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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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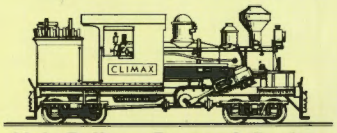

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1 inch (in)	25.40 millimetres
1 foot (ft)	0.30 metre
1 yard (yd)	0.91 metre
1 chain	20.11 metres
1 mile	1.60 kilometres
1 super foot	0.00236 cubic metre
1 ton	1.01 tonnes
1 pound (lb)	0.454 kilogram
1 acre	0.4 hectare
1 horsepower (hp)	746 Watts
1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

Contents

Comment

As I sit here on a train, heading home on a warm Wednesday evening, it's only just dawned on me that this issue of Light Railways is the 30th I've worked on – meaning five years in the chair. I know it's a cliché, but the time really has flown.

The late nineties and early noughties hasn't exactly been a golden era for railway historians and preservationists, though some important gains have been made. The upgrading of *Light Railways* (for which the LRRSA Council deserves the credit - having put up the money) plus a number of publishing successes has turned around what was a slow decline in our membership numbers and has exposed the subject of 'light railways' to a much wider audience. As of 30 June 2002, LRRSA membership had reached its highest level ever.

I read today that, in the first half of 2002, visitor numbers at Sovereign Hill, Ballarat rose by an astonishing 61%! Whether this signals a resurgence of enthusiasm for Australia's history, or is just the result of holidaymakers becoming nervous about international travel remains to be seen. Lets hope it's predominantly the former, as our interest could always use a bit more support. *Bruce Belbin*

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

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

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

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

Front Cover: *On Sunday, 23 May 1993, the NSW Rail Transport Museum held an Open Day, with many special attractions, at their Thirlmere site. The Belbin brothers took the opportunity to steam recently restored Baldwin 0-4-2T* FAIRYMEAD *(10533 of 1889) and give demonstration runs for tour groups visiting the workshop area. Graeme Belbin is at the throttle on one such run as the little Baldwin backs along the dual gauge workshop track, covering a stored six-wheel tender in saturated steam as it passes. Photo: Bruce Belbin.*
Upper back cover: *On the tramway system of Moreton Central Mill, on Queensland's Sunshine Coast, it's 7.25am on 15 October 2002 as Clyde 0-6-0DH* MORETON *(63-289 of 1963) heads down the main line away from the Bruce Highway overpass with 120 empty bins, while EM Baldwin 0-6-0DH* BLI BLI *(6-1257-6-7-65 of 1965) follows closely behind with about 30 empties, headed for the cane fields. Photo: Ron Preston.*
Lower back cover: *Further north, Bingera Mill's Walkers B-B DH* KOLAN *(633 of 1969 rebuilt Bundaberg Foundry 1996) heads out of Wallaville with the shuttle train to the mill, 24 September 2002. Note the timber, iron, concrete and steel bridge materials. Photo: Daven Walters*

The tractor at speed ! Don Marshall is on the left, Hugh Markwick is in the driver's seat, and Stan Gunn is on the right. Photo: Peter Evans

TACL Tractor Launch 21 July 2002

A small ceremony was held on 21 July 2002 at Menzies Creek to mark the completion of the restoration of the Tyers Valley Tramway TACL tractor, and officially hand it over to the Puffing Billy Museum.

The restoration, which took almost fifteen years, was started by a team of LRRSA members on 30 August 1987 when they met at Emerald to consider the project's feasibility. At that time the tractor had been standing in the open for many years in a partly dismantled state. Through the project's lifespan the members of the team were Hugh Markwick, Peter Evans, Roger Wotherspoon, and Frank Stamford. Other members of the team at various times were James Wotherspoon, Brett Evans, Graeme Jones, and Stan Gunn.

Modifications of agricultural tractors played an important part in industrial railways in the 1920s and 1930s. In Melbourne two engineering companies specialised in tractor conversions - Malcolm Moore Ltd, and Day's Engineering. Their rail tractors were widely used in Australia, but they were not the only companies making these conversions. Several Tasmanian companies made these conversions for the large local timber tramway market. In addition a number of one-off conversions were made by people with varying degrees of engineering skill.

Some of these conversions were relatively sophisticated. The TACL tractor was not one of these. The Tractor Appliance Company Limited, which was a subsidiary company of Malcolm Moore Ltd, built "appliances" for use as add-on accessories for the very popular Fordson tractor. In the case of the TACL rail tractor, the "appliance" was bigger than the Fordson tractor itself. The makers claimed you could convert the tractor from road to rail use (or vice versa) in about ten minutes, and promoted this as a great advantage.

