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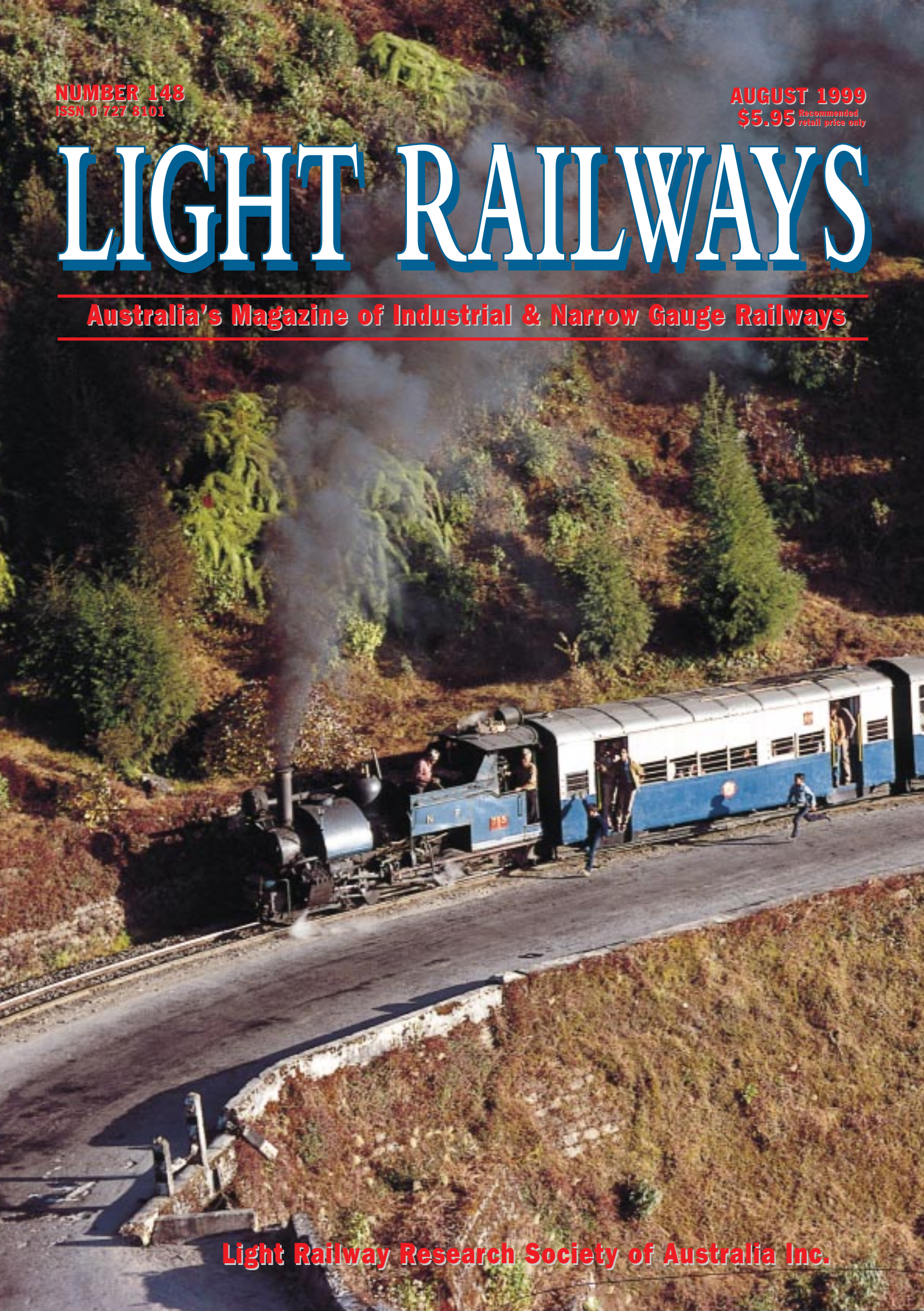
LIGHT RAILWAYS

Australia's Magazine of Industrial & Narrow Gauge Railways



Light Railway Research Society of Australia Inc.

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Australia's Magazine of Industrial and Narrow Gauge Railways

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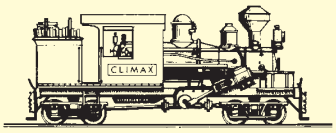

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Conversions:

1 inch (in)	25.40 millimetres
1 foot (ft)	0.30 metre
1 yard (yd)	0.91 metre
1 chain	20.11 metre
1 mile	1.60 kilometres
1 super foot	0.00236 cubic metre
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

Contents

Comment

Was there really a fifth locomotive at Joadja? Did Fowler build six Patent-drive 0-4-2Ts for Great Cobar Copper Mining, or only four? Was Aveling & Porter 953 of 1873 the 'mystery' locomotive at Charters Towers? And what *were* the identities of the two locos employed at Forster breakwater between 1900 and 1903?

These subjects are among several discussed in our Letters and Research pages this month, and represent just a fraction of the 'light railway' puzzles still waiting to be solved by the painstaking efforts of dedicated researchers.

New information is constantly being unearthed, shedding new light on old mysteries, and causing more than a few reappraisals of previously held beliefs. In fact, very few 'definitive histories' could be considered safe from revision.

If you enjoy a good murder mystery, you might enjoy the challenge of helping to solve a 'light railway' conundrum. Instead of discovering that the butler did it, you may find that the culprit was Andrew Barclay! *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 provision that the Society has the right to reprint, with acknowledgement, any material published in *Light Railways*, or include this material in other Society publications.

As noted in both our Heritage & Tourist and Letters pages, the Darjeeling Himalayan Railway Society (Australia) has now been formed to assist with international efforts ensuring the future of India's legendary 610mm gauge railway. In December 1983, Robert Kingsford-Smith paid one of his several visits to the line to date, recording on film what he describes as "the greatest light railway of them all". Several of Robert's shots have been used in the current submission for World Heritage Status. ***Front cover:*** *B class 0-4-0S&WT 785 (Sharp Stewart 4978 of 1903) hauls a passenger train along the roadside near Sonada. Patrons alighting 'on the run' is a typical feature of the line's operations.* ***Upper back cover:*** *794 (Baldwin 44914 of 1917), heading one of the increasingly infrequent goods trains, blankets the hills with coal smoke, as the Brakemen sit nonchalantly on the roof of the trailing van, taking in the view.* ***Lower back cover:*** *779* MOUNTAINEER *(Sharp Stewart 3882 of 1892) picks its way through the busy main street of Kurseong. The young man on the left has obviously seen it all before!*

By 10.00 am all is in readiness for opening. The Marshall portable engines (left), Buffalo Pitts traction engine (centre) and John Fowler steam locomotive (right) are all in steam. *Photo: Philip Thorn*

Gala Day at the Alexandra Timber Tramway and Museum 10 January 1999 One Volunteer's Perspective

by Peter Evans

Beep - Beep - Beep. My eyes slowly open and glare at that damned alarm clock. Yes, its 6.00 am and already the air is starting to warm as first light begins to rise over the hills east of Alexandra. Time to crawl out of my warm sleeping bag and begin to face the duties of Gala Day 1999. All over the Museum, bodies are similarly stirring. I rise and stretch, arms and shoulders feeling the strain of the tube-clean yesterday while the taste of soot lingers in my throat despite the cleansing ales at O'Brien's Mount Pleasant Hotel the night before. A quick wash in the icy-cold Alexandra water and I am soon wide awake and ready to start the day. First stop is the office to collect the staff for the main line and the folders of documentation for each of the locomotives. By the time I reach the goods shed a small team of volunteers has started to assemble. The fact that this is the best turn-up for years lightens my mood and the infectious chatter and laughter among the other volunteers raises my energy level.

After a few preliminary checks, Simplex 10058 of 1948 rumbles into life with a few turns of the crank. "Good, simple, reliable little locomotive" I muse as Ray Graf trundles the small green machine out of the goods shed and towards the main locomotive shed at the other side of the Museum. By the time he is there, the loco shed doors have already been swung open and the line is sanded in readiness for bringing John Fowler 11885 of 1909 into service for the day. Chris Holmes and Rowan Millard check the cylinder drains are open and release the brakes. With a sudden cloud of black smoke erupting from the exhaust, the Simplex eases thirteen tons of Fowler out of the shed.

Today, there is almost an embarrassment of volunteers. Instead of methodically plodding through the tasks one-by-one by myself, many hands speed the work. The water level in the boiler is checked, a light fire is lit, water tanks are checked for level, topped up and the correct amount of treatment is added. In no time the locomotive is oiled by Rowan while John Olsen and Ray top up the bunker with fuel. Chris cranks the 1940 Day's rail tractor into life and it waddles out of the shed to take its display position on the log tramway. The Simplex hauls Kelly and Lewis 1472 of 1935 out of the shed before trundling back to its own appointed position near the goods shed.

By 7.00 am preparatory work on the steam loco is well underway and most of the team departs to attend to the portable engines, leaving Ray, John and myself to see the loco into steam. This is the best part of the morning - while the sun now has a steady sting it is still not hot, and I relax, listening to the fire and the various creaks and groans as the boiler begins to warm through and expands in its runners. Soon I can hear a steady low sound indicating the water is now boiling. Half an hour later and a wisp of steam is issuing from an open valve on the turret. This is closed and we have a pressure vessel. Before long the pressure gauge starts to climb, the blower goes on and, after testing the cock, the boiler is blown down for ten or fifteen seconds, one eye on the water gauge to check the level. With the blower on, the work of feeding the ever more voracious fire begins in earnest. The tube-clean has done wonders and the boiler seems to be steaming well. Rowan appears to collect oil and treatment for the portable engines and I decide it is time to check the track we will be operating today. On my way around the circuit

Bryan Slader eases the Fowler and its train over the road crossing on the western side of the Museum grounds. Photo: Chris Holmes

I can see the whole Museum is now alive with activity. Stall-holders are setting up tents, the woodworkers setting up their lathes and displays, and the Yarra Valley Machinery Club is unloading vintage engines and lining them up in their appointed enclosure.

Bryan Slader and Phil Thorn already have a fire in the Buffalo Pitts traction engine and Phil is bolting up of the last of the fittings, a job begun by Maxine Murray and himself the day before. Bryan is just back from England and Phil has been up late, and both look tired and short on sleep. Nevertheless, both are going about their job with good humour and a steady supply of light-hearted banter. Maxine is Duty Officer today and bustles about the Museum checking on progress and issuing and collecting the paperwork necessary as part of our operation as an accredited tourist railway. Brett Evans and Ben Olsen have claimed the smaller Marshall portable and the Bartram vertical boiler as their special responsibilities and already have steam showing on the gauges and are completing oiling around the engines. Chris and Rowan have finished filling the boiler of the larger Marshall portable and have a light fire going. With this part of the display progressing well, a few volunteers can move on to preparing the passenger car set for the day. The staff is issued to the Malcolm Moore and the car set is hauled over the inspection pit a bogie at a time. Running gear is checked, axle boxes topped up, drawbars and pins tested and chain shackles tightened. With all in readiness and the paperwork completed, the set is positioned on the main line. By now Jim Jaworski and Peter Medlin have arrived from Melbourne and are preparing to take up the duties of signalman and guard respectively. It is now approaching 9.30 am and we have all made good progress with our assigned tasks. The day is going well.

After my short tour of the track I return to the Fowler locomotive. When the pressure is 50 psi I warm the engines through, test the safety valves to check that they are free on their seats, and tidy the footplate. The staff is delivered to me, and with a gentle "toot" (so as not to wake our neighbours trying to sleep-in!), I ease the locomotive off the light rails of the siding and on to the main line. With the points reset, I can now reverse the locomotive around the loop to the station to couple up to the car set. This is another of the most enjoyable parts of the day. With the locomotive sure-footed on the heavy rails of the main line, the magpies greeting the day with their pleasant song, and a sense of achievement in having once again coaxed thirteen tons of ninety year-old machinery back into life, I can lean contentedly on the rear railing of the cab as the loco rumbles quietly on its way.

By 10.00 am we are officially open for business. Hans Schonekas has delivered the sausages, onions and bread, Jack Stock and Doug Lister have put out the signs, and Graeme Lister has attended to the displays in the various rooms of the Museum. Kevin De La Pierre has swept out the carriages ready for passengers, and Lynne Barkly and Penny Slader are already selling refreshments as visitors begin to pour onto the site. All the portable steam engines and the traction engine are now turning over and the Yarra Valley Machinery Club members are cranking their engines into life.

The day soon settles into routine running. By now the sun is shining fiercely at the height of an Alexandra summer - sixty years ago on this day the Rubicon Forest was devastated by the worst bush fires in living memory and twelve men died. Normally, even on a mild day your overalls hang from your shoulders limp with sweat when you are on the footplate only inches from the boiler. Today, even that is baked away in an instant and I make a mental note to keep up my electrolyte intake. Bryan has approved the use of the track extension along the old tramway formation so long as we keep a constant look out for fires. The guard carries a knapsack spray and an extinguisher just in case - one more task which requires his vigilance to ensure safe operation. Jim and Chris Jaworski take turns at operating the main line points and protecting the road crossing with red flags - theirs is one of the worst jobs - long periods of waiting for the train to depart and only minimal shade to which to retreat between runs. Ray Graf and John Olsen alternate as firemen, each clocking up the hours toward their steam tickets. At lunchtime, Bryan Slader becomes relief driver and I take the opportunity to wander around the site, sitting in the shade with the lads at the portable engines and taking the time to inspect the Yarra Valley Club's engines, while Maxine and Crystal endure the heat of the barbecue serving up lunch to our visitors. All too soon it is back to the Fowler and Bryan returns to the traction engine with Phil. There is now nowhere to escape the fierce heat of the day - I notice even the visitors are taking a zigzag line from patch of shade to patch of shade instead of taking a direct line to the exhibit of their choice. At 3.30 pm "last train" is called and at 3.45 we begin the arduous task of running the first four hours of the day in reverse as each of the engines is shut-down and got ready to be put away. The only difference is we have now all been on our feet for nine hours and, if anything, the day is hotter than ever. Around 5.00 pm the last of the engines is back in the shed and those tasks that can be put off till tomorrow have been left to the cool of the following morning.

A small group of tired but happy volunteers gathers in the shade of the Ruoak shed and recounts the happenings of the day. Gala Day 1999 has been a financial success, there have been no untoward incidents, and all our customers seem satisfied. Maxine has collected all the paperwork, filed it ready for computer entry and locked the office.

Another Gala day is over, the crew says its goodbyes and gradually disperses. Soon the Museum is deserted save for a few hot and grumpy magpies making the best they can of discarded pieces of sausage and bread as the sun slowly sinks in the west.

Narrow Gauge and Industrial Railway Tunnels in Queensland

Brian Webber

In my book, *Railway Tunnels in Queensland*, I detailed the three tunnels on non-QR railways in the state. Two remain, near Canungra and in the Cloncurry district, while the third was at Mount Morgan mine. The Mount Morgan tunnel has been obliterated by mining activity and is therefore not dealt with in this article. Since publication of this book, a new 270m long tunnel was opened in 1998 under the Brinsmead-Kamerunga Road to the north-west of Cairns on the 610mm gauge Mulgrave sugar mill system. (See LR 142 p.23).

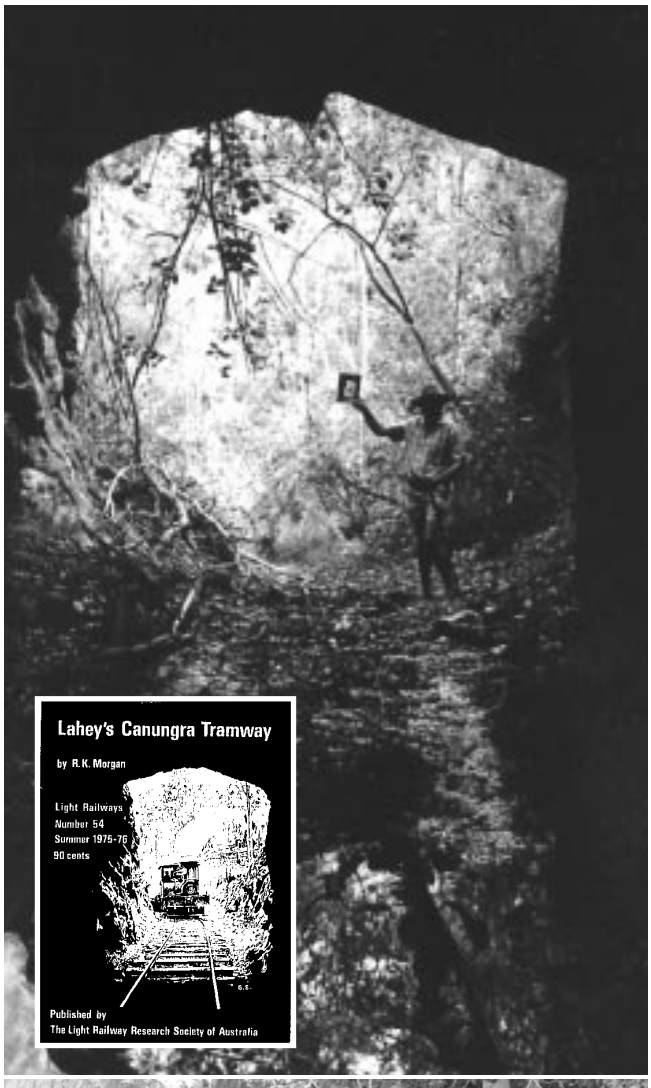
The railways through the two remaining tunnels covered in the book have long since closed, but both remain and can be seen if the visitor knows where to look.

The 4½ chain Canungra tunnel is about 1km east of the township on the route of the former Lahey Brothers' timber tramway which existed from 1901 to about 1930. Shay and Climax locomotives worked through the tunnel when the 3ft 6in gauge tramway was operating. The tunnel, which was featured on the front page of LR 54, is completely unlined. It remains in good condition today.

The "Cloncurry tunnel" is in Ballara district, about 50km south-west of Cloncurry township. It was required by the 2ft gauge Wee Macgregor tramway, which operated from 1915 to 1921. The tramway connected the mine to a private branch provided from QR's Ballara Junction (now Devencourt) to Ballara. This 4 chain tunnel has concrete portals, but is unlined between the portals. The writer visited the tunnel in 1976 and drove a 4WD utility through it.

