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Australia's Magazine of Industrial & Narrow Gauge Railways



Light Railway Research Society of Australia Inc.



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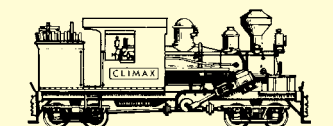
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Conversions:

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

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Comment

A few items in this issue of LR – the former Tasmanian Garratt (and some South African Garratts) running on the Welsh Highland Railway, the South African NG15 on the Bennett Brook Railway, and the narrow-gauge steam locos from Indonesia and The Philippines preserved in Melbourne by the late Jeff Daly – started me thinking about just how much the railway preservation scene has changed since I first became involved, over forty years ago. In those days, the scene was extremely parochial, particularly here in Australia, where jealousy and distrust between States (and even between regions of States) was widespread.

To be fair, in the 60s and 70s Queenslanders in particular saw a lot of their railway heritage, both 'light' and 'main line', heading south. This was largely the result of so many desirable items in good condition, particularly steam locomotives retired because of 'dieselisation', becoming available over a relatively short time frame. It's important to note, however, that in the final wash-up, enthusiasts in all States, Queensland included, ended up with far more material than they could ever hope to fully restore.

In *Light Railways* No.40 Winter 1972, then editor Frank Stamford wrote: 'The first aim should be to preserve a representative example of locomotive types in the State in which they operated. After this has been achieved, there is every reason to encourage interstate (and even international) transfers of locomotives...'. Since then, many such transfers have taken place, including the return of some locomotives to their native Queensland. Former Fairymead Mill Baldwin 0-6-2T *Felin-Hen*, the plight of which Frank singled out for comment in his editorial, is now in France (where it originally ran) immaculately restored to US Army World War 1 condition.

It's gratifying to know that we've now reached a level of maturity where such transfers have become simply the stuff of news reports in 'Heritage & Tourist' and not the source of anger and bitterness they once were.

Bruce Belbin

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

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

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

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

Front Cover: On the Welsh Highland Railway, 0-4-0+0-4-0 Beyer-Garratt K1 (Beyer Peacock 5292 of 1909) shows off its new Tasmanian Government Railways livery as it heads a southbound train at Beddgelert, 17 May 2009.

Photo: Peter Johnson



Climax locomotive No.1694 coming into Tyers Junction from West Tyers (on the Ten Acre Block branch). This shows the locomotive with the original riveted smoke box.
Photo: W Saxton, courtesy Mike McCarthy

Steam locomotives on Victorian timber tramways

by Frank Stamford

The fifth of August 2009 marks the 60th anniversary of the closure of Victoria's last steam-operated timber tramway. On 5 August 1949 Climax locomotive No.1649 brought the last load of sawn timber from Tyers Junction to Collins Siding on the 2ft 6in gauge Tyers Valley Tramway.

Climax locomotive 1649 went into service 21 years earlier, having been bought new by the Forests Commission Victoria (FCV), after a debacle with a locally built geared locomotive. The Tyers Valley Tramway had been constructed by the FCV in 1926-27 at the request of local sawmillers. Much of the work in constructing the steel-railed tramway was undertaken by the sawmillers themselves, but the project was managed and financed by the FCV, who specified the standards for the construction of the tramway. Those standards were high in comparison to most timber tramways, and were based on the standards of Victorian Railways 2ft 6in gauge lines, but with lighter rails, less or no ballast, and with sharper curves (80ft radius in one location).

The tramway was steam operated for the section from Collins Siding (on the VR's 2ft 6in gauge Walhalla railway) to Tyers Junction (6¼ miles). At Tyers Junction, the tramway split, with one branch terminating at Growlers Creek, 13½ miles from Collins Siding, and the other at Ten Acre Block, 8¾ miles from Collins Siding. These branches were normally operated by TACL rail tractors rather than the Climax locomotive.

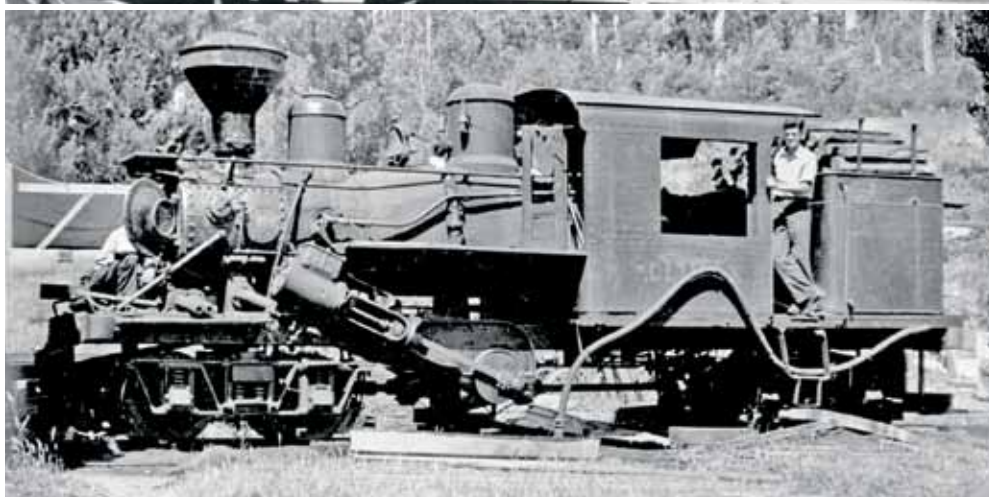
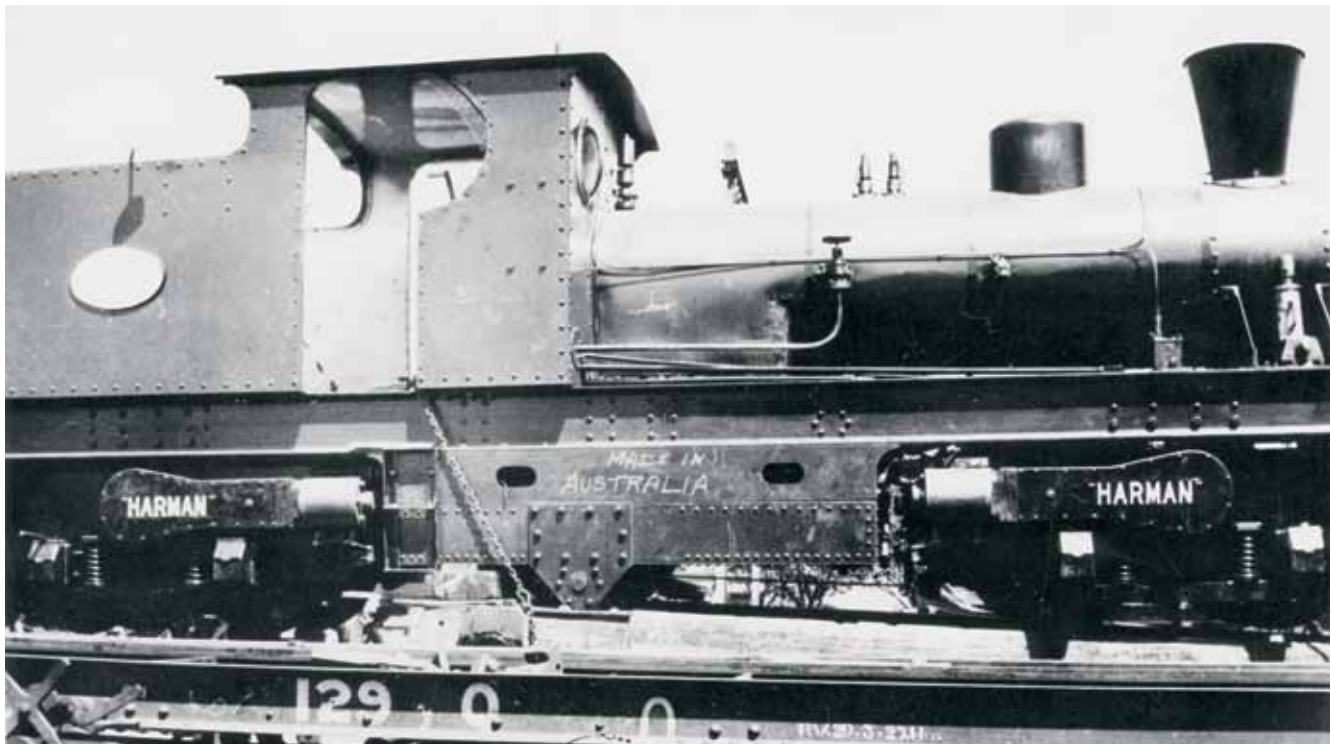
The provision of locomotives was a problem for the FCV. No suitable second-hand locomotives were available, and the most appropriate new ones were made in the USA. At that time, government policy favoured the purchase of locally made equipment or failing that, equipment made in the United Kingdom.

As a result, the FCV was required to call tenders for a locomotive. They received a tender from the Melbourne firm of Alfred Harman, which the FCV was obliged to accept against its better judgement, as the only suitable alternative choices came from the USA.

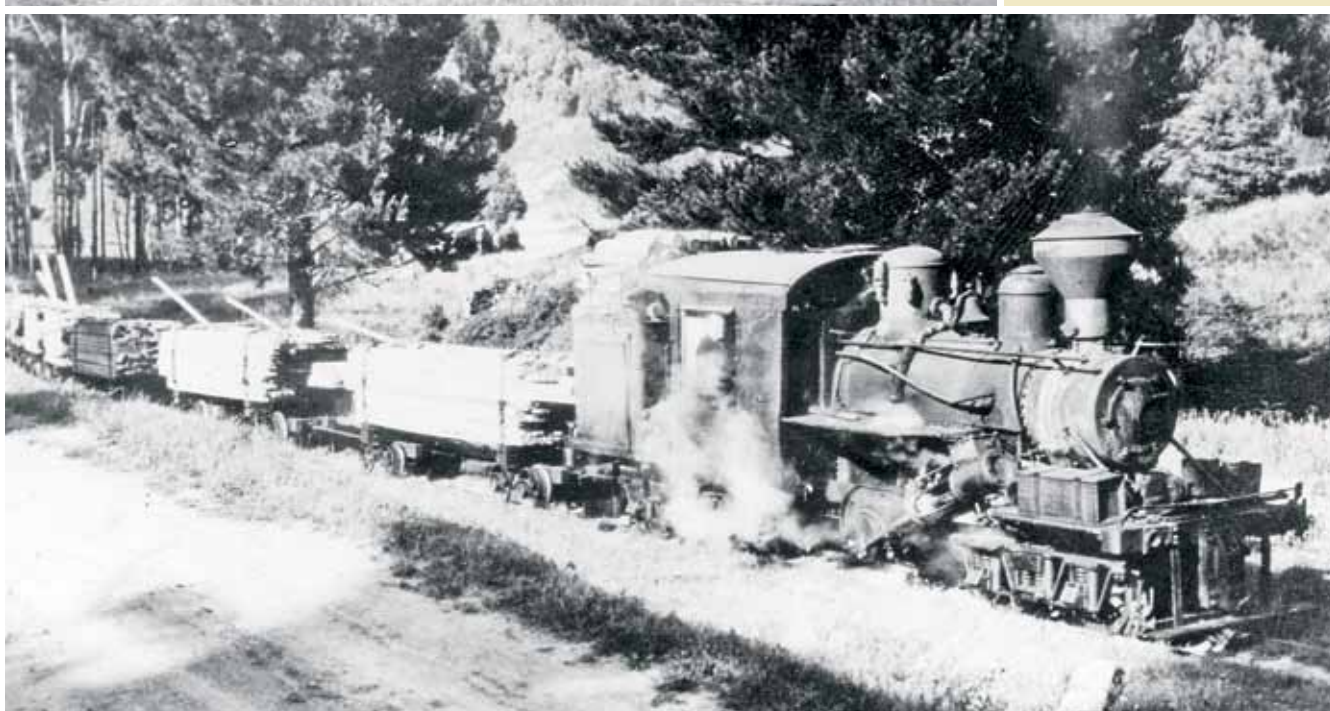
The Harman locomotive proved to be the most expensive, over-engineered failure amongst the 53 locomotives believed to have run on Victorian timber tramways. Part of the design was based on the use of Harman's successful logging winches in the power bogies, but there were too many novel features in the design, resulting in an excessive number of faults.

With the failure of the Harman, in April 1928 the FCV placed an order with the Climax Manufacturing Co., USA for a 'B' class Climax locomotive. It arrived in Melbourne in August 1928, was assembled at the VR's Newport workshops, and delivered to Collins Siding on 5 September 1928. One of the reasons for the failure of the Harman may have been that the FCV made a mistake in the specifications, for they specified a locomotive weighing 16 to 18 tons. The Harman exceeded this weight, and when ordering the Climax the FCV specified a 25 ton locomotive.¹

The success and failure of the two steam locomotives used on the Tyers Valley Tramway was typical of the mixed fortunes with the steam locomotive used on Victorian timber tramways. The working environment for these locomotives



The Harman geared locomotive on a 5ft 3in gauge flat wagon ready for transport to Moe. Photo: LRRSA Archives □ Climax locomotive No.1694 at Tyers Junction in the 1930s. Photo: Forests Commission Victoria □ No. 1694 leaving Tyers Junction with a load of sawn timber bound for Collins Siding, in the late 1940s. This shows the locomotive with the new welded smokebox which was made by the FCV. Photo: AP Wymond, courtesy Mike McCarthy



was very demanding, the grades were steep, the curves sharp, the track usually rough and often appalling. Most owners of sawmills and tramways had limited finances and maintenance facilities, and limited availability of maintenance expertise.

What the sawmill owners lacked in finances or formal knowledge was often compensated for with a willingness to innovate or experiment with what they had available. As a result, the 53 locomotives varied from the sublime to the ridiculous.

Thirteen were one-off designs, made either in the sawmill's own workshop, or by an engineering firm with no experience in building steam locomotives. Five of these (including the Harman) did not get past the testing stage; what is more amazing is that eight performed sufficiently well to put in at least a few years service, and in some cases over 10 years service.

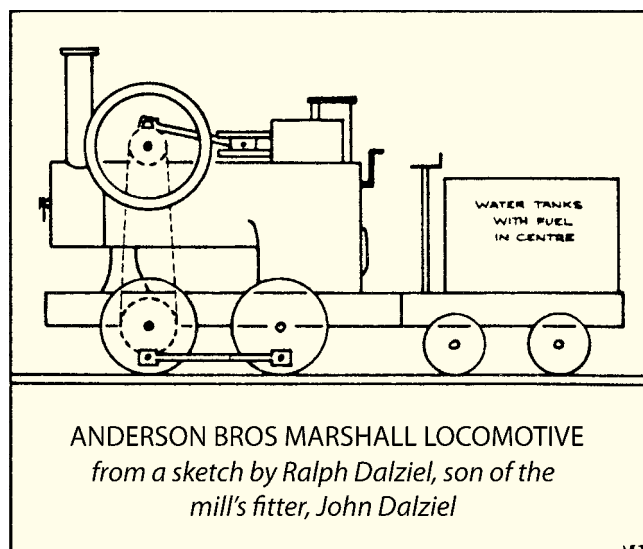
The pioneers

The first tramway known to have used steam locomotives was that of Anderson Brothers, running from Dean, via Barkstead, to Korweinguboorra in the Wombat Forest, south of Daylesford. The tramway was about 5ft 3in gauge, using iron-strapped wooden rails. Andersons had been using tramways for 10 years when in 1873 they decided to try a locomotive. It was constructed by the mill's fitter, Mr John Dalziel, using a Garrett traction or portable engine as a basis.

Perhaps surprisingly – in view of the subsequent results with home made locomotives – it worked! So much so that Andersons obtained a second locomotive, this time built by the Union Foundry in Ballarat. Apparently a Marshall traction or portable engine was used as a base, and the locomotive was described by a newspaper reporter as *'having a double 8 inch cylinder with 14½ inch stroke ... on top of the boiler ... to allow its working by chain gear'*. The locomotive had four coupled wheels, with a chain running from the front axle to a drive shaft on top of the boiler. It also worked satisfactorily. The two locomotives remained in use on Andersons' tramway – which was 23 km long – until 1886 when the Andersons left the sawmilling business.²

One of the reasons these locomotives were successful was probably that the Wombat Forest was less rugged and mountainous than most of the forest areas that were later developed.

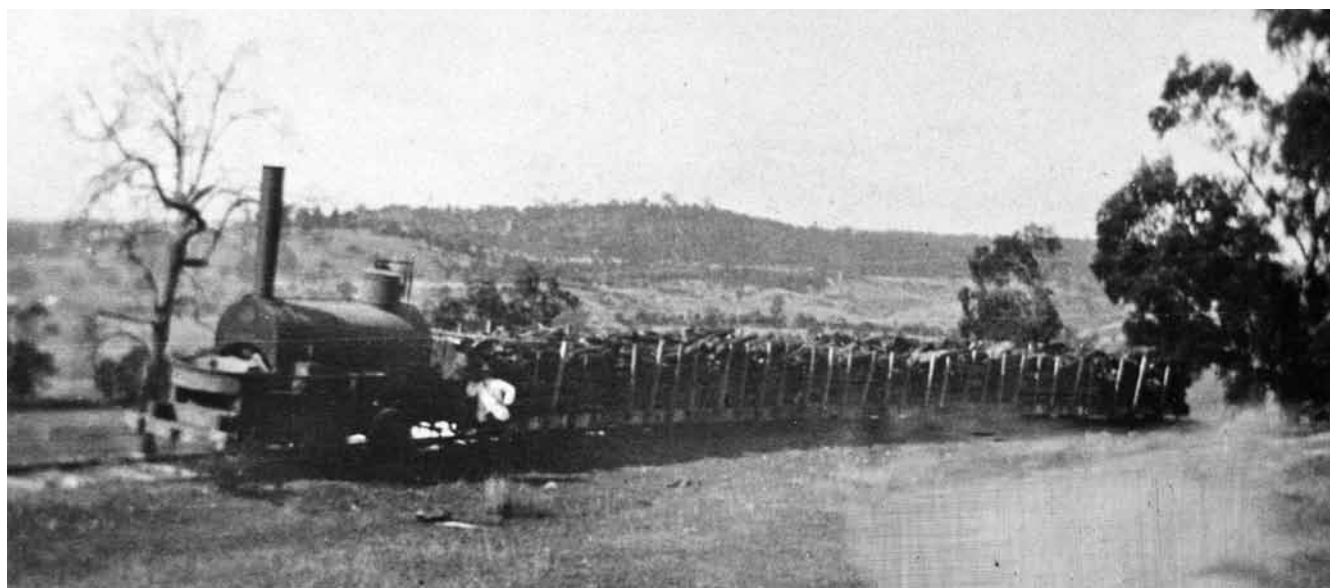
The next timber tramway locomotive was another traction engine conversion, this time for the 3ft gauge Victoria Steam



Sawmill tramway at Warragul. This was built by the mill's owner, Edwin Biggs, using flanged tramway wheels in place of the original wheels. It is not clear how successful this locomotive was. There are no subsequent newspaper references to its operation, and the Victorian Steam Sawmill closed in 1890. In 1884 Biggs' son, Frederick, is reported to be using an engine to haul timber from his mill at Bloomfield, (now Nilma) station. It may have been the same unit, possibly running as a traction engine again, as it was having a disruptive effect on the local horses.³

The next known attempt to use steam locomotives was at Garfield, on the main Gippsland railway, where in 1885 William Brisbane, one of the principal shareholders in the Cannibal Creek Sawmilling Company, tried a locomotive in October 1885. The only thing known of it is that, to quote Brisbane it would *'not answer when going around the curves'*. It was reported that a second engine *'made on a different principle'* was under construction, but nothing further was recorded of it. The rails of this tramway were wooden, of 4½ inch square section.⁴

In 1886 the Longwarry Sawmilling Company had considerably more success with a 3 ft gauge vertical-boilered locomotive that they had built by the Melbourne engineering firm of Lugton & Sons. It was capable of hauling 30 tons



The first locomotive on David Mitchell's firewood tramway at Lilydale. It had geared drive to its four wheels, and was constructed around 1890, but by whom is not known.

