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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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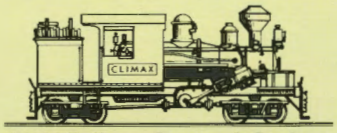

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Conversions:

1 inch (in)	25.40 millimetres
1 foot (ft)	0.30 metre
1 yard (yd)	0.91 metre
1 chain	20.11 metres
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

As you'll note from our 'Contents' list above, page 24 of this issue has the first instalment of the long awaited results of our Readers' Survey – that relating to *Light Railways* magazine. Bob McKillop's synopsis explains the results much better than I can here, but I will say that the feedback has generally been very encouraging. While it's obviously not possible to please all of our readers all of the time, overall we appear to be striking a reasonable balance.

Respondents made some good suggestions, also, for various ways to improve *Light Railways*. Whilst some are not really feasible, given our limited resources, others will be implemented whenever possible. The first example of this may be seen on page 4, where a 'location map' has been added to the main map of the Beech Forest line. (This is, of course, for the benefit of readers outside Victoria, since describing the location of Beech Forest to a Victorian enthusiast is rather like telling a Saudi Muslim where to find Mecca!)

Generally speaking, readers' likes and dislikes have not changed a great deal since our last survey, a decade ago. We still love our little engines, as evidenced by the highest scoring 'Research Articles', and we still love our history and seeing the 'bigger picture', judging by the other articles which also scored well.

One surprise, for me, was the number of people who regularly read the Editorial. Not being much of an editorial reader myself, I'd come to assume that, beyond my fellow editors and my Mum (who always reads it), few would have been interested. So I must be doing something more or less right, and if you're happy to keep reading it, I'm happy to keep writing it! *Bruce Belbin*

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

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

Light Railways is the official publication of the Society. Material submitted is subject to editing, and publication is at the discretion of the Editor.

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

Material is accepted for publication in *Light Railways* on the 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.

Front Cover: *On the Victorian Railways' 2ft 6in gauge Beech Forest line, 2-6-0+0-6-2 Garratt G42 (Beyer Peacock 6268 of 1926) makes a smoky approach to Tulloh with the weekly goods train in 1961. Photo: Ian Scutt.* ***Upper back cover:*** *On Thursday 9 December 1954, sister loco G41 (Beyer Peacock 6267 of 1926) shunts at Lavers Hill with the last regular train to traverse the entire line from Crowes to Colac.* ***Lower back cover:*** *Later, the same train enters Beech Forest, where it will travel around the balloon loop then head on to Colac, along the parallel track to the left. Photos: the late PG Dow, from Bob Dow collection*

A sunny afternoon in 1955 finds 2-6-0+0-6-2 Garratt G42 bringing the weekly mixed from Beech Forest through the pleasant bush near Barongarook. Even with five NQ wagons of lime added at Kawarren, the weight of the train is 172 tons *Photo: Ron Preston*

A Journey to Beech Forest

by Ron Preston

In the lean financial times of the 1890s the expansion programs of the Victorian Railways were severely restricted as the depression took its toll on the money available. Whereas some 1162 route miles had been opened between 1887 and 1892, the following five years saw only 225 miles added to the system. The choice of 5ft 3ins as the system's track gauge exacerbated the problem as its construction costs were significant.

To overcome these problems, the government charged the Parliamentary Standing Committee on Railways which turned its attention to the use of narrow gauge tracks and vehicles. After the inevitable debates and deliberations, the gauge chosen was 2ft 6ins and four lines were eventually constructed.

The settlements of the rugged Otway Ranges, south-west of Melbourne, were crying out for a means of sending out the timber and farm produce hard won in the tough terrain. An answer came in December 1898 when approval was given to build a narrow gauge line from the main line at Colac to the established settlements of Barangarook and Gellibrand and on into the ranges. The proposed terminus was to be at Gardiner's but, when the line was formally opened on 26 February, 1902, the last station was Beech Forest.

Other settlements south-west of this point formed the Wattle Hill Railway League and started their lobbying to have the line extended. The first sign of success came in July 1908 when an extension was authorised but, due to a combination of wet weather and unexpected construction problems, indicative of the local terrain and climate, the extension did not open until 20 June, 1911. Its terminus was Crowes, perched high in the mountains and not far from the steep slopes leading to the wild waters of Bass Strait.

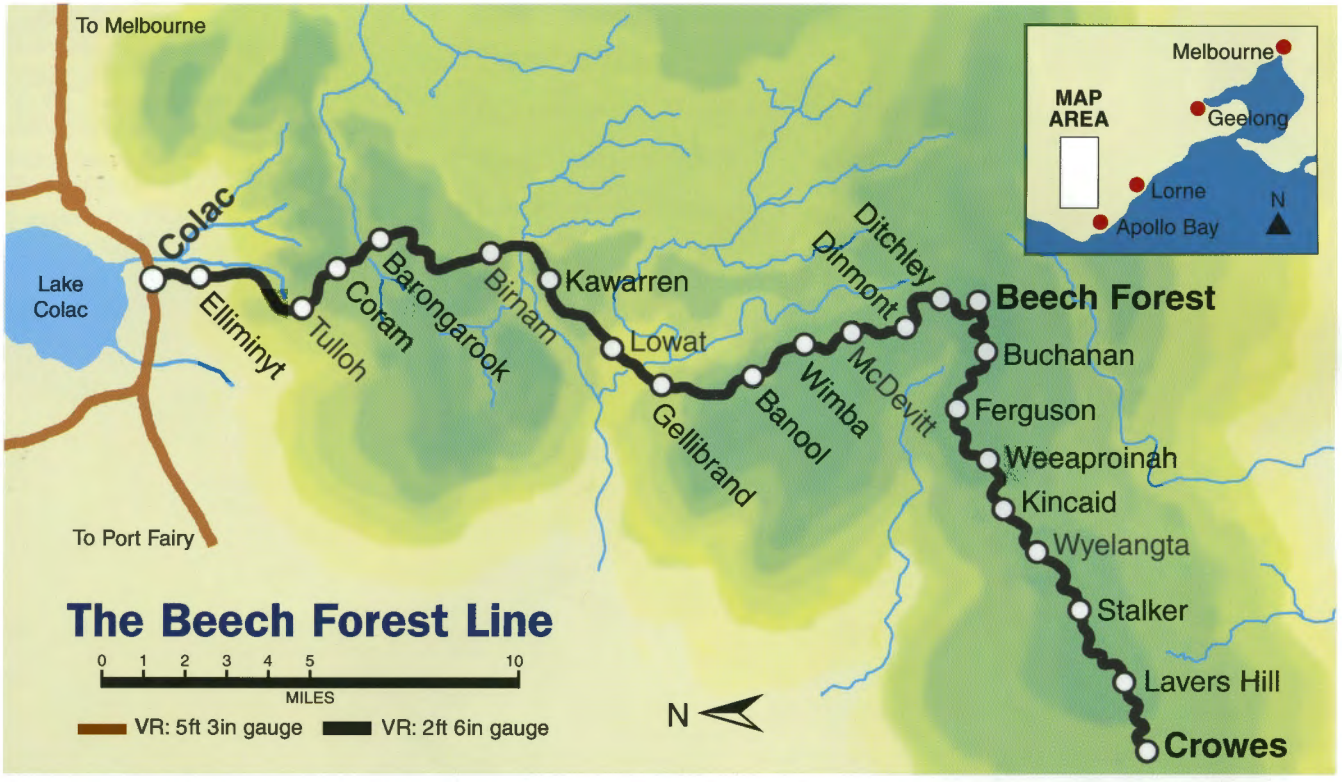
While the gradients used had been eased from those originally proposed, sections of 1 in 37 were used in the five-mile climb out of Colac to Coram while a similar inclination took it down through the thick bush to Gellibrand. In this section, almost two-thirds of the route was in curves, many of two-chains radius. The twelve-mile climb out of the valley of the Gellibrand River to Beech Forest was inclined at 1 in 30 and there were around 62 curves of three-chains radius or sharper. In this section, the rails climbed through 1,500 feet. Like most of the VR narrow gauge lines, a speed limit of 20 miles per hour was imposed.

Traffic on the first section started impressively and, by the mid 1920s was taxing the capabilities of the NA class 2-6-2 tanks used on the line. Consequently, a decision was taken to obtain larger locomotives and two 2-6-0+0-6-2 Garratt locomotives were ordered from Beyer, Peacock and Co. One of the pair was intended for the Beech Forest line, the other for the Moe to Walhalla branch which had opened in 1908 and which was experiencing similar motive power problems.

Identified as the G class, the pair entered service in June 1926, with G42 at Moe while G41 was allocated to Colac.

The final section of the Moe to Walhalla line was closed in June, 1954 and G42 was sent to Colac to join its colleague. Together, they would provide almost all of the long-distant haulage along the narrow gauge until the finish.

A nicely cleaned G42 was still the regular motive power when we visited the line in December 1955. As the line operated on a once-per-week goods train only basis, we sought out the Colac Station Master to obtain the necessary credentials to travel. Departure time on this Wednesday morning was scheduled



for 8am but G42 was still receiving attention over the pit and the schedule came and went. Sister Garratt G41, was dead in loco while NA5 and NA14 were stored outside. Eventually G42 hissed into action and coupled to its train of three NQ open wagons, one NU louvre van and NC guard's van. We set off into the morning and started into the climb. Thick bush lined the track and the little train made steady progress through the narrow corridor carved through the forest. Small waiting sheds appeared at intervals. Elliminyt, Tulloh and Coram passed before we headed down-grade to cross Boundary Creek. Barongarook had a goods siding, widely spaced from the main line, a souvenir of the days when a crossing loop was installed here. At Kawarren, we paused to shunt one NQ wagon into the siding that served Alkemade's lime quarry. Bags of the mineral excavated by the enterprise were conveyed to the siding by a horse which drew small trolleys along a tramway, reputedly of 2ft 7in gauge. This secondary track ended at a shed which spanned the Victorian Railways loop siding and here the bags were unloaded from the private vehicle and transferred to waiting NQ wagons. Once each truck was full, the load was protected from the weather with a tarpaulin and collected by the next Colac bound train.

The yard still showed signs of the two timber tramways that had also transferred the output of several mills here.

The enveloping bush was alive with wild life. Kangaroos and wallabies, disturbed by our passing, bounded almost within reach as we reclined in the open door of the van.

Just after 9am, we ground to a stop at Gellibrand, the most significant intermediate station on the line. Water tanks had been provided at each end of the four-track yard to serve

Passengers for the Beech Forest line were able to travel in the NC van of the weekly goods – after signing an indemnity form absolving the Commissioners of any responsibility. There were no seats and many sat on the floor, often with their feet on the running board. There was a risk; blackberries prospered lush and rampant alongside in the damp climate. G42 waits to leave Gellibrand in 1955. Photo: Ron Preston

G42 and its four car train has arrived at Beech Forest, the original terminus and most important source of goods loading, and the crew gather under the station awning to discuss the shunting required. In the background can be seen the tennis court that was set in the middle of the balloon loop, a famous feature of the trackwork. *Photo:Ron Preston*

both main and loop lines. The crew were boiling the billy so we headed to the local shopping centre, in reality a general store. Here we scanned the limited fare on offer and purchased what would be our breakfast and lunch - a packet of biscuits, a tin of camp pie and an ice cream cone each. The ice cream was hand-scooped from the large circular tub and served in a cone in the best tradition!

The yard was ankle deep in tufty dry grass and though it marched an army of hairy caterpillars. Some of the tribe had taken to walking in file along the rails, the main line graphically showing evidence of the passage of our train.

In its heyday, Gellibrand once boasted a refreshment room and had sent out pigs, timber and fruit. However, there was little on offer of any of these on the days we visited.

With all hands aboard, G42 set off into the hills, its load within the 140 tons maximum for the climb ahead. We noted some NQs in the goods siding, to be added to some subsequent train. Long sweeping curves took us around the side of hills, there being few cuttings to pierce these outcrops.

Our train stopped at Dinmont, half way up the hill, where a timber tramway had once exchanged loads. At this tiny outpost, now famous for the potatoes farmed in the surrounding country, we were to take water and a round tank was splendidly set in open pasture. A simple canvas hose reached from the vat-like vessel with a turn-cock to control the flow. More relatively open country brought us to Beech Forest at noon, in nice time for lunch.

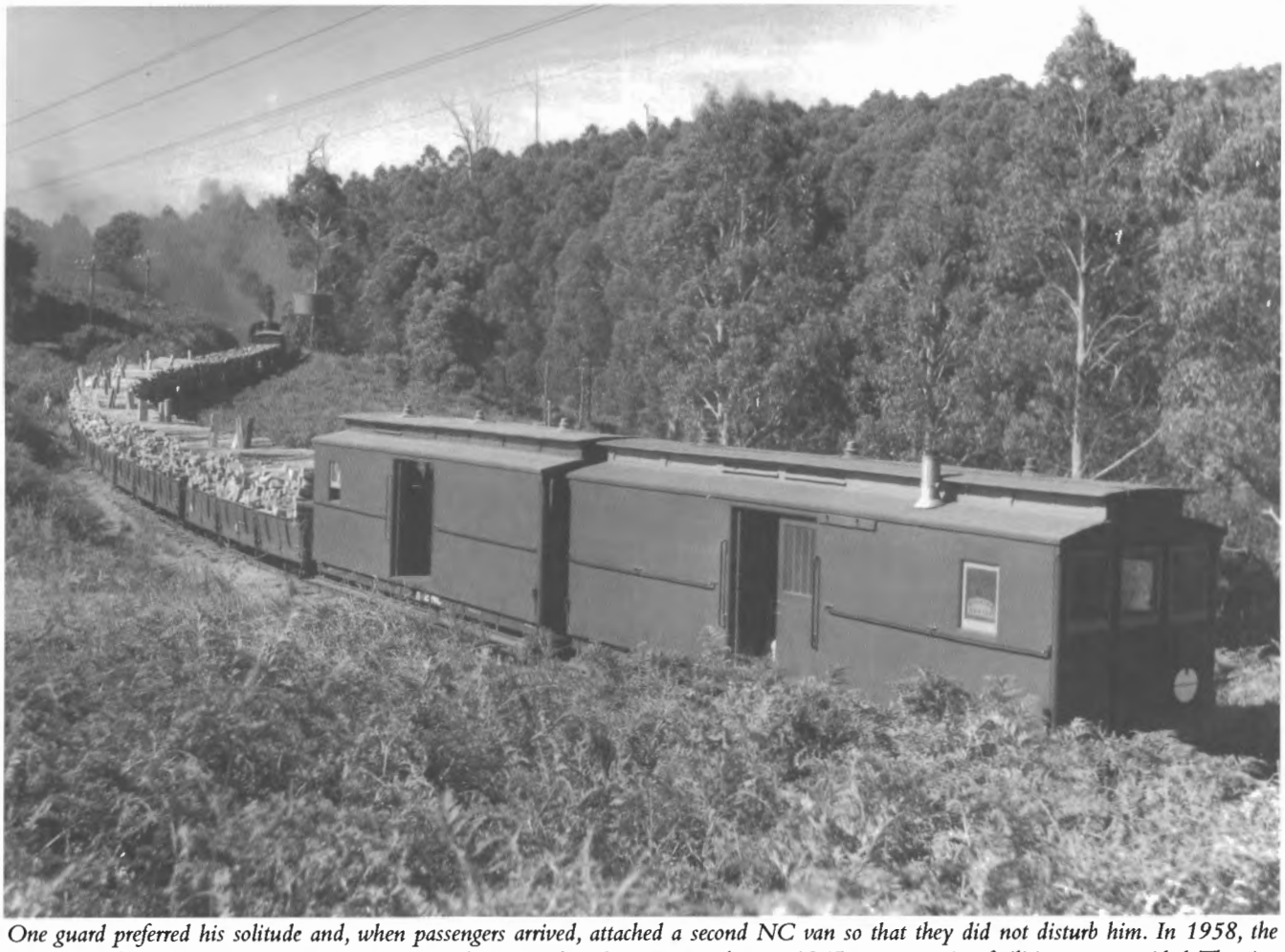
The terminus building was at ground level while the yard featured an impressive array of sidings. Four tracks spanned the area in front of the station, while a stock and timber loading siding, with crane, trailed off the opposite extremities of the goods road. On the station side of the yard, three sidings were provided in 'loco', a reminder of the days when engines were based and serviced here. The site of the engine shed, long since removed, was noted while our steed took to the elevated staging for attention to its fire.

