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Australia's Magazine of Industrial & Narrow Gauge Railways



Light Railway Research Society of Australia Inc.



Editor: Scott Gould,
PO Box 21 Williamstown Vic.3016
editor@lrrsa.org.au

Associate Editor:
Richard Warwick

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 Editors:
Andrew Webster & David Fitzsimons
heritagetourist@lrrsa.org.au

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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
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South Australian Group
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Tasmanian Representative
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Ken Milbourne (03) 6272 2823

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Contact the Membership Officer,
P.O. Box 21, Surrey Hills, Vic 3127;
e-mail: subscriptions@lrrsa.org.au
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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



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www.lrrsa.org.au

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Editorial

One of the things I enjoy about light railways as a hobby is getting out in the field to "ground truth" – to prove what was actually out in the field matches the descriptions in the maps, diagrams and texts.

Aside from the leaches, blackberries and snakes, this can be a great way to spend a day or two out getting some fresh air, and with a bit of luck, finding a relic or two in the bush.

After the horrific Black Saturday bushfires, several areas with sawmills and tramway networks were mapped and measured, with the information gathered passed on to Heritage Victoria and other agencies to create logging exclusion zones around these historic sites for future generations to enjoy.

What was absolutely scorched earth and eerily silent on our first visit, sprang back to life over the next 18 months prompting the comment 'Who grew this forest on our heritage site?' Peter Evans reports in this issue on the Buxton Sawmilling Company mill and tramways as a result of this research.

John Browning presents the known history of Orenstein and Koppel locomotives in Australia and Phil Rickard covers an interesting day in the life of the Walhalla railway.

On behalf of the *Light Railways* editorial team I'd like to thank all our authors and contributors, and of course, our readers for your support this year and wish you all a merry Christmas and a safe and happy new year. *Scott Gould*

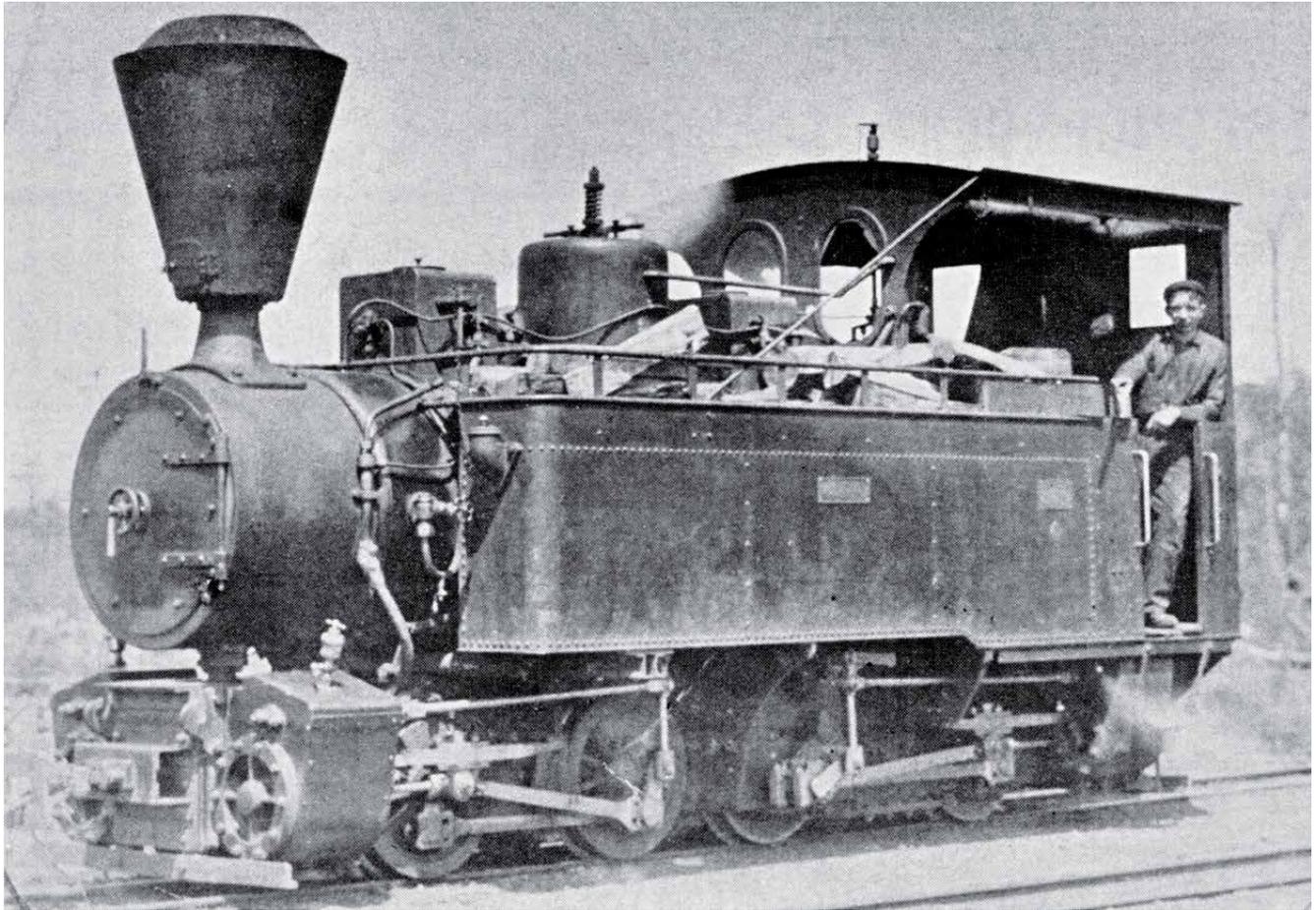
Front Cover: *Orenstein and Koppel 6805 of 1914 Germany spent its working life hauling cane for the Millaquin Sugar Company around Bundaberg before being placed in a park in 1965. The now beautifully restored locomotive can be seen in action at the Bundaberg Botanic Gardens, thanks to the Bundaberg Steam Tramway Preservation Society Photo: John Browning*

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



0-4-4-0T Mallet 2609 of 1907, as MAGNET No.3

Author's collection

Orenstein & Koppel steam locomotives in Australia

by John Browning

Introduction

In the later part of the nineteenth century, the newly united nation of Germany industrialised rapidly, benefitting from a large home market and the shelter of protective tariffs. Locomotive building expanded and the firm of Orenstein & Koppel (O&K), based in Berlin, was prolific in producing large numbers of industrial steam locomotives for use at home and in every continent. Like Krauss, based in Munich, Orenstein & Koppel exported a significant number of industrial steam locomotives to Australia in the period up to the Great War. Following the horrifying casualties of the war and the consequent deep bitterness, German locomotive imports to Australia practically ceased. This article surveys the O&K steam locomotives that operated in Australia. It does not include those that went to the Pacific phosphate islands (British, French and German) nor those that went to New Zealand, nor the three that were brought to Australia for preservation (including one since scrapped and one that was here temporarily).

O&K locomotives were used in every Australian state, with a majority being used in the mining industry for ore or firewood haulage. All except the last were narrow gauge,

with 610mm gauge being the most numerous. A listing of locomotives supplied to Australia has been known for some time. However, a recent opportunity to view the record sheets for the individual locomotives has enabled sufficient detail to be gathered to make this article a much more complete record.

Company background

O&K had a complicated corporate history of which this is only a brief summary.¹ The company was founded as a partnership by Arthur Koppel and Benno Orenstein in 1876 to act as a dealer and agent supplying light railway equipment. In 1885, the business was split, with Koppel taking the export-oriented business and Orenstein, with three partners, continuing involvement in the home market as 'Orenstein & Koppel'. Each company operated workshops that manufactured light railway equipment, but not locomotives, which were bought in from specialist manufacturers.

Arthur Koppel Feldbahnfabrik expanded rapidly to establish a world-wide network of branches, subsidiaries and agencies specialising in the supply of complete railway systems to industry. O&K also developed a global presence after 1890.

Benno Orenstein's brother and partner, Max, established a locomotive building business, Maerkische Lokomotivfabrik, in Berlin, which supplied locomotives to O&K from 1892, and in 1898 this enterprise was absorbed into O&K. A modern locomotive factory was built at Drewitz (later known as Babelsberg), near Potsdam, and this is where O&K's steam locomotives were produced from 1899. In 1905, another locomotive building firm founded by one of Benno Orenstein's former partners, Julius Freudenstein, was also taken over.

In 1909, following the death of Arthur Koppel, his company and O&K merged. Further expansion continued, including the acquisition of Montania, an internal-combustion locomotive builder, in 1912. Also in 1912, a business arrangement was made with the French Decauville company, which led to O&K supplying a total of three locomotives on behalf of Decauville, two of which came to Australia.²

The O&K company had a number of different names during the period under review:

- Orenstein & Koppel oHG, 1876-1897
- AG für Feld- und Kleinbahnbedarf vormals Orenstein & Koppel, 1897-1909
- Orenstein & Koppel - Arthur Koppel AG, 1909-1920
- Orenstein & Koppel AG from 1920

The term oHG (*offene Handelsgesellschaft*) denotes a partnership, and AG (*Aktiengesellschaft*) denotes a limited company.

Agencies and branch

Where no branch office existed, the overseas sale of locomotives depended to a great extent upon agents active in the local market. Peter Evans outlined the importance of Australian agents for the sale of Krauss products in LR 150.

In the O&K record sheets, an agent's or customer's name is not always shown. The ordering details are sometimes recorded as "Ostaustralien", "Westaustralien" or simply "Australien" and in these cases it is difficult to be sure of the identity of the agent, if any. However, it is reasonable to assume that the relevant agent at the time was involved in most cases, although it is apparent that the O&K London branch was involved in a few orders.

Two agencies in Australia were promoting sales of Orenstein & Koppel light railway equipment at an early stage. Rabone, Feez & Co advertised portable railway equipment and rolling stock in Sydney in 1891-1892.³ Meanwhile, Elder, Smith & Co Ltd were advertising similar equipment and distributing catalogues in South Australia in October 1892.⁴ No mention of locomotives was made and no orders are known to have eventuated.

Arthur Koppel advertised in the *Australian Mining Standard* in January 1899 naming W&J Lempriere of Melbourne and Zeehan as agent for Victoria and Tasmania, John W Jaffray & Co of Sydney as agent for NSW, Monger's West Australian Stores Ltd of Perth as agent for Western Australia, and O Granowski CE of Brisbane as agent for Queensland.⁵ Of these, only Granowski is known to have supplied O&K locomotives.

In Western Australia, the agent that supplied O&K locomotives from 1900 was Strelitz Brothers of Fremantle, known to have been in business from 1894. Paul and Richard Strelitz were born in Germany. In the 1899 Western Australian Post Office Guide they had been listed as sole agents for O&K as well as being shipping agents and importers of cement, explosives and machinery.⁶ They became important personages in Perth society, with each serving as Consul for Denmark, Sweden, Norway and the Netherlands and President of the Fremantle Rowing Club. In addition, Richard was President of the West Australian Automobile Club.

In Queensland, Oscar Granowski had acted for Arthur Koppel from at least 1896, when Gin Gin sugar mill's first locomotive (of unknown manufacture)⁷ had been supplied. Granowski was born in German West Prussia (now part of Poland) in 1850.⁸ It is possible that the connection to Arthur Koppel originated in 1894 arising from Granowski's role consulting to meatworks, where tramlines were commonly installed, for example at Gladstone.⁹ The link to meatworks apparently arose from Granowski's expertise in refrigeration equipment.¹⁰

W&J Lempriere of Melbourne traded as mining machinery merchants as well as buyers of precious and base metal ores.¹¹ It appears that they had German connections, and it also seems that there may well have been some link with Arthur Leplastrier, the manager of O&K agents The Central Mining & Tramway Appliances Co Pty Ltd of Sydney.¹² There was little consistency in the title of the 'Central' company as reported in the press, and by 1910 it was trading as Arthur Leplastrier & Co. Much later, in 1927, Leplastrier supplied a replacement boiler for an O&K locomotive.

The Central Tramway Appliances company supplied complete narrow gauge railway systems, and in April 1901 claimed the following sales had been made during the previous December: Broken Hill Proprietary - 35 miles of tramway; North Farrell Co (Tasmania) - about 8 miles of track including locomotive and goods wagons; Hobart Waterworks - about 3 miles of track; Queensland sugar mills - about 6 miles of track.¹³ The company also supplied about 10 miles of 30lb track to the Magnet Silver Mining Co in Tasmania in 1901, together with rolling stock including two O&K locomotives, one being a Mallet compound.¹⁴

A newspaper advertisement taken out by O&K's legal representative on 13 October 1906 announced that the agency with the Central Mining & Tramway Co had been terminated by mutual consent and that O&K's lawyer was taking over the trading stock pending the appointment of a new agent.¹⁵ Things may not have been so amicable in reality as in the NSW Supreme Court lists at the end of November we read that O&K was taking legal action against the Central Mining Tramway Appliances Pty Ltd, seeking an injunction and the appointment of a receiver, and seeking a motion for security of costs.¹⁶ We can glean from this that Leplastrier may have had difficulty paying his bills to O&K, and that as a result O&K were seeking to gain control of the stocks held in Sydney.

A further newspaper advertisement on 8 November 1906 announced the appointment of a new agent, the Australian Metal Co Ltd, who, it was stated, had taken over the local equipment stocks.¹⁷ The Australian Metal Company was a local subsidiary of the German company Metallgesellschaft AG, one of three German companies in Australia that had cornered the local market for copper, zinc and lead ores through the use of long-term purchasing contracts.¹⁸ The company was the agent for a range of equipment from international suppliers.¹⁹ It would make commercial sense for a company like this to become involved in the supply of German startup equipment for mines as a way of securing future mineral output, which perhaps helps to explain the success of sales of O&K locomotives to mining companies in Australia. Indeed, this may have been the business model previously followed by Leplastrier and the Central Tramway Appliances company, bearing in mind Leplastrier's likely links with Lempriere, also an ore buyer and a supplier of ore treatment equipment.

The firm of Noyes Brothers of Sydney, machinery agents and importers, was founded in Sydney in 1888 and was incorporated in 1907 as Noyes Brothers (Sydney) Ltd. The Noyes brothers, Edward and Henry, were English, with Edward the governing director.²⁰ Noyes were agents for Decauville in 1913 when two O&K locomotives were supplied to Decauville's order.

In June 1914, an advertisement appeared in the *Australian Sugar Journal* stating that a branch office had been opened in Sydney for Orenstein & Koppel - Arthur Koppel (Berlin & London) and Orenstein - Arthur Koppel Co (New York

& Pittsburgh – works at Koppel Pennsylvania), suppliers of Koppel plantation railway materials. The postal address was given as Fred F Lacks, GPO Box 1370, Sydney.²¹ In the following month, the address 49 Clarence Street, Sydney was also given.²² No newspaper mention of this initiative or of Mr Lacks has been located. It seems to be the case that the branch office was opened by the American subsidiary of O&K, Orenstein–Arthur Koppel Co. This company tendered to supply rails for a construction project in Hobart in July 1914. It is not known what effect, if any, the opening of this branch office had on the position of established agents in Australia but the outbreak of war in August 1914 meant that the branch did not supply any locomotives in Australia.

After the war, R Berude of Melbourne became the O&K agent and was responsible for the importation of one locomotive. Berude was also the successful tenderer, on behalf of O&K, for 36 overburden dump wagons for the Yallourn brown coal mine in 1927. Controversy ensued when the much cheaper German supplier's tender was preferred over those of British suppliers.²³

War clouds

Following the outbreak of war in 1914, domestic companies with German links, particularly those with Germanic names, came under scrutiny. In 1915, numbers of suspected 'enemy sympathisers' were interned, and the assets of some German-associated companies were expropriated.

In Perth, negative rumours about Richard Strelitz circulated in the first few weeks of the war and the premises of Strelitz Brothers and the homes of Paul and Richard Strelitz were searched by the military, but nothing incriminating was found and the company continued trading, with employees rallying to give public support to their embattled employers.²⁴

Oscar Granowski, by now based in Sydney and with a wheat property in the Mudgee district, largely escaped attention,

possibly because of his Polish name, but he did suffer a financial loss when patent royalties due to the Australian Thermit Co Ltd, of which he was managing director, were seized by the Commonwealth because the principal shareholders of the company were German.²⁵ It was listed as an enemy firm, with which it was illegal to trade, in July 1915.²⁶

The Lempriere warehouse in Melbourne was searched by soldiers in October 1914, presumably because of the company's links to German business, although Leplastrier seems to have escaped any public attention.²⁷

The Australian Metal Co Ltd soon found itself in the spotlight of criticism and in October 1914, it protested that it was a British- and Australian-registered company.²⁸ However, in July 1915 it was listed as an enemy firm and it was finally wound up in December 1917.²⁹ In July 1915, its managing director, Franz Wallach, and another director, Walter Schmidt, were arrested and interned under the War Precautions Act. Wallach was born in Frankfurt, had arrived in Victoria from Germany in 1893 and was naturalised in 1896.³⁰ Schmidt was born in Leipzig in 1862 and had arrived in Victoria from Germany in 1896. He was naturalised in September 1914.³¹

Although Noyes Brothers were impeccably British, the company did have some wartime difficulties. For example, they were importers of Mannesmann seamless steel pipes and Krupp cement-making plants to Australia and had to find alternative suppliers.³²

In August 1916, the Australian Government included Orenstein & Koppel (as the Orenstein–Arthur Koppel Co had become) in a list of American companies with which trading was prohibited because of their German connections.³³ In 1917, the US government entered the war. The company's factory and other assets were seized and sold to the Koppel Industrial Car & Equipment Company, a newly established subsidiary of the Pressed Steel Car Company.³⁴



2424 or 2461 of Whim Wells Copper Mines at the wharf at Ballara

State Library of Western Australia 013988PD

Locomotive types

O&K produced simple rugged locomotives with a marked family likeness. The inclusion of a well tank between the frames was common in their narrow gauge locomotives. Most of the locomotives that came to Australia were of the basic industrial design of 0-4-0WT and 0-6-0WT but there were also 0-4-2T, 0-6-0T, 0-6-2T and Mallet compound 0-4-4-0T types. O&K standardised frames, boilers, cylinders, motion, wheels, axles and other components to a large extent and this facilitated locomotive construction and spare parts supply, as well as helping to make the products very competitive in price. The power designation of the locomotive was based on the cylinder dimensions, with other aspects of the design varied to suit the required power. Locomotives could be supplied to burn wood or coal. Those designed to burn wood had larger boilers and fireboxes, to compensate for the lower calorific value of the fuel, as well as larger fuel bunkers. Boiler pressure was commonly 12 atmospheres (176lbs psi).

Locomotives designed with a well tank had to have inside frames and outside valve gear, although outside valve gear was the norm for O&K in any case. The other rigid framed locomotives had outside frames.

Early locomotives incorporated Orenstein patent valve gear, a development of Klug (or Hackworth) gear in which the reversing shaft was mounted in bearings mounted on the axle rather than rigidly on the locomotive frame. Other valve gear options included Allan link motion and Walschaerts valve gear (known in Germany as Heusinger). Walschaerts became standard shortly before World War I.

As haulage tasks on narrow gauge railways increased, some manufacturers introduced various forms of articulation to allow larger locomotives to be used on a given weight of rail, and O&K was a keen innovator in this field. The Mallet system involved compounding and a doubling of the number of cylinders, with the high pressure engine on the mainframe and the low pressure engine on a leading bogie. In the Australian examples, the high pressure cylinders were placed at the rear end on outside frames so as to provide maximum space for the firebox and ashpan.³⁵ The leading engine bogie with the larger low pressure cylinders had inside frames with cylinders to the fore.

O&K developed the Klien-Lindner system as a preferred alternative to the smaller Mallet type. This was an outside frame design that looked like a conventional 0-8-0T but with flexibility in the outer wheelsets, thanks to an ingenious hollow axled arrangement. This system was a feature of the very large number of locomotives produced for German narrow gauge military purposes during World War I. During the war, the Luttermöller system was developed, allowing flexibility in the outer wheelsets of a 0-10-0T by means of a system of gearing, permitting the use of both inside and outside frames.

There were just three O&K Mallets on Australian narrow gauge railways, but none of the subsequent articulated designs (widely used in Indonesia) came to Australia. One reason for the lack of articulated locomotives in sugar cane haulage in Australia, its most likely application, was that a requirement to increase haulage capacity tended to result in track upgrading with heavier rail to allow an increase in axle loading, rather than placing increasingly complicated locomotives on light track.

A number of Australian O&K locomotives had four-wheel tenders attached to them in service as can be seen in some of the photographs. These could be for additional fuel or water supplies.

Listing

In the following listing, the O&K serial number is shown with the year, gauge and wheel arrangement and horsepower. Below this is a brief chronology of the locomotive's history. Dates of ownership changes may be less than exact in some cases due to the vagueness of some information. The reference notes show sources as applicable. The little unreferenced detail is from the author's records, often having been passed on by others over many years.

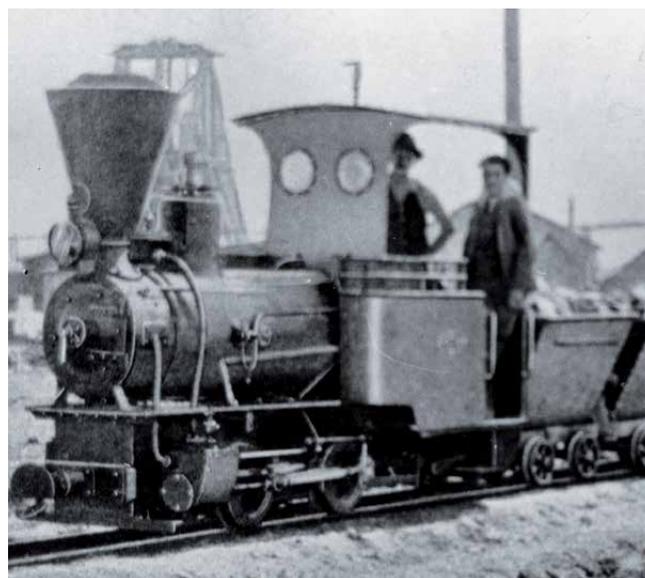
Numbers/names are shown in italics. A name that was carried on the locomotive is shown thus: *KOPPEL*. A name (often a nickname) that is not known to have been carried is shown thus: '*Abe*'.

Changes in location are shown by a semi-colon. In some cases the owner changed but the location stayed the same, and this is shown in a continuous entry using a hyphen e.g. J Smith - Smith & Jones. A question mark signifies an unknown or doubt. Other abbreviations used are as follows:

Abd – abandoned on site
Dlct – derelict
Dsm – dismantled
OOU – out of use
Scr – cut up
S/S – sold or scrapped

683 1900 508mm 0-4-0WT 10hp Cosmopolitan Proprietary Mine, Kookynie, WA;³⁶ Collie Co-operative Collieries Ltd, Moira Mine, 1904 or 1905 (610mm gauge) - Amalgamated Collieries of Western Australia Ltd 1920;³⁷ Cameron, Sutherland & Seward Pty Ltd, Melbourne (dealers) c.1920; Cattle Creek Sugar Co Ltd, Finch Hatton, Qld 1923 '*Dinty*'³⁸ - Cattle Creek Co-operative Sugar Milling Association Ltd, 1929 - OOU by 1941³⁹ - S/S.

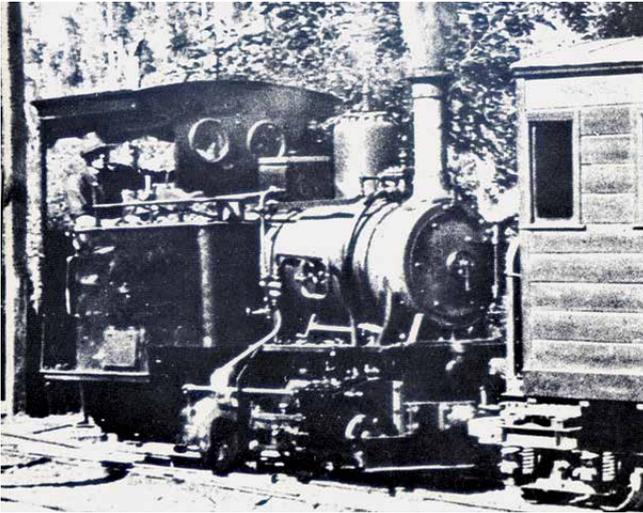
*The early evidence about this locomotive is mainly from photographs. It was the only locomotive of this type known to have been supplied to Australia. The nickname 'Dinty' derives from a 1920 Hollywood silent movie shown in Mackay in July 1921, in which Dinty, the young boy hero figure, is a plucky little fighter against all the odds.*⁴⁰



683 at Kookynie

Rail Heritage WA 4771

718 1901 610mm 0-4-0WT 30hp Magnet Silver Mining Co NL, Tas, *MAGNET* No.2⁴¹ - OOU 1912; William Cripps, Boulder Tramway, Renison Bell, Tas 1919⁴² - offered for sale, April 1921⁴³; North Mount Farrell Mining Co NL Tullah, Tas,

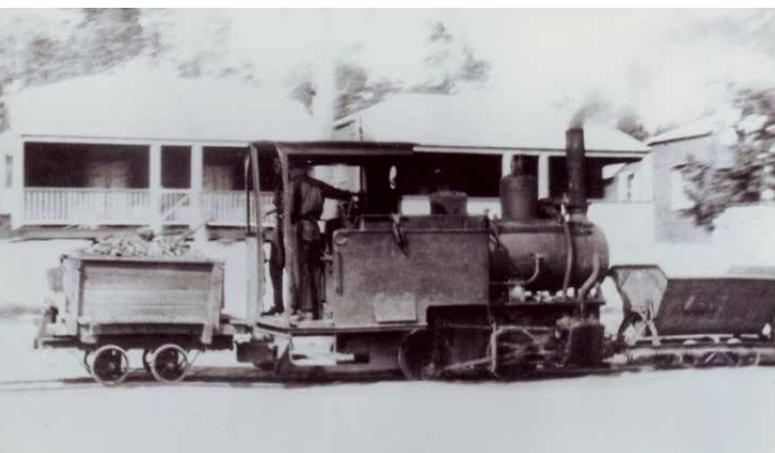


718 on the Tullah Tramway Bruce Macdonald collection

November 1921⁴⁴ - out of use 1925 - offered for sale 1925⁴⁵ - Frank Bond, 1930⁴⁶ - Farrell Mining Co Ltd, 1933⁴⁷ - Dlct by 1935⁴⁸ - Dsm by early 1960s⁴⁹ - Electrolytic Zinc Company of Australasia Ltd, 1964⁵⁰; Van Diemen Light Railway Society, c/- D von Steiglitz, Evandale, Tas, 1972 (frame only)⁵¹; Transderwent Cruise & Ferry Co Pty Ltd, Ida Bay Railway, Tas by 1992⁵² - Ida Bay Railway Pty Ltd, 2005.