Photo: Collection of A. (Sandy) Ross, Lilydale Historical Society



Climax locomotive No. 1694 draws water from Hotel Creek, about half-way between Tyers Junction and Collins Siding.

Photo: W Saxton, courtesy Mike McCarthy

at 8 mph on wooden rails, and in so doing met its design specifications. It hauled the daily output of sawn timber from the Company's Labertouche Creek and Gypsy Creek mills to Longwarry railway station, running two trips daily, but was limited to 4 mph due to the unstable wooden track. It is not known how long the locomotive was used, but the company became insolvent in 1893 and ceased operations.⁵

In 1886 at Apollo Bay the Barham River Timber Company was being established, with a 3ft 6in gauge tramway. A small locomotive was being used in the construction, and it was intended to use a locomotive on the completed tramway, but

the most active promoter of the project was drowned whilst unloading some machinery, and the company never reached its full potential. The locomotive was taken away before the sawmill went into operation. Nothing is known of its identity but it must have been small, as it had to be unloaded from a ship in the open bay and lightered ashore.⁶

Little is known of a four-wheel geared locomotive which was used by David Mitchell on a tramway on his Cave Hill estate at Lilydale, which supplied firewood to his lime works. Photographs show that it was obviously home made (possibly by a Melbourne engineering company) and indicate that



Climax locomotive 1694 at the Tyers Junction loco shed early one morning in 1947, with the cab filled with firewood ready for the day's work.

Photo: Norm Wadeson collection

the gauge was probably 3ft 6in. Mitchell was planning to use steam in 1885, and the locomotive was probably in use in 1890 and definitely in use in 1893, by which time the tramway was three miles long. Newspaper references also tell us that Mitchell was rebuilding and extending his tramway between 1907 and 1910 along the valley of the Olinda Creek, beyond the estate boundaries. It would have been at this time the gauge was changed to 4ft 8½ in, and an ex-Bendigo Phoenix tram motor obtained to work it. This worked successfully until around 1929 when the tramway was taken out of service.⁷

To be continued...

End Notes

1. Wadeson, NE; 'The Tyers Valley Tramway', ARHS *Bulletin*, No.255, January 1959. Stuckey, EG; 'The Harman Geared Locomotive', *Light Railways* No.42 Summer 1972-73, pp.13-19. Stuckey, EG; 'Climax Locomotive 1694', *Light Railways* No.49 Spring 1974, pp.11-18.
2. Houghton, Norm; *Timber and Gold*, LRRSA 1980; pp.21-23 & 28
3. McCarthy, Mike; *Settlers and Sawmillers*, LRRSA 1993, p.87 & 107
4. McCarthy, Mike; *Settlers and Sawmillers*, LRRSA 1993, p.26
5. McCarthy, Mike; *Settlers and Sawmillers*, LRRSA 1993, p.39
6. Details provided by Norm Houghton
7. Details provided by Phil Rickard, and are based on contemporary newspaper reports and records in the Victorian Public Records Office. Alger, Ralph; 'Reminiscences of the Cave Hill Tramway', *Light Railways* No.111, pp.3-14

Victoria's steam operated timber and firewood tramways

Tramway	Gauge	Period of steam operation									
		1870	1880	1890	1900	1910	1920	1930	1940	1950	
Andersons' — Dean — Korweinguboorra	c.5ft 3in		<div></div>								
Victoria Steam Sawmill — Warragul	3ft		<div></div>								
Cannibal Creek Sawmilling Co. — Garfield	3ft		<div></div>								
Longwarry Sawmill Co. — Longwarry	3ft			<div></div>							
Barham River Timber Co. — Apollo Bay	3ft 6in			<div></div>							
David Mitchell — Lilydale	c.3ft 6in 4ft 8½in			<div></div>	<div></div>	<div></div>	<div></div>				
Cropley Bros — Darnum — Ellinbank	3ft			<div></div>	<div></div>						
Mason & Co. — Port Welshpool	3ft			<div></div>	<div></div>						
Australian Seasoned Timber Co. — Wandong	3ft 6in				<div></div>						
Sanderson & Grant — Forrest	3ft 6in				<div></div>	<div></div>	<div></div>				
W.W. Gunn — Crossover	3ft 6in				<div></div>	<div></div>	<div></div>	<div></div>			
John F. Anderson — Warburton	3ft				<div></div>						
North Long Tunnel Gold Mining Co. — Walhalla	2ft 6in				<div></div>	<div></div>					
Mclvor Timber & Firewood Co. — Tooborac	5ft 3in					<div></div>	<div></div>	<div></div>			
Penrose & Oddy — Mitchellstown	3ft					<div></div>					
Cuming, Smith & Co. — Britannia Creek	3ft					<div></div>	<div></div>				
Hayden Bros — Barwon Downs	3ft 6in					<div></div>	<div></div>				
Warburton Steam Tramway — Warburton	3ft					<div></div>	<div></div>	<div></div>			
Goodwood T. & T. Co. — Port Albert	2ft					<div></div>	<div></div>				
Henry & Sons — Forrest	3ft 6in					<div></div>	<div></div>	<div></div>			
Rubicon Lumber & Tramway Co. — Alexandra	2ft					<div></div>	<div></div>	<div></div>			
Victorian Powell Wood Process — Powelltown	3ft					<div></div>	<div></div>	<div></div>	<div></div>		
Higg's Mill — Whittlsea — Pheasant Creek	3ft					<div></div>	<div></div>				
Loch Valley Timber Co. — Noojee	3ft 6in						<div></div>	<div></div>			
Goodwood Timber & Tramway Co. — Noojee	3ft 6in						<div></div>	<div></div>	<div></div>		
Elphinstone Redgum Sawmilling Co.	3ft 6in						<div></div>	<div></div>			
EAC Russell — Gembrook	3ft						<div></div>	<div></div>	<div></div>		
JE Ezard — Big Pats Creek	3ft							<div></div>	<div></div>		
Richard's — Big Pats Creek	3ft							<div></div>	<div></div>		
Forests Commission — Tyers Valley	2ft 6in							<div></div>	<div></div>	<div></div>	
JE Ezard — Erica	3ft								<div></div>	<div></div>	
Line thickness equals estimated number of locomotives (from 1 to 6)											

Line thickness equals estimated number of locomotives (from 1 to 6)



In 1877, workers at Morison and Bearby's engineering works at Carrington gather around one of the Newcastle Coal and Copper Company's Neilson 0-4-0ST locomotives, in the works for overhaul. The building in the background is the Carrington Hydraulic Power Station, which is still standing and currently heritage-listed.
Photo: Ralph Snowball, Newcastle Regional Library

The Neilson Twins

The locomotives of the Newcastle Coal and Copper Company

by John Shoebridge

Introduction

Coal mining commenced on the Burwood Estate, south of Newcastle, New South Wales, in 1848 and continued for almost one hundred and thirty years.¹ A small industrial railway system was established to serve the original mines, and this account examines the introduction of steam traction and the history of the first two locomotives, imported in 1857 by the Newcastle Coal and Copper Company.²

The article also gives an insight into the problems associated with maintaining these machines in a pioneer environment, and of the cost-benefits of rail haulage. Previous articles describing other locomotives which subsequently worked on these railways, have featured in *Light Railways* 200 and 201, and readers are referred to the map in issue 200. It is proposed that the final years of operation of the system and the motive power then in use will be covered in subsequent articles.

The Newcastle Coal and Copper Company

The Newcastle Coal and Copper Company was established in 1853 to take over the assets of the Newcastle Copper Company, which had in turn absorbed Dr James Mitchell's Newcastle Smelting Company. Mitchell, the owner of the Burwood Estate, and thus the landlord of the Company's leases, remained the firm's principal shareholder, whilst Joshua Llewellyn Morgan, his 'engineer and assayer', continued on as manager.³

Despite the title, throughout its short life, the Coal and Copper Company never produced a ton of copper, deriving all its income from coal and coke. Its first colliery, The Beach Mine, was commenced in 1852 by the Newcastle Smelting Company and comprised twin tunnels into the outcrop right on the seafront at the southern end of the Long Beach.⁴ Under Morgan's supervision, mining continued here, along with the construction of a bank of beehive coke ovens adjacent to the portals. The former owners had also commenced to build the Beach Railway towards the northern boundary of Dr Mitchell's property. Now, additional men were employed, iron rails and fastenings were imported, and the work was pressed ahead.

Five other parties held leases from Mitchell to mine for coal. They all opened mines, and three built their own rail-roads, so that by 1853, there were two iron railways and two wooden tramroads converging at a locality soon to be known as 'The Junction'.⁵

Referred to by the same name to this day, this was the locality from which Mitchell planned to construct a rail-road to his wharves. Thwarted by the rich and powerful Australian Agricultural Company (AA Co), in 1851 he had sought legislative powers to allow his line to cross their land. Eventually, under the authority of the Burwood and Newcastle Tramroad Act, the Burwood Tramroad was opened in October 1853. As noted below, there followed an immediate and considerable reduction in the cost of Burwood coal at the point of shipment.

Between 1854 and 1856 the Coal and Copper Company acquired the assets of the other Burwood mine owners. The company now owned all four rail lines on the Estate as well as operating rights over the Burwood Tramroad.⁶ The Beach Mine, with its inferior coal, was abandoned although the Beach Railway remained in use to serve the coke works.

Joshua L Morgan resigned in January 1854, replaced as

manager by Mr B Robson.⁷ Within nine months Robson had also moved on and Alexander B Brown was in charge. Brown was a former owner of one of the recently acquired mines, and had previously been the AA Co's underground supervisor or 'overman'.⁸

Proposals for locomotive traction

As early as September 1854, a Sydney newspaper correspondent, reporting the congestion on the Newcastle waterfront, gave his opinion that 'the operation of the mines is retarded by the lack of a locomotive engine as a motive power for the carriage of trains'.⁹

The matter was already before the AA Co's Court of Governors in London and by 1856 it was also on the agenda of the Board of the Newcastle Coal and Copper Company.

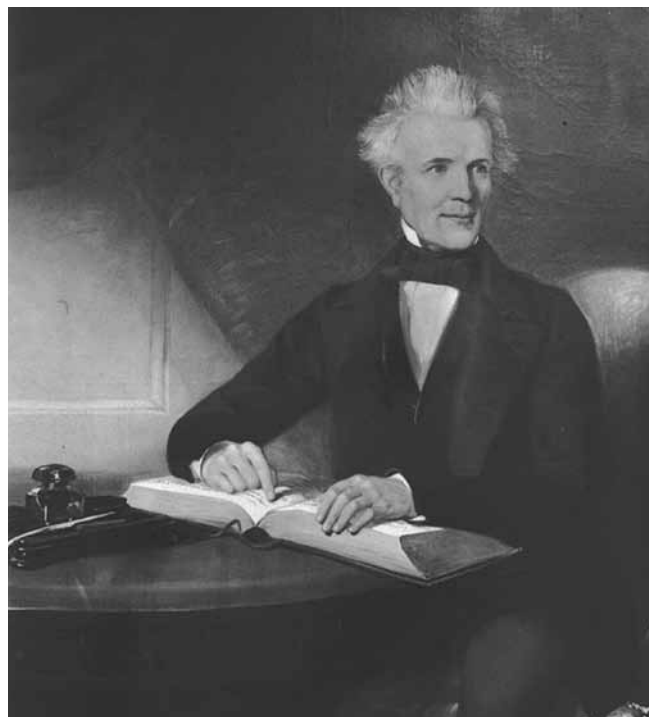
*Locomotive power is being considered but the Board is awaiting the outcome of works which the Government is now contemplating.*¹⁰

Alexander B Brown was asked by his Board to report on the introduction of locomotives and in September 1856 he commented:¹¹

I find from enquiries from several Mechanical Engineers engaged in the Construction of Locomotive Engines that the expense of getting manufactured in this Colony, Engines especially for our use, the excess of Cost would go much towards altering our gauge to 4ft 8½in. Under all circumstances I think it would be advisable to procure them from England, of course sending home Plans and Sections of the Lines of Railway and the Amount of Weight to be moved thereon.

Too much can not be said of the desirability of having locomotives in preference to our present mode of bringing in the Coals of which to say the least of it is uncertain and unsatisfactory – it is a matter for immediate decision, for inasmuch the New Works being at the stages as before explained, the gauge must now be altered or never, except at a greater and unnecessary outlay, and by this mode of traction from the Mines it will place us in a position to More than Compete with any other Company, placed in what position they may be.

By the end of the year the Coal and Copper Company Directors had come to a decision in favour of steam traction, although their report to the shareholders merely states that 'Mr Brown now in England on a visit has been commissioned to buy two locomotives'.¹²



Dr James Mitchell (1792–1869), from an oil painting by Marshall Claxton, 1854. Mitchell Library, State Library of New South Wales

Brown was also authorised to purchase rails and crossings as well as a crane. The estimated cost of these items, approved by the Board, was £2350 for the locomotives, £3250 for rails (250 tons) and crossings, and £500 for the crane, while freight and sundry expenses amounted to £1000.¹³

Amazingly, in the first report presented after his return, Brown makes no mention of his purchases, merely stating, 'When the lines of railway are complete and locomotives placed thereon, the working expenses will be greatly reduced and the divisible profits consequently much greater'.¹⁴

Six months on, the proposed locomotives still only warrant a further brief mention in the Board's Report under the heading 'Tramroads'.

*On the important subject of Tramroads, your Directors will only add to the remarks of the Manager; that (250) two hundred and fifty tons of Rails and Chairs &c are shortly expected to arrive from England; and that when these are laid down, the Company will be fully prepared (with the aid of Steam Locomotives and Crane) to meet the large requirements of Coal, which will probably result from re-commencement of Steam communication with Europe, and increase of the population and manufacturers of the Colony.*¹⁵

Preparations

Announcing the entry into service of the AA Co's two locomotives in August 1857, the Sydney Morning Herald continued:

*The locomotive engines and machinery expected by the Newcastle Coal and Copper Company, for their various tramways, will be soon due here, and as their lines are already laid with heavy metal, in anticipation, no delay will occur in putting them to work.*¹⁶

Indeed the Company had carried out many improvements, funded by a call of £3 10s per share and a summary of the work appears in Brown's July report:

Railways: The whole of the four Miles of Railway Iron purchased from Melbourne has been laid down; the Embankments on several Lines have been greatly strengthened; the Cuttings have been made wider and Side-drains for drainage carried out at those Cuttings; the Curves on the Victoria Line and the Public Line have been considerably enlarged, and the Gradients in the formation of the new portions, especially on the Victoria Line made easier.

*Those alterations and improvements have been made for Locomotive in place of Horse traction. – The Rails about to arrive will complete the whole of the Lines required to be laid down, and will make Complete this department of the Company's Works – The portions unfinished or addition required are Empty Siding for Engines at Donaldson's Tunnel, the like at the Victoria Tunnel together with a Road to the Engine House and Work-shop and the necessary Branches at the Wharves &c.*¹⁷

Another document notes that the Melbourne railway material comprised 60 lb per yard chaired track and although there is no specific mention in any report, it appears that it was at this time that the tracks were widened from three foot to standard gauge.¹⁸

The iron horses would require water and fuel. The existing lineside troughs would not suffice, so two wooden 'cisterns' (ie tanks), were built, one at The Junction and the second beside the loco shed.¹⁹ To supply the water, a well was sunk at The Junction and the creek through the Glebe Valley was dammed. As for fodder, 'coke platforms' (ie fuel stages), were erected at The Junction and the Coke Works.

The locomotives commence service

The locomotives, together with a 'set of spare component parts' arrived towards the end of 1857.²⁰ The first engine was assembled and in use by the middle of December. The actual purchase price of the pair was £2600, and the final cost, landed in Newcastle, amounted to £3120.²¹

In conjunction with the workshop items noted below, the list of spare parts supplied by the makers gives an insight into the degree of self-sufficiency considered necessary for a pioneer Colonial enterprise.

- 2 pairs of wheels
- 2 pistons
- 1 set Tubes
- 2 Pump valves
- 1 Steam slide valve
- 2 Steel springs
- 2 Eccentrics
- 2 Pumps
- 1 set Motion bars
- 1 set Brasses
- 14 Fire bars
- 2 Signal lamps
- 2 Hand lamps
- 4 Oil lamps
- 4 Brass taps
- 28 Screw keys ²²

Before the new engines turned a wheel, there was public protest. The Newcastle Improvement Committee raised objections at a meeting on 30 October to their use where the track ran beside a public road. Claiming that the use of locomotives would give rise to an 'intolerable situation' they described the state of affairs along Blane Street:

*At present the Company's tramway, on which horsepower only was as yet used, passed along a public road without even a fence for protection, for a distance of two or three hundred yards and as they all knew, was found an unbearable nuisance as it drove the public into the deep mud in the middle of the unpaved road, while it took up to itself the footway.*²³

Although the Burwood-Newcastle Tramroad Act permitted Mitchell and his assigns to run their trains, 'by means of horses or otherwise', politics now led to an enquiry before a Legislative Council Committee.

In the course of his evidence to this body, Bradley, the company solicitor, coyly admitted on 18 December 1857 that, 'We have used steam carriages experimentally upon the tramroad in use to our wharves and which I may mention were originally laid in reference to steam locomotives.'²⁴ In reply to the specific question, 'When did you use them first?', he responded, 'Within the last few days I believe'.

At the December shareholders' meeting, tabled under the heading; 'Locomotive Engines', the Board of the Coal and Copper Company was at last able to confirm:

*Your Directors are happy to join in the agreeable anticipation of their late Manager as to the advantages resulting from the use of these. One Engine only, has been working for a few weeks, & therefore reliable calculations can not yet be made, but it is thought Mr Brown's are rather too favourable. The Directors calculate the cost of traction will be reduced to ten pence per ton; instead of 1/9 as during the last Six months . . . and, as Mr Brown adds, the wear and tear of Waggon will be greatly reduced by this improvement in the mode of traction.*²⁵

Neilson and Company, Glasgow

For some time, railway historians were uncertain regarding the origin of these locomotives. Recent investigation indicates they were built in Glasgow by Neilson and Company with the following brief entry in their builder's list:

364 and 365 Alex Brown 12in x 18 in cylinders.²⁶

Although no date is shown, they were built in 1857 and were small four-wheeled saddle-tank engines with outside cylinders. Each weighed only 13 tons.

In 1836, Walter Neilson, in partnership with a James Mitchell, commenced business as Kerr, Mitchell and Neilson, building mainly marine and stationary engines. Their works, in Hyde Park Street, Glasgow, commenced regular locomotive production in 1843, and by 1848 the name had changed to Mitchell, Neilson and Company. Around 1855, the partnership was dissolved and the firm became Neilson and Company. In 1903, then known as Neilson, Reid and Company, it amalgamated with other builders to form the North British Locomotive Company.

