Pty Ltd of Goulburn. Some of the cab windows are still covered over.

Steve McNicol 4/18

VICTORIA

**BLUESCOPE STEEL LTD,
Western Port Steelworks, Hastings**

(see LR 219 p.28)

1600 mm gauge

Clyde Bo-Bo DE Y148 (65-414 of 1965) was shunting here on 24 February.

Andrew Dale 2/18

OVERSEAS

FIJI SUGAR CORPORATION

(see LR 260 p.29)

610 mm gauge

Eco Trax Fiji appears to be going from strength to strength with favourable reviews and regular posts on Facebook of happy customers trundling along a quite scenic 12 kilometre section of unused Lautoka Mill line from Cuvu towards Natadola. The vehicles are electric assisted modified rail mounted push bikes in pairs and were designed and built by Howie de Vries, one of the owners. As of February, Six vehicles were in use with another four under construction. Eco Trax Fiji has a lease for the track from Sigatoka to Natadola but is not using the section from Sigatoka to Cuvu owing to flood damage. Fiji has secured significant railway infrastructure development assistance from the Indian government and a team of civil and mechanical engineers from India arrived on 27 February to assess the rail network. The Fiji Minister for Economy has expressed the need to haul a greater percentage of cane by rail and also use the rail system for tourist trains and general cargo to relieve pressure on Fijian roads. FSC is looking at making more cane bins this year to cater for the 60 mechanical harvesters that would be in use during the crushing season and is looking at having more rail transportation rather than by road. Rarawai Mill was under water for 18 hours over the Easter period during flooding associated with Cyclone Josie and recovery work was expected to take about two weeks. Floods are a regular event here and the operating locos are usually moved to higher ground, probably on the Tavua line.

Eco Trax Fiji 3/18, 4/18; fijiivillage.com 19/2/2018; *The Fiji Times* Online 22/2/2018, 5/4/2018; *Fiji Sun* Online 1/3/2018; 29/3/2018; *Fiji Sun* 5/4/2018; John Browning 4/18



LETTERS

The later years of the Marrawah Tramway (LR 254 and 257)

Ralph Proctor has kindly given me some additional information about the operation of the Marrawah Tramway to supplement my articles in *Light Railways* 254 and 257. Firstly the railcar used by the Land Settlement Division of the Agricultural Bank for a year or two from late 1952 was Tasmanian Government Railways (TGR) DP9. This railcar was built by the Victorian Railways for the TGR in 1926 and was numbered LP1. It originally had a wooden body and Leyland petrol engine, but in 1938 it was rebuilt with a 50 seat Waddingtons aluminium body and a Gardner 6LW 102 horsepower diesel engine.

During the 1940s it ran mainly from Launceston to Scottsdale and St Marys. It began work at Smithton around November 1951 and by February 1953 it was running twice daily trips from Smithton to 16 Mile for up to six days each week, although it was slipping badly where grass had grown over the line. It was sold to the Emu Bay Railway (its M8) in 1956 and ran on the Burnie – Zeehan service until 1960. It was scrapped in 1964, but the body went to a property at Ridgley.

The pulpwood traffic from 19 Mile required the track and motive power to be upgraded. By February 1953 trains were running between five and seven days of each week and the C-class 2-6-0s were dividing their loads on the return trip to get over the ridge known as the Kick, which was located west of 10 Mile. In April 1954 the TGR began relaying the line with 61 pound rails between 12 and 17 miles and 17 ½ and 19 miles. This facilitated the use of CC-class 2-6-0s, which were C-class engines rebuilt with larger, Belpaire boilers. CC17 and CC18 both had long periods of service at Smithton during the 1950s. However in May 1957 the TGR banned the use of CC-class engines and 30 ton capacity wagons beyond 19 Mile because of the poor condition of the 40 pound rails in this section.

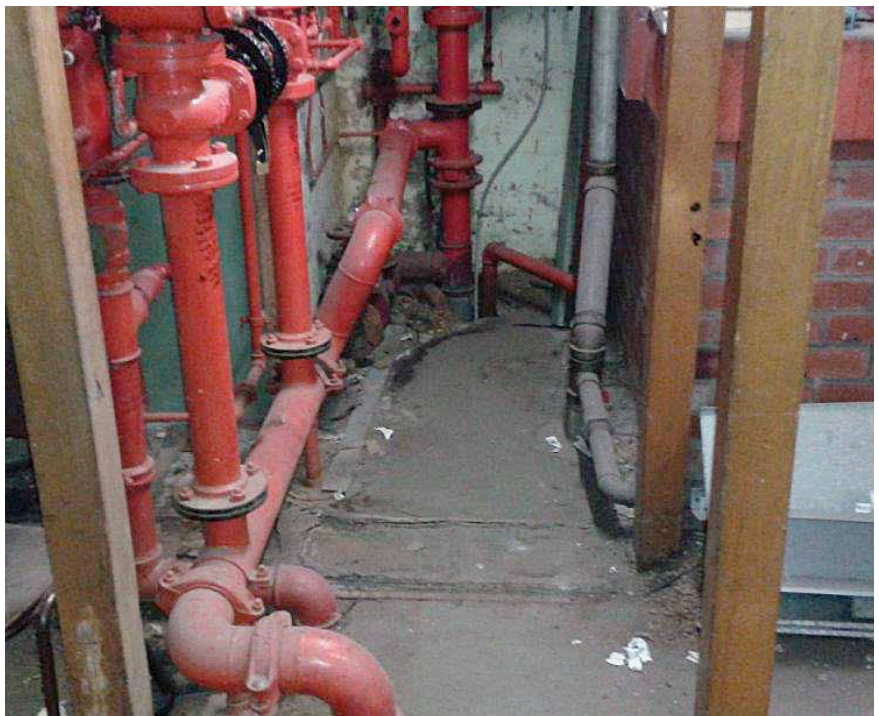
The TGR also listed the remaining spur lines between Leesville and 17 Mile. There was a single set of points at each of 3, 4, 5, 7, 9¼ and 16 miles, although it was noted that a spur into Grey Brothers sawmill at 9¼ miles had been removed.

Jim Stokes
via email

Flinders Street parcel tramway (LR ???)

Some years ago I had published a small item in *Light Railways* regarding the Flinders St Station parcel tramway. The station building is currently undergoing extensive renovations and refurbishment. A friend of mine who is a driver for Metro, was recently going past the area where the tramway was located and found an open door which is normally firmly shut. My item referred to the concreting over of some track remains, which unfortunately was undertaken before I could photograph them. My friend, William Jackson, struck it lucky and took the attached photos.

Andrew Hennell
via email



Torrumbarry (LR 260)

I would like to offer a slight correction to the history of Black Hawthorn locomotive used at Torrumbarry. Melbourne Harbour Trust records show that this engine was purchased by the Trust in late 1914 from machinery merchants Cameron & Sutherland for use on the New Railway Pier roadway filling project (see *Light Railways* 195). Following the completion of the project, it was relocated to the Trust's Williamstown depot in the first half of 1917. The Ann Street Pier was contiguous to the depot and would have been a convenient and secure place to store valuable plant.

No doubt the two years of use along the Hobson's Bay beach would have contributed to the poor condition of the locomotive's boiler and water tanks when it was purchased by the State Rivers & Water Supply Commission.

Colin Harvey
via email

The Hercules Company's self acting tramway (LR 260)

I acknowledge that the following may appear to have little to do with the technical aspects of light railway operation but knowing that our magazine has prided itself on the philosophy, that the actual railway is in itself, subordinate to the industry which it serves, after reading the sad end to the story of Sydney Thow CE as set out in *Light Railways* No 260, I am driven to set out a little more on the human side of the story.

Having found myself in this position on several occasions (although not with such a drastic final outcome) I can add a little from personal experience. A change in Board members, loss of markets or amalgamation, can lead, often with no notice given, to the loss of one's livelihood along with one's tied residence (allowing 24 hour per day being on call) along in my case with a motor vehicle (permitting midnight return trips to collect

urgently required machine parts). As a mine manager, one cannot rely on any Union or Association backing, nor afford legal action, which if taken, would taint relationships even further. At the same time, protracted negotiation is at times necessary to access entitlements such as superannuation and accrued annual leave.