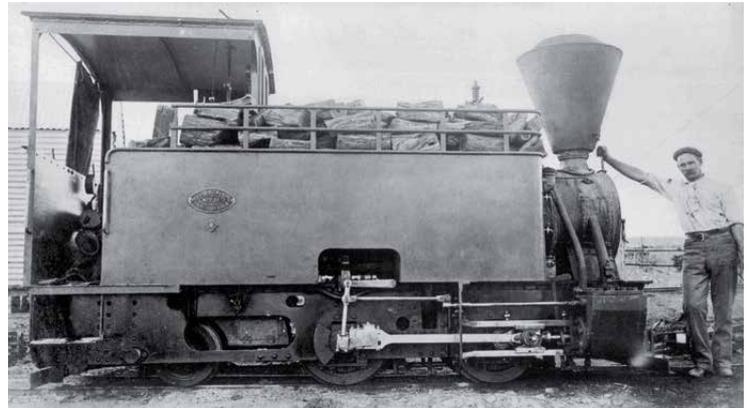
719 1901 610mm 0-4-0WT 30hp ordered for North Mount Farrell Mining Co NL, Tas⁵³ - not put into use, stored at Devonport, Tas, 1901⁵⁴ - offered for sale to Tasmanian Government, 1902⁵⁵; (? East Murchison United Ltd, Lawlers, WA by 1904⁵⁶ - The London & Western Australian Exploration Co Ltd 1905 - The Northern Mines Ltd, 1907 - out of use 1912⁵⁷ - offered for sale, 1912;⁵⁸ The Western Machinery Co Ltd, Kalgoorlie ?); WJS Spencer & Co (machinery merchants) Sydney, NSW by 1920; Cairns Town Council, Edge Hill Tramway, Qld, 1921⁵⁹ - out of use, 1926 - offered for sale, 1928⁶⁰; W Frost (haulage contractor), Mossman 1932⁶¹ - OOU 1937 - Abd at Miallo - Scr c.1955.⁶²

Although ordered for the North Farrell Tramway, this scheme failed to receive the expected government funding and it seems the locomotive was probably never used in Tasmania. CC Singleton recounted that it had been used at a mine in NSW before coming to Cairns.⁶³ However, CS Small placed an unidentified Orenstein & Koppel locomotive at Lawlers,⁶⁴ and we know that a total of four locomotives were there in 1904. Given that the length of time that the locomotive was unaccounted for coincides with the Lawlers operation, and that only three other of the Lawlers locomotives can be accounted for, this placement seems likely.



719 in use with a wooden tender in Cairns Ken Rogers Collection

731 1902 610mm 0-4-2T 40hp East Murchison United Ltd, Lawlers, WA - The London & Western Australian Exploration Co Ltd 1903 - The Northern Mines Ltd 1907⁶⁵ - offered for sale 1912;⁶⁶ Western Machinery Co Ltd, Kalgoorlie, WA 1913; Kalgoorlie & Boulder Firewood Co, Beria, WA, 1916 *ROSIE* - OOU 1920⁶⁷ - Dlct by 1935 - S/S after 1938.⁶⁸



731 at Lawlers George Bond collection

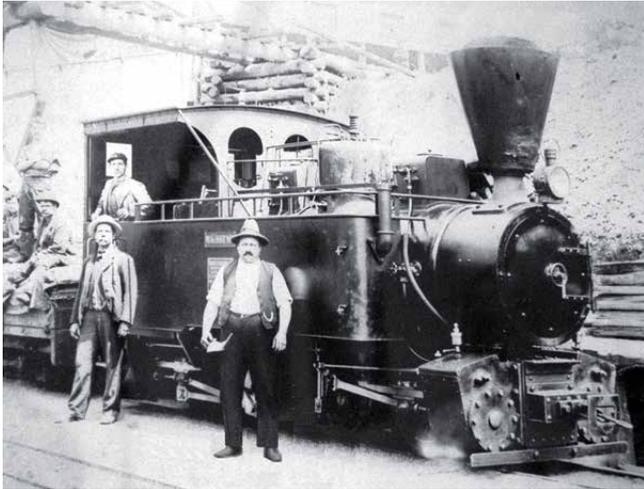
819 1901 825mm 0-4-0WT 20hp ordered from O&K London branch by James Boyd for export - James Boyd (firewood contractor), Charters Towers, Qld, *BURDEKIN*⁶⁹ - Charters Towers Water Board, Qld, 1906;⁷⁰ out of use 1941; Queensland Main Roads Commission, Burdekin Bridge construction, Home Hill, Qld, 1948 (not used); sold to Jack Casey, 1956 - S/S.⁷¹

Jack Casey was a contractor based in North Mackay. I am unaware whether he removed the locomotive from the Burdekin Bridge site.



819 hauling firewood at Charters Towers JW Knowles collection

882 1901 610mm 0-4-4-0T 100hp Magnet Silver Mining Co NL, Tas *MAGNET No. 1*⁷² - out of use by 1929 - in use by Magnet Prospecting Syndicate, 1932 - in use by New Magnet Prospecting Syndicate NL, 1935 - Amalgamated Gold Estates NL, 1937⁷³ - Magnet Silver-Lead Mines NL, 1937 - Spartan Silver Lead Mines NL, 1940 - sold at auction, November 1940⁷⁴ - RJ Howard 1940 - boiler removed and sold to a sawmill near Magnet Junction; Great Boulder Gold Mining Co. Ltd, Boulder, WA, c.1946 (frame only)⁷⁵ - used for spare parts - Dlct by 1965 - Scr.



882 as MOUNT MAGNET No. 1

Winters Studios

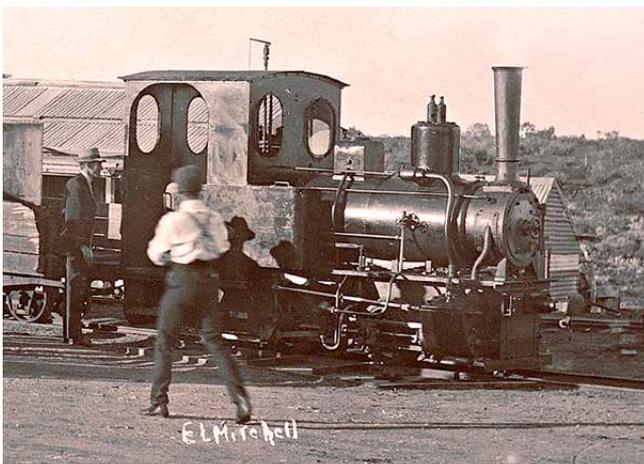
943 1902 610mm 0-4-4-0T 100hp Douglas Shire Council Tramway, Port Douglas, Qld, 1903 2 DOUGLAS⁷⁶ - new boiler OK 11308 supplied through Arthur Leplastrier, Sydney, 1927 - out of use 1946⁷⁷ - Dsm - frame dumped in sea, 1948.



943 at Port Douglas

Author's collection

2271 1907 610mm 0-4-0WT 30hp Public Works Department of Victoria, Coode Canal reclamation works, Port Melbourne - of use 1909; stored at West Melbourne Dredging Depot, 1909⁷⁸; purchased by Western Australian Public Works Department, 1910 - sent to VR Newport Workshops for tyre turning⁷⁹; assembled at Harbour Works Department workshops, Fremantle - inspected at WAGR Midland Workshops⁸⁰; Western Australian Public Works Department, Point Samson-Roebourne



2271 at Roebourne State Library of Western Australia 685B/5

Tramway, 1910, 1⁸¹ - at WAGR Midland Workshops for repairs following accident, 1911-1912⁸² - OOU 1925 - removed to Perth 1926⁸³ - Metropolitan Water Supply, Sewerage & Drainage Department, Churchman's Brook Reservoir, WA, 1926⁸⁴ - at WAGR Midland Workshops for firebox repairs, 1926-1927; Western Australian Public Works Department Water Supply Division, Harvey Weir, 1930⁸⁵ - OOU 1932⁸⁶; Tomlinson & Co Ltd (engineers), Perth, 1946⁸⁷ - Tomlinson's Steel Pty Ltd, 1947 - boiler offered for sale 1951⁸⁸ - Dsm - boiler sold to Collie Dry Cleaners for stationary use, 1951⁸⁹ - remainder Scr.

2303 1907 600mm 0-4-0WT 40hp ordered by O Granowski but possibly remained unsold in Melbourne - Western Australian Public Works Department, Point Samson Roebourne Tramway, 1911, 2⁹⁰ at WAGR Midland Workshops for repairs, 1917 & 1921⁹¹ - fitted with new boiler at State Implement Works, Fremantle, 1924⁹² - OOU, 1925 - removed to Perth 1926⁹³; Metropolitan Water Supply, Sewerage & Drainage Department, Churchman's Brook Reservoir, WA, 1926 - Western Australian Public Works Department, Government Stores, North Fremantle, 1928 - Western Australian Public Works Department Water Supply Division, Harvey Weir, 1930 - out of use 1932; Tomlinson & Co Ltd, Perth (engineers), WA, 1946 - boiler sold for stationary use, 1946⁹⁴ - remainder S/S.

The boiler of this locomotive was advertised for sale and is reported as being sold in 1946. However, perhaps it was later returned as two boilers were advertised for sale in 1951 by Tomlinson's Steel Pty Ltd.⁹⁵

2424 1907 600mm 0-4-0WT 20hp Whim Well Copper Mines Ltd, Whim Creek, WA⁹⁶ - O&K boiler 5576 supplied 1912 ex O&K London branch⁹⁷ - OOU 1917; Western Machinery Co, Whim Creek, WA, c.1919 - Abd - Dlct - Scr c.1964.

2461 1907 600mm 0-4-0WT 20hp Whim Well Copper Mines Ltd, Whim Creek, WA⁹⁸ (landed at Balla Balla)⁹⁹ - OOU 1917; Western Machinery Co, Whim Creek, WA, c.1919 - Abd - Dlct - Scr c.1964.

A locomotive was offered for sale to the Western Australian Public Works Department and was inspected at Whim Creek in June 1911, in working order and with boiler clean and in a good state of preservation.¹⁰⁰ It was presumably this one as the other locomotive was fitted with a new boiler the following year.

2609 1907 610mm 0-4-4-0T 100hp Magnet Silver Mining Co NL, Tas. MAGNET No.3¹⁰¹ - in use by Magnet Prospecting Syndicate, 1932 - in use by New Magnet Prospecting Syndicate NL, 1935 - Amalgamated Gold Estates NL (with mine) 1937¹⁰² - Magnet Silver-Lead Mines NL (with mine) 1937 - Spartan Silver Lead Mines NL (with mine) 1940 - sold at auction, November 1940¹⁰³ - RJ Howard 1940 (used for demolition work, probably stored thereafter) - Great Boulder Gold Mining Co Ltd, Boulder, WA, 1946¹⁰⁴ - fitted with new Perry boiler, 1953¹⁰⁵ - front bogie unpowered by 1960s¹⁰⁶ - OOU 1962 and still on site 1968¹⁰⁷; Lew Whiteman, Mussel Pool Museum, Middle Swan, WA by 1972¹⁰⁸; Western Australian Light Railway Preservation Association, Bennett Brook Railway, Whiteman Park, Caversham (now Whiteman), WA, 1985¹⁰⁹ - Dsm - chassis to Willis Engineering, Burswood, for restoration, 1994¹¹⁰ - returned to Whiteman Park, 2000.¹¹¹

2748 1908 610mm 0-4-0WT 50hp Dunkley Brothers, Zeehan, Tas¹¹² - seriously damaged in accident, 1908¹¹³ - RJ Howard, Zeehan Tramway c.1932¹¹⁴ - Dlct by 1963¹¹⁵ - Dsm 1969.¹¹⁶

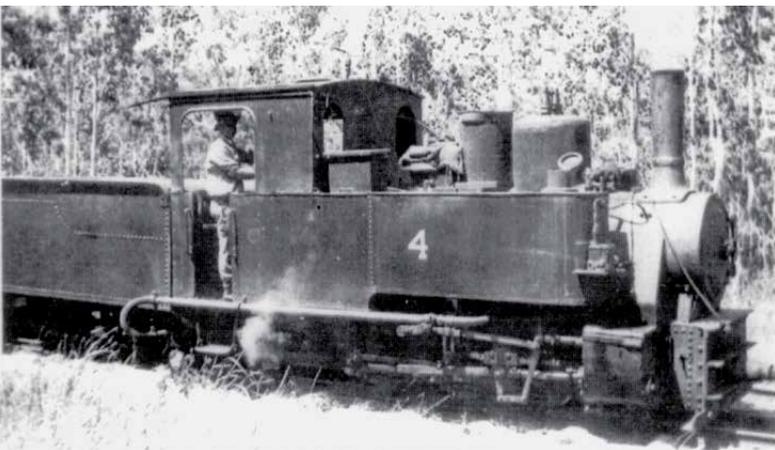


2748 on Dunkley's Crimson Creek Tramway c.1908

Winters Studios

3310 29/1/09 610mm 0-6-0T 60hp Proserpine Central Mill Co Ltd, Qld, 4 'German Annie'¹¹⁷ - Proserpine Cooperative Sugar Milling Association, 1931 - fitted with new boiler 1936 - OOU 1956 - S/S before 1961.¹¹⁸

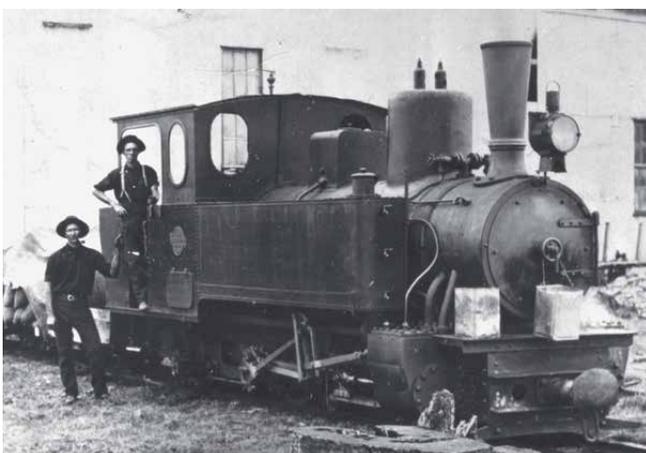
This locomotive was recorded as ordered for Gin Gin Mill. Both Gin Gin and Proserpine Mills were under Queensland Government control at the time.



3310 at with bogie tender at Proserpine Mill

Proserpine Historical Museum Society

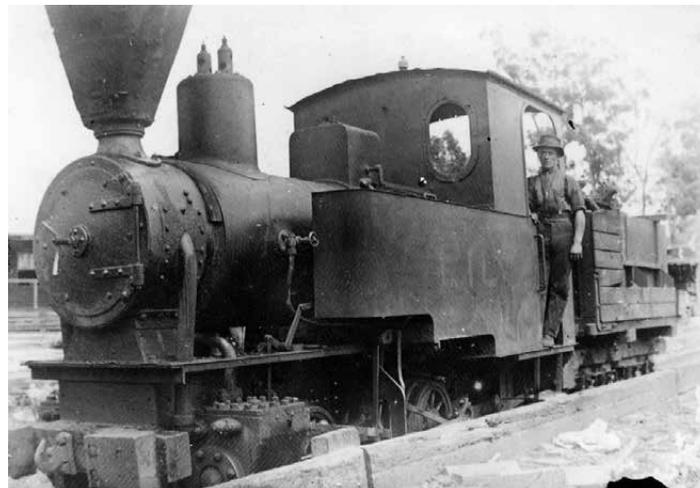
3311 1909 610mm 0-6-2T 120hp Gin Gin Central Mill Co Ltd, Wallaville, Qld, 'Kaiser'¹¹⁹ - Babinda Central Mill Co Ltd, Babinda, Qld, 1916, 4 'Kaiser'¹²⁰ - Babinda Co operative Central Mill Society Ltd 1924 - fitted with new Walkers boiler, 1927¹²¹; OOU after 1961¹²² - S/S 1969.



3311 on bagged sugar at Gin Gin Mill *Bruce Macdonald collection*

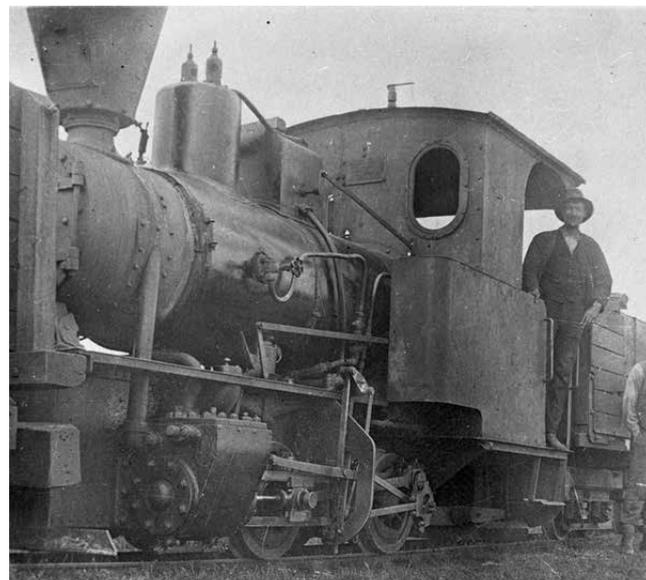
3771 1909 610mm 0-6-0WT 50hp Kalgoorlie and Boulder Firewood Co, Beria, WA, *LILY*¹²³ - Goodwood Timber and Tramway Co, Port Albert, Vic, 1913, 'Lily'¹²⁴ - fitted with Kelly & Lewis boiler, 1915; Cameron & Sutherland Ltd (dealers), 1920; sold - cab, boiler and other parts used by Days Engineering in the construction of an articulated locomotive for Jack Ezard, Starvation Creek Tramway, Warburton, Vic, 1928.¹²⁵

Photographic evidence demonstrates that the cab of this locomotive was used on Ezard's locomotive.



3771 on the Goodwood Tramway with substantial water tanks and a timber bogie tender *B McMaster courtesy Mike McCarthy*

3961 1910 610mm 0-4-0WT 50hp Goodwood Timber and Tramway Co Ltd, Port Albert, Vic, 'Amy'¹²⁶; Cameron & Sutherland Ltd (dealers), 1920; sold - parts believed used by Days Engineering in the construction of an articulated locomotive for Jack Ezard, Starvation Creek Tramway, Warburton, Vic, 1928¹²⁷ - parts observed at La La Siding, Warburton, 1935¹²⁸; frame S/S after 1969.¹²⁹



3961 on the Goodwood Tramway with the same tender as shown with 3771 and much less water capacity on the locomotive

A Robinson courtesy Mike McCarthy

4058 1910 1067mm 0-4-0WT 50hp Western Australian Public Works Department, Broome¹³⁰; Western Australian Public Works Department, Carnarvon, 1912; Western Australian Public Works Department, Broome, 1913¹³¹ -

possibly in Fremantle for repairs, 1926¹³²; Western Australian Public Works Department, Carnarvon, 1949¹³³ - OOU 1952 - Dsm by 1955 - boiler sold to butcher 1955¹³⁴, remainder abd; Carnarvon Light Railway Association by 1999 - reunited with boiler by 2003.¹³⁵



4058 at Broome State Library of Western Australia 024226PD

4241 1910 610mm 0-6-0T 60hp ordered by Hannan's Star Consolidated Ltd, Boulder, WA - Lake View & Star Ltd¹³⁶ - OOU 1950¹³⁷; Great Boulder Proprietary Gold Mines Ltd, Boulder, WA, 1952 - OOU 1962¹³⁸; J Krasnostein & Co Pty Ltd (scrap dealers), Bayswater, WA¹³⁹; Bruce Macdonald, Goulburn Steam Museum, NSW, 1974¹⁴⁰; Weatherall's Museum, Lincoln Causeway, Wodonga, Vic, 1977¹⁴¹; Eric Howe, Tarleton, Tasmania, 1991¹⁴²; Mt Lyell Abt Railway, Queenstown, Tasmania, 2000 - Dsm; conversion to 3'6" gauge commenced¹⁴³; Wee Georgie Wood Steam Railway Inc, Tullah, Tas, by 2009.¹⁴⁴



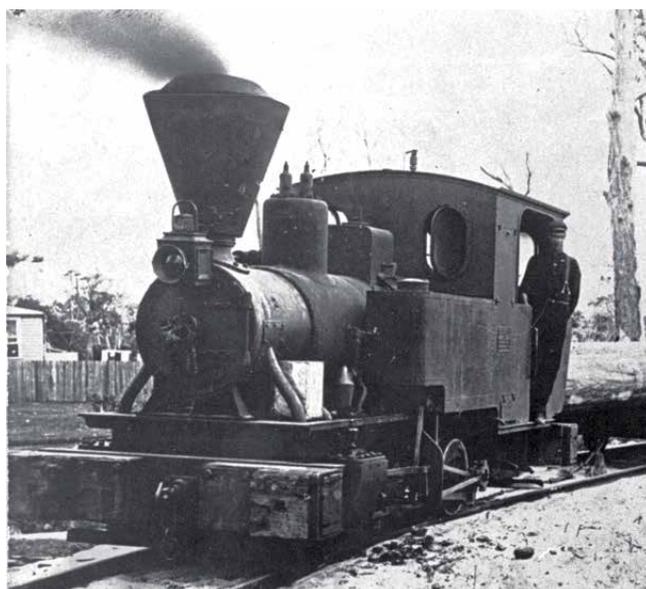
4241 at Great Boulder Mines in April 1967
RK Warren courtesy Richard Horne



4242 at Great Boulder Mines in April 1967
RK Warren courtesy Richard Horne

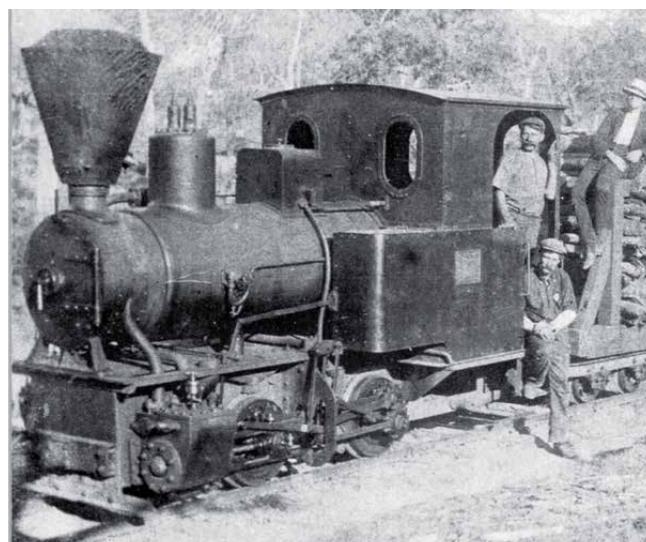
4242 1910 610mm 0-6-0T 60hp ordered by Hannan's Star Consolidated Ltd, Boulder, WA - Lake View & Star Ltd¹⁴⁵ - on hire at Great Boulder Proprietary Gold Mines Ltd, Boulder, WA, 1949-50¹⁴⁶ - out of use 1962¹⁴⁷; Australian Railway Historical Society (WA Division), WAGR Midland Workshops, 1967¹⁴⁸; Australian Railway Historical Society (WA Division), Bassendean Museum, 1971.¹⁴⁹

4365 1910 1067mm 0-4-0WT 50hp New South Wales Public Works Department, Sydney; New South Wales Public Works Department, Coffs Harbour, 1911¹⁵⁰ - OOU 1916 -¹⁵¹ - offered for sale 1917¹⁵²; New South Wales Public Works Department, Leichhardt, by 1920 for overhaul 66; State Rivers & Water Supply Commission of Victoria, Hume Weir, 1921 66¹⁵³ - wheels and axles repaired at VR Newport Workshops, 1925¹⁵⁴ - OOU 1935 - S/S.



4365 at Coffs Harbour Coffs Harbour Library courtesy Ian McNeil

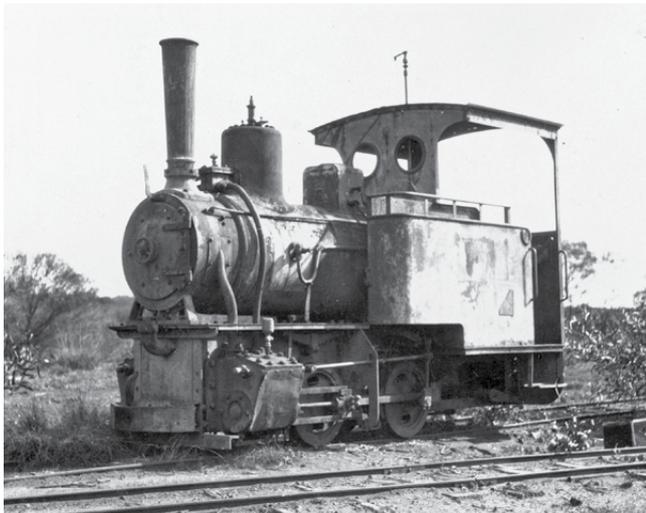
4631 1911 762mm 0-4-0WT 40hp Grafton Copper Mining Co Ltd, Cangai, NSW¹⁵⁵ - OOU 1917¹⁵⁶; Tasmanian Timber & Tramway Co, Bridport, Tas, c.1920 'Abe'¹⁵⁷ - offered for sale, March 1932¹⁵⁸ - Henry Jones & Co Pty Ltd, Warrentina, Tas, 1932¹⁵⁹ - IXL Timber Co Pty Ltd, 1934 - OOU 1945¹⁶⁰ - offered for sale 1949-1950¹⁶¹ - sold for scrap 1950 and Dsm on site¹⁶² - Abd - remains extant 1990s.¹⁶³



4631 hauling firewood at Cangai Clarence River Historical Society

4756 1911 610mm 0-4-0WT 30hp unknown location; Surprise Lead Mining Syndicate, Galena, WA, c.1924 - OOU by 1926; sold to JE Hall for scrap c.1932/3 - Dsm - Abd - moved to Warribanno Chimney historic site, Ajana, WA c.2010.¹⁶⁴

Identification rests upon the fact that a 1929 photo and the frame at Warribanno Chimney correspond to the 30hp type and the locomotive with this builder's number is the only one unaccounted for. Together with 4755 it appears in the published O&K list as for the Australian Metal Co. However, an examination of the individual O&K record sheets shows that only 4756 came to Australia. It has not been possible to identify its location before it went to Galena. One possibility, suggested by CS Small's data,¹⁶⁵ is that it was intended for The Northern Mines at Lawlers, but it would have arrived in Australia only shortly before the closure of the mining operations there.



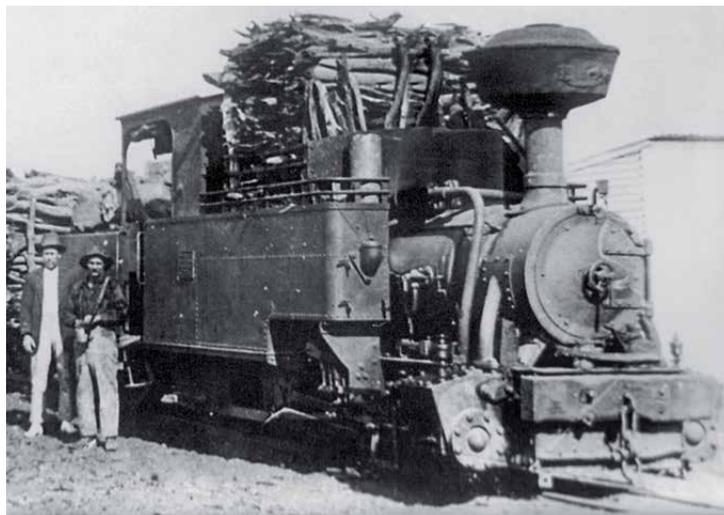
4756 at Galena on the Murchison River in June 1929
State Library of Western Australia 816B/B584

5022 1911 600mm 0-4-0WT 50hp Junction North Broken Hill Mine NL, Broken Hill, NSW¹⁶⁶ - out of use 1928 - North Broken Hill Ltd 1931¹⁶⁷; Perry Engineering Ltd, Adelaide, SA (for overhaul), 1935-6; Youanmi Gold Mines Ltd, Black Range, WA, 1936¹⁶⁸; OOU, 1942; sold to JE Hall for scrap but still on site up to around 1950 at least - S/S.