Although research has so far yielded no clues, the fact that there was a James Mitchell associated with Neilson and his engine works, may well explain both the choice of this firm as suppliers and also the apparent lack of any tendering process.²⁷

Maintenance

The new locomotives were the first sophisticated machines owned by the Coal and Copper Company. Until this time, trains had been run by animal power or gravity; the mines were ventilated by furnaces and drained via adits. With only very basic machinery to maintain, the trade of the smith and the carpenter sufficed. This was about to change, and now skilled mechanics had to be recruited and workshop facilities provided to attend and maintain the iron horses.

George Wardell was the first locomotive driver. Nothing is known of his background, although he was to continue his association with the locomotives until 1872. Given the dearth of persons in the Colony able to claim experience with locomotives, it is probable that he was recruited in Britain.²⁸ Soon after the engines commenced work, the manager appointed his son, Alexander Brown junior, as 'Foreman Mechanic'. 'Young Brown' as he was referred to, came from the Borehole Pit where he had served an apprenticeship under his uncle, William Steele, the AA Co's Chief Enginewright. Among his first jobs was to supervise the construction of the new mechanics' shop, adjacent to the locomotive shed. Under his charge were the following basic tools and appliances, deemed necessary to do battle with the innards of the engines:

- 1 Forge and Bellows
- 4 Anvils
- 4 Vices
- 6 Carpenters benches
- Drilling Press and tools (valued at £5)
- Turning Lathe and tools (valued at £35)
- Blacksmiths Crane
- Grindstone and frame
- Rope and blocks
- 6 sets Taps and Dies
- Weigh beam with weight
- Cast iron boiler and furnace (sand furnace ?)
- Lift Pump and tank (loco supply ?)
- Water tank with force pump and hose (washout pump ?)²⁹

Dual-gauge working

Following the commissioning of the first locomotive, traffic on the line increased to 1000 tons per day, stated by Brown as '100 tons per trip, 10 trips each way per day.'³⁰ In response to a shortage of rolling stock, a third rail was re-laid, permitting the old two-ton, narrow-gauge coal wagons to remain in use. Brown explained his actions to the Board in these terms:

In order to make provision for the wider gauge I have laid one of the small rails (35 lb/yd) heretofore imported for the Burwood Line as a third rail to run the present wagons and the wagons of standard gauge

*I intend to run on the outside of the same, this will allow me to work the present stock of wagons without expense and inconvenience.*³¹

The dual-gauge track ran right onto the coal wharves so the same vehicles could run all the way from the coal face to the ship's side, this unique system remaining in use until 1861.³² A newspaper article describing a visit to the Coal and Copper Company's mines in 1860 confirms that the locomotives did in fact haul narrow-gauge trains, although it stated that the daily tonnage of coal was a little under five hundred tons.³³ In one of the photos of the locomotives, the brackets for a lower buffer beam to accommodate the small trucks are clearly apparent. The absence of comment in contemporary reports indicates that the procedure apparently worked without any problems.

Alexander B Brown resigned as manager in 1857, although remaining a major shareholder and director.³⁴ His replacement, James Donaldson, advised the Board in July 1858 that the second locomotive had been fitted up and tested, and was ready for use as required.³⁵ At this time it was noted that both locomotives had been painted, and that the new engine shed and mechanics' shop were at last complete.³⁶

As was common practice of the day, the locomotives were designed to burn coke. By 1859, external markets for this fuel had failed and the ovens were only being fired to supply the two locomotives. Thus, in January 1860, they were weaned onto a diet of uncooked coal, the ovens were drawn for the last time and the Beach Railway was closed.³⁷

In most reports, the singular term locomotive is used, giving rise to the suspicion that only one engine was in regular use. Whatever the position, after less than four years' work, one of them was due for a major overhaul. The lathe at the Victoria Tunnel workshop was unable to accommodate the wheels, so they were sent to Minmi and turned up in J & A Brown's works.³⁸ The stock of spares remained intact, allowing the manager to report in January 1863 that the locomotives appeared to be no worse than when first set going and had scarcely used any of the duplicate parts sent out with them.³⁹

Haulage costs

It is instructive, from the few records remaining, to chart the progressive reduction in costs as the modes of coal haulage changed.

In 1853-54 prior to completion of the rail lines, the very small amount of coal won from the Beach Tunnels was hauled in a horse dray over public roads to the wharves. Despite the letting of the work on tender, by January 1854, haulage was costing ten shillings per ton (more than \$40 per tonne in today's values).⁴⁰ With coals then selling around 25 shillings per ton, there would have been little, if any, margin remaining for profit.

These costs were related to the very low output, as well as the primitive methods of coal handling. Coal coming from the mine was 'cast' (ie tipped) on the ground then shovelled into the dray.⁴¹ At the wharf it was again dumped on the ground then hand-loaded into wheelbarrows, run up a gangplank and tipped into the ship's hold.

By the middle of 1854, the Beach Railway was completed and connected to the Burwood Tramroad. Once a railed way was in place all the way from the mine to the wharf, the cost of haulage fell dramatically, from 10s to 1s 9d per ton. The following year, the tramroad was ballasted and re-laid with iron rails, greatly reducing the cost of repairs to both the track and the vehicles.⁴²

With the improved track now available all the way to the wharves, haulage was let on contract in 1856. Contractor Woods, from Manly, tendered an initial price of 1s 1d per ton

to haul and load the coal aboard ship. To contain his costs, he devised a horse-powered whim which wholly lifted the coal wagons aboard ship, eliminating the wheelbarrows and their runners. By 1857, he was charging 1s 9d per ton, but the following year, with the prospect of steam traction looming, he agreed to accept 'one shilling per ton from the tunnel to the ships hold'.⁴³

It was all to no avail; steam-power was bound to come, and when the first locomotive was put to work, costs fell even further. In December 1858, James Donaldson, was able to confirm that the cost of haulage for the previous six months had fallen from 1s (for horse traction) to 8¾d per ton (for steam), even allowing 10 per cent depreciation on the engines. It will be recalled that the Directors had considered AB Brown's estimate of savings from the use of locomotives to be somewhat optimistic, claiming that they would have been content at 10d per ton. Now they had an even better result, and a very considerable improvement on the position only five years previously, when it was costing an impossible 10/- per ton to move coal from the mines to the waterfront!

Confrontation at the crossing

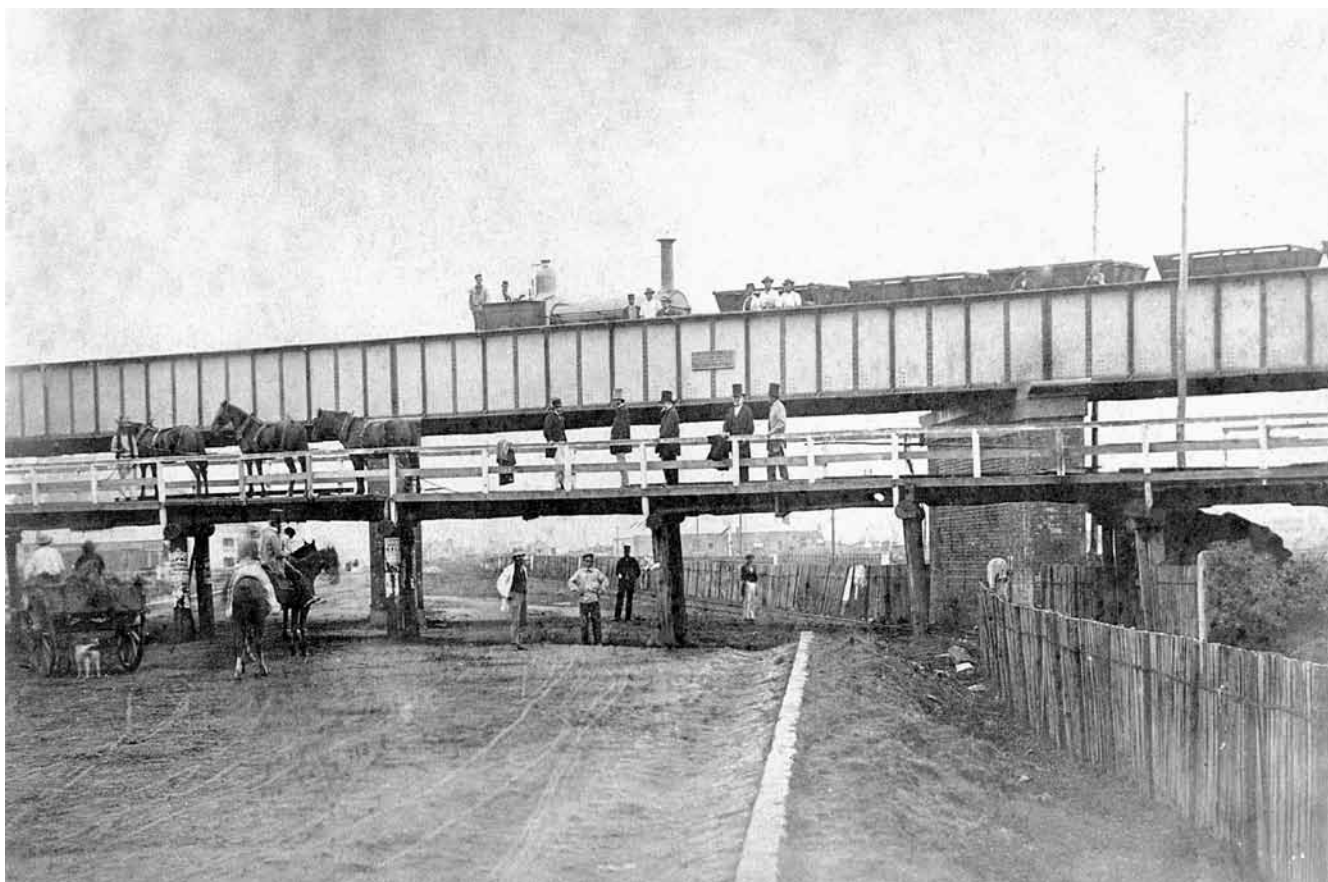
Meanwhile, on 30 March 1857, Sir William Denison, the Governor of NSW, had opened the government line between Honeysuckle Point and East Maitland, christening it the Great Northern Railway (GNR). The following year the tracks were extended eastwards to the site of the present Newcastle terminus, crossing the Burwood Tramroad on the level. As the coal line had been in place before the Government railway, the Railway Commissioners had to bear the cost of £73 to provide a dual-gauge diamond crossing. In addition they paid for the signalling installation and the wages of the signalman.⁴⁴

In July 1858, there was a confrontation at this location between the colliery engine driver and the lad working the signals which must have further alarmed the Newcastle Improvement Committee. At the instigation of the Newcastle Stationmaster, Mr Davidson, the matter proceeded to an appearance before the Maitland Magistrates Court:

A case will come before the magistrate for decision at our police court today in which a person in the employment of the Newcastle Coal and Copper Company is charged with the having unlawfully interfered with and reversed a signal on the Great Northern Line.

*The main facts of the charge appear to be these: Where the Coal and Copper Company Railway intersects the Great Northern, at the entrance to Newcastle, a place requiring extraordinary care to prevent a most serious accident, a signal staff is placed by the railway commissioners to denote when their trains are about to pass, in order that the Coal and Copper Company's train may then have notice to keep clear of the line. The signal it is stated, was put up as usual on Monday last, when the Commissioners' engine had conveyed down the train to Watt Street, and was about returning from thence to Honeysuckle Point, while the signal was thus up, the Coal and Copper Company's locomotive came up with a train of coals, and the person complained of, forcibly overruling or overpowering the boy in charge of the signal, as it is alleged, unlawfully reversed it in order that the Company's train might pass the line. The offence, if the charge is correct, it is almost needless to say, was a most dangerous one and might have been attended with the most lamentable consequences.*⁴⁵

The newspaper went on to explain that the man initially employed to control the 'signal station' had recently been replaced by a boy 'in the interests of economy'. The above report has been quoted by a number of historians, but the sequel is by no means so well known. When the case came before the court, Stationmaster Davidson sought to have it withdrawn.⁴⁶ The Bench, comprising Magistrates Scott, Bolton and Hannell, objected,



The Australian Agricultural Company's high-level iron bridge, completed in August 1864, replaced the original low-level wooden structure with only 9 feet of clearance. The Burwood Tramroad can be seen passing beside the brick pylon to the right, while above one of the AA Company's Wm Fairbairn locomotives is bringing a train of empty coal wagons across the new bridge. Photo: Noel Thorpe Collection, ARHS Railway Resource Centre

stating that in the interest of public safety, the matter should proceed. Eventually in deference to an official letter from the Secretary of the Railway Commissioners, the prosecution was allowed to drop. It would appear that the Commissioners could not afford to risk losing and being forced to accept a ruling that gave coal trains preference over the crossing.

Adjacent to the level crossing, the Burwood Tramroad passed beneath the AA Co's original timber bridge that also spanned Maitland Road.⁴⁷ The nine foot clearance had posed no problems to the horse teams but the new locomotives would have had to be specially designed or modified to pass below.⁴⁸ Exactly how this was done is not clear, although a most interesting clue is given by an elderly lady, interviewed over 70 years later. She remembered, as a child, seeing the fireman 'climb on the boiler and remove the funnel', prior to the train passing beneath the bridge.⁴⁹

The adjacent GNR had no choice but to grade their main line through a depression into which their trains splashed whenever it rained. Even so, the proximity of the Coal and Copper Company's crossing limited the depth of this hollow, and to gain the final inches of clearance it was found necessary to scarf a notch in the bridge's timber bearers, aligning with the locomotives' smokestacks.⁵⁰ A close fit indeed!

By 1864, the timber bridge was gone and the AA Co's new iron bridge had been erected.⁵¹ The diamond crossing remained in place until December 1870, when the Burwood line was shortened and connected onto the Great Northern Railway opposite the end of Burwood Street.

Red Head Colliery and railway

Around 1860, the Victoria Tunnel had been connected to the Browns' mine underground, and most coal now came

from this section. One by one the smaller tunnels were closed and their tramroads dismantled. Production continued unabated from the Victoria but by now it was obvious that reserves were limited.⁵²

In accordance with his Board's instructions, George Berner, who had replaced Donaldson as manager, examined the seams outcropping on the shores of 'Ranclaud's Lagoon' at the southern extremity of the Burwood Estate.⁵³ On his recommendation the Coal and Copper Company decided to open a new mine, to be known as Red Head Colliery, on the south bank of the lagoon. In 1861, JL Morgan was re-engaged to supervise an extension of the Beach Railway along the sea front to the mine site.⁵⁴

Construction of the line was plagued by commercial and technical problems. Although it was only a relatively short distance from the end of the Beach Railway to the new Red Head Colliery, the terrain presented many difficulties, necessitating two timber-lined tunnels, a man-made 'platform' around the exposed headland, 'Coal Cliff', as well as a trestle bridge, 'The Viaduct', across the lagoon. By the time the work was eventually finished, the Company's finances had been seriously depleted.

Few records regarding the use of the locomotives have survived from this period. They do not appear to have assisted with the construction to any extent, although there is a report that an attempt was made to derail one of them on the new extension.⁵⁵ The coastal tunnels, which were to present so many problems for future operators, were driven to conform with the small Nielson engines' dimensions, so initially, no operating constraints arose.

There appears to have been no special opening ceremony, just a special train, comprising 'an engine and carriage' run

to Glenrock on 11 June 1862, conveying 'local gentlemen' to inspect the new line, now referred to as the Red Head Railway. It was noted that tracklaying would soon be completed.

The Burwood Coal Company

The Government Examiner of Coalfields commented in his 1862 report that the Coal and Copper Company was operating two tunnels, the Victoria and the Red Head. In August 1863, he noted that the Victoria workings had been discontinued and that all production now came from the Red Head mine at Glenrock.

By 1864, legal expenses, industrial problems and the cost of the new railway had combined to bankrupt the Newcastle Coal and Copper Company. As provided for in the terms of the lease agreement, Dr James Mitchell took free possession of their mines and railways. The same agreement permitted him to purchase all plant and machinery on the property at 75 per cent of its valuation. In May 1865, the two locomotives, and their spare parts, estimated to be worth £1530, thus changed hands, along with other items, including rails and coal wagons, for the total sum of £3500.

The Red Head Colliery continued to operate throughout this hiatus period, along with the coastal railway. Mitchell now renamed the mine Burwood, formed the (private) Burwood Coal Company and promoted his trusty overman, Henry Harpur, to take charge as manager. The Victoria Tunnel mine remained closed, but the railway into the Glebe Valley was kept open to allow access to the locomotive shed and workshop. George Wardell carried on as the locomotive driver but 'Young' Alexander Brown moved on and was replaced by Dixon Little.⁵⁶

Although Mitchell made substantial capital investments in the enterprise, including the purchase of 120 new iron coal hoppers on the railway and at least two additional stationary steam engines at the mine, few records of the Burwood Coal Company have survived. We do know, from evidence following a fatal accident, that the locomotives continued in use, hauling trains of up to 20 trucks with a two-man crew.⁵⁷

In 1865, Mitchell, now 73 years old and failing in mind and body, came under the influence of Charles Wolfshehl, who was able to induce the normally canny Scot to invest in a number of unfortunate speculative ventures. Firstly there was the glass and porcelain factory near The Junction.⁵⁸ Although this proved to be a short-lived failure, he was next persuaded to purchase the Currawong Copper Mining Company and to re-open his copper smelter.⁵⁹

To this end, Wolfshehl and Mitchell floated the Burwood-Newcastle Smelting Company and engaged Maurius Thomas as manager and 'master smelter'.⁶⁰ Under his supervision, the outmoded furnaces were dismantled and new ones erected. A siding was laid in from the Red Head Railway, ore commenced to arrive from the wharves by rail and the fires were re-lit in September 1866.⁶¹

Before long, the ore supply from Currawong had failed and despite strenuous efforts on the part of Thomas, within twelve months, the furnaces were again shut down. The colliery did not survive much longer, Henry Harpur resigned in 1868 and the last coal was shipped in March 1869. For a time at least, the railway remained in working order, as evidenced by the running of a picnic train (see below) during November.

Passengers, authorised and otherwise

For some years, the Coal and Copper Company had provided an enclosed horse-drawn rail car to bring its employees to church in Newcastle along the Public Tramroad.⁶² Although

this vehicle survived at least until 1864, there is no indication that it was ever locomotive hauled.⁶³

In August 1861 the Company ceased the long-established practice of paying workmen their wages at the mine tunnel mouths, requiring them instead to attend the principal office at the wharf each Pay-Saturday. As a concession, a fortnightly locomotive-hauled passenger service from the Glebe was introduced. A newspaper of the day describes the proceedings:

*Numerous groups of miners, in many cases accompanied by their helpmates, thronged the streets, and after a reasonable time had been permitted to them, the whistles of the respective engines made the air vocal with their shrieks, telling that it was time to return, when long lines of wagons moved off, filled with living freight instead of black diamonds.*⁶⁴

The running of picnic trains is similarly recorded in the local paper and, although it is not clear when the practice commenced, one such special train was operated for the Christchurch School Feast on 11 November 1869.⁶⁵

There were also the unauthorised 'riders'. Before a Coroner's inquest into the death of 13 year old Elija Rodgers near The Junction in 1864, George Wardell stated:

I am engine driver of No. 1 locomotive steam engine, belonging to Dr Mitchell and usually employed on the Burwood Railway, late Coal and Copper Company's, in bringing coals from the Burwood Coal Mine to Newcastle; yesterday Wednesday I was driving the aforesaid locomotive having twenty-two waggons laden with coal attached; at about four o'clock in the afternoon I was proceeding from Burwood Junction; I looked back to see if the waggons were all right; I saw the boy Fewen hold his hands up; I stopped and got off the locomotive and went to see what was the matter . . .