Beech Forest had a unique feature in its trackwork. The extension to Crowes had been constructed to depart Beech forest from the same end as the line from Colac entered and the two tracks ran parallel for a short distance. So that through trains did not have to reverse their consist, a balloon loop had been built at the south end of the yard and trains could reverse direction by carefully crawling around its two-chain

The most important intermediate station on the line was Gellibrand, about 17 miles from the junction. G42 has shunted some NQ wagons into the goods siding and stops at the water tank to refill its supplies before rejoining its train waiting at the small station. Photo: Ron Preston

The 2-6-2 tank NA class were the original motive power and, even after the two G class arrived, remained at Colac on a stand-by basis. In 1955, the final residents, 5A and 14A, were stored in the open behind the engine shed. Their use on the weekly goods was very infrequent but not unknown. *Photo:Ron Preston*

Locomotive water tanks were provided at several points along the line, their spacing being dictated by the needs of the NA tanks, the original motive power employed. Dinmont, set in potato growing country was one such point and, even with only four vehicles, G42 pauses at the tank in 1955. Each of the crew has his own supplies, a water bag hanging on the cab side *Photo:Ron Preston*



One guard preferred his solitude and, when passengers arrived, attached a second NC van so that they did not disturb him. In 1958, the Colac-bound goods stops at the remote water supply at Wimba where, even as late as 1955, new watering facilities were provided. The sign in the last side window reads "Booking Office", a remnant of more prosperous days *Photo: Ron Preston*

radius circuit. Perhaps Beech Forest's most endearing feature was the tennis court which occupied the land in the midst of this round route. Tandem cross-overs were provided at the departure end of the yard so that trains could access the line to either destination after traversing the loop.

The small town in the single-sided main street parallel to the yard featured some typical country shops which lined the simple thoroughfare.

Once the station duties were complete, our train made the circuit to reverse its direction, shunting being minimised in the process. The remaining empties were placed in the goods siding, five NQ loads of timber, now the main traffic on the line, being coupled to the van.

The weather had turned cloudy and we set off for Colac huddled against the cold of this high country. We paused again at Dinmont for water before continuing down the hill to Gellibrand.

At Kawarren, the results of the horse's labours, five loads of lime, were attached giving a trailing load of 143 tons. This was well within the maximum load of 255 tons for the trip to Colac for a G class but the old engine barked its way up the hills anyway. The realities of the narrow gauge were exposed as we drew into Colac where two R class 4-6-4 locos were heading a 1100 tons freight on the main line.

In January 1958, on a second trip to the little line, we found that the guard for this trip preferred solitude in his van so when our travel was approved, a second NC was added solely for out benefit.

Once again, a leisurely run through the bush was made with little intermediate traffic requirements to slow our progress.

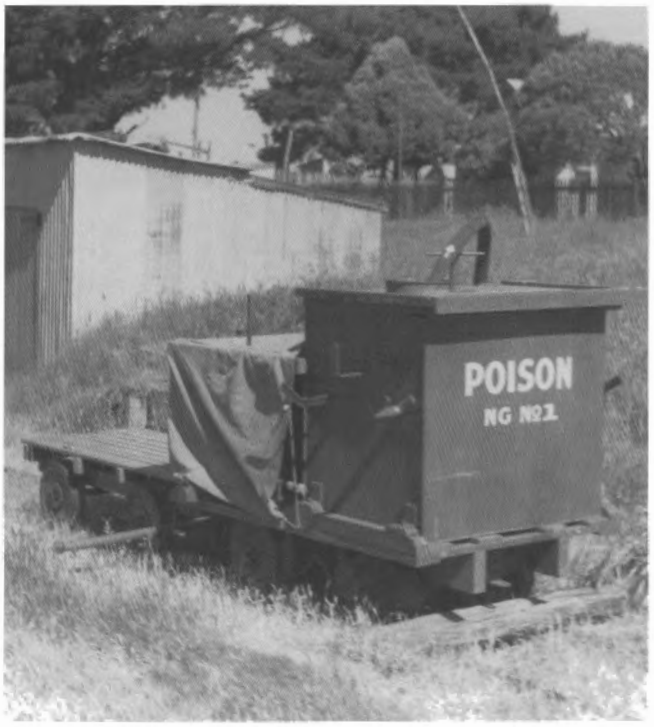
Two fettlers, with helper, ride to their next work site on a motorised four-wheel trolley in 1955 *Photo: Ron Preston*

This time, after shunting at Beech Forest, and the obligatory circuit of the tennis court, G42 ventured out along the Crowes extension to collect some timber from Weeaproinah where business was brisk and the loop goods siding was full of NQ wagons loaded with timber billets. As a similar number of empties were to take their place and there was no crossing loop track, an interesting shunting exercise was performed to position vans and locomotive at their respective ends of the loaded rake of wagons. Formalities complete, the train returned to Beech Forest, reversed and headed back down the hill. Water was again taken at Dinmont and Gellibrand where shunting added a load.

The return load out of Gellibrand was calculated at 220 tons. By this time, the lime quarry at Kawarren had closed and the traffic potentials reduced in consequence. At this time, G41 was again resting in loco while the same two NA tanks had done little work since the last visit.

Timber was now the line's main if not only traffic and, even so, usually could be handled by a single return journey each week. In an era of growing financial accountability, such operations were not favourably viewed by officialdom. Consequently, the date for closure was set and the final runs were made in June 1962 after which the line was closed and the rails recovered.

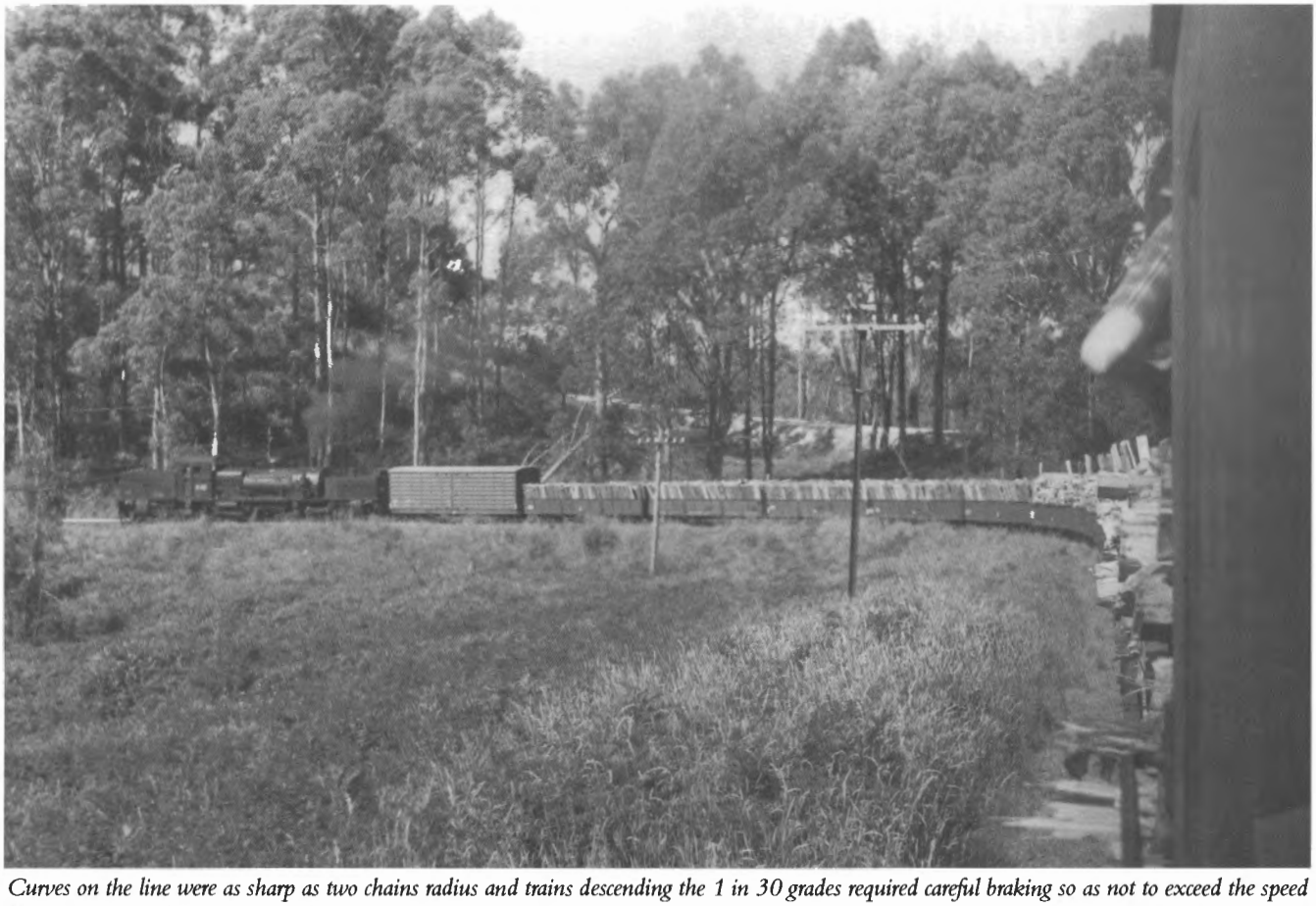
There is a bright side to this story for G42, after a lengthy period in limbo, has passed into the hands of the "Puffing Billy" Railway at Belgrave and is steadily being restored to working order. It may never run again to Beech Forest, but hopefully it will soon steam along the narrow gauge rails of the famous line to Gembrook.



The track gang for the upper end of the line was based at Beech Forest. Included in their equipment was a self-propelled four-wheel trolley with trailer. On the powered vehicle, a tank, fitted with a pump, was mounted and used to spray weed killer to control the weeds along the track. The vehicles were stabled near the shed in which other trolleys and tools were stored *Photo: Ron Preston*

The extension to Crowes was closed in 1954 but, after representation from local farmers, was re-opened to Ferguson in 1955. While some potatoes were loaded in season, the main traffic was timber, usually sent out in train-loads. In 1958, G42 performs the complicated shunting necessary to exchange a full load of empties for the loaded train from the single loop siding *Photo: Ron Preston*

In the early days, locomotives were stabled at Beech Forest and facilities for their servicing were provided there. The last vestiges, an elevated siding, a water column and a coal stage were used to refurbish G42 after its climb into the hills in 1958. While the "pit" was used to help remove ashes and the water column played its part, there was no need for the coal stage *Photo:Ron Preston*



Curves on the line were as sharp as two chains radius and trains descending the 1 in 30 grades required careful braking so as not to exceed the speed limit of twenty miles per hour. A 1958 load of NU van, ten NQ opens with timber and two NC vans, is eased around an open curve near McDevitt, the crew of G42 watching to ensure all is well. *Photo:Ron Preston*

On initial trials AIS 82 emerges from the materials portal at Corrimal Colliery in 1975. Photo: BHP Photo: BHPA/CC15. C Wilson Collection

The Titan Mantransporter
The first of the thyristor man cars

by Craig Wilson

At the Beginning

The coal industry in New South Wales experienced significant expansion and modernisation from the 1960s. Many collieries used 1067mm (3ft 6ins) gauge rail systems underground for man and materials transport. The use of diesel engines for man transport cars in gassy areas of collieries in NSW was first sanctioned in 1964. Developments in man transport over the next ten years could easily have led to the belief that further changes would be incremental only. By 1974, diesel man cars dominated the market with the Fox Manufacturing Company of Smithfield and E.M.Baldwin & Sons Pty Ltd of Castle Hill the two suppliers. Both standardised on the Perkins 4.236 four-cylinder motor and were offering torque converter drives and dump brakes as options. Colliery engineers kept ordering, keeping both workshops well occupied.

However, the early man cars were now approaching a time when they would require major overhaul and some of their early deficiencies were beginning to show up as they aged. Obvious issues included the small capacity Perkins 3.152 motors that were fitted to early cars and the shortcomings in early flameproofing designs. There were ongoing problems too. Noise levels were too high, miners over time found the ride rougher, and reliability levels dropped as the cars aged.

There was no battery powered alternative to the diesel man cars available. Mine staff might have been aware of the early Lee Norse and Baldwin battery jitneys but not of the latest development, the Vale Engineering Pty Ltd Model BPC/3M then in production at Moss Vale for Coalcliff Colliery. Though called a man car, in appearance it was just a larger and more powerful jitney[1] and there was no advance in technology. A company that was willing to innovate with battery electric technology would have a real opportunity in this market.

The Concept

In 1974, two related companies within the BHP group were interested in developing a new vehicle. The Titan Manufacturing Co Pty Ltd (Titan) was a major supplier of equipment to the coal mining industry. It was in discussion with the Central Collieries Office of Australian Iron & Steel Pty Ltd (AI&S) operator of a number of South Coast collieries in the Wollongong area of NSW.

The man car proposed was to be of modern design, but instead of being diesel powered, it would be battery powered incorporating the latest thyristor controls. It was claimed that this would allow the vehicle to travel at higher speed than could be obtained from the drum controllers then in use. In addition, in comparison to diesel man cars, there would be reduced noise and emissions, and greater driver control with reduced maintenance costs. In 1974, AI&S ordered a prototype car for its Corrimal Colliery.

The Prototype Vehicle

Model	Mantransporter Mark II
Customer	Australian Iron & Steel Pty Ltd, Corrimal Colliery
Serial	EMT 1001 of 1975
	Roster No. 82

The man car was of conventional appearance, with the cab sides welded directly onto the frame members. Stiffening was provided by the ribbed roof characteristic of AI&S orders of that period. It was the first man car with a stepless pulse control

system. The motor current was controlled by thyristors, also termed silicon controlled rectifiers (SCRs). These thyristors were connected to a transistorised pulse generator, the output of which was governed by a transductor fitted to the controller. This determined the duration and repetition rate of pulse and hence the speed of the vehicle. Progressive operation of the accelerator increased both the pulse repetition rate and the duration of the pulses until, at maximum accelerator movement, the thyristor was turned fully on. The thyristor now applied full battery voltage to the motor terminals and the vehicle ran at maximum speed.[2]

Despite this innovation, the prototype car had one design limitation. It was not flameproofed and could only be used in non-gassy places in mines. After testing, approval by the Mines Department was given to operate the man car on this basis on 10 April 1975.[3]

The colliery reported the car in service by 14 June 1975 and it remained in operation at least until May 1981, being reported out of service in May 1982.[4] In 1986 it was noted dumped on the surface at Corrimal in a derelict state[5] and presumably went for scrap thereafter.

The First Production Run[6]

Model	Mantransporter Mark II model T16-3/6
Customer	Australian Iron & Steel Pty Ltd, Wongawilli Colliery
Serial	EMT 1002 of 7 January 1977 Flameproof Control Box EB 10001 of December 1976 Roster No. 97
Serial	EMT 1003 of 1977 Flameproof Control Box EB 10002 of February 1977 Roster No. 98
Serial	EMT 1004 of 1977 Flameproof Control Box EB 10003 of February 1977 Roster No. 99
Serial	EMT 1005 of May 1977 Flameproof Control Box EB 10004 of May 1977 Roster No. 100
Serial	EMT 1006 of July 1977 Flameproof Control Box EB 10005 of July 1977 Roster No. 101

After delivery of the prototype, Titan moved quickly to develop a flameproofed model. AI&S had a fleet of fifteen E.M. Baldwin Model 6DHS man cars built in 1968 and 1971 at Wongawilli Colliery. They had been reduced by scrapping to thirteen, with three cars out of service. It was decided to replace them with nine diesel man cars from Vernier Engineering Pty Ltd and five of the new design of battery cars from Titan.