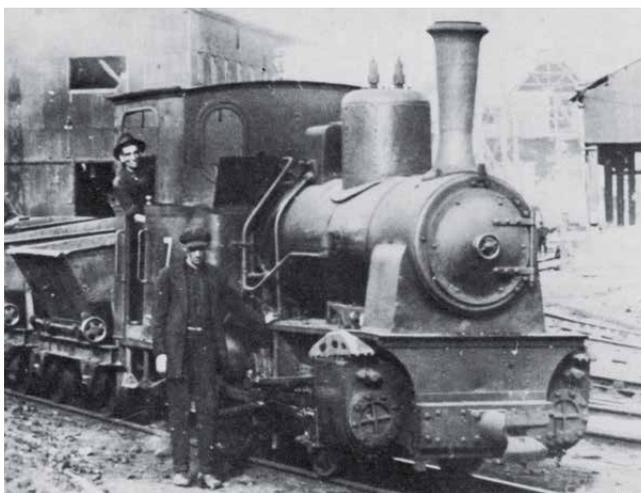
5022 at the Junction North Mine, Broken Hill CC Singleton

5081 1911 508mm 0-6-2T 50hp The Sons of Gwalia Ltd, Leonora, WA KOPPEL¹⁶⁹ - boiler OK 6483 supplied 1913 via Strelitz Bros - fitted with original boiler repaired by WAGR, 1926¹⁷⁰ - OOU 1955¹⁷¹ - Scr 1965.¹⁷²



5081 with tender on a firewood train, with a large load of firewood on top of the boiler
Rail Heritage WA P5297

6270 1914 914mm 0-4-0WT 70hp The Broken Hill Proprietary Co Ltd, Newcastle Steelworks, NSW¹⁷³ - OOU 1930 - offered for sale December 1934, November 1935 and March 1936¹⁷⁴ - Scr 1936.¹⁷⁵



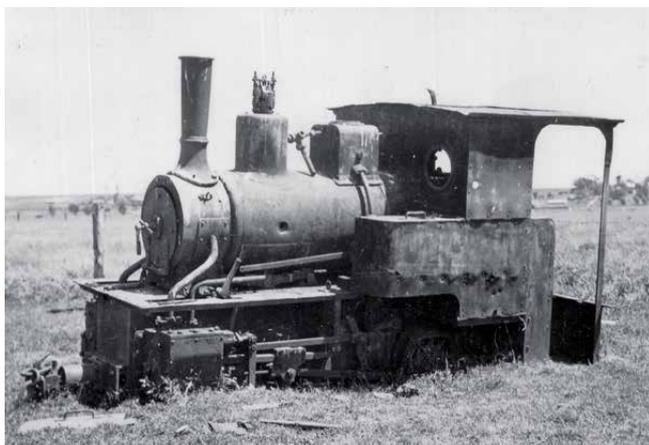
BHP Newcastle number 7, either 6270 or 6731 John Buckland collection

6519 1913 610mm 0-4-0WT 10hp built for Société Nouvelle des Etablissements Decauville Aîné, France; South Australian Irrigation and Reclamation Department, Pompoota Swamp reclamation works ¹⁷⁶; South Australian Irrigation and Reclamation Department, Jervois reclamation works - OOU 1932 - offered for sale at Jervois, December 1946¹⁷⁷ - Abd - frame still present 1990s.



6519 working at Pompoota on the River Murray Les Howard collection

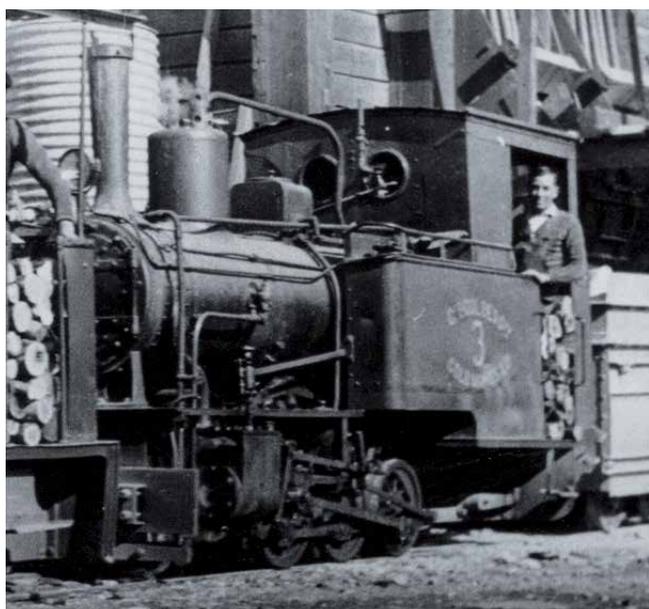
6520 1913 610mm 0-4-0WT 10hp built for Société Nouvelle des Etablissements Decauville Ainé, France; South Australian Irrigation and Reclamation Department, Pompoota Swamp reclamation works 2¹⁷⁸; South Australian Irrigation and Reclamation Department, Woods Point reclamation works - out of use 1932 - offered for sale at Woods Point, December 1946¹⁷⁹ - scrapped 1950s.



6520 lying derelict at Woods Point in 1946

John Goggs courtesy Richard Horne

6593 1913 610mm 0-6-0WT 30hp Oroya Links Ltd, Brown Hill Gold Mine, Boulder, WA¹⁸⁰ - North Kalgurli (1912) Ltd, 1928; Great Boulder Proprietary Gold Mines Ltd, Boulder, 1938 3¹⁸¹ - scrapped by 1960.¹⁸²



6593 in Great Boulder ownership

George Bond collection

6605 1913 610mm 0-4-0WT 20hp JC Bellert, Burgowan Colliery, Torbanlea, Qld¹⁸³ - leased by Burgowan Syndicate, 1918¹⁸⁴ - Burgowan Coal Co, 1920¹⁸⁵; Blackheath Colliery Pty Ltd, Ipswich, Qld, c.1924; sold to Caledonian Collieries Pty Ltd by 1926¹⁸⁶ - Dsm; frame and wheels to Caledonian Collieries Pty Ltd, Walloon, Qld, by 1926 - rebuilt as 4wPM with l'Acre engine, 1926 - out of use 1938 - Dsm¹⁸⁷ - Abd - scrapped c.1970.

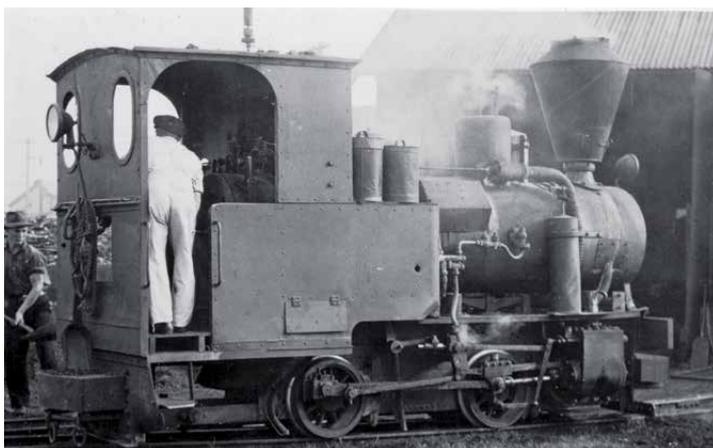
6731 1914 914mm 0-4-0WT 70hp The Broken Hill Proprietary Co Ltd, Newcastle Steelworks, NSW¹⁸⁸ - out of use 1930 - offered for sale December 1934, November 1935 and March 1936¹⁸⁹ - scrapped 1936.¹⁹⁰



6605 derelict at Caledonian Collieries

Ken Rogers collection

6805 1914 610mm 0-4-0WT 50hp Millaquin Sugar Co Pty Ltd, Millaquin Mill, Bundaberg, Qld 'Germany'¹⁹¹ - Millaquin Sugar Co Pty Ltd, Moorlands Tramway, Kolan River, Qld, 1954-1955 - in use at Millaquin Mill, 1957-8 - on loan at Millaquin Sugar Co Pty Ltd, Qunaba Mill - out of use at Millaquin Mill by 1963¹⁹²; Bundaberg East Rotary Club, East Rotary Park, Bundaberg, 1965¹⁹³; Bundaberg Steam Tramway Preservation Society, c/- Geoff Pritchard, Bundaberg, 1987; Bundaberg Steam Tramway Preservation Society, Botanic Gardens, North Bundaberg, 1990 GERMANY.¹⁹⁴



6805 at Millaquin Mill

Bruce Macdonald collection

10668 1927 1435mm 0-4-0WT 50hp Mackay Harbour Board, Pioneer River works, Qld (51) - OOU 1928¹⁹⁵ - Mackay Harbour Board, Outer Harbour works, 1934 51¹⁹⁶ - OOU by 1947 - offered for sale 1949 & 1952¹⁹⁷ - Dlct by 1956 - S/S.



10668 working at Mackay Outer Harbour

Ken Rogers collection

Summary table of locomotive details

The table below summarises additional details for each locomotive. Listed are builder's number, date ex works (where recorded), gauge, horsepower, cylinder dimensions, wheel arrangement, driving wheel diameter (and trailing wheel diameter where applicable), rigid wheelbase (and total wheelbase where applicable), designated fuel (Wood or Coal), weight empty, and the selling agent.

The following abbreviations denote the agent as derived from O&K records, and from other primary sources in Australia when the O&K records do not provide sufficient detail:

- B – R Berude, Melbourne
- C – Central Tramway Appliances, Sydney
- G – O Granowski, Brisbane
- M – Australian Metal Co, Sydney
- N – Noyes Bros, Sydney
- S – Strelitz Bros, Fremantle

Where no agency information is known, A – Australia; EA – Eastern Australia; and WA – Western Australia are taken from the builder's records. It is possible that some of these locomotives were supplied directly to the purchaser.

The power rating in hp is as shown on the O&K record sheets. In comparing photographs with this data, some



Orenstein & Koppel patent valve gear plate

Author

researchers have questioned how reliable these records are in this respect and this is a topic possibly worthy of more exploration.

B/n	Date	Gauge (mm)	hp	Cyls (mm)	Type	Wheels (mm)		Wheelbase (mm)		Fuel	Weight empty (kg)	Agent
						DWD	TWD	Rigid	Total			
683	6/1900	508	10	120x200	0-4-0WT	450	-	900	-	W	3550	S
718	2/1901	610	30	165x300	0-4-0WT	580	-	1000	-	W	5718	C
719	2/1901	610	30	165x300	0-4-0WT	580	-	1000	-	W	5399	C
731	25/6/02	610	40	185x300	0-4-2T	650	450	1100	2200	W	7812	S
819	30/5/01	825	20	145x260	0-4-0WT	550	-	1000	-	W	6120	-
882	22/7/01	610	100	210x300 & 315x300	0-4-4-0T	650	-	1300 & 1000	3100	W	14344	C
943	5/1902	610	100	210x300 & 315x300	0-4-4-0T	650	-	1300 & 1000	3100	W	13429	C
2271	26/1/07	610	30	165x300	0-4-0WT	580	-	1000	-	C	5245	G
2303	25/4/07	600	40	185x300	0-4-0WT	580	-	1100	-	C	6125	G
2424	15/6/07	600	20	145x260	0-4-0WT	550	-	900	-	C	4665	A
2461	23/10/07	600	20	145x260	0-4-0WT	550	-	900	-	C	5070	A
2609	26/10/07	610	100	210x300 & 315x300	0-4-4-0T	650	-	1300 & 1000	3100	W	13290	M
2748	19/2/08	610	50	210x300	0-4-0WT	580	-	1200	-	W	7860	M
3310	29/1/09	610	60	240x300	0-6-0T	600	-	1400	-	C	9950	G
3311	30/1/09	610	120	305x350	0-6-2T	700	500	1500	3300	C	13540	G
3771	18/11/09	610	50	210x300	0-6-0WT	580	-	1400	-	W	7880	S
3961	29/1/10	610	50	210x300	0-4-0WT	580	-	1200	-	C	6855	S
4058	3/5/10	1067	50	210x300	0-4-0WT	580	-	1200	-	C	7035	S
4241	8/1910	610	60	240x300	0-6-0T	580	-	1400	-	W	9610	S
4242	8/1910	610	60	240x300	0-6-0T	580	-	1400	-	W	9718	S
4365	8/1910	1067	50	210x300	0-4-0WT	610	-	1520	-	C	8585	M
4631	28/1/11	762	40	185x300	0-4-0WT	580	-	1200	-	W	7405	M
4756	4/9/11	610	30	165x300	0-4-0WT	580	-	1000	-	W	5825	M
5022	30/9/11	600	50	210x300	0-4-0WT	580	-	1200	-	C	7235	M
5081	14/10/11	508	50	210x300	0-6-2T	580	450	1400	2800	W	9255	M
6270	28/1/14	914	70	250x350	0-4-0WT	700	-	1600	-	C	9805	EA
6519	31/5/13	610	10	120x250	0-4-0WT	500	-	1200	-	C	3875	N
6520	31/5/13	610	10	120x250	0-4-0WT	500	-	1200	-	C	-	N
6593	13/9/13	610	30	170x275	0-6-0WT	550	-	1200	-	W	5950	WA
6605	23/8/13	610	20	150x275	0-4-0WT	550	-	1200	-	C	5025	EA
6731	28/1/14	914	70	250x350	0-4-0WT	700	-	1600	-	C	9705	M
6805	21/2/14	610	50	210x300	0-4-0WT	600	-	1400	-	C	6905	M
10668	2/1927	1435	50	210x300	0-4-0WT	650	-	1400	-	C	8320	B

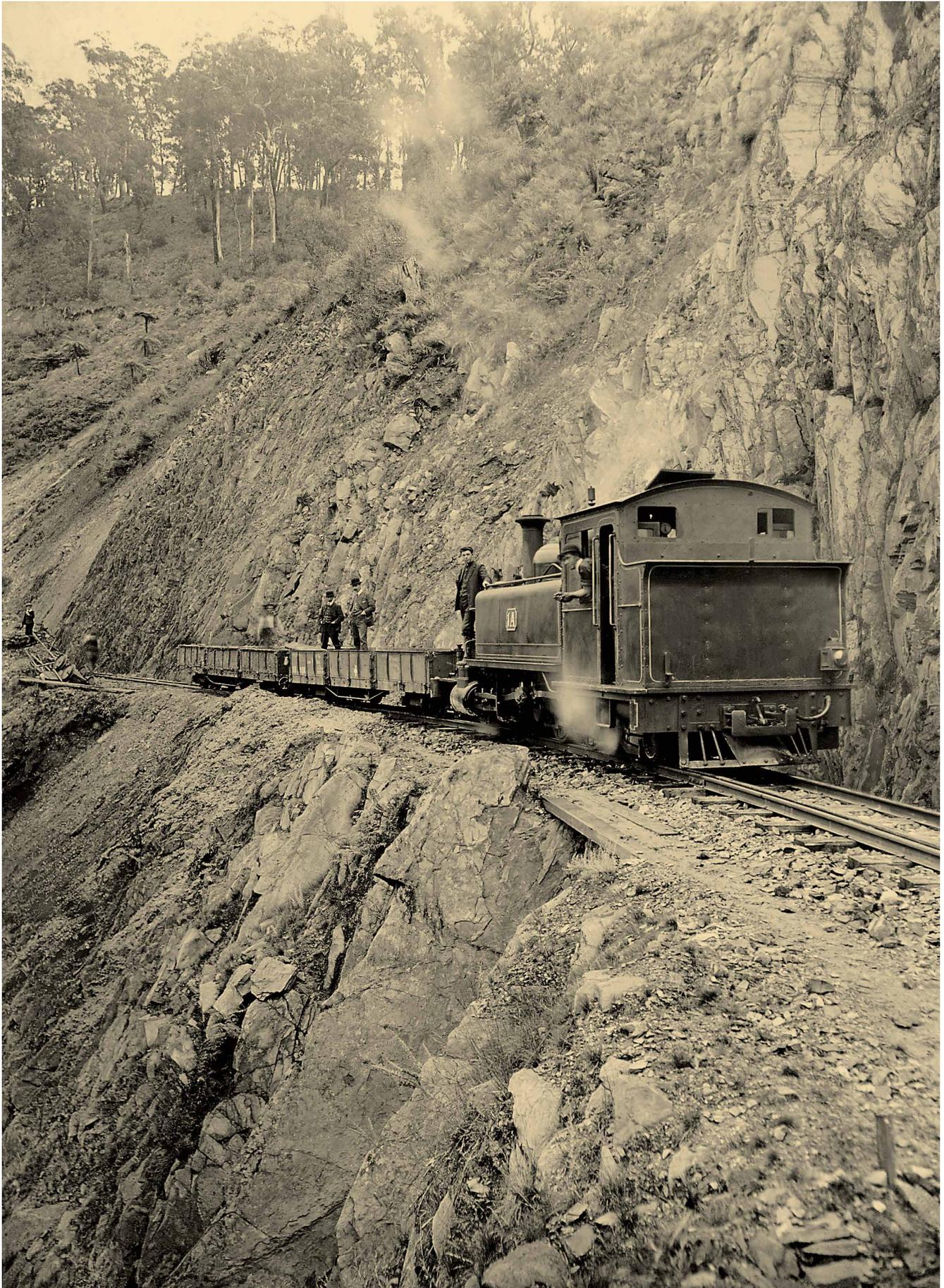
Acknowledgements

Special thanks are due to Martin Murray, who made available his copies of the relevant O&K record sheets that he had laboriously copied in Dresden, and to all those who have contributed their information to increase this common wealth of knowledge.

References

1. The information in this section is drawn from: Fricke, Klaus, Bude, Roland & Murray, Martin, 1978. *O&K Steam Locomotives Works List 1892-1945*. Arley Hall Publications, Bristol, England.
2. Clingan, KW & Lanham, JG, 1992. *Decauville Steam Locomotives: A Works List*. Industrial Railway Society, London.
3. for example *The Sydney Mail and New South Wales Advertiser*, 3 October 1891 p.769 <http://nla.gov.au/nla.news-article162174724>
4. *South Australian Register*, 18 October 1892 p.2 <http://nla.gov.au/nla.news-article48561337>; *South Australian Chronicle*, 15 October 1892 p.12 <http://nla.gov.au/nla.news-article92301141>
5. *Australian Mining Standard*, 5 January 1899 p.II
6. 1899 WA Post Office Directory p.93
7. Browning, John, 2005. *Continental charm: The mysterious Bunyip in Light Railways* 181.
8. *The Farmer and Settler*, 13 April 1915 p.2 <http://nla.gov.au/nla.news-article116708630>
9. *The Queenslander*, 5 January 1895 p.32. <http://nla.gov.au/nla.news-article21627882>
10. *The Brisbane Courier* 26 June 1894 p.1 <http://nla.gov.au/nla.news-article3582419>
11. *The North Queensland Register* 24 June 1901 p.13 <http://nla.gov.au/nla.news-article84911200>
12. For example, in 1900, a Mr J Armstrong was Tasmanian agent for both WT Lempriere and the Central Mining & Tramway Appliance Co. *The Mercury*, 28 November 1900 p.3 <http://nla.gov.au/nla.news-article12820987>; *Examiner*, 1 February 1900 p.2 <http://nla.gov.au/nla.news-article35343821>
13. *Examiner*, 23 March 1901 p.6 <http://nla.gov.au/nla.news-article35393528>
14. *The Mercury* 5 March 1901 p.3 <http://nla.gov.au/nla.news-article12833839>
15. *The Sydney Morning Herald*, 17 October 1906 p.6. <http://nla.gov.au/nla.news-article14807743>
16. *The Sydney Morning Herald*, 30 November 1906 p.4 <http://nla.gov.au/nla.news-article14818313>
17. *The Sydney Morning Herald*, 10 November 1906 p.7. <http://nla.gov.au/nla.news-article14800263>
18. Brunkova, Zdravka; Round, David & Shanahan, Martin, 2012. *Attitudes and responses to foreign direct investment in Australia from Federation until World War II* pp.11 & 20.
19. Clark, Donald, 1907. *Australian Mining & Metallurgy*. Sir Isaac Pitman & Sons Ltd, London. p.LXXI
20. *The Sydney Morning Herald*, 8 March 1920 p.6 <http://nla.gov.au/nla.news-article15865841>; *The Sydney Morning Herald*, 4 September 1907 p.11 <http://nla.gov.au/nla.news-article14901554>
21. *The Australian Sugar Journal (ASJ)*, 4 June 1914 p.162
22. *ASJ*, 2 July 1914 p.280
23. *The Argus*, 19 May 1927 p.7 <http://nla.gov.au/nla.news-article3855411>
24. *The Daily News*, 24 December 1914 p.8 <http://nla.gov.au/nla.news-article79916736>; *Kalgoorlie Miner*, 1 January 1915 p.6 <http://nla.gov.au/nla.news-article92602864>
25. *The Farmer and Settler*, 13 April 1915 p.2 <http://nla.gov.au/nla.news-article116708630>
26. *Cairns Post*, 24 July 1916 p.6 <http://nla.gov.au/nla.news-article40013772>
27. *Hamilton Spectator*, 24 October 1914 p.6 <http://nla.gov.au/nla.news-article119870304>
28. *The Sydney Morning Herald*, 8 October 1914 p.9 <http://nla.gov.au/nla.news-article15541079>
29. *Cairns Post*, 24 July 1916 p.6 <http://nla.gov.au/nla.news-article40013772>; *Advocate*, 12 May 1922 p.3 <http://nla.gov.au/nla.news-article66592994>
30. *Kalgoorlie Miner*, 19 August 1919 p.2 <http://nla.gov.au/nla.news-article93794726>
31. Wayne D Knoll, *German-Australian Aliens of Militarism*, accessed 27/11/2013 <http://germanaustralianaliensofmilitarism.blogspot.com.au/2011/09/sa-sc-surnames-germanic-emigrants-1870.html>
32. *Evening News*, 26 August 1914 p.3 <http://nla.gov.au/nla.news-article115803934>; *The Bacchus Marsh Express*, 29 April 1911 p.4 <http://nla.gov.au/nla.news-article90577448>; *The Capricornian*, 17 April 1915 p.49 <http://nla.gov.au/nla.news-article69391087>
33. *Geelong Advertiser* 4 August 1916 p.3 <http://nla.gov.au/nla.news-article130690436>
34. Koppel Industrial Car & Equipment Company <http://www.midcontinent.org/rollingstock/builders/koppel.htm> accessed 17/04/2015
35. REW (RE West), 1973. Editorial note accompanying letter *The Origins of Orenstein & Koppel in Industrial Railway Record* 47.
36. *Western Mail* 22 December 1900 p.175 <http://nla.gov.au/nla.news-article33197652>; *Kalgoorlie Western Argus* 10 February 1903 p.14 <http://nla.gov.au/nla.news-article32671353>
37. Collie Co-operative Collieries took over the Moira Mine in 1904. Catherine Stedman (ed), 1988. *100 Years of Collie Coal*. Curtin University Press, p.40-41, 137-138, 286. A light railway locomotive driver's position for two months was advertised by Amalgamated Collieries, Collie, in 1920 *The West Australian*, 30 August 1920 p.10 <http://nla.gov.au/nla.news-article27785081> However a 20 inch gauge locomotive with 4½" cylinders was advertised in Melbourne in 1918. *The Age*, 11 May 1918 p.15. <http://nla.gov.au/nla.news-article155091777>
38. Kerr, John, 1991. *Top Mill in the Valley*. Mackay Sugar Co-operative Association Ltd. p.92
39. Interview with Col Cook 1990, in John Kerr research notes database. According to Charles Small, this was derelict by 1935. Small, Charles, 1965. *Locomotives of the Sugar Mills, Mines & Timber Lines of Queensland* (typescript).
40. *Daily Mercury*, 21 July 1921 p.8
41. *Zeehan and Dundas Herald*, Tuesday 23 April 1901, p.2 <http://nla.gov.au/nla.news-article84490785>; *Examiner*, Wednesday 24 July 1901, p.2 <http://nla.gov.au/nla.news-article91669341>
42. *The Mercury*, 23 December 1918 p.2 <http://nla.gov.au/nla.news-article11423399>; *Zeehan and Dundas Herald*, Thursday 6 February 1919, p.3 <http://nla.gov.au/nla.news-article84295849>; *Zeehan and Dundas Herald*, Thursday 31 July 1919, p.1 <http://nla.gov.au/nla.news-article84293509>
43. Chynoweth, Wayne, personal communication, 2001
44. Small, Charles, 1967. *Locomotives of the Railways of Tasmania*. Revision No.2 (typescript). First inspected at Tullah on 4 April 1922 (Tasmanian boiler records via Wayne Chynoweth)
45. *Advocate*, 25 July 1925 p.7 <http://nla.gov.au/nla.news-article66968823>
46. Mining Resources Tasmania, UR1945/64-85. The Farrell Mining Co. Ltd. Mines - Tullah
47. *Examiner*, 6 July 1933 p.7 <http://nla.gov.au/nla.news-article51829453>
48. *LRN* 52 p.8 (John Buckland)
49. *LRN* 4 p.2 (HJ Stokes)
50. Rae, Lou, 1984. *A History of Railways & Tramways on Tasmania's West Coast* (2nd edition) p.168
51. *LR* 42 p.26 (Ian Hall); Charrett, Peter L, 1977. *Preserved Railway and Tramway Rolling Stock in Australia*. Association of Railway Enthusiasts. p.37
52. *LRN* 92 p.18 (Peter Medlin)
53. *Launceston Examiner* 28 November 1900 <http://nla.gov.au/nla.news-article35379917>
54. *The Tasmanian Mail* 2 November 1901 p.14 per Wayne Chynoweth
55. Letter from J Armstrong, Agent, Central Tramway Appliances Co, to Minister of Lands 31 January 1902. Tasmanian Archives PWD file 243/95 per Wayne Chynoweth
56. *The West Australian*, Thursday 5 May 1904, p.3 <http://nla.gov.au/nla.news-article25087559>
57. Report of the Department of Mines, WA for 1912, p.8
58. *Kalgoorlie Miner*, 4 July 1912 p.10. <http://nla.gov.au/nla.news-article92597541>
59. Cairns Town Council Works Committee Minutes (Queensland State Archives 807142) show that the Orenstein & Koppel was purchased from WJS Spencer & Co, Brisbane, sometime after 21 February 1921. *Cairns Post*, 18 May 1921 p.8 <http://nla.gov.au/nla.news-article40127385>
60. *Brisbane Courier*, 4 February 1928 p.1 <http://nla.gov.au/nla.news-article21220083>
61. *The Northern Herald*, 16 July 1932 p.45 <http://nla.gov.au/nla.news-article149910649>
62. Kerr John. Research notes database.
63. Singleton, CC, 1956. *The Cane Tramways of Mossman, North Queensland in ARHS Bulletin* 221.
64. Small, Charles, 1965. *West Australian & Northern Territory locomotive listing* (typescript). ('WA & NT')
65. *Western Mail*, 20 April 1907 <http://nla.gov.au/nla.news-article37396025>
66. *Kalgoorlie Miner*, 4 July 1912 p.10. <http://nla.gov.au/nla.news-article92597541>
67. Gunzburg, Adrian & Austin, Jeff, 2008. *Rails through the Bush: Timber and Firewood Tramways and Railway Contractors of Western Australia*. Rail Heritage WA p.204
68. Small, Charles, 1965. WA & NT op.cit
69. *The North Queensland Register*, 9 Dec 1901 p.25. <http://nla.gov.au/nla.news-article84419762>
70. *The Northern Miner*, 12 September 1905 p.5 <http://nla.gov.au/nla.news-article79069441>
71. Knowles, John, 2003. *The Charters Towers Water Board Tramway* in LR 173 pp.3-13
72. Knowles, John, 2003. op.cit.
73. *The Mercury*, Monday 18 November 1901, p.3 <http://nla.gov.au/nla.news-article9575309>
74. Carried plate ORENSTEIN & KOPPEL Ltd. / LONDON-BERLIN / GENERAL-AGENTS / THE 'CENTRAL' MINING & TRAMWAY / APPLIANCES PROPRIETARY LTD / 40 HUNTER STREET / SYDNEY : Kemper, F, 1971. *The Origins of Orenstein & Koppel in Industrial Railway Record* 40
75. *Advocate*, 5 June 1937 p.6. <http://nla.gov.au/nla.news-article68481503>
76. *Launceston Examiner*, 16 November 1940 <http://nla.gov.au/nla.news-article52389536>
77. Rae, Lou, 1984. op.cit. p.207
78. Singleton, CC, 1956. *The Cane Tramways of Mossman, North Queensland in ARHS Bulletin* 221
79. Kerr, John. Research notes database
80. Evans, Peter, 2000. *Two Krausses and a 'Koppel: The spoil tramways of the Port of Melbourne, 1906-1909* in LR 156
81. Evans, 2000. op.cit.
82. Crellin, Ian, & Stamford, Frank, 1976. *More on Roebourne* in LR 57.
83. *Western Mail*, 2 July 1910 p.28 <http://nla.gov.au/nla.news-article38368280>
84. *The West Australian*, 12 April 1911 p.9 <http://nla.gov.au/nla.news-article26337617>; *Northern Times*, 5 Aug 1911 p.3 <http://nla.gov.au/nla.news-article74889080>
85. *Northern Times*, 8 Oct 1926 p.2 <http://nla.gov.au/nla.news-article76072937>
86. Crellin & Stamford, 1976 op.cit.
87. Joyce, John & Tilley, Allan, 1979. *Railways in the Pilbara*. A&J Publications, Wembley, WA p.16
88. Crellin & Stamford, 1976 op.cit.
89. Crellin & Stamford, 1976 op.cit.
90. *The West Australian*, 23 February 1951 p.27 <http://nla.gov.au/nla.news-article48185132>