*I have orders not to allow any one to ride on the waggons and prevent them when I can; There is no guard on the train; it is impossible to prevent persons riding, although there is a great deal of danger in their doing so; Persons get in when the train is in motion and ride on the buffers; but when I see them I make them get down; I have been employed six years on this railway, during my time this is the second accident that has happened through riding on the bumpers.*⁶⁶

Evidence given by George Wardell at an inquest into a similar accident four years later, indicates that matters had not improved:

*The public are prohibited from getting up on the trucks and notices to that effect are posted up all along the line, but in spite of them people will still do it; I did not tell the deceased or his companion to get off the train because I thought it would be of no use; we use our best endeavours to keep people off the waggons but without success, because as soon as the stoker gets back on the engine, they get on again.*⁶⁷

Merewether's Burwood Estate

Dr James Mitchell died in February 1869, and his wife two years later. There was some disputation regarding his will, but by 1871, the Burwood Estate had come under the control of his son-in-law, Edward Christopher Merewether, who was at that time, General Superintendent of the AA Co.⁶⁸

A little earlier, in July 1870, the Victoria Tunnels had been re-opened, let out on tribute to Messrs Gulliver and Ashman, and coal traffic had recommenced on the Glebe Railway.⁶⁹ Cashbook entries note that the partners supplied the Estate with locomotive coal, which in the interests of economy was mixed with coke breeze reclaimed from around the Beach Ovens, hardly a recipe for ready steaming!

Next year, the copper smelter was leased to Ebenezer Vickery, a Sydney merchant who owned collieries near Wollongong and copper mines in Queensland.⁷⁰ Merewether had hoped to interest him in the coal mines, smelter, railway and coke works in

one transaction, at the same time offering to sell the locomotives for £700 each or £1300 for the pair. Vickery was not interested in such a deal, but by 1872, the furnaces, disused since 1868, were relit, treating ore from Mount Perry in Queensland.⁷¹ The following year, the coke ovens were similarly let to William Laidley, trading as the Co-Operative Coke Company and managed on his behalf by Mr C Cheater.⁷²

Haulage rates were agreed upon, the coal hoppers were hastily repaired, and at the same time, some were converted to handle the ore and ingots. For short period the railway was busy hauling coal, coke and copper. However, the years of idleness had played havoc with track and machinery, and on a number of occasions trains were cancelled when the locomotive failed:

*I am instructed by Mr Merewether to inform you that in consequence of the necessity of repairing the Engine, it will be laid up for about a week. I write to inform you so you may have on hand as large a supply of coals etc as may enable you to carry on business during the interval; repairs will be commenced in about a week.*⁷³

Even more serious problems arose when trains were cancelled without notice, especially when a ship was loading. In December 1874, the sole working locomotive failed whilst hauling Laidley's coke to the wharves. With the vessel part-loaded, Cheater arranged to have his trucks hauled by horses. For some reason, Merewether became enraged at this quite reasonable expedient, berating Cheater as a 'damned impudent rogue' and threatening legal action for trespass.⁷⁴ In the face of this and other problems, Laidley closed the works in 1876.

Although the original engine shed and workshop were still in use, by now the skilled artisans had departed. George Wardell cared for the locomotives single-handed for a time, but by 1871 he too had resigned. Now, by necessity, repairs were let on tender to local engineers. The company's letterbook and cash book entries indicate that Duncan McAlpine of Newcastle and Moyes & Donalds', a foundry in Carrington, both undertook repairs to the No.1 locomotive in mid-1872, the latter firm also supplying a new funnel for the No.2 engine.

It would appear that these firms had little, if any experience in the maintenance of locomotive engines, and this assertion is borne out by the following (unsigned and undated) fragment of a letter which has survived in the Burwood Estate files:

*The Locomotive Engine now undergoing repairs at Donalds is the same one that McAlpin repaired about two years ago and I wish to remind you the said engine has never done any work since. At that time I suggested to you that the boiler be tested with cold water pressured up to 150 lb on the sq inch. It was not done but steam was got up and the engine was tried not satisfactory to me, but I suggested a new slide valve to replace a broken one and the regulator to be done up at a cost of about 6 or 7 pounds, perhaps there is someone supervising the repairing of the Engine this time, if there is not I am afraid it will be an expensive job as they are taking everything to pieces.*⁷⁵

Replacing Wardell was Alexander Patrick, a former locomotive driver at J & A Browns' Duckenfield Colliery.⁷⁶ As he wrote to Merewether, some time after his appointment, he may well have wondered what he had let himself in for:

*The bottom of the firebox of the Engine has given way tonight. A hole about an inch long, it is rather a peculiar place to get about and I can not give you any idea about it as regards the cost of doing it up, but the engine altogether is about done out unless a great deal of money is spent on her. Please give me some idea of how to proceed and oblige your humble servant.*⁷⁷

On Merewether's instruction, on this occasion, the locomotive was hauled to Rodgers' Newcastle Foundry where the work was done at a cost of £70.⁷⁸

The hoped-for smelter revival once again turned out to

be a fiasco and in June 1873, Vickery declined to renew his lease and departed, leaving the works in a 'disgraceful state of dilapidation'.⁷⁹ Faced with the loss of this source of revenue, Merewether decided to re-open Burwood Colliery.⁸⁰ One tunnel had been let to brothers, James and Henry Wilson who, under the terms of their lease, were required to maintain the railway in good order:⁸¹

To: James and Henry Wilson Redhead Colliery Burwood

*I have to call your attention to the bad state of the Railway between the Colliery and the Smelting Works, and request that you repair it. Until the line is properly repaired I cannot permit the engine to run over it as its safety is thereby endangered. Neither can you be allowed to haul your Coal with horses, as the granting of that favour appears merely to afford you an excuse for neglecting your engagement to repair. R. Scott.*⁸²

Eventually Merewether employed Alexander Lindsay to do some repairs and by September 1874, the track had been lifted and ballasted with coal, and the bridge over Burwood Creek repaired.⁸³ Once again, the locomotives could cautiously creep along the exposed 'Coal Cliff' and across the 'Lagoon Viaduct' to the colliery sidings.

According to Merewether, the Wilsons worked their mine in a 'disgraceful manner' and Lindsay, who leased the second tunnel, 'did little better'. Within two years, all three had departed, leaving behind a litany of complaints and threats of legal action.

The Newcastle Coal Mining Company

Pleased to be rid of the problems, Merewether now temporarily abandoned all activity at Red Head, concentrating instead on striking a deal with a company which had been recently floated by Newcastle interests, for the specific purpose of leasing the coal rights beneath the northern half of the Burwood Estate.

The firm involved in these negotiations had commenced life as the Australian Alliance Company (New AA Co). Under pressure from the original AA Co, the name was soon changed to the Newcastle Coal Mining Company Ltd (NCM Co), under which title it successfully traded until 1946.

The lease of 700 acres of coal, together with the right to operate the railway to Newcastle was on offer on a royalty basis. In addition, 33 acres of surface land in the Glebe Valley could be had for £12 per year. EC Merewether was to be paid £10,000 cash for 'Railway Plant, Rolling Stock etc', which included the two Neilson engines, along with 110 iron and 10 wooden coal hoppers.

With the sale of his railway plant forming part of the transaction, in 1875 Merewether, may have felt that his locomotives required some cosmetic attention. He sought a price to paint the pair but on examining the quotes, he appears to have decided that one would suffice. Accordingly, the No.1 locomotive was painted by George Gilbert of Council Street, Newcastle in October 1875.⁸⁴

In 1876, the appropriate documents were signed and the NCM Co took possession of the mine, railway and rolling stock. They engaged George Harper as locomotive driver, Patrick having elected to remain in Merewether's employ. Alexander Mathieson, from the Borehole No.2 Pit was appointed the company's engineer.⁸⁵

The NCM Co's new 'A' Pit, sunk adjacent to the Victoria Tunnel, was formally declared open on 1 March 1877 with Newcastle's leading citizens and coal industry identities present at the pithead for the ceremony.⁸⁶ A newspaper report around this time, mentions the railway and locomotives:

The railway line is the same as that used by the Coal and Copper

Company formerly but has been placed in first class order and made new in several places. Accommodation has been provided for empty wagons which will run for some distance past the pit. The rolling stock of the Company is of a superior description. There are two locomotives, almost new, and fifty of the best iron wagons are now being discharged from the ship 'Lallah Rooke'. On board the ship 'Northman' are ten more and another list of 34 are expected daily from England. As soon as the whole 50 now being landed are put together the Company will start shipping.⁸⁷

Shunting accident

Before long, with some 200 men and boys now on the payroll, the company had its first fatal railway accident.⁸⁸ On 12 May 1877 around 5 am, Alex Mathieson, the colliery engineer, assisted by the locomotive fireman, John Robson, 18 years old and described as a steady, sober young man, moved the No. 1 engine under the screens to fill the bunker.⁸⁹ This done, they commenced to put together a train of small coal, with Mathieson driving, Robson acting as shunter and a top-hand, Robert Johnston stationed to relay his hand signals. Part way through, Robson appeared alongside the engine. He requested some cotton waste, to stem blood seeping from his ears, saying that he had bumped his head on the buffers. Mathieson gave him the waste and asked him if he was much hurt, to which he replied, 'No, I will be all right in a minute or two . . . go on and finish the shunting.'

By now George Harpur had arrived, so Mathieson instructed Johnston to attend to Robson, whilst he and Harpur made up the train. The job complete, he went back to find the injured man semi-conscious, red in the face and his head swollen. Concerned, the engineer arranged for him to be conveyed on the footplate to Dr Harris' surgery near The Junction. From here, lapsing deeper into unconsciousness, he was sent home. For a time Robson appeared to be recovering but he died on 19 June. At his inquest Dr Harris gave evidence that when first examined in his surgery he had found Robson to have suffered serious fractures of the skull from which he believed there was little hope of survival. He deposed that the actual cause of death was contusion to the brain and on 22 June a coroner's jury returned a finding of accidental death.⁹⁰

Locomotive operations

For a time, No.1 locomotive was able to handle the small amount of traffic from the NCM Co's new mine, leaving No.2 available to be hired to the Burwood Estate at £2 per week to run the Red Head Line. Neither engine was in good order and in April 1877, the NCM Co decided to terminate the agreement:

*. . . owing partially of the late breakdown of the No.1 Engine and to the deficient repairs of both, the Board is of the opinion that to ensure punctuality in the haulage of coal it is necessary to retain the two. The Directors however to prevent any inconvenience to you will gladly grant you the use of one as the circumstances permit them doing so.*⁹¹

Despite their own problems, the NCM Co was as good as its word regarding the loan of a locomotive, even if only on a day-to-day basis:

*I am in receipt of your letter of 20th inst asking for the loan of the Company's Locomotive Engine for Saturday morning at 11 o'clock to be at the Blane Street Crossing at the hour named. I have to say my Board of Directors have much pleasure in complying with your request. The Colliery Manager has been instructed to place same at your disposal and as your letter does not mention an hour for return, the Driver will call back in the afternoon at such time as you name should it be necessary for him to do so. S Keithley Gen Manager.*⁹²

With No.2 back in the Victoria shed, the new owners commissioned Dixon Little to provide a report on its condition. Describing the locomotive as 'much out of repair' he described its condition in these terms:

The tubes are all very bad order 109 in all, and 17 of them are burst and plugged up. I would suggest to put in new a complete set. I know there is a duplicate set of brass tubes on the premises somewhere, I remember seeing them when I was working for the Coal and Copper Company nine years ago.

Soon as the tubes are put in the boiler should be tested at 150lb/sq inch. Taking out the old tubes new ones in the boiler will take 2 men no less than 18 days. One man can do all the work except tubing and testing boiler when that is done it must be no less than 2 men.

In July 1878, Merewether's new locomotive *BURWOOD* was delivered from the Newcastle Foundry, and henceforth he had no need to hire motive power (see *Light Railways* 200). Indeed the situation was now reversed, and on more than one occasion, *BURWOOD* was loaned to the NCM Co whilst their ailing engines were attended to.

Even with the work done on No.2 engine by Rodgers in February, and despite their being described in the newspaper report as 'nearly new', both the Neilson locomotives were obviously in need of major work. In May 1877, the following advertisement appeared in the local paper:

Newcastle Coal Mining Company (Limited)
Tenders will be received at the Company's office, Watt Street
until noon on Friday 25th Inst for the
REPAIRING OF LOCOMOTIVE ENGINE
Plans and Specifications may be seen at the Colliery's office.
*Stuart Keithley, Manager.*⁹³

Messrs Morison and Bearby, owners of the Soho Foundry at Carrington, were the successful tenderers. One of the engines was soon sent to their works and by the end of June the Board was able to advise shareholders that 'One of our locomotive engines has been put into working order; the other is undergoing repairs, and will be ready for work in a few weeks time.'⁹⁴

From this time onward, all references are to a single locomotive and it would appear that on inspection, one was considered to be beyond economic repair. With this in mind, the NCM Co decided to purchase a new locomotive from England.

Now that there were a number of locomotives working around Newcastle, the NCM Co's Directors, unlike the Board of the old NCC Co, felt confident in placing an order for one locomotive only. Nor indeed did they consider there was even a need to retain one of the old engines as a spare.

Locomotive(s) for sale

Thus in early 1880, the Beyer Peacock locomotive, *NEWCASTLE* entered the Company's service (see *Light Railways* 201). In June, the following advertisement appeared in the *Sydney Morning Herald*:

*For Sale: Second hand tank locomotive engine and duplicate parts. Cylinders 12 and 18 in stroke. Weight 13 tons. Signed: Stuart Keighley.*⁹⁵

By the end of the year they had been sold, and although the advertisement only mentions one locomotive, the following newspaper article confirms that two of them were despatched by sea:

Departure of Puffing Billys

The SS Duckenfield which left Newcastle for Sydney yesterday took with it a couple of relics of old Newcastle. These were the time-memorable locomotives imported twenty-five years ago by the Newcastle Coal and Copper Company to do duty for haulage purposes on the Burwood Tramway to Newcastle.



The surviving Neilson twin ended its days working for the Emu Gravel Company, hauling wagons laden with stone from the Company's basalt quarry at Prospect to the government railway connection at Toongabbie, in Sydney's west. In the early years of last century it was photographed heading a well patronised picnic train on the line. The two brackets visible on the main frames at the front once held a buffer beam to match the Burwood Tramroad's narrow-gauge colliery trucks.

Photo: Bruce Macdonald Collection

These two mementoes of the past were known to residents as the *Puffing Billys* and probably in their time had hauled more coal than any other two locomotives in existence. They have been shipped under the direction of Mr C J Stevens of this city and are intended for further use in the Western District.⁹⁶

In its December 1880 report, the NCM Co Board advised shareholders that: 'The Company's old locomotive engine has been sold at a satisfactory rate' (£529 8s 10d).

The Neilson locomotives were reputedly sold to railway contractor Hughes for work on the railway between Wallerawang and Bathurst. However it appears they went directly to the Eskbank Iron Works at Lithgow.⁹⁷ Here one was dismantled and the components used within the works, while the other remained in use as the shunting engine until 1889.⁹⁸

In April 1902 the surviving locomotive was noted on the Toongabbie Tramway which ran from the Emu Gravel Company's basalt quarry at Prospect to the NSWGR Great Western Railway at Toongabbie. Under the local name of *POSSUM* it worked the stone trains until March 1913 when it was replaced by an ex-NSWGR 'F' Class tank locomotive. Soon after, the old warrior was broken up for scrap at Hudson's Clyde Engineering Company near Granville.⁹⁹

Conclusion

Thus ends the story of two of the earliest industrial locomotives to come to New South Wales.¹⁰⁰ Their changes of ownership by forfeiture, inheritance or purchase make fascinating, if at times, confusing, reading. Initially it appeared that only a small amount of information had survived, but as the tale has developed, I have myself been surprised by the detail that has emerged.

A further article in this series, under the title *Tom Howley's Coffee Pots* will discuss the locomotives which worked the Glenrock Railway in its final years.

Acknowledgement

Brian Andrews, Richard Horne, Frank Jux, Bruce Macdonald, Ron Madden and (the late) John Merewether, as ever, have all willingly assisted me with information to complete this story and I acknowledge my gratitude to them.

End Notes

1. Burwood Colliery owned by BHP Collieries Ltd, continued to mine coal beneath the Estate until June 1977.
2. Drawn from Shoebridge, JW: *Mitchell's Coalfield*; an unpublished work in progress.
3. *Maitland Mercury* (MM) 3/7/1850.
4. Now Merewether Beach. They were opposite the present-day swimming pool change rooms and most likely driven in the 'Company' seam, today known as the 'Dirty' or 'Dudley' seam. All subsequent mines worked the 'Burwood' seam.
5. These other mine owners were William & James Donaldson, James & Alexander Brown, Alexander B Brown, Joshua L Morgan & Richard R Bowker, and John Nott. The lines were the 'Beach Railway' and the 'Glebe Railway' along with 'Donaldsons' Tramroad' and 'Browns' Tramroad'.
6. The company eventually owned the Beach Railway, the Glebe Railway, Donaldsons' Tramroad and J&A Browns' Tramroad, and had operating rights over the Burwood Tramroad.
7. Morgan, already a major shareholder in the Coal and Copper Co, had received some £41,000 (well over \$2m in today's money) from the sale of the Victoria Tunnel.
8. AB (or 'Big') Brown, was by now a substantial shareholder in the Coal and Copper Co. He had been recruited from the Tyneside by the AA Co as one of their senior officials but had left in disfavour around 1853, accused of siding with Mitchell in his tramroad proposal.
9. Reprinted in MM 23/9/1854.
10. Newcastle Coal & Copper Company (NC&C Co) Board Report 30/6/1856, Mitchell Library NSW (ML). One assumes the reference is to the Hunter River Railway, which had just been taken over by the NSW Government.
11. A B Brown, NC&C Co Manager's Report 5/9/1856, ML. One wonders which local firms were engaged in the manufacture of locomotives at this date?
12. NC&C Co Board Report 31/12/1856, ML.
13. At the price mentioned, this would have been a steam-powered crane, the first in the Colony. Although the benefits to be derived from its use are mentioned subsequently, I have come to the conclusion it was never