Then the hasty decisions must be made over sleepless nights, is it preferable to accept a local subordinate position and not move children from school and wife from her employment, or seek greenfield pastures away from family and friends? After all Chillagoe is a long and lonely distance from Mount Hercules. Such thoughts breed depression and in Sydney Thow's case ... Tragedy.

My thanks to Phil Rickard for bringing this story and its sequel to our attention.

John Shoebridge
Dora Creek
via email

“On Splintered Rails” book review (LR 260)

Thank you to all those *Light Railways* members who purchased our recent book, “On Splintered Rails” - Volume 1. All copies are now sold, resulting in the raising of \$A8000 for the Kids Cancer Project. This money has now been forwarded to the charity. Not only has important history been saved, more importantly a young life will also be saved one day, thanks to each of you.

We anticipate that Volume 2 of “On Splintered Rails” will be available by Easter 2019. Volume 2 will cover the locomotive worked logging tramways of Tasmania's Northwest Coast and Central Coast regions and like volume 1 will contain many previously unpublished photos as well as a number of coloured images and drawings. Volume 2 will also be of a strictly limited print run of just 500 books.

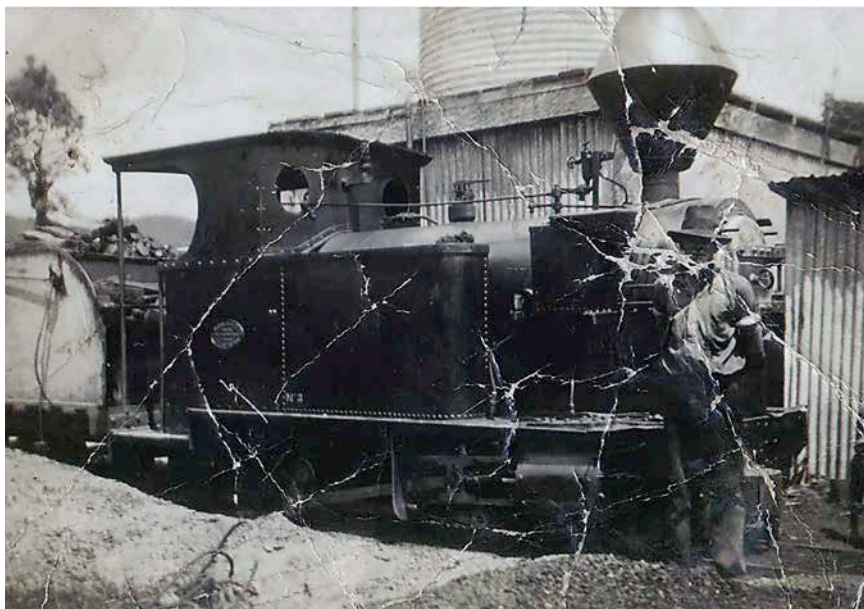
Mark & Angela Fry
via email

Torrumbarry (LR 260)

Congratulations to Mike McCarthy on his detailed and very interesting forensic examination of the construction of Torrumbarry Weir. I wish to add some notes regarding the locomotives, and raise a question regarding the publication of original photographs that have been digitally colourised.

It is now known that Black, Hawthorn 1134 was ordered on 19 December 1895, to be fitted with *WESTERN* nameplates and with delivery ex works anticipated in 10 weeks.¹ A further reason to be confident that it was built in 1896 was that its purchase was recorded in the 31 March 1896 half-yearly report of the Western Silver Mining Company.² After its time in Tasmania, its history in the period from 1914 to 1920 was dealt with by Colin Harvey in LR 195.³

Krauss 2437 had arrived at Zeehan's Western Mine in April 1893,⁴ and it was in use by early May.⁵ Its appellation as ‘*Little Western*’ presumably followed the arrival of the



The unrestored version of the photograph that appeared in LR 223, showing an Avonside locomotive on Racecourse Mill's Silent Grove tramway near Mackay. Photo courtesy Dave Francey

officially-named Black, Hawthorn locomotive from England three years later. I know of no evidence that the Krauss came to Queensland in 1903. This was the year that the Western Mine at Zeehan passed from the Western Silver Mining Co NL to Zeehan-Western Ltd.⁶ One account states that the Krauss was sold in 1907,⁷ but it was reportedly still in operation at the Western Mine in 1910.⁸ The date of its arrival with the Queensland Railways Chief Engineer's Branch has been given as 1913.⁹ It was reboilered at Ipswich Workshops in August 1915 and sent directly for use on regrading works being carried out at Croydon Junction (later renamed Baddow) in Maryborough.¹⁰

The cover photograph of the Krauss shows that a pair of cast iron ballast weights had been attached behind the front headstocks. These would have been added in an attempt to improve haulage capacity. They are not apparent in the photo on page 6 nor in a later photo of it in operation said to have been taken at Glenmaggie.

The lower photograph on page 10 of LR 260 shows at bottom left what appears to be the rectangular-shaped locomotive saddle tank from the Black, Hawthorn locomotive. It certainly has a strong resemblance with that shown in the builder's photo in LR 195, including the supports for the wood racks.

Modern digitisation provides opportunities for the restoration of damaged photographs. Mike McCarthy did an outstanding job in restoring the image that appeared on page 3 of LR 223. This seems to be a legitimate technique and was acknowledged in the photo caption. In that case it was a matter of ‘filling in the gaps’ that had been caused by multiple creasing of the original print and there was little chance of adding any unjustified evidence to the image.

Digitisation also provides opportunities for the colourisation of old photographs. I note that the photograph on the cover of LR 260 is described as ‘hand tinted’ and it appears that this work has been very skilfully done. However, I think that the use of such

images in *Light Railways* should be a matter for discussion. My concern is whether it could lead to the obscuring of evidence or even the inadvertent distortion of historical fact.

If the original image had also been reproduced, it would be possible for the reader to see what aspects of the original image may have been obscured by the addition of colour.

More importantly perhaps is whether the colourisation has introduced extraneous evidence for which there may be little factual support. I am unaware of evidence about the shade of red in which the locomotive was painted at Torrumbarry other than that it is said to have led to it being known as ‘Robin’. To my eyes at least, the dull red oxide of the colourised image falls short of stirring memories of a robin's red breast. The artist has also been faced with the difficult choice of deciding what parts of the locomotive were painted red. The maximum possibility seems to have been chosen including headstocks, buffer, boiler, cylinders, motion bracket, wheels, springs and ballast weights. Even if all these parts were painted red (which might seem unlikely), every modeller is well aware of the effects of weathering, the presence of bumps and scrapes (particularly on the buffers), and the grease and grime with which the lower parts of working locomotives are often coated. All these factors would normally affect or obscure the appearance of paintwork.

So the question must be asked as to whether the colourised image serves the purpose of historical accuracy. If the author had stated, “*The Krauss locomotive was painted an overall dull red oxide colour with the exception of the smokebox and chimney,*” we would be entitled to ask what evidence the statement was based on. My view is that the same should apply when the claim is made implicitly through an image rather than explicitly in words.

LRRSA has a proud record of striving for historical accuracy. With this in mind, I would urge some caution regarding the

use of digitally colourised images in the magazine, although I understand the appeal of a colour image on the cover. I would suggest that the original image might also be reproduced, and that a disclaimer accompany the colourised image, which spells out the aspects of the colourisation that are the result of conjecture.