89. Crellin & Stamford, 1976 op.cit.
90. Crellin & Stamford, 1976 op.cit. *Northern Times*, 5 Aug 1911 p.3. <http://nla.gov.au/nla.news-article74889080>
91. Joyce, John & Tilley, Allan, 1979. op.cit. p.16
92. Crellin & Stamford, 1976 op.cit.
93. *Northern Times*, 8 Oct 1926 p.2 <http://nla.gov.au/nla.news-article76072937>
94. Crellin & Stamford, 1976 op.cit.; *The West Australian*, 28 October 1946 Second edition p.18 <http://nla.gov.au/nla.news-article46180032>; *The West Australian*, 16 November 1946 p.14 <http://nla.gov.au/nla.news-article46184208>
95. *The West Australian*, 23 February 1951 p.27 <http://nla.gov.au/nla.news-article48185132>
96. *Barrier Miner*, 3 March 1908 p.2 <http://nla.gov.au/nla.news-article45036218>
97. Report of the Department of Mines, WA, for 1912, p.142. This suggests that the new boiler was fitted in Perth
98. *Barrier Miner*, 3 March 1908 p.2 <http://nla.gov.au/nla.news-article45036218>
99. Small, Charles, 1965 WA & NT op.cit.
100. Joyce, John & Tilley, Allan, 1979. op.cit. p.13
101. *Launceston Examiner*, 4 September 1907 <http://nla.gov.au/nla.news-article45828979>; *Launceston Examiner*, 15 February 1908 <http://nla.gov.au/nla.news-article38175856>
102. *Advocate*, 5 June 1937 p.6. <http://nla.gov.au/nla.news-article68481503>
103. *Launceston Examiner*, 16 November 1940 <http://nla.gov.au/nla.news-article52389536>
104. Rae, Lou, 1984. op.cit. p.207
105. *LRN* 49 p.12 (Lindsay Watson)
106. *LR* 41 p.22 (GJ Higham)
107. *LR* 41 p.21 (WA Pearce); Geoff Higham, personal communication 31 March 2014.
108. *LR* 39 p.34 (Geoff Murdoch). It is possible that Lou Whiteman obtained the locomotive from J Krasnostein & Co Pty Ltd (scrap dealers), Bayswater, WA, after 1968.
109. Whiteford, David, 2005. *From back yard to Bennett Brook 1976-2005*, West Australian Light Railway Preservation Association p.9
110. Whiteford, David, 2005. op.cit. p.33
111. Whiteford, David, 2005. op.cit. p.45
112. *The North Western Advocate and the Emu Bay Times*, 28 May 1908 p.2 <http://nla.gov.au/nla.news-article64825476>; *Zeehan and Dundas Herald*, 13 May 1908 p.2 <http://nla.gov.au/nla.news-article84530595>
113. *North Western Advocate and Emu Bay Times*, 25 August 1908 p.3 <http://nla.gov.au/nla.news-article64823589>
114. RJ Howard also operated the Mariposa Tramway at Argenton from 1931 to the late 1940s and a tramway at Firewood Siding, also on the Zeehan-Strahan line. Rae, Lou, 1984. op.cit. pp.39, 51, 156 & 206
115. Small, Charles, 1967. op.cit.
116. *LR* 27 p.31-32 (Ralph Proctor/Mark Plummer)
117. *Worker*, June 19 1909 p.10. <http://nla.gov.au/nla.news-article70874205>
118. Small, Charles, 1965. *Locomotives of the Sugar Mills, Mines & Timber Lines of Queensland* (typescript) ('Qld')
119. Armstrong, J, 1975. *The Gin Gin Central Mill Tramway in ARHS Bulletin* 449
120. Armstrong, J, 1975. op.cit.
121. *Cairns Post*, 17 May 1927 p.11 <http://nla.gov.au/nla.news-article40570968>
122. Small, Charles, 1965. Qld. op.cit.
123. Gunzburg, Adrian & Austin, Jeff, 2008. op.cit. pp.202-204
124. McCarthy, M, 1994. *Goodwood Timber and Tramway Company in LR* 124 for date of arrival
125. Anon, 1948. *The Port Albert-Mullungding Forest Tramway in ARHS Bulletin* 125.
126. McCarthy, Mike, 2006. Private communication to author.
127. Anon, 1948. op.cit.
128. Duffy, Charles Gavan, 1996. *Explorations of Victorian private lines and locomotives 1934-1935 in LR* 131
129. Chynoweth, Wayne, 1969. *Frame found at Warburton in LR* 26
130. *Western Mail*, 18 Jun 1910 p.43. <http://nla.gov.au/nla.news-article38363206>; *The West Australian* 10 August 1910 p.9 <http://nla.gov.au/nla.news-article26287848>
131. Apparently it was intended to send this to Carnarvon in 1912-1913. Mr Tindale said the locomotive at Broome was being sent down to Carnarvon. *Northern Times*, 21 December 1912 p.6 <http://nla.gov.au/nla.news-article75075885>. 'From the Chief Harbourmaster, stating that a steam locomotive now at Broome will be thoroughly overhauled and transferred to Carnarvon.' *Northern Times*, 17 May 1913 p.4 <http://nla.gov.au/nla.news-article75078615>
132. One loco shipped from Fremantle to Broome, 1926. *Western Mail* 5 June 1926 p.10. <http://nla.gov.au/nla.news-article76455043>
133. PWD WA Annual Report 1948-9
134. Crellin, Ian and Stamford, Frank, 1976. *Northwest Coastal Tramways: Broome in LR* 56
135. Heritage & Tourist report in *LR* 210
136. *Kalgoorlie Miner*, 16 September 1910 p.3 <http://nla.gov.au/nla.news-article91305843>; Lake View & Star formed 1910 from merger of Hamman's Star Consolidated Ltd and Lake View Consols Ltd.
137. Small, Charles, 1965 WA & NT op.cit.
138. Small, Charles, 1965 WA & NT op.cit.
139. Charrett, Peter L, 1977. op.cit. p.22
140. In *LR* 42 p.31 it was stated by Geoff Murdoch that this locomotive was stored at a private address in Perth but this is incorrect (Bruce Macdonald personal communication, 2013.)
141. McCarthy, K, 1980. *Marsden Museum of Historic Engines - Goulburn Steam Museum, Goulburn NSW in LR* 69 *LR* 42 p.31 Geoff Murdoch)
142. *LRN* 87 p.15 (Ian Comrie).
143. *LR* 174 p.28 (Ray Graf)
144. *LR* 214 p.37 (Brian Webber)
145. *Kalgoorlie Miner*, 16 September 1910 p.3 <http://nla.gov.au/nla.news-article91305843>
146. Small, Charles, 1965 WA & NT op.cit.
147. *LR* 41 p.22 (Peter Charrett)
148. Peter Hopper via Jeff Austin, personal communication, December 2013
149. Charrett, Peter L, 1977. op.cit. p.12. In *LR* 42 p.31, Geoff Murdoch indicates that the locomotive was stored at Ashfield in or around 1972; this is in fact the same location as the Bassendean museum.
150. *Coffs Harbour Advocate* 29 November 1913 via Ian McNeil. The Government locomotive at the Jetty has been dismantled for an overhaul and repairs - after 3 years' heavy work.
151. Kramer, John W, 1984. *Ships and Timber: A short history of Coffs Harbour port and associated railways in LR* 86. *Evening News*, 18 July 1910 p.2. <http://nla.gov.au/nla.news-article115253724>
152. *The Sydney Morning Herald*, 23 Jun 1917 p.17 <http://nla.gov.au/nla.news-article15750613>
153. State Rivers and Water Supply Commission Inwards Correspondence Register: VPRS 6009/P, Unit 51, Item 12326 via Colin Harvey
154. Charrett, 1968. *Tiamways of the State Rivers & Water Supply Commission (cont'd) in LR* 23.
155. *The Sydney Morning Herald*, 29 October 1910 p.17. <http://nla.gov.au/nla.news-article15176182>
156. *Clarence and Richmond Examiner*, 20 May 1911 p.4. <http://nla.gov.au/nla.news-article61609386>
157. *Shoebridge, JW*, 1996. *The Cangai Railway: Grafton Copper Company Firewood Tiamway in LR* 134
158. *Launceston Examiner*, 10 February 1921 <http://nla.gov.au/nla.news-article51110581>
159. *The Mercury*, 25 March 1932 p.2 <http://nla.gov.au/nla.news-article29948773>
160. Verhoeff, Tristan, 2011 (email) referenced in <http://www.australiansteam.com/ok4631.htm> accessed 9/12/2013
161. Verhoeff, Tristan, 2001 op.cit
162. *Mercury*, 17 September 1949 p.23 <http://nla.gov.au/nla.news-article26670810>; *Mercury*, 6 March 1950, p.16 <http://nla.gov.au/nla.news-article26680476>
163. *LR* 30 p.22 (Jack Shennan)
164. Verhoeff, Tristan, 2001 op.cit
165. Austin, Jeff, personal communication, 2 March 2012.
166. Small, Charles, 1965 WA & NT op.cit.
167. *LR* 75 p.78 (Tony Weston) quoting NSW Department of Mines Annual Report 1911, pp.97-98. Small, Charles, 1965 WA & NT op.cit.
168. *Barrier Miner*, 27 May 1931 p.1 <http://nla.gov.au/nla.news-article46608880>
169. Small, Charles, 1965 WA & NT op.cit.
170. Gunzburg, Adrian & Austin, Jeff, 2008 op.cit. pp.197-199
171. Small, Charles, 1965 WA & NT op.cit.
172. Gunzburg, Adrian & Austin, Jeff, 2008. op.cit. pp.197-199
173. Small, Charles, 1965 WA & NT op.cit. The remains of the cab were present in 1993 *LRN* 100 (David Whiteford) and moved to the Leonora/Gwalia Museum by 1999 *LR* 148 (David Whiteford)
174. McDonald, Keith, 1981. *Steel and Rails in Newcastle LRRSA* p.47. Numbered 7 or 9.
175. *Kalgoorlie Miner*, 21 December 1934, p.1 <http://nla.gov.au/nla.news-article95100884>
176. *The Argus*, 7 March 1936 <http://nla.gov.au/nla.news-article11019664>
177. McDonald, Keith, 1981. op.cit.
178. *The Register*, 30 June 1913 p.13 <http://nla.gov.au/nla.news-article56990893>
179. *Adelaide Advertiser* 30 December 1946 p.9 <http://nla.gov.au/nla.news-article35774414>
180. *The Register*, 30 June 1913 p.13 <http://nla.gov.au/nla.news-article56990893>
181. *Adelaide Advertiser* 30 December 1946 p.9 <http://nla.gov.au/nla.news-article35774414>
182. *Kalgoorlie Western Argus*, 23 December 1913 p.7 <http://nla.gov.au/nla.news-article33531264>
183. Small, Charles, 1965 WA & NT op.cit.
184. RF Ellis listing of WA Industrial locomotives
185. *The Brisbane Courier*, 21 November 1912 p.3. <http://nla.gov.au/nla.news-article19848483>
186. Department of Mines Annual Report 1913, p.122
187. Whitmore, *Coal in Queensland: From Federation to the Twenties* p.305 University of Queensland Press
188. *Maryborough Chronicle*, Wednesday, 3 November, 1920. *SALE OF A COAL MINE. Negotiations were completed yesterday for the sale of the Burgowan coal mine, near Torbanlea, by the owner, Mr J. C. Bellert, to a syndicate comprising thirteen practical coal miners, of which Mr Arthur Proctor is the secretary. . . . At present a tram line is utilised, and the output is in consequence restricted to about 50 tons a day. We understand that it is the intention of the purchasers to move in the matter of having rails of a wider gauge laid in the near future.*
189. Knowles, JW, 1969. *The Caledonian Colliery Tramway in ARHS Bulletin* 382
190. Knowles, JW, 1969 op.cit.
191. McDonald, Keith, 1981. op.cit. Numbered 9 or 7.
192. *Kalgoorlie Miner*, 21 December 1934, p.1 <http://nla.gov.au/nla.news-article95100884>; *The Argus*, 7 March 1936 <http://nla.gov.au/nla.news-article11019664>
193. McDonald, Keith, 1981. op.cit.
194. *Australian Sugar Journal* June 1914 p.155
195. Kerr, John. Research notes database.
196. Small, Charles, 1965. Qld. op.cit.
197. *LRN* 78 p.13 (Ross Sadler)
198. *The Catholic Press*, 9 February 1928 p.42 <http://nla.gov.au/nla.news-article106410337>. *LR* 165 p.25 (Alan Rae).
199. *LR* 165 p.25 (Alan Rae). Pressure gauge supplied by O&K April 1938
200. *The Sydney Morning Herald*, 18 October 1949 p.9 <http://nla.gov.au/nla.news-article27577129>
201. *The Courier-Mail*, 4 April 1952 p.9 <http://nla.gov.au/nla.news-article50300562>



By late 1909 construction of the Walhalla railway was getting close to the town as the navvies blasted and hacked their way up the Stringer's Creek gorge for several miles. This Wilf Henty photograph shows 1A and a pair of NQR trucks dwarfed by the surrounding country. On 1A the raised side water tank is evident together with the steel cowcatcher, in place of the wooden original. The chopper coupler is yet to be changed, nor has the coal bunker been raised

Photo: Wilfred SW Henty, courtesy Russell Savage

Firewood train has a rough day

Walhalla, Victoria 1914 The following newspaper account appeared in *The Walhalla Chronicle*, Friday 3 April 1914. The writer would most certainly be the *Chronicle's* publisher and editor, Herbert Hodgins Ryan. Ryan was born at Walhalla in 1871 and assumed the running of the *Chronicle* from his father in 1889. He ran the paper until, at the age of 44, he enlisted in the Australian Imperial Force (AIF) in July 1915. As Corporal Ryan, he returned to Australia in 1919. He died in 1956. His father, James Ryan, had founded the *Walhalla Chronicle* in 1870, also had associations with the *Crooked River Chronicle* (Grant), *The Gippsland Chronicle* (Sale), and the *Maffra Spectator*. The mentioned storm was a small but intense cell, part of a monsoonal depression that affected many parts of south-eastern Australia that week. Please note that neither spelling, grammar nor punctuation has been changed from the original newspaper account. The original account may be viewed through the National Library at: <http://nla.gov.au/nla.news-article154367456> *Phil Rickard*

A TERRIFIC STORM.

LUMPS OF ICE. RAILWAY BLOCKED BY TREES AND BOULDERS.

ENGINE DRIVER'S EXCITING EXPERIENCE

That the long period of dry weather experienced since the beginning of the year would terminate in a general downpour, was anticipated by most people, but few were prepared for the sudden and unexpected deluge with its terrifying accompaniment, which occurred on Friday evening.¹

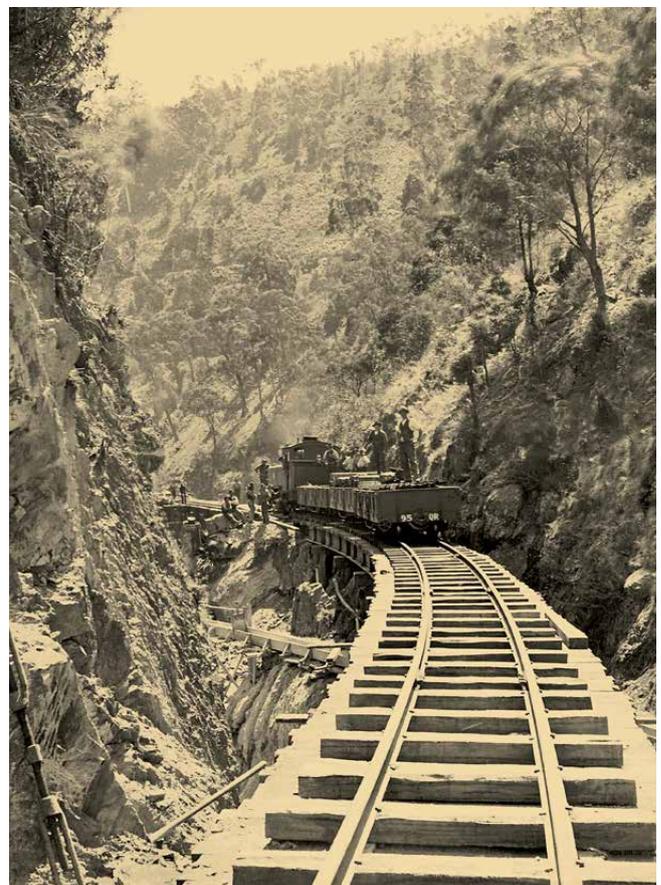
The first intimation that something unusual was about to happen was the appearance shortly before six o'clock of a huge bank of heavy black-looking rain clouds which bore up from the west, while other masses of vapor appeared to be coming from an opposite direction, foreboding something out of the ordinary. Before the full force of the storm burst upon the town, people were startled by heavy thuds on the iron roofs of their houses, and many who immediately sought to investigate the cause, were amazed to discover large jagged lumps of ice quite two inches in diameter falling in a scattered sort of way in all directions. These were afterwards followed by a fairly heavy fall of hail about the size of marbles. Some of the larger pieces appeared to contain an ordinary large hailstone in the centre surrounded by an irregular coating of ice. This was followed by a deluge from the south-west, and for the next 10 or 15 minutes the rain poured down literally in sheets.

One hundred and thirteen points² was the total between five and six o'clock, of which quite an inch must have fallen in a little over 10 minutes. This had the effect of turning every track and water-course on the steep hillsides into foaming cataracts of dirty and discolored water. In several instances householders were taken by surprise, and before shovels or other tools to divert the water could be requisitioned, it had flowed in to their houses, leaving a thick coating of silt behind, when it subsided. One lady residing close to Brewery Gully³ incautiously opened her front door which faces on to the street, and immediately a stream of water entered flooding the

rooms and finding its way through the opposite door at the rear of the house. In a few moments the creek was a roaring torrent while most of the open gutter-ways leading from the hillsides soon became blocked; and overflowing piled heaps of stones and other debris to a height of a couple of feet in places along the street.

Driver Jamieson and fireman Hennessey on the wood train from Harris met with an alarming experience between the Thomson river and Walhalla. Just as the train left the river hailstones commenced to fall, and before going very far the first rush of water down the almost overhanging side of the cliff along which the line runs, was met with. Further along as the storm increased in intensity the train was running through a continuous stream of water from overhead, whilst both men on the footplate were treated to a shower of muddy water and stones, some of them of fairly large size, which clattered down, upon the engine and van, and rattled against the trucks. It was impossible to escape this fusillade, as it was necessary to keep a sharp look out for any obstruction on the line. It was an anxious quarter of an hour, as the driver states that he did not know at what moment he might have to pull up, and had this been done the train would have been stalled on the line for a couple of days. Mr Jamieson described it as the worst experience he ever met with during his career as a driver, and from the appearance of the line on Saturday, remarked that what he saw could have been nothing to what occurred afterwards.

An eye witness states that five minutes after the train had passed one of the dry gullies, a rush of logs, stones and earth piled up to a height of several feet on the line. Besides Guard Ruff there was a woman with a little boy and two men passengers in the van, both of whom gave a sensational



Construction train with 9A, deep in the gorge. Note the water flume supplying a water wheel-powered quartz mill. View looking down-grade
Photo: Wilfred SW Henty, courtesy Russell Savage

account of their experience on arrival at Walhalla. Telegraph lineman J. Harrison, says he never spent such an anxious time in his life and would not wish to repeat it. He states that they kept the door on the opposite side of the van open ready to jump at any moment. The noise of clattering stones against the van added to the roar of the storm, and when they arrived at Walhalla large stones and mud were lying on the footplate of the engine, whilst the driver was saturated with mud and water, and looked as if he had been dragged out of a sluice box.

An inspection of the line on Saturday disclosed an extraordinary sight. Huge trees and logs of wood jumbled together in inextricable confusion blocked the culverts and covered the line in several places from 18 inches to 4 feet in depth. One large trunk between 30 and 40 feet in length lay broadside on to the rails, and behind this was piled a heap of earth, stones and large boulders, some of them weighing several hundredweight, which seemed to have been tossed about as if no heavier than a lot of empty boxes. Deep holes were torn out of dry gullies on the hillside, and yards of naked rock were exposed which previously had been screened by earth and vegetation of all kinds.

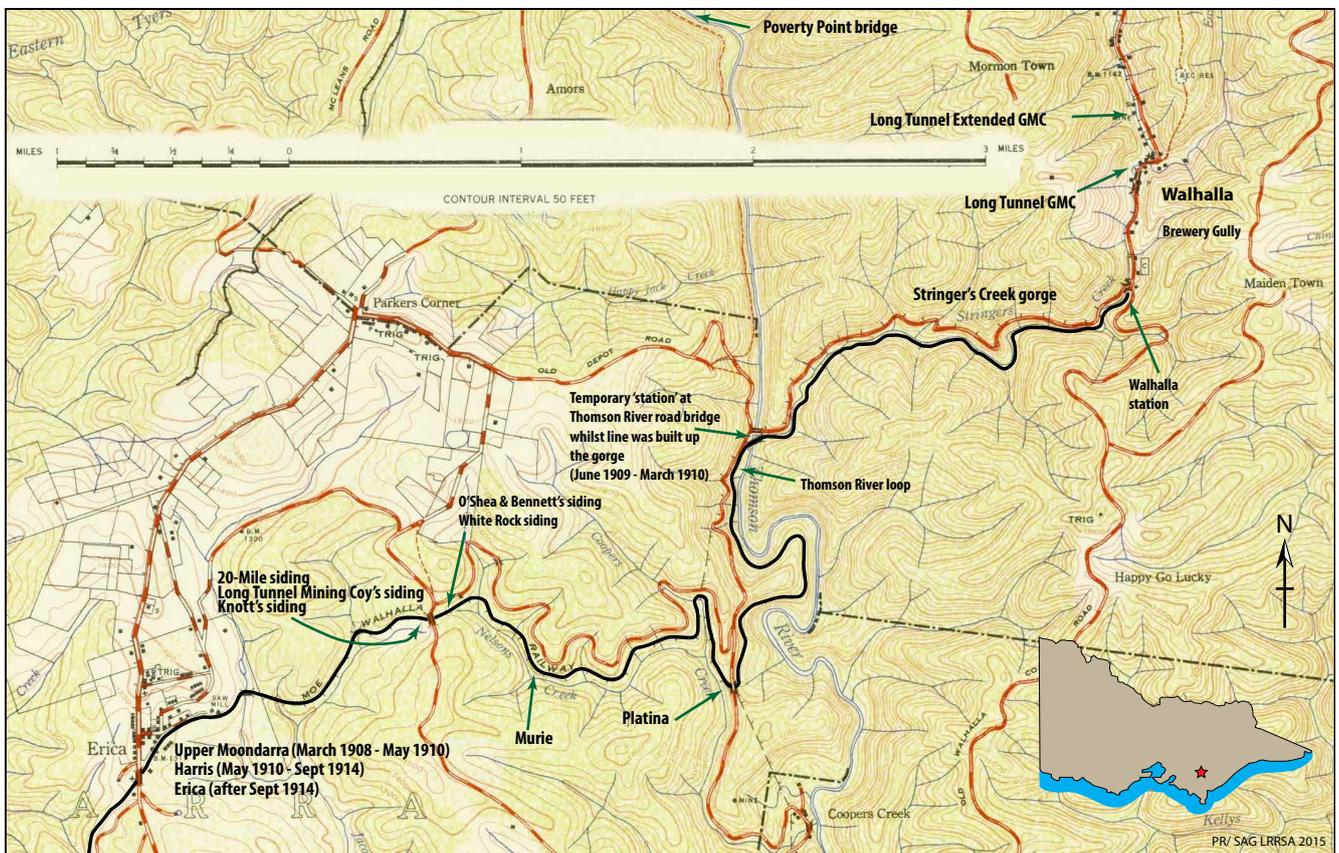
Various theories have been advanced to account for the extraordinary effects of the storm in this particular locality, some being of the opinion that the water was dammed back by trees and rubbish and coming away with a rush as the pressure increased, carried all before it, but the most feasible explanation of the damage is that the clouds must have fairly burst over this spot, and a much heavier fall resulted than that experienced on either side of it. The worst of the storm appears to have been confined to within a radius of three miles to the south of the town, as the railway was not affected to any extent beyond the river, and was quite clear from Platina to Moe.

The station yard at Walhalla resembled a miniature lake, and owing the rails being covered with water the firewood train could not be shunted as usual. Mr Collins' pair of lorry horses were terror stricken by the strange bombardment of ice, and had to be driven in a circle round the flooded yard to prevent them from getting beyond control. The owner subsequently remarked that it would require some thing quite as extraordinary before he would again consent to become a target for such formidable missiles. The local gangs under Messrs O'Keefe and Pugh made a start to clear the line on Saturday morning, and on Sunday were assisted by four trolley loads of men from Moe.

The line was ready for traffic by evening, and the train left as usual on Monday morning, but it will take weeks to open up the culverts and clear away the heaps of debris bordering on the track. The train did not run on Saturday although it was at first understood that a spare engine was available at Moe to bring passengers and mails to the river as the line to that point was reported clear, but for some reason this was not done, probably owing to a train crew not being available, consequently passengers to and from Walhalla had to wait until Monday to reach their respective destinations. Mr C. Collins met the motor trolley at the river on Saturday with outward mails, returning with the bags forwarded from Melbourne that morning. The trolley driver explained that his load was so heavy he was compelled to leave a portion behind, consequently "Argus" readers were disappointed, and the bundle of "Ages" was so rushed that regular subscribers had to go unsupplied.