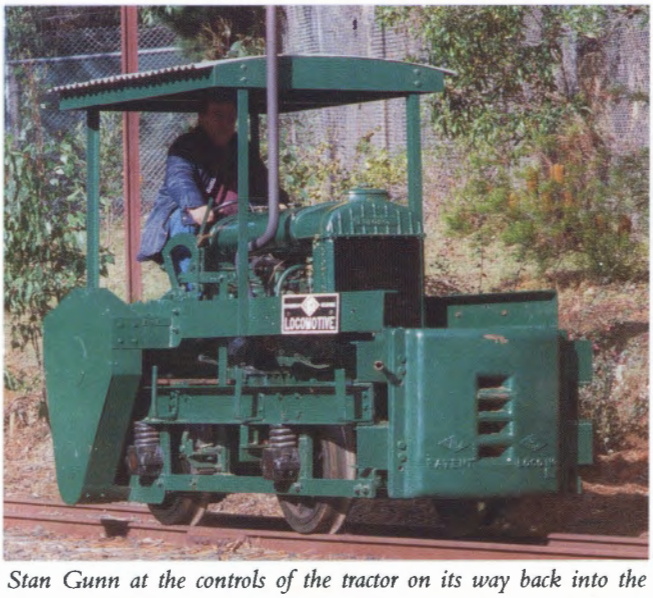
Its competitors made a more permanent job of building the tractor into the rail chassis, which generally resulted in a better engineered result. By about 1930 Malcolm Moore decided to follow that path too, and TACL style tractors do not seem to have been made after the late 1920s.

To convert from road to rail all you had to do was take the front axle and back wheels off the tractor, attach large cast-iron gear wheels to the back axle, lift the tractor and bolt it

between the frames of the "appliance", bolt on the top frame members, bolt on the gear guards, bolt on the roof and voila! - you have the TACL locomotive. It *may* have been possible to do this in ten minutes if you had a crane or gantry and a highly trained crew.

Anyway, despite its crude design the TACL tractor was considered to be very practical by many users. It was available in any gauge from 2ft to 5ft 3in, and in wheelbases of 4 or 5 feet. The tractor restored at Menzies Creek is a 2ft 6in gauge 5ft wheelbase model, built for the Forests Commission, Victoria, in 1928 for use on the Tyers Valley Tramway, which ran north-west from Collins Siding, near Erica, on the VR's 2ft 6in gauge Moe-Walhalla railway. The first seven miles of the Tyers Valley Tramway - to Tyers Junction - was the stamping ground of Climax locomotive No.1694, now also preserved on the Puffing Billy Railway.

At Tyers Junction the Thomson Valley Tramway split into two, with one branch going to Growlers Creek (six-and-a-half miles from Tyers Junction), and the other going to Ten Acre Block (two miles from Tyers Junction). The FCV had had little success with rail-tractors until buying a TACL in January 1928. They were so happy with its performance that they bought another



Stan Gunn at the controls of the tractor on its way back into the Menzies Creek Museum. *Photo: Peter Evans*

in May the same year. The TACL tractors worked the two branchlines, bringing the timber into Tyers Junction. At Tyers Junction the loads were combined and hauled to Collins Siding by the Climax loco. When the Climax was out of action for repairs, the TACL tractors ran on this section double-headed.

However two TACL tractors did not equal one Climax! The double-headed TACLs could haul five loads of timber to Collins Siding, while the Climax was permitted to haul twelve loads. This limit was imposed due to its propensity for breaking axles; it was capable of hauling more.

The FCV also purchased two 3ft gauge TACL tractors for use on the nearby Thomson Valley Tramway.

The restored TACL tractor has the number 55 stamped into one of its counter-weights. This implies that it was the 55th TACL tractor built. The TACL tractor team have not been able to identify if it was the first or second Tyers Valley tractor. The other one was scrapped many years ago.