John Browning
Annerley, Queensland

References

1. *Black, Hawthorn & Co Works List*, Allan C Baker, Industrial Locomotive Society, 1988; builder's photo in LR 195, June 2007, page 9.
2. *Launceston Examiner*, 20 May 1896 page 5. <http://nla.gov.au/nla.news-article39634117>
3. *New Railway Pier, Port Melbourne*, Colin Harvey, in LR 195, June 2007.
4. *The Oceana Tramway*, Wayne Chynoweth, in LR 32, 1970
5. *The Tasmanian*, 13 May 1893 page 43. <http://nla.gov.au/nla.news-article201152455>
6. *The Mercury*, 8 July 1903 page 3. <http://nla.gov.au/nla.news-article12279312>
7. *BLACK HAWTHORN 0-4-2ST WESTERN*, R.F. Ellis, in LR 83, January 1984.
8. *The North Western Advocate and the Emu Bay Times*, 24 August 1910 page 4. <http://nla.gov.au/nla.news-article65185514>
9. *The Chief Engineer's Locomotive used at Baddow*, A.M. West, in *Sunshine Express* 52, May 1979
10. *Krauss 0-4-0WT*, Andrew West, in *Sunshine Express* 69, October 1980

Harbour Works wagons (LR 257,258,260)

The origins of the six-wheel side-tip wagons used on the Henderson naval base project in 1915-21, may be the WAGR. The letter in LR 260 from Kevin Crosado mentions the tip trucks supplied to WA from New Zealand in 1892. These had obviously been obtained by the Engineer-in-Chief, C Y O'Connor through his previous involvement in harbour works in NZ. Three cranes and 13 'stone' trucks were delivered to Albany on 8 July 1892, on board the SS *Wainui* (ex Westport, NZ)¹ and additional trucks were expected to arrive in September 1892. These cranes and wagons were for

the harbour works at Fremantle and do not appear to have been given WAGR classification or numbers.

Additional wagons for the harbour works were ordered from England in 1894 and 25 wagons arrived during 1895. These were four-wheel side-tip wagons, and became 'VT 1038-1062'. The final 10 wagons in this group arrived at Fremantle on the SS *Gulf of Siam* on 26 April 1895². These wagons were 11 ft 10 in long (15 ft 2 in over buffers), 7 ft 8 in wide and 6 ft high and had a capacity of 10 tons.

In 1896 the WA government approved extensive harbour works at Bunbury. For this work, and the ongoing works at Fremantle, a new and larger type of six-wheel side-tip wagon was ordered from England on 12 June 1896. The ironwork for these 48 wagons arrived at Fremantle on the SS *Cornwall* on 16 February 1897³. These wagons were 12 ft long (14 ft over buffers), 8 ft wide and 4 ft 7 in high (essentially identical to the wagon drawing in LR 260, p.36). They had a capacity of 12 tons and became 'VT 4386-4433'.

Another class of four-wheel end-tipping wagons was introduced in 1898 and these became the 'E' class. They were 9 ft 6 in long (10 ft 6 in over buffers), 8 ft 1 in wide and 5 ft 8 in high. They had a capacity of 12 tons.

In September 1900, all WAGR passenger and goods rolling stock was re-classified. The 'VT' class was allocated the new 'M' class, but instead retained their old classification and were simply referred to as, 'Harbour Works trucks'. A list of these wagons published in the WAGR *Weekly Notice* No.45, 2 November 1901 shows 'VT 1038-1062, 4387-4397, 4400-4406, 4408-4422, 4424-4433 and E 72-144' were in service, as well as a new group of six-wheel side tip wagons, B 147-165. The gaps in the original six-wheel 'VT' wagons may be due to several wagons wrecked in a derailment near Burekup on 15 December 1897⁴.

In 1906, the contractors Barry & McLaughlin extended the breakwater at

Bunbury. They purchased 2 WAGR 'G' class locomotives, along with a number of tipping wagons. These were listed in the WAGR *Weekly Notices* and comprised 28 'VT' class six-wheel and 24 'E' class four-wheel wagons. This project was completed the following year and the locomotives and wagons sold. The 'Harbour Works' wagons were no longer mentioned in WAGR records and appear to have been transferred to Public Works Department stock. It is feasible that in 1915 when the Commonwealth was assembling equipment for the Henderson naval base project that some of these wagons were purchased from the PWD and then later sold in the 1920's?

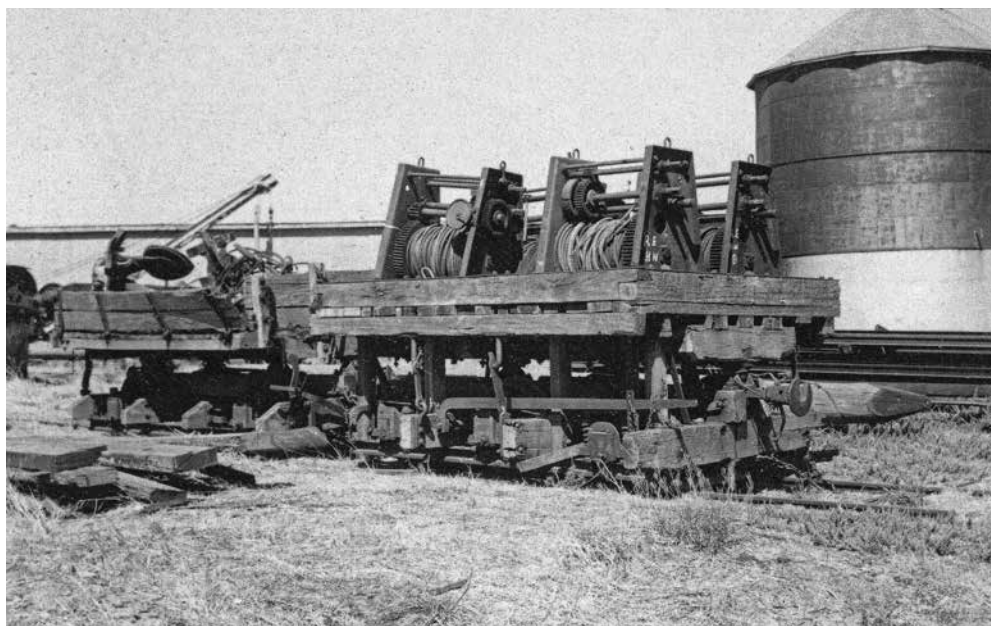
Over the years the tipping wagons were used on various harbour works at Bunbury and Geraldton, as well as government railway construction. When the PWD railway construction equipment was transferred to the WAGR in January 1931 there were 30 four-wheel and six-wheel tipping wagons included. These were classified 'LB' class but none were suitable for main line use and were all written off between 1935-37. Some however, did remain with the PWD for its ongoing works. The last use of these wagons was the breakwater extension at Bunbury from 1947-56, after which most were disposed of.

The late Bob Taylor recorded the details of 8 surviving six-wheel and four-wheel tipping wagons at Bunbury in December 1956. These were marked as 'A, B, E, G and V' classes but had adopted PWD numbering at some time. The PWD disposed of locomotives for scrap at Bunbury in 1961 and the wagons may have gone then as well. Sadly, none of these wagons survive in WA today.

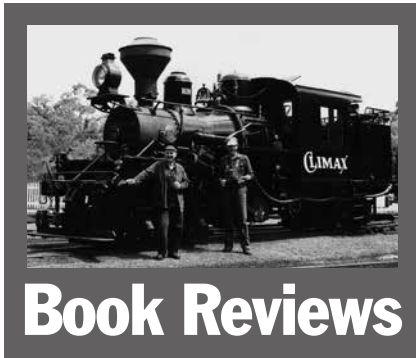
References

1. *Australian Advertiser* 11 July 1892
2. Agent-General Annual Report 1896
3. Agent-General Annual Report 1897
4. *Bunbury Herald* 16 December 1897

Jeff Austin
Bayswater WA
via email



Old PWD side-tipping wagons at Bunbury about 1960.
Photo: Len Purcell RHWA P08228



Book Reviews

Sleeper cutting in Australia

“When the chips are down”

by Robert B Whiter

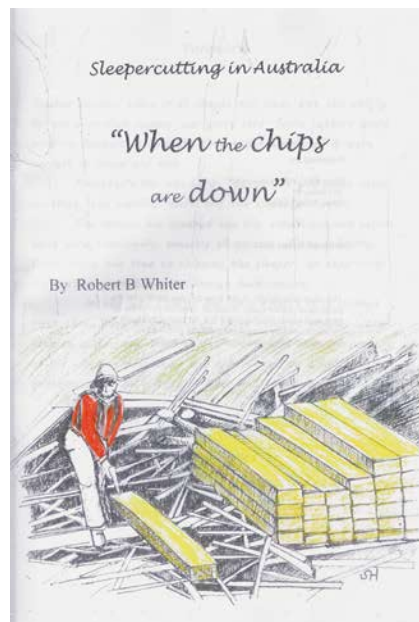
109 pages soft cover, available from the Killer Whale Museum at Eden, NSW – cost \$15

This book provides a very readable and insightful social history of the local industry on the far south coast of NSW and in eastern Gippsland, centred on Eden but extending from Moruya to Bombala and Orbost. A strength of this book is the extent to which the author has been able to incorporate primary sources from oral histories of those families closely involved.