Notes

1. Friday, 27 March 1914
2. 113 points = 28.7mm (100 points = 1 inch)
3. East side of the valley, 300m north of station



Part of the 'Walhalla D' topographic map 2in/mile, surveyed in 1944; with additions. Note: For clarity many dozens of tramways have been omitted.



Loco 9A working bunker-first upgrade towards the photographer (and Walhalla). The three trailing NQR wagons are filled with pylons and other bridging timbers. The clearance of tree cover surely contributed to the deluge of muddy water and rocks onto the railway following torrential rains

Photo: Wilfred SW Henty, courtesy Russell Savage

Comment and analysis

Phil Rickard

The Victorian Railways' (VR) Moe to Walhalla narrow-gauge railway opened throughout in May 1910, having taken six years to construct the 26¼ route miles of 2ft 6in-gauge track. The timetable at the time of the described deluge is printed hereunder but omits any mention of purely goods trains.¹ Note that this timetable has a mixed train from Walhalla to Moe and return on four days a week. All other mentions of the timetable in the last sixty years, seen by the author, omit any reference to a Monday train, though it was added to the timetable just seven months after the line's opening. On the other two days (initially three) a – sometimes unreliable – motor trolley carried the mails.

Harris firewood trains

It is thought that the ^{NA} locomotive from the Thursday Down Mixed train would be stabled at Walhalla overnight. On the Friday, with empty trucks, it would head towards Harris for the purpose of dropping off the empties and collecting loaded trucks from the recently renamed Knott's Siding (until January 1914 it was the Long Tunnel Mining Coy's siding,) and Harris. Knott's siding was situated a mile-and-a-half on the Walhalla side of Harris, on a small flat section with 1 in 32 down grades either side. For this reason, mixed trains were originally forbidden to shunt there thus the need for a goods train. With the points facing Down trains one gathers the shunting was done on the Up (towards Harris) journey – the empties being parked on the main line whilst the siding was cleared of fulls. Shunting completed, the train would

have proceeded to Harris for any further waiting trucks of firewood, loco watering, engine cleaning and change of ends before setting out on the 7½-mile run back to Walhalla.

The operation of the Harris firewood train became necessary as the areas close to Walhalla were increasingly being de-forested. Firewood tramways had penetrated all readily (and not so readily) accessible areas and were having to bring firewood many miles to town for the mines. It is interesting from the newspaper account that though it was not a mixed train that was subjected to the deluge it was carrying four passengers in the van. Was this officially allowed or just the guard being practical when the necessity arose? Also apparent from the account is that the loco was (as usual) travelling funnel-first up the Stringer's Creek gorge – the driver, who would be on the right-hand side, was the one deluged with mud and rocks off the cliffs to the extent that he looked like he'd come out of a sluice box!

Long Tunnel Gold Mining Company's firewood usage

When the railway opened, the Long Tunnel company anticipated a drop in the price of firewood² and it seems they soon commenced wood cutting operations at the 20-mile siding – officially Long Tunnel Mining Coy's Siding (from December 1910), as mentioned above. Despite this, within a year and at the suggestion of the Mines Department, they started bringing in Wonthaggi slack coal, reducing the outward firewood traffic from their siding. Following a re-structuring of the Long Tunnel company in late 1913 tonnages on the firewood trains again increased as the new company preferred wood over the Wonthaggi coal that the old company had used. The Chronicle's reporting of increased wood trains in early 1914 confirm that a firewood train was also run on

Wednesdays, the only other 'spare' day in the timetable.³ By late April 1914 Harris station yard was said to be "piled up with timber on all sides", most of it being timber and firewood for the Walhalla mine, but lack of trucks was a problem.⁴ By this time the Long Tunnel mine was using almost all wood in lieu of coal and coke.⁵ During the railway's construction, Harris had been known as Upper Moondarra – rails had reached that place by March 1908. It was not officially opened until May 1910 to coincide with the opening of the line from Harris to Walhalla. The name was changed again in September 1914 to Erica. The Forests Commission of Victoria was later to centre its sawmilling operations in Erica.

dismantling of machinery, the empty blocks once containing houses – everywhere decay was setting in. The population had already fallen to just a few hundred and mining reduced to a couple of small mines and re-workings.⁶ *The Walhalla Chronicle* had already published its final issue – on 30 July 1915 – just a single sheet of paper printed both sides. Its editor, H H Ryan wrote, that like many others, he had enlisted in the AIF and was leaving town.

The railway in Stringer's Creek gorge

The railway between Thomson and Walhalla is about 3½ km long and is, without doubt, the most spectacular part of the Walhalla railway. In this section 53 curves are shown in the Victorian Railways' curves and gradients book, including 12 of two chains [40 metres] radius, and many others between 2½ and 4 chains radius. The grade at its steepest is 1 in 32, and 1 in 40 at its easiest, but is mostly between 1 in 32 and 1 in 36. The elevation of Thomson is 717 ft [218 m] and the elevation of Walhalla is 1021 ft [310m].

During the line's early years, land slips along the railway in Stringer's Creek gorge were an almost annual occurrence although the 1914 event seems to be one of the more spectacular. Other notable slips include that on 29 September 1910, when the line was only seven months old. Days of steady rain saturated the ground and led to a landslip near the loco shed. The 6.40am Up train to Moe had not long departed and a gang of workmen managed to clear enough of the estimated hundred tons of debris to allow the afternoon Down train to reach the station.⁷

Mid-January 1911 brought more than eleven inches of rain to Walhalla over five days resulting in several minor slips along Stringer's Creek gorge. On Saturday the 14th, the morning train was preceded by a gang of men who cleared each fall and finally the train crossed the Thomson River. Here it was confronted by a large landslide. About half-an-acre of ground had slipped onto the track including an enormous tree. The train reversed back to Walhalla, the men again having to clear several minor slips that had occurred since its earlier passing. As this was the only engine on the whole line – the second loco had been removed to the Gembrook line several months previously⁸ – the forty men sent from Moe to clear the main landslide were forced to walk to the Thomson, taking twelve hours to cover some 22 miles, pushing hand trollies with their tools. The locomotive came down from Walhalla to help tow the fallen trees off the line.⁹ A further downpour on the following Monday saw Tuesday's Up train delayed for six hours pending further clearance at the same spot.¹⁰

On 11 October 1924, again following prolonged rain, the Down train was halted in the gorge when confronted with a small slip. Passengers walked into Walhalla whilst the crew shovelled the debris away sufficiently to allow the train to get to town. The next day a massive slip occurred and the Walhalla SM, Mr Sullivan organised a party of miners who laboured through the night to shift the hundred or so tons of rubble sufficiently for the Monday morning Up mixed to be run.¹¹

Aside from slips along Stringer's Creek there were many on the south side of the Thomson River over the years, sufficient for a whole article in themselves. The Erica to Walhalla section of the line must have been amongst the most costly in Victoria to build and maintain, especially when the small amount of revenue it produced was taken into account. The line was closed in sections, commencing with Walhalla to Platina on 31 March 1944, then Platina to Erica on 14 October 1952 and finally Erica to Moe on 25 June 1954.

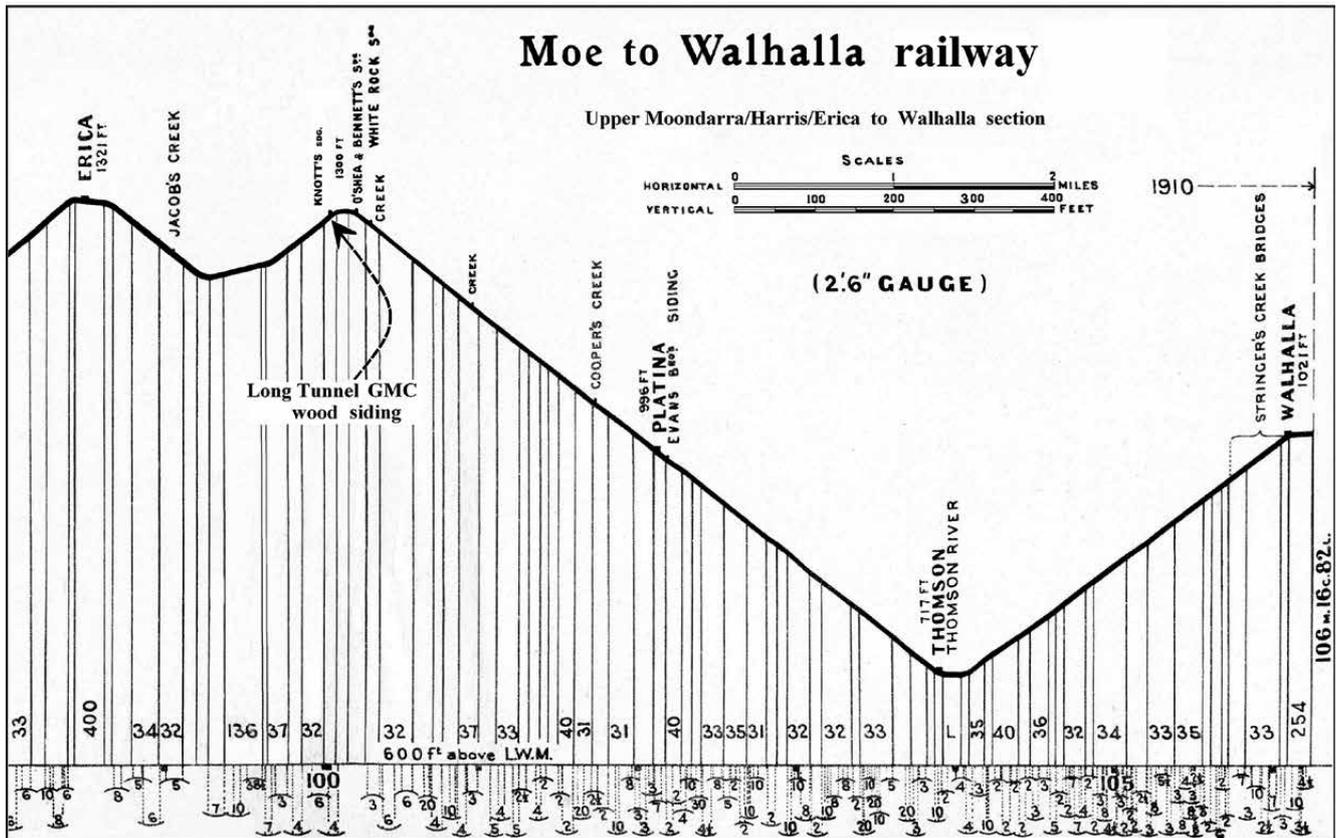
MOE-WALHALLA RAILWAY	

TIME TABLE	
	Mixed.
	Mon., Tu., Th., Sat.
UP	
	A.M.
Walhalla, depart	6 40
Thomson River	7 3
Murie	7 33
Harris	7 53
Watson	8 0
Moondarra	8 10
Gould	8 33
Tyers River	8 39
Gooding	9 15
Moe, arrive	9 25
	Pass. daily A.M.
Depart	9 50
Melbourne, arrive	1 30

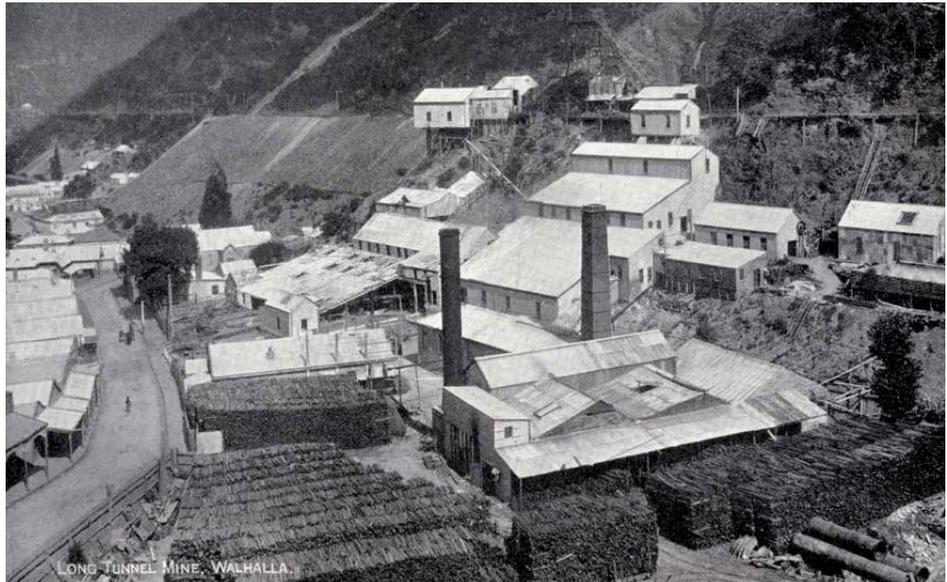
	Pass. daily
	A.M.
Melbourne, depart	7 52
Moe, arrive	11 26
	Mixed.
	Mon., Tu., Th., Sat.
	A.M.
Depart	11 50
	P.M.
Gooding	12 2
Tyers River	12 32
Gould	12 37
Moondarra	1 28
Watson	1 36
Harris	1 49
Murie	1 56
Thomson River	2 26
Walhalla, arrive	2 50

Walhalla 1910 – 1915

For Walhalla, after waiting forty years for a railway, the irony was that arrival of the railway coincided with the increasing exodus from the town. One of the last of the major mines on Cohen's line of reef, the Long Tunnel Extended, closed in August 1911, putting its plant, including two small Bagnall locomotives, up for sale. This closure accelerated the exodus of residents which was compounded three years later, in early December 1914, when the famous Long Tunnel mine closed for the last time. It seems likely the operation of the VR's firewood trains ceased at the same time, some eight months after the March deluge. By November 1915 a visitor was dismayed at the rapidly emptying town, the deserted shops, the



The surface installations of the Long Tunnel GMC, with the boiler house almost surrounded by wood stacks. This photo is thought to be c1905, a time when firewood was being brought in by the LT's No.1 South tramway, seen along the hillside. This tram went four kilometres south-west to the Stringer's Creek's junction with the Thomson River. From there it turned northwards along the eastern side of that river's valley for about 3½ kilometres to Poverty Point where a large bridge crossed to the western bank. From the steel bridge tramways extended both north- and southwards along the valley
 Photo: State Library of Victoria, H82.203/23



Acknowledgements

My grateful thanks to Frank Stamford, Mike McCarthy, Colin Harvey and Scott Gould for their encouragement and valuable input to this article and to Russell Savage for making available the magnificent photographs of Wilf Henty, taken during his many years with the Railway Construction Branch. Wilfred Henty (1882-1941) was a grandson of Stephen Henty, one of the original settlers at Portland Bay in 1836.

Stubbs Family History [for H H Ryan] – <https://stubbsfamilyhistory.wordpress.com/> accessed 11/7/2015
 Walhalla Heyday James & Lee, Graham Publications, 1975
 Walhalla – Valley of Gold Aldersea & Hood, Walhalla Publishing, 2003
 The Narrow Gauge Nick Anchen, Sierra Publishing, 2012
 Steam on the Lens Vol 2 Walhalla Railway Construction, Kiely & Savage, Russell Savage, 2002

Bibliography

Weekly Notice Extracts 1894-1994 Jungwirth & Lambert, 1996
 Diagrams of Gradients and Curves Victorian Railways, 1927
 Speed Limit 20 E A Downs ARHS Victoria, 1963
 Victorian Government Narrow Gauge Railways Bill Russell (www.members.optusnet.com.au/~narrow.gauge/knott) accessed 12/7/2015
 Firewood Tramways of the Walhalla Mines 1865-1915, T & B Jenkins, 1998
 Trestle Bridges and Tramways (timber tramways of Erica district) Light Railways No 79 M J McCarthy, LRRSA, 1983

References

1. Walhalla Chronicle, 27 Mar 1914
2. The Age 27 Apr; Punch, Melbourne 5 May 1910
3. Walhalla Chronicle, 16 Jan 1914
4. The Argus, 29 Apr 1914
5. Gippsland Farmers' Journal, Traralgon 8 May 1914
6. The Leader, Melbourne, 27 Nov 1915
7. Traralgon Record, 4 Oct 1910
8. The Age, 7 Feb 1911
9. Bendigo Advertiser, 16 and 17 Jan 1911
10. The Leader, Melbourne, 21 Jan 1911
11. The Argus, 14 Oct 1924, page 13



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
BUNDABERG SUGAR LTD, Millaquin Mill
(see LR 241 p.18 and LR 240 p.28)
610mm gauge

Bingera Mill Com-Eng 0-6-0DH *Tegege* (FD4799 of 1966) which went ostensibly on loan to Millaquin Mill during the 2014 crushing season has ended up staying and was seen in use there early in October. Seen parked in a fenced compound at Wallaville on 16 October was Bingera Mill Com-Eng 0-6-0DH *Invicta* (A1513 of 1956 rebuilt Bundaberg Foundry 2001).
Chris Thomas 10/15; Daniel Hill 10/15

CURTAIN BROTHERS (QLD) PTY LTD,
Townsville

see LR 245 p.22
1067mm gauge

The last two of the ex Tasrail Emu Bay Railway Walkers B-B DH locomotives 1103 (640 of 1970) and 1107 (659 of 1971) were sold to Cairns Kuranda Rail Services of Cairns in August and moved to secure storage somewhere in the Townsville area.

Arthur Shale 9/15; Steven Jesser 9/15

ISIS CENTRAL SUGAR MILL CO LTD

(see LR 245 p.23)
610 mm gauge

A new line of at least 15 kilometres in length is to be constructed from Cordalba to Booyal along the right of way of the former Queensland Railways line to Dallarnil. The mill secured this right of way soon after the line was closed in 1955. The new line will be used for the transport of cane from the Wallaville and Booyal areas to the mill. This cane is at present road hauled to the mill.

Graham Nicolson 10/15

MACKAY SUGAR LTD, Mackay mills

(see LR 245 p.23)
610mm gauge

A courier truck collided with Marian Mill Walkers B-B DH *Miclere* (664 of 1970 rebuilt Farleigh Mill 1996) in the Pinevale area on 25 September.

Daily Mercury 25/9/2015; Mitch Zunker 9/15

MSF SUGAR LTD, Mulgrave Mill

(see LR 245 p.23)
610mm gauge

Prof B-B DH 22 *Aloomba* (P.S.L.25.01 of 1990 rebuilt South Johnstone Mill 1993) returned to service following rebuild at the mill early in

September with the first reported run being on 9 September. The rebuild included a new motor and transmission with new Mulgrave style hood and cab being fitted. It then managed to disgrace itself on the night of 21 September when an axle broke in the Fishery area and the loco had to be trucked back to the mill.

John Charleton 9/15, Chris Stephens 9/15

MSF SUGAR LTD, South Johnstone Mill

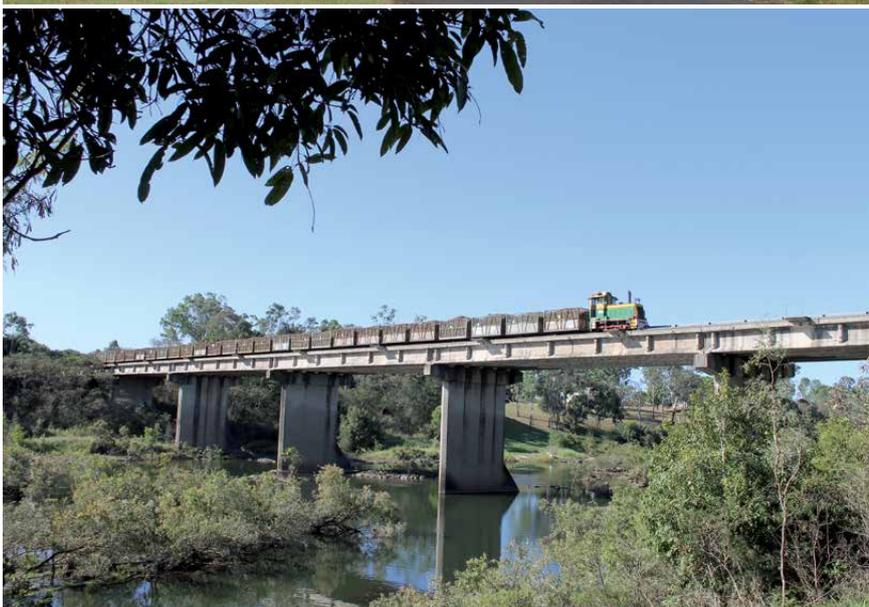
(see LR 245 p.23)
610mm gauge

The procedure for operating trains across the "silver bridge" over the South Johnstone River near the mill was observed on 30 August. Outbound the yard loco, Clyde 0-6-0DH 18 (56-83 of 1956), propelled a rake of empty bins with crewless Com-Eng 0-6-0DH 39 (AH4688 of 1965) at the head end across the bridge until 39 was on the far side of the river. 18 then uncoupled and went back to the mill. The procedure is reversed for full bins travelling in the other direction. Crews are not allowed to be in the loco when it is on the bridge owing to its degraded condition. The crew of 39 travel to the other side by road vehicle.

EM Baldwin B-B DH 32 *Liverpool* (10385.1 8.82 of 1982), the loco normally in use on the Nerada line, suffered some bogie damage in August or September and may be out of service for the rest of the crushing season. It has been replaced by spare Clyde 0-6-0DH 14 (63-288 of 1963) although multi unit Com-Eng locos have since been observed working the Nerada line. EM Baldwin B-B DH 24 (5477.1 8.74 of 1974) had a gearbox failure on 30 September or 1 October and may also be out of service for the rest of the season. It has been replaced by spare multi unit Com-Eng 0-6-0DH locomotives 1 *Josephine* (A1821 of 1957) and 10 *Russell* (A2027 of 1958).



South Johnstone Mill Com-Eng 0-6-0DH 39 (AH4688 of 1965) and its rake of empty bins are propelled across the "silver bridge" by Clyde 0-6-0DH 18 (56-83 of 1956) on 30 August. Photo: James Chuang



Top: Bundaberg Foundry B-B DH Elliott (002 of 1991) in front of Millaquin Mill on 3 October. Photo: Chris Thomas **Centre:** South Johnstone Mill Com-Eng 0-6-ODH 39 (AH4688 of 1965) crosses Camp Creek Road on the climb up to the Little Tableland plateau on 30 August. Photo: James Chuang **Above:** On 11 August, Clyde 0-6-ODH Lacy (65-439 of 1965) crosses the Pioneer River bridge near Marian Mill with cane from the north side of the river. Photo: Chris Wurr

The cabs of Clyde 0-6-ODH locomotives 23 *Behana* (55-56 of 1955) and 24 *Pyramid* (56-90 of 1956) have been removed for possible fitting to Com-Eng 0-6-ODM navy locos 27 (A157111 of 1975) and 28 (AA1544 of 1960), the cabs of which are in poor condition.

Clyde 0-6-ODH 13 (59-203 of 1959) has not seen any use for at least the past three years and is kept in the storage shed at the mill.

James Chuang 8/15; Katherine Green 8/15; Jason Sou 9/15, 10/15

**QGC,
Gladstone Harbour**

A project managed by this firm and completed in February 2013 involved laying twin liquified natural gas pipelines from the mainland across The Narrows in Gladstone Harbour to Curtis Island for the Queensland Curtis LNG Project and the Australia Pacific LNG Project. On the mainland approach pipeline construction contractor MCJV, a joint venture between McConnell Dowell and Consolidated Contracting Company, used three kilometres of temporary twin railway tracks to support the pipelines. They were moved on land using wire cable and twin 70 tonne winches. 370 bogies were in use to carry the pipelines to a cofferdam where they were automatically released and recovered by excavators. Two watercourses were bridged along the route of the rail tracks.

QGC website 8/8/2012; *The Australian Pipeliner* October 2012, April 2013

TULLY SUGAR

(see LR 244 p.24)

610mm gauge

Of the three EM Baldwin 0-4-0DH locomotives here, only Tully 2 *Priscilla* (6/1082.2 2.65 of 1965) is in use at the present time. Tully 1 *Charlotte* (6/1082.3 2.65 of 1965) and Tully 3 *Coolies* (6/1082.1 2.65 of 1965) are stored behind the navy shed at the mill.

Jon Anderson 9/15

**WILMAR SUGAR (HERBERT) PTY LTD,
Herbert River Mills**

(see LR 245 p.24)

610mm gauge

Macknade Mill's EM Baldwin 0-6-0DH 14 (6/2490.1 7.68 of 1968) has continued to have drive train problems and ended up being declared terminal for the rest of the season. It will receive a refurbishment in the coming slack season. Various locos have been substituted for 14 on the sugar train with Clyde 0-6-0DH 16 (DHI-1 of 1954) seeing the most use on this duty. Owing to further breakdowns in the locomotive fleet at Macknade, Victoria Mill's Clyde 0-6-0DH *Lucinda* (65-436 of 1965) was on loan from 23 September. It returned to Victoria overnight of 24/25 of September then was back at Macknade from 26 September ending this sojourn on 8 October. However, it was back at Macknade from 13 October and has been there until at least late October.

On 29 August, EM Baldwin 6 wheeled brakewagon BV2 (7065.5 6.77 of 1977), paired

up with EM Baldwin B-B DH 19 (7070.3 4.77 of 1977), caught fire in the Seymour. The control box ended up getting fried and this unit is now out of service until repairs are performed during the coming slack season. The Clyde 6 wheeled brakewagon BV5 (CQ3477-1 of 1976) from 14 was paired up with 19 on 2 September.

On the night of 28 August, Victoria Mill's Solari bogie brakewagon BV11 (built in 1994) was repeatedly shot at, damaging the beacons and leaving numerous bullet marks on other parts of the unit. It is not known where this occurred, the damage only being discovered later on. This act of vandalism follows an incident in July when a gas cylinder was rolled into the path of an oncoming cane train in the Abergowrie area.

A new bogie brakewagon built in China and equipped with disc brakes had appeared at Victoria Mill loco shed by 16 September. It was delivered as a bare unit and is being fitted up at the mill. Initially in gray undercoat, it was soon painted in all over yellow including the headstocks but not the bogies.

On 25 September, Walkers B-B DH Cairns (681 of 1972 rebuilt Bundaberg Foundry 1997) derailed in the Blackrock area, knocking over a power pole and bringing wires down around the loco. Fortunately, there was no harm to the driver and the derailment appeared to have been caused by a broken rail.

On 17 October, Hudswell Clarke 0-6-0 Homebush (1067 of 1914) hauled passenger trains on the Nyanza line for the annual Maraka Festival. On the same day, EM Baldwin B-B DH Gowrie (7135.1 7.77 of 1977) was involved in a collision with a semi trailer in Ingham with a small amount of damage to the loco and an unscathed crew.

Editor 8/15, 9/15, 10/15; Peter Phillips 9/15; *Townsville Bulletin* 29/8/2015, 1/9/2015, 25/9/2015; *Herbert River Express* 2/9/2015; 7 Local News – Townsville 31/8/2015

WILMAR SUGAR PTY LTD, Inkerman Mill, Home Hill

(see LR 244 p.25)

610mm gauge

EM Baldwin 0-6-0DH Carstairs (6/2715.1 9.68 of 1968) was on loan to Proserpine Mill from 8 September and was still there in late October. Com-Eng 0-6-0DH Inkerman (FB3169 of 1963) previously at Invicta Mill was seen here on 17 and 23 October. It is still carrying Oakenden nameplates.