References: Kerr, Ruth, article on the Wee Macgregor Tramway's involvement in the education of schoolchildren, *Queensland Heritage*, Vol. 3, No. 5, November 1976; Morgan, RF, "Lahey's Canungra Tramway", *Light Railways* No. 54, Summer 1975; Webber, BJ, *Railway Tunnels of Queensland*, Brisbane, ARHS (Queensland Division). Enquiries to GPO Box 682, Brisbane 4001.

Clockwise from top: *Canungra tunnel: Ken Webber holds up a copy of* Light Railways *No.54 at the southern entrance, the same position as in the cover illustration (see inset).* ❑ *Cloncurry tunnel (Wee Macgregor tramway): The portal at the Ballara end.* ❑ *The far end portal. The earthworks are surprisingly heavy for a tramway of this kind.* ❑ *A 4WD vehicle stands in the entrance. Note that only the portals are lined. All photos: Brian Webber*



North Eton Mill's Hudswell Clarke No.1 (496 of 1898) was built as an 0-6-0ST with a long wheelbase to fit the third axle behind the firebox. Could this have contributed to the broken axle which has brought it to grief? Photo: John Browning collection courtesy Ron Swindells

Four and Six-Coupled on Sugar Mill Tramways

John Knowles

In his article in *Light Railways* 141, Bruce Belbin raises interesting questions about this subject. He says that those who ordered locomotives for government owned or sponsored mills believed that, for a slight loss of adhesive power in an 0-4-2T, the advantages of a trailing truck gave an engine which was easier on the track, able to take sharper curves, rode better and ran faster, especially when running in reverse delivering empties.

It has always surprised me that so many 0-4-2T locomotives were built for Queensland sugar mills: consider the rosters of Tully, South Johnstone, Mourilyan, Babinda, Inkerman, Plane Creek and Pleystowe. And that is for engines which could have been 0-6-0T or 0-6-2T, disregarding the small 0-4-0T type.

It cannot have been that the 0-4-2T engines were ordered first and regretted later, because except for Tully they were ordered over a long period. On the other hand, many six coupled engines were ordered by other mills (some 0-6-2Ts), again over extended periods, while CSR clearly favoured six coupled. It is specially interesting that Tully, owner of five Fowler 0-4-2Ts from prewar, obtained two Perry 0-6-2Ts postwar.

Generally, both four and six coupled engines on the 2ft gauge had the firebox behind the rear coupled wheels, even 0-6-0Ts, allowing a grate wider than the distance between the frames. That in turn allowed easy dumping of ash, and entry of underfire air. (A notable exception were the Hunslet 4-6-0Ts, which had a grate between the frames, and the frames themselves between the wheels.)

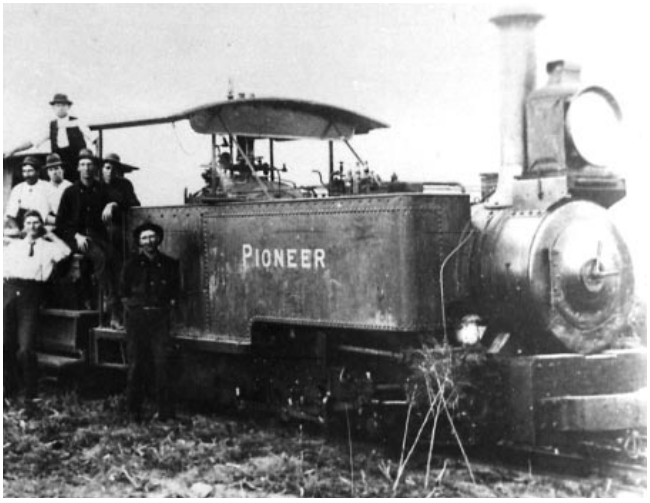
Generally, too, even the largest 0-6-0Ts had short rigid wheelbases, and took sharp curves happily. Although there were sharp curves on the mill lines, they were not especially numerous.

There was no reason why coupled wheels could not be the same diameter on both four and six coupled types, so that both could run at the same speed for the same cylinder efficiency and mechanical wear and tear. Both types had such wheels of 24 to 28 inches diameter on both 0-4-2T and 0-6-2T types.

A rear truck, with some control over its sideways movement (centering springs or swing links, the latter shown in the Perry plan in *Light Railways* 141), would have steadied the rear end and improved the ride, but there were rear trucks on both four and six-coupled types. Very little vertical springing was possible on such trucks, and little effect of it felt in the cab. In any case, the rear end still swung around to the extent of the overhang from the rear coupled axle; the side control of on the rear truck simply dampened the severity of the swing.

Easier on the track? Hard to say. Both types had, or could have had, compensated springing, but it remains unproved that compensated springing helped the track. Had the six coupled types been harder individually on the track, that might have been balanced overall by the heavier loads they hauled through greater adhesion. Or they might have been easier on the track because they could obtain all the adhesion needed for the output of their boilers and cylinders with lighter axle loads.

The lower adhesion of an 0-4-2T compared with an otherwise identical (except for wheel spacings) 0-6-0T could be expected to have considerable consequences for the load



The John Fowler 0-6-0T design dominated the mill fleets at the turn of the century. Mossman Mill's PIONEER *(8047 of 1899). Photo: John Browning collection*

the engine could haul. Generally, effective tractive effort cannot exceed a quarter of the weight on the coupled wheels. In the presence of cane trash, and perhaps for light axle loads in any case, perhaps one fifth might be the best that could be achieved. And for a cane tramway, the ability to haul the greatest possible load towards the mill would be expected to dominate everything else - speed with empties, crew ride,

Hudswell Clarke captured the CSR market with their 0-6-0 tender locomotive. Gin Gin Mill's 7 (1098 of 1915) had originally been delivered to the nearby Childers Mill and is here running onto Boundary Creek bridge with empties as it travels the regauged QGR branch to the east of Wallaville in the 1960s Photo: Brian Webber

effect on track - to the extent that these were measurable effects in any case. (To say that Mourilyan number 7 was used on empty hauls seems odd - that means it would have returned light from taking out empties, and another loco would have had to go out light to bring in the fulls. If the latter was going out light, it would not have been much of a burden to take out the empties, and overall crew and locomotive running costs would have been less.)

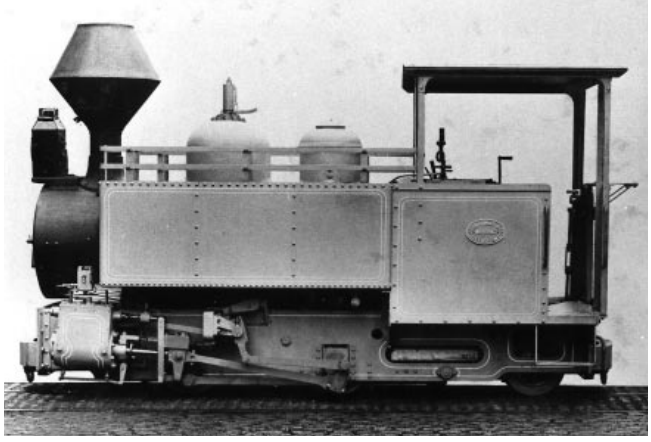
I have no figures for the weight distribution across the axles of any Queensland mill engines. I should expect from the axle locations that an 0-4-2T would have had at most about 75% of the adhesive weight of an 'identical' (in the sense above) 0-6-0T, but might well have had the same as that of an 'identical' 0-6-2T. (This 'guessing' allows for a loco of 15 tons, with the rear truck carrying three tons where used; differences in weight from the number of axles are ignored.)

From what is known about the weights of the various engines, it is hard to see that the choice between four and six coupled could have been influenced by track or bridge loadings.

I can think of only two reasons why the four coupled might have been preferred. The first is that on inclines of any length the steaming capacity of the boiler was the main constraint, and that capacity could be made into effective tractive effort through four coupled wheels; ie there was no need for six. The second is that even if there was a sacrifice in absolute haulage ability, the four coupled engines had sufficient haulage ability for the loads offering at the mills which bought them, prior to about 1940. In both cases, there would have been some saving in initial purchase costs and maintenance cost in a four coupled engine compared with a six coupled, although that cannot have been great in the total costs of cane haulage.

Moreton Mill's John Fowler 0-6-0T EUDLO *(16207 of 1925) was an exception to the rule, a tank locomotive without a trailing axle built in the inter-war years. Here it heads cab first along Howard Street towards the mill in August 1961. Photo: Brian Webber*

The several histories of the sugar mills have paid little attention to the technicalities of the tramway systems. Do records exist saying why the engineers and/or managers at the various mills preferred particular sizes, wheel arrangements and weights for locomotives? Further accounts of experience on the road, and of traffic originating on various lines, especially at mills with both four and six coupled engines, would be of great historical value.



Mossman Mill's John Fowler 0-4-2T IVY *(15947 of 1922) was powerful for its size but reputedly a rough rider. Photo: Rural History Centre, University of Reading*

and some further thoughts...

John Browning

Bruce McDonald and Gerry Verhoeven have put their heads together and comment that while an 0-4-2T was kinder than an 0-6-0T while running in reverse, it was much more difficult to rerail following a mishap, and certainly had less of its weight available for adhesion. They suggest that as the government-sponsored mills had a propensity for 0-4-2T locomotives, the issue might be one of culture, with technical thought of a certain kind dominant among the consulting engineers used by government and perhaps some private milling companies.

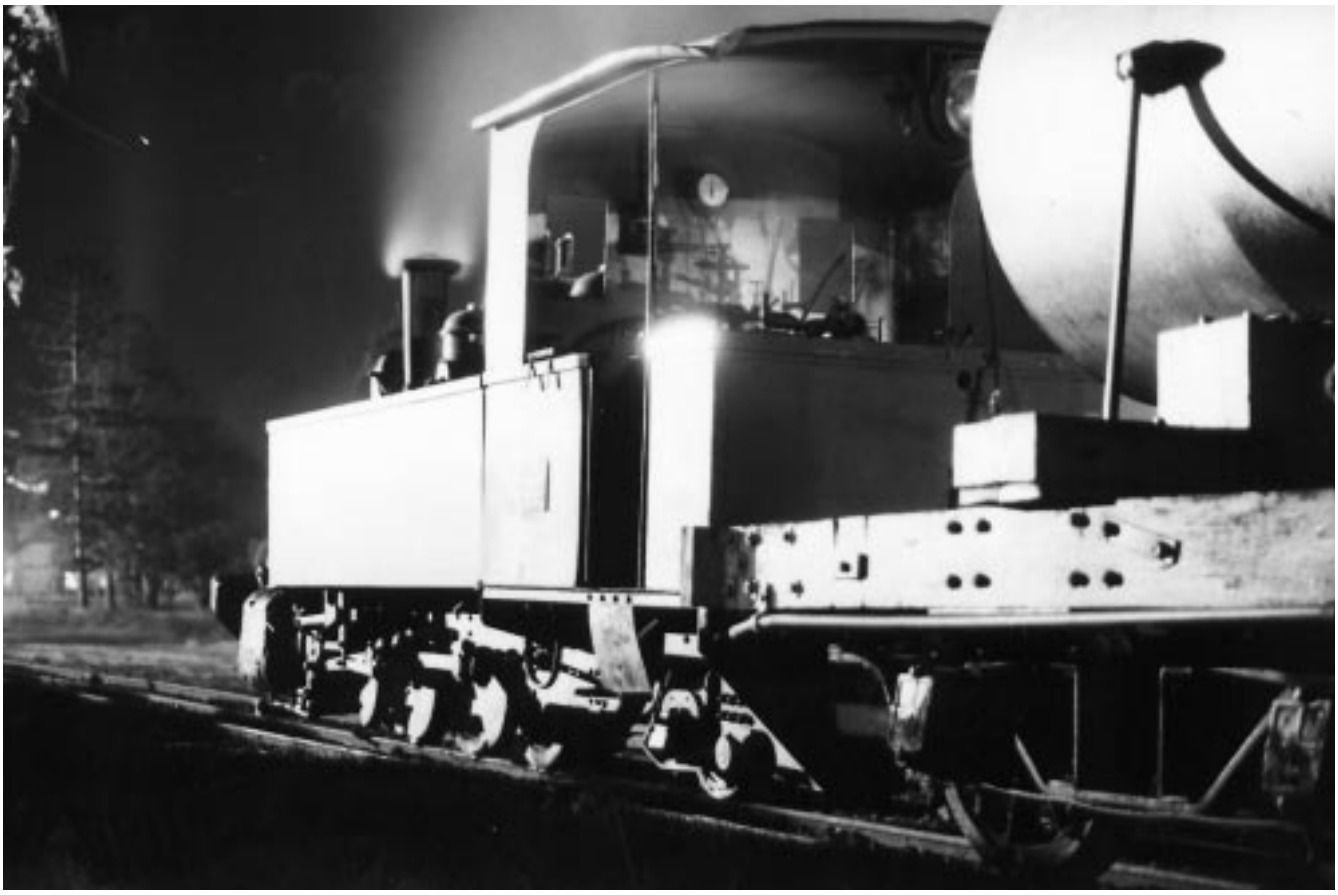
Mike Loveday points out that the tendency is for the weight of a locomotive to be thrown away from the direction of travel. Photographs of Moreton Mill locomotives often show them running bunker first up Howard Street with loaded trucks to the mill, but many other mills seem to have made a usual practice of running smokebox first with the load, and in reverse with empty trucks. On the mill and Shire lines around Mossman there were many turning angles, and locomotives were normally turned to run smokebox first on every occasion.

Mike points out that the 1923 Fowler 0-6-0T design with 8½in x 12in cylinders and 24 inch driving wheels and independent suspension (*WEMBLEY* at Mossman Mill, *COOLUM* and *EUDLO* at Moreton Mill) rode remarkably well at high speed, while a contemporary 0-4-2T locomotive with the same cylinder and driving wheel dimensions, and with independent suspension, (*IVY* at Mossman Mill) had very poor dynamic balance, giving a boneshaking ride. However, other larger Fowler 0-4-2T locomotives with 9½in x 12in cylinders and 28 inch driving wheels were a joy to drive at Mossman, Mulgrave, Mourilyan and South Johnstone.

One could have been forgiven thinking that with the delivery of Baldwin 2-6-2T FELIN-HEN *(46828 of 1917) to Fairymead Mill in 1940, a particularly suitable wheel arrangement for the sugar industry had been found. This did not prove to be the case, and in 1956 the front pony truck was chopped off.*

Photo: courtesy Jim Longworth

In relation to the Perry 0-4-2T at Mourilyan being used mainly for the haulage of empties, I do not know. However, it is interesting to note that when I visited Fiji in 1994, the practice was for locomotives to run out with empties at the start of the day, and to make a further foray for loaded trucks some considerable time later, resulting in extended periods of idleness as can be imagined. This seems likely to be a



The postwar Perry and Bundaberg Foundry locomotives were mostly of the 0-6-2T design. Here Marian Mill's Perry (2601.51.1 of 1951) rests on dual gauge track at the mill while QR molasses bombs are loaded in the early 1970s. *Photo: Brian Webber*

throwback to earlier industry practices when labour was relatively plentiful and therefore cheap and rolling stock expensive and thus in short supply. Remember that whole stalk cane does not require to be crushed within a few hours as is the case for chopped cane, so a more leisurely pace of transit to the mill was far more acceptable in days gone by (and remains so in Fiji today).

In 1927, Racecourse Mill wanted a suitable engine to haul cane over the newly-built connecting link from the former CSR Homebush Mill tramway, and they received a Fowler 0-4-2 (17683 of 1927 with tender 17684). *Photo: Brian Webber*

A recent article in the *Industrial Railway Record* [1] points out that as gauge decreases, the maximum possible speed drops considerably. Stability at speed is important and carrying wheels are useful in increasing stability, allowing a reasonable speed on poor track and faster speeds on good track. The effectiveness of the suspension used is also a very important factor in this equation. Running in reverse with the trailing truck leading may have reduced the punishment on the track when travelling fast with empty cane trucks. The CSR 0-6-0 locomotives also ran in reverse with empties, and in this case the tender probably helped guide the locomotive into the curves.

From the earliest days of cane tramways, locomotives with trailing axles were used, with a number of four-coupled and six-coupled types by British, American and European builders in evidence over the years. In 1893, Fowler settled on an 0-6-0T design which dominated the market for almost 15 years.

However, a survey of types shows that after the introduction of the 0-6-2T by CSR in 1907, Fowler supplied very few of the larger types of cane locomotives without a trailing axle, with the exceptions including *WEMBLEY*, *COOLUM* and *EUDLO*, and a number for the QGR's Innisfail Tramway.

CSR obtained a couple of Hudswell Clarke 0-6-0T locomotives in 1911 and when demanding a more powerful 0-6-0 tender type from Fowler at the same time, found them very reluctant to oblige. Instead, Fowler supplied 0-6-2 locomotives (which soon had their trailing axles amputated) and it was Hudswell Clarke who successfully took over the CSR business with their very well known 0-6-0 tender type introduced in 1912.

I believe that after 1911, the concept of the trailing axle for tank locomotives was almost universal among sugar mills. The choice between 0-4-2T or 0-6-2T probably related to overall size, weight and haulage power as well as to the maximum desirable rigid wheelbase length. It seems to me that most 0-4-2T locomotives were smaller than most 0-6-2T locomotives. In either type, the trailing axle was probably kinder to track and allowed a better balanced locomotive by enabling an axle to be placed behind the firebox, even if adhesive weight was thereby reduced. The introduction of rigid-framed 0-6-0 diesel locomotives in the 1950s certainly had very serious adverse effects upon track, and mills were forced to upgrade standards to accommodate them.

The advantages of the bogie diesel locomotive, once accepted, were soon seized upon, but the innate conservatism of the sugar industry has been evident throughout the diesel era and no doubt was a very significant factor during that of steam also.

1 Harper, R 'Some Aspects of Industrial Locomotive Design' in *Industrial Railway Record* 157, June 1999.

Where is it?

This old photograph, submitted by Stuart and Toni Livesey, was found within the papers of a Deceased Estate, processed in 1998, and our 'resident experts' have so far not been able to identify either the locomotive, or its location.