The specification[7] of the new cars was as follows

Height above rail	1,447 mm
Width	1,984 mm
Length	5,840 mm
Weight (unloaded)	7.46 tonnes
Wheelbase	1,220 mm
Battery (Exide 56 cell lead acid)	390 ampere hour
Capacity	14 man
Max. speed (authorised)	20 kph
Motor	30HP 90 volt DC by Reliance Automation Pty Ltd

The cars followed the dimensions of the prototype car with the exception of their length (the original car was 378mm shorter).[8]

The new man car design received Mines Department approval on 7 January 1977 and the first car of the order, 97, arrived at Wongawilli ten days later. It had an inauspicious start to its career being taken out of service after the first trip. The last four, 98 - 101, arrived together on 5 March 1977. They were progressively brought into service starting with 98. 99 was commissioned on 3 May 1977, this time again disappointing when being taken out of service after two trips. 100 was commissioned on 22 June and finally 101 in July 1977.[10]

In 1977, Wongawilli Colliery had a 'main line' run of six kilometres. Having travelled this distance, man cars would either drop their miners or take them to adjacent worksites where rail access was available. They were then parked and used for short trips as required until the end of the shift. Then they would bring the miners back to the surface to repeat the cycle.

Mine staff soon found out that the battery capacity of the cars was not sufficient for this work cycle. On the return trip, it seemed always that on the 1 in 18 grade just inside the portal of the mine, the cars expired, requiring rescue by a locomotive sent from the surface. This would inevitably strand part of the shift behind it until the Titan was moved.

Changes in work practices were able to overcome this problem. The new Vernier diesel cars henceforth remained underground to cover any travel required during the shift while the Titan cars carried the new shift in and then returned directly with the miners from the previous shift. They then went on electrical charge until the next shift change. This caused problems on the surface if a car was needed to go underground during the shift and no diesel cars were available, but as manning levels were decreasing, the problem could be tolerated. It was the breakdowns that caused problems. The man cars from the very start gave trouble. To quote John Estreich who was the Electrical Engineer:

In the electronics themselves, the SCR main controller, we had a lot of trouble. It was in the early days of development of SCR DC traction control. I'd say I had one electrician full time on those cars, five cars, to keep them on the road. Quite often we were down to three cars where we would be doing maintenance on one and breakdown work on the other. So that would tie up the leading hand plus the electrician.

The Colliery electrical staff started to analyse, track and record the problems but they persisted despite all efforts:

A couple of years we got to be able to get to the problems quicker. The problems still existed. They were still there: component failures, SCR failures, module failures.

Then there were the mechanical problems:

We used to have a lot of air leak problems, a lot of little valves and things that used to stick. Compressors were a problem. Quite a few of them were down at times with compressors and they couldn't get parts and they had a lot of trouble with the drive mechanism.[11]

Because the compressor was driven off the drive mechanism, *you had to get up (off the dump brakes) and get running so that the air compressor could take over.* The initial practical solution was to always leave the car near a compressor underground. Later an additional air bottle was provided, just enough to get it off the dump brakes and going.

So it wasn't easy, and in the meantime the rail was still advancing into the colliery. Ultimately the railhead advanced to over eight kilometres. Alan Richardson spoke of the ultimate decision.

Now then we got down to three for one reason or another. It was limited to what maintenance we had to do on three and (the) charging facility. It was just getting out beyond the scope of the battery. That was the basis for getting rid of them.[12]

The Titan fleet remained fully in service until at least 1984; the five cars dropping to three in service two years later and to a sole car in May 1987.[13] The first two man cars to be withdrawn were moved to Bulli Colliery to be included in an auction held there on 14 September 1987. 98 was auctioned as Lot 231 with 99 as Lot 232.[14] The remaining three had been sold in the preceding months to Lambton Colliery, a BHP Colliery operating on the Northern Coalfields.

The Second Production Run[15]

It was nearly two years after the first production run that a second batch of six man cars was built. In that time there was an amount of redesign evidenced in Titan drawings although the specifications and equipment were unchanged.

Model Mantransporter Mark II model T16-3/6

Customer Newcastle Wallsend Coal Mining Co Ltd, Ellalong Colliery
Serial EMT 1007 of 12 April 1979
Flameproof Control Box EB 10006 of 12 April 1979
Roster No. Unknown
Serial EMT 1008 of 31 May 1979
Flameproof Control Box EB 10007 of 31 May 1979
Roster No. Unknown

Customer Coal & Allied Operations Pty Ltd, Chain Valley Colliery
Serial EMT 1009 of July 1979
Flameproof Control Box Unknown
Roster No. 2660

Customer BHP Ltd, John Darling Colliery
Serial EMT 1010 of July 1979
Flameproof Control Box EB 10008 of July 1979
Roster No. MT 1
Serial EMT 1011 of 30 August 1979
Flameproof Control Box EB 10009 of 30 August 1979
Roster No. MT 2
Serial EMT 1012 of 12 September 1979
Flameproof Control Box EB 10010 of 12 September 1979
Roster No. MT 3

Ellalong Colliery

In May 1979, Ellalong Colliery was still very much in the early stage of development. Only opened in July 1979, there was no present need for the operation of the two man cars purchased. The cars were stored on the surface, though one was commissioned briefly.[16]

While Ellalong was to use rail for its materials haulage, man transport would develop using rubber-tyred vehicles until the early 1990s when second-hand diesel man cars were obtained.

Without any prospect of their early use, the two cars were loaned to Elcom Collieries Pty Ltd (Elcom) for trialling at their Central Coast collieries. Elcom subsequently purchased both man cars in October 1985.

Chain Valley Colliery

Chain Valley Colliery is located on the NSW Central Coast at a site adjacent to the Vales Point Power Station to which it was linked by conveyor. The owner, Coal & Allied Operations Pty Ltd, rostered a fleet of Baldwin and Fox diesel man cars at its numerous collieries. At this time at Chain Valley, there was a total of nine Baldwin and Fox cars.

There was evidently interest in introducing battery power for man transport at this time, as in addition to ordering the car from Titan, a battery man car was also purchased from Domino Industries Group Pty Ltd for Wallarah Colliery. The two battery man cars had no appreciable impact on purchases at that time with further Baldwin diesel man cars being purchased in the early 1980s.

2660 had an apparently uneventful life. By the time of a visit I made to the colliery in 1989 it had had a major overhaul and was considered to be giving good service, indicating a level of acceptable performance. There were problems recalled too, a broken axle due to poor design and the already mentioned problems with air leakage. Both were solved through modification. Titan implemented a redesign to reduce the stresses on the axle and the Colliery had duplicated the air storage capacity on the car.[17]

Nevertheless, the advice in 1989 was that at the time of the car's next major overhaul was due, 2660 would be scrapped. For a short time, there was a change of heart with 2660 and the three Hexham battery man cars being scheduled for refurbishment by Westfalia Pty Ltd at their Rooty Hill Works.[18] Before this could happen, on 7 August 1991, 2660 was taken out of service due to the condition of the outbye tyres and washers. With group underground operations now much reduced it was not surprising when it was disposed of at auction at the Colliery on 25 June 1992 as Lot 320.[19]

John Darling Colliery

The last three man cars went to John Darling Colliery in Newcastle. John Darling was opened by BHP in the 1920's to supply coal to the Newcastle steelworks and by this time was quite an old colliery. Its transport system for men and materials was based upon a fleet of ten-ton battery locomotives of a Jeffrey design that dated back to the 1930's. By the time of the arrival of the Titans in 1979, these locomotives had seen a minimum of twenty-five years service though they were progressively being rebuilt by staff at Burwood Colliery with a SCR package.

Going into service in October 1979,[20] the three cars had problems, not surprising given the differences in the technology being used.[21] It was at this time that BHP re-evaluated their five Newcastle collieries. The steelworks required less of the production of the mines and there was the opportunity to export large quantities of coal through the port of Newcastle. Production equipment would be upgraded with a move to longwall mining and an upgrade of the transport system. Tenders were called in 1980 for diesel man cars and in 1981 Baldwin won the tender with seven of the order being allocated to John Darling.

The arrival of the Baldwin cars, the last in May 1983, reduced the need for the Titans. They were used for transport around the pit in areas where the small loadings avoided the problem of stalling on grades when carrying a full production crew and supplies. This had previously resulted in blown fuses on the more severe headings. In 1986 only one was in service.[22] They became available for transfer prior to the closure of the mine in 1987.

Subsequent ownership

Despite the problems encountered in maintaining the man cars only one of the production cars, that supplied to Chain Valley, did not have a subsequent owner though two of the remaining ten did not re-enter service following their sale.

Titan mantransporters 99 and 98 await auction in the parking lot of AI&S Bulli Colliery on 11 September 1987. Photo: Craig Wilson

Chain Valley Colliery 2660 at the surface charging area on 19 October 1989. At this time it was still in service. Photo: Craig Wilson

Elcom Collieries Pty Ltd

The first two man cars to leave their original owner were the two standing unused at Ellalong Colliery. Elcom was a subsidiary of the Electricity Commission of NSW and it supplied coal to their power stations. Initially the two cars, EMT 1007 and EMT 1008, were loaned to Elcom. One was trialled at Awaba State Coal Mine and the second went to Munmorah State Coal Mine. The trials must have been successful as arrangements were made to purchase the man cars in early 1985. On sale, the two cars were sent to Noyes Bros. at Cardiff for overhaul and then to Wyee State Coal Mine where they entered service in October 1985[23]. At Wyee, EMT 1007 was numbered 1 and EMT 1008 numbered 2 on the Elcom roster.[24] There they worked in the Great Northern seam. By 1988 work in this seam was limited to pillar extraction. By the time the colliery was visited three years later, mining had ceased in the Great Northern seam with rail being used for the limited routine inspection and maintenance required. Both Titan man cars continued in service over this period. Ultimately the two cars were not needed and were removed to the Wyee Bulk Store, the nearby central warehouse facility. There, in very derelict condition, they were auctioned on 20 June 2000.[25]

Coast Metal Recyclers

At the Bulli Colliery auction in September 1987, 99 (EMT 1004) was sold and promptly disappeared from sight. In 1993, information was received that a man car was stored on a property beside the railway line between Woonona and Bellambi. Following this up in 1994, the owner was identified as Coast Metal Recyclers, located on York Road, Woonona. The car was 99.[26] On enquiring of staff during a visit there I was advised that it had been present for many years, making it likely that it came here directly from the Bulli auction. It was reported gone from the yard in October of the following year.[27]

BHP Lambton Colliery

Lambton Colliery was acquired by BHP to supply coal to the Newcastle Steelworks. However, unlike the four other collieries owned by BHP in Newcastle, Lambton did not share in the expansion program begun in 1980. So while Baldwin man cars were delivered in numbers to each of the other collieries, Lambton soldiered on with their battery locomotives and mine cars converted for man transport.

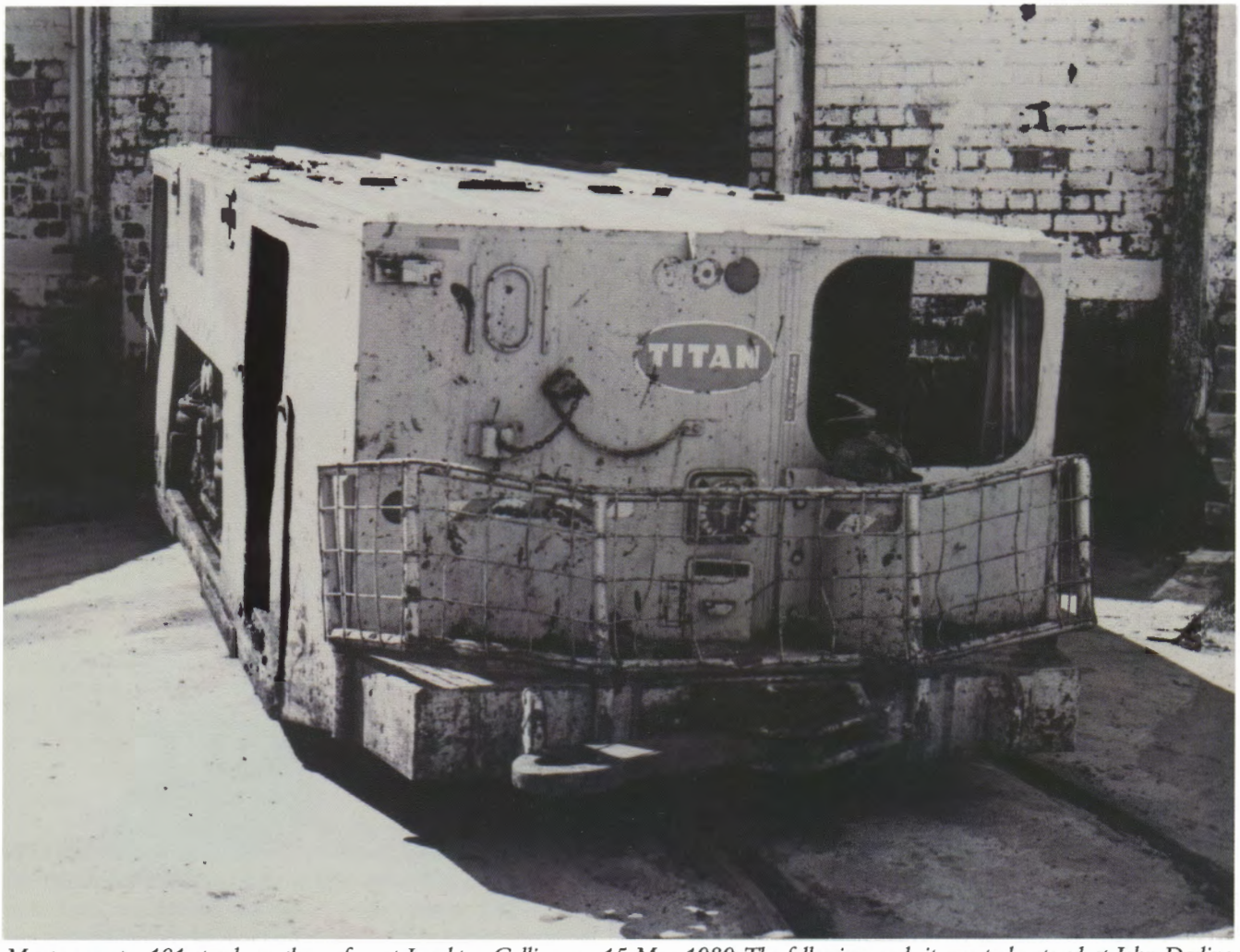
From the early 1980s Lambton staff were involved in a committee undertaking a "Group Locomotive Rationalisation Scheme" which sought to modernise or replace the ten-ton battery locomotives. However after the initial expansion, capital budgets were cut back and alternate solutions sought.

Lambton staff looked to the AI&S collieries on the South Coast for surplus equipment and in 1986 inspected the Titans at Wongawilli. By this time two (AI&S 98 & 99) were out of service and available for sale. On 15 April 1986, a capital expenditure proposal to purchase two Wongawilli man cars and a battery charger for $10,000 was authorised.[28]

If AI&S 98 & 99 were intended to go to Lambton, the withdrawal of the operating Titans at Wongawilli offered a better choice. By June 1986[29] the purchase of the two operable man cars (AI&S 100 and 101) and a further man car for spares (AI&S 97) was agreed. The cars did not go to Lambton immediately as they required modification to allow them to enter service. Quotations for this work were sought but the decision to go ahead was complicated by the availability of the three Titans (MT1-MT3) at John Darling which were now surplus due to the impending closure of that colliery. Ultimately both options were chosen and all five operable man cars were rebuilt.

For the two Wongawilli cars, the major modification was strengthening to enable them to be lowered down the drift at Lambton. For this the front, side and box frame around the

Mantransporter 2 (Titan EMT 1008) waits at Wyee State Mine pit bottom on 9 May 1991. Photo: Brian Andrews, C Wilson Collection



Mantransporter 101 stands on the surface at Lambton Colliery on 15 May 1989. The following week it was to be stored at John Darling Colliery awaiting sale. *Photo: Craig Wilson*

battery had to be reinforced and a Hexham coupler and safety hooks fitted. This work together with general refurbishment was quoted at $21,888 per car. John Darling MT3 was selected as the possible first candidate for rebuilding and the quote came in at $30,410. This estimate, with a much longer list of overhaul items, indicated the relative condition of this man car.[30] Not included, as the problem was only found later, was the replacement of both axles that were fatigue cracked.[31]

After repair, the five man cars progressively entered service at Lambton. From charging records, the first listed inspections were for MT1 on 4 November 1987, 100 on 9 November 1987, MT2 on 11 January 1988, 101 on 1 February 1988 and finally MT3 on 8 March 1988.[32]

They were not the only equipment to be transferred to Lambton on the closure of John Darling. The eight Baldwin diesel man cars were also progressively released. Now, with a surplus of man cars, both diesel and battery cars were found serviceable but unused on the surface. They had the desired effect of reducing the use of the battery locomotives at the colliery. For instance, on 1 December 1986 eleven locomotives were charged with another spare chassis available. Eighteen months later, on 1 June 1988, five locomotives and two of the man cars were charged. And just to show how little had changed, MT1 and MT3 were out of service awaiting spare parts.