Tom Badger 9/15, 10/15; Luke Hornblow 10/15

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

(see LR 244 p.25)

610mm gauge

The Tamper STM-XLC tamping machine (built in 1993) has received a comprehensive rebuild and was seen working at the new Galea siding during September. Com-Eng 0-6-0DH Inkerman (FB3169 of 1963) had gone on loan or transfer to Inkerman Mill by 17 October.

Jamali Labelak 9/15; Luke Hornblow 10/15



Top: Standing in for ailing EM Baldwin 0-6-0DH 14 (6/2490.1 7.68 of 1968) on Macknade Mill sugar train duties is industry veteran Clyde 0-6-0DH 16 (DHI-1 of 1954). It is seen here loading sugar boxes in preparation for a trip to the port at Lucinda on 27 September. Photo: Christopher Hart **Centre:** This bogie brakewagon was built in China for Victoria Mill and here it is seen being fitted up in the locoshed on 17 October. Photo: Christopher Hart **Above:** Invicta Mill's recently refurbished Tamper STM-XLC tamping machine (built in 1993) working at the new Galea siding in September. Photo: Jamali Labelak

WILMAR SUGAR PTY LTD, Pioneer Mill, Brandon

(see LR 245 p.24)
1067mm gauge

On 29 August, Clyde 0-6-0DH *Airdale* (64-318 of 1964) was involved in a collision with a van at Cacciola Road adjacent to the intersection with Viero Road at Brandon. The driver of the van was injured and taken to hospital with the loco crew being unhurt.

Walkers 0-6-0DH *Aramac* (583 of 1968), the victim of a level crossing collision on 19 August, is expected to be out of service for the rest of the crushing season owing to damage incurred. *Townsville Bulletin* 29/8/2015; Luke Hornblow 9/15

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

(see LR 245 p.24)
610mm gauge

A serious derailment just north of Basin Creek on 10 September caused the line to Carmila to be closed until 13 September. 147 bins of the loaded cane train plus the mid train slave loco Walkers B-B DH 1 *Allan Page* (594 of 1968 rebuilt Bundaberg Foundry 1995) were derailed. A man who was apparently pushing a motobike across a rail bridge at Sarina was struck by a cane train and fell 10 metres to the ground on 24 October. He was taken to hospital with non-life-threatening injuries.

Daily Mercury 16/9/2015; Brian Millar 9/15; Queensland Police News 24/10/2015; ABC News 24/10/2015

WILMAR SUGAR (PROSERPINE) PTY LTD, Proserpine Mill

(see LR 245 p.24)
610mm gauge

Owing to breakdowns within the mill's Clyde fleet, EM Baldwin 0-6-0DH *Carstairs* (6/2715.1 9.68 of 1968) was borrowed from Inkerman Mill on 8 September and was still here late in October. Tom Badger 9/15, 10/15

OVERSEAS

SCHÖMA

Christoph Schöttler Maschinenfabrik GmbH, Diepholz Germany

(see LR 224 p.28)
750mm gauge

With a breakthrough imminent in late 2015 at the Gallery Pavoncelli Bis tunnelling project in Italy, one of that project's Schöma CHL60G 4wDH locomotives (6245 of 2008) has had a busy career since being built new for the John Holland Group (C), contractor for Melbourne Water/Yarra Water Northern Sewer Project, Reservoir-Pascoe Vale/Essendon Victoria where tunnelling was completed in 2010.

Returned to the maker's factory in Diepholz, Niedersachsen DE, after a period in storage, L04 was extensively stripped-down and re-manufactured in 2012 by Schöma to supplement other new-build locos for a new tunnel project on the frontier between France and Spain, the INELFE Cross Border Cable Tunnel. On return to Diepholz in 2013 from that project, 6245 was overhauled for

its most recent job, a potable water delivery tunnel in Italy at Materdomini (AV) Campania. Its running mates 6246 and 6247 from the John Holland NSP contract also went to Spain thence Italy. Philip Graham 10/15

FIJI SUGAR CORPORATION

(see LR 245 p.24)
610mm gauge

The CEO of the Sugar Cane Growers Council has said that decades of neglect of the rail network has resulted in its degradation, and rehabilitation will require substantial investment. Rail haulage is stated to be the cheapest mode of transport and money will be spent on it when available. It is hoped to increase the ratio compared with road transport from 25:75 to 35:65 by 2017. Meanwhile the general secretary of the Fiji Cane Growers Association is saying that an increase in cane production will not be viable unless the mills and rail network are upgraded. He goes on to state that there has been a substantial amount of standover cane over the years because of milling and rail issues. Contrary to

this, the Sugar Permanent Secretary has said that mills have had to close early over the past two years owing to a lack of cane supply.

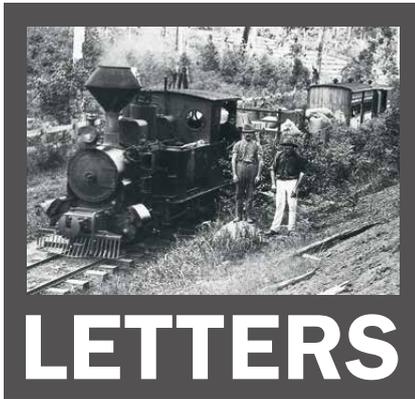
Members of the Lautoka and Rarawai-Penang Cane Producers Association have said that cane truck shortages and substandard rail systems have seriously impeded their ability to deliver cane to the mills quickly. With the cane quality payment system being introduced, a minimal cut to crush delay is necessary to avoid deterioration of the harvested cane and maximise payments to the growers. However, FSC says that delays have been factored into the cane payment system.

By early October, the spans and decking of the Naturu road bridge on the Wainikoro Road had been renewed following damage incurred at the start of the crushing season. This bridge is at the Nubu terminus of the Labasa Mill rail system and in the past was a road and rail bridge at the eastern end of the rail system. At some time, the line has been truncated on the immediate, mill side of it.

The Fiji Times Online 8/9/2015, 17/9/2015; fijiwillage.com 9/10/2015; *Fiji Sun* 16/10/2015



Top: On loan to Proserpine Mill from Inkerman Mill, EM Baldwin 0-6-0DH Carstairs (6/2715.1 9.68 of 1968) is seen here in the Kelsey Creek area on 14 September. Photo: Scott Jesser **Above:** Undergoing an extensive re-manufacture process at the maker's plant in Diepholz Germany, former John Holland Group Schöma tunneling locomotive L04 (6245 of 2008) was showing signs of the storage period when seen here on 1 February 2012. Photo: Ulrich Völz



LETTERS

Please send letters to:

Editor: Scott Gould

PO Box 21, Williamstown, Vic 3016

e-mail: editor@lrrsa.org.au

Ilarwill Quarry (LR236, 242, 243)

Further to Phil Rickard's letter (LR243) regarding Ilarwill Quarry on Woodford Island (Clarence River):

It is more likely that the "tram lines" in Woodford Island Quarry referred to in Phil's newspaper cutting¹ were standard gauge (1435mm) railway sidings rather than narrow gauge tramways. The NSW Public Works Department (PWD) and the various breakwater construction contractors had all used standard gauge rail lines and rolling stock from 1863 onwards when construction of the Clarence River entrance works first began.

In May 1899 tenders were invited for the supply and delivery at the Government Quarry, Woodford Island, of 1000 Red Mahogany railway sleepers, 9in x 4½in x 8ft long, all hewn.² A year later another 500 were needed as well as 25 Red Mahogany point timbers, 9in x 6in x 16ft, all hewn.³ These dimensions indicate standard gauge sidings were laid in the quarry.

The PWD began to open up Woodford

Island Quarry, as it was then known, in early 1899. It began producing stone for the river training walls at Clarence Heads in February 1900. The quarry plant – steam cranes, standard gauge tip trucks, etc. – from the worked-out Angourie Quarry, five miles south of Yamba, was taken upriver in December 1899 and installed in Woodford Island Quarry.

The quarry face was less than 200 metres from the river bank. Single, pair and four-horse teams of draught horses rail-hauled loaded stone trucks from cranes at the quarry face to a stone loading wharf on the river bank. Small stone was tipped down chutes into 200 ton capacity wooden punts which were towed down river to the Heads by the steam tug *Lilian*. Boulders weighing up to 10 tons each were craned into the punts.

Woodford Island Quarry closed down in August 1903 after producing some 500,000 tons of stone, most of it being used in the Iluka Training Wall. This was the last of the works authorised and funded under the Clarence River Improvements Act of 1890. Many of the men and much of the plant went to the Port Kembla harbour works.

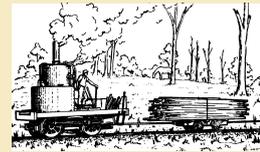
The quarry was re-opened as Ilarwill Quarry in February 1950 by the then Minister for Works JJ Cahill to supply stone to build the long-awaited Clarence River breakwater walls, first proposed back in 1860. The subsequent development of the quarry on a large scale destroyed most traces of the earlier 1900-03 operation. Only the site of the old stone wharf on the river bank can now be identified with any certainty.

Ian McNeil
East Maitland, NSW.

1. Woodford Island Quarry, *Clarence and Richmond Examiner (CRE)*, 2 December 1899, p.8.
2. Government Notices, *Clarence River Advocate (CRA)*, 30 May 1899, p.1.
3. Government Advertisements, *CRA*, 4 May 1900, p.5.



The sheer rock face of Ilarwill Quarry on Woodford Island as seen in May 2015. The quarry closed down in 1970 following the completion of Clarence River breakwaters and the plant was auctioned off. The site is securely fenced off for safety reasons
Photo: Ian McNeil



LRRSA NEWS

MEETINGS

ADELAIDE: "An archival pot-pourri"

Trevor Triplow will present an archival pot-pourri, including Adelaide trams.

News of light rail matters will be welcome from any member.

Please contact Les Howard on 08 8278 3082 or lfhoward@tpg.com.au if you are planning on attending.

Location: 100 Sir James Hardy Way, Woodcroft

Date: Thursday 3 December 2015 at 7:30pm

BRISBANE: "Brisbane: Mike Loveday Photographic Competition & Bob goes to Bundaberg"

The SEQ division will hold the annual Mike Loveday photo competition, followed by a DVD of Bob Gough's travel to the Bundaberg area in September 2015. Please bring a plate of Christmas goodies for the meeting.

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

Date: Friday, 11 December at 7:30pm

MELBOURNE: "The horses didn't have a chance."

South Australia's Kingston – Naracoorte Railway in the 1870s. Frank Stamford will present evidence that previous histories have grossly libeled the horses and the V class locomotives! And reveal a previously unknown locomotive.

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

Date: Thursday 10 December at 8:00pm

SYDNEY: No December meeting.

Next meeting February 2016

Check LR 247 for details.



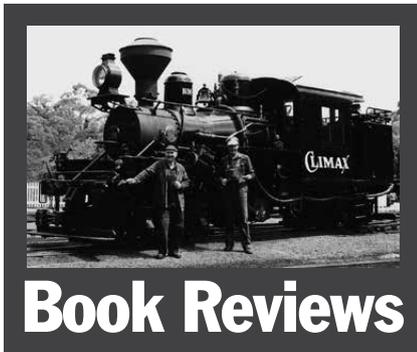
Victorian Community History Awards 2015

The Victorian Community History Awards are sponsored by the Royal Historical Society of Victoria and the Public Record Office Victoria and are held annually to recognise excellence in historical method. It is the premier historical award event in Victoria. In 2015 there were over 200 entrants vying for success in eight categories as well as the overall Victorian Community History Award.

In each category a small number of entries were shortlisted from which the winner was selected. The other shortlisted entrants were awarded a Certificate of Commendation.

The LRRSA publication, *The McIvor Timber and Firewood Company*, authored by Frank Stamford, was entered in the Local History – Small Publication category and it is with great pleasure that we announce that the publication was shortlisted and Frank was awarded a Certificate of Commendation recognising the excellence of his work. This is the first occasion an author of a LRRSA publication has been recognised in this way. Congratulations Frank.

Mike McCarthy



Book Reviews

Saving Puffing Billy The First Decade 1955–1965

Edited by David Burke OAM

217 pages on art paper, 260 x 210 mm portrait format, hardcover, over 300 photographs – mostly in colour, and documents. Published 2015 by Puffing Billy Preservation Society. Available from LRRSA sales at \$59.95 (\$53.96 to LRRSA members), plus postage.

This book is the story of the events leading to the establishment of the Puffing Billy Preservation Society (PBPS), and the first ten years of its existence, up to the time it restored train services to Emerald. In parallel with the Festiniog Railway in Wales, this was only the second known example of amateurs attempting to preserve an operating railway anywhere in the world. The first was the Talylyn Railway Preservation Society (TRPS) in Wales, founded in 1951. Both the Festiniog and the Puffing Billy projects used the TRPS as proof that amateurs could run a railway. In the case of the PBPS it was the first time that an attempt was made to preserve a railway owned by a large government bureaucracy. That presented the PBPS with challenges not faced by the TRPS, and they are a recurring theme in this book.

The book presents the history of these ten

tumultuous years in the words of those who were involved. That is both a strength and a weakness. There are 29 chapters. Chapters 1, 2, 6, 9, 13, 17, 20, 23 and 28 are extracted from *A history of the Puffing Billy Preservation Society*, a limited circulation publication written by Bill Russell. They provide a chronological history of the events over the period. The remaining chapters are primarily edited transcriptions of interviews. So with this book the reading experience is not what you might expect in a history. For someone unfamiliar with the subject it might be helpful to read the chapters by Bill Russell first, to give the overall picture, and then to read the other chapters.

There is some repetition in the interview chapters, as each person is giving their own interpretation of what happened over that period of time. This is also oral history, so memory lapses occur - the reader needs to be his own historian and make allowances for these variations in the memory of each contributor.

For me this turned out to be one of those rare books that could not be put down until read from

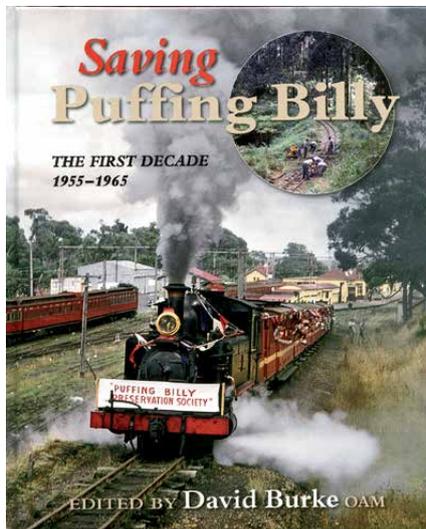
cover to cover. And on the whole the text is easy to read, but the lack of historical continuity I found somewhat disturbing to the reading experience.

The personal reminiscences contain gems of information, and they are written from very different perspectives. Some were 15 or 16 year old members of the Schools Section who were doing maintenance of the right-of-way, others were in their early twenties doing track maintenance and construction. Then there were those who were using their skills and ingenuity to make trolleys and maintenance equipment, and those in their thirties and forties trying to manage the process in very difficult circumstances, and seeking donations of materials and services. Across all the age groups there were some very talented people, and an incredible persistence against daunting challenges.

This persistence was driven by public sentiment, which had been demonstrated by the huge turnout of people for the "Farewell" trips in 1954 and again in February 1958. Within a couple of weeks of the opening of the Gembrook railway in 1900 it was carrying holiday tourist traffic, and this grew rapidly. By the time the railway closed in 1954 there were three generations of Melbourne residents who had happy memories of holidays in the Dandenongs associated with the Puffing Billy railway. Those experiences went across all strata of the population. That seems to explain why there was an almost religious zeal to succeed in a task which often seemed impossible.

The book reveals that Victorian Railways management was divided in its attitude to saving the railway. Whilst the government at the time needed to show some public sympathy for the Society's aims - public sentiment demanded that - it was unwilling to provide any finance.

Throughout the text there are some fascinating insights into the 1961 coup within the Society, in which the first president, Harold Hewett was



replaced by Lon Wymond. There is no overall assessment of Hewett's contribution to the Society, just many individual opinions. What seems clear is that he lacked the skills to delegate and negotiate which were needed to carry the project to success. Within a year of the coup the railway was running again.

Also revealed is a remarkable variation in the long-term vision of how the railway should develop between the new president and the great majority of the members. Fortunately the new president had the wisdom to go with the majority opinion.

The book is very well laid out and designed. Obviously a great deal of care has been taken in the preparation of the photographs, both colour and black and white, and the quality of the printing is very high

I would recommend this book to anyone with an interest in railway preservation.

Frank Stamford

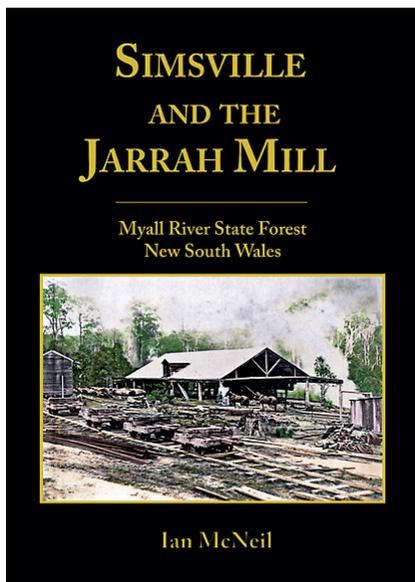
SIMSVILLE AND THE JARRAH MILL

Myall River State Forest NSW

By Ian McNeil

Published by LRRSA. 93 pages. A4 portrait format, soft cover, with many black and white photos and 13 very detailed and coloured maps. Available from the LRRSA online bookshop - \$29.00 plus postage (\$21.75 plus postage for LRRSA members)

This book has been written by Ian McNeil, the two-time winner of the LRRSA's prestigious J L N Southern Award for excellence in light railway research. Ian is well known to *Light Railways*



readers for his many articles on timber and breakwater tramways in New South Wales.

The book covers the tramways of the timber industry of the Myall River State Forest on the NSW lower north coast from 1903 to 1947. Ian undertook the original research for this book in the mid 1980s, which was first published in *Light Railways* magazine No.113 in 1991.

Since that time the world has changed for the better for light railway researchers everywhere. The rise of the internet and the advent of improved research tools like *Trove* and GPS equipment in particular, allows for much more accurate recording of details in the field. As a result, Ian has been able to expand on his original research and provide a far more detailed study of this interesting operation.

Through this book, readers are introduced to

the story of the extraction of vast quantities of hardwood by five consecutive companies namely Millar's, Pines and Hardwoods, Stroud Timber Company, Smith and Ellis and Allen Taylor and Company. The tramways used on the operation had everything associated with a typical timber tramway of the time - A and B Class Climax locomotives, horse worked lines, timber and steel rails, reversing stations, lots of timber bridges and extensive earthworks. The author has undertaken extensive field research and has produced very detailed maps and diagrams of the operations – a highlight for this reviewer.

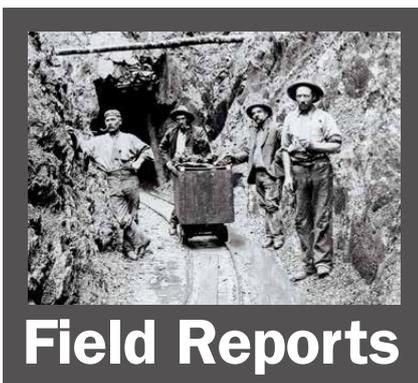
The book also includes seven detailed appendices after the text that give supporting details of the operations at Simmsville and other interesting material. When all of this information is combined together with a large number of photographs, the reader gets a close feeling of what life was like in those far off times.

An interesting topic covered in the book is the 1937 Cinesound Pictures movie titled "Tall Timbers" that was directed by Ken Hall and starred well known (at the time) actors Frank Leighton and Shirley Ann Richards. The film was shot in and around Simmsville and told the story of rivalry between two big fictitious Sydney timber firms to get hold of the good timber country. The driver of the Climax locomotive features as one of the stars of the movie.

The book is written in an easy to read and interesting style and has been produced to a very high standard with a large amount of high quality black and white photographs.

This book provides excellent insights into the light railways at the time in Australia and is highly recommended to those interested in timber tramways.

Richard Warwick



Field Reports

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

Buxton Sawmilling Company, Black Range, Victoria Gauge 914mm

This field report is another instalment in the data collected by the LRRSA post-2009 bushfire survey team.

In mid-1938 the Buxton Sawmilling Company (a subsidiary of Melbourne sawmiller and timber merchant William Cook) installed a mill on the western side of the Acheron River on today's



Scott Gould measuring from a datum line and Stuart Thyer plotting the position of various elements of the mill site on a gridded sheet on 17 January 2010
Photo: Mal Dow

Project Road near Buxton. The log supply for the new mill was obtained from the lower slopes of the Black Range. Logs were snigged to landings by horse teams and despatched to the mill over two separate tramways built

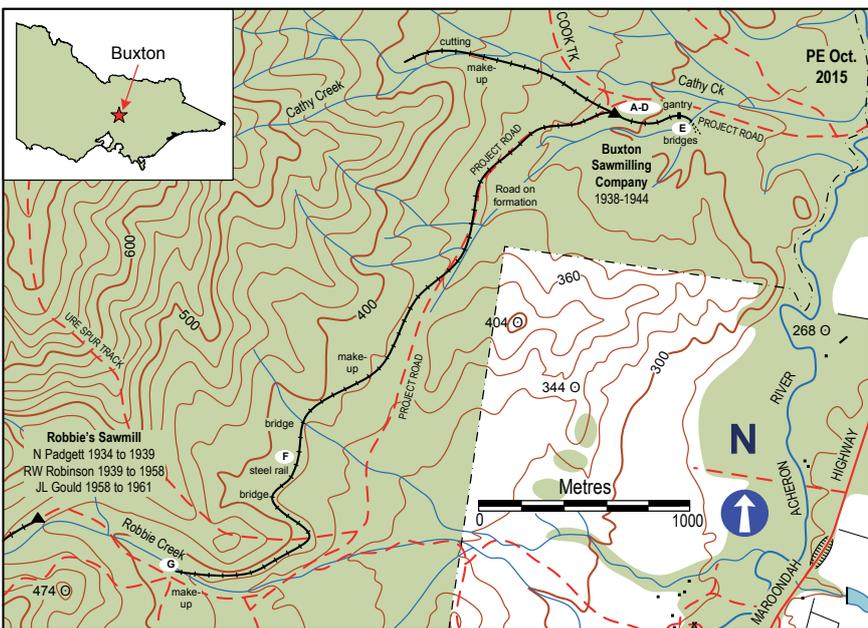
to the gauge of 3ft. Sawn timber was taken a short distance below the mill by another 3ft gauge tramway and stacked ready for dispatch by road. At first the motor trucks were loaded by hand from the stacks but, late in the life of



Concrete saw bench foundations looking south-east down the main sawdust trench Photo: Scott Gould



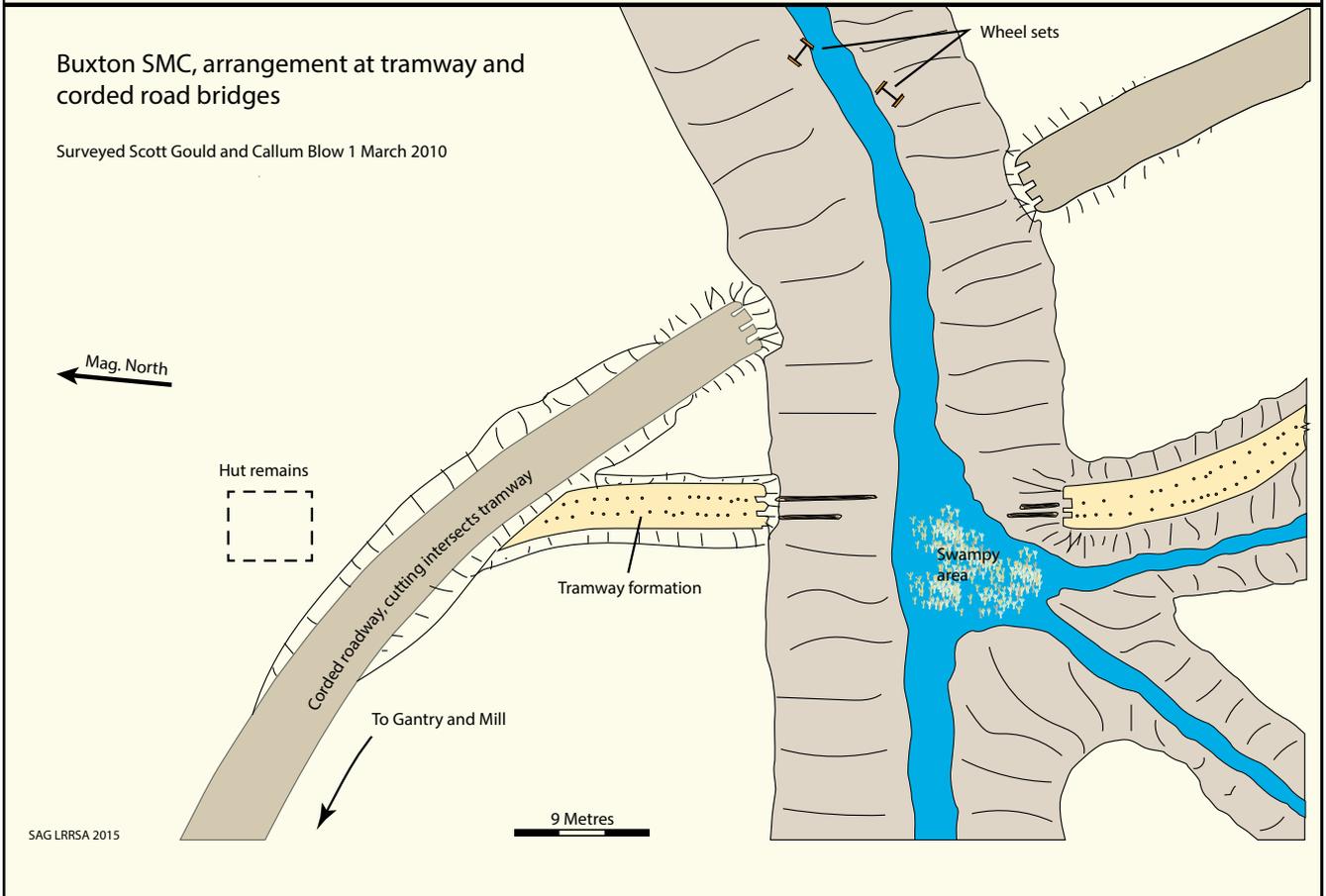
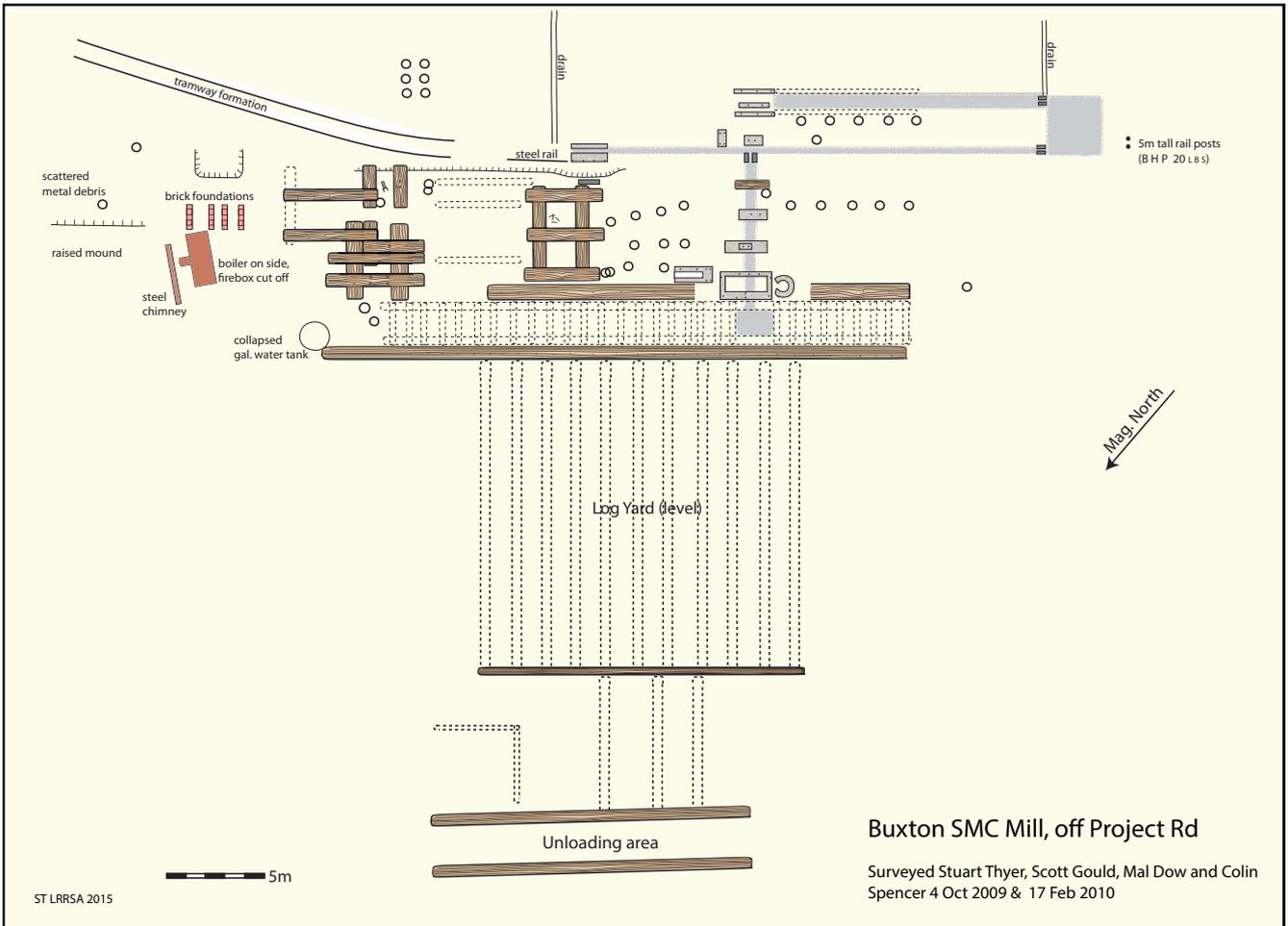
Concrete saw bench foundations looking north-east across the main sawdust trench Photo: Scott Gould



the mill, a gantry was erected, which made the job of transfer much easier. From the mill, motor trucks traversed a board-road as far as today's Maroondah Highway. This ensured access to the mill site (even in winter) to maintain a steady supply of timber to Cook's timber yards in Preston. Mill houses were strung out between the Acheron River and the mill itself. The settlement included around twenty married people and their children, and from ten to fifteen single men, depending on who was working at the mill at a particular time. Near the settlement was a large stable where the twenty or so large draught horses used in the bush were kept.