The photo shows a proud crew posing with their charge; an industrial 0-6-0ST with inside cylinders, and probably of British manufacture.

Obvious clues to the locomotive's origin include the oval builder's plate, and the style of cab, saddle-tank and chimney. Clues to the location include what can be seen in the background, plus the unusual drawgear arrangement.

Does anyone have any thoughts? We eagerly await your comments.

Railways of the Smithfield Explosives Compound, South Australia

by Arnold Lockyer

On 14 March 1997, LRRSA members were treated to a special tour of the compound (believed to be the first such tour ever). Here, the special train pauses for a 'photo stop'. Photo: Arnold Lockyer

Background

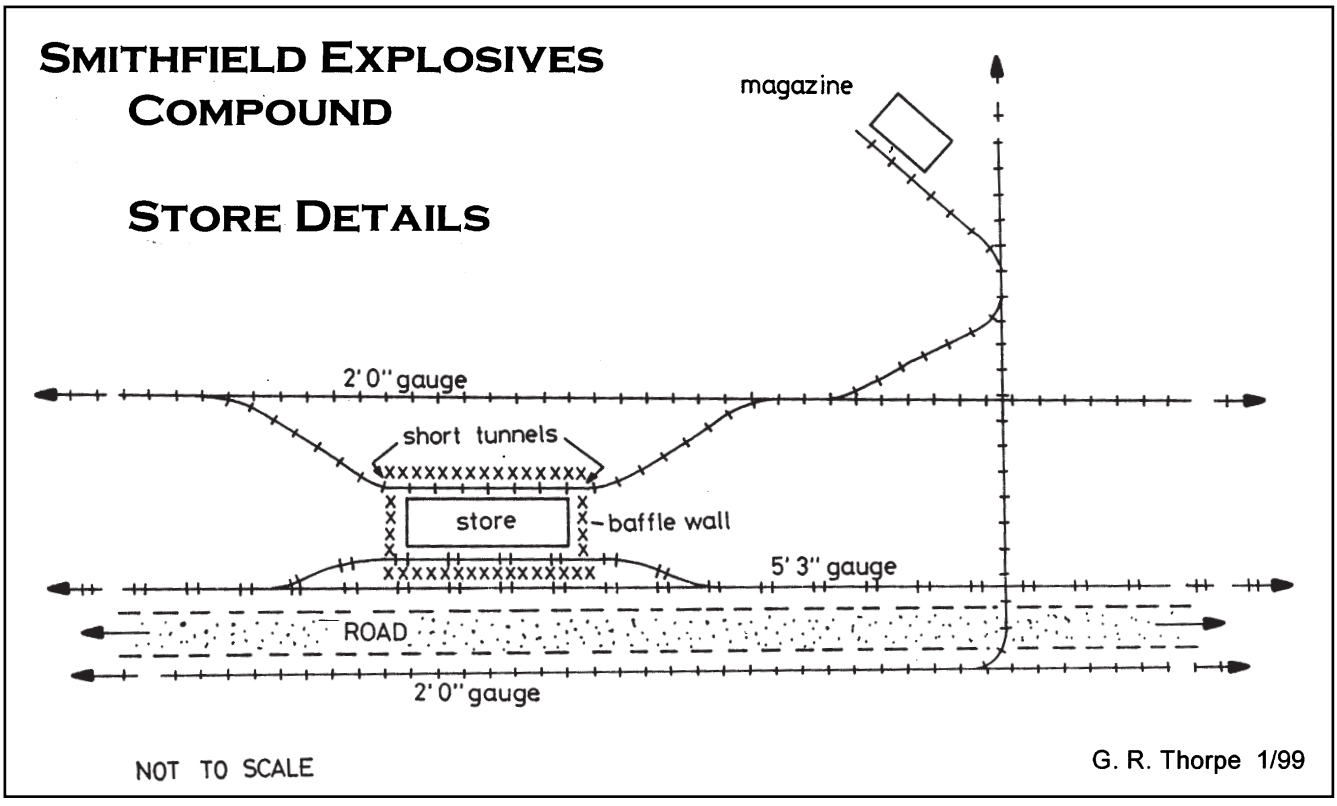
In 1941, during World War II, the Commonwealth Government decided to establish an explosives magazine compound north of Adelaide at Smithfield. Smithfield was probably chosen because at that time it was a wide open space, near the munitions factories in the Salisbury/Penfield area. The compound was served by a government 5ft 3in gauge railway branch and also was provided with an extensive internal narrow gauge railway system.

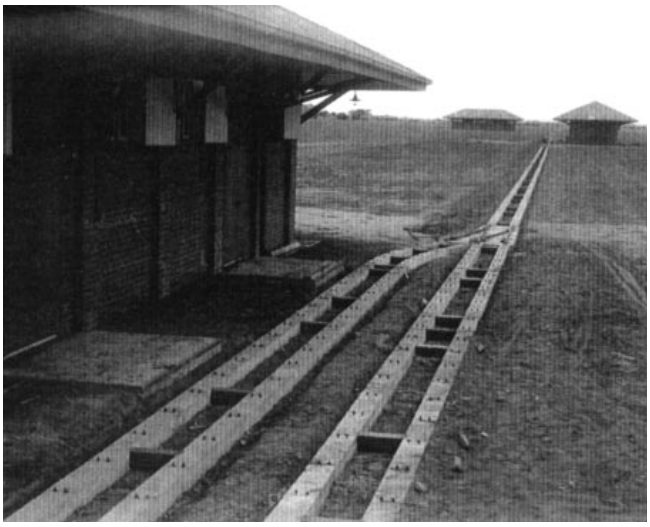
The broad gauge branch connection and internal railway

To service the compound, the South Australian Railways laid a single line siding from the yard at Smithfield railway station on the Main North line to the compound, a distance of approximately 1 mile 65 chains.[1] At the south (Adelaide) end of the yard, the line curved off the siding that ran to the Army Ordnance Stores, then ran straight down what is now Davoreen Road in a westerly direction and crossed Andrews Road. The boundary of the compound ran along the western side of Andrews Road and the line entered the compound through a gate. Just before Andrews Road there was a passing siding, 961 feet between switches, to allow locomotives to run around their trains. Once inside the compound, the line continued in a straight line for approximately 76 chains, with four passing loop sidings.

Just inside the entrance gate was the first loop siding, 455 feet long, on the right hand side. This serviced the first of the stores used to transfer material between the internal narrow gauge railway and the broad gauge. It handled the less dangerous material and was not surrounded by a bund wall. On the plan "Layout of the Marshalling Area and Running Sheds" it is marked as "Unloading Sheds". This plan also shows the track layout of both gauges in the vicinity. Beyond this (357 feet further on) was the first of three 910-foot loop sidings on the left hand side of the line, serving the three "bunded" stores. Each of these stores was surrounded by structures to mitigate the effect of any accidental explosion which might take place inside. The distance between the first and second sidings was 410 feet and between the second and third, 616 feet.[2]

There is no record of when the first train passed over the line, but SAR Weekly Notice 49/41 contains instructions to train crews shunting to and from the Magazine Area, operating from 8 December 1941. It is also not known when the line officially closed and was lifted, but after regular traffic ceased the ARHS (SA Division) ran a special train, believed





The concrete track foundation has been poured and is ready for the rails to be laid. The various angles of the magazines can be seen, c.May 1941. Photo: Engineering & Water Supply Department.

to be the last to use the line, part of the way to the compound on 17 September 1967. This train was en route to Hamley Bridge and the Train Notice instructed the crew to push back a short distance along the Munitions Siding to the Hostel access road, stop to allow passengers to alight for a photo stop, *then push back a further 150 yards (if possible).*[3]

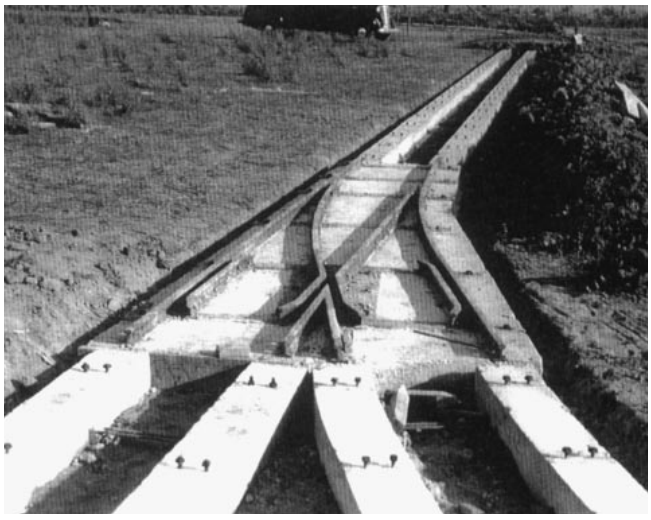
Loco and wagon sheds with both foundation casting and track laying in view, May 1941 Photo: Engineering & Water Supply Department

The narrow gauge internal railway

It was decided that within the compound, the transport of the explosives material would be by a narrow (2ft) gauge railway. The only roadway was from the entrance gate to approximately 570 feet beyond the furthest store, at the end of the broad gauge railway. This road was flanked on the left by the broad gauge line and on the right by a 2ft gauge line, which continued in a straight line across the compound. The road was probably constructed to enable the broad gauge railway trucks to be propelled by a tractor or similar vehicle because from 14 December 1942, steam locomotives were not permitted to *pass the gate at the entrance to the Magazine Area*, Smithfield.[4]

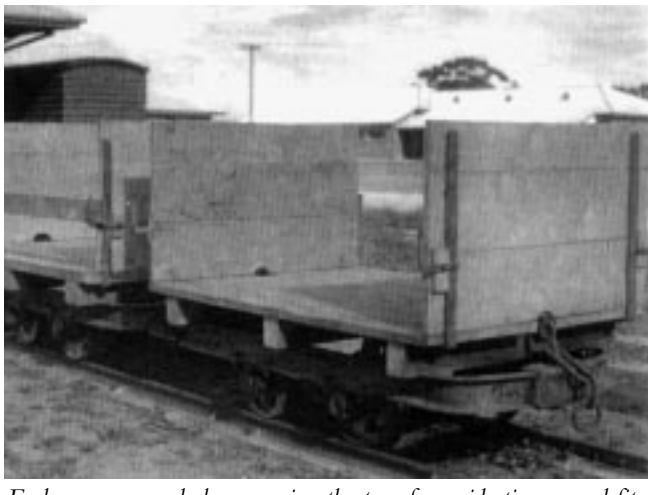
The laying of the 2ft gauge track was undertaken by the Engineering & Water Supply Department of the South Australian Government. Mr Gilbert Poole of the Department was the Resident Engineer for the project, whilst the Officer in Charge of the work was Mr Noel Gent and the General Foreman Mr Michael Tuohy. Credit for the outstanding success of the project being completed in record time was attributed by Mr Poole to Mr Gent *whose ability as a railway surveyor and engineer was of inestimable value,* and to Mr Tuohy *whose thirty years experience handling men with a kid glove and over twenty years (experience) of light railways on construction works enabled the project to be enthusiastically carried out by the labour force.* Notable is the fact that, notwithstanding the substantial nature of the track construction, the average rate of tracklaying was 1250 feet per day.[5]

Because of the nature of the material to be transported, great care was taken in the design of the track and rolling stock. Rails were laid on two parallel concrete foundation strips, nine inches across and six inches deep, poured with reinforced concrete spacers six inches wide and six inches deep at intervals of about six feet. Points were all prefabricated to the one design, and were laid on a concrete base as thick



Track laying in progress showing a set of points being laid. Note the securing bolts set into the concrete when poured, c.May 1941. Photo: Engineering & Water Supply Department

as the track foundation. This base extended from just beyond the point blades to the frog and check rails. Points and rails were attached to the foundations by bolts set into the concrete when it was poured.[6] A strip of "malthoid" - a felt / tar material - was laid between the rails and the foundation. Rails used on the line were standard BHP 20lb to the yard T-head in 20-foot lengths. Curves, including the turnouts and points, had a standard radius of 50 feet. There was no super-elevation on the curves because of the slow speed of trains. The maximum grade was 1 in 150 and all sidings had to be level.[7]



Early wagons made by removing the tops from side tippers and fitting a wooden floor and ends (note the broad gauge wagon behind). Photo: Engineering & Water Supply Department

Safety requirements for the material being handled and stored meant that the 82 magazines were spaced 600 feet apart, and sited so that the doorways were not in line with any other magazine.[8] As a result the compound was very large (2 square miles) and the length of the 2ft gauge line in its heyday was approximately 28 miles.[9]

Before the specially-built rolling stock for use on the line came to hand, the Engineering & Water Supply Department made at least one of their Malcolm Moore Fordson petrol locomotives available, and flat cars were made by removing the tops from one yard side tipping trucks, probably from the same source, and fitting the underframes out with wooden floors and ends.[10]

In the meantime, an order had been placed with the manufacturer of British Electrical Vehicles (BEV), Wingrove & Rogers Ltd, of Kirkby Industrial Estate, near Liverpool, England, for four battery operated electric locomotives, while Lionel Kingsborough of the South Australian Railways Chief Engineer's Branch was given the task of designing the trucks.

These were to have bronze wheels (as did the locomotives) and a leather buffing plate so that there would be no iron or steel contact to iron or steel, thus avoiding any chance of sparks. When Lionel pointed out that the couplings were steel and had contact with each other, he was told to disregard this![11]

The 0-4-0BE locomotives were shipped to Adelaide in April 1942 from Liverpool, and the following details were supplied by the builder:[12]

Type:	BEV Type W.217 Trammer locomotives
Chassis numbers:	2216, 2217, 2230, 2231
Rail Gauge:	24 inches
Special feature:	Bronze wheels

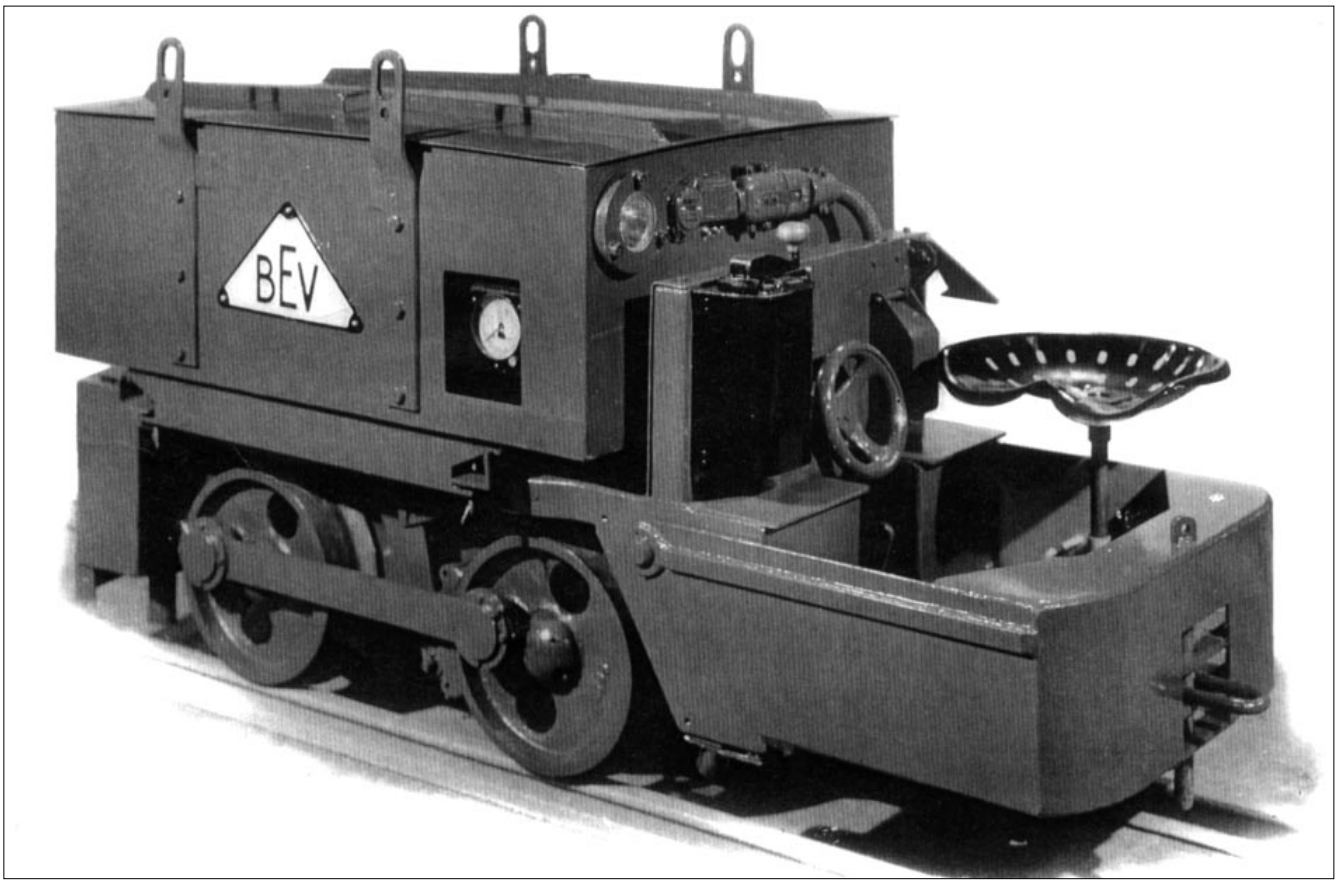
Further information from the Commonwealth Department of Supply gave the locomotives a towing capacity of 10 tons at 5 miles per hour, powered by 40 x 1.2 volt Edison Nickel Cell Batteries.[13] Later these were replaced by 24 x 2 volt cells.[8] It is believed that originally six trucks were built at Islington Railway Workshops, and that these were later followed by a further 24, making a total of 30.[8]