There was some effort to increase the Titans' reliability. In May 1988, Ultimate Control Systems Pty Ltd quoted to upgrade the drive system with larger capacity thyristors for $1,750 per assembly.[33] It is a measure of the restrictions on spending by this time that the modifications were carried out on MT3 only, even though they were evaluated as a success.[34]

The Titans' time at Lambton might have continued longer but for the sale of the Colliery. Pacific Copper Ltd purchased Lambton on 19 May 1989 and, as part of the agreement, the purchaser was not required to take all the operating plant. For Lambton, with a surplus of man cars, the choice was to retain the Baldwin diesel cars. The Titan cars were moved over to storage at John Darling Colliery. By 15 April 1989 three cars, 97, 100 and MT1, had been transferred, with Lambton staff advising that the balance of the fleet, 101, MT2 and MT3, were being withdrawn from service the following week and would then be sent to John Darling.[35]

The auction was eventually held on 30 November 1989 at Brambles' Carrington yard in Newcastle. The six man cars were sold as 97 on Lot 134, 100 on Lot 133, 101 on Lot 130, MT1 on Lot 132, MT2 on Lot 131 and MT3 on Lot 135.[36]

Kandos No.3 Colliery

Owned by Kandos Colliery Pty Ltd, Kandos No.3 supplied coal to the nearby cement works owned by parent A&K Cement Holdings Ltd. In 1986, it was a small colliery with 38 employees producing around 260,000 tons of coal each year. As a mine like Kandos could not always afford new equipment, when the Bulli auction was held in September 1987 the opportunity was taken to upgrade man transport with the purchase of AI&S 98 (EMT 1003).[37]

Nothing is known of its return to service at Kandos. During this time, the Colliery was undergoing modernisation with the installation of the first underground conveyor. When

installed in 1989, this took the coal directly from the Noyes shuttle cars to the surface crushers. By the time the conveyor was operational, Laurie Ireland, the colliery Manager, had a second opportunity to purchase Titan man cars with the holding of the BHP auction at Carrington on 30 November 1989.

Six man cars were offered for sale and five were purchased on behalf of the colliery. The identity of three is known as they were held for further service. They were AI&S 101 (EMT 1006), MT2 (EMT 1011) and MT3 (EMT 1012). Two cars were also purchased for the recovery of potential spare parts and were then sold for scrap to Balcomb Recyclers Pty Ltd.[38] The probability is that the two cars purchased were AI&S 100 (EMT 1005) and MT1 (EMT 1010) which had only recently been in service, but AI&S 97 (EMT 1002) could have been taken instead of either of the others.

Four operational cars were more than sufficient for the colliery, especially after operational changes reduced manning levels to 29 men. With a limited run underground and with the colliery working two shifts with only one production unit, only one Titan was required for production. A second man car was needed on a limited basis for access by supervisory and maintenance staff.

MT3 was returned to service and, with 98, remained in service until the closure of the colliery in early 2001. Both were overhauled by Ultimate Control Systems on site soon after arrival. Because Kandos was a non gassy mine the opportunity was taken to cut out and simplify some of the flameproof circuitry and replace it with equipment both easy to access and maintain.[39] 101 and MT2 were held on standby to cover breakdowns[40] but seem to have seen little use. The two cars had been dumped for some time in the colliery scrap yard by 2001.[41]

On 15 May 2001, an auction was held of the colliery's assets. All four remaining Titan cars were sold, with 101 and MT2 going to Metalcorp Recyclers at Hexham and 98 and MT3 to Simsmetal Ltd at their Kooragang Island yard.[42]

Liddell Colliery

There was one further colliery with a part in the Titan story. Not long after the arrival of the Titans at Kandos, Laurie Ireland became the manager of Liddell Colliery in the Hunter Valley. Knowing of the equipment not being utilised at Kandos, he arranged the loan of MT2 for evaluation. It arrived at Liddell Colliery in July 1991[43] and had its air cylinder tested in November of that year. Although renumbered into the Liddell system (which as an ex Coal and Allied Colliery followed their roster numbering system) as 2661,[44] advice from colliery staff was that it never went underground[45] before being returned to Kandos in the following year.

An evaluation

So was the Titan mantransporter a success or failure? Conceptually it had all the features colliery staff were looking for together with the advantages of thyristor controls.

Its first application at Wongawilli Colliery was always going to be difficult. The purchase of the cars faced resistance at the colliery level.[46] This, despite claims to the contrary, was never fully overcome before or after delivery. The destination of choice, Wongawilli, with its longer travel distances compared to other AI&S sites on the Southern Coalfields, and the Titans' limited travel capacity (compared to the alternative of a diesel man car) was puzzling. Diversion of the man cars to a less demanding role at another colliery would have meant they would have attracted much less criticism. The other problem was their lack of reliability. In fairness, many of those interviewed qualified their remarks with the comment that the Titans had first generation thyristor controls and both manufacturers and customers had learned a lot in the years since their introduction. However, what is surprising is that many of the problems, such as the compressed air controls and system, were not redesigned prior to the second production batch and continued to bedevil the second group of customers.

Mantransporters MT 2 and 101 stored outside the workshop at Kandos No 3 Colliery on 14 January 1993.
Photo: Ross Mainwaring, C Wilson Collection

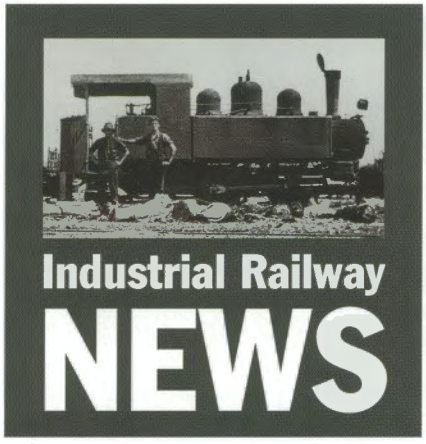
In storage at John Darling Colliery in April 1989 were Titan mantransporters 100, MT1 and 97. *Photo: Craig Wilson*

As to the performance of the Titans 'on the road', they were well liked. They were a real improvement on existing diesel man cars with much lower noise levels and a superior ride. Indeed, in the author's opinion, having travelled also in the later battery man cars produced by Baldwin and Gemco, the ride of the Titan was the best. This was perhaps due to their lower relative weight.

Finally, there was the impact the Titans had on the development of colliery man transport. The Titan cars were the first battery powered man cars built. There were many more to follow once the potential benefits were shown. Vale, Baldwin, Gemco and Hexham all built battery man cars in number. At Chain Valley Colliery, the last purchases would be three Baldwin designed Hexham battery man cars. Elcom, at the time of trialling the two Ellalong Colliery Titans, was investigating replacements for its diesel man cars. They ultimately purchased a fleet of Gemco battery cars to cover their Central Coast collieries. The Titan Mantransporter had shown the way forward.

References

1. Jitneys were rail vehicles with the battery pack centrally mounted in the car. The driver was located on the side of the car with the control panel before him. The seating for the miners was located at both ends of the car and, on occasion along the side. By contrast, battery personnel cars, man cars or mantransporters had at a minimum the two end cabs, each with driving positions, and a central battery box that sat between the cabs. The battery man car had advantages with the charging and removal of battery packs as those in jitneys were underneath the roof which had to be removed if the battery pack was to be removed. On man cars battery packs could be easily removed for replacement or charging. Jitney battery packs were usually charged in situ. Ultimately there were limits to the power and capacity of jitneys while the man car was to develop greater power and capacity.
2. BHP Project – Circuit description and codes Manual.
3. *NSW Government Gazette* 16 May 1975.
4. Corrimal Colliery Joint Coal Board (JCB) Returns 1975-1982
5. John Estreich, (Electrical Engineer) interview 30/8/91
6. Titan serial numbers from C. Wilson observation
7. Titan Maintenance & Parts Catalogue; Mechanical Section. Authorised speed from builders' plate.
8. Titan brochure (undated) featuring prototype.
9. *NSW Government Gazette* 28/1/77.
10. JLN Southern letter dated 27/2/90 for delivery & in service dates.
11. John Estreich interview 30/8/91
12. Alan Richardson (Manager) and John Estreich interview 30/8/91
13. Wongawilli Colliery JCB Returns 1978-1987
14. C. Wilson observation.
15 Titan serial numbers from C. Wilson observation except for EMT 1009 where detail is from car manual
16. R. Olsen (Chief Engineer) interview 6/12/85
17. Jeff Jolly (Manager) interview notes 19/10/89
18. Allan Brown (Westfalia Sales Representative) interview notes 26/10/91
19. C. Wilson observation.
20. Lambton Colliery Asset Register
21. Denis Spruce (Electrical Engineer) interview 13/5/92
22. Bob Aubin (R Mainwaring interview) notes 28/8/90 and Kell Harrison (Mechanical Engineer), interview notes 16/11/95
23. Author's correspondence with Elcom. Their response dated 10/10/89
24. C. Wilson observation 8/5/91
25. C. Wilson observation 18/6/00
26. C. Wilson observation 30/9/94
27. R. Mainwaring observation 15/10/95
28. BHP Capital proposal authorisation. BHP file 8549 903
29. Titan Price Variation clause BHP file 8549 033
30. Titan Quotation dated 25/3/87. BHP file 8549 033
31. Titan telex dated 17/7/87. BHP file 8549 033
32. Lambton Daily Record of Charging Maintenance 4/11/87 to 2/5/88. As charging records are not held for the period immediately prior to 4/11/87, MT1 may have entered service earlier.
33. Ultimate Control Systems PL letter dated 5/5/88
34. John Nelson, (Electrical Engineer) interview notes 12/3/90
35. C. Wilson observation and notes of visit 15/4/89
36. C. Wilson observation 22/11/89
37. A Richardson interview 30/8/91
38. R. Graf visit notes 9/7/91
39. Ross Tuckwell (Ultimate Control Systems) interview 8/9/03
40. R. Graf visit notes 9/7/91 & R. Mainwaring visit notes 14/1/93.
41. C. Wilson observation 14/5/01
42. R. Mainwaring visit to sites 25/5/01
43. Liddell Equipment file for man car 2661
44. Liddell letter to Dept of Industrial Relations dated 14/11/91
45. T. Barker (Mechanical Engineer) interview notes 10/6/94
46. *BHP Digest*, March 1976.



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NEW SOUTH WALES

BHP STEEL LTD, Port Kembla
(see LR 173 p.14)
1435mm gauge
On 3 September a coal train collided with a stalled road truck at a level crossing at Unanderra. The locomotive was leased Pacific National 8124.
On 19 September, some Taylor Railtrack track machines were noted being placed on rail by cranes at Waters on the Kemira line. The equipment appeared to be a ballast plough/regulator with a small ballast hopper coupled, and possibly a tamping machine.
The new name proposed for BHP Steel is BlueScope Steel. The BHP name can no longer be used from next year as it is owned by BHP Billiton.
Chris Stratton 9/03 (Locoshed e-group)

PASMINCO, Cockle Creek
(see LR 173 p.18)
1435mm gauge
12 September was the last day of operation of the Cockle Creek smelter. On 24 October the Goninan Bo-Bo DE locomotive (019 of 1964), minus bogies which had already been delivered, was noted on its journey by road transport to Dorrigo.
Tim Gray 9/03; Brad Peadon 10/03 (both Locoshed e-group); Keith Jones 10/03

ADI Limited, Mulwala, NSW
(see LR 139 p.22)
1435mm & 915mm gauges
In 1943 at the height of the Pacific phase of the Second World War, two standard gauge General Electric 4wBE locomotives were supplied as part of a complete plant to manufacture smokeless propellant in Australia. Out of public view inside the site, two separate 4ft 8½ins-gauge railways together with 3ft-gauge transfer wagons continue to function; this year being their sixtieth year of operation. ADI advise that the Mulwala Explosives Factory (owned by the Commonwealth and leased by ADI) is shortly to receive an upgrade as the WWII-era propellants facility is nearing the end of its working life. Mulwala is Australia's only facility capable of supplying the wide range of propellant and high explosives required by our defence forces.
The longer of the two railways can be referred to as the Solvent Recovery (S.R.) railway. This consists of almost three kilometres of standard-gauge track which, with 30lb rail, has a decidedly broad-gauge appearance. It is used to move full 3ft-gauge S.R. trucks, loaded onto standard gauge transfer trucks, from the propellant Press Houses to the dozen or so S.R. houses which are situated about a hundred metres apart and strung out along three radiating lines. Once in the S.R. House the residual ether/alcohol solvent is removed from the powder by passing hot air through the trucks, before it is transferred to the finishing area and the empty transfer trucks returned. The locomotive in use on 6 August was 4wBE 1 (GE 17993 of 1942). Normal make-up is two transfer wagons with a locomotive sandwiched in the middle. In the very tidy locomotive shed was locomotive 2 (17994 of 1942) awaiting its next turn of duty. Locos are used alternately, normally for two shifts per day for four days, then recharged. This unique railway could have another few of years' use before replacement.
Not so fortunate is the smaller system (also standard gauge), the wet Nitrocellulose (N.C.) lines which are soon to be replaced. This short railway is used to transfer N.C. from the Blending and

Top: *Standard gauge General Electric 4wBE 1 (17993 of 1942) with two transfer trucks at the Mulwala, NSW, plant of ADI Ltd. A 3ft gauge solvent recovery truck is on the rear transfer truck. Photo: Colin Harvey* ***Above:*** *Moreton Mill's EM Baldwin 0-6-0DH* BLI-BLI *(6/1257.1 7.65 of 1965) crossing Coolum Creek on the road/rail bridge between Hollaway and Radic, in the "swamplands" of the Coolum line, 14 September 2003. Photo : Carl Millington.*

Top: *A section of South Johnstone Mill's Nerada line, newly diverted because of roadworks between Currajah and Kalbo, 8 July 2003. Photo: Scott Jesser.* ***Centre:*** *Bingera Mill's 0-6-0DH* MANOO *(3875.1 7.71 of 1971) on a bush section of the Wallaville line, October 2003. Photo: Lincoln Driver.* ***Above:*** *Bingera Mill's EM Baldwin B-B DH* OAKWOOD *(5800.1 5.75 of 1975) heads through Bungadoo on the Wallaville line with a rake of fulls, passing tamping machine Plasser KMX-12T 390 of 1994, September 2003. Photo: Lincoln Driver*

Wringing House to the multi-tracked N.C. Lag Store, from where the standard-gauge trucks are moved as required via a standard gauge transfer wagon to the Dehydrating Press House. Total track length of the N.C. railway would not be more than 500 metres, and it is worked by rubber-tyred tractor (formerly horse) and human power. The large trucks have a capacity of about one tonne and are fitted with roller bearings to assist movement. The N.C. trucks were constructed by Ruskin Motor Works, West Melbourne, to US-based specifications.

All trucks are numbered. The highest numbered N.C. truck seen was number 20 and the highest numbered S.R. truck seen was number 50 (apart from number 124, caused because at one time they found two trucks numbered 24 so one was given 124 !) although nineteen are currently available for service.

Visits to this site may only be made if prearranged in writing, and stringent security and safety checks are required before entry is granted.

Phil Rickard (8/03)

THIESS HOCHTIEF JOINT VENTURE, Parramatta Rail Link

Construction of twin 12.5km tunnels for the rail project between Chatswood and Epping has commenced with the main work site at Macquarie Park, adjacent to the M2, Wicks Road and Epping Road. Work is expected to continue until mid 2005.