In his Foreword, Ross Dobbyn, now-retired Regional Forester at Eden writes, “Sleeper cutters came in all shapes and sizes, but the ability to cut a perfect sleeper was quite rare. Some cutters could produce sleepers looking like they had been planed and were perfect in shape and size”. Sleeper cutters were arguably the largest single group of forest workers in the heyday of Australian railway construction from the mid-late 1800s into the 1930s; the author lists 224 cutters’ brands used in the Eden region alone while Ross Dobbyn suggested there were around 300 cutters licenses operational in the district post World War 2.

Sleeper getting with hand tools – crosscut saw, broad axe, adze, maul, wedges and cant hook – was backbreaking work and the financial rewards meagre; forester Denis Christopher, quoted in Helen Hannah’s *Forest Giants*¹ said, “The old way of cutting sleepers with a broad axe, that’s gone. It is all sawn with mechanical saws now. Over the years it slowly changed, then it finished, thank God! It was a slave industry.” Robert Whiter documents the efforts of William Veness of Eden for the period January – July 1912: William was regarded as a proficient cutter and over 129 working days he produced 1240 sleepers (each being 8 feet long with cross-section 9 inches by 4.5 inches) for which he received, after paying cartage and royalty, one shilling and ten pence half-penny (\$13 in 2016²) per sleeper. His return averaged five pounds five shillings a week (equivalent to \$750 in 2016, just half the average full time wage in that year of \$1516³). As the cutters usually worked around 40 weeks a year¹ their annual wage was meagre indeed.

The sleeper inspection pass by railway inspectors or contractor’s agents was a major hurdle for cutters because specifications were so tight; given the low return for effort it is little wonder that cutters would try to slip into a parcel the odd sleeper below specification or of an unacceptable low durability species. Philip MacMahon, in discussing sleeper species suitability of Blue Gum (*Eucalyptus tereticornis*) in his seminal *Merchantable Timbers of Queensland*⁴, quotes Chief Engineer of Railways William Pagan, “With regard to Blue Gum...I would be prepared to take this timber for sleepers, but for the fact that a great many timbers are called locally ‘Blue Gum’, and we have had very inferior timber being ‘rung in’ on us, and had to discontinue its use.” Ringing in has even passed into folklore as epitomised by Henry Lawson’s iconic short story ‘The Ironbark Chip’⁵, first published in 1900, in which Dave Regan and his mates, preparing girders for a railway culvert, ring in a dud in place of the



specified ironbark; the story revolves around the shenanigans they got up to in substituting the inspector’s evidentiary chip from the dud with one from a genuine ironbark girder to avoid having their dud condemned with attendant monetary penalty.

Sleeper demand was not only high for the burgeoning Australian railway system but there was a healthy export trade as well, to such far flung places as South Africa, India, United Kingdom, China and New Zealand, mainly from NSW, Queensland and Western Australia. MacMahon⁴ states that 294,000 sleepers (equivalent to 23,125 m³) were exported from Queensland through the port of Brisbane to India and South Africa in the 10 months between August 1904 and May 1905; Richard Dalrymple-Hay⁶ reports the export in 1903 of 19 million super feet (44,854 m³) of sleepers to the value of £163,258 (equivalent to over \$23 million in 2016). Export specifications were very tight, hence the strict inspection regime on the cutters, as rejects incurred significant costs all

along the production and marketing chain. In NSW, inspectors from the Department of Public Works certified and branded sleepers for export⁶; in Queensland, inspection and certification at loading was carried out by the Department of Railways on behalf of the forestry authorities, for which service a charge of one half-penny per sleeper was made. The effectiveness of this system is apparent as MacMahon⁴ states that, “so far as is known, not a single complaint has been, up to the present, made against any sleeper so passed.”

There is a dearth of detailed descriptions of the sleeper production system and its social milieu in the literature. The two best formal accounts of the production system that I am aware of are Philip MacMahon⁴ and Richard Dalrymple-Hay⁶, both writing in 1905; Helen Hannah⁴ addressed the social dimension well in her 1986 account. Cutters favoured logs of very large dimension as these yielded the most sleepers; Philip MacMahon details how cutters could mark out the maximum number of sleepers to be hewn from a solid log allowing for central pipe and the subsequent splitting out and dressing process. Production varied depending on size and quality of log; he states a fair average was forty to fifty 7ft lengths or 25 to 40 nine footers from a single tree: “There are authentic cases of 85, 105 and 140 sleepers having been obtained from a single tree of Red Stringybark and Messmate”. Output per cutter varied from five to twelve sleepers each day depending on sleeper size, log quality and skill. To quote Richard Dalrymple-Hay, “sleepers in this State are principally cut from hollow over-matured trees, the shells of which contain remarkably sound timber.” Be that as it may, to quote Denis Christopher¹ again, “The sleeper cutters just went in and cut what they wanted... They [ie Forestry Commission] shifted me from Bermagui because I was too tough with the sleeper cutters. The trouble was the sleeper cutters were cutting these magnificent trees... sawlogs. They had to... It was a shame to see that much waste... This was before and during the second world war.” Helen Hannah¹ wrote that the Forestry Commission addressed the problem after the war by restricting sleeper getting to areas that had already been cut over for saw logs.

This book provides us with a very readable description of the sleeper production system, drawing freely on the material in the less readily accessible and elusive Dalrymple-Hay⁶. Additionally he provides us with excellent vignettes of the human story of the sleeper cutters as people, based on oral history interviews. His material is organised into twelve chapters covering the Early Days and Tools of Torture, through Species and Regulation to Families of the Forest. While essentially a local history, it is one from arguably the most active forest production area historically on the NSW south coast, which has now morphed from saw log and sleeper production predominantly to wood chips based on what was historically a species of disfavour, coast ash (*E.sieberi*).

This small A4 format soft cover book is available from the Eden Killer Whale Museum, 184 Imlay St Eden 2551 for \$15 plus postage. But be quick as I suspect the print run is not too large.
Ian Bevege

References

1. Helen Hannah (1986). *Forest Giants: Timbergetting in the New South Wales Forests 1800-1950*. Forestry Commission of New South Wales, Sydney, 120pp.
2. Reserve Bank of Australia < [http://www.rba.gov.](http://www.rba.gov.au/calculator/annualPreDecimal.html)

3. Bureau of Statistics < <https://www.livingin-australia.com/salaries-australia/>>
4. Philip MacMahon (1905). *The Merchantable Timbers of Queensland*. Government Printer William Street (Brisbane), 68pp.
5. Henry Lawson (1945). The Ironbark Chip. In *On the Track and Over the Sliprails*. Angus and Robertson Sydney, 241pp.
6. R. Dalrymple-Hay (1905). *Suitability of New South Wales Timbers for Railway Construction*. Government Printer Sydney, 15pp, illus +map.

Obituary

David Burke OAM

We are very sorry to report the death of David Burke, on 17 March at the age of 90. David joined the LRRSA (then the VLRRS) in 1966, and his membership number was 74. In the subsequent 52 years he made over 40 contributions to *Light Railways* and *Light Railway News*.

David had a life-long interest in railways, including Victorian timber tramways. When at the age of about 16 he was working as a “Junior Supernumerary Lad Labourer” at North Melbourne locomotive depot, he learnt to his disappointment of the closing of the Powelltown Tramway, on which he had been planning to travel.

But David’s career was not to be as an engine driver, but as a journalist and writer – and one who was to have a profound effect on railway preservation in Australia. In 1945 he was working as a cadet journalist with the Melbourne *Argus*, and one of the first articles credited to him was “Victoria’s Timber Tramways Have Their Story”, published on 27 October 1945. Even then he had an excellent command of the English language, as the last three paragraphs of that article demonstrate:

Timber railways have cobwebbed the forests of our state, small and large – perhaps to live and die years ago – now mere “streaks of rust,” for the jealous bush is quick to reclaim its rights. And the motor truck has increased its popularity, so that tram mileage is but a fraction of former years – a romantic part of the timber industry gradually dying.