The only other TACL tractor known to survive intact is a 3ft 6in gauge 5ft wheelbase one preserved in non-operating condition at Cowell, South Australia. It is builder's number 46. TACL tractors worked in most states of Australia, at places such as BHP Whyalla (four 3ft 6in gauge units); South

The restored tractor at Menzies Creek station, 21 July 2002. *Photo: Peter Evans*

Australian Railways - Port Broughton (one 3ft 6in gauge); Queensland Salt Ltd, Bowen (at least one 2ft gauge unit); Koo Wee Rup swamp reclamation, Victoria (at least one 2ft gauge unit); Cardup Brickworks, near Perth, W.A. (3ft 6in gauge, builder's number 49); Waratah Gypsum, South Australia (three units).

The distinctive visual feature of TACL tractors was the gear covers at the back of the tractor, which covered the large cast-iron spur gears used in place of the tractor's road wheels, and the smaller cast iron gear wheels attached to a lay shaft under the Fordson tractor's back axle. The lay shaft transferred power to the rail tractor's back axle, either by roller chain to travel forward, or through another set of spur gears, to travel backwards. Selection of forward or reverse gear was by a dog clutch on the lay-shaft. Drive to the front axle was by roller chain.

To complicate matters, some early TACL type tractors were built under the Malcolm Moore name, for example a 2ft gauge unit used by the SECV at Rubicon. This had the words "Malcolm Moore Melbourne Loco No. 23" cast into the weights, and I suspect the number series is the same as the TACL number series. This tractor did not have a reversing facility, and relied on the Fordson gear box's single reverse gear, as a result the exhaust manifold became almost red hot from over-revving the engine on the return journey.

Our first meeting at Emerald, 30 August 1987. Left to right: Mel Elliott, Hugh Markwick, Peter Evans, James Wotherspoon, and Roger Wotherspoon. *Photo: Frank Stamford*

The restoration

From the outset the team decided that the tractor should be restored to operating condition. The experiences of the restoration team were well summed up by Peter Evans at the launch ceremony:

When we started this project fourteen years ago, we had what appeared to be a rusty iron jigsaw puzzle with many missing pieces and a few extra bits thrown in for good measure. As a guide, we had only a few photographs and a set of faded dyeline plans. From the start, we were all adamant that this was to be more than just a cosmetic restoration - we wanted to end up with a working timber tramway locomotive. Had we not embarked on this course, I am sure we would have been finished years ago.

The project threw up some unique challenges. One sprung axle box had been replaced with a fixed bearing, resulting in an axle journal that had quite literally gone pear-shaped on us. Of the remaining axle boxes, we managed to salvage one top and one bottom. The remaining three had to be re-cast and machined from scratch. The wheels had to be re-tyred, and we were introduced to the ancient art of shrinking tyres on to wheel centres. There was the joy of discovering bolt-holes on the frame that matched those in the lump of iron for which we could not find a home.

At several points we were faced with challenges for which there did not appear to be a ready answer. It says much for the diverse interests in both PBPS and LRRSA that we always managed to find someone with the requisite knowledge to help us out.

The milestones we passed were many - the day the wheels went back under the locomotive. The day the restored engine was retrieved from Roger's garage and placed back in the frames. The cold Sunday on which the tractor finally spluttered back into life. The day the TACL was lifted off the NQR on which it resided in the Emerald yard, and the battle to re-tarp it at the end of the day was finally over. That ex-VR tarpaulin had the elasticity of concrete and weighed about the same. Those of you who saw this locomotive when we started and as it is today, will realise just how far we have come. Along the way we all learned some traditional skills, including how to shift timber bogies around a Shay locomotive on temporary wooden track.

Generally, this has been a labour of love for all of us, although in a frosty Emerald yard on a mid-winter's morning we might occasionally have felt otherwise. I'm sure I speak for the rest of the team in saying that we are very proud of the results of our efforts and delighted to have returned the TACL locomotive to operational condition. Thank you.

When the bush engineers replaced that sprung axlebox with a fixed bearing they created a lot of problems for us. Apart from a pear-shaped axlebox journal, the tyre on the adjacent wheel was worn down to a concave profile, with insufficient metal to allow it to be turned. As a result we had to replace all the tyres.