- purchased. In the original document 'Sundry expenses' has been inserted over another indecipherable word, tempting one to wonder if, perhaps, a commission was paid to Mr Brown.
14. AB Brown, NC&C Co Manager's Report 24/1/1857, ML.
 15. NC&C Co Board Report 30/6/1857, ML.
 16. *Sydney Morning Herald* (SMH) 26/8/1857.
 17. A B Brown, NC&C Co Manager's Report 1/7/1857, ML.
 18. NC&C Co Board Report 30/6/1856, ML.
 19. The wooden tank behind the loco shed survived for many years and is apparent in at least one photograph.
 20. So far no record has been found of the ship by which they were delivered.
 21. NC&C Co Chairman's Memo attached to January 1858 report, ML.
 22. From an inventory prepared in 1864. Obviously some items would have been used in the interim. See however JL Morgan's comments in January 1853.
 23. Blane Street was the principal thoroughfare in Newcastle, later renamed Hunter Street.
 24. Minutes of Evidence before Legislative Council Committee 18/12/1857. This statement is not correct. It is obvious that the learned gentleman was treading warily around the use of locomotives.
 25. NC&C Co Board Report December 1857, ML.
 26. Research in 2002 of Neilson records in UK by Frank Jux on behalf of LRRSA member Richard Horne. Their origin is confirmed by correspondence from JS Rodgers relating to the construction of the locomotive *BURWOOD* (See *Light Railways* 200)
 27. Despite Brown's Tyneside connections, it may well be that Dr Mitchell introduced him to a member of the Mitchell clan in the Glasgow engineering trade. Correspondence with Mitchell's descendants in Scotland, has revealed no link.
 28. A little earlier, when the two AA Co locomotives arrived, they were accompanied by one of the builder's foremen, who supervised their assembly and commissioning, then continued in the AA Co's employ.
 29. From an inventory prepared in 1864.
 30. If 2-ton trucks were in use, this would mean 50 per train, seemingly too many.
 31. AB Brown, NC&C Co Manager's Report 1/7/1856, ML.
 32. G Berner, NC&C Co Manager's Report 1/7/1861, ML.
 33. SMH 12/3/1860.
 34. He was now able to concentrate his energies on the formation of the Newcastle Wallsend Coal Company of which he was the principal instigator and promoter.
 35. Donaldson was the son of one of the original lessee of Donaldsons' Tunnel. He had been earlier employed by the Coal and Copper Company in another (unstated) capacity.
 36. J Donaldson, NC&C Co Manager's Report 1/7/1858, ML.
 37. J L Morgan, NC&C Co Manager's Report 2/1/1860, ML.
 38. *Newcastle Chronicle* (NC) 18/5/1861. It well may be that the tyres were worn from running on the sub-standard tramroad track.
 39. JL Morgan, NC&C Co Manager's Report 1/1/1863, ML.
 40. JL Morgan, NC&C Co Managers Report 18/1/1854, ML.
 41. Morgan stated that this alone was costing nine pence per ton.
 42. B Robson, NC&C Co Manager's Report 30/12/1855, ML.
 43. Unsigned NC&C Co memo dated December 1858, ML.
 44. The arrangements, including fixed signals and the 'signal station' are shown on plan LHM B 919.442/50 held in the Newcastle City Library, Regional History Collection (NCL RHC).
 45. MM 20/7/1858. One would assume, if the signals were interlocked, that no harm could have come about, and as the passenger engine was returning light to the sheds, any delay would have been of slight consequence.
 46. SMH 20/9/1858.
 47. Later named Blane Street and subsequently Hunter Street.
 48. The engines would have been ordered with the restricted loading gauge in mind.
 49. *Newcastle Morning Herald* (NMH) 8/12/1934. Mrs J Whitmore interviewed, recalling her childhood in The Glebe.
 50. NMH 7/8/1920.
 51. This remained in use until 1920.
 52. That said, the Victoria Tunnel was not finally closed until 1944.
 53. Later known as 'Glenrock Lagoon' or at times 'Red Head Lagoon'. The location was initially referred to as 'Little Red Head', subsequently corrupted to 'Red Head'. It is nowhere near the present-day suburb of the same name.
 54. Morgan had just completed overseeing the construction of the Newcastle Wallsend Coal Co's railway. His fee was to be 5% of the accepted tender price.
 55. Surviving correspondence mentions the hiring fees applicable for rails and wagons but there is no mention of locomotive hire.
 56. 'Young' Brown left to enter into partnership with his father to establish the City Ironworks in Pyrmont. Nothing further is known regarding Mr Little, save that he had previously worked for the NC&C Co.
 57. SMH 23/10/1868.
 58. Anecdotally, the Newcastle Glass and Porcelain Company's works was situated adjacent to Browns' Tramroad just south of The Junction.
 59. The Currawong copper mine was near Collector, south of Goulburn. It operated between 1865 and 1868.
 60. Thomas, born in Chile to Welsh parents, had worked with his father and brothers on a family-run smelter in Callington, South Australia. He was employed by Mitchell after a promised job at Minmi did not eventuate.
 61. Despite assertions by some historians to the contrary, this is the first occasion that ore was brought to the smelter on the Red Head Railway. An investigation of the site in 2002 indicates that the siding ran north-east from the main line with points facing Newcastle.
 62. Dixon J, *A History of Merewether*, Merewether Council, Newcastle 1935. The Newcastle-Burwood line was also known as 'The Public Tramroad'.
 63. For a time, the AA Co also ran a Sunday horse car from Pit Town into Newcastle.
 64. NMH 25/3/1884 quoting old files. The AA Co provided a similar train from Pit Town.
 65. NC, 6/11/1869 and 12/11/1869. In that era 11 November was celebrated as the birthday of the Prince of Wales.
 66. SMH 27/8/1864.
 67. SMH 23/10/1868.
 68. For EC Merewether's biographical details see *Light Railways* 200.
 69. NC 12/7/1870.
 70. The first rent payment was rendered on 17/9/1871, the last on 6/6/1873.
 71. Mount Perry Copper Co, which Vickery had purchased in 1870, had an office at 247 George St Sydney. The mine lay inland from Bundaberg, Queensland.
 72. Laidley owned the Co-Operative Colliery at Plattsburgh where he also had coke ovens. His first rent payment was rendered in December 1872, the last in November 1876.
 73. Burwood Estate outward correspondence 19/11/1872 (Scot to Laidley), NCL RHC.
 74. Burwood Estate inward correspondence 11/12/1874, NCL RHC.
 75. Although filed under the notation 'Repairs to No.2 Engine June 1885' this memo appears to refer to the work carried out during 1872.
 76. Alexander Patrick was a nephew of J and A Brown. For further details see *Light Railways* 200. Ironically Wardell appears to have ended up as an engine driver at Minmi.
 77. Burwood Estate inward correspondence 18/1/1877 (Patrick to Merewether), NCL RHC.
 78. Burwood Estate inward correspondence 9/2/1877, NCL RHC. Rodger states that he requires it to be 'run into my yard', confirming the existence of a siding into his works.
 79. Burwood Estate outward correspondence 3/6/1873. (Scott to Vickery), NCL RHC.
 80. Burwood Estate inward correspondence 19/9/1874. NCL RHC. It was still at times referred to as 'Red Head' Colliery.
 81. Easier said than done, around the wave-swept 'Coal Cliff'.
 82. Burwood Estate outward correspondence 24/9/1873, NCL RHC.
 83. Burwood Estate inward correspondence 19/9/1874, NCL RHC.
 84. That was the one he would show prospective purchasers! Rather like the Cunard Line painting only one side of the old *Queen Mary* on her farewell voyage.
 85. Mathieson describes himself as 'Foreman of Mechanics and Top Workmen'. Trained by the AA C, he later became manager of Hetton Colliery. Nothing is known of Harper.
 86. NMH 2/3/1877.
 87. NMH 12/2/1877.
 88. In 1891, top-hand John Nash was similarly crushed between the buffers at the same location and died almost instantly.
 89. In the report of the accident, John Robson is described as 'the firemen of the Burwood locomotive'. Perhaps this means he was previously an employee of the Burwood Estate?
 90. NMH 22/6/1877. In the same issue William Robson advised that the funeral of his beloved son would depart for the family home at Adamstown at 3pm.
 91. Burwood Estate inward correspondence 23/4/1877 (Keithley to Scott), NCL RHC.
 92. Burwood Estate inward correspondence 21/12/1877, NCL RHC.
 93. NMH 25/5/1877.
 94. NCM Co, Board Report June 1877. NCL RHC. Around this time, local photographer Ralph Snowball took a photograph of the locomotive being overhauled at Morison & Bearby's works. The location, at Carrington, is often incorrectly described as Honeysuckle Point (see page 8).
 95. There is no indication which locomotive was sold in going order and which was considered only suitable for parts.
 96. NMH 11/9/1880. According to the shipping column, J& A Browns' *Duckenfield* actually departed Hexham on 12 September for Sydney. More than likely the engines were loaded there using Browns' sheerlegs.
 97. *Sydney Mail* 23/9/1880.
 98. McKillop R, *Furnace, Fire and Forge*, Light Railway Research Society, Melbourne, 2006. Reports cited there state that the boiler was used in the iron works and the cylinders and motion made into a colliery hauling engine.
 99. Macdonald B, *Blue Metal and River Stones*, Steam Tram and Railway Preservation Society, Sydney 1956.
 100. In the Newcastle district, they were preceded only by the John Eale's two R W Hawthorn locomotives for the Minmi Tramway and the two Wm. Fairbairn engines imported by the AA Co.



Industrial Railway NEWS

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NEW SOUTH WALES

JOHN HOLLAND CONSTRUCTION, Kooragang Island

(see LR 207 p.22)

762mm gauge

A visit on the day of the auction held on 19 May saw all the locomotives in the same relative positions as noted in 2007.

The five Gemco 15-tonne 4wDH locomotives (B/n. 287/90 & 288/90 and 289/91 to 291/91 – listed incorrectly in LR 207) are believed to have sold for around \$4000 each all up, four if not all five to the same buyer. The three EM Baldwin 4wDH locomotives sold for between \$2500 and \$3000 each all up. These have now correctly been identified as:

No.	B/n	Date	Model
14	5566.6.74	1974	DH4T
12	6700.2 4.76	1976	DH4T Mk2
11	6700.3 4.76	1976	DH4TMk2

This information confirms that those sold in the May 2007 auction would have been:

	5366.1 4.74	1974	DH4T
	5366.2 4.74	1974	DH4T
	5366.3 4.74	1974	DH4T
	5366.5 5.74	1974	DH4T
	6008.1 7.75	1975	DH4T Mk2
13	6700.1 4.76	1976	DH4T Mk2

A variety of rolling stock was also sold including a number of unpowered mancars and mancar bodies, segment cars, muck cars and flat cars. The flat cars included some newish looking bogie flat cars ex Mining Equipment Ltd, Durango, Colorado, with Willison couplers and air brakes. Apart from some of the mancars, the other rolling stock was new on site since May 2007. About half of the items had Willison couplers and around a quarter had male/female square couplers.

Ray Graf 6/09

QUEENSLAND

CSR sugar spinoff

The prospect has been raised once again of a separation of CSR's sugar business from its other interests, with predictions that this could happen in early 2010. On 16 June, CSR announced that it was proceeding with the final evaluation and due diligence to confirm the benefits of the proposed demerger. A key aspect of the sugar industry now is renewable energy, with ethanol production and electricity co-generation from biomass accounting for about 30% of CSR Sugar's earnings last year, and likely to increase. This is helping to protect the industry from the effects of variable world raw sugar prices.

Daily Telegraph 17/6/09; *The Australian* 22/6/09

BUNDABERG SUGAR LTD, Bingera Mill

(see LR 207 p.23)

610mm gauge

On 28 May, EM Baldwin B-B DH locomotives *MORELAND* (5565.1 10.74 of 1974) and *BUCCA* (6104.1 8.75 of 1975) travelled back together from Bingera Mill to Fairymead, where they will be stationed during the 2009 crushing season. The old Fairymead Mill is in the process of demolition. Malcolm Moore 4wDH 1025 of 1943, rebuilt Bingera 1969, is still used by the navvies for hauling the rail welding wagon.

Bundaberg Sugar states that a continuing loss of land to sugar cane is a major reason for the decline of the local cane crop to an estimated 1.6m tonnes in 2009. The company indicates that if the trend cannot be reversed with an increase to 2m tonnes in the next two years, Bingera Mill

will close. Local horticultural cropping, including tomatoes, macadamias and avocados, is quoted as a \$400 million a year industry. Forward pricing terms are being offered to encourage cane growing. The company made no mention of the fact that many growers have decided to send their cane to Isis Mill.

Lincoln Driver 6/09; Bob 'sheepdog' 6/09; *Bundaberg News Mail* 2/6/09; Editor

BUNDABERG SUGAR LTD, Innisfail District

(see LR 207 p.23)

610mm gauge

EM Baldwin B-B DH 32 *LIVERPOOL* (10385.1 8.82 of 1982) was noted in the workshops at **Babinda** Mill on 16 June, still undergoing its rebuild, with the cab still to be reglazed. The cab arrangements have been altered to move the doors backwards while a low-level window has been provided in the cab rear to assist with coupling up. With *LIVERPOOL* unavailable at the start of the season, B-B DH *NYLETA* (Prof Engineering PSL 25.01 of 1990 rebuilt South Johnstone 1993) was being used on **South Johnstone's** Nerada line. The only traffic coming to South Johnstone Mill across the old Silver Bridge is local cane from the area south of the mill. All cane south of the Japoon Range comes via Silkwood and Sandy Pocket, with the new link between the old Mourilyan lines and South Johnstone reducing the trip time by about 1½ hours.

Allocated to Babinda's Goondi out depot at the start of the season was Com-Eng multi unit 8 and 9 (AA1543 of 1960 and AH3979 of 1964), while Com-Eng 0-6-0DH 4 *HARVEY* (AD1138 of 1960) was stationed at South Johnstone's



Hudswell Clarke 0-6-0 HOME BUSH (1067 of 1914) waits by the truck shop at Victoria Mill on Friday 15 May having been prepared for its passenger duties at the Italian Festival over the following weekend.

Photo: Chris Hart

Mourilyan out depot. The following locomotives were based at Babinda in early July:

1	JOSEPHINE	0-6-0DH	Com-Eng	A1821	1957
	multi unit with 100-6-0DH	Com-Eng	A2027	1958	
2	GOONDI	0-6-0DH	Clyde	55-56	1955 spare
	multi unit with 3	0-6-0DH	Clyde	56-90	1956 spare
5	BRAMSTON	0-6-0DH	Com-Eng	AH2460	1962
6	ALLISON	0-6-0DH	Com-Eng	C2234	1959
	multi unit with 7	MORRISON			
		0-6-0DH	Com-Eng	AD1239	1960
11		0-6-0DH	Clyde	55-65	1955 spare
13		0-6-0DH	Clyde	59-203	1959 out of use
16		0-6-0DH	Clyde	56-93	1956
17		0-6-0DH	Clyde	55-57	1955

Ex-South Johnstone Mill Com-Eng 0-6-0DH 31 (C1125 of 1957) which was taken to Babinda for possible refurbishment in 2005 is now a derelict shell under a tree.

Luke Horniblow 6/09; Shane Yore 7/09

CSR SUGAR (HERBERT) PTY LTD, Herbert River Mills

(see LR 207 p.24)

610mm gauge

Preserved Hudswell Clarke 0-6-0 *HOMEBUSH* (1067 of 1914) ran passenger trains for the Italian Festival on 16 and 17 May.

In mid-May, Macknade Mill's EM Baldwin 0-6-0DH 14 (6/2490.1 7.68 of 1968) and its brake wagon were moved to the sugar hopper at Victoria Mill for remote control driver training. It returned in the first week in June.

Macknade Mill's Clyde 0-6-0DH 12 (65-434 of 1965), fitted with its new Mercedes engine, returned to service during the last week in June. Clyde 0-6-0DH 16 (DHI-1 of 1954), also being fitted with a new Mercedes engine, still required much work to be done. 16 was temporarily fitted

with the wheelsets from the derelict Clyde 0-6-0DH DHI-2 of 1954, formerly Inkerman Mill's *IONA*, while its own wheels were away being fitted with new tyres.

Macknade's EM Baldwin B-B DH *DARWIN* (6171.1 9.75 of 1975) broke a cardan shaft in the front bogie two or three days into the crushing season and has since only had the rear axle in the bogie powered.

Chris Hart 5/09, 6/09

CSR SUGAR (KALAMIA) PTY LTD, Kalamia Mill, Ayr HAUGHTON SUGAR CO PTY LTD, Invicta Mill, Giru

(see LR 207 p.24)

610mm gauge

Two Invicta Mill locomotives were noted hauling cane from the Airdale area towards Kalamia Mill during June. On 9 June, Walkers B B DH *GIRU* (593 of 1968 rebuilt Tulk Goninan 1994) was noted hauling 100 new 6 tonne bins, while on 19 June Com-Eng 0-6-0DH *NORTHCOTE* (AH4091 of 1965) was seen on a similar task.

Invicta Mill's Plasser KMX-06 tamping machine that had been at Victoria Mill earlier in the year (133 of 1978) was noted at work in Kalamia territory near McDesme on 17 May, while Inkerman's Tamper Model SVT-JW (4375626 of 1976) was seen on the Kalamia Central Line on 27 June.

Towards the end of the 2008 season, telemetry devices were installed on Invicta Mill's Landers Creek and Expedition Pass Creek bridges, which had been fitted with replacement spans last year after severe flood damage. They measure wind speed, temperature, any bridge movement, and the speed of the locomotives while crossing. This information is relayed in real time to the Traffic and Field Offices as well as to the navvies. The bridges currently have a 10kpm speed limit and an 8 tonne axle limit, meaning that Walkers locomotives are not permitted to work across them.

Some test wagons for use on these bridges were noted near the Expedition Pass Creek bridge on 31 May. These are 6-tonne bin frames that have had two additional wheelsets added, loaded with three large concrete blocks, each labelled 9 tonnes.

1067mm gauge Walkers 0-6-0DH (583 of 1968) was returned from Kalamia to Pioneer Mill between 10 May and 17 May. It had recently been engaged on ballasting work on the Kalamia dual gauge line from Ayr to the mill over which bulk sugar is hauled during the season, using three steel ballast wagons (one VTE and two VTS) and the steel-framed ballast plough (TES) from Pioneer. It was expected that these also would shortly be returning to Pioneer.

Luke Horniblow 6/09; Scott Jesser 6/09; Jason Lee 6/09

MACKAY SUGAR LTD

(see LR 207 p.24)

610mm gauge

A new track inspection vehicle has been noted – a Honda quad bike fitted with fold-down hi-rail wheels.



Top: Invicta Mill's Expedition Pass Creek bridge, showing the temporary steel span, the telemetry device described in the news report, and preliminary works being carried out in preparation for the replacement of the pier that was washed away in floods last year. **Above:** Nearby, the wagons used for load testing on the damaged bridges at Landers Creek and Exhibition Pass Creek. The test wagons each have four axles and are weighted with three 9-tonne blocks of concrete.

Both photos: Luke Horniblow, 31 May 2009

Industrial Railway NEWS

With the closure of Pleystowe Mill, the lines in its immediate vicinity have all been allocated to **Farleigh** Mill. The Palms line east of Palmyra Junction, and the Barrie line, are now part of the **Racecourse** network. The Victoria Plains line and all the remaining ex-North Eton mill lines are allocated to **Marian**.

Locomotive reallocations are as follows:

HABANA	0-6-0DH	Clyde	60-215	1960
multi-unit with	0-6-0DH	Clyde	56-105	1956
		Marian ex Racecourse		
ALEXANDRA	0-6-0DH	Clyde	61 235	1961
		Marian ex Pleystowe		
ETON	0-6-0DH	Com-Eng	FB3170	1963
		Racecourse ex Pleystowe		
LACY	0-6-0DH	Clyde	65 439	1965
		Marian ex Pleystowe		
DEVEREAUX	0-6-0DH	Clyde	67 568	1967
		Racecourse ex Pleystowe		
PALMS	0-6-0DH	ClydeQ	70 708	1970
		Farleigh ex Pleystowe		
SHANNON	B-B DH	EMB	7126.1 5.77	1977
		Racecourse ex Pleystowe		
LANGDON	B-B DH	EMB	9562.2 6.81	1981
		Marian ex Pleystowe		
BALMORAL	B-B DH	EMB	10684.1 4.83	1983
		Marian ex Tully Mill		
FARLEIGH	B-B DH	Eimco	L254	1990
		Marian ex Farleigh		
WALKERSTON	B-B DH	Walkers	672	1971
		reb. Pleystowe		1994
		Farleigh ex Marian		

Pleystowe loco shed remains in use as an out depot of Farleigh mill with the following locomotives stationed there:

NELLIE	0-6-0DH	Clyde	58-188	1958
CONNINGSBY	0-6-0DH	Clyde	61-232	1961
INVERNESS	B-B DH	EMB	10123.1 5.82	1982

The following locomotives are understood to be out of service pending repairs:

HOMEBUSH	0-6-0DH	Clyde	55-88	1955
FINCH HATTON	B-B DH	Com-Eng	NA59112	1977

The proposed merger with Proserpine Mill is currently on hold pending the completion of the 2009 crushing season and the commissioning of Proserpine's new furfural chemical plant.