Two tunnel boring machines are in use, designed by the American Robbins group and built in Newcastle. They will each excavate a single bore, initially towards Epping before returning to the M2 worksite and on to Chatswood. In excess of three million tonnes of spoil is expected to be removed from the tunnels, and it is suspected that a narrow gauge railway system may be in use for spoil and materials haulage, so further details would be welcome.

http://www.raillink.nsw.gov.au; http://supply-chainreview.com; Bob McKillop 9/03; Editor

QUEENSLAND

BUNDABERG SUGAR LTD, Bingera Mill & Fairymead Mill

(see LR 171 p.19 & 172 p.21)

610mm gauge

Approximately 10 kilometres of Fairymead Mill's Bucca line beyond Smith's Crossing has been closed since the start of the season. It is understood that opposition to a transshipment yard near Smith's Crossing led to the decision to truck cane across the Kolan River to Bingera's New Hall siding. Part of the Bucca line was originally a 3ft 6ins gauge railway built in 1911 from the QR at Avondale to Invicta Mill.

Fairymead Mill's E.M.Baldwin 0-6-0DH 66 *PERRY* (6/1576.1 8.66 of 1966) was noted in October with name plates fitted below its side cab windows.

The transloader that was used to load cane from road vehicles on Bingera Mill's Cedars / Givelda line has been removed, giving loco crews a run around loop closer to the termini.

Industrial Railway NEWS

On 17 October a serious derailment took place at Bungadoo loading loop on the Bingera - Wallaville line. While returning to the mill with 40 full bins, E.M.Baldwin B-B DH *GIVELDA* (5800.2 6.75 of 1975) was diverted at points into the loading loop, in which empty and full bins were standing. About 16 bins were completely destroyed. The empty bins climbed over the top of the engine cowling, smashing the headlights and bending the GPS antenna. The full bin behind the loco climbed up and smashed the rear windows, leaving the crew lucky not to get any glass in their eyes. Police were called in to investigate suspected interference with the point lever, which is the only one of the tumbler type on this section of line.
Lincoln Driver 9/03 & 10/03 (Cane Trains e-group); Carl Millington 10/03

BUNDABERG SUGAR LTD, Moreton Mill
(see LR 172 p.21)
610mm gauge
In what appears certain to be its last few months of operation, the Moreton Mill cane railway has received many visitors intent on seeing it for one last time. The four locomotives in regular use have been Clyde 0-6-0DH *MORETON* (63-289 of 1963), E.M.Baldwin 0-6-0DH *BLI-BLI* (6/1257.1 7.65 of 1965) & *PETRIE* (2300.1 6.68 of 1968), and E.M.Baldwin B-B DH *COOLUM* (5565.1 10.74 of 1974). Com-Eng 0-6-0DH *JAMAICA* (B1112 of 1956) is reserve locomotive while Com-Eng 0-6-0DH DUNETHIM (A1922 of 1958) is only used in an emergency. The E.M.Baldwin 0-4-0DH "twins" *MAROOCHY* (6/1064.1 11.64 of 1964) and *VALDORA* (6/1258.1 6.65 of 1965) are only used occasionally, when required for duty on light lines (eg Camp Flat).
Although *COOLUM* has been used mainly for its regular duty in assisting with shuttling cane up and down Howard Street, it has also been seen out on the line, even as far away as the Coolum and Valdora lines. Of the two Malcolm Moore 4wDM locomotives, *JIMPY* (1051 of 1943) has been parked at Petersen's, north of the big lifting bridge, and *JOE* (811 of 1942) at the mill, both ready for use on work trains if required.
Meanwhile it is understood that representatives of other Bundaberg Sugar mills have inspected the locomotives in order to determine which should be transferred for further use following closure.
Peter Attenborough 9/03; Matt Green 9/03 & 10/03; Brad Peadon 10/03; Chris Stratton 10/03 (all Locoshed e-group); Carl Millington 9/03 & 10/03

BUNDABERG SUGAR LTD, Mourilyan Mill
(see LR 172 p.21)
610mm gauge
Millaquin Mill's Clyde 0-6-0DH 591 *ASHFIELD* (65-441 of 1965) was sent up to Mourilyan Mill on the weekend of 18 October. This apparently

Top: *Driver's eye view on a modern cane locomotive. This was taken from the cab of Victoria Mill's Walkers B-B DH* CAIRNS *(681 of 1972) which was undergoing remote control equipment commissioning on the Nyanza line on 6 October 2003. Photo: Chris Hart.* ***Centre:*** *Isis Mill's 6 (Walkers B-B DH 610 of 1969) hauls failed 2 (Walkers 598 of 1968), 60 6-tonne bins and a brakewagon at the Two Mile on the Goodwood line, 13 September 2003. Photo: Carl Millington.* ***Above:*** *Superstructure from Proserpine Mill's wrecked EM Baldwin B-B DH locomotives, 9 (6626.1 7.76 of 1976) and 10 (9816.1 10.81 of 1981) in the yard at Bundaberg Foundry, September 2003. Photo: Lincoln Driver*

followed a fire in a Mourilyan locomotive sparked by the battery. It is understood that the fire could not be put out with the onboard extinguishers as they were mounted above the battery box. Any further information would be welcome.
Lincoln Driver 10/03 (Cane Trains e-group)

BUNDABERG SUGAR LTD.,
South Johnstone Mill
(see LR 173 p. 18)
610mm gauge
South Johnstone's Nerada line has been relocated between Currajah and Kalbo to accommodate a major road re-alignment along Henderson Drive. The roadworks start 800 metres north of the triangle at Currajah and extend for four kilometres up the hill, to the eastern side of the current road alignment. The new road crosses the line 1.7 kilometres north of Currajah, and the Nerada line continues on its original alignment to a point 3.1 kilometres from Currajah. Here, the new alignment swings away towards the east and goes under the new road through a concrete culvert. The new section of track extends for 1.7 kilometres and then rejoins the old Nerada line alignment in the Kalbo area. The new section of track is already in use, and the old track, including the section that ran behind the old loco cab school bus stop, has been removed. The new track was laid on concrete sleepers, and the earthworks are quite extensive. The road deviation comes to an end 4.8 kilometres north of Currajah.
South of South Johnstone mill, there is another major road project that appears to involve a new high level road bridge over the South Johnstone River, near the current one-lane bridge. There is a lot of road work going on a little further south along the road towards Mena Creek, on the river's flood plain, and it looks as though the new road will follow the current alignment. It is not known if the road works incorporate a road/rail bridge over the South Johnstone River, which would seem the logical thing to do. The 5km/h tramway speed limit across the old Silver Bridge is still in force.
Scott Jesser 10/03

CSR LTD, Herbert River Mills
(see LR 172 p.21)
610mm gauge
A head-on collision occurred on 25 September near Beeva Road on the Abergowrie line near Trebonne. The locomotives involved were E.M.Baldwin locomotives 0-6-0DH *HOBART* (4413.1 7.72 of 1972) hauling fulls and B-B DH *ADELAIDE* (7070.2 4.77 of 1977) on empties. Damage to the locomotives was not extensive but 186 of the 196 empty bins were derailed and *ADELAIDE* was out of service for about ten days.
On 6-7 October, commissioning trials of the remote control equipment fitted to Walkers B-B DH *CAIRNS* (681 of 1972 rebuilt Bundaberg Foundry 1997) took place at the end of the Nyanza line. It is believed that this locomotive will be used on sugar trains at some time in the future, with a two man crew but with the locomotive operated by the remote control unit when required.
On 18 October, Hudswell Clarke 0-6-0 *HOMEBUSH* (1067 of 1914) was used to haul passengers for the annual Maraka Festival from 9am to 1pm. Trains ran on the Nyanza line from the raintrees at the start of the line near to the mill for about 2.5 kilometres to just before the Sunnybank points.
An unusual incident took place on 22 October when a haulout vehicle brought down overhead power lines in Fairford, west of Ingham, causing blackouts. It appears that E.M.Baldwin B-B DH *HOMEBUSH II* (6400.1 4.76 of 1976) ran over the fallen power lines before a warning could be given, and the crew had to stay on board until it was confirmed that isolation procedures had been completed.
Steven Allen 9/03 & 10/03; Peter Murray 10/03 (both Cane Trains e-group); Chris Hart 9/03 & 10/03; *Herbert River Express* 27/9/03 via Chris Hart and 25/10/03 via Steven Allen

ISIS CENTRAL SUGAR MILL CO LTD
(see LR 173 p.20)
610mm gauge
On 12 September, Walkers B-B DH No.2 (598 of 1968 rebuilt Walkers 1994) failed with transmission problems at Goodwood and No.6 (Walkers 610 of 1969 rebuilt Isis 2002) had to be summoned to tow locomotive and 60 fulls home. A new Caterpiller 3412 engine arrived in late October to be fitted to No.6 during the slack season.
On 17 September, Walkers B-B DH No.3 (600 of 1968 rebuilt Walkers 1994) and its brakewagon became derailed after hitting a broken rail at Horton, near Childers, while shunting. The locomotive came to rest at an angle of 45 degrees with both bogies off the line. The fuel tanks prevented the loco from rolling completely on to its side. It was rerailed by a 50 tonne crane brought in from Bundaberg and traveled back to the mill under its own power.
Early on 19 September, Walkers B-B DH No.1 (602 of 1969 rebuilt Walkers 1991) failed when a crack developed in the engine allowing engine oil to escape into the cooling system. Later in the day it was noted in the shed with all its side access doors, engine and radiator removed. By the end of the day, a replacement engine had been fitted.
Carl Millington 9/03 & 10/03

MACKAY SUGAR CO-OPERATIVE ASSOCIATION LTD
(see LR 173 p.20)
610mm gauge
Although Pleystowe Mill has been mothballed for the 2003 season, a number of locomotives still operate from there to bring in cane to be made up into rakes for transfer, particularly to Farleigh Mill. These have included Clyde 0-6-0DH locomotives 28 *TE KOWAI* (56-103 of 1956), 13 *DEVEREAUX* (67-568 of 1967) and 8 *PALMS* (70-708 of 1970) of which the first two are in the old Pleystowe and Marian Mill liveries respectively.
On 12 September, a quarry truck driver was

Industrial Railway NEWS

seriously injured when his vehicle was struck by a brake van being propelled by Farleigh Mill's Walkers B-B DH 44 *WALKERSTON* (672 of 1971 rebuilt Pleystowe 1994) at a level crossing at Rosewood near Farleigh. It seems that the driver ignored the red flashing lights because he had seen the train which was being closely followed by *WALKERSTON* pass by. Following the accident, the main line was blocked for about 6 hours.
Marian Mill's E.M.Baldwin B-B DH 17 *LANGDON* (9562.2 6.81 of 1981) was temporarily transferred to Farleigh Mill during October to replace Baldwin B-B DH 35 *INVERNESS* (10123.1 5.82 of 1982), which had suffered converter damage. It was reported that trials were due to commence in November with the operation of locotrol trains using a Walkers locomotive at the head and a slave in the rake, hauling 160 6-tonne bins from the Farleigh north coast line. This was to follow some trials that tookplace up the steep Church Hill bank between Pleystowe and Farleigh in late October utilising three Walkers locomotives and two brake wagons handling 160 fulls.
An auction was to be held at North Eton mill site on 20 November, conducted by Hassall Auctions, with surplus rolling stock a major part of the sale. Advertised for sale by the end of October were the following (mill shown is the owner pre-amalgamation):

(SEAFORTH)

0-4-2T Hunslet 6	1026	1910	Pleystowe
6wDM B'berg Fdry 02 *BARNEY BULL*	10	1953	North Eton
4wDM Motor Rail 01 *LI'L TOOT*	9861	1953	Pleystowe
4wDM Motor Rail *PHAR LAP*	21575	1956	Pleystowe
4wDM Motor Rail *ALLANDALE*	21623	1957	Farleigh
4wDM EMB 4-473-1-3-63 *LEO*		1963	North Eton
4wDH EMB 6-2612-1-10-68 *ROAD RUNNER*		1968	Racecourse
4wDH EMB 6-2612-2-11-68 *BUMBLE BEE*		1968	Racecourse
2-2w PMR Pacific Const –	1046	1976	Farleigh
Tamper Plasser –	90	1975	Farleigh
Rail jack Plasser –	226	1980	Marian
Rail jack Plasser	229	1981	Racecourse

Of particular interest, apart from the unique Hunslet steam locomotive, the Bundaberg Foundry locomotive was their first diesel, while *ALLANDALE* is the oldest surviving Baldwin sugar industry locomotive. Several other dismantled locomotives believed to be for disposal have not been advertised

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at close of press. Also advertised for sale were several items of experimental and specialised rolling stock and track maintenance equipment, as well as some steel bridge sections. The auction catalogue can be see at:
http://www.hassalls.com.au/index.php?section=On-site+Auctions
David Phillips 9/03 & 10/03; Peter Murray 9/03 (all Cane Trains e-group); Rob Stanier 11/03

PROSERPINE CO-OPERATIVE SUGAR MILLING ASSOCIATION LTD
(see LR 173 p.20)
610mm gauge
Com-Eng 0-6-0DH 46 *BARCOO* (FB4383 of 1964), on loan from Mackay Sugar, has been reported working regularly on the lines north of the Proserpine River. It is suggested that the two Clyde Model DHI-71 0-6-0DH units also on loan from Mackay Sugar, 43 *CHELONA* (59-201 of 1959) and 4 *HABANA* (60-215 of 1960) are not popular and have seen little use. Of Proserpine Mill's DHI-71 locomotives, it is reported that 2 (56-91 of 1956) and 4 (59-202 of 1959) are used as a source of spares to keep the rest of the fleet running.
There has been speculation that the mill has expressed interest in purchasing the two E.M.Baldwin B-B DH locomotives owned by Fiji Sugar Corporation, 7240.1 10.78 of 1978 and 8290.1 4.79 of 1979 (Rarawai 11 & 12 respectively). It is understood that these units have seen little use since the rail haulage of sugar and molasses from Rarawai to Lautoka ceased. In the meantime it is reported that the two Proserpine Mill E.M.Baldwin B-B DH locomotives being rebuilt at the Bundaberg Foundry, 9 (6626.1 7.76 of 1976) and 10 (9816.1 10.81 of 1981) are to receive GM 4-stroke diesel engines. It is suggested that 10 should be returned to the mill by the year's end, with 9 following in the new year.
David Rowe 9/03; David Phillips 10/03; Steven Allen 10/03 (all Cane Train e-group)

WESTERN AUSTRALIA

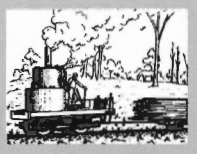
BHP BILLITON
(see LR 173 p.21)
1435mm gauge
It is understood that eight used GM Model SD40-2 Co-Co DE locomotives have been obtained from General Electric Transportation Systems in Mexico, with two due in Port Hedland by about the beginning of November, and the others to follow after some overhaul work.
Richard Montgomery 10/03 (Locoshed e-group)

PILBARA RAIL
(see LR 171 p.21)
1435mm gauge
Early in September, Robe Co-Co DE locomotives 9413 (Goodwin G-6060-04 of 1971), 9415 (Com-Eng G6060-06 of 1973) and 9416 (Goodwin G-6046-16 of 1973) were noted stored at 7 Mile Yard. The Pilbara Railway Historical Society is working on obtaining 9413 as this is one of the original units used on construction trains.
A trip along the Pannawonica line revealed a lot of new signals and extensive track work. This is to allow the taking over of all services by Dash 9 locomotives very shortly, with the only delay being connected with the Automatic Warning System on board the locos for the Robe line.
Richard Montgomery 9/03 (Locoshed e-group)

TRANSFIELD TUNNELLING, Perth Main Sewer Replacement Section 3
610mm gauge
A belated report on this project which commenced in September 2000 and was completed in May 2001. A 2.1m diameter tunnel was excavated from Salvado Road, Wembley to Lake Monger, a distance of 1.3km under an area of dense housing. A Lovat tunnel boring machine manufactured in Canada was used, incorporating an earth pressure balance system to cater for wet ground conditions. The tunnel was built to a depth of up to 18 metres and there were tight curves with radius as small as 125m. A 610mm gauge railway transported the spoil to the portal using four 2.5 cubic metre muck cars, and also transported the concrete tunnel segments. At the tunnel portal, the muck cars were raised by a 10 metre high electric gantry crane and tipped into a surface muck bin. A similar technique was used by Transfield Tunnelling to excavate a 1.1km tunnel under the harbour at Port Hedland for BHP in 1997.
Australian Underground Construction & Tunnelling Assoc (http://www.aucta.com.au); The Australian Engineering Excellence Awards (http://aeea.org.au)

AUSTRALIAN BLUE ASBESTOS, Wittenoom
610mm gauge
(see LR 159 p.22)
A visit on 7 June revealed all five 4wBE locomotives still abandoned on site (Mancha 3043 and 3044 of 1949 & 4079 of 1957, Gemco 12304-05/10/65 of 1965 and one unidentified). A Gemco type side rod off a 'trammer' battery locomotive was seen in the store area, but there was no sign of such a locomotive. No rolling stock was seen except a derailed flat wagon upside down half way down a slope below the track. It was reported that rolling stock was stored around the site of the 'village' but it appeared that this area was about to be bulldozed and buried on site using earthmoving machinery
Ray Graf 9/03

CORRECTION
Correction to a correction – the references to cane transfer from Victoria Mill to Macknade Mill (LR 173 p.21) should have been to bins per day, not tonnes! Thanks to a patient Chris Hart.