Narrow gauge track layout

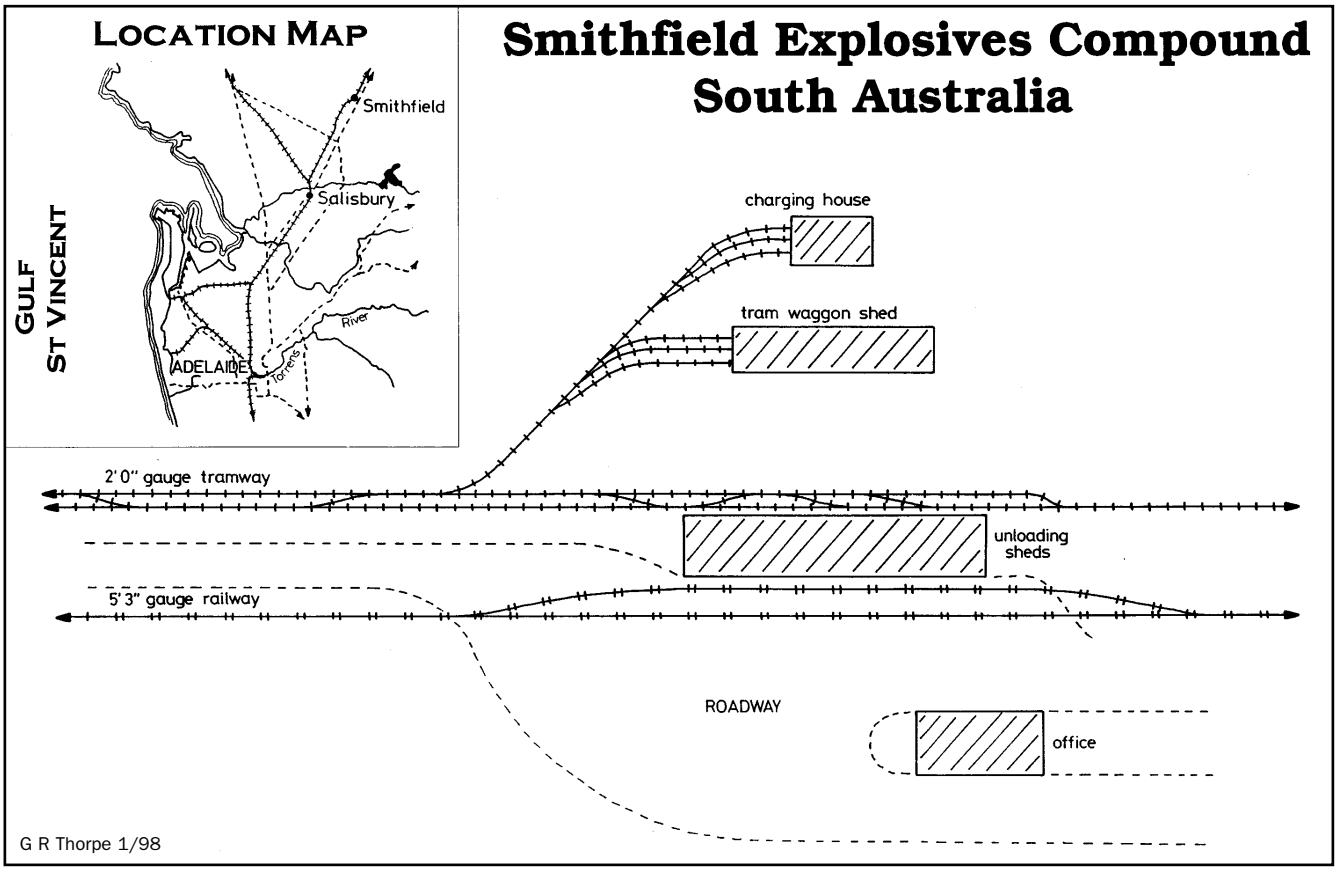
The plan "Layout of the Marshalling area and Running Sheds" (previously mentioned) shows the narrow gauge track and yard layout just inside the entrance to the compound. At the end of the yard, two parallel narrow gauge tracks, with their centre lines 7ft 6ins apart, entered the main area where the magazines were sited. The right hand line proceeded straight across the compound, whilst the left hand side line turned through ninety degrees, crossing the road and broad gauge line at right angles and went some distance before again turning through ninety degrees and proceeding across the compound parallel to the right hand side line. These two lines in crossing the compound roughly bisected it.

Branches ran to the right off the right hand side track and to the left off the left hand side track at regular 600-foot intervals at right angles to these two "main" lines. Because of the siting of the magazines at odd angles to ensure that magazine doors did not face any other magazine, each was served by a short spur off the relative branch. The layout was aptly described by Mr Brian Andrews as being *in a dendritic or tree-like fashion* with the two parallel lines crossing the compound forming the trunk.

Off the right hand side "main" line, there were also spurs to four inspection rooms. The left hand "main" line had three loop sidings to give access to the narrow gauge platforms at the rear of each of the three bunded stores fronted by the broad gauge line. Because of the dangerous nature of the material being handled in and through these stores, they, and



Builder's photo of a BEV Type W.217 Trammer locomotive. *Photo: Wingrove & Rogers Ltd*



their entire loading/unloading areas were almost completely surrounded by substantial baffle walls approximately 12 to 15 feet high.

At the front, between the broad gauge "main" line and its loop siding was a masonry wall, and at the rear, a long earthen mound formed a barrier between the narrow gauge line and its loop siding. At each end, the earthen mound was extended at right angles along the side to the front of the store. The broad gauge loop line had access to the front platform through the gaps between the masonry baffle wall and the masonry-faced ends of the earthen mound. At the rear, the narrow gauge line passed through the mound at each end of the narrow gauge platform by means of a short tunnel.

At two locations along the centre line of the compound, long crossovers connected the right and left parallel "main" lines.[14]

The surroundings of the loco shed and wagon shed have become considerably more sylvan with the passing of 57 years, 14 March 1998. Photo: Les Howard

At the northern side of the unbunded store near the gate there was an area known as the "Marshalling Area and Running Sheds". This area contained a three-track "Tram Waggon Shed" and a three-track "Charging House" for the locomotives.

One of the wagons built at the Islington Railway Workshops for the line, 14 March 1998. Note the handbrake lever. Photo: Les Howard

Train operations on the narrow gauge

Until well into 1942, explosives were transported from the Salisbury factory to the Magazine in a fleet of 40 to 80 horse-drawn vehicles.[7] (As a member of the Australian Army Service Corps at the time I think these would have been units of the 8th Auxiliary Horse Transport unit of the AASC.) These were replaced later by motor trucks and trailers. At the unbunded store building, just inside the gate, these bulk explosives were transferred to waiting flat cars on the 2ft gauge line for transport to the magazines.[7]

The tramway also served the unbunded store in reverse at

Two of the BEV locomotives in front of the wagon shed, 14 March 1998. *Photo: Les Howard*

times, when small deliveries of components were to be made to the Salisbury factory and it was not worth moving a broad gauge wagon down to the three bunded stores served by the broad gauge.[7]

Writing in mid-1976, Brian Andrews stated *. . . at the time of writing, the tramway is still rendering sterling service. Even now, reasonably large shipments of explosives must on occasions be carried over the tramway. One such instance in recent history is when a ten ton load of explosives was delivered to the Magazine. To shift this load to the magazines, a train consisting of three locomotives and twelve flat cars was marshalled. There was one loco at the head, one pushing up at the rear, and one cut into the middle of the train. What a sight that would have been. . .*[7]

Operational history of the Salisbury Magazine

Over the years, while remaining the property of the Commonwealth, the management of the compound has changed Departments. At all times it has been classified at top security, and access to the premises and to information has been very hard to obtain. When originally built in wartime, it was vaguely referred to as being for the Army and Munitions Department.[15] In 1956, when I first began to research the light railway, I was told it was under the control of the Long Range Weapons Establishment. In 1958, it came under the control of the Commonwealth Department of Supply, Stores and Transport Branch, which was the first Commonwealth authority to give me any "official" information, but it was not until December 1963 that I was allowed to enter the compound to inspect the marshalling and running shed area, check the builder's numbers on the locomotives, and was given the plan of that area. This permission was given by the Department of Supply, Weapons Research Establishment.[16] Recently I have been told that about this time, the facility was temporarily closed and that about 60 per cent of the area south and west was sold for private development, mostly for hobby farms.[8]

Bunded transfer store from broad gauge side, 14 March 1998. *Photo: A D Lockyer*

Although the closure was only temporary, by the 1990s the need for the facility was diminishing. In 1993, closure of the facility was believed to be imminent and a LRRSA member,

Narrow gauge side of transfer store showing platform and the 2 ft gauge entryway through baffle wall. *Photo: Les Howard*

LRRSA Special Train, 14 March 1998. Note the spread of magazines in the background. *Photo: A D Lockyer*

Peter Barry, arranged for a group from the Society to visit the premises on 9 October 1993. It is believed that this was the first time that members of the public had been admitted. Like many government actions, the eventual evacuation of the area, prior to it being disposed of, moved slowly, and it was not until 13 March 1998 that the magazines were emptied and the storage of explosives ceased. The following day, again thanks to Peter Barry, a group from the Society was able to visit the premises for the first time with cameras, and enjoyed a run around the compound behind one of the BEV electric locomotives. The visitors were also able to inspect one of the magazines, an inspection room, and one of the bunded stores served by both the broad and narrow gauge railways.

Although the narrow gauge line was operational right up to the last day, it was showing its age. The track because of its construction appeared to be good for another hundred or more years, but all four of the BEV locomotives over the years have lost their coupling rods, and one has been cannibalised, although the other three appeared to be more or less intact. Of the 30 trucks, 18 were still "on hand" and 12 were shown as "missing" but this included the six which had in 1984/5 been lent and subsequently sold to the narrow gauge tourist railway at the Moonta Mines, where they were equipped with seats etc. for passenger use.[8] At the time the premises were vacated, they were under the control of the Commonwealth Department of Defence - Defence Science and Technology Organisation.

Unbunded shed showing the narrow gauge side, 14 March 1998
Photo: Les Howard

The future

Following the government's evacuation of the premises, it is anticipated that the land will be sold for subdivision. As happened in the past, when part of the original area was sold, some of the magazines may remain to be converted into sheds or even living quarters. The railway will no longer be required and probably will be removed. Some railway enthusiast groups have already shown an interest in purchasing and salvaging the rails. The four locomotives and the other rolling stock will also probably be "put on the market". At the time of writing, the Port Dock Railway Museum had expressed a desire to acquire one of the locomotives and two of the trucks.

References

1. SAR Weekly Notice 49/41 (8/12/41)
2. SAR Track Diagram "Smithfield Munitions"
3. SAR Train Notice No.863 (12/9/67)
4. SAR Weekly Notice 50/42 (14/12/42)
5. Unpublished Report "The Salisbury and Smithfield Munition Tramways" by Mr F B Andrews, 1976. Information supplied by Mr Gilbert Poole.
6. Photographs taken by Mr Kirk, Photographer, Engineering & Water Supply Department, during construction
7. Unpublished Report by Mr F B Andrews (see 5 above).
8. Mr P Barry, Commonwealth Department of Defence - Defence Science and Technology Organisation.
9. Letter to author from Commonwealth Department of Supply, Stores and Transport Branch, 17/9/58. Mr P Barry (see 8 above).
10. Information and photographs from Mr Kirk (see 6 above).
11. The late Lionel Kingsborough.
12. Letter to author from Wingrove & Rogers Ltd, 6/5/59.
13. Letter to author from Commonwealth Department of Supply, Stores and Transport Branch, 17/9/58.
14. Much of this section was based on Mr F B Andrew's report (see 5 above) and from visits to the area by the author.
15. Mr Kirk (see 6 above) and Engineering & Water Supply Department records.
16. Letter to author from Commonwealth Department of Supply, Weapons Research Establishment, 18/12/63.

By Boneshaker to a Hell Hole

from David Burke

St Helena Island, once branded the 'hell hole of Moreton Bay' is rather less known for its claim to operating one of Queensland's earliest tramways.

When my Uncle Tom, who was Government Land Agent for Brisbane, went to St Helena in 1939 to execute a lease over the Island, he was surprised upon opening an old shed to find an original Brisbane horse tram standing inside.

The tramway appears to date from sometime after the establishment of the penal settlement in 1867. A single line ran uphill for about one kilometre from the jetty to the prison precinct, where it divided in 'Y' fashion into two separate dead-end arms.

Four-wheel trolleys carried the supplies, which were unloaded from small vessels plying across the bay from Brisbane. Rather in the style of the Port Arthur tramway, convict-power supplied locomotion for the 'Kangaroo Car' which brought visitors to the quite large settlement occupied by prison officials, warders and their families.

The high-wheeled metal contraption earned its nickname from the 'bucking' motion set up when moving at speed; on one occasion, we are told, the 'Kangaroo' derailed, throwing its occupants to the ground. Still on display, the vehicle rests upon a short length of standard gauge track which is the last example of the island's original tramway gauge (1435 mm). *(See Light Railways 140, page 22.)*

With the turn of the century, dreaded St Helena expanded to incarcerate 200 and finally 300 convicts, including ring leaders of the famous 1890s shearers' strike. At about the same time, a four-wheel Brisbane horse tram, presumably made redundant through electrification, was purchased to improve transport for the growing number of patrons. The service ceased with the closure of the prison in the early 1930s.

Today, with the help of Rotary International, trams have returned to St Helena - but of the canefields variety, being 610 mm (2ft) gauge, with passenger rolling stock built on the four-wheel frames of former cane wagons. The locomotive

The 0-6-0DM Baguley diesel shunting at the Causeway terminus, with Moreton Bay in the background. Photo: Catherine Burke

is an RMP Baguley 0-6-0DM (B/N 3377 of 1953) which came from Mulgrave Mill, near Cairns.

The modern-day tourist waits beneath a covered platform beyond the jetty causeway to catch the tram. Beholding the bucking, rolling motion of the approaching diesel and its rake of eleven four-wheelers, one can appreciate why today's successor to the 'Kangaroo Car' is hailed as 'the Boneshaker'.

With a run-around loop at each end, the single track ascends the slope on the same right-of-way towards an open platform terminus, above which the remains of the prison rise from well-cropped lawns. A backdrop of blue water and distant islands (doubtlessly a view that the unfortunate prisoners, locked behind a high stockade, rarely glimpsed) awaits passengers on the tram to a 'hell hole'.

Note: St Helena Island is now in the care of the Queensland National Parks organisation. Booked tours begin with a ferry ride from Manly, on Brisbane's southern bayside.

A massive Moreton Bay Fig tree overshadows both gaol ruins and train at the outer terminus. Photo: Catherine Burke

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NEW SOUTH WALES

BHP LTD, Port Kembla
(see LR 147 p.17)
1435mm gauge
General Electric (Australia) Co-Co DE D49 (A.242 of 1972) travelled to Sydney on the afternoon of Friday 14 May for attention on the wheel lathe at DELEC. It was due to return on the following Monday morning.
Bevan Wall (aus.rail newsgroup) 5/99; "Hunslet" (aus.rail newsgroup) 5/99

NEW ENGLAND ANTIMONY MINES NL, Hillgrove
(see LR 139 p.22)
610mm gauge
It is reported that a $24m expansion project will go ahead following the successful negotiation of a Native Title Agreement. This development is expected to treble the mine's current production, and includes spending $6.5m on mine expansion.
The Mining Chronicle Vol.4 No.3 via Ray Graf

SILVERTON TRAMWAY COMPANY PTY LTD, Broken Hill
(see LR 147 p.17)
1435mm gauge
Two 48 class A E Goodwin Co-Co DE locomotives have been repainted by Rail Technical Services in Melbourne. By Monday 31 May 48s37, ex ST37 (84128 of 1961), had been finished, while a further two weeks was expected to be needed to complete 48s35, ex ST35 (84133 of 1962).
An interesting error occurred during the repainting of 48s37. The painters were following a diagram of how the livery was to look. Unfortunately the diagram had the number 48s30 on the hood side. As a result, the loco was numbered 48s30 for a brief period of time.
Both locomotives left Melbourne on the night of 16 June, and are believed to be destined for "main line" duties based on Parkes.
Brad Peadon 6/99; "The Man" (aus.rail newsgroup) 6/99; Krel (aus.rail newsgroup) 6/99

Top: *Bingera Mill's E M Baldwin 0-6-0DH ST.KILDA (6-2179-1-6-67 of 1967) and Millaquin's E M Baldwin 4w-2DH (4529-?-1-73 of 1973, rebuilt 8860-2-8-79 of 1979) are waiting for their hopper wagons to be filled with ballast at Elliott No.1 siding on Millaquin's new line, 5 June 1999. Photo: Lincoln Driver.* ***Above:*** *Although re-engined in 1956, the Queensland Sugar Industry Corporation's Motor Rail "Simplex" 4wDM (4159 of 1926) at Lucinda Bulk Sugar Terminal must be among the world's oldest internal-combustion locomotives in regular industrial service, 29 April 1999. Photo: Chris Hart*

QUEENSLAND

BINGERA SUGAR LTD
(see LR 146 p.17)
610mm gauge
E M Baldwin B-B DH locomotives *OAKWOOD* (5800-1-5-75 of 1975) and DELAN (5800-3-7-75 of 1975) were being prepared to be repainted during April. In addition all locos were to have the Bundaberg Sugar logo on their sides. Grab irons have also been fitted to the top of the cabs to allow crews to change flashing light beacons should they fail.
Of the Bingera navvy locos, E M Baldwin 0-6-0DH *ST.KILDA* (6-2179-1-6-67 of 1967) normally stays at Bingera during the crushing but is used throughout the three local mills in the slack to haul the poison train and for other various duties. In June it was still at Millaquin assisting with ballasting the new Elliott River line. The Malcolm Moore 4wDH "Hydro" (1025 of 1943) has returned to Bingera following use at Millaquin in 1998. Lincoln Driver 5/99

BUNDABERG SUGAR LTD, Fairymead Mill
Clyde 0-6-0DH 55 (DHl.6 of 1954) and E M Baldwin B-B DHs 80 (8988-1-6-80 of 1980) and 82 (10048-1-6-82 of 1982) have been freshly painted in colours the same as Millaquin's yellow colour scheme with red and white dazzle stripe headstocks, white side frames and cab roof, black footplate steps, black bogies with red sandpot covers, and black bonnet top.
Ruston & Hornsby 4wDM 9 (339211 of 1953) and the small Com-Eng 4wDH 72 (GA1148 of 1961) are still out of service. Lincoln Driver 5/99