Brian Millar 6/09; Carl Millington 7/09; *ABC News* 5/6/09

MOSSMAN CENTRAL MILL CO LTD

(see LR 207 p.25)

610mm gauge

EM Baldwin B-B DH *DAINTREE* (7303.1 7.77 of 1977) was noted in traffic on 15 June on weed control duties having reverted to a basic yellow livery but retaining some of the additional decoration – a frog and a cassowary at least.

Corey Seaton 6/09

PIONEER SUGAR MILLS PTY LTD, Pioneer Mill

(see LR 207 p.25)

Between 10 May and 17 May, Walkers 0-6-0DH (583 of 1968) was returned to Pioneer from Kalamia Mill, where it had recently been engaged

on ballasting work on the dual gauge line from Ayr to the mill. One VTE and two VTS steel ballast wagons and the TES ballast plough had been sent over from Pioneer for this task. It was expected that these would also be returning to Pioneer.

The Walkers 0-6-0DH locomotive was seen in cane haulage service on 19 June but the ex-Mt Isa Mines Walkers B-B DH (683 of 1972) does not appear to be in traffic.

Some more information on the ex-QR rolling stock at Pioneer Mill is to hand. There are actually seven VTJ wooden ballast hoppers and the high sided steel hopper is classified VTE. There are also three bogie QLX wagon frames, five bogie HJS wagons (one complete, one with ends only, and three reduced to frames), four four-wheeled FJS wagons (two complete and two reduced to frames) and two of unknown type.

Luke Horniblow 5/09; Scott Jesser 6/09; Carl Millington 6/09

CSR PLANE CREEK PTY LTD, Sarina

(see LR 204 p.17)

610mm gauge

Baldwin B-B DH D12 (6890.1 10.76 of 1976) has received a repaint in yellow and green during the slack season. The dismantled remains of Clyde 0-6-0DH 2 (57-147 of 1957) have been removed from their resting place adjacent to Mill Street. Two 8-ton bins, numbered 9822 and 9993, arrived from Macknade Mill around the end of May and are stored near the truck shop.

Of the Walkers B-B DH main-line locomotives that were acquired in 1994 for rebuilding, Westrail MA1861 and MA1863 (713 and 715 of 1973) are largely intact. NSWGR 7349 (711 of 1973) has been stripped of its engine, transmission and bogies, 7309 (668 of 1971) has lost its engine and transmission, and 7347 (709 of 1973) is largely intact.

Carl Millington 6/09



Top: Sporting bright new paint, Plane Creek Mill's EM Baldwin B-B DH D12 (6890.1 10.76 of 1976) heads a full train at Turnor's Paddock, south of Koumala, on 3 July. Photo: Carl Millington

Above: Invicta Mill's Com-Eng 0-6-0DH NORTHCOTE (AH4091 of 1965) heads a train towards Kalamia Mill across Plantation Creek at McDesme on 19 June. Photo: Scott Jesser

RIO TINTO ALCAN, Weipa

(see LR 207 p.26)

1435mm gauge

With the arrival of the two new locomotives, no time was lost in offering the two existing Clyde Co Co DE locomotives for sale. The 'forthcoming tender' notice appeared on the Hassall Auctions website http://www.hassalls.com.au/tender_details.php?id=129 which showed both locomotives in their Comalco yellow and mustard livery. The single-ended R1001 (75-252 of 1975) weighs 147 tonnes while the double-ended R1004 (90-1277 of 1990) weighs 129 tonnes. The latter was originally supplied to Goldsworthy Mining. Hassall Auctions 6/09

TULLY SUGAR LTD

(see LR 207 p.26)

610mm gauge

A proposed merger with Maryborough Sugar, owners of Mulgrave Mill, has been called off as

the Maryborough shares offered to Tully Sugar did not meet Tully's required valuation.

Com-Eng 0-6-0DH locomotives *TULLY-12* (AD1351 of 1961) and *TULLY-15* (AK3574 of 1964) have been repainted during the slack season. The standard of turnout of Tully locomotives remains very high. The Walkers B-B DH (657 of 1970 rebuilt Tulk Goninan 1994) transferred from Mackay Sugar appears to have taken on the identity *TULLY No.7*.

A southbound semi-trailer on the Bruce Highway, travelling in thick fog, ploughed into a loaded cane train at Feluga at about 7.30am on 26 June after colliding with a car that was stationary at the level crossing. It careered through the rake, smashing bins into a vehicle standing at the other side of the crossing. As the train was also crossing the north coast railway line at the time the accident blocked the rail line for some time.

ABC News 14/5/09; Cairns Post 27/6/09



Top: The great pride taken in the appearance of Tully Mill locomotives is shown here with newly-painted Com-Eng 0-6-0DH TULLY-15 (AK3574 of 1964) and TULLY-12 AD1351 of 1961) in the mill yard on 14 June. Photo: Luke Horniblow **Above:** About to be outshopped for delivery to the Olympic Dam mine in South Australia, one of two Clayton Equipment 30-tonne electric locomotives on the factory floor in Burton-on-Trent, 12 May. Photo: courtesy Clayton Equipment via Bob Darvill.

SOUTH AUSTRALIA

BHP BILLITON, Olympic Dam

(see LR 201 p.20)

The two new automated 914mm gauge 30-tonne 4wWE locomotives for underground use have been completed and despatched from Clayton Equipment Ltd, Burton-on-Trent, England. Clayton B4465A was outshopped on 12 May and B4465B on the following day. They were shipped from Southampton on 15 May.

Bob Darvill 5/09

VICTORIA

McCONNELL-DOWELL CONSTRUCTORS, Bogong Hydro-Electric Scheme

(see LR 205 p.21)

762mm gauge

By mid-June, the TBM tunnel excavation had been completed, with the final length totalling 6570m. Withdrawing the rail from the tunnel had commenced with 240m removed. Lining the Drill and Blast High Pressure Headrace (HPHT) tunnel had been completed with the rail progressively removed as the concrete backfilling around the steel liner was completed. To complete the tunnelling works, an upstream vertical dropshaft was being excavated using a raise bore, with work due to be finished the end of June. The power station is expected to be opened in mid-November 2009.

Five diesel locomotives were used on the site at different stages on the project: one 8-tonne Clayton (B1864E of 1979), two 10-tonne FM Baldwins (both FMB8T294 of 1994 rebuilt by Ontrak 2004), one 12-tonne FM Baldwin (FMB-12TRA-295 of 1995) and one 15-tonne Plymouth (6952 of 1973). The rolling stock used comprised one Haggblunds loader, five Haggblunds spoil cars, a rail-mounted charging platform, three flatcars, two man-riders, three Mühlfhauser concrete remixer cars, a Jacon shotcrete rig, an Atlas Copco raildrill 252 and a Mühlfhauser pipe carrier.

Michael George via Scott Gould 6/09

WESTERN AUSTRALIA

Possible Pilbara rail merger

On 5 June, Rio Tinto and BHP Billiton signed a non-binding agreement foreshadowing the combining of their mining, heavy haul rail, port and other iron ore production assets in the Pilbara. The agreement outlines a plan to establish an equally-owned joint venture to manage the assets, with substantial financial benefits expected to accrue from combining adjacent mines and reducing rail haulage distances by using the nearest line. *Railway Gazette International 12/6/09*

BHP BILLITON IRON ORE PTY LTD

(see LR 207 p.27)

1435mm gauge

MV *Jumbo Vision* left Toronto on the night of 10 May with its cargo of nine new Electro-Motive Canada Model SD70MACel/c Co-Co DE locomotives bound for Port Hedland.

O'Donnell Griffin Rail have won a \$96.5 million

Industrial Railway NEWS

contract for rail signalling relocation and installation on BHP Billiton Iron Ore's lines. The 18-month contract will mean a total overhaul of the current signalling installation to improve transit times from mine to port as part of State 5 of the miner's Rapid Growth Project. O'Donnell Griffin Rail have been involved in previous stages of the project. *West Australian Railscene e-mag 24; The West Australian 30/6/09*

THE PILBARA INFRASTRUCTURE PTY LTD

(see LR 205 p.22)

1435mm gauge

Fortescue Metals Group and BC Iron have announced an in-principle agreement by which ore from BC Iron's projected Nullagine mine will be hauled to Port Hedland over FMG's rail line. Initially it is expected that 3 million tonnes of ore will be hauled per year commencing in 2010, rising to 5m tonnes. The agreement is in line with Fortescue's commitment to open access for iron or haulage, at odds with the position taken by its rivals, BHP Billiton and Rio.

The Australian 28/5/09; The West Australian 28/5/09

PILBARA RAIL

(see LR 207 p.27)

1435mm gauge

Following their delivery from the USA in the second week of May, all eleven new General Electric Co-Co DE locomotives, 8140 to 8150, had entered service by the end of the month. This enabled the withdrawal of the remaining Robe River Dash 8 Co-Co DE units as follows:

9410	Com-Eng	C6096-05	1975	reb. A.Goninan (202)	1996
9414	Goodwin	G-6060-05	1971	reb. A.Goninan (124)	1991
9417	Alco	6010-01	1970	reb. A.Goninan (083)	1989
9419	Alco	3846-03	1967	reb. A.Goninan (117)	1990
9420	Alco	3846-04	1967	reb. A.Goninan (119)	1991
9424	Alco	6010-04	1970	reb. A.Goninan (084)	1989
9425	Goodwin	G-6041-04	1970	reb. A.Goninan (085)	1989

Quadruple-heading has also been reintroduced in an effort to improve running times.

Following the washing out of a pier of Bridge 11 on the Robe Deepdale line in February, a temporary diversion was built around to allow iron ore trains to recommence running. The major bridge reconstruction was still under way in late June.

West Australian Railscene e-mag 26, 27, 29, 30; Editor

FIJI

FIJI SUGAR CORPORATION

(see LR 207 p.27)

610mm gauge

The European Union has cancelled a grant of 24 million euros to assist the nation's sugar industry because of a lack of progress in returning the country to democracy. The money was intended to counteract the reduction in preference pricing for sugar sold to EU countries and to assist with industry reform.

TV New Zealand 18/5/09



Outside the new Bogong high-pressure tunnel on 30 March is the Muhlhauser bogie pipe carrier, which was used for carrying and placing the 12m long steel liner sections into the tunnel. When loaded, there is not much to be seen except pipe!

Photo: courtesy AGL

LOCOMOTIVE, ROLLING STOCK AND EQUIPMENT MANUFACTURERS

N+P SITE BORING PTY LTD, Brendale, Queensland

This company has carried out the rebuilding of EM Baldwin B-B DH *BRISBANE* (5423.1 9.74 of 1974) under subcontract to Loadquip Pty Ltd. (Loadquip previously traded as ADE Products.) Following static testing, the locomotive was expected to be ready for delivery to north Queensland during July.

The locomotive's frame has been extended by 1500mm by the insertion of new sections in the middle and near the front. It has been fitted with a Caterpillar C15 6-cylinder engine and a torque converter with four speeds in either direction, although the top speed will not be available in either direction. There is a facility for direct drive and for hydraulic retarding. The locomotive's weight will be maintained at about 24 tonnes and it retains its as built loading gauge.

A programmable logic controller (PLC) will be fitted by CSR on arrival at the mill and will allow the locomotive to be set up for remote shunting unit (RSU) operation.

The sandboxes have been moved inboard on the bogies to leave space for new brake rigging. The bogie wheelbase remains the same. It has all new final drive gears, wheels, axles, axleboxes etc. The cab has been extended by 500mm with much of the available space taken up by a magnificent rotating driver's seat as used in draglines.

John Flynn 7/09; Editor 7/09

UNITED GROUP LTD, Goulburn, NSW

Victoria Mill's Walkers B-B DH *HERBERT II* (612 of 1969 rebuilt Walkers 1993) was loaded in north Queensland on 19 May and arrived at the United Goninan railway workshops at Goulburn on 25 May. It will be receiving attention to damage following a collision with a road vehicle in November 2008. Repairs were required to the cab and to a bogie. The locomotive was expected to be outshopped around July 10.

Leon Oberg 5/09, 7/09; Chris Hart 5/09, 6/09



Book Reviews

The Anatomy of a Garratt

by Peter Manning

A4 size landscape format, card cover, spiral bound. 64 pages with around 350 illustrations, many in colour. Published 2009 by the author. Available from LRRSA sales at \$39.95 (\$35.96 to LRRSA members).

The pioneering Beyer-Garratt locomotive, Tasmanian Government Railways K1, has rightly attracted significant attention, particularly because of the fact that it survives in service today, thanks to the combined efforts of TGR, Beyer, Peacock & Co Ltd, and the Festiniog Railway Trust. Peter Manning's well-produced book, through the miracle of three-dimensional computer-aided design, allows a detailed dissection of the inner workings of this complex piece of machinery. It also reminds us of the technical achievements of locomotive design offices in the era when drawings were produced in pen-and-ink and it was only the imagination and experience of the design and drafting staff that provided assurance that the whole thing would fit together. The inspiration of the book comes from the set of original builder's drawings held by the National Archives of Australia, which can be viewed online. Peter has produced a complete set of drawings derived from these and has rendered many of them beautifully in colour.

A potted history of the locomotive's origins and original use is followed by sections which take each part of K1 in turn and briefly explain its function. Components and assemblies are drawn in black and white in the traditional way, while many of the colour illustrations are isometric views of different assemblies to show how the locomotive was put together. Some of these views are sectioned so that you can see the workings from the inside as well as the outside.

A postscript details the post-1929 history of the locomotive and provides information on the minimal modifications made to equip it for modern-day use on the Welsh Highland Railway. A minor criticism is that the digital method of reproduction of some of the isometric views lacked the fine degree of resolution that the author would probably have liked, resulting in some pixellation of curves and angled lines, but this will not be a concern to most.

This is a fascinating book for anyone who wants to better understand the design of this locomotive – or anyone who wants to build one!

Strongly recommended. *John Browning*

The Goondah-Burrinjuck Railway

by John R Newland

A4 size, hard cover, 256 pages with 300 photographs, many maps and diagrams. Published 2009 by the Australian Railway Historical Society NSW Division. Available from LRRSA sales at \$55.00 (\$49.50 to LRRSA members).

The Goondah – Burrinjuck railway is one of Australia's iconic narrow-gauge railways. This 42km long 2ft gauge line was built by the NSW Public Works Department to enable construction of a huge dam – at the time the second largest in the world – which was to provide water to irrigate agricultural land over a large area.

The construction project extended over a long time, and the railway did not close until 1929, although the dam was already holding water in 1912. So, with a life of 21 years it was no

was the subject of many photographs, and the photographers were extremely competent, using first-class equipment. A large number of the photographs are reproduced in this book, and the quality of reproduction is very high. A lot of care has gone into the photo captions, which are very well done, and show that the author knows his subject well. The first chapter includes some beautiful photographs showing the way of life in the area before the railway was built.

The locomotives consisted of four Krauss 0-4-0Ts and one Fowler 0-6-0T, which was used on the sand tramway. Rolling stock included six passenger cars of five different types, including a very elaborate 'State Car' for VIPs. All of these are very well illustrated with photographs, and scale drawings of most types of rolling stock. Another vehicle of great character was the 1908 Allday & Onions petrol-engined railcar.

The illustrations include track layouts and detailed maps, and reproductions of original documents. There are 65 colour photographs;



LRRSA President Bill Hanks sits beside the Krauss 0-4-0WT locomotive ARCHIE (B/N 5945 of 1907) at the Burrinjuck State Waters Park on 13 April 2009, as he checks his copy of the recently released third edition of John Newland's book The Goondah-Burrinjuck Railway for the story of the loco's mistaken identity as JACK. Park staff refer to the locomotive as JACK/ARCHIE and the sign beside the protective enclosure refers to 'Jack's Place'.

Photo: Bronwyn Hanks

ordinary construction railway. Furthermore, it provided a public passenger and freight service, had several intermediate stations, and it attracted tourists. It ran through rugged mountainous country, necessitating many sharp curves, and grades as steep as 1 in 25.

This book is a much expanded and totally revised version of a book previously published in 1994, with a minor revision in 1999. The new book has twice as many pages, and the layout is greatly improved. The unnumbered chapters describe in detail the dam scheme, building the railway, locomotives and rolling stock, railway operations, construction of the dam, the sand haulage railway (which was a separate 2ft gauge steam operated line), living at Burrinjuck, travellers accounts of the railway, and the railway as it is today.

At the time of construction this large project

52 of these show the route of the railway today, including earthworks and bridge remains, and several show the surviving locomotives. Again the photographs of the remains are very well captioned.

Anyone with an interest in Australian narrow gauge railways needs a copy of this book. My only criticism is that I think the text has more words than necessary, which detracted from the reading experience.

Frank Stamford

LRRSA ONLINE DISCUSSION GROUP

Have you joined the LRRSA's email discussion group yet? See:

<http://au.groups.yahoo.com/group/LRRSA/> and click on "Join This Group"!



LETTERS

Dear Sir,

Deutz locomotives at Queenstown (LR 201, 202, 205, 206 & 207)

Recent research has revealed additional information about these 2ft gauge diesel locomotives, used on the Comstock Tramway at Queenstown, Tasmania.

During 1955, four units were purchased from Hoch Tief Australia, a German company which was the contractor for the Mossy Marsh tunnel on the second canal from Butlers Gorge to the Tarraleah hydro-electric power station. There were two tunnels involved with this project; the other was at Butlers Gorge itself, which is located about 20 kilometres west of Tarraleah.

By August 1955, with tunneling complete, the locomotives had been delivered to the Mount Lyell Mining and Railway Company's copper mine for use on the Comstock tramway. Two locomotives were in operating condition while the other two were considered as only good for spare parts. It seems that the Deutz locomotives were intended to replace the Fordson tractor(s) then in use on the tramway. These rail tractors were originally used in the Crown Lyell quarry hauling rock in side tipping skips which were loaded by an electric shovel. The skips tipped into a mullock shaft, where a system of underground mullock passes directed the rock filling down into the working stopes.

The tractors, three in number, were in use in the Crown Lyell quarry by 1925; however the quarried stone was no longer required after about 1936 when the partially de-slimed mill tailings were pumped underground, along pipes in the North Lyell tunnel, for use in the stopes as ground support. It was logical that the Fordsons were transferred to the Comstock tramway as the Krauss steam locomotives had more important work to attend to around the mill and smelters. A saving of coal, imported from Newcastle, NSW, was an additional financial benefit to be had.