LRRSA NEWS

MEETINGS

ADELAIDE: "Christmas Film Show"
The 2002 Christmas Meeting will be a Film Evening at the Oaks Theatre. Please bring a plate of supper.
Location: Contact Arnold Lockyer (08) 8296 9488 for details.
Date: Thursday 4 December at 7.30pm.

BRISBANE: "EM Loveday Trophy Night"
EM Loveday Annual Photographic competition, "Farewell Nambour" slide night. Please bring a "plate" and slides of light railway operations on the Moreton Mill system from any era.
Location: BCC Library, Garden City Shopping Centre, Mount Gravatt. After hours entrance (rear of library) opposite Mega Theatre complex, next to Toys'R'Us.
Date: Friday 5 December at 7.30 pm. Entry from 7 pm. Contact Bob Dow (07) 3375 1475

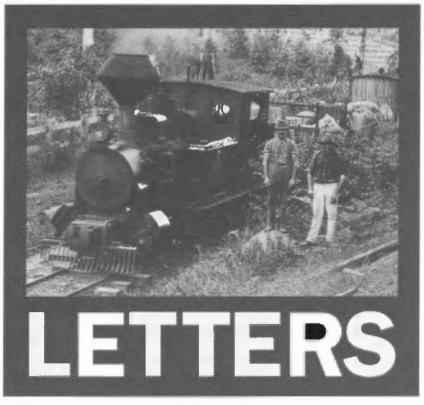
HOBART: The next meeting will take place in February 2003. See the February issue of *Light Railways* for details, or contact Ken Milbourne, (03) 6272 2823

MELBOURNE: "Group Googling Session"
Phil Rickard will demonstrate the wonders of the LRRSA web site, then explore narrow-gauge and other web sites around the world. A good opportunity for the many LRRSA members who have never used the internet to see the wonderful research resources available. Lots of photographic archives will be visited and we may even discover the legendary V4-cylindered Climax or the mythical double-sided Shay! (and all to the accompaniment of the church choir practising for Christmas).
Location: Ashburton Uniting Church Hall, Ashburn Grove, Ashburton.
Date: Thursday 11 December at 8.00 pm

SYDNEY: The NSW Division's next meeting will take place in February 2003. See the February issue of *Light Railways* for details, or contact Jeff Moonie (02) 4753 6302.

MEMBERS' ADS

WANTED
Stones locomotive headlights (2) and/or cab controls for same, for new steam locomotive project.
Andrew Forbes
Kerrisdale Mountain Railway
03 5797 0227



LETTERS

Dear Sir,

Manning Wardle loco winding engine, NSW (LR 173)

I refer to your mention of the Gunnedah Miners' Memorial in the Research Page of LR 173, and I make the following comments with regard to the locomotive/haulage conversion mentioned.

The depiction very closely resembles the well-known NSW Mines Department photograph of the Manning Wardle locomotive conversion at Wallarah Colliery (below). This machine survived into the 1960s, and I can remember inspecting it at Catherine Hill Bay...with the nameplate *DRIVER* still intact.

The illustration appears on page 17 of *History of Coal Mining in Australia* (Australian Institute of Mining and Metallurgy, Monograph 21-1993) where it is incorrectly captioned as a "Surface Installed Traction Engine".

I looked up some references I have regarding Gunnedah Colliery and can find no mention of a locomotive used as a haulage. Also, they confirm that the Company's only Manning Wardle locomotive *SYDNEY* was sold to Hector Sutherland and, as stated by Eardley (*ARHS Bulletin* 413) was eventually cut up on site.

However, my notes DO indicate that, between 1902 and 1915, a converted "steam tractor" (ie a steam traction engine) was used to drive the rope haulage. This was fed with steam from a vertical boiler and was eventually replaced by an electric motor.

It is my suggestion that some locals mentioned this engine to the artist, who then referred to the above book and found a photo of a "traction engine" at a coal mine, and the unfortunate end result was the misleading illustration on the bronze plaque.

Finally, as this Memorial is recent history, it would surely be possible to determine the name of the artist and from him/her ascertain the source of inspiration.

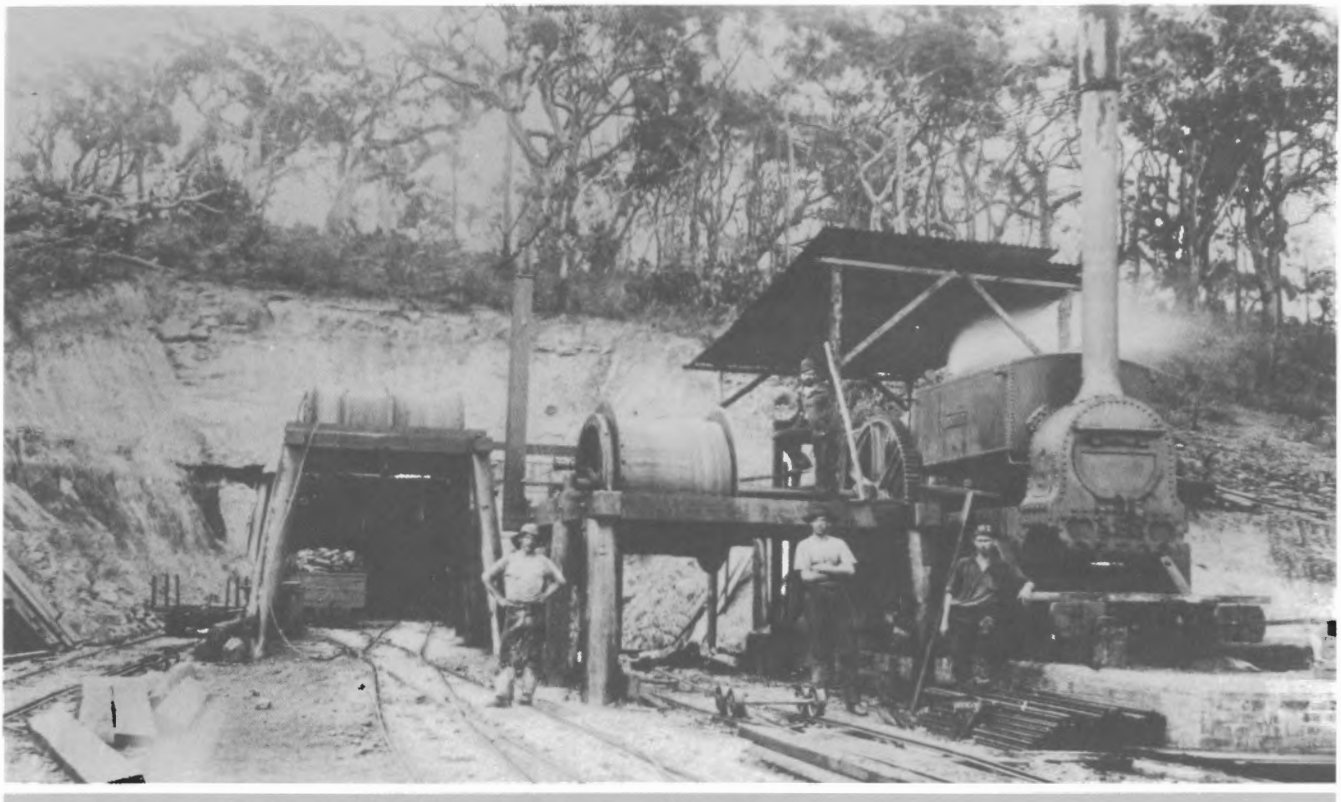
John Shoebridge
Dora Creek, NSW

Dear Sir,

'Where is it?' (LR 173)

I believe it is the tram motor, though I don't know which one, that was used in constructing the North Coast Railway around Karaak Flat and Maitland-Dungong. There are other photographs of it, in the SRA Archives (Nos 1526/–) at Kingswood and in the *Sydney Mail* 7 February 1912, page 25.

Jim Longworth
Cheltenham, NSW



FIRST HOBART MEETING

The LRRSA held a meeting in Hobart on 28 October 2003 to determine if there was sufficient interest to form a Tasmanian Group of the Society. Twenty people attended the meeting, with one coming from Launceston, two hours drive away. The meeting was chaired by Ken Milbourne, who has been the LRRSA's Tasmanian Representative for many years. The Society"s President, Bill Hanks; Vice-president, Mike McCarthy; and Publications Officer, Frank Stamford: gave a brief outline of the Society's operations in other states, and of the way the LRRSA had assisted authors in their research and getting their work published.

Scott Clennett then gave a very well researched presentation on the timber tramways of southern Tasmania, with many fascinating photographs and maps. The maps showed lots of tramways but Scott was careful to point out that not all the tramways were included. They were of many gauges, from 2 ft 6 in to 6 ft, with locomotives from the freakish to the technically complex, with the former (like Sentinel steam lorry conversions) being more successful than the latter (Andrew Barclay, Meyer articulated).

After the presentation, Ken led discussion on the pros and cons of establishing a Tasmanian Group of the Society. It was decided to form a small committee to work on this, and five people volunteered to be on the committee: Ken Milbourne, Tony Parnell, Tony Coen, Wayne Chynoweth, and Scott Clennett.

After the meeting closed, supper was served, with most attendees lingering on for informal discussion. Everyone seemed to feel the meeting had been well worthwhile.

Frank Stamford

Readers' Survey Results

In order to gain feedback from readers on ways of improving *Light Railways*, a survey form was included with LR 165. A total of 295 forms were returned and analysed, 98 of them from Victorian readers, 85 from New South Wales, 35 from Queensland and 17 from Western Australia. Fourteen overseas readers responded and the remainder came from Tasmania (9), the ACT (11) and the Northern Territory. 258 of the respondents were members of the LRRSA.

Richard Warwick offered to analyse the survey responses, but an overseas visit, work pressure and problems arising from the complexity of the information delayed finalisation of his report. Richard submitted his report to the October meeting of the LRRSA Council. The key results relating to *Light Railways* are summarised in this article, while other elements of the survey will be reported in a forthcoming issue.

Reader Profile

In response to the question on personal interest, 267 of the readers are interested in railway history generally, while 230 indicated interest in industrial railways and 223 in preserved railways. Other area of interest were industrial history (151), model railways (146), railway photography (146), industrial archaeology (128), forest history (111), bush walking (85) and military history (59).

Most readers (261) indicated that they subscribe to *Light Railways*. Twenty-seven respondents had purchased the magazine from a newsagent and four from a railway or museum bookstore. Of the other factors that caused readers to purchase the magazine, the photographs (24), heritage & tourist news (21), a feature article (18), industrial railway news (17) and 'the cover' (15) were the main responses.

The Cover

High quality covers are a feature of the revamped *Light Railways* and the editors were keen to gain feedback on reader preferences. The ratings from 1 (did not like) to 5 (outstanding) are given by percentage in the following table:

LR No	Details	1	2	3	4	5	DNS
152	Emu Bay Railway Garratt	2	5	24	44	21	5
153	Double-heading Goulburn Steam Museum	2	13	35	34	11	5
154	Millaquin Mill Bundaberg Fowler	0	5	14	49	25	8
155	Fyansford Garratt	0	3	25	44	22	6
156	BHP Port Kembla Bo-Bo in workshop	13	16	27	30	9	6
157	Puffing Billy Centenary	0	3	34	26	31	6
158	Wolgan Valley Shay	3	17	13	29	32	6
159	Feeding furnaces at Great Cobar	5	14	25	30	21	5
160	Whyalla Steelworks slag dump	3	21	27	35	13	2
161	Walkers B-B DH, Proserpine Mill	6	11	19	35	24	3
162	Wee Georgie Wood	2	8	23	36	31	0
163	ROD 2-8-0 No 20	3	5	37	35	19	0
164	Moreton Mill's 0-6-0DH Jamaica	5	10	14	35	32	5
165	Bunnerong Powerhouse	0	3	24	56	18	0

There was no outstanding favourite, though the Bundaberg Fowler near Millaquin mill (LR 154) and the Bunnerong Powerhouse scene (LR 165) were highly fancied. Good quality covers of steam locomotives remain popular, but the two covers with sugar mill diesel locomotives (LR 161 and 164) were also rated highly. Interestingly, the black and white cover of industrial workers at the Great Cobar smelters was favourably received.

Comments on LR covers included requests for more steam locomotives, a desire for the cover photograph to relate to articles in the issue (easier said than done!) and one objection to wrap-around covers.

Research Articles

Again, the responses to the main research articles listed in the survey are given as percentages in the following table:

LR No	Details	1	2	3	4	5	DNS
151	Acland Coal Mine, Qld	0	15	32	31	10	12
151	Timber tramways NSW south coast	3	7	36	41	8	5
152	West Wallsend Extended colliery, NSW	0	15	28	37	12	8
153	Krauss locomotives in Australia	5	7	8	27	46	7
154	Mining railways at Cobar Part 2, NSW	2	8	25	30	27	8
155	Hudson Bros timber tramways, NSW	0	12	40	29	12	7
156	Two Krausses & a Koppel, Port Melb, Vic	2	7	15	36	34	7
157	Ida Railway and its locomotives, Tas	2	8	16	34	33	7
158	Red Gate tramway to Waddamana, Tas	2	7	40	23	17	12
159	Mining railways at Cobar Part 3, NSW	2	8	19	32	32	8
160	Steam in the archives - Vic boiler records	8	15	28	28	18	3
161	Riverstone meatworks light railway, NSW	2	21	21	36	16	5
162	Stenhouse Bay gypsum tramway, SA	2	9	24	34	29	2
163	Excavating Appleton, Vic	0	3	20	33	39	5
164	Great Cobar Copper Mine Part 4, NSW	2	12	22	34	26	3

This question drew a more differentiating response, with the articles on Krauss locomotives (LR 153), Appleton Dock (LR 163), Port Melbourne (LR 156) and the Ida Bay Railway (LR 157) drawing the widest appeal. The articles on the Great Cobar and Stenhouse Bay also generated strong interest.

There were a number of comments on the need for better maps, including location maps. The editors would like to comply with this request, but this in turn requires authors to provide the material in the first place.

Other responses suggest a desire for more well-researched feature items, rather than short articles, with several requests for articles on topics of personal interest, including more Tasmanian and Western Australian material, more on Queensland sugar tramways and items of Australian locomotive builders.

Short Articles

LR No	Details	1	2	3	4	5	DNS
154	Cane railways to Goondi East, Qld	3	7	20	39	20	10
155	Running the rake WA State sawmills	0	14	28	35	12	11
155	A ride on the Mapleton Tramway, Qld	0	5	12	42	31	10
156	The Djarawong Line (Tully Mill), Qld	2	7	24	38	20	9
156	Tears for tramways lost, Vic	0	8	25	32	24	10
157	Gembrook Centenary, Vic	0	11	31	28	23	7
158	Rebuilding Malcolm Moore 1039, Vic	0	19	25	28	16	12
159	Mechanical Samson, WA	2	18	33	20	16	11
160	Australian Gaslight Co Darling Hbr, NSW	2	14	31	33	17	3
161	Our railwaymen in France	2	13	13	35	30	7
162	A visit to Huon Timber Mill, Tas	0	2	26	42	26	4
162	Fifty years of railway preservation	2	11	39	40	7	2
163	The narrow gauge question, NSW	2	9	21	46	19	4
163	From steam to wildflowers, WA	2	10	44	33	8	4
164	Nambour Sugar, Qld	4	4	25	33	33	2
164	Small but powerful WA Rwys unique job	2	8	35	35	17	4

Among the short articles, 'A Ride on the Mapleton Tramway' was a favourite, closely followed by 'the Huon Timber Mill', 'The Diarawong Line', 'Our railwaymen in France' and 'Nambour Sugar'. There were few comments on the short articles, though some readers wanted to see articles on preserved locomotives and others asked for more on sugar mills.