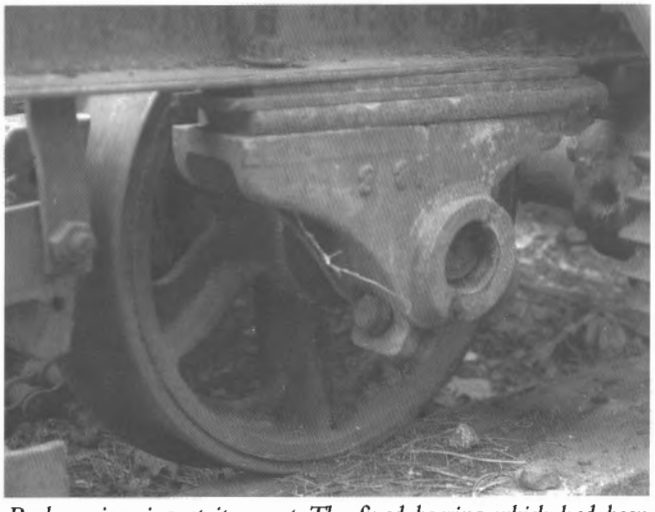
Many people outside the team helped with their special skills. Amongst those were Ron Gunn who was of inestimable value in guiding us through the process of machining axle boxes and shaping axlebox brasses, and fitting the tyres to the wheels; Allan Johnstone who organised the axle box castings, turned the wheel tyres, and fixed the pear-shaped axlebox journal; Karl Strini who made the new gear guards and various other parts; John Hoy who obtained a new drive chain and chain sprockets; Alan Curtis who made the roof; and Mel Elliott, Ewen Stevens, Adam Black, Roger Disney, Dave Conlan, and John Frost, all of whom assisted in providing parts. Special thanks are due to Don Marshall who made various ETRB resources available to enable the restoration to go head.

Special thanks are also due to those who helped us to get the Fordson engine running again. On our team, Roger Wotherspoon and his son James did almost all the work in restoring a replacement Fordson engine. Unfortunately the engine that was fitted to the tractor had its pistons firmly rusted into the cylinders. Roger's experience in restoring T Ford engines was very useful here, as the Fordson engine has much in common with the T Ford engine.

However, fine tuning was another matter. Getting the engine to go proved a real challenge. Laurie White helped get over the initial difficulties and subsequently Stan Gunn - who seems to have an intimate knowledge of the idiosyncrasies of Fordson engines - joined the team, and over the past 18 months or so has helped us to iron out the problems.

The launch gave an opportunity for those who had helped in the restoration to see the tractor in action. After a brief introduction by LRRSA President Bill Hanks, Norm Wadeson gave a talk on the life of the tractor in FCV service on the Tyers Valley Tramway. Then Peter Evans spoke about its restoration, Frank Stamford thanked those who had helped the team, then handed the starting handle to John Frost, Convenor of the PBPS Menzies Creek museum, and John officially accepted the tractor into the museum.

The tractor then ventured onto the Puffing Billy mainline under its own power for the first time. It ran many short trips from Menzies Creek station in the Selby direction towards School Road crossing, with a crew of three all finding somewhere to sit. These included Don Marshall, the official ETRB



Bush engineering at its worst. The fixed bearing which had been used to replace a sprung axlebox, resulting in a pear-shaped journal and a concave wheel tyre. *Photo: Frank Stamford*

driver, who carried the train staff for the section; Stan Gunn, who guided the actual driver in what to do; whilst various people had the opportunity to drive the machine. In its former life it cannot have been much fun driving the TACL, for it is rough, uncomfortable, and provides little shelter from the weather.

The engine uses petrol to start, and once warmed up works on power kerosene. Power kerosene is no longer sold, but Hugh Markwick was given the "secret" formula for this from someone at Mobil: 50% lighting kerosene and 50% turps.

The sound the tractor makes is most interesting. Apart from the engine noise, which is not too bad, there is the noise of the drive chains and the cast iron gears. These give a constant bell-like note, rather like an American loco constantly ringing its bell while shunting, but more muffled.

Two Tyers Valley Tramway timber bogies have also been restored to go with the tractor at the museum. Interestingly they are not identical, and in a number of subtle ways are better engineered than most Victorian timber tramway bogies - but still extremely crude compared to their North American and Western Australian equivalents. *Frank Stamford*

Mining Railways at Cobar

by John Shoebridge and Bob McKillop

5. Great Cobar Sunset, 1915-1919

Introduction

The rise and fall of the Great Cobar copper mine is one of Australia's more fascinating enterprise stories. Previous articles in *Light Railways* covered the discovery of the deposit and its development by the Great Cobar Copper Mining Company (LR 149), the reopening of the mine and its pinnacle of success under the Great Cobar Syndicate (LR 154), and the grand plans and failed implementation of Great Cobar Limited (LR 159), as well as the operation of the Great Cobar copper refinery at Lithgow (LR 164).