The Company's Board visited Queenstown in February 1944 and a decision was made to close the Lyell Comstock mine, which duly occurred in May 1944. About 60 men worked at the mine, half of whom lived in Queenstown and travelled to work by steam train. After the mine was closed and all materials removed, the men still residing at Comstock were offered employment at the company's other mines or in the reduction works, and as a result, as Company records state, *The transport of men residing at Comstock to the*

works or other mines will have to be carried out by means of running the requisite number of trains . . . efforts will be made to curtail the number of trains required as far as practicable. One or two men would act as caretakers at the mine and attend to the needs of the precipitation plant; their wages would easily be covered by the value of the copper precipitate recovered from the water flowing from the Lyell Comstock adit.

An inspection of the tramway in 1949 revealed the track to be in a deplorable condition, so during February a contract was let for £100 to repair the track bed where the creek had scoured away the formation. This remedial work was finished by the end of the month and the Company's inspecting engineer deemed the tramway safe for tractor transport for a further 12 months as transportation of scrap metal to the copper precipitation plant was necessary. In 1952, minor bridge repairs were required but in mid February 1959, after two days of torrential rain, a culvert became blocked, causing a large embankment, measuring 300ft by 40ft in height, at the works end of the line to collapse, leaving the rails hanging in mid air. By the end of April this wash-away had been repaired so scrap metal and diamond drilling equipment could be taken out to the Comstock mine by a Deutz loco.

Many thanks to Mr Peter Reid of Queenstown who supplied details about the Butlers Gorge and Tarraleah hydro project.

Ross Mainwaring
St Ives, NSW

Dear Sir,

Days Tractor at Marysville

I would like to express my appreciation of the help received from the executive of the LRRSA in my recent attempts to form a team to restore the Marysville Days Tractor.

Unfortunately neither an appeal on the LRRSA Yahoo Group site (for those with internet access) nor an A4 insert in the June 2009 Issue of *Light Railways* appealing for assistance has succeeded.

There appears to be no members of the LRRSA with sufficient time or opportunity interested in this project.

I had no enquiries.

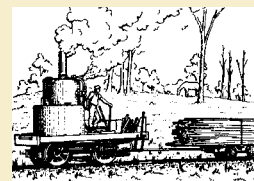
Bill Russell (03) 9725 6675 .
via e-mail

CORRECTION and APOLOGY

In the 4th line of the *From the Archives* item 'Endless rope haulage', on page 21 of LR 207, the word 'skip' should in fact have been 'kip'. A 'kip' on an endless rope system was an elevated section of single track which permitted skips, once unclipped from the rope, to run by off the rope-road by gravity.

Also, the photograph featured was credited incorrectly, having been supplied, through Ray Christison, by courtesy of the City of Greater Lithgow Mining Museum Inc.

Our apologies are extended to the Museum and to Ross Mainwaring.



LRRSA NEWS

MEETINGS

ADELAIDE: "Perry Engineering."

Perry Engineering Co Ltd of Mile End, South Australia, built a wide range of locomotives and rolling stock for both government and industrial use. A former employee of Perry will give a talk on the history and products of the company.

Location: 150 First Avenue, Royston Park.

Date: Thursday 6 August at 8.00pm.

Contact Arnold Lockyer on (08) 8296 9488.

BRISBANE: "Peter Kennedy's Travels"

Peter Kennedy will be showing slides and a DVD of one of his overseas trips.

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

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

Date: Friday 14 August at 7.30pm. Entry from 7pm.

MELBOURNE: "Annual General Meeting and Wonthaggi Brickworks – the tail and the dog!"

Following our brief Annual General Meeting, Mike McCarthy will describe a 'socialist experiment' - the Wonthaggi brickworks, which had their own tramways to add an extra layer of complexity to Wonthaggi's tramway and railway map. What does the tail and the dog have to do with that? You will need to come to the meeting to find out. (*This presentation was originally scheduled for February but had to be deferred due to bushfire-fighting complications*).

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

Date: Thursday, 13 August 2009 at 8.00pm

SYDNEY: "Mann's Creek Railway"

Six Climaxes and five Shays: this was the impressive roster for the 3 feet gauge coal and timber hauling railway in West Virginia, USA. The mainline, which included one 'switchback', was nine miles in length, climbing at 1 in 25 from the gorge of the New River up to the rim at Cliff Top. Operations lasted from 1886 to 1955.

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

Date: Wednesday 26 August at 7.30pm

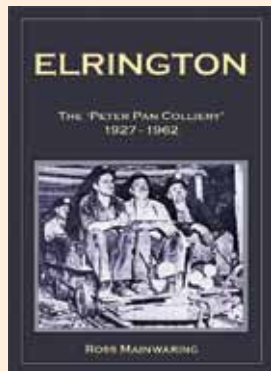
New from LRRSA Sales ...

ELRINGTON

THE 'PETER PAN COLLIERY' 1927 – 1962

By Ross Mainwaring

Published by the LRRSA.



Describes a coalmine and its railways near Cessnock NSW, established by the BHP in 1927 to supply coal to its Newcastle steelworks.

Soft cover, 96 pages, A4 size

64 photographs, 9 maps and diagrams,

References, bibliography, and index.

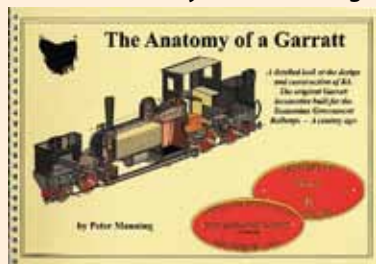
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THE ANATOMY OF A GARRATT

A DETAILED LOOK AT THE DESIGN AND CONSTRUCTION OF K1. THE ORIGINAL GARRATT LOCOMOTIVE

Published by Peter Manning Design & Drafting



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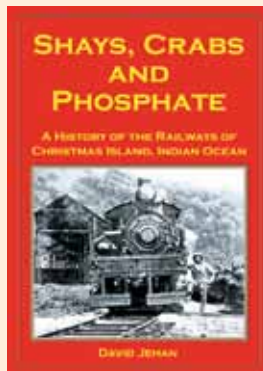
Weight 320 gm

SHAYS, CRABS AND PHOSPHATE

A HISTORY OF THE RAILWAYS OF
CHRISTMAS ISLAND, INDIAN OCEAN

By David Jehan

Published by the LRRSA.



Describes a system of industrial railways — on gauges of 2 ft and 4 ft 8½ in — used to carry phosphate.

Soft cover, 136 pages, A4 size

Over 160 photographs, 14
maps and diagrams,

References, bibliography, and
index.

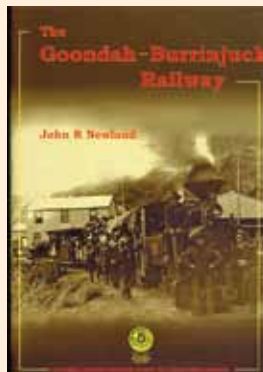
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THE GOONDAH-BURRINJUCK RAILWAY

By John R Newland

Published by Australian
Railway Historical Society
NSW Division.



Hard cover, 256 pages, A4 size
Many excellent photographs
and other illustrations. Refer-
ences, bibliography, and index.

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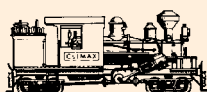
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Signature _____



RESEARCH

Bullengarook sawmill, VIC

In his much-sought, and out-of-print book *Timber and Gold*, [LRRSA 1980] Norm Houghton recounts the history of the sawmills and tramways of the Wombat Forest in Victoria's central highlands, south of Daylesford, astride the Dividing Range. One of the many sawmillers was Harry McCashney; the McCashney name being associated with this area for over 35 years. One of Harry's mills was near East Bullengarook, which commenced around 1910 and 'the mill remained on this site for around ten years'. Thanks to the National Library's newspaper digitisation program, the following auction advert from *The Argus* (Melbourne), 11 January 1917, helps us pin down the end date and

put some more 'meat on the bones' regarding the mill and its operations. To find this advert I used 'log bogies' as the search criteria (having missed it with all the obvious key words such as SAWMILL and TRAMWAY which the OCR had mis-interpreted). The salient point is—Keep Searching!

Phil Rickard

LRRSA Gold & Hydro tour, VIC

The Gold & Hydro Electricity tour around Harrietville and Bogong on 15-16 November 2008 led by Scott Gould provided an action packed weekend for 30 LRRSA members and friends. The weather was absolutely perfect for bushwalking with the temperature in the mid 20s and the days fine and sunny.

Scott arranged for local Bright miner and historian Andrew Swift to accompany the group on the first day to the Rose Thistle and Shamrock gold mine near Harrietville in the Ovens Valley. Andrew provided Scott with excellent tour notes and contemporary photographs and soon had his audience enthralled as he described the history of the mine and the various quirks of its development over a long 70 years of productive life from 1860. A number of relics were seen at the three levels of this mine including shafts, boiler

settings and parts, beam pump bearings, portable engine, water tanks, substantial compressor foundations and underground flues, ore bin passes, incline ore tramway and firewood tramway lowering gear.

The group headed back to Bright for the evening, which featured the screening of an excellent video narrated by Andrew Swift on the Razorback gold mine near Mount Feathertop. There was much discussion with Andrew over supper aided by his extensive photo album and comprehensive report to the DSE on the various relics he discovered immediately after the 2003 fires.

On the Sunday the group explored the Bogong Creek raceline tramway guided by Brian Maddison of AGL Hydro. This tramway is 914mm gauge and approximately 8.5km in length. It was originally built for construction of the race, but was kept in service to provide a means of inspecting and maintaining the race. The old SECV Kiewa hydro-electricity scheme was privatised in 1997 and the current owners, AGL Hydro, are undertaking significant investment in new generation plant and equipment. The line originates at a single track engine shed, and follows the race, crossing two open-decked Bailey bridges at

landslip sites at 1011m and 1600m. Four sidings along the line contain several examples of rolling stock built by English firm Robert Hudson of Leeds. There are side tipping ore-style trucks, flat trucks fitted with water tanks, bottom discharge hoppers, and flat trucks, all based on the same four-wheel sprung underframe. Among rolling stock at the railhead is a crew car, a basic garden shed type vehicle fitted with table, bench seats and perhaps most importantly for the location, gas heating.

Motive power on site comprise Ruston & Hornsby 4wDM 296070 of 1950, a two-ton Simplex, the Jeep from Rubicon which is dumped off track, and a burnt out Maximove crew car. In the shed is the 4w Maximove DM patrol car used for the regular inspections. Brian surprised the group by starting each of the Ruston & Hornsby, the Simplex (with a hand crank) and the Maximove. Naturally, a great many photographs and videos were taken.

The final destination of the tour was the new power station and head race tunnel near Lake Guy at Bogong Village. This will be covered in a separate article in a forthcoming issue of *Light Railways*.

WEDNESDAY, FEBRUARY 7.
At One O'Clock. On the Ground.
IMPORTANT CLEARING SALE
 By Auction of H. McCashney and Sons'
Sawmilling Plant,
Near BULLENGAROOK.
 Engine, Boiler, Pumps, Tanks, Buildings, Jinkers
 and Bogies, Horses, Harness, &c.
J. H. CLARK, instructed by Messrs. H. McCash-
ney and Sons, will SELL, as above, the
whole of their first-class
SAWMILLING PLANT,
 Comprising:—1 colonial type Tangye engine,
 12in. cyl., 18in. stroke, 20-h.p.; 1 underfire
 multi-tubular boiler, w.p. 100lb. per square
 inch, 20-h.p. (Government certificate); 1
 pump, 800 gallons per hour; 1 600-gallon
 tank, 1 400-gallon do. (square), 1 300-gallon
 do. (round), 60ft. G.I. piping, 1 4-roomed
 W.B. house, G.I. roof; 1 2-roomed W.B.
 house, G.I. roof; 1 W.B. feed house, G.I.
 roof; 10 W.B. huts, 20 draught horses (extra
 good), 3 log jinkers, 2 log bogies, 4 sets
 cart harness and 16 sets leading harness,
 complete; 4 miles timber tramway, stabling,
 large quantity grain and chaff bags, wheel-
 barrow.
 Sawmillers and others will please note this
 sale, as everything is in good order and to be
 sold without reserve, as the owners are leaving
 the district, the only reason for selling. Refreshments
 provided.
BULLENGAROOK. WEDNESDAY, FEBRUARY
7, at one o'clock.
J. H. Clark, auctioneer, Kyneton.



The LRRSA group inspects the tramway lowering gear. Photo: Terry Elliot



The Ruston & Hornsby 4wDM loco and flat car.

Photo: Terry Elliot

The LRRSA extends its thanks to Scott Gould for organising the tour, Andrew Swift for his entertaining contributions, and to AGL Hydro for access to their site and running the grader over the railhead track prior to the visit, making it easy to navigate with conventional vehicles.

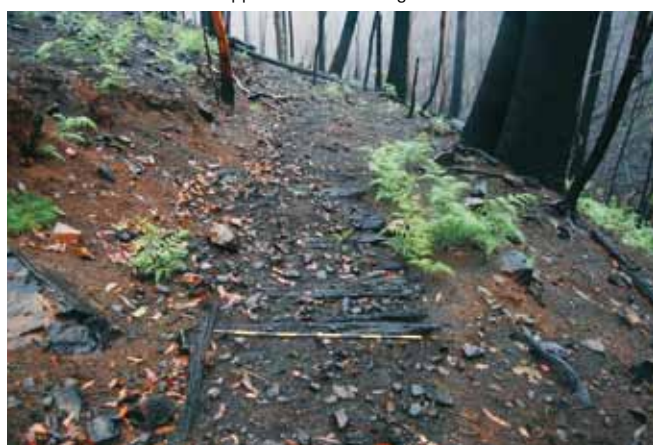
Simon Moorhead

Post-fire heritage survey

The LRRSA post-fire heritage survey has made a slow but positive start. Three teams have been established, one working at Mount Disappointment near Wandong, one working on the Black Range north of Kinglake, and one about to start on the Bunyip fire. An on-site training seminar has been held in sawmill mapping techniques, and the members of the teams are now able to turn out reasonably complete site plans. Many kilometres of tramway have been accurately mapped using the latest GPS and electronic mapping technology. Perhaps the most spectacular of these tramways has been a hitherto unmapped line

connecting the S Creek and Robbie's sawmills either side of the Black Range near Buxton. This tramway was built following the 1939 fires to take timber from the S Creek mill to the Buxton side of the Range. This tramway is one of the steepest non-cable worked lines seen by the writer and has, in parts, been carved out of solid rock on a very steep hillside. Not as spectacular, but just as interesting are the locomotive-worked log tramways of the Australian Seasoned Timber Company at Mount Disappointment. This Company was reputed to run the largest sawmilling operation in Australia in its day, and the fires are not only allowing the log tramways to be accurately mapped but the technology employed in its Comet sawmills to be recorded and compared. It is expected that site reports on the more interesting finds will be published in future editions of *Light Railways*.

If you would like to assist, please contact Peter Evans at peter@peterevans.com.au or Scott Gould at scott.gould@maincomelbourne.com



Remnant sleepers and wooden rail on the spectacular tramway leading down from the top of the Black Range to Robbie's mill. Photo: Peter Evans



Near the site of the former Comet Mill, LRRSA Treasurer Colin Harvey and LRRSA Secretary Phil Rickard record the finding of a length of 40lb/yd rail, with maker's mark CRAWSHAY. This is thought to relate to Crawshaw Brothers (Cyfarthfa) Limited, a Welsh steel works that operated between 1884 and 1902. Photo: Peter Evans

Lyre birds and bush tramways, VIC

Phil Rickard has also provided this delightful piece from *The Argus* (Melbourne) of 11 January 1918 in the column *Nature Notes and Queries* by regular contributor Donald MacDonald:

I happen to have, amongst many letters . . . one from H.P. Booth, of Britannia Creek.

One Sunday towards the end of the year, he and some friends were surprised to hear the screeching of the wooden bell brakes on the wheels of the sawmill trollies. Their curiosity was excited, because the mill trollies are rarely if ever

used on Sundays. Following up the track they found that the sound came from a fine lyre bird, which was amusing itself dancing and playing about a heap of sawdust. With a down grade in the locality, the bird no doubt heard the sound frequently. Anyone who has heard the weird noise of wooden brakes on heavy loads will know that it is not easily imitated. There is no doubt at all as to the lyre bird's power of mimicry being exceptional.

Another trap for light railway researchers checking the National Sound archive for the sounds of a bush timber tram with screeching bell brakes perhaps?

Coming Events

AUGUST 2009

1-2 Redwater Creek Steam Railway, Sheffield, TAS. Narrow gauge steam operations with train rides every half hour from 1100-1600. Also on the first weekend of each month. Information: www.redwater.org.au

1-2 Red Cliffs Historical Steam Railway, VIC. Narrow gauge train operations using Kerr Stuart steam and EM Baldwin diesel locomotives, 1100-1600 and the first weekend of following months. Enquiries: (03) 5024 1345.

9 Alexandra Timber Tramway, VIC. Narrow gauge steam train operations 1000-1545. Also diesel-hauled trains on 23 August. Information: Bryan 0407 509 380 or Peter 0407 537 837

SEPTEMBER 2009

12-13 Alexandra Timber Tramway, VIC. Market day with narrow gauge trains hauled by small petrol-powered locos on Saturday and steam-hauled trains on Sunday from 1000-1545. Also diesel-hauled trains on 27th. Information: Bryan 0407 509 380 or Peter 0407 537 837

19-20 Richmond Vale Railway, Kurri Kurri, NSW. Family Fun Fest from 10am with two steam locomotives and two former industrial diesel locos providing train rides each day and attractions for all to enjoy, including steam machinery, fair ground attractions and cafeteria. Phone (02) 4937 5344 or (02) 4358 0190.

20 Bennett Brook Railway, Whiteman Park, WA. *Friends of Thomas the Tank Engine* Day with unlimited narrow gauge train and vintage bus rides, live jazz from 0930-1630. Tickets \$15 per person. Bookings (08) 9534 3215.

OCTOBER 2009

4 Cobdogla Irrigation Museum, SA. Open Day with Humphrey pump and narrow gauge steam train operations. Also twilight train for Halloween on 31 October. Phone (08) 8588 2323.

10-11 Puffing Billy Railway, Emerald, VIC. *A Day Out with Thomas* - Thomas the Tank Engine Returns to Emerald Town Station. Also on 17-18 and 24-25 October. Bookings essential on (03) 9757 0700.

10-11 Alexandra Timber Tramway, VIC. Market day and Woodies Gala Saturday with steam-hauled narrow gauge both days 1000-1545. Also diesel-hauled trains on 25th. Information: Bryan 0407 509 380 or Peter 0407 537 837

17-18 Menangle Narrow Gauge Railway, NSW. Oil Steam & Kerosene Field Days with 610mm gauge railway operations, traction engines, steam rollers, stationary and portable engines of all types and operating machinery. Information 'Big Trev' phone 0417 215 513 or big-tev@bigpond.com

Note: Please send information on coming events to Bob McKillop - rfmckillop@bigpond.com - or the Editor, *Light Railways*, PO Box 674, St Ives NSW 2070. The deadline for the October issue is 28 August.



Heritage & Tourist

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

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

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

NEWS

Queensland

BUDERIM PALMWOOD HERITAGE TRAMWAY WALK

762mm gauge

Buderim-Palmwoods Heritage Tramway Inc.