Few of us have known of the timber trams, but few Victorians know their forests. Maybe in the wood’s course of production – your home, that door, this table, my pen – the tram has played its vital part. The echoes of the axeman’s blade and the giant despairing crash are gone. Now it is loaded on the bogie slings – the screech of a whistle, and the whispering forest is startled to the rush of labouring exhaust, steam, and smoke. An absurd little engine, dwarfed by its load, with crank rods threshing is off to the mill, over high hill and deep gully, ever accompanied with the song of mumbling wheels and protesting rails.

Above the trees are waving to a happy blend with nature, and the trees will always wave – though only to a memory – the faint echo of a ghost train.

Later he was working for the *Melbourne Sun News-Pictorial*, where in 1954 he prepared a major supplement on the centenary of the Victorian Railways. This so impressed the VR’s Chief Commissioner – Mr Wishart – that he had additional copies printed to give to all railway employees. Shortly after, David became the editor of “The Young Sun”, the children’s page of the *Sun*. He asked Mr Wishart if the *Young Sun* could sponsor one day of “Goodbye Puffing Billy” trains between Upper Ferntree Gully and Belgrave. Surprisingly – since the railway had been closed in April that year – the answer was “Yes”. The day chosen was Saturday, 11 December 1954. The day attracted huge public interest, so much so that further trips were run, which led to the establishment of the Puffing Billy Preservation Society in 1955.

Immediately after the *Young Sun* specials David moved to Sydney, where he worked as a journalist, and subsequently became an author of about 30 books, mostly related to railways. Amongst these were *Roaring through the 20s*, *The Great Steam Trains of Australia*, and *American Steam on Australian Rails*. His 1963 book *Railways of Australia*, co-authored with C C Singleton, included a wide-ranging chapter on private railways. This had an inspirational effect on at least one now prolific contributor to *Light Railways*.

In 2005 he was awarded the Medal of the Order of Australia for service to the community as a historian and author. At the time of his death he was working on another book, about railway images on Australian postage stamps.



LRRSA NEWS

MEETINGS

ADELAIDE: “The Beechy and Bombay”

We will discuss the Beechy in Victoria in 1959 as well as some trains in Bombay, India. News of light rail matters will be welcome from any member.

Intending participants would be well advised to contact Les Howard on 8278 3082 or by email lfhoward@tpg.com.au, since accommodation is limited.

Location:

1 Kindergarten Drive, Hawthorndene.

Date: Thursday 7 June 2018 at 7.30pm

BRISBANE: “Road and rail bridges in Queensland”

Greg Stephenson will be giving a talk and will show photos on road / rail bridges in Queensland.

Location: BCC Library, 107 Orange Grove Road, Coopers Plains.

Date: Friday 15 June 2018 at 7:30pm

MELBOURNE: “Railways in Myanmar”

Alan Williams will be presenting video and photographs of his recent trip to Myanmar.

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

Date: Thursday 14 June 2018 at 8pm.

SYDNEY: “AGM plus entertainment”

After the General Meeting, speaker David Jehan will give a photo presentation of his visit to the narrow gauge Nilgiri rack railway in India. David also visited the National Railway Museum in Delhi where a diverse selection of both broad gauge and narrow gauge locomotives and rolling stock is on display.

Location: Woodstock Community Centre, Church Street, Burwood. Free Council car park behind building (entry via Fitzroy Street) or close-by street parking. Only 10 minutes easy walk from Burwood railway station.

Date: Wednesday, 27 June 2018 at 7:30pm.

Fifty years ago

On Thursday 14 June 1968 at the Annual General Meeting of the Victorian Light Railway Research Society a motion was successfully put forward to change the name of the society to the Light Railway Research Society of Australia. The big change in the geographic scope of the society was made as the result of a suggestion from Bruce Macdonald in LR 23 – Autumn 1968.



Field Reports

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

Hitt's Tramway, Hitts Siding, Kawarren. Victoria

Gauge 914 mm

In recent times I have been revising much of what I have written on the mills and tramways in the West Otways. Sawmiller A G Hitt & Sons had a siding at Kawarren on the Colac — Beech Forest Railway between 1914 and 1919. My understanding of Hitt's mill and tramway was that the tramway ran from the siding due west along a creek for about 2.5 km to a mill site. A Lands Department file showed a mill and tramway licence for the site plus a survey plan, so I took this to be correct.

However, not long ago a former sawmiller at Kawarren told me that Hitt's mill was closer to the siding but they had logged in Crown land (Gilholme's selection) west of the selection their mill was on (Sydenham's). I thought I should check this on the ground. Well over half the tram route has been obliterated by farming so, I came into the site at the western end near the farm boundary.

On 27 February 2018 I walked to what I thought was the main creek and checked along several parts but could see no tram. The creek is in a narrow slot, so some tramway bench should have been visible on either side, but I could see none. I then got into the creek bed and walked into the farm along it to see if the tram was laid right in the creek. I found nothing, and the going was so tough that I climbed out. In the paddock was a clump of trees, so I went up the slope for a look. The soil hereabouts is a very soft grey sandy material and I saw what looked like a tramway, but it was too narrow and seemed to be an animal track of which the site had plenty. A little further along there was a definite bench, but not wide enough for a 3 ft gauge tram (even though it was level and following the contour). It then dawned on me that animals had trampled it and rains had washed away a lot of it, so it was the tram, but the bench was only half its original width.

I followed this to the end of the trees and lost the route across the paddock. I followed an imaginary contour line across the paddock to the bush on the west, climbed through the fence and had a look around, but could see nothing. The creek here is a shallow spoon-shape and choked

with wattle scrub. I thrashed around for a while and eventually picked up the tram turning south on the west side of the watercourse. It seems the tram had dropped elevation in order to get down to the creek level and switch to the other side. The bench was half-width in parts but, as I climbed higher, it formed a regular pattern. The route climbed all the way and then pitched upwards at a very steep grade, probably 1 in 4 in parts, levelled off, and ended near a fence in the bush. There appeared to be a log landing here, but no sign of a mill.

When I got home and plotted my tracks for the day I was astounded to see that I had indeed followed a creek whose bearings matched those of the main creek but, literally, I was on the wrong tram. So Hitt had two trams. That left unsolved the mill mystery at Gilholme's. I would have to go back.

My second trip into the site was made on Friday 9 March 2018. I came in sideways to the site, that is, due south straight through the bush from a logging road on top, walking over 600 metres on a bearing that would bring me to the mill site on Gilholme's. That was the theory. In practice, the bush here is murderous to walk through — very steep slopes, full of fallen trees, head high wattle scrub, wire-grass, cut-grass and bracken. My track wobbled all over the place until, eventually, I came to the main creek somewhere near the mill site, but not spot on. It did not matter about accurate navigation because one look at the site showed that no mill could be placed anywhere in these parts.

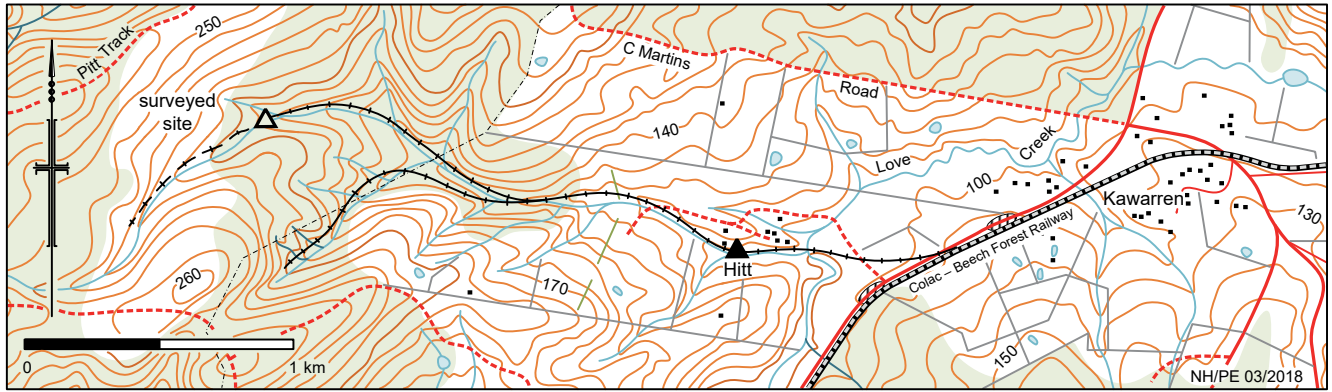
The creek runs in a very narrow slot, about two to four metres wide and sandwiched in by a 45 degree slope on each side. So Hitt's Lands Department licence for a mill site was probably



Bridge abutment on Hitt's tramway, complete with two rails and a piece of packing (digitally enhanced). These remnants of timber have survived 100 years since the tram closed, and are a tribute to the durability of Gellibrand hardwoods.
Photo: Norman Houghton



Hitt's tram route (digitally enhanced) in the creek slot near the 'imaginary' mill site. Photo: Norman Houghton



a survey fiction, not unusual for these times as other Otway millers did the same. I presume Hitts was required to nominate a mill site on Gilholme's in order to get a tram into there so that they could extract the timber.