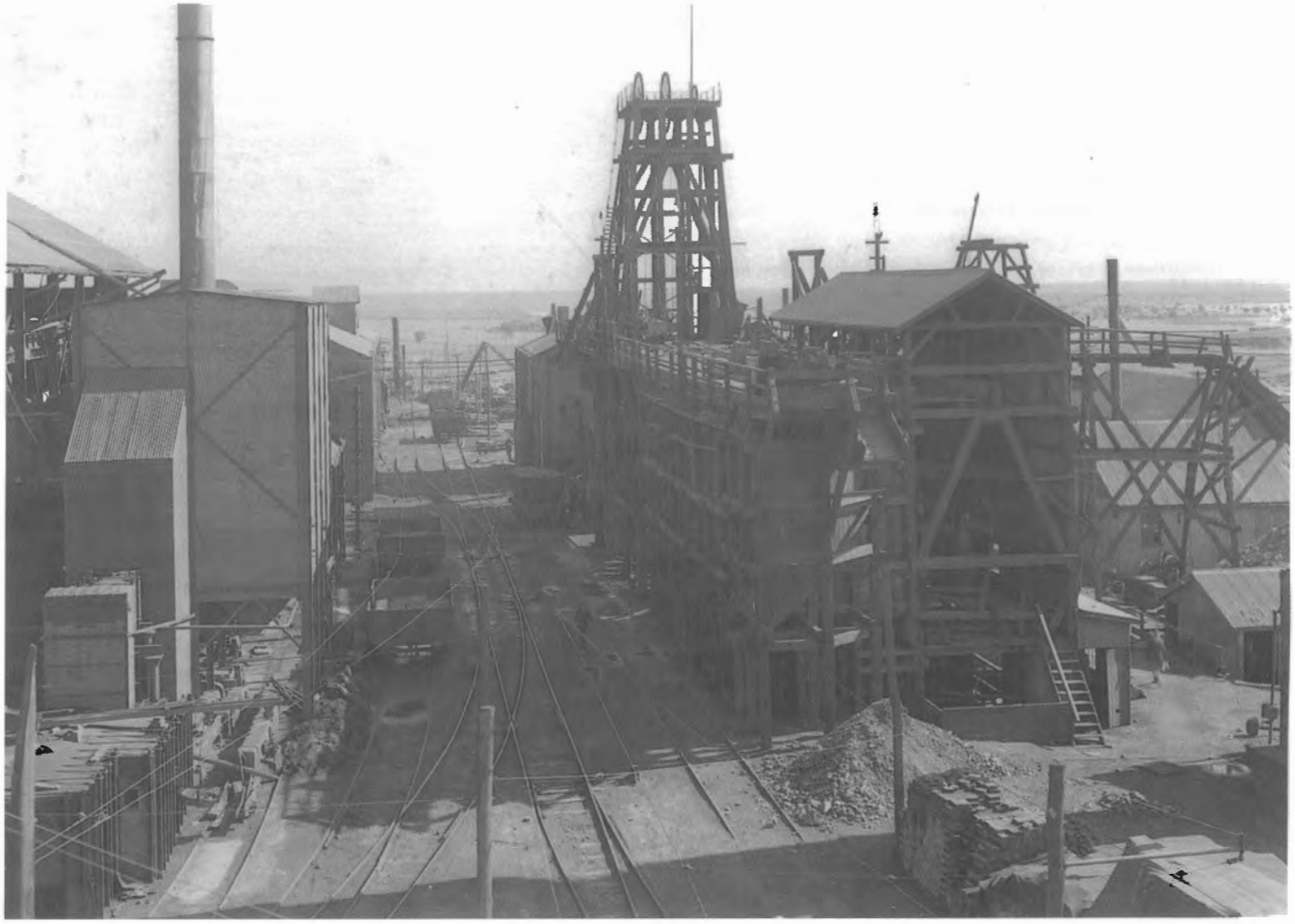
The final chapter in the Great Cobar's mining history commences in 1915 with the protracted negotiations to get the mine operating once more, and peters out with the closure of the mine in 1919. This article covers this concluding element of the Great Cobar mine story, the impact of its closure on the town of Cobar and the disposal of the railway rolling stock and machinery. It then examines the current revival of the site as a heritage tourism attraction.