Regular Features

Readers were asked to nominate whether they read the regular features as a priority or not. The responses (as a percentage) are given in the following table:

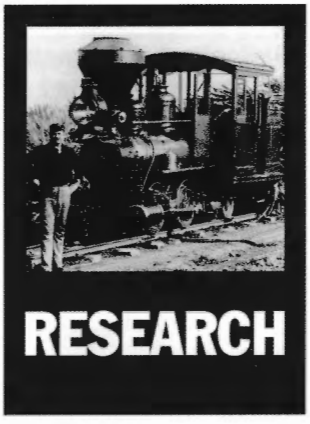
LR Feature	Priority	Usually	Sometime	Never
Industrial rail news	57	35	9	0
Letters	40	46	15	0
Heritage/Tours	49	44	7	0
Research	52	40	7	0
Book Reviews	45	43	12	0
Editorial	29	54	17	0
LRRSA News	35	53	9	3
Coming Events	29	51	15	4

The results and the accompanying comments indicate that most readers want to see the layout and make-up of *Light Railways* remain in its current form and balance, with several respondents commenting favourably on the layout.

In response to a request to Council, readers were also asked if they favoured expanding the preservation sections of LR to include the preservation of government railways mainline equipment and, if so, what would they like to see dropped to make way for this?

This question generated a strong response, with 124 readers saying 'Yes' and 147 giving a firm 'No'. Most respondents made comments on this matter. Those who do not want a change argued firmly that there are a number of other magazines covering this subject and that *Light Railways* should stick to its present specialised field. Those who responded 'Yes' were generally unable to nominate any areas to be reduced.

Of the 30 who were prepared to see a reduction in material, only a handful actually nominated areas for reduction. These included book reviews, letters to the editor, industrial railway news, overseas railway news and news items on heavy industrial rail (eg, the Pilbara railways).



Fireless Locomotives

John Wicks writes that German railway enthusiast Uwe Bergmann is researching fireless locomotives for a planned book. He has identified about 100 fireless locomotives that operated in German paper mills, sugar mills, power stations, chemical plants, collieries and steel works. Uwe has also identified a number of these locomotives that served industrial plants in Europe, the United States, South Africa, India, Japan and Indonesia, but he has not come across any fireless locomotives in Australia or New Zealand.

If any reader knows of any such locomotives here, could they please contact John at 8 Richards Avenue, Drummoyne NSW 2047.

Wielangta Big Mill, Tasmania

John Browning advises that the on-line image collection of the Tasmanian State Library has some outstanding photographs of construction and operation of the 'Big Mill' at Wielangta. There are 99 images in the collection, taken by Henry Allport between 1911 and 1915. They include 15 of the locomotive 'Coffee Pot', which operated between the jetty at Rheban Beach and the mill, together with other images of the wooden tramline and the mill, both during their construction and the early operating period. The Web site is at: http://images.statelibrary.tas.gov.au

Beech Forest Railway, Victoria

LRRSA Life Member Norm Houghton has prepared a draft Conservation Management Plan (CMP) on the Beech Forest Railway for the Colac Otway Shire, which addresses the historical and cultural significance of the 2ft 6in gauge 'Beechy Line'. Norm and Shire staff conducted seven public information sessions between July and October 2003, both in the bush and at Colac. Norm reports that the CMP has generated opposition among some property owners, who claim that the proposed planning provisions for a heritage overlay to protect the surviving earthworks and to acknowledge the route will devalue property and interfere with legitimate farming pursuits. Submissions on the CMP closed on 15 October 2003.

Regatta Point Railway Remnants, Tasmania

The excellent articles by Jim Stokes on the Tasmanian Government Railways in the *ARHS Bulletin* Nos.783/4 of January and February 2003 prompted Chris Miller to explore the area in October. At Strahan wharf there is no sign of any railway remains.

The wharf is concrete surfaced and looks to have been rebuilt since the railway closed. Chris followed the walking track from Strahan to Regatta Point, which he understands to be the old railway formation, although the culverts look new.

There are some remains of the Regatta Point wharf left, but the only railway track in the station area is the newly laid line for the WCWR. The station is the original, as is the loco shed (not yet in use), but there are no other former Mt Lyell Railway structures left at this location. The former "Thistle coal dump roads" area is now mostly sealed, and there is a hotel, which appears to be located partly over the area where the sidings were located.

Chris walked via scrub and beach toward the location of the former My Lyell Company pyrites wharf. Alongside the beach much of the second road from the waterside is still there, although overgrown. There is one rail left of the line closest to the water, the rest of it having collapsed onto the beach. Further along both lines are largely in place, as are the two sets of points where they join and then split into two roads again. Most of the dead end nearest the water and all of the other dead end siding appear to be in place.

Chris believes he found the exact location shown in the February 1973 photo on page 44 (lower) of *ARHS Bulletin* No.784, and it still looks much the same, less the wagons of course, and there are even most of those "sticks" still jutting out of the water. Just seeing this made the whole visit worthwhile!

The brick supports for the pyrites wharf are still in place. On the north side, the siding formation appears to have been washed out, while on the south side the formation still heads back to the main line. There was no trace of the harbourside coke/ore bins or track formations, but the formation of the line was walked to the inland side coke/ore bins as it climbed from the north end into the hill.

At the top, the remains of the bins are there, as well as some rail, which is considerably higher than the main line. There were few remains of the high trestle or its dead end, although indications of its location were evident.

Anglo-Iranian Oil Co. No.6, a 3ft gauge Andrew Barclay 0-4-0 Fireless (1795 of 1923), at the company's Abadan Refinery in the 1950s. German enthusiast Uwe Bergmann is keen to find out if any such machines operated in Australia or New Zealand (see item above left). Photo: Phil Belbin collection

A selection of books from the LRRSA Sales Department ...

Built by Baldwin

The Story of E. M. Baldwin & Sons, Castle Hill, NSW - by Craig Wilson

The history of Australia's most successful and innovative builder of industrial diesel locomotives. E. M. Baldwin developed the B-B DH locomotive now widely used on Queensland's sugar railways, 160 pages, A4 size, 148 photos, 16 diagrams, construction listing.

$44.00 Hard cover (LRRSA members $33.00) Weight 1000 gm.

The Aramac Tramway

By Peter Bell & John Kerr

The history of the 41 mile long 3 ft 6 in gauge Aramac Tramway, almost in the centre of Queensland. Built in 1913, it operated for 62 years, providing the Shire Council a major challenge to keep it going.

48 pages, A4 size, 49 photos, 5 maps and plans, references, bibliography and index.

$15.00 Soft cover (LRRSA members $11.25) Weight 350 gm.

Focus on Victoria's Narrow Gauge Whitfield Line

Photographs by Edward A.Downs and others, published by Puffing Billy Preservation Society. Very high-quality landscape format book of duotone photographs dating from 1899 to 1963, but mostly from 1940 to 1945. 48 pages, soft cover, A4 size.

$35.95 (LRRSA members $32.35) Weight 280 gm

Echoes through the Tall Timber

The Life and Times of a Steam Man 1895-1984 by Dorothy Owen, published by Brunel Gooch Publications. Life story of Harry Matheson, who drove logging winches, and mill engines in the Warburton-Powelltown area. 176 pages, soft cover, A5 size, 48 illustrations.

$22.95 (LRRSA members $20.66) Weight 375 gm

Focus on Victoria's Narrow Gauge Gembrook Line Part 1

Photographs by Edward A.Downs, published by Puffing Billy Preservation Society. Very high-quality landscape format book of duotone photographs from the mid-1930s to the mid 1940s. 48 pages, soft cover, A4 size.

$35.95 (LRRSA members $32.35) Weight 280 gm

Powelltown

A History of its Timber Mills and Tramways by Frank Stamford, Ted Stuckey, and Geoff Maynard. 150 pages, soft cover, A4 size, 150 photographs, 22 maps and diagrams, references and index.

$22.00 (LRRSA members $16.50) Weight 550 gm.

The Innisfail Tramway

The History and Development of the Geraldton Shire Tramway and the Mourilyan Harbour Tramway by John Armstrong & G.H. Verhoeven. 128 pages, A4 size, 99 photos, 22 maps/diagrams.

$37.90 Hard cover (LRRSA members $28.43) Weight 650 gm.

$29.95 Soft cover (LRRSA members $22.46) Weight 470 gm.

Modernising Underground Coal Haulage

BHP Newcastle Collieries' Electric Railways by Ross Mainwaring. 60 pages, soft cover, A4 size, 18 photographs, 13 maps and diagrams, references and index.

$16.50 (LRRSA members $12.38) Weight 230 gm.

Laheys' Canungra Tramway

by Robert K. Morgan, revised by Frank Stamford Describes Queensland's largest timber tramway. 32 pages plus soft cover, A4 size, 28 photographs, plus maps/diagrams and index.

$9.95 (LRRSA members $7.46) Weight 220 gm.

Mountains of Ash

A History of the Sawmills and Tramways of Warburton - by Mike McCarthy

Describes a complex network of over 320 km of tramways which linked 66 major mills to the Warburton railway. 320 pages, A4 size, 280 photos (incl. 52 duotones), 50 maps/diagrams, (incl. 14 four-colour maps).

$59.95 Hard cover (LRRSA members $44.96) Weight 1500 gm.

Settlers and Sawmillers

A History of West Gippsland Tramways and the Industries they Served 1875-1934 by Mike McCarthy

168 pages, soft cover, A4 size, 96 photographs, 17 maps and diagrams, 6 graphs, one loco diagram, references and index.

$31.90 (LRRSA members $23.93) Weight 700 gm.

Bellbrakes, Bullocks & Bushmen

A Sawmilling and Tramway History of Gembrook 1885-1985 - by Mike McCarthy

104 pages, soft cover, A4 size, 71 photographs, 17 maps and diagrams, references and index.

$26.00 (LRRSA members $19.50). Weight 500 gm.

Arsenic and Molasses

A Pictorial History of the Powelltown Tramway and Timber Milling Operations by Frank Stamford. All photographs are different to those in *Powelltown*. 88 pages, A4 size, over 100 photographs, 8 maps and diagrams, glossary and index.

$36.00 Hard cover (LRRSA members $27.00) Weight 650 gm.

$24.00 Soft cover (LRRSA members $18.00) Weight 470 gm.

End of the Line:

A History of the Railways in Papua New Guinea by Bob McKillop & Michael Pearson. Published by University of Papua New Guinea. 170 pages, 81 photos, 28 maps.

$27.00 (LRRSA members $24.75) Weight 550 gm.

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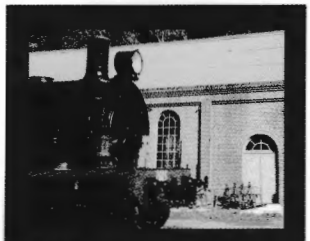


Heritage & Tourist

News items should be sent to the Editor, Bob McKillop, Facsimile (02) 9958 8687 or by mail to PO Box 674, St Ives NSW 2075.
Email address for H&T reports is: rfmckillop@bigpond.com
Digital photographs for possible inclusion in *Light Railways* should be sent direct to Bruce Belbin at: boxcargraphics@optusnet.com.au

NEWS

Queensland

ARCHER PARK STATION & STEAM TRAM MUSEUM
1067mm gauge
Rockhampton City Council
This museum has won the 2003 Rockhampton Regional Development and Ergon Small Business Award for Central Queensland. Key features of its application were the range of quality exhibits offered by the museum, its effective marketing and promotion activities, the emphasis given to education and community activities, the training program provided for the 65 volunteers who man the museum and the museum's leadership in the railway preservation movement. Archer Park has gained a competitive edge in the quality of its collection, most notably as the home of the world's only operating Purrey steam tram, which attracts many international visitors. Its digital sound scape linked to life-sized mannequins has also been a big drawcard.
Through the Central Queensland Language Department, student tours to the museum and other local attractions are organised from Thailand, Korea and Japan. The risk management and occupational health and safety training programs for the volunteers, known as 'Friends of Archer Park', was an important element in the award. We offer our congratulations to the team at Archer Park on their success. Their experience offers valuable lessons for other preservation groups.
Dennis Sheehan, 10/03, Editor

BALLYHOOLEY STEAM RAILWAY, Port Douglas
610mm gauge
Port Douglas Steam Train Company
Restoration work on Bundaberg Foundry 0-6-2T *SPEEDY* (B/N 6 of 1952) was completed in August and the locomotive entered service in a livery of olive green with black and white highlighting (LR 172, p.27). With two steam locomotives available for service, 0-6-0DM *MOWBRAY* (Baguley 3378/1954) became a back-up unit.
The PDST Company has announced that, following a trial period to evaluate the market, daily train operations ceased on 3 October 2003. The train remains available for all manner of charter work.
Chris Walters, LocoShed e-group, 2/10/03

BAUPLE HISTORICAL MUSEUM
610mm gauge
Further to the item in LR172 (p.27), a visit on 11 September 2003 found the former Isis Central Mill No.3 0-6-0T (John Fowler 11165 of 1907) displayed at the Museum. This locomotive was displayed in a Maryborough park for some years, then stored at a car wreckers yard (Parky's Parts) prior to its purchase by the museum. It was on an open piece of track outside the main museum building and was easily visible from the road. The cab and tanks had been removed, the remainder sand blasted and primed. Local officials advised that the cab was due to be reinstalled about 17 September. The locomotive is being refurbished as a static exhibit.
Greg Stephenson, 09/03

MARYBOROUGH WHISTLESTOP COMMITTEE 1067mm gauge
This group has announced plans to construct a *Thomas the Tank Engine* to operate in a theme park to be established at Baddow. Outgoing president, Peter Andrews, told members attending the annual general meeting on 27 September that the Committee plan "is to build the Thomas attraction which can use all the current QR facilities like the heritage station and the track to Maryborough West" in order to create "an internationally popular tourist attraction". Further details of the planned locomotive would be much appreciated.
Maryborough Herald, 1 October 2003, via Barry Blair

New South Wales

CONDONG SUGAR MILL, Murwillumbah 610mm gauge
Following closure of this mill's tramway system in 1974, a train comprising Ruston & Hornsby 40DLU 4wDM 371959 of 1953, a cane truck, a set of rail bogies, 4-wheel ballast wagon, a bogie ballast hopper, bogie flat car and a bogie cross-bench navvy carriage was placed on public display at the mill (LRN 2, 1978). In 1984, the locomotive was taken to the workshop for restoration by apprentices, but this project was abandoned after the loco had been dismantled (LRN 40 and 93). It is now reported that this rolling stock has been donated to the Illawarra Light Railway Museum Society at Albion Park.
Brad Peadon, LocoShed e-group, 13 Oct 2003

ILLAWARRA TRAIN PARK, Albion Park 610mm gauge
Illawarra Light Railway Museum Society
The successful two-train running (LR 173, p.28) has continued. Over the October long weekend, the 'Brown Ruston' (R&H 304455 of 1951), ex-Central Park Railway at Forresters Beach, but now painted in a red livery, operated passenger car No.1 as the bay road train. On 11-12 October, the return of the jazz band drew good crowds; with ex-Tully Mill 0-6-2T No.6 (Perry Eng. 7967/49/1 of 1949) and 0-6-0DM *SEYMOUR* (Baguley 2392 of 1952) the operating locomotives. A visitor noted the 'Brown Ruston' parked at the eastern end of the station and 0-4-0ST *BURRA* (Hawthorn Leslie 3574/1923) on display outside the workshop. The 'Green Ruston' (R&H 285298 of 1949) was in the workshop stripped for overhaul.
Brad Johns 10/03; Chris Walters, LocoShed E-group, 12/10/03

LAKE MACQUARIE PRIVATE LIGHT RAIL, Toronto
610mm gauge
Grahame Swanson
The movement of the two former North Eton 0-6-2T locomotives (Perry Eng. 2382 of 1941 and

A visiting school group explores the platform area at Archer Park, August 2003. *Photo: Dennis Sheehan*