The mill had only been in operation for eighteen months when it was visited by fire twice within a single week, on Sunday 8 January and Tuesday 10 January 1939. The mill and most of the houses were saved. Damage during both fires was largely confined to 20,000 super feet of timber burnt at the stacks and the destruction of fifteen chains of tramline, including one bridge. The mill was soon back in action – however, the log supply now largely switched to motor transport, which unfortunately resulted in milling operations being conducted at a loss. For this reason the mill was forced to close in March 1944. Logs from the area were then taken to Preston for conversion and, by 1955, little usable timber was left on the allocated area. In May 1967, the logging licences held by the Buxton Sawmilling Company were transferred to J.L. Gould (Marysville) Pty Ltd and the Buxton Sawmilling Company passed into history.¹

The mill site was surveyed by Stuart Thyer and Scott Gould on 4 October 2009, and finished with the assistance of Mal Dow and Colin Spencer on 17 January 2010. The mill is located on the south side of Project Road, adjacent to the Cook Track intersection. The whole site slopes gently towards an un-named creek, which lies approximately 75m south of the mill site. The northern edge of the mill site begins close to the edge of Project Road at an unloading area, the two logging tramways having been obliterated at this point by the construction of the road. From the unloading area, harvested logs were rolled down over heavy timbers laid on a slight slope into a log yard approximately 17m square. The breaking-down saw track is 30m long, with the main sawpit 9m from one end. From the head of the main sawdust trench, there are a series of concrete foundations located along or near the line of the trench. The trench itself is quite narrow and shallow, as the mill was fitted with an endless chain system for sawdust removal. The trench runs for 8m under the concrete bases, before intersecting a second trench at right angles. From here, the sawdust would have continued to the right for 15m before emptying into a sawdust burner. A second trench runs a total of 24m from the burner, ending at a concrete structure, presumably the location of another saw. Opposite the end of the main trench and 2m to the south are further concrete structures, presumably the location of a third saw (possibly the main rip bench?). From here, a 1m wide trench runs parallel to the second



Detail drawings taken from on site mapping and measurements of the mill site and bridges. Unfortunately the area between the two wasn't plotted in any great detail before the regrowth took back over!



The remains of the mill boiler (firebox end towards the left)

Photo: Scott Gould



Tram wheels in the creek near the bridge crossings on the mill outlet road and tramway Photo: Mal Dow



Steel rails near the outer end of the southern-most log tramway

Photo: Mal Dow

trench, also ending at the sawdust burner. At the end of each trench are small metal bases for mounting the sawdust extraction system.

The mill boiler is particularly interesting, being a strongly-built former railway locomotive boiler built to imperial measurements (and hence measured in the field as such). Unfortunately the firebox has been cut-off, precluding any identification from boiler registration stampings. The barrel is in three strakes, each 3ft 6in long overall with double butt-strap quadruple-riveted longitudinal seams and double-riveted single-lap circumferential seams. Handrail stanchions are fitted on each strake. The barrel is 3ft 6in in diameter. There is a steam dome 1ft 9in in diameter and 2ft tall on the central strake, with feedwater inlets on the centre-line of the barrel directly below this dome. Parts of the lower outer wrapper of the firebox are still riveted to the barrel, and five palm stays (originally connecting the barrel with the bottom of the firebox tube plate) are visible on the inside of the boiler. There is a flanged mounting riveted to the underside of the boiler on the strake just forward of the now-missing firebox. Both tube-plates are missing, rendering it impossible to count tube numbers or measure tube diameters. However, there may be sufficient information in these field measurements to identify the class of locomotive. One possibility is an 'N'-class 2-4-0, ex Victorian Railways; the number and position of the handrails, the position of the feedwater inlet, and the shape of the dome all match, and the plate behind the dome is about where the attachment of the Salter safety-valve levers should be. If so, this might be a very historic boiler dating back to a class constructed between 1859 and 1866.

East of the mill the outlet tramway can readily be followed as far as the now-collapsed gantry. Below this is the outlet road for motor trucks (not followed far past the remains of a collapsed bridge). Just west of this bridge and at a higher level than the road is evidence that the outlet tramway once continued further on, crossing the same creek on its own bridge. In the bed of the creek lie several much worn 914mm gauge tramway wheelsets measuring 590mm in diameter over the tread (probably originally 2ft). While the bridge site was recorded by Scott Gould and Callum Blow in February 2010, this outlet part of the site would repay future investigation.

The logging tramway running generally south-west from the mill was mapped by the mill survey team on 17 January 2010. The majority of the tramway has been obliterated by the construction of Project Road as far as a low saddle. At the saddle the tramway swings from the east side of the road to the west, crossing what must have once been a substantial bridge and several make-ups in the following section. The largest structure on the line was the remains of a pig-sty bridge across a shallow gully, 40-50m long and approached by a cutting 1m deep and 20m long. Just south of this bridge was a section of tramway almost completely intact, including lightweight steel rails on each side.



Make-up over Robbie Creek looking west
 Photo: Peter Evans

This was followed by another bridge of five spans each of approximately 9m. This bridge would have been around 5m high. The tramway then crossed Ure Track, then passed over a short bridge and a long-make-up over a swampy area. The tramway terminated at a log loading ramp just east of Robbie's Mill (see LR245, pages 28-33).

The logging tramway running generally west from the mill had already been surveyed by Peter Evans on 22 May 2005. Close to the mill this tram had been obliterated by roading and logging tracks but, further west, the formation was fairly definite, consisting mostly of shallow side cuttings with remnant wooden rails and continuous packing, confirming horse traction as the method of operation. The tramway crossed a shallow creek valley on a make-up and, not far past this make-up was the heaviest earthwork on the line, a cutting about 1.5m deep. The end of the tramway was indefinite (being covered in heavy bracken at the time of the survey), but the ground rose steeply from this point on and any continuation of the formation would have been obvious.

Scott Gould, Stuart Thyer and Peter Evans
 10/2015

References

1. Mill and tramway histories condensed from Evans, P. (in prep). *Wooden Rails and Green Gold: A Century of Timber and Transport over the Yarra Track*.

**Derrimut Explosives Reserve, Victoria
 610mm gauge**

In 1938 the Commonwealth Department of Defence acquired 481 acres of land on the west side of Palmers Road, Derrimut, 20 km west of Melbourne, as a site for the storage of military explosives and ordnance. Over the next three years 45 magazines, plus various ancillary buildings, were constructed.

For safety reasons the magazine buildings were widely spaced around the entire site. Each magazine was served by siding in a 2ft-gauge tramway system that had a total length of more than 15 km arranged as a grid. Near the main gate a loading shed, with three rail tracks in the centre, was provided for transfer of explosives to and from road vehicles. Also provided were a two-track truck storage shed and a three-track locomotive shed with battery charging and workshops facilities.¹

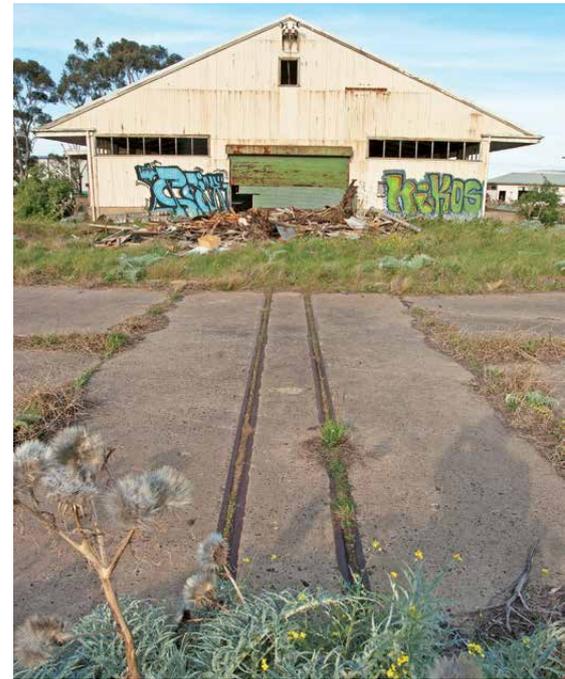
Rolling stock consisted of flat trucks; 12 being supplied by S W Newman of Port Melbourne in 1940.² These trucks tended to derail on curves—a very undesirable trait when carrying explosives. With greatly increased use of the site due to the war, 50 further trucks were manufactured by the Victorian Railways' Newport Workshops, to its own design, between April 1943 to February 1945. Unfortunately the prototype trucks in the second batch tended to derail on straight track!³ To haul the trains, Wingrove & Rogers of Liverpool, England, supplied three four-wheel battery-electric BEV type W217 'trammer' locomotives, builder's numbers 1603, 1604 and 1605 of 1940.⁴ From 1943 to 1946 these locomotives were assisted by a similar Greenwood & Batley 4wBE locomotive (B/N 1407) temporarily acquired from the Victorian State Rivers & Water Supply Commission.⁵

The tramway system seems to have been replaced by rubber-tyred transport about 1958⁶ and most track was subsequently removed. The site ceased to be used for explosives storage in December 1986 and has now been sold for redevelopment as an industrial estate.

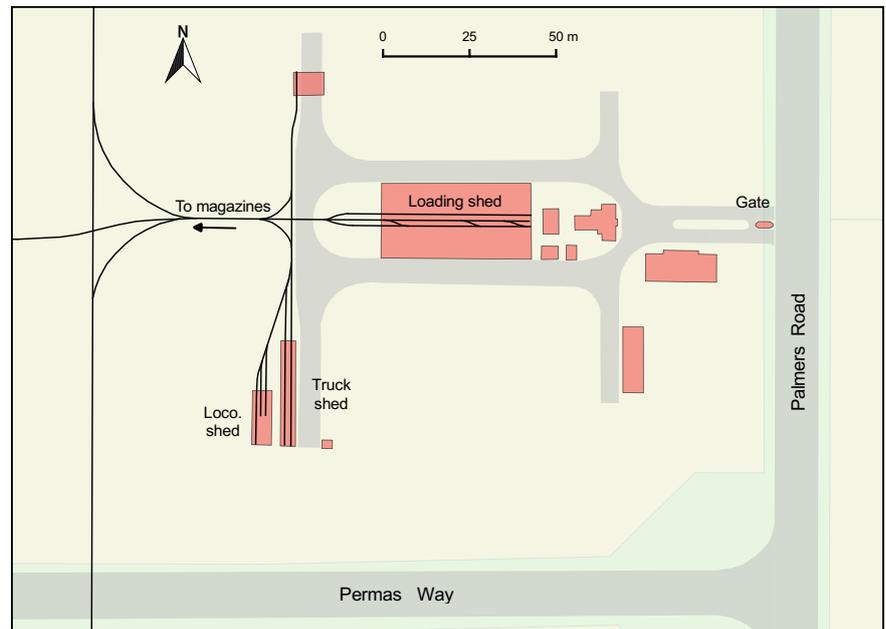
Most magazine buildings have been removed as part of the ongoing redevelopment of the site. North-west of the intersection of Permas Way and Palmers Road several buildings are extant including the main transfer shed, locomotive shed (frame only) and truck shed (collapsed). Little remains of the tramway system; most apparent are the rails embedded in the concrete floors of the former locomotive and truck sheds and a concreted road crossing near the transfer shed.

References

1. Department of Defence Production plan W-39896, Derrimut Magazine Area, Issue 9
 2. NAA: 1325/1, 425/2/1458
 3. VPRS 421/PO, Unit 804, File 42/15959
 4. NAA: MP1325/1, 408/1/3205. (Builder's numbers supplied by Richard Horne).
 5. VPRS 6008/PO, Unit 730, File 52/4892.
 6. Explosives Factory Maribyrnong, Plant register



Rails embedded in the roadway at the west end of the loading shed
 Photo: Colin Harvey



Torrumbarry Weir Coarse-sand pit, Victoria Gauge 610mm

In conjunction with extensive documentary research, a series of four annual visits, commencing in December 2011, unravelled the detail of the tramway network that served the construction of the Torrumbarry Weir and lock over 1919/23 with the exception of one feature; the coarse-sand pit and its tramway. The last two visits focussed, in part, on finding the pit but both occasions only succeeded in informing us as to where it wasn't! Document research stated that the pit was "about 2 miles from the works". Having eliminated the likely locations by on-the-ground searching, two circles plotted on an aerial photograph at scale 1.8 miles and 2.2 miles radii highlighted all possible positions. Nevertheless, initial examination just added to the frustration as we had covered on-foot the likely areas in the forested country to the north-west and south-east of the weir where all other features associated with the works were located. However, a bit of lateral thinking highlighted one particular spot amidst farm land to the south that we had never considered. Torrumbarry Weir Road crosses a dry river bed at exactly two miles from the weir. Alongside the road was what appeared to be a farm dam. Close examination of highly enhanced 1946 aerial photography as well as current Nearmap and Google Earth images seemed to show



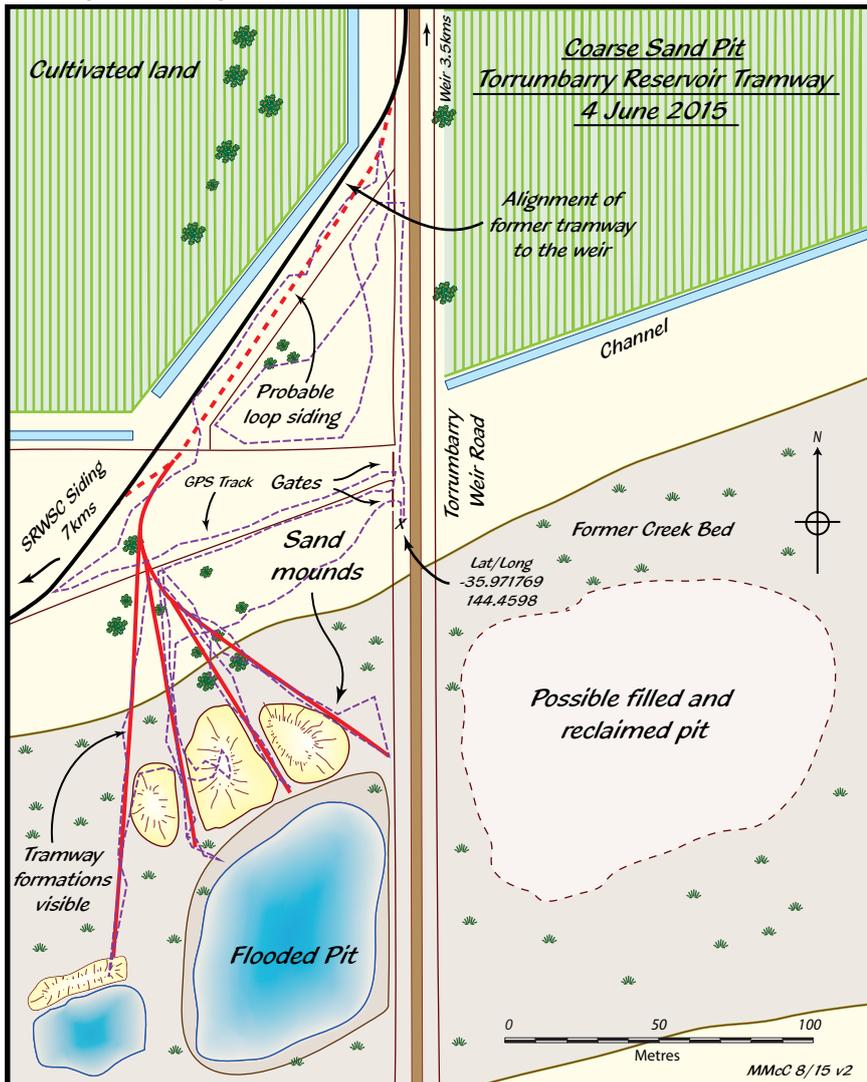
The flooded sand pit alongside Torrumbarry Weir Road on 4 June 2015. A tramway formation is visible on the lower left of the image. Photo: Mike McCarthy

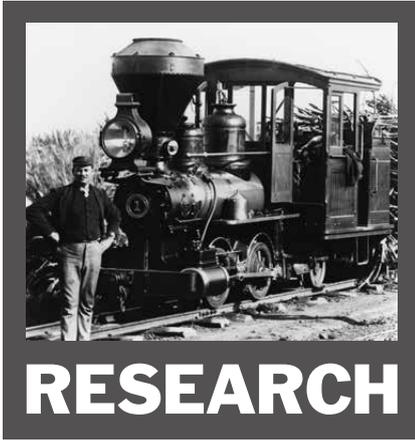
mounds of soil interspersed by formations. Encouragingly the location was within 100 metres of the tramway that connected the weir site with the SR&WSC Siding west of Patho. It all beckoned for another visit to Torrumbarry! A trip to Mildura on 4 June 2015 provided the opportunity to stop and check the location. I arrived there at around midday and it took little effort to climb the gate into what I presumed (incorrectly

as it turned out!) was Crown Land. A short walk brought me to the features visible in the aerial photographs. Nature had clearly softened forms that were evident from the air in 1946 but after following one of the formations between the mounds, I came across what appeared to be faint regularly spaced sleeper impressions. With the formations perfect for two feet gauge there was no doubt that this was the elusive pit!

The tramways serving the site radiated from a point approximately 85 metres from the pit edge. Each was followed to allow my GPS unit to plot where I had been. A second, smaller pit, apparently served by the westerly-most tramway, is located alongside the main excavation. The mounds, about two metres in height, consist of light gravel or coarse sand and a check of the pit edge showed the same material. It seems the pit was worked by hauling the sand from the pit to the mounds, probably by using horse drawn scoops. The sand was then, seemingly, hand shovelled into the tipper tramway trucks. The river bank sand tramway also featured this method of operation. There was a slight rise from the loading point to where the siding on the mainline sat so in all probability horse haulage would have been employed here. Rehabilitated farm land on the east side of the road and another "farm dam" within the former creek bed in that direction raises the possibility that a second pit may have existed to the east, although no evidence of tram formations in that direction could be found.

Sadly, more recent farming activity and channel construction had disturbed the area leading up to the main tramline alignment. No sign of the mainline or the siding/s that must have been present could be found although the siding was evident in the 1946 aerial image. It took only about 30 minutes to inspect the site but it was certainly well worth it. The irony, of course, is that in all the time searching for the pit we had driven right past the site at least twice on each visit. The site inspection work, a lot of fun working with a team and spanning 4 ½ years, is now complete. Mike McCarthy 08/2015





Please send contributions to:
 Research Editor, Stuart Thyer
 PO Box 21, Williamstown, Vic 3016
 e-mail: research@lrrsa.org.au

Mystery Electric Locomotive (Tasmania)

On 21 September 2015, James McCulloch posted a photograph and enquiry to the LRRSA Yahoo Groups website. A number of responses on the website worked through several potential scenarios, now condensed into this article. The photograph depicts a simple 4-wheel electric locomotive with overhead pick-up posing on a pier or wharf somewhere in southern Tasmania. James wanted to know about the identity of the locomotive and where it was photographed and where it worked.

The original provider of the photo acquired it many years ago through his late father. Memories of its source have faded, but it is possible that the print came from either Russell Allport Engineers or Kennedy Engineering, both of which were well-established firms in sight of one another in the Salamanca area of Hobart's waterfront. Both enterprises were also builders of locomotives used in the timber and mining industry. The photo provider informed the writer that there were a couple of other pictures depicting one or two sister locomotives under construction in Russell Allport's works.

An analysis of information provided in Yahoo Groups contributions provides the following thoughts and ideas for consideration:

1. The gauge appears to be 3'6";
2. A Russell Allport plate is fixed to the frame;
3. The locomotive and its wagons appear posed for the photo, as the chain couplings would not be utilised on normal haulage. There are also chocks under the wagon wheels;
4. The overhead wire does not appear to be permanent;
5. Two possible photograph locations, that possessed 3'6" gauge railways, are described:
 - (a) Huon Timber Company's (HTC) pier at Whale Point, near Geeveston, was ruled out as the pier width in the picture appears too wide;
 - (b) Hastings Wharf was a more likely site due to there being plenty of wharf-space plus background matches the locale of the area. Stacks of milled timber products identify the purpose of the wharf;

(c) HTC at Hastings would have been equipped with an electricity supply and this mill, being quite large, was supplied with electrical equipment in 1904 by Russell Allport;

6. An advertisement in *The Mercury* of 25 October 1905 (and for a while afterwards) carried a Russell Allport notice stating that it was the sole agent in Tasmania for Allgemeine Electric Company (AEC), Berlin, "Manufacturers of . . . Electric Mining Locomotives . . .". *The Daily Post* of 3 August 1909 published a lengthy report on Russell Allport's engineering business and mentioned interesting descriptions about two electric locomotives that were designed and built on the premises a few years earlier and had been working successfully ever since;

7. The closely-spaced buffers are similar to those fitted to locomotives on the Mt Bischoff 3'0" tramway, but the only known electric loco to work that line was the overhead pick-up Baldwin -BO- 27824/1906;

8. No such 3'6" overhead electric locos of the type pictured are known to have worked in Tasmania, thus giving rise to the idea that the picture is a record of a load trial. If so, Hastings was a very long way from Hobart to conduct such tests and the question must be asked why that was so?

The conclusion thus far indicates that the locomotive is on a trial and comments below could be used to support that:

- a. Clothing indicates that the scene is from the circa 1900 – 1915 era;
- b. *The Mercury* and *Daily Post* reports of 1905 and 1909 respectively shed much light on the production of electric locos at Russell Allport, but give no clues as to where they were to be operated;
- c. Hastings is a likely location, given that Russell Allport had supplied electrical equipment to the mill in 1904, only a year prior to the construction of electric locos as per item b;

d. If items b and c can be verified as related to one another, a year of 1905 may be the date of the photograph.

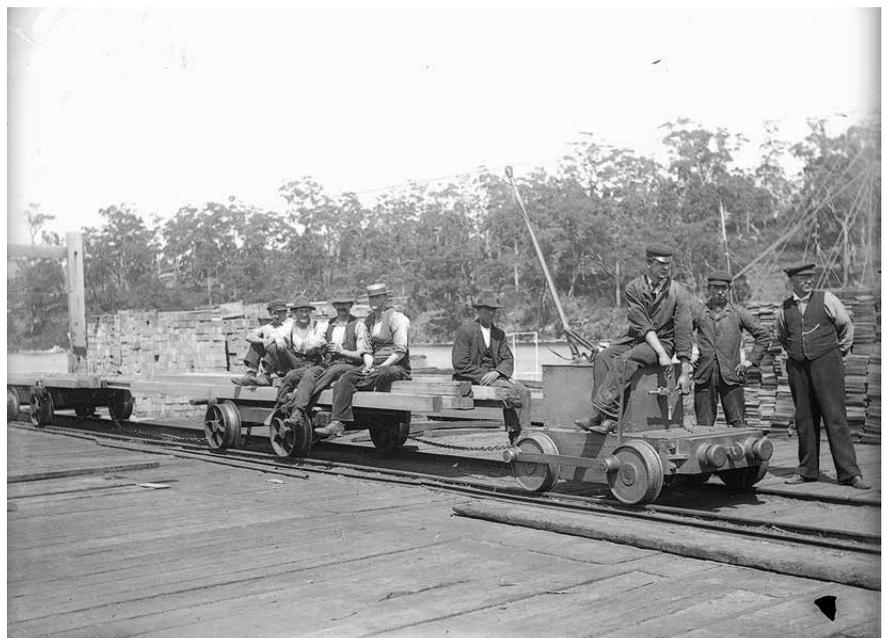
Presuming that there is some truth in the ramblings of this letter, there remains the original enquiry as to where these locomotives were dispatched and worked. A reader may be able to solve the mystery.

Tony Coen

Searching Newspapers

If I had to put my finger on the most significant advances in the world of historical research over the past 30 years, without question the advent of *Trove* would rank at the top of the heap. *Trove* has brought enormous value in the forms of access and efficiency to the task of extracting information from newspapers. It is possible to complete research in a couple of evenings sitting in the comfort of your own home, that could have taken two years or more of reading newspapers in state repositories. The time saving is enormous and, if smart searching techniques are practiced, it is possible that you may pick up material that tired eyes years ago may not have. Furthermore, valuable sources such as *The Argus* and now *The Age* (in Victoria) can be researched. The difference here is stark, as in the past the sheer magnitude of the task of working through even a single year of these newspapers effectively placed them out of reach for researchers engaged in trawling.