I could observe no tram route on the other side of the creek slope and, peering down the abyss on my side, could see no obvious signs of a tram. I hesitated to go down any further as I feared I would not be able to climb out again.

So I turned downstream, thinking that there had to be something further on back towards the 'real' mill, and hobbled along the slope above the creek. It was tough going. Eventually I walked past what looked like a shovel mark but discounted this as not enough evidence. About 20 metres further on I did come across more uphill indents that turned out to be the tram. I immediately turned around and went back up the creek and was able to track the tram route

intermittently until it eased down right into the creek margin. It ran along the creek for about 100 metres and then dived right into the creek bed at the bottom of the slot. That is why I would not have seen it when looking down from above. I followed the creek a little way but the obstacles disheartened me, so I broke off and turned back. The creek continues in the slot for half a kilometre so I had no hope of finding anything for quite that distance.

On the way back I was able to trace the road bed, running on the slope above the creek. I guess that Hitts took the tram up from the creek to get a suitable log-landing site to snig from the northern upslope, as it would have been impractical to snig down into the slot. At one tight level spot where the landscape opened out and eased a little at a gully junction, I poked around at what might have been a landing but could not be sure, as too much vegetation and fallen trees were across it, and the very soft soil has retained no distinct marks.

I slogged on, and came across two bridge sites and one long makeup traversing side gullies. At one bridge site there were moss covered rail and packing remains. Considering the tram was last used in 1918 it is remarkable that this woodwork has survived. The tram continued on high, rounded a curve in a deep side cut (most of which is obscured by a landslide), and then appeared to dive into the creek bed again. That would confirm my belief that the rise up high was to insert a log landing.

I followed the creek from upslope as the bed was choked with debris. Eventually I walked out of the bush into farmland. I then turned down into the creek for a look, but there was no formation on either side so, presumably, the tram stayed in the creek from here and towards the mill situated further to the east. The tram I located on my last trip is very near here, but at a much higher elevation, so this tram was taken off from creek level a fair way back towards the mill and paralleled the main tram in the creek for 500 metres or so.

My conclusion is that the log tram along the main creek would have continued beyond the point in the slot where I stopped my search, and then risen out of the slot to form another log landing about 500 metres from the imaginary mill site. That would enable Hitts to log the western and northern parts of Gilholme's block. Norman Houghton 03/2018



Hitt's tramway (digitally enhanced) downstream of the imaginary mill site. Note the steep slope. Photo: Norman Houghton



Heritage & Tourist NEWS

News items should be sent to heritagetourist@lrrsa.org.au Digital photographs for possible inclusion should be sent direct to Richard Warwick at editor@lrrsa.org.au including the name of the location, the name of the photographer and the date of the photograph.

QUEENSLAND

BUDGET DEMOLITION SALES, Telford Street, Virginia, Queensland

610mm gauge

Ex-Racecourse Mill John Fowler 0-4-2 17683 of 1927 is still in this Brisbane industrial yard where it has been for 11 years. However, the yard is now locked up and there are "For Lease" signs inviting contact with agents Chris Wright on 0419 780 378 and David McPhillips on 0421 087 127.

John Browning 3/18

FRIENDS OF ARCHER PARK STATION AND STEAM TRAM MUSEUM INC. Rockhampton

1067 mm gauge

The tram is now reportedly 'running well' and volunteers are working with the tender towing an extra trailer as a ride for the public. It will be a while before it is ready and certified but it is a new exciting (if slow) ride that will be able to be made during school holiday activities and family fun days.

Tram Tracks Volume 12 Number 2, April 2018

WOODFORD RAILWAY, Woodford

610 mm gauge

Melbourne is now the first locomotive into the shed for storage. Work continues on the tender with parts being refitted for the first time since the locomotive arrived at Woodford. A new chimney base has been cast due to cracks in the old casting and it is hoped that with the Perry out of the workshop, progress can now continue on the *Melbourne* overhaul.

During the last couple of months the railway was lucky to have a professional spray painter offer his services and *Melbourne's* tender is looking absolutely first class.

Workers now have full access to the workshop again and work on the ballast wagon is progressing rapidly. This wagon will be of great assistance to the track gang and reduce the manual labour required in at least one aspect of trackwork.

The railway recently acquired six wooden wholestalk cane trucks, which were stored at the back of Ipswich Workshops. This sort of wagon is getting harder to obtain as time goes by and the plan is to restore several of these to operating condition as well as restore at least one for static display.

Durundur Railway Bulletin Volume 39 Number 350 March/April 2018

NEW SOUTH WALES

RICHMOND VALE RAILWAY, Richmond Vale

1435 mm gauge

Sunday 4 March 2018 was a great day for the RVRM as steam passenger trains started running again. As reported in *Light Railways* 258 & 259 the bush fire on Wednesday 13 September 2017 dramatically changed the RVRM forever and the devastation was particularly hard on the volunteers who had worked tirelessly for many years to create a working steam railway.

In just over four months over 740 metres of track from Richmond Main Station along the Mulbring Road branch line was rebuilt using 360 sleepers, 93 timbers in 5 turnouts and 250 tons of ballast. This is an amazing achievement by RVRM volunteers with the most generous support from local businesses which ranged from technical advice, donations of materials, free use of equipment to actual physical work on site.

The RVRM wish to publicly thank Swietelsky Rail Australia, South Maitland Railway, ARTC, Darcon Rail Division, Kennards Hire Rail Division, Ben & Civil Constructions, Goldsprings Earthmoving & Heavy Haulage, Cessnock City Council and the many other smaller organisations too numerous to name.

The RVRM volunteers hope to have the rest of the 380 metres of the Mulbring Road line opened in early to mid-April which will require 295 sleepers and approximately 240 tons of

ballast. Then a start will be made on rebuilding the main line to Pelaw Main which will need vast amounts of finance to complete.

Steam passenger trains will be operating on the first three Sundays of each month and school holiday Sundays as well as Coalfields Steam 10 & 11 June, Cranky Handle Rally 18 & 19 August, Family Fun Fest 15 & 16 September and Santa Special 18 November.

If you would like to help with a donation you will find details of how to do so at the bottom of the following webpage: www.richmondvalerailway-museum.org/
Graham Black

ZIG-ZAG RAILWAY, Clarence

1067 mm gauge

A recent field trip on Wednesday 11 April 2018 to the Bottom Points and to Clarence station found the following. At Bottom Points not a lot seems to have changed since a previous visit in January 2016 although since then there have been some runs over the line by diesel as reported in this magazine. There is still a huge pile of burnt and destroyed metal material and no work has been done on repairs to the buildings. In the station there was a diesel with four carriages attached, one of which had just received a coat of paint. Further on along Bottom Points there are several heavily graffitied and vandalised carriages. The rail motor and one of the steam locomotives were in the open on the track to the site behind the sheds but they did not appear to have moved recently. The blue diesel and steam engine are inside the shed away from public access.

At Clarence station all appeared neat and tidy but there were no notices about possible re-opening times, however, on Google maps it does state that the railway will be opening in 2018 or 2019. A walk along the restoration of the track towards Newnes Junction revealed a line of heavily graffitied rolling stock parked



Simon Hughes from Swietelsky Rail and Cessnock Mayor Cr Bob Pynsent cutting the ribbon to celebrate passenger trains running again on the Richmond Vale Railway.
Photo: Graham Black



The restored line between Clarence station and Newnes Junction. The line passes through several deep cuttings and makes for a spectacular journey to where it stops just short of the road to the mine at Newnes Junction.