Heritage &Tourist

6634.52.1 of 1952) was covered in LR 161 (p.27 and 29), while the rebuilding of a Malcolm Moore 4wPM locomotive as *Miss Twiggy* was featured in LR 172 (pp. 14-15). In October Grahame Swanson announced that his private railway had been registered under the Rail Transport Act and that Perry 6634.52.1 was nearing the end of its restoration project. This has involved a complete rebuild from the frames up. A trial run is planned for late November. Construction of the track, including two substantial bridges, was progressing well.
The Star, 7 October 2003, via Barry Blair; Grahame Swanson, 10/03

RICHMOND VALE RAILWAY,
Kurri Kurri 1435mm gauge
Richmond Vale Preservation Cooperative Society Ltd
Restoration work at the Pelaw Main site by the 'weekend warriors' has recovered 18,000 cubic feet of rubble, timber and metal from the former locomotive shed, 13,000 bricks and a number of artefacts. A number of the artefacts have been put on display in the entrance building at Richmond Vale. At the main depot, No. 4 road on the southern side of the carriage shed has been extended by 30 metres and the stainless steel passenger carriages are now stored on this line.
Link Line, September/October 2003

Victoria

ALEXANDRA TIMBER TRAMWAY & MUSEUM
610mm gauge
The museum's executive has been addressing the crisis arising from rising costs, particularly those generated by the dramatic increase in insurance premiums. Continued expansion to gain recognition as the premier tourist operation of its type in the area in order to increase income is seen as the only viable option. Public liability insurance premiums are a fixed cost regardless of the number of actual running days, so more operating days are required to increase patronage and income. That in turn requires a significant expansion of the museum's volunteer base. But similar organisations across Australia are making similar demands on a small band of dedicated volunteers. The efforts of the ATT&M to resolve this quandary will be followed with interest.
In terms of operations, the John Fowler 0-6-0T (B/N 11885 of 1909) blew a tube at the commencement of the July 2003 running day. It was returned to the siding to be shut down and one of the museum's trusty internal-combustion locomotives took over for the day's passenger train operations. Bryan Slader was able to manufactur and fit an effective tube plug and the locomotive subsequently operated successfully at the August and September running days.
Timberline 74, October 2003

CARIBBEAN GARDENS,
Scoresby 610mm gauge
Further to the item in LR 172 (p.28), the Malcolm Moore 4wPM (B/N 1092) is the last of the 92 4wPM locomotives built for the Australian Army during World War II. It is used regularly for track maintenance work (see photo). It is reported to perform well and starts instantly.
The Caribbean Gardens tourist attraction offers: "A unique outing combining the hustle, bustle and atmosphere of the market with a peaceful and relaxing park and lake surrounding the market." The circular railway, some 5km in length, transports visitors around a lake. The passenger train comprises fibreglass bodies mounted on former 4-wheel cane trucks. The train locomotive, reported to have come from Queensland, is also encased in a modernistic fibreglass body.
Syd Commons, 09/03

PUFFING BILLY RAILWAY
763mm gauge
Emerald Tourist Railway Board
The PBR carried 244,851 passengers in the financial year 2002-2003, a 5.5 per cent reduction on the record set the previous year. The railway ran on every day except Christmas Day and completed 1555 revenue-earning trips during the year. The operations of the Board resulted in a net loss of $138,709 compared with a net loss of $310,947 the previous year.
Good progress was made on the project to restore Beyer Garratt locomotive G42 during 2002-03. A major milestone was reached on the afternoon of 3 September 2003, when the first fire was kindled in the firebox of the restored boiler. The honour of striking the first match was given to Bruce West, leader of the 'Get G42 Going' Committee, whose untiring work over many years has helped raised a substantial proportion of the funds for the restoration project. The 'First Fire' raised boiler pressure to around 120 psi as a 'warming' test. Steaming to full working pressure and the setting of safety valves was carried out the following day.
PBPS Annual Report 2003, via Brian Webber; *Narrow Gauge* No.170, Sep 2003.

Tasmania

MOUNT LYELL MUSEUM,
Queenstown 610mm gauge
Ex-Mount Lyell English Electric 4wWE 1 (720 of 1927) has been on display in the open with an ore car and man carrier since 1986 and has suffered somewhat from exposure to the west coast elements.
Ray Graf, 08/03

THE RAILWAY WORKSHOPS,
Inveresk 610/1067mm gauge
Queen Victoria Museum & Art Gallery/Don River Railway
The former TGR workshops at Inveresk (Launceston) are promoted as the largest and most intact industrial heritage site in Tasmania. Throughout the workshops, many fragments of this industrial past remain and have been interpreted in a variety of ways. Queen Victoria Museum has restored the Blacksmith Shop and its steam era machinery. A walkway guides visitors through the unique experience with the voices of workers and sounds of machinery. Guided tours include a blacksmith at work. The exhibition 'Transforming the Island: Railway in Tasmania' tells the story of how the railway shaped Tasmania, changing the way people lived and worked.
Premier, Jim Bacon, formally opened the Don River Railway workshop at the Inveresk heritage site on 4 October 2003. Mr Bacon noted: "From a heritage point of view, there could be no more appropriate reuse of a railway workshop dating back to the 19th century than to provide a new workshop facility for one of Tasmania's premier 21st century railway operations. The DRR was scheduled to run a series of tourist trips out of Launceston to Hobart, Scottsdale and Burnie in late 2003. The Don River Railway Transport and Model Expo was to be held at the Inveresk Exhibition Building on 15-16 November 2003.
Ray Graf, 08/03; *The Examiner*, 7 Oct 2003, via Barry Blair

WEE GEORGIE WOOD STEAM RAILWAY, Tullah 610mm gauge
Krauss 0-4-0T 9 (5988 of 1908) was noted in the loco shed on 10 August 2003, with its boiler standing outside. The remains of two 2ft gauge Gemco 5-tonne 4wBE locomotives, presumably from the former Electrolytic Zinc mine at Rosebery, are on site, one inside the carriage shed and another, reduced to bare frame, outside.
Ray Graf, 8/03

WEST COAST PIONEERS MUSEUM, Zeehan
610mm gauge
A recently new exhibit is a 2ft gauge 5-tonne Gemco 4wBE from the Pasminco Rosebery Mine (formerly Electrolytic Zinc). It is painted yellow with red wheels and has the number 46 in weld on the frame. Ex-Mount Lyell number 4, a 2ft gauge English Electric 4wWE, was noted lying derelict in a storage area without motor and wheels.
Ray Graf, 08/03

WEST COAST WILDERNESS RAILWAY, Queenstown
1067mm gauge
The remains of 2ft gauge Orenstein & Koppel 0-6-0T 4241 of 1910 were noted near the Queenstown locomotive depot on 9 August 2003. It appears that the boiler and superstructure have been mounted on a new, non-locomotive type frame, presumably before the unit was acquired by the WCWR in 2000. This locomotive formerly worked at the Great Boulder Gold Mine in Western Australia, coming to the Goulburn Steam Museum in December 1973 (LR 69, p.16). It went to Wodonga in Victoria in late 1976 and was acquired by Eric Howe of Tarleton, near Devonport in Tasmania, in 1991 (LRN 87, p.13). It was last reported in LRN 107 of August 1995. Further information on this locomotive would be much appreciated.
Another journey in early October from Strahan found a new "premier" class carriage on the train. This has upholstered seats, large sealed glass windows with windows and a platform at the rear end of the car. The premier car incudes a

Ballyhooley Steam Railway's newly overhauled 0-6-2T SPEEDY *(Bundaberg Foundry 6 of 1952) awaits departure at St Crispins, 18 September 2003.* *Photo: Brian Webber*

This remarkable 3ft 4½in gauge 0-6-0PM Days rail tractor, built in 1940, is preserved at the Alexandra Timber Tramway & Museum, where it was photographed on 19 April 2003 by Ray Graf.

Malcolm Moore 4wPM 4092 on maintenance duties at Carribean Gardens, Scoresby. *Photo: Syd Commons*

small catering area, enabling the occupants to be served snacks and drinks while in motion. It was certainly warmer and rides better than the rebuilt Mt Lyell carriages, which have glass windows, but small openings above the windows covered by plastic leaving an air gap, or the standard WCWR cars, which are fitted with external roll-down plastic curtains rather than glass windows. Passengers in these carriages felt the bitterly cold winds and intending visitors are advised to come 'rugged up' for the journey.

Locomotive D2 hauled the four-car train from Strahan to Dubbil Barril. The lead car was a catering car, which is used at the stops en route to dispense food and drinks. Given the cold conditions, the hot soup served from the catering car (in a lunch pack) went down well. From Dubbil Barril to Queenstown, the train was hauled by Abt steam locomotive No 3. The lead car was a combined kitchen and premier class car and the other three were standard WCWR cars with open windows.

An interesting feature of the Abt locomotives is the use of back-pressure braking in addition to the vacuum brake. On the downhill rack section, the loco is placed in reverse causing the pistons to compress air in the cylinders on each stroke, providing retardation for the train. Water is injected into the cylinders for lubrication, which partially flashes into steam due to heat from the compression. The two tall outlets behind the funnel (chimney!) are the cylinder exhausts and as well as venting the steam they rain water over the loco during compression braking. The driver also opens a vacuum bleed to bleed off vacuum braking on the loco during applications to prevent wheel slide.

Despite the cold, our correspondent found the journey a fantastic experience. He noted many similarities to the *Cockatoo Run* up the Illawarra Escarpment from Unanderra to Summit Tank. While the Illawarra escarpment is considered more spectacular for heights and its rainforest setting, the WCWR has a more up-close and personal

wilderness experience and runs along an impressive river. Moreover, it has steam, rack operation and narrow gauge track!!
Ray Graf 8/03; Chris Miller 10/03

South Australia

COBDOGLA IRRIGATION MUSEUM

Cobdogla Steam Friends Inc.

The restored Simplex locomotive (Motor Rail 7369/1939, see LR 172, p.28) has been named *FARLEIGH*. It is now in regular service providing relief for the steam engine and rides for visitors at a minute's notice. A number of schools trains have already been run. Restoration of the section car is proceeding well, although a target date for completion of this project has not yet been set.
Approximately 400m of track had been laid out on the new right of way by September 2003. This project is based on a cycle of cutting and drilling around 400 sleepers, then setting aside a weekend to lay the accumulated sleepers.
Denis Wasley, ASP 77, 30/09/03

Western Australia

BUSSELTON JETTY RAILWAY

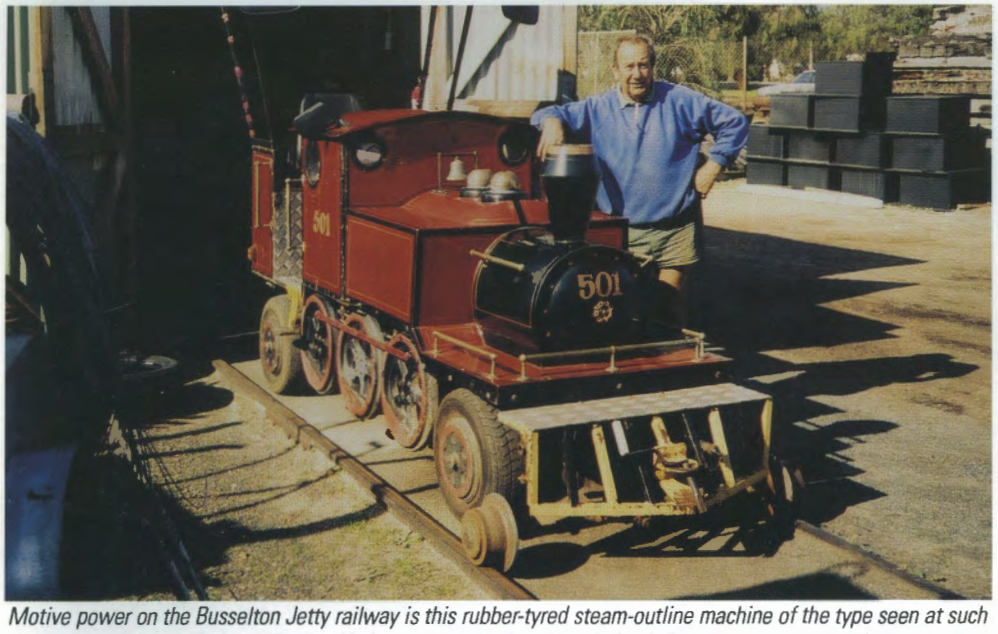
1067mm gauge
A visit to this tourist operation, in August 2003 allowed a quick inspection of the site. The train has continued in operation following the jetty fire of 12 December 1999 (LR 152, p.30). Tickets are now sold from a newly constructed souvenir and coffee shop at the landward end of the jetty. Vandal incursions have meant that rolling stock is no longer stored in picturesque building close to the shoreline. Passenger carriages are now housed in a three-road shed some distance inland. A single siding runs to the locomotive shed within a fenced compound where piles, beams and concrete slabs are prepared for the ongoing repairs to the jetty.
The train was not running because of the strong wind and the driver had gone home for the day. However the Busselton Shire Council mechanic who carries out the maintenance, obligingly moved

The boiler, tanks and cab of former Great Boulder Gold Mine (WA) 2ft gauge Orenstein & Koppel 0-6-0T 4241 of 1910 mounted on an unusual steel frame, at Queenstown Tasmania, 9 August 2003. *Photo: Ray Graf*

An interior view of the new 'Premier' class car on the West Coast Wilderness Railway. *Photo: Chris Miller*

Both originally built for the Mount Lyell Railway, two Vulcan Foundry-built Drewry 0-6-0DM locomotives at West Coast Wilderness Railway's Regatta Point terminus on 9 August 2003. On the left is D2 MOUNT LYELL *(Vulcan Foundry D194 / Drewry 2406 of 1953), now fitted for operating on the Abt rack. On the right is D1 (Vulcan Foundry D193 / Drewry 2405 of 1953).* *Photo: Ray Graf*

A train heads out onto the Busselton Jetty, the longest timber structure in the Southern Hemisphere. Photo: WATC



Motive power on the Busselton Jetty railway is this rubber-tyred steam-outline machine of the type seen at such tourist attractions as Sydney's Darling Harbour and Australia's Wonderland. Somewhat ironically, this example has actually been fitted with rail wheels. Photo: John Shoebridge

0-4-0WT BALLAARAT *(James Hunt, Victoria Foundry 1871), the oldest remaining Australian-built locomotive and WA's earliest 'industrial' locomotive, in Victoria Square at Busselton, August 2003. Photo: John Shoebridge*

the locomotive out of the shed for inspection and photographs. This steam-outline "road-railer" has a Honda engine and is said to have been built at Ingleburn NSW for a park near Perth. Four rubber-tyred, ride-on mower wheels that run on the roadway between the rails propel the loco. The contraption is guided whilst on the jetty by retractable 2-wheel trucks at either end. This design was primarily adopted so that the prime mover can run round the train at the end of the trip without the need for a loop. A secondary advantage allows access to and from the loco-shed without the tiresome need to shunt past the several service vehicles, which were noted in the jetty maintenance stores compound.

The requirement to safely pass pedestrians on the jetty has led to a similarly specialised type of passenger vehicles. With these the superstructure is within the rails, allowing only two passenger seats per row, whilst the wheels have an unusual "axle-less" construction.

John Shoebridge, 09/03

LOOPLINE TOURIST RAILWAY, Kalgoorlie 1067mm gauge

Further to the report in LR 173 (p.31), there has been considerable activity in Kalgoorlie to raise funds for Stage 2 of the planned Loopline extension, which will take the line from the new Mount Gleddon terminus to Hannan Street in Kalgoorlie, the original terminus of the line. Kalgoorlie MLA Matt Birney and his Eyre counterpart John Bowler have formed a fund-raising committee. The fundraising group comprises an extensive list of well-known locals, including Kalgoorlie-Boulder mayor Ron Yuryevich and the Federal Member for Kalgoorlie Barry Haase. Preliminary figures indicate that the extension will cost an additional $1 million, although the use of second-hand equipment and in-kind contributions are expected to reduce this figure. There are long-term plans to extend the line to the Australian Prospectors and Miners Hall of Fame on the outskirts of town.

Golden Mail, 10 October 2003, via Barry Blair