CSR LTD, Herbert River Mills
(see LR 147 p.18)
610mm gauge
Crushing commenced in the Herbert River district on 21 June. There will most likely be six transfer

trips of cane from Victoria Mill to Macknade Mill each day during the 1999 season.
Local canegrowers and the Hinchinbrook Shire Council have called upon the Federal government to fund local transport infrastructure development. A plan was put forward to a House of Representatives committee on 26 May. The requested package contained an 8.7km cane railway extension at Hamleigh South ($2.94m), a 6.7km line including a bridge over Midway Creek on Sheahan's Road, Abergowrie ($4.5m), a rail link between the new Victoria Mill line at Elphinstone and the Macknade Hawkins Creek line, including a bridge over Dalrymple Creek ($5m), and $400,000 to cover the shortfall in costs for the new road/rail bridge at Elphinstone Creek. The proposed link between Victoria and Macknade would enable cane from Abergowrie to be sent directly to Macknade Mill, meaning that the present transfers would no longer be necessary, while at the same time reducing the number of train movements across the Bruce Highway in Ingham.
It is reported that the KMX-12T tamping machine (Plasser 255 of 1982) reported as sold in the last issue has gone to Invicta Mill.
Chris Hart 6/99; *Herbert River Express* 27/5/99 via Chris Hart

MACKAY SUGAR CO-OPERATIVE ASSOCIATION LTD
(see LR 147 p.18)
610mm gauge
Repair work on two slips in the **Farleigh Mill** Summit cutting has been necessary. Work on one slip had been completed before the crushing season started but work on the other was still underway in early June as the season commenced. This meant that a controller was stationed at the cutting to ensure safe clearance for trains while work was in progress. The lengthy bridge at Murray Creek near Mt Ossa has been repaired and upgraded to 50-tonne locomotive capacity after some defects in girder welds were noticed by a repainting crew. Clyde 0-6-0DH *CONNINGSBY* (61-232 of 1961) became the last Farleigh locomotive in regular use for cane haulage to be painted in Mackay Sugar corporate livery when it came out of the paintshop in May. In mid June with a couple of rebuilt Walkers locomotives receiving attention, Com-Eng 0-6-0DH *BARCOO* (FB4383 of 1965) was unusually pressed into cane haulage in areas close to the mill for a couple of days.
Pleystowe Mill will be receiving 75 14-tonne bogie bins during the course of the season at a cost of $950,000. They are being built by E&C Engineering at Walkerston for delivery at a rate of five per week between July and October. The new bins will have a galvanised chassis, 380mm diameter wheels (rather than the standard 355mm), three-quarter size Willison couplers, mesh and galvanised pipe sides and mesh or steel bottoms. The bins will be used initially in the North Eton area and will be subjected to intensive testing with a view to ensuring that future orders incorporate all possible refinements.
Marian Mill's Clyde 0-6-0DH 12 *NELLIE* (58-188 of 1958) has been transferred to Pleystowe Mill, reportedly for the 1999 season, and was delivered there on 6 June. It is also reported that during the 1999 season, Marian will be taking cane deliveries from Barrie Lane in the North Eton area, previously serviced by Pleystowe Mill. While in this area, the Marian locomotive will be under the control of the Pleystowe traffic office. The new Marian six-tonne bins are being delivered painted white. A derailment on the line over the Messmate Range caused a disruption to the mill's operations on 8 June when a coupling gave way and loaded bins ran backwards to pile up at the bottom of the grade.
Mackay Sugar Newsletter 6/99; Mark Gough 5/99 & 6/99; Andy Roberts 6/99

Top: *Farleigh Mill's Clyde 0-6-0DH* CONNINGSBY *(61-232 of 1961) newly turned out in Mackay Sugar corporate livery, May 1999. Photo: Andy Roberts* ***Above:*** *Newly repainted and renamed, Millaquin Mill's Bundaberg Foundry B-B DH* ELLIOTT *(002 of 1991) is being turned at Fox's Triangle in preparation for the sausage sizzle to celebrate the completion of the new Elliott line the next day, 4 June 1999. Photo: Lincoln Driver*

MILLAQUIN SUGAR CO PTY LTD, Bundaberg
(see LR 147 p.19)
610mm gauge
Construction of the new line to service growers on the south side of the Elliot River has been completed. The project involved many Bundaberg Sugar employees. Project Management, planning, design and track construction were handled within the Company while specialist activities such as earthworks, drainage and bridge construction were undertaken by experienced contractors.
The main line of the railway is 9.2km with branch lines totalling 2.6km. There are four new loading facilities. The bridge across the river is about 60 metres long and consists of 15 prestressed concrete box girders. Each of the girders weighs 17.5 tonnes and they are bolted to concrete headstocks. These were cast in situ above a nest of concrete piles driven about 20 metres below the riverbed. Before the new bridge could be constructed, a temporary bridge had to be built to allow access for the pile driver, cranes and concrete trucks. This temporary

bridge was progressively removed as the supporting piers for the new bridge were completed. Bingera Mill's E M Baldwin 0-6-0DH *ST.KILDA* (6-2179-1-6-67 of 1967) and Millaquin's E M Baldwin 4w-2DH (4529-?-1-73 of 1973, rebuilt 8860-2-8-79 of 1979, rebuilt Millaquin 1980 & 1988) were used for ballast duties during construction of the new line. Coinciding with the track construction was the in-house conversion of 185 5-tonne capacity cane bins to 6-tonne capacity. The bins are now painted silver for better vision during night at road crossings. The 36 tonne Bundaberg Foundry B-B DH locomotive (002 of 1991) transferred from Babinda Mill at the start of the year was sent to Qunaba depot for repairs, maintenance and painting, and has been fitted with *ELLIOTT* nameplates. The completion of construction was marked by a sausage sizzle on 5 June.

Clyde 0-6-0DH 561 (57-159 of 1957) has been freshly painted for the 1999 crushing season. (Apologies to Lincoln Driver who should have been credited with the report on p.18 of LR 147)

Lincoln Driver 5/99 & 6/99

MORETON SUGAR LTD, Nambour

(see LRN 120 p.10)

610mm gauge

On 9-14 August, The Australian Narrow Gauge Railway Museum Society's Bundaberg Foundry 0-6-2T 5 (5 of 1952) is expected to be in use at Moreton Mill, in association with the Nambour sugar festival. It is expected that the locomotive will be used to haul cane from Howard Street Yard to the mill on each day.

Durundur Railway Bulletin 5/99

MOSSMAN CENTRAL MILL CO LTD

(see LRN 121 p.17)

610mm gauge

With increasing tonnages of irrigated cane being grown on the Atherton Tableland and trucked down the range to the coast, a small road/rail interchange adjacent to the Rex Highway on the south side of Mossman has been greatly expanded in the last few years. It now has about eight parallel roads for transhipment of "canetainers" from road to rail.

The original design of canetainer was in the style of an open shipping container with pressed steel panel sides, designed to run on a pair of rail bogies or to be carried on the road by semitrailer. Newer examples are made of pipe and mesh, including one noted under construction at the mill. The older bins, both solid and mesh sided, are painted yellow, but the newer mesh sided bins are now left unpainted.

In those areas inaccessible to the mill tramline, the canetainers are picked up by road transport from raised transfer ramps at the nearest siding and taken to the loading point where they are placed on raised concrete holding stands for filling by infield rubber-tyred tipper vehicles.

It was noted in April that a track panel on the mill side of St Crispins Station, on the Port Douglas commuter line, had been lifted for track maintenance so there was no link from the Mossman Mill cane tramways into Port Douglas. This mill's tramways featured in the Channel 10 TV program *Railway Adventures across Australia* on 10 June.

Bill Bolton (aus.rail newsgroup) 4/99; Editor

Industrial Railway NEWS

QUEENSLAND SUGAR INDUSTRY CORPORATION, Mackay Harbour

(see LRN 143 p.19)

1067mm gauge

Com-Eng 0-6-0DH F1029 of 1958 was delivered to the Southern Downs Steam Railway group in Warwick on 10 May, having been purchased for $11 000.

Tony Wells 6/99; *Sunshine Express* 6/99

TASMANIA

HYDRO-ELECTRIC COMMISSION

(see LR 143 p.19)

1067mm gauge

Tasmanian Mining Salvage, agents in Launceston, have an Internet web site (http:/bulk.microtech.com.au/tms) containing details of material for sale from the Hydro-Electric Commission King and Anthony schemes of 1987-91. It contains some drawings and illustrations of interest. Also on the site is a video showing rail operations during tunnel construction. Equipment still available for sale includes three 6.1 metre concrete transit cars by Mülhäuser ($15000 each), 24 PTA (Precision Tool Annexe, Launceston) four-wheel side-tipping muckcars with tipping ramp ($8000 each), nine PTA four-wheel flatcars ($4500 each), one personnel car body for fitting to a flat car ($4500) and an E M Baldwin Model 6DHS Mk2

Farleigh Mill's Eimco B-B DH FARLEIGH *(L254 of 1990) heads a loaded train through the new Summit cutting early in the 1998 season, with finishing-off work still going on in the distance.* *Photo: Andy Roberts*

Industrial Railway NEWS

4wDHR personnel carrier (2130-4-9-67 of 1967) ($13500). There is also the rail mounted tunnelling machine ($1m), an Atlas Copco rail mounted jumbo, two Atlas Copco Haggloaders, one chassis mounted scissors platform, and a utility jumbo.
Tasmanian Mining Salvage web site

VICTORIA

COOKS CONSTRUCTION PTY LTD, Yallourn
ENERGY BRIX AUSTRALIA CORPORATION PTY LTD, Yallourn
(see LR 147 p.19)
900mm gauge
Operations by **Energy Brix** using three Gemco 4wDH locomotives working in multiple were observed on 8 May. The locomotives were numbered 1, 3 and 2 and are painted dark blue with white bonnet top and upper cab. The load was 11 full hoppers with a corresponding empty working. A yellow flashing light was attached to the last hopper to indicate completeness of the train in either push or pull mode. The complete return working took about 1 hour 45 minutes. The train was driven from the centre locomotive, making for poor visibility in either direction. Accreditation for the operation was reportedly received in late May.
Five similar locomotives were obtained from the Tasmanian Hydro-Electric Commission in 1998. They are 25 tonne machines and were numbered P311 to P315 in HEC service but it is unknown which is which Energy Brix locomotive. The locomotives are George Moss Model G5 and were allocated builder's numbers as follows:

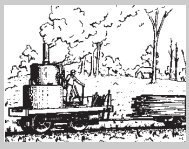
P311 - 66D50084-241-86 of 1986
P312 - 66D50086-242-86 of 1986
P313 - 66D50083-243-86 of 1986
P314 - 66D50085-244-86 of 1986
P315 - 66D50087-245-87 of 1987

The Gemco numbering system incorporated the engine (or motor) number(s), a serial number, and the year of manufacture.
It is suggested that the railway will close in late 2001 when it will again be cut by the expansion of brown coal mining operations. Road transport seems the likely outcome and may well be the preferred current option. Understandably local opinion is opposed to B-doubles or triples going on the local roads. The costs of rail maintenance and accreditation are unattractive when compared with the roads provided by the tax-payer and ratepayer!
The remaining two **Cooks Construction** Walkers B-B DH locomotives CC01 (586 of 1968) and CC02 (587 of 1968) are stored at the Yallourn coal loader pending sale to sugar mills at such a time as the prices required by Cooks are forthcoming. In the meantime they are inspected and started once a month.
Ken Renshaw 5/99; Peter Newett 6/99; Tasmanian Mining Salvage web site; Editor

WESTERN AUSTRALIA

BHP IRON ORE, Mt.Newman
HAMERSLEY IRON PTY LTD
(see LRN 145 p.23 & 147 p.19)
1435mm gauge
It was announced on 15 June that Rio Tinto (owners of Hamersley Iron) are engaged in talks about a possible Pilbara joint venture with BHP. If this scheme comes to fruition it would mean that the Hamersley and former Mt Newman & Goldsworthy operations would be under common management with only Robe River standing independent of them.
The Australian 16/6/99

A triple-headed train of eleven coal hoppers hauled by Gemco 4wDH locomotives 1, 3 & 2 on the Energy Brix interconnecting railway between Yallourn and Morwell, 8 May 1999. Photo: Ken Renshaw



LRRSA NEWS

MEETINGS

ADELAIDE: "Overseas Light Railways"
Members are invited to bring videos of light railway operations overseas.
Location: 150 First Avenue, Royston Park.
Date: Thursday 5 August at 8.00 pm. Contact Arnold Lockyer (08) 8296 9488.

BRISBANE: "Slide & Photograph Night"
Members are invited to share their favourite slides and photographs with the group. Please limit your contribution to 20 slides, to give everyone a chance.
Location: 54 Aberdare Street, Darra.
Date: Saturday 21 August at 7.30 pm. Contact Bob Dow (07) 3375 1475

MELBOURNE: Annual General Meeting and Slide Show.
After the usual brief AGM, the traditional members' slide show will be held. Bring along a choice from your collection, but remember no more than 20 each!
Location: Ashburton Uniting Church Hall, Ashburn Grove, Ashburton.
Date: Thursday, 12 August at 8.00 pm.

SYDNEY: "BHP NEWCASTLE'"
David Jehan will discuss his research of the recent history of BHP's Newcastle steelworks.
Location: Woodstock Community Centre, Church Street, Burwood, (five minutes walk from Burwood railway station).
Date: Wednesday 25 August at 7.30 pm. Contact Jeff Moonie (02) 4753 6302.

MEMBERS' ADS

FOR SALE

CHIMNEY, cast iron, from J&A Brown 2-8-0 locomotive No.13 (NB 22213/1919, formerly ROD No. 2119). $1000 ono. Contact: Graeme Belbin, PO Box 284, Asquith NSW 2077.

PERRY Locomotive. The Editor is looking for a new home for No.7, his 2ft gauge 0-4-2T Perry steam loco (B/N 2714/51/1 of 1951). Built for Mourilyan sugar mill, the loco and its history were described in detail in LR 141. Currently stored at the NSWRTM Workshops at Thirlmere, NSW. $60,000. Contact: Bruce Belbin, PO Box 674, St Ives NSW 2075

WANTED

RAIL 20lb/yd, any quantity.
Single lever Ground Frame/Switch Stand.
Contact: Andrew Forbes, Kerrisdale Mountain Railway. Phone: 03 5797 0227

LETTERS

Dear Sir

Mort's Dock and John Fowler locomotives of the Great Cobar Copper Mining Company Firewood Tramway (LR 146)

Ron Madden is to be congratulated for his interesting article which makes a significant contribution to the debate on the early steam locomotives of the Great Cobar, and for reminding us that not all obvious conclusions can be relied upon to hold true.

Richard Horne, who has personally examined the Fowler records, confirms that the initial order for four Fowler locomotives for Cobar was made through William Noakes, and also stresses that there is no apparent reason to doubt that all six locomotives were built, and despatched from Leeds to Australia. In addition, Richard points out that the Fowler records contain no indication that any of the locomotives were lost at sea, nor that any part of either order was cancelled.

The reason why I suggested the possibility that the two Fowler locomotives of 1883 were replacements for two of the 1882 machines is because the company seems to have had on order two Mort's Dock locomotives at the very same time as the two additional Fowlers. It is difficult to understand why this should have been the case if the company was not already committed to the additional Fowlers. If the two later Fowlers were in fact replacements, then it must be a possibility that two of the first four were sold by the agents or by the mining company after arriving in New South Wales. If this was the case, the fact that Noakes' name does not appear in the Fowler records the second time around might suggest that the unwanted locomotives were disposed of by the mining company.

Although all this is highly speculative, it is easy to understand why the company might have been reluctant to despatch all four locomotives from Sydney to Cobar in 1882, because the distance to Cobar from the railhead (at first Dubbo, then Nevertire) was so great. As the main railway line inched towards Nyngan, it would have made sense to delay the departure of each locomotive until it was needed.

Ron seems willing to discount the statement made by Noel Thorpe, the then archivist of the Metropolitan Water & Sewerage Board, that John Young the contractor for the Botany works obtained a second-hand 2ft 6ins gauge Mort's Dock locomotive, on the basis that available evidence does not seem to support this view. It might be hard to understand how an archivist would make such a statement without there being documentary evidence in support of it.

Ron also states that the Mort's Dock locomotive operated at Botany by the Metropolitan Water Supply & Sewerage Board was not a conversion from 2ft 6ins gauge although its boiler and saddle tank were possibly built to 2ft 6ins gauge specifications. If this is a possibility, then it cannot be discounted that the standard gauge Mort's Dock locomotive that worked at Botany incorporated the boiler and saddle tank of one of the Mort's Dock locomotives used at Cobar. It seems that the locomotives saw little use at Cobar, and the close connection Ron points out between the Mort's Dock company and the mining interests at Cobar may have convinced both parties that a quiet return of the unwanted locomotives would be in everyone's interests.

It seems somewhat rash to speculate that if two Fowler locomotives did not reach Cobar, they were renumbered by Fowler as 4445 and 4448. It is not clear why these candidates were chosen as possibilities over others which at least are recorded as having been built with the correct cylinder diameter. Richard Horne states that, as far as is known, Fowlers altered builder's numbers very rarely and that, when they did, there is some indication of this in their records.

None of this provides us with eight locomotives, six by Fowler and two by Mort's Dock: there stubbornly remains a total of six recorded at Cobar, and there appear to be no viable candidates for a further two at present. No doubt there will be those who will suspect that the two "Mort's Dock" locomotives at Cobar could have been "rebadged" Fowlers. Perhaps time will tell.

Denham Island (Gulf of Carpentaria)

Queensland's Denham Island lies close to Mornington Island in the Gulf of Carpentaria, which for many years was a government mission for indigenous people. This map [below] found by Norm Houghton seems to date from the early part of the century and indicates that there was a tramway associated with salt production on Denham Island. Maybe a reader can add some further details.

John Browning,
Rockhampton, Qld.