Part of the 2km Buderim-Palmwoods Heritage Tramway walk was restored and the former tramway's 0-6-2T locomotive (Krauss 6854 of 1914, see LR 194, p. 27) was placed on display for the Buderim Big Bash on Sunday 21 June with the help of the Queensland Government's Q150 Community Funding. Buderim-Palmwoods Heritage Tramway Inc was granted \$5888 in Community Funding towards restoration and commemoration of the walking track and locomotive, including the placing of two bench seats along the track at 460m and 740m. The grant also covered interpretative heritage signage as well further work upgrading and beautifying the walking track. The restored locomotive was on display at the restoration site during the Buderim Big Bash giving visitors an opportunity to view it as part of a free bus tour. Media Release, Anna Bligh, Premier & Minister for the Arts, 20 June 2009, via John Browning

MACKAY REGIONAL COUNCIL, Mirani Museum

610mm gauge

Mackay Sugar's EM Baldwin 4wDM

ALLANDALE (4/473 3.63 of 1963) has been acquired by Mirani Museum and is currently stored behind the museum building. This was the first sugar mill locomotive of Baldwin's own design and so it is very fitting that it should be preserved. It was originally supplied to North Eton Mill.

Luke Horniblow 7/09

QUOIN ISLAND, Gladstone narrow gauge

A narrow gauge railway was constructed on this island situated in Gladstone Harbour, probably in the 1980s, to connect the wharf with the accommodation complex of a resort/conference centre. Not in commercial operation for about the last 10 years, the property was put up for sale by liquidators and has recently been sold. The locomotive and rolling stock, of around 2ft gauge, are still believed to be on site. The red 'steam outline' four-wheeled locomotive has a diesel engine with a hydraulic motor driving onto each axle. There are at least four four-wheeled carriages and a flat top baggage wagon. It is reported that the equipment may have come from Western Australia.

Colin Mead 7/09; John Browning 7/09

WORKSHOPS RAIL MUSEUM, Ipswich 1067mm gauge Queensland Museum

The Workshops Rail Museum will host an international railway heritage conference, *Opportunities and Challenges*, on 15-17 October 2009 for all interested in preserving rail heritage, both in Australia and

overseas. The event is linked with the Q150 steam train operations to celebrate Queensland's 150th anniversary. The conference will focus on three main themes:

- Environment: who are the environmental innovators and what can we learn from them?
 - Theatre of the Railway: what stories should be we telling?
 - Training & Regulation: how do we address training and staffing in an increasingly regulated environment?
 - Financial Stability & Economics.
- To register for the conference, please visit www.theworkshops.qm.qld.gov.au and complete the registration form.

WRM conference package

New South Wales

MENANGLE NARROW GAUGE RAILWAY

610mm gauge

Campbelltown Steam & Machinery Museum Inc.

The 'Oil, Steam & Kerosene' Field Days on 16-17 May 2009 saw trains operating on the MNGR track extension for the first time (see CRJ 196, pp. 30-31). Approval to operate trains on the extension was finally received from the NSW Independent Transport Safety and Reliability Regulator (ITSRR) on 15 May. This allowed passenger trains to be operated over the full length of track on both days with the ex-Corrimal Colliery 0-4-0WT (Hudswell Clarke 1423 of 1923) and the 'Red Simplex' 4wDM (Motor Rail 11023 of 1955) operating 'top and tail' with the two carriages.

Ray Graf, 06/09

ILLAWARRA TRAIN PARK,

Albion Park

610mm gauge

Illawarra Light Railway

Museum Society

The ILRMS continues to undertake works in preparation for celebrations to commemorate 30 years of passenger train operations at the Albion Park site (a report on this special event will feature in the October issue of LR). Recent activities include site preparation for the reinstatement of the bay road platform tracks and installation of display sidings placed around the Ken McCarthy museum building. On the locomotive front, the four operational steam locomotives have been in action over the last few months together with the operational diesel fleet. Former Kalamia Mill 4wDH IVANHOE (ComEng GA1042 of 1960) is expected to be available for service in its new livery by August, while work to restore the ex-Newbold Krauss-Leyland 4wPM to operating condition has begun. Successful discussions with Shell-harbour City Council, the Historical Aircraft Restoration Society (HARS) and other community groups have taken place on the construction of the ILRMS to HARS rail link that should see things moving on this project in the future.

Brad Johns, 07/09

Victoria

ALEXANDRA TIMBER

TRAMWAY

610mm gauge

Alexandra Timber Tramway & Museum Inc.

The last market of the season on



Peckett 0-4-0ST locomotives 1069 of 1905 and 1174 of 1908, both ex-Mt Morgan & Mt Isa Mines, stored in suburban Melbourne awaiting a new owner.
Photo: Peter Newett

Heritage & Tourist

Saturday 9 May was accompanied by clear skies and plenty of sun, with trains operated by the smaller petrol-powered locomotives. Of particular interest was a display staged by the Australian Blacksmith's Association (Victoria) as part of a memorial being created in remembrance of Black Saturday, 7 February 2009. The ABAV is inviting blacksmiths from across the country and around the world to help them create a tree from their forges and fires; creating gum leaves from stainless steel or copper to be added to a forged gumtree. This gumtree is to be erected in Strathewen as a memorial to Black Saturday, for the loss suffered and for the spirit of renewal.

Restoration work on the 0-6-0 Hudswell Clarke 1098 of 1915 is picking up pace, with new equalising beams being re-fitted to the locomotive frame on 24 May, together with the first of the springs. Volunteers have also been busy

replacing the rapidly deteriorating front facing at the southern end of the station platform in time for the coming Centenary celebrations on 24-25 October 2009. The existing wooden platform facing south of the concreted section was demolished on 17 May. Sections of old 60lb rail will be used as uprights to hold reinforced concrete slabs in place for the new facing.

Timberline 108, June 2009

JEFF DALY ESTATE, Melbourne

gauges various

Following the recent death of this Melbourne collector, his locomotives are being made available for purchase. They are housed on private property in the south-east metropolitan area and inspection is strictly by prior arrangement only.

Details are as follows:

610mm gauge

Porter 6465 of 1920 0-6-0T
ex Victorias Milling Co, Philippines

700mm gauge

Orenstein & Koppel 3770 of 1909
0-4-4-0WT

ex Kreet Bar Sugar Mill, Indonesia
(this Mallet articulated locomotive is capable of modification to 2ft gauge)

1067mm gauge

Peckett 1069 of 1905 0-4-0ST

ex Mt Morgan & Mt Isa Mines

Peckett 1174 of 1908 0-4-0ST

ex Mt Morgan & Mt Isa Mines

Serious enquiries only to Peter Newett
— phone 0418 370 129 — email:

Peter.Newett@optusnet.com.au

John Browning 7/09

PUFFING BILLY RAILWAY

762mm gauge

Good weather brought a turnaround in patronage figures for April and May, with the latter month recording the best May figures on the PBR since 1985. With good passenger numbers in June, the railway expects that patronage figures for the 2008-09 financial year will reach 250,000. The railway was successful in

obtaining funding to cover the February and March downturn.

Restoration of the Climax boiler has got to the stage of hydrostatic testing. An event organised by the Climax Restoration Committee to celebrate the 120th birthday of ex-Melbourne Gas Works 0-4-0T Decauville CARBON was postponed due to the unavailability of the 0-4-0ST SIR JOHN GRICE (Peckett 1711 of 1926), which entered the Belgrave workshops for much needed attention.

PBR Monthly News 432, July 2009

PUFFING BILLY STEAM MUSEUM, MENZIES CREEK

610/762mm gauge

Further to the report in LR 207 (pp. 38-39), in May 2009 the PBR decided

RICHMOND MAIN HERITAGE PARK, Kurri Kurri Richmond Vale Preservation Cooperative Society Ltd

1435mm gauge

Another member of the South Maitland Railways 10 Class 2-8-2T fleet, No. 19 (BP 5910/1915), arrived at the Richmond Main depot of the RVR on 12 May 2009. This locomotive was in a very run down condition when it returned to East Greta Junction on 29 November 1982 from a three year stint on the RVR and was scheduled for a major overhaul early in 1984. While stored waiting its overhaul, 19 was progressively stripped of usable parts to keep the other locos in service. With the end of steam working on the SMR, the overhaul did not eventuate and 19 was prepared for display at Port Waratah Coal Services (PWCS) extensive coal handling and ship loading facilities. It became a static display on the remaining short section of Gollins elevated concrete coal dump station along with non-air coal hopper wagons A1412, A1729, B1066 and brake van B4. In the early 1990s the area where 19 and the wagons were located was needed for expansion of the coal trade and they were moved to Kooragang Island Coal Loader area by road. Here the wagons were rebuilt and SMR 19 was given a cosmetic overhaul in 1994 under a relief scheme for the unemployed.

In 2004 PWCS called for Expressions of Interest for removal and care of the heritage items. They were initially offered to another high profile local group, which eventually could not take up the commitment, so the offer was transferred to the Richmond Vale Railway and Museum. Following talks with PWCS, Daracon Transport and Booms Crane Hire, Tuesday 12 May was selected for the move. The 63-tonne locomotive was picked up effortlessly from the track by two 100-tonne capacity cranes, swung round and lowered onto the waiting low loader. The brake van and wagons were then loaded onto a semi-trailer and the convoy proceeded to the Richmond Vale Railway. Brake van B4 was unloaded at the old Pelaw Main Loco Shed area before the other three coal wagons were deposited at the end of the Mulbring Road track. Then 19 was gently lifted and placed on the rails. Oil was poured over all moving parts and into the cylinders before the ex-BHP Bo-Bo DE 34 attempted to move it. At first the wheels would not move and it was thought that the cylinders were seized up as the loco had not turned a wheel since August 1983. The main culprit was the brake blocks, which had rusted to the wheels; and these were released by the gentle persuasion of a very large hammer. With DE 34 gently moving 19 backwards and forwards, the wheels started to rotate much to the relief of all concerned.

After several revolutions the old locomotive quietly followed 34 along the track and into the Richmond Main site.

Close inspection reveals that SMR 19 had suffered more than expected from the salt air at Port Waratah and Kooragang Island, as had the steel components of the non-air hopper wagons. The side tanks suffered the most and several buffers have large areas of rust on them. It is planned, when labour and finances allow, to prepare SMR 19 as a static exhibit in her original East Greta Coal Mining Companies colours and coding with modifications as necessary. The RVPCS expresses its thanks to Port Waratah Coal Services, Daracon Transport and Booms Cranes for the safe and successful movement of these historical items.

Graham Black



No. 19 is lowered onto the waiting low loader at Kooragang Island, 12 May 2009. Photo: Graham Black

Heritage & Tourist

to dispose of the 1067mm gauge rolling stock in the Menzies Creek museum collection to make space for additional 762mm gauge items. It was announced that an agreement had been reached with the Bellarine Peninsula Railway for ex-Fyansford Cement 2-6-0+0-6-2 Beyer Garratt 2 (BP 6935/1938) and 0-4-0T 11 (Perry Eng. 267/1926), together with the former Broken Hill Associated Smelters 0-6-0T *POZIERES* (AB 1543/1919), to be moved to the BPR base at Queenscliff. The museum will focus its resources on narrow gauge locomotives and rolling stock, together with the stationary steam plant, as these items have been found to be more practical for a core function of the museum as a training facility for people seeking a recognised qualification as boiler attendants and steam locomotive drivers. Bill Hanks and Frank Stamford, 05/09

STRINGYBARK EXPRESS MUSEUM & HERITAGE PARK, WAHGUNYAH

610mm gauge

GreenTrail Associates Group Inc.

This group operated a former Victorian Railways 8W-type bridge trolley over a 7km section of the former 1600mm gauge branch line between Wahgunyah and Rutherglen in north-east Victoria until around 2006. It recently announced that it will retain about a kilometre of track at Wahgunyah plus the former terminus layout. This will be regauged to 610mm gauge and extended to form a large loop and sidings with attendant facilities to provide a tramway type operation. A new station will be erected a short distance beyond the end of the line beside the Murray River with a run-around loop and shelter, providing a run of over a kilometre. We will provide reports from time to time on this new venture.

David Moyle, 05/09

Western Australia

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

As reported in LR 207 (p. 39), the workshop volunteer crews worked

through March and April getting the two steam locomotives—ex-South African Railways NG15 Class 2-8-2 123 (Anglo Franco Belge 2670 of 1951), and the 0-4-2T BT1 (Perry Eng. 8967.39.1 of 1939) — ready for the 2009 steam season. Both locomotives were test run over the length of the railway on Saturday 23 May and were found to be in good working order.

Their first challenge came on Sunday 24 May, the 2009 *Friends of Thomas the Tank Engine* (FOTTE) Day. The steam crews came on shed at 6am and commenced preparation of the steam locomotives for traffic and a 9am start, followed by crews preparing the diesel locomotives and passenger stock for the big day. Practically all the BBR rolling stock was pressed into service on the day, with BT1 and 0-6-0DM *ROSALIE* (John Fowler 4110019 of 1950) operating on the Mussel Pool line; NG 123 and 4wDM PW 27 (Gemco-Funkey 1963) on the Bushland Loop from Whiteman Village Junction (WVJ) to Zamia; while the diminutive 4wDH *ASHLEY* (Kless Eng.) and the ex-Lake View & Star 0-4-0DM *PLANET* No. 1 (Hibberd 2150 of 1938) operated between WVJ and on the Bushland Loop. Both steam trains were well patronised, but the 'little blue train' operated by *ASHLEY* and *PLANET* was the family favourite and it ran to capacity all day. The 'chatter' of the trains talking to each other, along with the added input of the Station Master and Sir Topham Hatt ('The Fat Controller') impressed the large crowd.

It is estimated that thousands of people, mainly families, attended the event and WALRPA thanks all those who came for supporting the railway on such a memorable day. The positive feedback from customers indicated appreciation for the collective efforts made by the many volunteers who had prepared the railway and its rolling stock for the day. Thanks are also extended to WALRPA's cooperative contractors, management and staff of Whiteman Park, and the other Park groups who also assisted in making the day a success.

The ex-Marian Mill 0-6-2T No.9 (Perry Eng. 2601.51.1 of 1951) formerly at Melaleuca Station in northern NSW (LR 205, pp. 28-29) arrived at the Bennett Brook Railway's Mussel Pool depot on 24 June 2008. After posing for photographs beside fellow Perry locomotive BT1 *BETTY THOMPSON*

(8967.39.1 of 1939), the new arrival was shunted into the loco shed by 0-4-0DM *PLANET* No. 1. WALRPA purchased the locomotive and two passenger carriages after much research to determine their condition and suitability for operation on the BBR.

BBR website News, 3 June 2009; Lindsay Watson 06/09

Overseas

WELSH HIGHLAND RAILWAY,

United Kingdom 597mm gauge 2009 has been a momentous year for the WHR. A gala occasion was the connection of the Ffestiniog and Welsh Highland Railways, which was celebrated by a large crowd of volunteers and supporters at Harbour Station on 28 February 2009, while the first through trains in the modern era ran between the Festiniog Railway and WHR on 12 March. In a stock transfer move heading for Dinas, Funkey bogie diesel *VALE OF FFESTINIOG* crossed Britannia Bridge light engine at 05.20, and then crossed again at 05.36, hauling brand new observation car 2100, Romanian carriage 2060 (both being delivered to run trials and enter service on the WHR), and FR carriage 111.

The WHR was formally reopened from Rhyd Ddu to Beddgelert on Tuesday 7 April 2009, before the resumption of regular public services the following day. The 'Special First Train' took invited guests from Caernarfon to Beddgelert, hauled double-headed by NGG16 Garratts 87 and 143. The day marked the launch of 87 into passenger service, together with new Pullman observation car 2100. *VALE OF FFESTINIOG* ran south light engine earlier in the morning to check the line, which led to the discovery of vandalism at Rhyd Ddu apparently intended to disrupt train operations. At Beddgelert, the assembled crowds heard speeches by Welsh Highland Railway Construction Chairman Mike Hart, Festiniog Railway Trust and Company Chairman Dr John Prideaux, and Lord Dafydd Ellis-Thomas, Presiding Officer of the National Assembly for Wales, marking the formal reopening to Beddgelert. The train was then packed out by local residents who had responded to an invitation to ride the 'First Passenger Train' from Beddgelert to Rhyd Ddu and back. Headed by Garratts 87 and 143, the two special trains for the fourth annual event for subscribers to the Phase 4 and New Trains Appeal on

16 May were the first ever narrow gauge passenger trains all the way from Caernarfon to Porthmadog, although signalling was not yet in place to allow passenger trains to proceed across the Cambrian. The WHR was officially reopened from Beddgelert to Hafod y Llyn on Thursday 21 May. Events included special trains for guests and local residents, and the first public train over the section, before the start of timetabled services on the 22nd.

Beyer Garratt 0-4-0+0-4-0 K1 entered Boston Lodge on 17 April for painting into Tasmanian Government Railways lined black livery. It emerged on 13 May gleaming in its new livery of gloss black lined out in red and gamboge (mustard yellow), ahead of the loco's centenary in August 2009 (*see cover this issue*).

WHR website news, 06/09

MANCHESTER MUSEUM OF SCIENCE AND INDUSTRY, UK

Various gauges

This museum, based at the world's oldest passenger railway station, the 1830 Liverpool Road Station, is hosting an event to mark the centenary of the first Beyer Garratt locomotive, the ex-Tasmanian Government Railways K1, now at the Welsh Highland Railway. 'Garratt 100' will be based around the museum's Transport Week from 8-16 August. The museum's own railway, which is connected to the main line, will be much in evidence during the week with its own working locos and hopefully a big main line steam locomotive coming in. The Garratt 100 activities seek to reunite former Beyer Peacock employees with their products, etc, and guided tours of the quite extensive remains of the BP Gorton Works are being planned, serviced from the museum by a vintage bus. Visitors to the event will include K1 and *WILLIAM FRANCIS*, the only surviving standard gauge Beyer-Garratt in the UK. A highlight will occur in 17 August when K1 will travel by road back to the WHR via Gorton to pose for photos in front of the boiler shop, 100 years to the day after it was steamed for the first time in the yard there. The museum houses amongst many things, the paperwork archive from the Beyer Peacock Works in Gorton and some of the Beyer Peacock locomotives, one of which is a 1930-built ex-South African Railways Garratt. Roderick Smith, 06/09; John Browning 06/09



Bennett Brook Railway: A busy scene at Whiteman Park Junction station during the FOTTE Day on 24 May with large crowds milling around the trains. □ Waiting for the train: a youthful enthusiast, complete with THOMAS shirt, at the FOTTE Day. Both photos Neil Blinco. □ 0-6-2T No.9 (Perry Eng. 2601.51.1 of 1951) formerly at Melaleuca Station in northern NSW poses at the Mussel Pool depot alongside fellow Perry Engineering product BETTY THOMPSON (8967.39.1 of 1939) and 0-4-ODM PLANET No. 1 (Hibberd 2150 of 1938) on 24 June 2009. Photo: Lindsay Watson





Big yellow bogie cane locomotives: □ Kalamia Mill's Walkers B-B DH JARVISFIELD (601 of 1969 rebuilt Tulk Goninan 1994) waits to cross Invicta Mill's Walkers B-B DH GIRU (593 of 1968 rebuilt Tulk Goninan 1994) hauling 100 new 6-tonne bins at Norham, 9 June. Photo: Luke Horniblow
 □ Newly rebuilt by N+P Site Boring at Brendale in Brisbane, Victoria Mill's EM Baldwin B-B DH 5423.1 9.74 of 1974, awaits loading for its return trip up north on 15 July. Photo: John Browning
 □ Victoria Mill's Walkers B-B DH HERBERT II (612 of 1969 rebuilt Walkers 1993) rolls into Goulburn, NSW, for collision damage repairs at the the United Goninan plant on 25 May. Photo: Leon Oberg