Nevertheless, at least for the immediate future, there is one very significant shortcoming associated with *Trove*. As an example, in Victoria there are microfilm records for 908 newspapers. *Trove* covers 335 of these titles, which amounts to 37% of the titles that exist in microfilm form. Furthermore, of the titles covered by *Trove* many are limited to a short span of years. The period 1914 -18 has been given good coverage recently but at the end of the day it means, for many titles, there may only be a small range searchable on *Trove*. The real coverage may be less than 30%.



Small electric locomotive built by Russell Allport & Co, Hobart

Photo: Ted Lidster collection

As time goes by this will increase, but for now the prospect of a visit to a state repository (State Library in Victoria) to engage in the hard yakka of working through years of published newspapers is still very much a strong possibility for those who want confidence that they have been thorough in uncovering their story. Many districts were served by more than one newspaper of which one may now be accessible on *Trove*. This is fortunate for the researcher, but there is still a risk in not working through the undigitised papers as well. It is amazing the number of instances where an accident on a tramway, the opening of a new sawmill or even the arrival of a locomotive is reported by one but not the other. Feature articles containing brilliant detail of an operation were often published. If one newspaper is ignored, then a researcher runs the risk of missing some great material. Of course, that which may be gleaned from the paper covered by *Trove* may be sufficient for your purposes. If so, then the newspaper search in relation to your subject will be a breeze. If not, well you just have to face up to the task. However, there is some good news here. Microfilm newspaper searches, although still a

big job, are much more convenient and productive these days than the past. So what's involved? First, let's look at where things have come from. Off and on I have been working through newspapers as part of my research for over 40 years. In the 1970s the wonders of microfilm were not with us in Victoria, so the task involved working through large dusty leather-bound volumes of the papers themselves. A very grotty and slow process that saw you turning pages piece by piece on occasions. You would often go home with a nose stuffed full of microbes from the 1880s. The damage this was causing led to microfilming in the 1980s. No printing of course at this time. If you wanted a print of the page you had to fill in a form and have someone photograph it (at a significant cost and wait). This changed when microfilm readers with in-built printers or a capacity to print out of a nearby printer arrived on scene in the 1990s. This was a vast improvement on the past but still quite expensive if you were printing a lot. Now though, things have moved forward yet again. The list of newspapers held on microfilm can be found on state library web sites (in Vic http://www2.slv.vic.gov.au/about/using/guides/resources/newspapers/vic_a.html). With regard to accessing the papers the current process is an amalgam of analogue and digital systems. The microfilm is still the source and will remain so until *Trove* absorbs all, but it is now easier, more productive and cheaper. The microfilm is mounted onto a specially designed scanner attached to a PC. As the film is fed through the scanner the images are continuously scanned and appear on a monitor next to the PC. What you see is the scanned image. You can easily enlarge or reduce, lighten, darken and sharpen. In fact, you can do many of

the things that you can do with image processing software on your home PC. So the task is made easier because most things are easily read and there are controls to move page images back and forward.

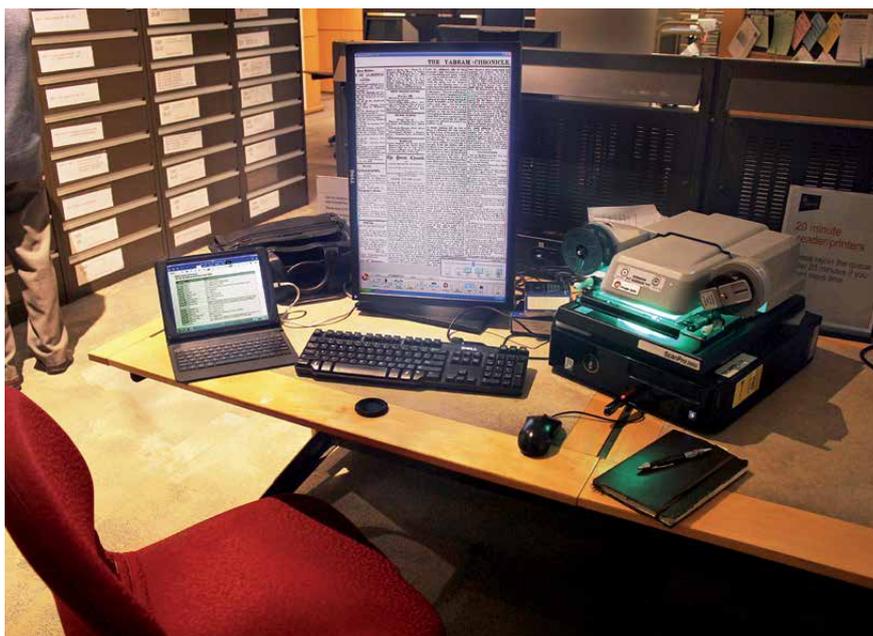
Where the system shows its great strength though is when you want to copy something. It is possible to send an image to a nearby printer (at a cost) but what works best for me is saving the image onto a USB stick so I can print what I want at home or simply view the image on a screen. The system gives options regarding the type of image that can be saved, in a range of image formats, including pdf. With this option it provides the capacity to do Optical Character Recognition (OCR). I find this works well as at home, I transfer the files into folders, which enable me to search everything I have captured for keywords, names and places. It's like having a mini-*Trove* of your own and each image costs only 10 cents! Another point I would make is that not all newspapers made their way to State Libraries. For whatever reason some proprietors chose not to send them. Very annoying and frustrating when it appears that the paper you want is lost forever. There is one other possible source for many of these newspapers, as local historical societies often managed to grab folios kept by a paper proprietor as they were being turfed out after the closure of the newspaper. If you need a missing newspaper it could be worth your while checking the local societies.

The point to all this is to suggest that, as good as *Trove* is (I'm a great fan!), it has a long way to go before it can replace all the hard yards required at State Libraries for those who need to cover a subject thoroughly. Researchers doing the work will usually be well rewarded for their efforts.

Mike McCarthy



Rolls of microfilm await the next patient researcher at the State Library of Victoria



*A microfilm reader workstation at the State Library of Victoria. The item of equipment on the right is the PC with the film scanner on top. Images appear on the screen and film movement plus image adjustments are made using the mouse
Images by the author*

Library Digitising

This article from the State Library of Victoria (SLV) gives a very interesting account of how newspapers are digitised. <http://blogs.slv.vic.gov.au/our-stories/digitising-newspapers/> There is a significant amount of work involved in bringing these papers into the digital age. According to another article on the SLV website, the digitisation of its collection has celebrated its 25th year.

Scott Gould

Francis Theakston Ltd

John Browning has received a request from a friend who is writing an article on Francis Theakston Ltd, a British past supplier of light railway equipment, and would like to obtain some catalogue illustrations to include. As it happens, a catalogue was recently sold on ebay by a vendor at Brunswick Heads (NSW). The information and some illustrations can be found here: <http://tinyurl.com/p4k4ofd>

If you purchased this catalogue, or have another copy, and you could assist by making some scans available, please let John know by email at ceo8@iinet.net.au
John Browning



Heritage & Tourist NEWS

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

QUEENSLAND

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

1067mm gauge

The last two months have been very busy with the grant project to refurbish the Heritage Rail Carriages. Carriages 434 and 1007 were made ready for their grand opening with new floor coverings laid and re-upholstery and timber work on the lounge chairs and dining seats.

The official opening on 29 September went well with the Mayor Margaret Strelow cutting the red ribbon and elected Members, Councilors, business leaders, sponsors and members of the community attending.

The Work for the Dole Project is making a big difference to the car park gardens with members of the public congratulating workers on how good it is looking. Project members will continue to work inside the museum as well doing various projects and track work.

The Committee plus the Coordinator went out to the storage igloos recently to see what is being stored that belongs to Archer Park and some items were bought back. A very dirty dusty job confronted the team, with still more to come.

The Friends hope to have the Soundscape Grant Project work completed by the end of September. The Stage & Audio team has installed the new speakers and they sound amazing. They are now getting the hardware installed and the software operating.

Since the Friends took over the museum, everyone has stepped up and worked hard to take the museum into the successful stage it is in now. The museum continues to grow with new systems, and the whole museum is more organised, cleaner and tidier. The carriages look marvellous and the public is giving positive feedback on these improvements. It appears as though the Friends taking over the running of the museum was the best path that could have been taken.

Janice Seymour, *Tram Tracks* Vol. 9 Number 5, 10/15

WOODFORD RAILWAY, Woodford

610mm gauge

Preparation work on the new loco shed is continuing and the management team has had a meeting with Council as well as an on-site meeting with the shed supplier/erector and the building certifier. A considerable amount of time has also been spent preparing for the construction of the extension to No. 4 road, which is required so the Railway can relocate the rollingstock presently stored on the site of the new shed. Once the rollingstock is removed the tracks can be removed and earthworks begun. Work is continuing with the Perry (Perry Engineering 0-6-2T 5643/51/1 of 1951), Baguley (0-6-0 DM 3377 of 1953) and the overhaul of *Melbourne* (Hudswell Clarke 0-6-0 1701 of 1938). With all of these projects happening, the biggest problem is a shortage of active members.

There has been limited work at the Peterson Road end in recent times. This work will be temporarily mothballed whilst the track work associated with the new running shed is undertaken.

The management team is in negotiations with the Council regarding a new lease for the land at Woodford station. The Council is very supportive of community groups and supports the concept of mutual help between various community groups. For a number of years now the Railway has had an old goods shed crane in sitting in several pieces on some wagons. This crane was of no use at Woodford so it was offered to the Maryborough Whistle Stop museum which was looking for this type of crane. The crane is now in Maryborough being restored so it can be installed in the old Maryborough Goods Shed which used to have such a crane.

Durundur Railway Bulletin, 9-10/15

NEW SOUTH WALES

THE MAJOR

1435mm gauge

Prominent rail preservationists are becoming increasingly concerned by the seemingly cavalier attitude towards one of the world's rarest nineteenth century steam locomotives, locomotive number 5, *The Major*, which was the first of eight powerful 0-6-4 tank engines built by Beyer Peacock & Co. in 1885 (b/n 2601) for England's Mersey Railway, a 3.5 mile route that linked Liverpool and Birkenhead. Following the line's 1903 electrification they were offered for sale and four soon found their way to Australia to the J and A Brown Richmond Vale Railway north of Newcastle, NSW, for coal haulage, carrying the road numbers 5 to 8.

They worked until the 1930s, when numbers 6 to 8 were sold or scrapped. But number 5, alias *The Major* on the Mersey Railway roster, continued in service until 1942, when it was placed in undercover storage at Wallis Creek, NSW. That was where dedicated rail historian and mechanical engineer, Bruce Macdonald, OAM, found it in 1968.

Knowing that *The Major* was the only surviving example of an outside-framed large steam

locomotive left in Australia, Mr Macdonald stepped in to save it. He immediately negotiated a deal between the Newcastle scrap merchant then poised to dispose of the asset and the locomotive's then owner, Coal and Allied's chief Engineer, Joe McHarg. The NSW Transport Museum eventually purchased the relic, taking it to Thirlmere museum. But because it was a non-government locomotive it was not covered by state-sponsored financial help for conservation and for the same reason it was not regarded by many as an item of interest within the Museum membership. It was not even given a cover for its chimney.

The locomotive is currently sitting on an almost invisible siding at the rear of Thirlmere's museum, which has since been renamed Trainworks. It has many gaping rust holes and is sandwiched between other derelict rolling stock.

But *The Major's* plight has been noticed and its condition was officially raised several months ago at a meeting in Sydney of Rail Heritage Australia NSW's executive. The meeting agreed that the neglect of *The Major* was highly irresponsible given its international significance. The executive resolved to do what it could to bring the plight of *The Major* to the attention of the wider rail preservation movement.

The managing director of the Dorrigo Steam Railway and Museum, Keith Jones, has expressed his desire to acquire *The Major*. When the locomotive was sold by tender in 1974, his museum was the highest bidder, but the locomotive still went to the NSW RTM. The Dorrigo museum was founded to save Richmond Vale locomotives in 1974 and since then Keith has assembled a large collection of preserved Newcastle coalfields, former private and government locomotives. His museum is still interested in the locomotive. To date there has been no formal comment from Transport Heritage NSW other than to say that it is still assessing the collection.

Leon Oberg, *Track and Signal*, 10-12/15

TASMANIA

IDA BAY RAILWAY, Lune River

610mm gauge

Meg Thornton, assisted by staff and volunteers, has been busy over the winter months preparing the Railway for full service to run every day from 29 September. Many sleepers, dog spikes, bolts, fishplates and lots of ballast have been put into the track. Rolling stock work has included engine rebuilds and carriage repairs, painting and the installation of new seats have also been done to bring them up to scratch. Volunteers have been working on renovations and fit-outs of the History Room, the Quarry Workers Hut and Cabin number 1. The Railway will be operating every day at 10am, noon and 2 pm until December 24 and will run at those times plus an extra 4 pm service from December 26 until April 30. From then on the winter timetable is 10 am, noon and 2 pm on Friday, Saturday, Sunday and Monday.

The new cafe deck for meals and snacks plus hot and cold drinks is now open for business.

Meg Thornton 9/15

VICTORIA

PUFFING BILLY RAILWAY, Belgrave

762mm gauge

August continued a positive new financial year trend with another all-time record (the 12th in 14 months) with a total of 26,357 passengers carried against a budget of 22,000 and 2014 actual of 23,278. This represented an increase of 13.2% on 2014. If this trend continues the Railway will carry 390,000 passengers in the current financial year.

Management is currently commencing a detailed review of the strategic plan for the next 10-15 years, particularly in the light of the considerable growth experienced in recent years. As a part of this process an appropriate consulting firm will soon be engaged to assist with the development of a masterplan for the PBR scenic corridor. The masterplan will include proposed additional infrastructure requirements at various locations to ensure that PB can accommodate future growth and provide a much richer and more diverse visitor experience. This

will be necessary to ensure the Railway meets the increased competition for the tourist dollar and significant additional investment by other tourist destinations to improve their product offering. The masterplan consultancy will take place between October and March and will result in submissions to Yarra Ranges and Cardinia Shires for incorporation of PB's plans into their respective planning schemes. This work is also necessary as a step towards securing government or other funding to facilitate construction of new facilities in the years ahead.

The Senior Management Team together with the ETR Board and PBPS Executive Committee are commencing this wide ranging strategic review. Management want to give PBR supporters the opportunity to be involved in this review and to that end are planning an open forum meeting. In addition they have called for written submissions on ideas from those who will be unable to attend the open forum meeting. This will be an opportunity for all to participate in this wide ranging review.



Michael Chapman captured this atmospheric image of Climax 1694 during the Climax Twilight Outing at the Puffing Billy Railway on 10 October



Work on NG/G16-129 continues at a steady pace, with the engine units being trial fitted to their wheels
Photo: Michael Chapman, 9 October

The August meeting of the Emerald Tourist Railway Board was held on 3 September 2015. The following matters were discussed and considered:

- The progress being made on determining a design and costing for new carriages, and the upgrading of existing passenger NQR vehicles.
- Negotiations continue in relation to the acquisition of spare parts for NGG locomotives. This issue has been complicated by legal proceedings in South Africa (in which PB is not involved). The acquisition of these parts is not essential, but would be advantageous.
- The Board wishes to complete the restoration of locomotive NG/G16-129 (Beyer Peacock, Manchester 7430 of 1951) within two years. This will require rearrangement of staffing and workshop space availability to achieve this objective. Measures are being undertaken to facilitate this.
- Funding was approved for the construction of a retail stock storage shed at Lakeside. This will be identical to the shed on the Belgrave plateau (opposite the Booking Office), and will be constructed by internal labour adjacent to the Lakeside Safeworking room.
- Adjustments were made to the 2015-2016 Capital Expenditure Budget, to allow for further track upgrading, and the development of detailed planning for the proposed Discovery Centre at Lakeside.
- Tenders have been called for the preparation of a Masterplan, which will be used in further updates to the Board's business case to government. The preparation of the Masterplan will be assisted by funding made available by Tourism Victoria. It is proposed to establish a Project Control Committee, which will consist of the CEO, representatives of the Board and the PBPS Executive, government members, and representatives from each of the Shires of Yarra Ranges, and Cardinia.
- The increased number of passengers now being carried and the necessity to vary timetabling and train consists to accommodate this growth was noted.

The Climax Locomotive Operating Committee (CLOC) ran a special Climax hauled train on the evening of Saturday 10 October. It ran from Menzies Creek to Lakeside and return, with special listening and photo stops; a spit roast dinner was served on arrival at Lakeside station.

Duties that were carried out on NG/G16-129 workshop day, 19 September 2015 included:

- Starting the fabrication of new supports for the reverser brackets, rough cutting the two required plates and drilling mounting holes.
- Positioning and drilling the rear plate on the boiler frame and bolting it into position.
- Working on the sand boxes. The lid hinges are now fabricated and ready to be welded into position.
- Starting machining the sand box control valve shafts.
- Continuing painting the engine units black.
- Continuing painting the boiler cradle and associated parts.

Monthly News, 10/15

WALHALLA GOLDFIELDS RAILWAY, Walhalla 762mm gauge

The township of Walhalla has just celebrated its fifth annual Walhalla Vinter Ljusfest festival. As part of the festival, the WGR ran a series of night trains. Last year WGR took over \$10,000 during the month and matched this figure this year.

During the past few months, WGR has been fortunate to be allocated new vehicles to the fleet. It already had a Toyota Ute with enclosed canopy, but was allocated (ex-PTV) a Canter Truck with hydraulic rear deck and an International, dual steering tray truck with ten ton Palfinger crane. All vehicles are a great addition to the Railway's asset base and both the Toyota and Canter trucks have already proven their worth. The crane truck, due to arrive soon will be a wonderful addition to the fleet and will enable WGR to do most of its own heavy lifting. This has previously required the hire of heavy lift cranes. All vehicles will sport the WGR logo.

Recently the floor of the engine shed was concreted in an operation lasting three days. This makes the engine shed a much more amenable environment in which to work.

On Sunday 16 August, SteamRail brought about 500 passengers to the Walhalla region on the annual Snow Train excursion in 13 carriages behind double headed R class locomotives. Nearly 400 passengers disembarked at Moe

station, 180 travelling to Walhalla and just over 100 passengers rode the Walhalla Goldfields Railway on a special 3pm service.

At the beginning of September the WGR carriages received a face lift. They were each painted in a job that took about three weeks. The painting was finished in time for the September school holidays. The guards van was the first to be painted and was taken out of service until it was completely finished. The maintenance crew was also busy doing small jobs on the carriages before they were painted. Once the carriages were re-painted the locomotives looked very ordinary in comparison and the next project will be to have them repainted, starting with the Fowler, which is the most used locomotive.

A new training room was recently completed at Thomson. It is air-conditioned and will make training for work on the Railway a much more comfortable task. Attached to the room is a covered barbeque area to help keep the trainees fed.

Dogspikes and Diesel, 10/15

HENSCHEL LOCOMOTIVE

762mm gauge

The Henschel locomotive (b/n 24427 of 1956, ex Chonburi Sugar Mill Thailand No.103) that saw occasional service at Walhalla has now been re-located to a WGR member's property. It was brought to Gippsland and had several

modifications including conversion to coal burning, installation of VR couplers, the addition of a steam turbine generator, air compressor and air tank from a VR A2 locomotive. It was removed from Walhalla to Moe after the 2009 fires to avoid fire damage, and was then stored in the open for two years, suffering lots of weather damage. The owner, who lives in Queensland, made a trip to Victoria to see if the locomotive could be re-located to a position where it could be protected from the weather. A WGR member volunteered his property and the locomotive was moved to that position. The owner built a weather proof cover for it on site. The locomotive is presently sitting on supports, which lift it off the ground and could be fired up and run as its wheels are clear of the ground. Not much work would be needed to prepare the locomotive for working but it would appear that it will not run on the WGR line any time in the near future.

Andrew Webster 9/15

WESTERN AUSTRALIA

BENNETT BROOK RAILWAY, Whiteman Park 610mm gauge

At the end of another peak season Bennett Brook Railway is fortunate to have three coaching sets available. They are:

- Winter Set made up of four regauged ex Westrail carriages.
- Summer Set made up of four regauged ex Westrail carriages.
- Dizzy Lamb Set made up three ex Dizzy Lamb carriages and three ex LV&S carriages.

The Railway has 14 revenue earning items of rollingstock. The most used passenger set is the winter set which includes carriage AR 1638, the disabled access people carrier which is very popular with customers. To ensure the passenger carriages are serviceable, the train crews book faults based on their observations during service. The carriages are serviced most Friday nights in the pit shed, where access to the underframe and bogies is gained by a pit. A problem with the Summer and Winter sets is the white metal bearings where journal lubrication is provided by oil soaked in wool; replacing the wool in the axle boxes is messy but necessary work. The three Dizzy Lamb carriages have been refurbished and repainted.

The workshop has been constructing a set of points for the loop road at Zamia station and will be ready to go in at Zamia in the next few weeks. There are various jobs to be done to prepare for the new loop at Zamia, as well as regular maintenance work, in the next few months.

The September Ashley Day was one of the best. The sun shone, there was a good crowd and a profit was made. Other positives included not leaving any passengers on the platform and the equipment performed well. There were record pre-sales of tickets and the day saw the launch of the second Ashley book which was fully funded from sales of the first Ashley book.

The steam season has drawn to a close and there are a number of jobs to be done both large and small with the locomotive fleet to get ready



Henschel 24427 of 1956 sits on blocks in undercover storage in Gippsland, a long way from Thailand, where it spent its working life
Photo: Andrew Webster

for next year. The Atlantic Planet (0-4-ODM 2150 of 1939) is running well and is starting to take on more running days. Volunteers have also started fitting pipe-work to enable it to pull a small train if needed. The Dorman Planet (4wDM 3966 of 1962) is having some repair work done to the engine and workers are taking the opportunity to overhaul some marginal components to ensure the long term reliability of this loco. The Fowler (0-6-ODM 41 10019 of 1950) has had an axle box cover replaced and is waiting for the next large diesel to get back running before some heavy repairs and overhaul are made. The Ashley has been running every day during the school holidays and apart from some exhaust upgrades including a new spark arrester, has been running well. Bennett Brook Railway Newsletter, 10/15

WYNDHAM, DERBY AND CAPE LEVEQUE

1067mm gauge

At Wyndham, which still has a working port, trains were used to transport frozen meat, meatmeal and hides from the meatworks to the jetty. Trains also carried general cargo from the ships to the goods shed until container facilities were built. The steam loco, *Preston*, was used up until c. 1960. Then it was replaced by the small diesel loco which was used until 1985. The meatworks closed in 1986 and the railway dismantled. The line-up of locomotives and other rolling stock that were used on the meatworks railway was then put on display near the site of the old meatworks.

Preston, an oil fired 0-6-OST was one of four Hudswell Clarke locomotives (Builders numbers 377-380) ordered by Edward Keane, railway construction contractor for use building the Midland Railway in Western Australia. It came to Wyndham in 1920 to work in the WA Government meatworks.

The big internal combustion loco is very historic, being built in Germany in 1912 and named *Kaiser*. It arrived in Wyndham in 1915 but proved to be

difficult to operate as it used as much kerosene as steam locos did water; it was out of service before the Second World War. (see *Light Railways* 184 August 2005 for a short history of this locomotive).

Several vertical boilered steam cranes and flat cars are also on display.

Derby also has a small display of wharf tramway rollingstock, all of it in a bad shape. At Cape Leveque, about 150 km north of Broome, the only evidence of the lighthouse tramway that once ran there was a photograph on a plaque next to the lighthouse.

John Phillips, 10/15

OVERSEAS

WAR OFFICE LOCOMOTIVE TRUST,

Derbyshire

Hunslet 4-6-0 tank engine No. 1215 (Hunslet 1215 of 1916) will have two birthdays next year. It will be exactly 100 years old on 8 May 2016 according to its builders plates. 2 August 1916 is recognised as being its first day in WW1 service and by its centenary it will hopefully be back in steam again.

On Wednesday 23 September 2015 it was 10 years since 1215 was unloaded from its container from Australia in the UK. In those 10 years it has been on show at the NRM at Shildon, at Hollycombe, at Leighton Buzzard and at the MRT base at Apedale, Staffordshire, and since 2012, it has been in the Killamarsh workshop receiving a thorough overhaul. Workers will shortly be at the stage where they can start to think about and plan for the logistics of its return to steam in 2016.

The new boiler for 1215 was due to be ready, tested and delivered to the workshop by the middle of November 2015. The work is now well in hand and the inner firebox, backhead, throat plate, barrel, dome and outer wrappers are now riveted together, all very complex shapes which

had required new flanging blocks to be made.

The deadline for the arrival of the boiler at the workshop has been put back many times. This is a source of considerable frustration but the restoration crew is managing the situation. The old Bundaberg boiler is now back at the workshop so the crew has been able to make a start making up the crinolines, boiler cladding sheets and boiler bands etc. using this one as a pattern. Still to be done is to complete the staying up process, fit the front tube plate and the tubes and then the smokebox and the dome cover.

Work is going well on the bunker and side tanks, which are being painted. Sorting out the rear sanding equipment on the loco has been a major task because the people who built the new bunker put the sand boxes in just as a plain box each side with no operating equipment included, so now restorers have to make and fit all of this gear from scratch. All the materials needed are now on site but to make matters worse, the bottom of the boxes, which is where all the operating gear is situated, is about an arm's length away and is thus very hard to get at or to work on.

The bogie is almost finished and is ready to be secured in place, just waiting final machining of the new washers which fit on the central pivot pin of the bogie and the lubrication feeds to the central pivot pin and that will complete this part of the project.

But it still leaves almost £20,000 to find to complete the work. However, with enormous generosity, War Office Locomotive Trust's benefactor is prepared to come out in support again and will match fund the group up to £10,000. The target is to have the locomotive at the Tracks to the Trenches from 13-15 May 2016 at the Apedale Valley Light Railway. For this it needs to be ready for commissioning by March 2016 at the latest.

Killamarsh Chronicle issue No 30, 10/15 and War Office Locomotive Trust Hunslet Newsletter 9/15 Registered Charity No. 1100827 www.warofficehunslet.org.uk



Kaiser, Preston and other rolling stock from the Wyndham meatworks sit in the open in the relatively dry climate of Western Australia Photo: John Phillips

New from LRRSA Sales ...

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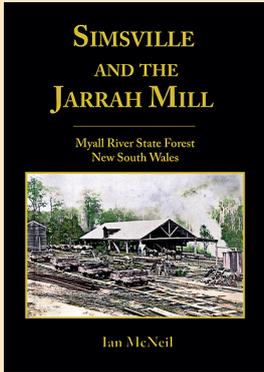
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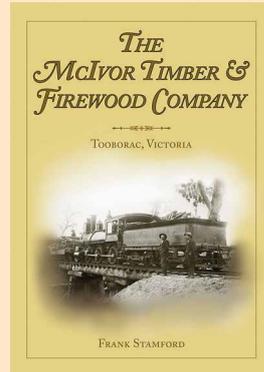
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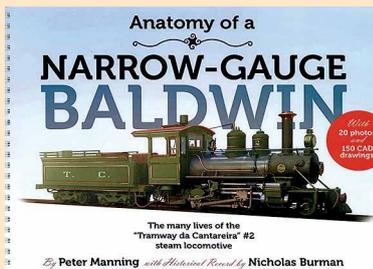


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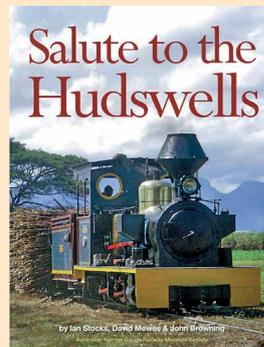
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