Dear Sir,

Mort's Dock and John Fowler Locomotives (LR 146)

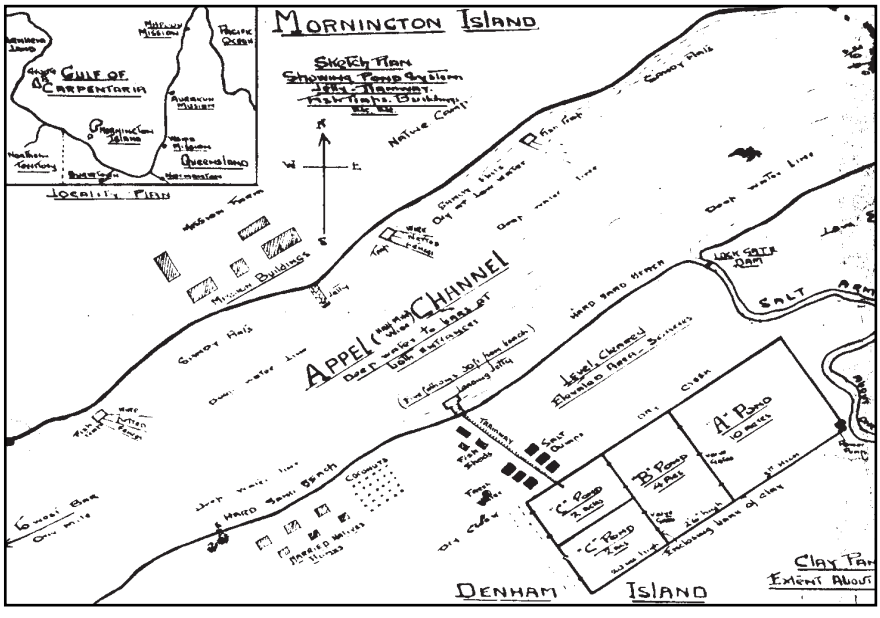
Regarding the Mort & Co. locomotives at Cobar and the missing Fowler locomotives, I would like to submit a possible answer:

That the locomotives built by Mort & Co. are actually Fowler locomotives assembled (and quite likely modified) by Mort & Co., and claimed as their own build.

I have a similar problem with a locomotive dating from about the same time that was supplied to NSW Shale & Oil Co. at Hartley Vale. The matter has been discussed before in *Light Railways* (see letters in LR 71 [1981], LR 78 [1982] and LR 80 [1983]).

In my letter in LR 78, I explained that the photo caption on page 28 of the book *Shale Railways of New South Wales* should have read "The Fowler locomotive in use on the lower level of Hartley Vale oilworks" (not "The Mort's Dock locomotive..."). However, some months ago, there was a presentation at a Sydney meeting of LRRSA on Mort & Co. locomotives, and a photograph (that was located in the Mort company records) of Mort's 38th locomotive was shown. This locomotive was a 2-4-0, not an 0-4-0, and was clearly the same locomotive as pictured on page 28 of *Shale Railways of New South Wales*. The original caption would therefore appear to be correct after all, even if it is so for all the wrong reasons.

The Cobar problem was also mentioned during that same presentation, and this quickly led me to wonder if the Mort and Fowler locomotives at Hartley Vale (and possibly at Cobar) were one and the same locomotives. I leave this thought for consideration and comment by our locomotive experts.



The Great Locomotive Quest (Research, LR 146)

I know there has been a certain amount of confusion regarding the locomotives used at Joadja, but I thought that, by now, everything had been sorted out. However, in view of this recent "research" at Mittagong, perhaps we should stop and review our current knowledge regarding the locomotives used on the Joadja railway.

When Gifford Eardley first wrote about Joadja, in 1947 (ARHS *Bulletin* Vol. XX Nos. 117 and 118) he admitted "No definite details are at present known to the writer as to the disposal of the locomotives". By the time that *Shale Railways of New South Wales* was published, in 1974, more information was known, but the published result had major problems with identification, included a fifth locomotive (AB 211/1879) and reversed the disposal information of AB 180/1878 and AB 253/1882.

Richard Horne's letter in LR 62 (1978) clarified much of the confusion, while his 1984 list (ARHS *Bulletin* No. 560) gave us a summary (still current) of those Andrew Barclay locomotives used in Australia. From this and other sources, the following disposals are noted:

AB180/1878 went to Langley's at Coffs Harbour in 1909. John Kramer's article in LR 86 includes a fuller description of its short subsequent history, leaving very little room for doubt about what happened to it after Joadja closed. While there are photographs of this locomotive at Joadja, I have not seen any taken after it left there.

AB222/1880 went to HE Day at Bonville "prior to May 1913" (according to Gifford Eardley). There are photographs of this locomotive both at Joadja and Bonville, although most of the Joadja ones appear to show this locomotive in orchard traffic, so were probably taken early this century.

AB237/1881 went to Boambee "by 1912". There is a photograph of it there in LR 74 (1981), but nothing of it at Joadja.

AB253/1882 went to Allen Taylor at Mayers Point c.1915, although Giff gives its departure from Joadja as 1906. Whilst quite a number of photographs have been published that show it working with Allen Taylor, I have not seen any of it working at Joadja.

AB211/1879, which Giff thought was at Joadja, was probably one of the locomotives used by Hungerford at Forster between 1900 and 1903 (see Letters in LR 142 and LR 144). In 1903, it was overhauled and sent to Tasmania (see LR 57 [1977]).

From published information, there appears to have been a distinct winding-down period at Joadja, from about 1900 (by which time most railway business was orchard traffic, apparently mostly handled by AB222/1880), through 1908 (when the railway was pulled up) until 1911 (when Messrs Cameron & Sutherland purchased the Joadja property). Land Titles records show that Cameron & Sutherland obtained the Joadja property by transfer 642043 dated 23/6/11, and sold it again by transfer 644395 dated 8/1/12, a short period of ownership that suggests they may have been after salvage, rather than developing the land. Giff states that Cameron & Sutherland sold the rails, and it is reasonable to assume that they would have sold any remaining locomotives as well, even if only for scrap.

From all of this, I would suggest that there could have been locomotives stored for quite some time at Mittagong in the period from 1908, or even earlier, up to about 1911 at the latest. How would an OLI (oldest living inhabitant) see this? Might he/she attribute the sudden removal of a long stored locomotive to foul play, rather than a commercial sale? I am a little wary of OLIs, particularly in reconciling what they perceived to happen with what actually happened, particularly if it is an event in which they were not directly involved, that happened a long time ago, and possibly at a time when they were still children.

One final point concerns the "local folklore" that trains on the Joadja line and the adjacent Box Vale line raced each other. I very much doubt it. Without considering unknown factors associated with how and when these lines operated, it should be mentioned that the lines actually crossed each other near their respective Mittagong terminals. Heading out from Mittagong, both lines soon had to climb a stiff grade and I doubt if there was any consideration of racing from what could only have been an unequal start. Heading back (and downhill with the load at that), any such race would have had "interesting" results had it ended in a tie!

Allan Watson
Eastwood, NSW

Dear Sir,

A Fifth Locomotive at Joadja? (Research LR 146)

The following excerpt from *The Collieries, Coalfields and Minerals of New South Wales, Australia* by Alfred J G Swinney★ concerning Joadja operations, appears to cast a whole new light on the Joadja locomotives question:

The Company owns a very large area of land, and have formed a township of their own. They have 13 miles of tramway connecting their works with the GSR at Mittagong, five locomotives, one 30 horse power hauling engine, and a very large plant of oil retorts, refineries, etc.

Swinneys book's preface is dated January 1884, the book having been published by the "Colliery Guardian" Office, 49 Essex Street, Strand, London.

As it has been conclusively demonstrated by Richard Horne that AB211 did not go to Joadja, what was the identity of this fifth locomotive, and was it of 3ft 6in or 4ft 8½in gauge? The apparent long unknown whereabouts of the first Andrew Barclay locomotive to come to Australia (AB167 of 1875, 4ft 8½in gauge, British Tasmanian Charcoal Iron Co, Pt Lempriere, Tasmania) appears very interesting, especially given its subsequent appearance at G&C Hoskins' Wongawilli Colliery, NSW, circa 1916.

Ron Madden
Wagga Wagga, NSW

★Mitchell Library, Sydney, NSW - ref No. 338.2/S

Dear Sir,

"SANDY the Cane Train" (LR 146)

I recently purchased issue No.146 of *Light Railways* magazine, and noted with interest a letter referring to *Sandy the Cane Train*, on page 24.

I was travelling in Queensland in September 1964 and came across such an incident in which two cane trains collided head on, and have enclosed a photograph which I took at the time.

The two trains were travelling in opposite directions and, with no brakes on the cane carriages, were unable to stop in time to avoid the collision.

T Buckingham
Campsie, NSW

On the Victoria Mill system, in September 1964, Fowler 0-6-0TT PERTH (B/N 6766 of 1900) appears to have come off second best in an altercation with Drewry 0-6-0DM VICTORIA (B/N 2404 of 1953). *Photo: T. Buckingham*

Dear Sir,

Balikpapan (LR144)

In LR 144, Mr John Peterson writing about the narrow gauge railway at Balikpapan mentioned that the map showed a railway running north from Balikpapan to Bangsalsemera, and another running south. Consulting my Bartholomews SE Asia map published in 1968 showed that the first mentioned line is actually an oil pipeline, the symbol for which is very similar to that for railways, and given the small scale of the map, easily mistaken. My map does not show the line running south from Balikpapan, but it is possible that this was a pipeline also.

Darjeeling (LR 141)

LR 141 carried an item that the DHRSA had been formed. LR readers may be interested in an update about the society and the railway itself. The DHRSA office bearers are: President Malcolm Dow, Sec/Treas John Stephens, Sales Officer Ian Theile. Address PO Box 187, Croydon, Vic. There are a number of Darjeeling railway web sites, and information regarding the DHRSA can be found there. The 4th DHR Conference was held in Delhi in April 1999, attended by delegates from the Indian Railways Board, the NE Frontier Railway, the National Rail Museum, the West Bengal Government, Department of Tourism and representatives of the DHR Heritage Foundation and its affiliated societies in the UK and Australia.

The good news from the Conference is:

1. The Indian Government has nominated the DHR to the World Heritage Foundation and a positive response is expected by the end of 1999. This would make the DHR only the second railway to achieve World Heritage Status.
2. The Indian Railways announced that it would retain the DHR and take steps to preserve its heritage. This reverses a decision of 4 years ago to close the line. Diesels are to be trialed this year but steam will be used for tourist trains and it is planned to refurbish the locos, rolling stock and track.

New management arrangements for the DHR are being investigated. The most favoured option being the "Puffing Billy/ETRB" model with appropriate modifications. It is likely that a manager, responsible for operations on the line, will be installed at Darjeeling before the end of the year.

The Indian Railway Board acknowledged the assistance and encouragement it had received from the various "Friends of the DHR" groups. Clearly there is a lot more work to be done to restore the line to its former glory and create the planned living museum and ongoing involvement by groups such as DHRSA will be vital to ultimate success.

To celebrate the rebirth of the line, a Back to Darjeeling spectacular is to be staged in May of the millennium year. A planned loco exchange with the Festiniog Railway should see *LINDA* at work on the DHR, and possibly an Australian 2ft gauge locomotive also. Indian Railways will be running special trains including the *Palace on Wheels* in conjunction with the celebrations.

Mal Dow
Glen Iris, Victoria

Dear Sir,

Balikpapan (LR144)

With reference to letters about railways in Borneo, in LR 135, LR 143, LR 144 and LR 145, I have been trying to find out more about the railway at Balikpapan for quite some time. My father was at Balikpapan during World War Two, and took a photo of a loco there. The photo, which was almost identical to one of Jack Wicks', was published in *Continental Railway Journal*, No. 109, Spring 1997, but I received no response to my request for information.

Stand Easy, which was published by the Australian War Memorial, had an article "Seventh Australian Division at Balikpapan" which makes a brief mention of the railway, and states that it was used to haul long lines of coal to the wharves, but that it had been brought to a standstill.

The *1995 Lonely Planet Guide to Indonesia* has a map of the town, showing the location of oil tanks and wharves. It mentions oil companies Pertamina, Union Oil and Total, and lists oil, coal and timber as local industries.

I wrote to the three oil companies, but only received a reply from Total, and it gave no information about the railway. Gerry Verhoeven recently supplied some information from *History of the Shell Co., 60 Years* which states that, before 1945, there was about 45km of narrow gauge railway, several hundred wagons, and several steam and diesel locos. Gerry has also seen an ordinance map, at the National Library, which shows the lines operated by Shell. One went from the refinery through the town, past piers 1 to 6, around Signal Hill to the European town of Klandasan, and was about 8km long. The other line, about 10km long, went to the town of Samboota Baru, and on to an oil field.

There were quite a few other railways on Borneo, for which I can find very little information.

Labuan Colliery's railway, built to the unusual gauge of 2ft 5in, had three Hudswell Clarke locos;[1] one 0-4-2ST (367 of 1891) and two 0-4-0STs (366 of 1890 and 368 of 1891).[2]

Fox Walker & Co, Atlas Engine Works, built two outside-framed, 3ft gauge 4-4-0Ts, named *BULAN* and *BINTANG* for the Sarawak Railway, Borneo, in 1914. *BULAN* was B/N 1362 of 1914.[3]

Koninklitke Pakevaart (road shipping company) had two Maffei locomotives (B/N 3941 and 3942 of 1920) supplied via Ducroo & Brauns, who were dealers of Maffei locos.[4] The line was of 750mm gauge.

Ducroo & Brauns supplied four 600mm gauge 0-4-0Ts for the East Borneo Railway at Samarinda (D&B 32, 33 and 34 of 1924, and 130 of 1926), as noted in John Peterson's letter in LR 144.

Ducroo and Brauns also supplied two 700mm gauge 0-4-0T locos (D&B 321 and 322 of 1939) for a forestry line on Noenekain Island, off the northeast coast of Borneo.[5]

1. *British Steam Locomotive Builders*, James Lowe. Page 338.
2. *Hudswell Clarke & Co., Locomotive Works List*, Clive Hardy.
3. *British Steam Locomotive Builders*, James Lowe. Page 183.
4. *Ducroo & Brauns Locomotives*. Page 112.
5. *Ducroo & Brauns Locomotives*. Page 42.

Aveling & Porter Locomotives (LR 146, 147)

British Steam Locomotive Builders, by James Lowe, has a list of 135 Aveling & Porter locomotives, the first being B/N 129 of 1865, the last B/N 11087 of 1924. All but one on the list (1688/1881) show a customer, but none is shown as having been delivered to Australia.

B/N 952 of 1873, a 4NHP loco, was delivered to Bevan & Sturge at Northfleet, England, and was built to 2ft 8½in gauge. As it is the only locomotive shown as built to that gauge, it would be interesting to know what became of it.

Unfortunately, the list only shows the gauge for about half of the locos. B/Nos 220, 221 and 235 of 1866 were delivered to W Brassey & Co. or W Brassey & Lucas (presumably the railway contractor). B/N 211, invoiced 24 July 1866, an 8NHP loco, was delivered to A Redfern & Co., but no gauge or location are shown. It is the only locomotive built around the right time for the article in *Engineering* which Bruce Macdonald mentioned in his letter. Could the loco have come to Australia second-hand?

Ray Gardiner
Asquith, NSW

Dear Sir,

Cobdogla to Loveday Light Railway (LR 145)

Arnold Lockyer's article on the Cobdogla to Loveday railway was of considerable interest to a friend who grew up in the district, and whose wife is the grandaughter of Sam McIntosh, the Director of Irrigation in the story. They have passed on a copy of the book *The Barmera Story: A History of Barmera & District* by George Woolmer (Barmera Golden Jubilee Committee, 1973). While this book bases much of its information about the Cobdogla to Loveday railway on material provided by Arnold Lockyer, there is some additional information that may be of interest to LR readers.

Concerning the design of the irrigation schemes, it notes that Mr S McIntosh had been battling for 11 years for the piped irrigation systems he had seen operating in California (p.33). The Hume Pipe Company (Aust) Ltd. gained a contract for the reticulation by pipes of part of the Loveday Division in April 1921. There were 200 people employed at the pipe factory by February 1922.

As noted by Arnold, there were no locomotives available when the line was completed around October 1921, necessitating the introduction of horse haulage the

following month (p.34). Locomotive operations apparently commenced in early 1922. It is stated that one loco was employed for hauling material from the wharf to the Hume factory, while the other hauled stone from the quarry (p.35). Jack Hermanson and A Boucher were the locomotive drivers.

Bob McKillop
Castlecrag, NSW

Dear Sir,

Whitfield Centenary (LR 147)

With reference to the last paragraph of Frank Stamford's article on the Whitfield Centenary, as published in *Light Railways* No.147 (June 1999), a correction is required.

The Victorian Railways Annual General Report referred to is 1899, not 1898 as mentioned in the article, so it was not a question of reporting a future event.

This Annual Report is for the year ending 30 June 1899 and, on page 9, under the heading of "New Lines", it is stated that the Wangaratta to Whitfield line was opened for traffic on 14 March 1899. On page 14, Appendix 1, is the report of the Railway Construction Branch to the Board of Land and Works, which was the constructing authority for the Whitfield line. This report also states that the line was opened for traffic on 14 March 1899.

On page 16, Appendix 2, is the report of the Engineer for Existing Lines (renamed the Way and Works Branch in 1903) and it is in this report that it is stated that the Whitfield line was opened for traffic on 29 April 1899. It is not known to what event this date refers, and it is possibly an error. Normally this would refer to when that Branch took over the line for maintenance but, in a minute dated 20 March 1899, contained in the Engineer for Existing Lines' records, it is recorded that the Wangaratta to Whitfield line would be taken over for maintenance from 1 April 1899.

In the days when railways were constructed under Contract, it was normal proceedure for whoever constructed a railway to carry out maintenance of the line for a period of time after it had been opened for traffic.

The Victorian Railways Commissioners did open the Wangaratta to Whitfield line for public traffic on Tuesday 14 March 1899, the first train being the 8.45 Up Mixed from Whitfield. This can be confirmed by reference to the Victorian Government Gazette for 10 March 1899, and also Weekly Notice No.37 for the week ending 13 March 1899.