Photo: Andrew Webster



Locomotive 5802, ex Mica Creek power station, Mount Isa, stands at the Bottom Points station with a line of carriages. Both the loco and the carriages have been covered in graffiti and vandalised but restoration work has been done on one of the carriages and the train looks like it could begin operations at any time.

Photo: Andrew Webster

securely in a cutting, an unconnected but ballasted siding about one kilometre along the line with an abandoned bogie truck at one end, and the beginning of a run-around loop just short of the road to the mine, very near to the site of Newnes Junction station. This was quite a revelation as previous examinations found the line well short of the junction. All that is needed to complete the track is finalising the run-around loop and it appears that services could begin. The tracks through the three cuttings make for a quite spectacular trip. To go any further towards the junction would be almost impossible as the trackbed beyond the end has been heavily modified by the road to the mine.

It is possible to see the old cutting on the other side of the road and it is also possible to scramble down to it and then walk along the track-bed to the junction (although there is a bit of climbing over the material dumped there to block off the line). Once at the site of the Junction station you can walk along the cutting that contained the start of the Wolgan Valley Railway although this too has been heavily modified by the road to the mine. From the site of the junction station you can see the start of the loop line into the mine as well as the main line to Lithgow and beyond.

Andrew Webster

VICTORIA

PUFFING BILLY RAILWAY, Belgrave

762 mm gauge

A small tourist bus carrying sixteen passengers clipped the side of one of the Puffing Billy carriages at 11.45am on Tuesday, 6 March 2018, at the School Road, Menzies Creek crossing.

Puffing Billy staff were quick to respond with one bus passenger taken to hospital for precautionary tests. Thankfully there were no injuries sustained to any Puffing Billy staff, volunteers or passengers onboard the train. As a result all operations were suspended for the remainder of the day.

It is thought that the driver of the bus was trying to beat the train across the crossing as the passengers were intending to catch the train at Menzies Creek. As a result of the accident the practice of riding with legs outside the carriage has been suspended until an investigation into the crash is complete. Riding in this manner has been a characteristic of Puffing Billy at least since the introduction of NBH excursion cars in 1919.

The conversion of locomotive 14A to oil burning is progressing well with the D Exam completed, the oil burning technology installed and a number of operating trials completed, including full loads to Gembrook. Fine tuning is continuing, an operations manual has been produced and crew training processes are being developed.

The prototype new NBH carriage is almost complete, and it will shortly be passed as fit for traffic. The remaining 11 carriages ordered can then be expected to be delivered for traffic at a rate of approximately one per month.

The Board discussed the necessity of expediting the development of the Lakeside to Gembrook section of the railway to meet continuing

passenger growth and to alleviate overcrowding on the Belgrave to Lakeside section at times of peak demand. It was agreed that until certain infrastructure developments were implemented, opportunities to enhance the service on the eastern end of the railway are restricted.

Amongst the infrastructure developments currently in the planning stage are signal boxes at Belgrave and Lakeside, both based on traditional VR designs; Cockatoo station reconstruction to its 1924 design; a Way and Works office at Belgrave; a volunteers workshop at Menzies Creek; a two road engine shed at Emerald (based on the original Whitfield shed) to replace the existing "Nursery"; restoration of the original Gembrook station to its 1924 design, and the Discovery Centre at Lakeside.

Monthly News March 2018, *Narrow Gauge* March 2018

WALHALLA GOLDFIELDS RAILWAY, Walhalla 762 mm gauge

One of the early challenges facing the group building the rail motors (using ex-Melbourne X1 tram bodies) was suitable seating. The project requires seats which are comfortable but also which complement the age and construction of what is now a vintage vehicle. The original seats are long gone, removed and presumably scrapped when the trams were decommissioned many years ago. Two trams of the X1 class still exist. One of them is complete and original at the Bylands museum of the Tramway Museum Society of Victoria; and the other came from the same source as WGR's two bodies: Newstead Victoria. It was completely reconditioned by Bendigo Tramways and is now running in Auckland NZ, as part of the city tourist tramway. Investigations revealed that it was equipped with seats from an Adelaide H class tram. This class is a large interurban double bogie car built in the early 1920s and until recently used only on the Glenelg line in Adelaide.

With the advent of new trams in Adelaide, these cars have mainly been scrapped but a number of seats were fortunately saved. These are ideal for WGR's purpose, being of the right era and appearance. Investigation revealed that a number of sets of seats were stored in Adelaide and an approach by the Railway met with a favorable response. The Railway has been able to purchase sufficient seats and parts for two railcars at a very reasonable price. The seats are of the reversible style which can be changed to the direction of running. They will require painting and re-upholstering but the Railway has contacts in the area who can undertake this work.

Work to complete the extension of the Walhalla carriage shed to house the rail motors is to commence early next month once a building permit has been granted.

The Railway has applied to Transport Safety Victoria for a Variation to its present accreditation status as a Rolling Stock Operator and Maintainer to include 'Design, Construct, Commission Rolling Stock, etc'. This will assist in speeding up the re-construction of the Rail Motors and any other new vehicle projects in future.

At a meeting with the Puffing Billy Railway last week the Railway commenced planning for a visit of the Climax locomotive during August/September 2019, including the School Holidays. John Rawnsley, Railmotor Project Manager, *Dog Spikes and Diesel* February 2018, *Dog Spikes and Diesel* March/April 2018

TASMANIA

TASMANIAN TRANSPORT MUSEUM, Glenorchy

1067 and 610 mm gauges

Regardless of the outcome of the recent Tasmanian election, which was won by the Liberals, Tourist and Heritage Rail organisations were enthusiastic

about the future as both major parties had promised funding for the future development of rail services in this sector. In respect of the TTMS, the Liberal Party promised funding in two announcements at the museum, with the first being a promise of \$10,000 on 18 February, followed by a second announcement on 26 February for an additional \$25,000. The \$35,000 will be used to offset costs being incurred through the accreditation process for Glenorchy-Chigwell train running. These costs include the risk assessments of the road and pedestrian crossings and the engagement of engineers to review and inspect our rolling stock and the track infrastructure. As part of any arrangement for TTMS to take over responsibility for the Glenorchy-Chigwell



Pictured in the Kerrisdale Mountain Railway Erecting shop on Easter Saturday 2018 is the railway's steam locomotive currently under construction. Designed and built by Andrew Forbes the locomotive features many unique design elements. Construction is progressing well with potential test runs before the end of the year. Photo: Sam Daly



Over the Easter weekend, 2018 the Kerrisdale Mountain Railway held its Easter Steamfest event with the steam museum operating and trains running on the hour from the railway's base at Bottom Points to Summit Station and return. On Easter Saturday 31 March 2018 services were using KMR no.4 (Ruston & Hornsby no.285301) which is pictured at Bottom Points. Photo: Sam Daly



John Fowler and Company 11885 of 1909 (5) departs the station at the Alexandra Timber Tramway on Saturday 31 March 2018 during the Tramway's Easter Gala. Photo: Sam Daly

rail corridor, the new government will work with TasRail, which will be required to reinstall level crossing protection equipment at three crossings. The re-elected Liberal government will also facilitate the opening of the operational rail network to qualified tourist and heritage operators for one designated weekend a year, although it is thought that this may not happen for two to three years. The Labor Party policy was announced on Saturday 17 February. Its policy was fairly broad, promising \$3 million over five years to help re-establish tourist and heritage services throughout Tasmania with the lines identified as potential routes including Burnie to Rosebery, Launceston to George Town, the Derwent Valley line to National Park and the northern suburbs of Hobart. No specific funds were allocated for any particular group or project. As Labor came second in the election, this policy will not be put into practice.