The Whitfield railway was constructed by the Railway Construction Branch of the Board of Land and Works, and not the Public Works Department as stated in the article. Although operated as part of the Victorian Railways system from 14 March 1899, the railway was not vested in the Victorian Railways Commissioners until 6 February 1905, in accordance with the provisions of The Railways Act 1891 (No. 1250 - 29.12.1891).

Michael Guiney
Croydon, Victoria

Dear Sir,

The Zeehan & North East Dundas Tramway

I recently came across some of my material gathered over the years re: the disposal of rolling stock from the TGR Zeehan & North East Dundas Tramway.

As there has always been a lot of interest in this particular line, I thought these notes may be of interest to readers of your magazine. Many of my notes came from the fitter who worked at Zeehan during this period, and some old TGR correspondence.

In March 1929, the following rolling stock was available for sale at Zeehan:

Steam Locos:

2	'G' Class	Sharp Stewart 0-4-2T
1	'J' Class	Hagans 2-6-4-0T
2	'K' Class	Beyer Peacock Garratt

Passenger Carriages:

2	'DB' Class	Composite Guard/Second
1	'AD' Class	Composite Guard/First
2	'AB' Class	Composite First/Second
1	'A' Class	First Class

Wagons:

37	'A' Class	10 ton capacity
19	'AA' Class	15 ton capacity
12	'BB' Class	20 ton capacity

All of the above was offered for sale to the Mt Lyell Co., Queenstown.

On the 29th April, 1929, the Mt Lyell Co. CME was at Zeehan to inspect the two Garratt engines.

The 610mm gauge TGR system was announced as being closed at June 30th, 1929.

In September 1931, a rail line was being built from Coles Bay to Seymour, on Tasmania's East Coast, for transportation of coal. By October, a formation and culverts from Coles Bay (including a "heavy cutting") had been made for a distance of 16 miles, including a large jetty at Coles Bay. Another 16 miles would have taken it to the coal deposits at Seymour. The gradients on the line were described as "light".

The TGR recommended to the Company that 'G' Class, or 'K' Class locos would be suitable motive power, with the 'BB' Class 20 ton wagons for rolling stock.

In November 1933, the new Catamaran Collieries Pty Ltd in far southern Tasmania required some wagons for use in transporting coal. The TGR sold them 10 'A' Class wagons that were in the "best condition" from the ZNED stock at Zeehan, in January 1934. The wagons were A5, A9, A19, A24, A26, A27, A28, A29, A41 and A42. For some reason, some wagons were "left on the Strahan Wharf" whilst four others (A1, A30, A32 and A37) were railed to Hobart.

In February 1934, H Jones & Co. of Hobart requested a "2ft gauge locomotive suitable for the Ida Bay Tramway". The TGR offered a 'G' Class Sharp Stewart loco. Jones refused the offer, as the 'G' Calss was considered "too heavy for the bridges, etc" and asked for a smaller loco. The TGR replied that no lighter locos were available.

In May 1935, the Catamaran Coal Co. agreed to purchase a further 12 wagons. Also, the Hobart firm of A G Webster, Machinery Department were interested in purchasing "2ft gauge steam locos" and by December of 1935 had purchased the two 'G' class locomotives.

In June 1935, local sawmiller and businessman R J Howard of Zeehan was interested in the dismantled Krauss locomotive (H1) in the Zeehan loco shed, and asked if a boiler was available for it. He also, at this time, bought six of the 'A' wagons, for use on the Mariposa Tramway. He did not take the Krauss loco.

During 1936, the Catamaran Coal Co. bought some wagon brasses and couplings for their stock, and also requested "brasses and rods for a Krauss locomotive".

In June 1937, the North Mt Farrell Co. at Tullah bought two of the 'A' Class wagons (A38 and A39) and van No. DB3. It was noted that the van was " a converted 'A' wagon, and had no upholstered seats".

As a result of another enquiry by A G Webster of Hobart, the TGR advised that the two 'K' Class Garratts were still available for sale, along with the 'J' Class Hagans, which also had a spare boiler.

In February 1939, the Fairymead Sugar Co. of Queensland enquired about the two Garratt locos that were for sale at Zeehan.

In January 1940, the 2ft gauge rolling stock remaining at Zeehan was stated as follows:

2	'K' Class locos
1	'J' Class loco
24	'A' wagons
20	'AA' wagons
12	'BB' wagons

In June 1943, the North Mt Farrell Co. at Tullah requested information from the TGR on the "purchase of a First Class carriage from Zeehan". However, they could not agree on a suitable price, and the transaction did not take place.

In March 1945, the TGR announced plans to "scrap all the remaining freight stock at Zeehan to obtain cast iron, etc". The passenger stock, consisting of A1, AB1, AB2 and AD2, was to be sent to Launceston Workshops for conversion to camp cars. One 'DB' van in poor condition was to be demolished or sold locally (it finished up as a 'woodshed' at Zeehan).

During 1947, 62 wagons at Zeehan were cut up for scrap material, and Beyer Peacock Ltd accepted Garratt loco 'K1' for preservation in the UK.

In August 1948, the boiler from loco 'K2' was sold to a Mr Fidler of Burnie. The tanks were bought by fitter M Grey of Zeehan.

In September 1948, the Hagan loco 'J1' was stripped at Zeehan.

In November 1948, R J Howard of Zeehan purchased four wagons (AA9, AA10, BB9, BB10).

In November 1949, the Cornwall Coal Co. purchased one ex-passenger car bogie for "experimental purposes" at their colliery at Cullenswood, Tasmania.

Ralph Proctor
Launceston, Tasmania

RESEARCH

The construction railways of the Snowy Mountains Scheme

1999 marks the fiftieth anniversary of the inception of the Snowy Mountains Scheme in southern New South Wales, an engineering work which far surpassed anything else seen in Australia up to that time. A major part of the work involved the construction of a network of underground tunnels used to divert the waters of the Snowy, Eucumbene, upper Murrumbidgee and Tooma Rivers to the Murray and Murrumbidgee River systems. More than 125 kilometres of tunnels were constructed, and narrow gauge railways were used extensively in this work.

It would be appropriate if the fiftieth anniversary of each major tunnelling job could be marked with an article in *Light Railways*. The first major part of the scheme was the Guthega project, which commenced in 1952, so there is still some time to prepare.

The following list shows what are believed to have been the main projects involving tunnelling railways, although some smaller jobs in association with dam works may also have utilised railways.

The construction railways were featured in an article in 1971 in the *ARHS Bulletin* (407), and Norm Houghton and John Browning have commenced collecting general information on the projects. It is believed that the archive of the Snowy Mountains Hydro-Electric Authority contains many photographs of interest. This material has recently been transferred to Australian Archives in Canberra and should become available to the public before too long. If there are readers who have information of interest, or would like to be involved in this project, could they contact John Browning at the address shown on the inside cover of the magazine.

Charters Towers Water Board Firewood Tramway

The letter by John Knowles in LR 146 (p. 23) regarding the 2ft 8½in gauge firewood tramway of the Charters Towers Water Board has prompted Peter Lukey to forward field notes he made of the site with three friends in 1991 and 1993.

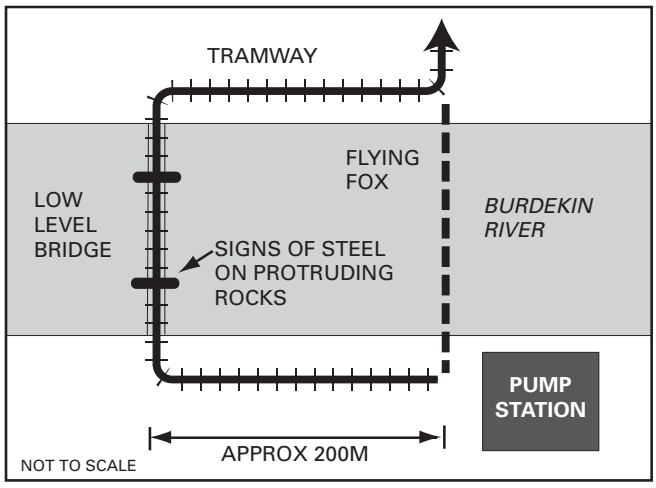
The firewood tramway ran from the waterworks across the Burdekin River by a low-level bridge. When the bridge was swept away by floods in 1910-11, a flying fox was erected to carry firewood across the River. The tramway continued from the flying fox on north bank of the river until 1937-38.

Peter Lukey writes:

On the second site visit (1993), the river was "dry" and we were able to walk across to the north side and record the evidence that was still extant of the flying fox installation and the firewood tramway. The tramway formation was easily traced out northwards from the river and also down the north bank to the location of the bridge. Steel bars embedded in boulders in the riverbed indicated the path of the bridge. Adjacent to the flying fox remains is the long narrow pit of the locomotive shed, with one corner post still standing.

The remains of the timber sleepers with their dog spikes indicated a rail gauge of 24in, or perhaps 60cm. John Knowles' letter is the first I have heard referring to a gauge of 2ft 8½in at the pumping station.

There was a section of railway along the front of the boiler site. The rails are set in concrete and give the impression of being installed at the same time as the Babcock & Wilcox boiler. I do not have the date of this, although it was long after the bridge was washed away and the tramway terminated on the north bank of the river. These rails are set at 2ft 4in from memory (but may have been 2ft 8½in). I think they were used to handle fuel from a storage area to the boilers.



Bruce Macdonald confirms John Knowles' advice that the firewood tramway was operated by an Orenstein & Koppel 0-4-0T (819 of 1901). This locomotive was built for "James Boyd for export" to 825mm gauge (or 2ft 8½in).

Victoria State Rivers & Water Supply Photos

John Peterson reports that the State Library of Victoria has a multimedia collection on line at www.slv.vic.gov.au.

Of particular interest is the fact that much of the Rural Water photo collection is on line. Searching for particular dams brings some successful results. Yarrawonga has a number of interesting photographs including:

- Malcolm Moore Fordsons [showing the spring buffer device used on the WW2 model].
- The Black Hawthorn 0-4-2T, and a Krauss loco, being delivered by flying fox

There is an extensive collection covering Koo-Wee-Rup. One shows an obviously home-built locomotive that appears to be powered by a vertical boiler steam engine, though others have claimed it is an oil engine. It is made from a converted skip frame with extended axles meaning the gauge is 3ft or maybe 2ft 6in. There were a few pictures of this line including a passenger special. It was under the heading of channel construction but the wagons shown did not seem to be ones for removing sand; more likely providing firewood for the steam shovels shown on other photos.

CONTRACTOR	MAJOR PROJECT	LENGTH	DATES
Selmer Engineering Pty Ltd	Guthega-Munyang Pressure Tunnel	4.62km	1952-5
Kaiser-Walsh-Perini-Raymond Joint Venture	Eucumbene-Tumut Tunnel	22.19km	1954-9
Arthur A Johnson Corporation & RCP Construction Ltd	Tumut 1 Pressure Tunnel	2.44km	1955-9
Citra led consortium	Tumut 1 Tailwater Tunnel	1.31km	1957-9
Kaiser-Perini-Morrison-Raymond Joint Venture	Tumut 2 Headrace & Tailrace Tunnels	11.22km	1958-61
Thiess Bros Pty Ltd	Tooma-Tumut Tunnel	14.3km	1958-61
Utah, Brown, Root Sudaricana Joint Venture	Upper Murrumbidgee-Eucumbene Tunnel	16.5km	1958-61
Utah, Brown, Root Sudamericana Joint Venture	Eucumbene-Snowy Tunnel	23.5km	1961-5
Thiess Bros Pty Ltd	Snowy-Geehi Tunnel (Geehi section) & Murray 1 Pressure Tunnel	20.56km	1962-6
Utah, Brown, Root Sudamericana Joint Venture	Snowy-Geehi Tunnel (Snowy section)	5.6km	1962-6
Thiess Bros Pty Ltd	Geehi River Aqueduct Tunnel	2.4km	1962-70
Monier-McNamara-Hardeman Joint Venture	Jindabyne-Island Bend Tunnel	9.86km	1964-8
Dillingham Constructions Pty Ltd	Murray 2 Pressure Tunnel	2.46km	1966-9

Heritage &Tourist

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

NEWS

Queensland

ARCHER PARK STATION,
Rockhampton 1067mm gauge
Capricorn Heritage Rail Association

A visit was made to this site on 2 May. Rockhampton City Council and the CHRA have done an impressive job restoring the railway station, which is located on the section of QR track in Denison Street.

The complex will be formally opened on 15 October 1999. It will offer a museum that tells the social history of the station in the 1930s and steam tram rides over approximately 1km of track in Denison Street, using the restored 1909 Purrey tramcar. Initially, steam trams will operate every Sunday, with the operating days being extended as additional drivers are trained. Editor, 5/99

BALLYHOOLEY TOURIST TRAIN,
Port Douglas/Mossman
610mm gauge
Mossman Central Mill

The current service runs from St Crispins (Clearlake) station to Port Douglas (Mirage Marina). There are trains every hour from about 9am to 5pm. The first service originates at St Crispins and the last service terminates there, with the train stabling overnight at St Crispins. There is one intermediate platform at the Radison Reef Hotel. There are no passing facilities between St Crispins and Port Douglas. The service is operated by three semi-open cars pulled by Baguley 0-6-0DM *MOWBRAY*. The loco and cars are fitted with small knuckle autocouplers. There are run around loops at St Crispins and Port Douglas.

The end of track at Port Douglas is onto a turntable built new at Mossman Mill. This is now basically just used as a sector plate to turn the loco onto the other track of the loop. A track panel beyond St Crispins, just before the lake bridge, has been lifted recently for track maintenance so there is currently no track link to Mossman Mill.

Two Bundy Fowler steam locos and two more semi-open passenger cars in an obviously disused state were seen at the station building at the rear of Mossman Mill. A further semi-open passenger car was in the yard at the front of the mill and the incomplete frame for a seventh passenger car was also in the mill yard.

Bill Bolton (ausrail newsgroup) 4/99

DURUNDUR RAILWAY,
Woodford 610mm gauge
Aust. NG Railway Museum Society

The Hudswell Clarke 0-6-0 *MELBOURNE* (B/No 1701 of 1938) was registered by Queensland Transport under Rail Safety Accreditation in May 1999. Insulation and new boiler cladding were then installed and the locomotive was steamed for the public for the first time on Sunday, 23 May. Meanwhile, new sidetanks are being built for 0-6-2T *PLEYSTOWE No.5* (Bundaberg Fndy. 5/1952) in Tony Lindsay's farm workshop at Wamuran. Once staff are satisfied with *MELBOURNE's* operation, *PLEYSTOWE No.5* will enter the workshop for fitting the new sidetanks and a new paint job. However, arrangements have been made for No.5 to feature in the Nambour Sugar Festival from 9 to 14 August 1999. It will operate cane trains from Howard Street to the sugar mill each day.

David Mewes, 5/99 and 6/99

ETON PROGRESS ASSOCIATION
610mm gauge

A community meeting was held at Eton, near Mackay, on 17 May to consider the future of ex-North Eton Mill Hunslet 4-6-0T 1239 of 1917, displayed at Langford Memorial Park, Eton. The locomotive is now under the control of the Eton Progress Association. It is believed that the Australian War Memorial has shown some interest in obtaining this locomotive for display in Canberra. It was decided that the locomotive would remain in the district, but it will be removed to Mackay Sugar's North Eton depot pending cosmetic restoration. Andy Roberts 5/99

DEE RIVER RAILWAY,
Mt Morgan 1067mm gauge

The Mount Morgan Festival was held over the long-weekend of 1-3 May, but operations on the tourist railway were irregular. A visit on Sunday, the 2nd, found services over the 3.5km line provided by a Fairmont trolley. It was claimed that the former Mt Morgan industrial 0-4-0ST No. 3 (Hunslet 854/1903) had operated trains the previous day, but this could not be verified. Unsatisfactory marketing and operating performance of this Council-owned tourist railway has resulted in the calling for expressions of interest from potential operators. Six EOIs were received and Council selected the Rockhampton-based Central Queensland Committee of the ARHS Qld Division to operate the line. The previous operators were due to conclude their lease on 31 May, when the ARHS were to take responsibility for managing the assets. Mt Morgan No.2 (Hunslet 797/1902) remains on static display in East Street and has recently been painted in bright colours. The tourist operation has been renamed the Dee River Railway. The complex is open daily from 0800-1600, with steam trains on Sundays, and fettlers trolleys or railcar rides on other days.

Editor, 5/99, Bruce Russell, 6/99

MOURA MINEWORKERS' PICNIC COMMITTEE,
Gill Park, Moura 610mm gauge

2ft gauge Jenbach 4wDM 1194 of 1954 appeared to be in very good condition when viewed inside its shed at the Moura Showground on 22 May. It has a small oval of track to run on and there are a total of nine four-wheel passenger cars on the track in the two sheds which form "tunnels" when the line is used. This locomotive was used at a number of collieries in south-east Queensland, latterly the Burgowan No.13 colliery near Torbanlea. John Browning 5/99

PIONEER PARK MUSEUM,
Dalby 750mm gauge

Henschel 0-6-0WT 29583 of 1956 at this location is no longer under cover here and is visible amid a variety of rusty items near the

Coming Events

AUGUST 1999

8 Alexandra Timber Tramway & Museum, Vic. Steam train operations 1000-1545. Phone 015 50 9988.

8 Durundur Railway, Woodford, Qld. Steam-hauled 610mm gauge trains every Sunday. 1000-1600. Phone 07 3202 6330.

8 State Mine Railway Heritage Park, Lithgow, NSW. Operating day, with steam equipment, mine transporter rides, demonstrations of mine skip restoration and passenger train rides to Lake Pillens. Phone (02) 6353 1513. Operating days also on first Sunday of following months.

9-14 Nambour Sugar Festival, Qld. ANGRMS' Bundaberg Fowler 0-6-2T will be operating on cane haulage duties from Howard Street to the sugar mill each day.

SEPTEMBER 1999

2 Wee Georgie Wood Railway, Tullah, Tas. Steam train operations 1200-1600 - start of new season. Also on 26/9 and 3/10. Phone (03) 6234 8233.

7 Puffing Billy Railway, Belgrave, Vic. Fathers' Day Luncheon Special Train, departs 1125. Light hamper lunch, quiche & salad lunch or Devonshire tea. Bookings (03) 9754 6800.