Meanwhile progress towards achieving accreditation has stalled due to the election. The TTMS could not proceed with any confidence until it knew that the government would cover the major costs of the project, including the reinstallation of the level crossing lights. Tasmanian Transport Museum Newsletter, March/April 2018

SOUTH AUSTRALIA

EYRE PENINSULA AND PICHİ RICHİ RAILWAY, Port Lincoln and Quorn

1067 mm gauge

After thirty-six years of service on Eyre Peninsula, steam locomotive Yx141 was withdrawn in 1963. It was donated to the City of Port Lincoln and placed on display in Hermitage Park, Port Lincoln that same year. It was a favorite item

of play equipment for many children, but in November 1982 it was removed and transferred to the Pichi Richi Railway workshops at Quorn. Its place was taken by a small diesel shunter, NC2 from the Commonwealth Railways.

The restoration of Yx141 to working order has been a long-drawn-out affair, but after an earlier disappointment with failure of a critical component, it has now been successfully returned to service. Its immaculate condition is a credit to the many volunteers who have worked for years to get it to this point. Railway preservationists should be thankful that its future is now secure, rather than having it slowly rusting away in the playground. Eyre Peninsula Railway Preservation Society Inc. Newsletter, March 2018

SOUTH AUSTRALIAN LIGHT RAILWAY CENTRE, Milang

610 mm gauge

Members are currently working on the building extension and footing construction is in progress. The turntable is now back in place. Currently the Centre has accreditation as a static display which allows it to move locomotives only for display and maintenance. Recently it applied to the Rail Safety Regulator for accreditation with the aim of allowing public rides. Members visited the Moonta museum to get advice on procedures and safety documentation. They are hoping to provide rides later this year on the 2 ft gauge using the BEV and on broad gauge with their two section cars. A 2 ft siding will be extended towards the station from the extended SALR centre to display the BEV train. Members are building a passenger car with seating facing sideways and are doubling up the sleepers, using recycled sleepers from Steamranger, giving 700 mm spacing to allow the

Ruston to be used when it is ready. The turntable will remain a static display and will be used as a bridge when the 2 ft gauge track is extended into a loop about 500 m long. It is hoped to place some rural machinery or other exhibits along the loop when such exhibits become available.

SA LRRSA minutes for April 2018

WESTERN AUSTRALIA

BENNETT BROOK RAILWAY, Whiteman Park

610 mm gauge

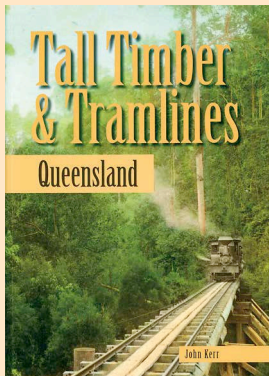
Friday night work nights will focus will on the 0-4-2T Perry's 10 year overhaul, including cleaning the boiler shell of surface rust and flaking paint. This is to allow crack, flaw and thickness testing, enabling workers and boiler inspectors to safely continue to operate this boiler for the foreseeable future. The chassis and running gear also requires inspection, cleaning and repairs.

Concurrently, workers will be continuing on the annual inspections of the running diesels. Recently, at the request of the Signals Manager, workers finished the air train brake on the Atlantic Planet number 7, to enable the operation of the small stock. There's now a brake pipe at both ends and a pressure gauge next to the valve. The Dorman Planet number 8 will be the only other large diesel to get the small stock brake system, as the Planets have link and pin couplings. Workers have started this fit out with a pressure gauge. There continues to be sporadic work on NG 15 123 and the 0-6-2T Perry, as time and funds allow, with new suspension pins for the Perry and continued cleaning on 123. Planning has begun on the Gemco's drive train, as this is the next locomotive for activation after NG 15 123.

The Bennett Brooklet February/March 2018

Books from LRRSA Sales ...

Tall Timber & Tramlines Queensland



By John Kerr

Published by the LRRSA.

Describes all Queensland timber tramways known to the author.

Soft cover, 104 pages, A4 size
90 photographs, 28 maps and diagrams,

References, bibliography, and index.

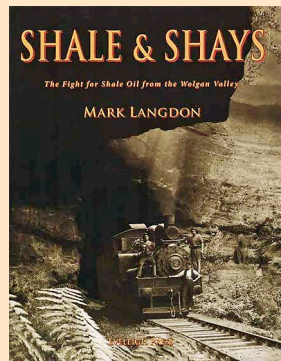
Price \$29.95 plus postage
(\$22.46 to LRRSA members)
Weight: 520 gm

Shale & Shays

The Fight for Shale Oil from the Wolgan Valley
By Mark Langdon

Published by Eveleigh Press.

300 pages, 279 x 215 mm, hard cover, many photographs.

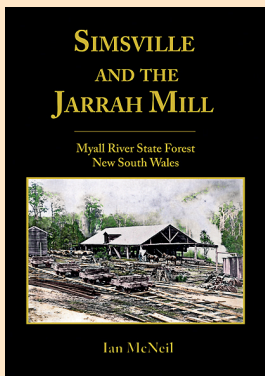


A new history of the famous standard-gauge Wolgan Valley Railway, NSW. With five chain curves and 1 in 25 grades in spectacular scenery, it used four three-truck Shay locomotives. Includes some original hand-coloured photographs, detailed maps, and rolling stock diagrams.

Price \$78.00 plus postage
(\$70.20 to LRRSA members)
Weight 1,400 g

Simsville and the Jarrah Mill

Myall River State Forest, New South Wales



By Ian McNeil

Published by the LRRSA
Soft cover, 96 pages, A4 size
55 photographs, 12 maps and diagrams, references, and index.

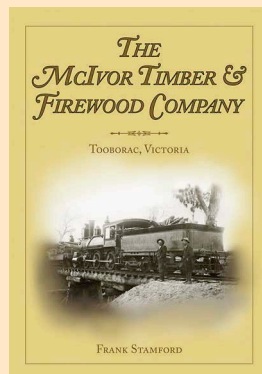
The history of a 3ft 6in gauge tramway and sawmilling operations at the village of Simsville, near Stroud. The tramway used three Climax geared locomotives.

Price \$29.00 plus postage
(\$21.75 to LRRSA members)
Weight: 490 g

The McIvor Timber & Firewood Company

Tooborac, Victoria

By Frank Stamford



Published by the LRRSA
Soft cover, 104 pages, A4 size
104 photographs, 23 maps and diagrams, references, and index.

The history of a 5ft 3in gauge tramway from Tooborac to Mitchell's Creek, Puckapunyal, Moornbool West and Cherrington.

Price \$30.00 plus postage
(\$22.50 to LRRSA members)
Weight: 550 g

Postage and packing: Within Australia, up to 250gm \$3.50; 251 to 500gm \$6.60, 501 gm to 3 kg \$15.00, over 3 kg to 5 kg \$18.70
Send to: LRRSA Sales, P.O. Box 21, Surrey Hills Vic 3127.
Payment may be made by cheque, money order, Mastercard or Visa.

Buy securely on line,
see our web site:
www.lrrsa.org.au



An invitation to join
the LRRSA ...

Join easily on our website:
www.lrrsa.org.au

Membership of the LRRSA offers you:

- Light Railways magazine, mailed to you six times a year
- Substantial discounts on LRRSA publications
- Meetings in Adelaide, Brisbane, Melbourne and Sydney
- Tours to places of light railway interest

Annual Subscription for year ending 30 June 2019 is \$48.00

Includes LR Nos 261 to 267 (Overseas by airmail: NZ, PNG, Japan, South-east Asia - \$A65.00; Rest of world - \$A77.00).

Downloadable PDF subscription \$27.50 - for details see

www.lrrsa.org.au

Month of joining:	You pay	You receive <i>Light Railways</i>
June or July	\$48.00	Nos 262-267 (six issues)
August or September	\$40.00	Nos 263-267 (five issues)
October or November	\$32.00	Nos 264-267 (four issues)
December or January	\$24.00	Nos 265-267 (three issues)
February or March	\$16.00	Nos 266-267 (two issues)
April or May	\$56.00	Nos 267-273 (seven issues)

Application for membership of Light Railway Research Society of Australia Inc. P.O. Box 21, Surrey Hills Vic 3127

I, _____
(full name of applicant)

of _____

(address) _____ (postcode)

desire to become a member of the Light Railway Research Society of Australia Inc. In the event of my admission as a member, I agree to be bound by the rules of the Society for the time being in force. I enclose cheque/money order for \$48.00, or please charge my Visa/Mastercard No.

Expires _____

Name on Card _____

Signature _____