11 Bennett Brook Railway, Whiteman Park, WA. Annual Gala Day, with an interesting timetable of unusual train workings. The event will celebrate 15 years of train operations on the BBR. Phone (08) 9249 3861.

12 Alexandra Timber Tramway & Museum, Vic. Steam train operations 1000-1545. Phone 015 50 9988.

25 Semaphore & Fort Granville Tourist Railway, Port Adelaide, SA. Steam Trains (457mm gauge) operate daily during school holidays to 10 Oct. Phone (08) 8341 1690.

OCTOBER 1999

3 Cobdogla Irrigation & Steam Museum, Barmera, SA. Museum Pump and Steam Day. Phone (08) 8588 2323.

6 Launceston Spring Festival Steam Program, Tas. Special events at Invermay Workshops heritage precinct, with Don River Railway locomotives and rolling stock on display, special trains to nearby destinations, and trips around the site by Launceston Tramway Museum gang motors. Program concludes 3 November.

9 Bennett Brook Railway, Whiteman Park, WA. Friends of Thomas the Tank Engine Day. Phone (08) 9249 3861.

10 Alexandra Timber Tramway & Museum, Vic. Steam train operations 1000-1545. Phone 015 50 9988.

15 Archer Park Railway Station Museum, Rockhampton, Qld. Official opening of restored station and museum, with trips by Purrey steam tram. Phone 07 4936 8287.

Heritage &Tourist

front of the museum complex. The locomotive is of a modern design and it is believed to have seen very little use at Chonburi Sugar Factory in Thailand, so it is to be hoped that it will not languish here too long. John Browning 5/99

PORT DOUGLAS HISTORICAL SOCIETY 610mm gauge
The original Port Douglas tramway 0-6-0T Fowler locomotive (JF 8743/1901) and an original passenger coach were restored in 1997 thanks to the efforts of the Port Douglas Historical Society. They are on display in a caged enclosure near the ANFL field behind the shopping centre (LR 142, p.31).
Bill Bolton (ausrail newsgroup) 4/99

New South Wales

BHP VISITORS CENTRE, Port Kembla 1435mm gauge
A small display of steelworks rolling stock has been established near the BHP Visitors' Centre at Port Kembla. Currently a 20-ton bogie slag wagon and 232-ton Treadwell torpedo ladle car No. 10 are displayed on a short length of track. Brad Peadon, 4/99

EL CABALLO BLANCO, Catherine Field 1067mm gauge
Last reported in *Light Railway News* 106, in 1995, the Neil Moxon steam outline diesel locomotive and two carriages were noted on 23 May 1999. The locomotive was originally built as a '2-6-0T' but has been modified to a '2-4-2T' with the front pair of wheels not in contact with the track, and the rear pair of wheels flangeless. It carries a builder's plate with ECB LOCO as the only details, and dates from 1983. The two carriages also carry Moxon plates. The track is beginning to become overgrown, and there was little sign of any operation of the site at the time of the visit.
Ray Graff 6/99

STATE MINE HERITAGE PARK, Lithgow 1435mm gauge
The State Mine Heritage Park & Railway has commenced works associated with the rebuilding of industrial branchlines to the former Hoskins blast-furnace site under the Centenary of Federation project. Rail Services Australia has constructed new turnouts at Lake Pillans and the State Mine to facilitate further rail development.
Council approval has been sought to re-erect a 25-metre high steel poppet head at the State Mine [LR 146, p.29). This headframe will stand over the State Mine Downcast Shaft and will represent the original headframe, which was cut down in 1964. Special NSW Heritage Office approval is required for this construction under new planning laws, as it involves some disturbance of the existing footings. The "new" poppet head came from Newstan Colliery, and was donated by PowerCoal. Funding for the re-erection project has come from the Miners Trust Fund which is administered by the Construction Forestry Mining and Energy Union. Construction is expected to commence in June/July. Once the poppet head is erected moves will be made to display 1067mm gauge underground mining equipment from Glen Davis Oil Shale Mine and Kandos Colliery near the downcast shaft.
Ray Christison, 6/99

The imressive dimensions of the Malcolm Moore 1067mm gauge underground locomotives built for Australian Iron & Steel can be seen from this shot of 11 KEMIRA *(26-204 No.11 of 1951) at the Zig Zag Railway depot, Lithgow, on 9 May 1999.* *Photo: Ray Graf*

Slag wagon and ladle car on display behind the BHP Visitors' Centre, Port Kembla. 3/4/99 *Photo: Brad Peadon*

State Mine Heritage Park, 9 May 1999. English Electric (Australia) B-B DE D23 colorbond *(A.038 of 1960) ex Port Kembla steelworks. Photo: Ray Graf*

TIMBERTOWN, Wauchope
610mm gauge
A new preservation society has been formed by enthusiasts to maintain and restore steam, diesel and oil machinery at Timbertown. Three specialist groups within the society will maintain and operate equipment at the complex in order to breathe new life into Timbertown. The ex-Macknade Sugar Mill Hudswell Clarke 0-6-0 loco (B/N 1862/1953) returned to service on 16 May following extensive refurbishment and work is continuing on the John Fowler 0-4-2T (B/N 17881/1929). The railway was to operate under special conditions during a two-day business expo on 29-30 May. Hastings Council is seeking a business operator for the Timbertown railway.
Port Macquarie Express, 3/5/99 and 7/5/99, via Michael Marczan

Victoria

ALEXANDRA TIMBER TRAMWAY & MUSEUM
610mm gauge
0-6-0 Hudswell Clarke 1555 of 1925 (loco only), formerly of Sandhurst Town, arrived at Alexandra Timber Tramway & Museum on Friday 28th May, 1999 in derelict condition. The loco is privately owned and is planned to be restored at Alexandra and eventually run at the ATT&M. It is currently located on an isolated piece of track near the goods shed at the Museum. Peter Medlin, 5/99

PUFFING BILLY RAILWAY, Belgrave 762mm gauge
Emerald Tourist Railway Board
The midday *Luncheon Train* on 24 May was hauled from Belgrave to Menzies Creek by immaculately presented 2-6-2T 8A. Here it 'swapped trains' trains with Canadian Red loco 14A. This exchange was to provide each loco crew with a similar amount of running during the day.
The people who guide and manage a heritage railway such as the PBR have a key role in its long-term success. The eighth Emerald Tourist Railway Board has recently been established. The Chairman is John Robinson, the President of the Puffing Billy Preservation Society, and there are three other PBPS nominees, Phil A'Vard, JD Shaw and GS Breydon. The nominees of the Minister for Tourism are Susan Ham, also a member of the PBPS

Puffing Billy Railway enters the freight business - an open wagon loaded with bicycles for the "bike train" in March 1999. *Photo: Mark Plummer*

Freshly painted ex-Fyansford ASG No.33 at the Railway Museum, North Williamstown. *Photo: Bob McKillop*

Ida Bay Railway Hunslet 0-4-2T 1844/1926 in light steam on Monday 22/2/99. It has just hauled the rail motor out of the shed.. *Photo: Wal Lane*

Executive, and well-known local B&B entrepreneur, Janice Gasking, while Bob Wilson remains as the nominee of the Minister for Transport. Until the Board is in a position to appoint a full-time CEO, Phil A'Vard has been appointed Executive Deputy Chairman on a part-time basis to provide an overview of the management and to introduce administrative improvements in operations.

On Sunday 14 March, a special 'bike train' carried 40 cyclists and their bicycles from Belgrave to Gembrook. The latter were carried in an open NQR wagon. The bicycles are believed to be the first commercial freight carried on the line since 1962. From Gembrook, the cyclists headed north to Launching Place, then followed the railtrail to Lilydale.

Mark Plummer, 3/99; Editor 5/99; *Narrow Gauge* 3/99

RAILWAY MUSEUM, Williamstown

900/1067/1600 mm gauges

A visit on 23 May found volunteers working on the industrial railway exhibits at the northern end of the site. Engine restoration work was proceeding on State Electricity Commission (SEC) 0-6-0DE shunting locomotive No. 2 (EE UK 1951), ex-Newport Power Station, while SEC 900mm gauge 46-ton Bo-Bo electric loco No. 37 (SEC 3/1942) and coal wagon were having the finishing touches completed on their repaint. Ex-Fyansford cement works 4-8-2+ 2-8-4 Australian Standard Garratt locomotive (Newport, 1945) is also in this section in smart grey livery. It is the only surviving example of the 1067mm gauge ASG locomotives, which were an important element of the Australian War effort. Two 18-inch gauge cordite drying wagons from the Maribyrnong Explosives factory complete these industrial exhibits. In addition, former VR broad gauge steam locomotives F176 (2-4-2T) and T94 (0-6-0 goods) saw extensive service at the HV Mackay Sunshine Harvester works and Newport Power Station respectively before coming to the Museum. Editor, 5/99

Heritage &Tourist

Tasmania

IDA BAY RAILWAY
610mm gauge
0-4-2T No.6 *OLD THOMAS* (Hunslet 1844/1936) was in light steam for an 'AusTransit 99 tour' group to this site on 22 March 1999 (see LRN 96). The Hunslet is fitted with a peculiar light 'outside frame', for want of a better term, which slopes downward from the outer ends of the front buffer-beam almost to rail level (see photo). At one time the cab roof extended forward, with the leading edge in front of the funnel traction engine style, but No.6 is now fitted with a conventional cab. Malcolm Moore diesels Nos. 1, 3 and 4 were noted around the depot area painted red with a little black trim. No.3, which hauled the special train, is fitted with a large road-truck type air cleaner and vertical stainless steel exhaust system. A gaily-painted closed carriage numbered 14 and named *OCEANA* was included in the consist. It had the inscription LUNE RIVER - IDA BAY - GREAVE'S POINT - ELLIOT BEACH above the windows and IDA BAY RAILWAY along the bottom of the body. This vehicle is designed to run in one direction only, with entry from a single door of the front open platform. At the rear are guard's lookouts on each side. The famous little rail-motor is still extant, but does not appear to be operational. Trains appear to run according to passenger numbers rather than the advertised timetable. If you are planning a trip to this remote railway, it is suggested you advise ahead of your plans and how many people are in your party.

Wal Lane, 6/99

MT LYELL ABT RAILWAY, Queenstown 1067mm gauge
Further to LR 146 (p.31) activities on this major construction project are gearing up. In March 1999, ex-Mt Lyell Mining & Railway Coy 0-4-2T Abt rack locomotives Nos 1 and 3 (Dubs 3369/1896 and 3730/1899) were moved from West Coast Pioneers Museum, Zeehan and 'Miners Siding', Queenstown respectively and stripped down for detailed inspection. It is understood that No.3 is the better prospect for restoration and that a contract for restoration work is being prepared. Negotiations have commenced with the Tasmanian Transport Museum and the Puffing Billy Restoration Society in Victoria for the possible return of Mt Lyell Abt rack locos Nos.2 and 5 (Dubs 3594/1896 and NBL 24418/1938). Signage providing information about the project is being erected at relevant sites along the route. The new tourist line is scheduled to open in 2001, although limited operation may occur with the completion of sections of line and rolling stock.
Michael de Bomford, 6/99; PBPS June Newsletter; Michael Dix, 6/99, Peter Ralph 7/99

Ida Bay Railway: Carriage No.14 OCEANA*, 22/2/99.* *Photo: Wal Lane*


Ida Bay Railway: Malcom Moore loco No.3 with open and closed carriages in tow, May 1999. *Photo: Peter Ralph*


A restored Fordson Rail Tractor and timber bogies on display outside the Forestry Tasmania offices at Triabunna, on the East Coast Highway, May 1999. The tractor was once used on a tramway near Geeveston.
Photo: Peter Ralph


B-type Climax locomotive 1652/1923 is seen undergoing cosmetic restoration at the Tasmanian Transport Museum, Glenorchy, on Sunday 21 March 1999. *Photo: Wal Lane*

WEE GEORGIE WOOD STEAM RAILWAY, Tullah 610mm gauge
This site was also visited by the 'AusTransit 99 tour' group on 25 March. The depot and railway station are just off the Murchison Highway and the present length of line is about 2km, most of it through the scattered semi-urban environment of Tullah township. There are balloon loops at each end, which obviate the need to detach the loco and run around the train. At the outer end of the line, a set of points have been installed that will give access to a proposed extension towards Farrell Siding along the old formation.
The special train was headed by 0-4-0WT *WEE GEORGIE WOOD* (John Fowler 16203 of 1924). It was marshalled with a bogie flat wagon behind the engine, containing a water tank and some fire-fighting equipment, plus extra loco fuel supplies. This was followed by a small green side-loading bogie passenger car and a larger end-loading bogie saloon car at the rear. The line normally operates on the first Sunday of the month, September to April, with additional days scheduled for the last Sundays of September, November, January and March.

Wal Lane, 6/99

Western Australia

BENNETT BROOK RAILWAY
610mm gauge
WA Light Railway Preservation Assoc. Inc.
Steam locomotives NG118, *ANNIE* and BT1 *BETTY THOMPSON* have

Heritage & Tourist

been passed by the boiler inspector for operation in 1999. Good progress has been made at Whiteman Park with the reconstruction of the Subiaco buildings and new workshops at Mussell Pool with new track completed by the end of April (see LR 146, p.31).

Construction of the new locomotive shed and carriage extensions commenced on 29 April 1999 and were almost completed by 16 May, while work on restoration of the Subiaco signal cabin and canopy is also well advanced.

WALRPA volunteers spent three days over Easter 1999, and two days on subsequent week-ends, collecting derailment damaged sleepers from a section of Westrail track near Muchea. A derailed wagon had been dragged 10km and damaged one end of all the sleepers in this section, necessitating their replacement. The damaged sleepers are perfectly useable for 2ft gauge track. Crews had collected 1500 sleepers by 29 April. Simon Mead, 4/99

BUSSELTON JETTY RAILWAY
1067mm gauge
Busselton Jetty Management Committee

The 1.5km tourist railway on the jetty at Busselton has carried 61,659 passengers between Easter 1995 and 1 April 1999. During this period, the train covered 21,967km.

Busselton-Margaret River Times, 1/4/99, via David Whiteford

HANNANS NORTH TOURIST MINE, Kalgoorlie

The surface train that previously operated at this tourist attraction [see LRN 100) is no longer operable and its rehabilitation is reported to be too expensive. The 4wBE locomotive and cars, together with other locomotives, rolling stock and mining equipment used in the Kalgoorlie area, are on static display in the yard.

Don Montefiore (Reserve Manager), 5/99

490mm 0-6-2T locomotive KEN *and woodline wagons on display in the new shed at the Leonora/Gwalia Museum. Photo: David Whiteford*

LEONORA/GWALIA MUSEUM
490mm gauge

The former Sons of Gwalia woodline 0-6-2T locomotive, *KEN* (Midland Workshops, 1934), has been moved from its open air site next to the Gwalia State Hotel to a new covered area at the Museum. Also under cover at this site are a Kalamazoo open wagon, enclosed supply wagon and a few frames of mining trucks. The cab of the locomotive *KOPPEL* and sidetanks from *FOWLER* have been moved to the Museum, but are not under cover. The body of the Leonora electric tram car is in the backyard of one of the two houses at the Museum (see LR 128). This was moved from the Leonora power station following vandal damage and requires restoration work before being placed on public display.

Other rail attractions at the Museum include the two-track headframe incline with one hopper on the incline and three on the ground. Of two 4-wheel skips in the Museum, one has Arthur Koppel Berlin plates on both the frame and hopper.

David Whiteford, 5/99

SHIRE OF SWAN, Midland Junction
1067mm gauge

The sole surviving Midland Railway of WA steam locomotive, 4-4-0 B6 (Hawthorn Leslie 2217/1891) was transferred from Geraldton, where it has been on static display for many years, to Midland Junction Workshops on 27 April. The historic locomotive has deteriorated from exposure to sea air. When Geraldton Council sought to dispose of it, a number of groups expressed interest in obtaining it, including the ARHS and an English group who wanted to repatriate the loco to the UK. It is now owned by the Shire of Swan Council, within whose area the former base of the Midland Railway was located. The locomotive is currently in storage pending a decision on its future.

Simon Mead, 4/99

Overseas

BENSON MOUNTAIN COY, Edaville, USA 610mm gauge

Hudswell Clarke 0-6-0 1664 of 1936, ex-Lautoka Mill 21 in Fiji and named *Anne Elizabeth*, was restored to working order by the Benson Mountain Company at Edaville, North-East USA in 1996. Work included retubing and conversion to oil firing. It can be purchased for $US180,000 including one four-wheel boxcar; one Welsh style (enclosed) four-wheel three compartment passenger car replica; and two Fiji-style (open) excursion cars.

David Mewes 5/99; John Browning 5/99

DARJEELING HIMALAYAN RAILWAY, India 610mm gauge

The fourth Darjeeling Himalayan Conference was held in Delhi during April. The Indian Railway Board have put the DHR up for World Heritage status. Two B-class locomotives are being overhauled for the "Grand Reopening" in May 2000. This event is expected to see at least one visiting locomotive, *LINDA* from the Festiniog Railway in Wales.

A set of carriages is being refurbished for a tourist train. The Railway Board is committed to retaining steam for this tourist train and has not ruled out steam for ordinary services. Two 240hp diesel locomotives, originally built for the Matheran line, have been sent to Darjeeling to work the ordinary service.

The Darjeeling Himalayan Railway Society (Australia) welcomes new members (see LR 141, p.27). Information about the Society can be found on the Home Page at http://www.powerup.com.au/~kjw_meh, or by contacting Ken Walker, 56 Borden Street, Sherwood QLD 4075, Facsimile (07) 3278 1805.

The Society holds regular meetings in Brisbane, Sydney and Melbourne on the second Tuesday in February, May, August and November.

Ray Gardiner, 6/99

ERRATA, LR 146

Richard Horne has pointed out the following errors (all ours) which occured in the articles on "Sentinel" locos, in LR 146:

Page 13: *Sentinel* should read "Sentinel", and Mr J P Burnside was Chief Engineer of the S A Gas Co, not the Sentinel Works.

Page 11: The 'Wagon' in 'Wagon Works' should be spelt with <u>two</u> 'g's.