Cobar in 1914-15

The closure of the Great Cobar mine on 9 April 1914 (see LR 156) had a dramatic impact on Cobar. Around 1000 men were thrown out of work and this in turn caused a big slump in commercial earnings in the town. Other mines around Cobar continued to provide work for about 400 men, but the mainstay of the local economy had stopped. A large proportion of the former Great Cobar employees left town to look for work, and in many cases their wives and families moved "*down country to weather the storm with friends and relatives*."[1] In August 1914, the *Cobar Herald* newspaper announced it would be published only weekly due to a drop in advertising revenue, and shortly afterward it ceased publication and was incorporated into the *Western Age*.

Others stayed on in the expectation that there would be a resumption of work at the Great Cobar. Their hopes were regularly raised and then dashed. The London-based Receiver, Arthur J Whims, found the company's working capital was practically exhausted, and he needed to obtain leave of government to borrow money.[2] A committee of debenture holders was formed in London to consider the best course of action and decided to seek an independent report on the conduct of the mine. Then, as prospects brightened for a reopening, rising fears of war in Europe caused the price of copper to drop and purse strings to be tightened. Edgar Hogan Taylor, the resident manager at Cobar and agent for the Receiver, was instructed to put off 160 of the men retained in maintenance tasks, leaving only 60 men in a caretaker role.[3]

The local newspaper brought news in February 1915 that the committee of debenture holders proposed to re-open the Cobar mines.[4] A further meeting on 15 March agreed that the mine[3] should be worked for the benefit of the debenture holders on the lines that had been laid down in the Pellew-Harvey report.[5] The plan was to win all the available ore, and



The scale of the Great Cobar mine and smelting works is evident in this scene. The main shaft and ore bins are on the right and the converter house on the left. The Government Railways 'S' type 4-wheel trucks are being loaded with copper ingots.

Photo: Great Cobar, Courtesy: Cobar Heritage Centre

The Great Cobar mine with the Syndicate Smelters in full blast... One of the rare views of a steam locomotive in slag service, taken some time between 1903 and 1907. The loco from the old wood line is standing in front of the water-jacket furnaces. The headframe appears to be over Becker's Shaft. *Photo: Curly Solomon Collection, Courtesy: Cobar Heritage Centre*

to distribute the revenue generated amongst the debenture holders. Further ore bodies might be discovered in the process of working, but if not, the only option would be to close the mine as soon as the available ore had been taken out, and then to sell the machinery. The estimated result of such an operation was that the debenture holders would rescue about 23 per cent of the capital if copper prices remained at their level of March 1915. Authority was given to borrow a sum not exceeding £102,000 to get the mine working again.

In June 1915 there was a mass meeting of 400 people in front of the Grand Hotel at Cobar in response to hand-bills issued by the Cobar combined unions to publicly protest against any further suspension of the Great Cobar Company. The chairman, Alderman MA Davidson noted the enormous amount of destitution in Cobar following the closure of the mine, and argued that reopening the mine now became a national question as the Government required the copper for the manufacture of munitions of war.[6] David Fell (the Receiver's Australian representative) travelled to Cobar in July 1915 and held a conference with the Western District miners to seek a three-year agreement in order that no obstacle might be in the way of raising the required capital. However, the debenture holders subscribed only £62,000 of the additional capital required, and the Government of New South Wales was approached to take up the remaining £40,000 as a share subscription.[7] Not for the last time, the Government was being approached to "bail out" a failed private investment.

The State Labor government was sympathetic to the miners' cause and the price of copper was rising rapidly as a result of wartime demand for munitions. To the surprise and great disappointment of Cobar, Caucus initially rejected the proposed scheme on 2 September 1915.[8] A mass meeting in Cobar resolved to send a deputation to the Premier to ask that the question be reopened "in the interests of the whole State."[9] Ten days later there was jubilation in Cobar at the news that the delegation had been successful and the Labor Party had ratified the proposal.[10] An important argument put forward to justify this government intervention was that the Great Cobar smelters were centrally located to serve the small mines in the district that were dependent on having their ore treated locally.[11] The government agreed to take up the remaining Receiver's Certificates of £40,000 and the Premier cabled the Agent-General in London the necessary instructions to complete arrangements with the Receiver.[12]

Mining and Railway Operations

Following an inspection of the accessible underground workings at the Great Cobar mine by the Underground Manager (G Beard) and the Mine Surveyor (D Grand), the underground power was restored and the pumps restarted on October 9th 1915. As the water receded, the shaft timbers and cage guides were repaired, allowing mining to commence in December.

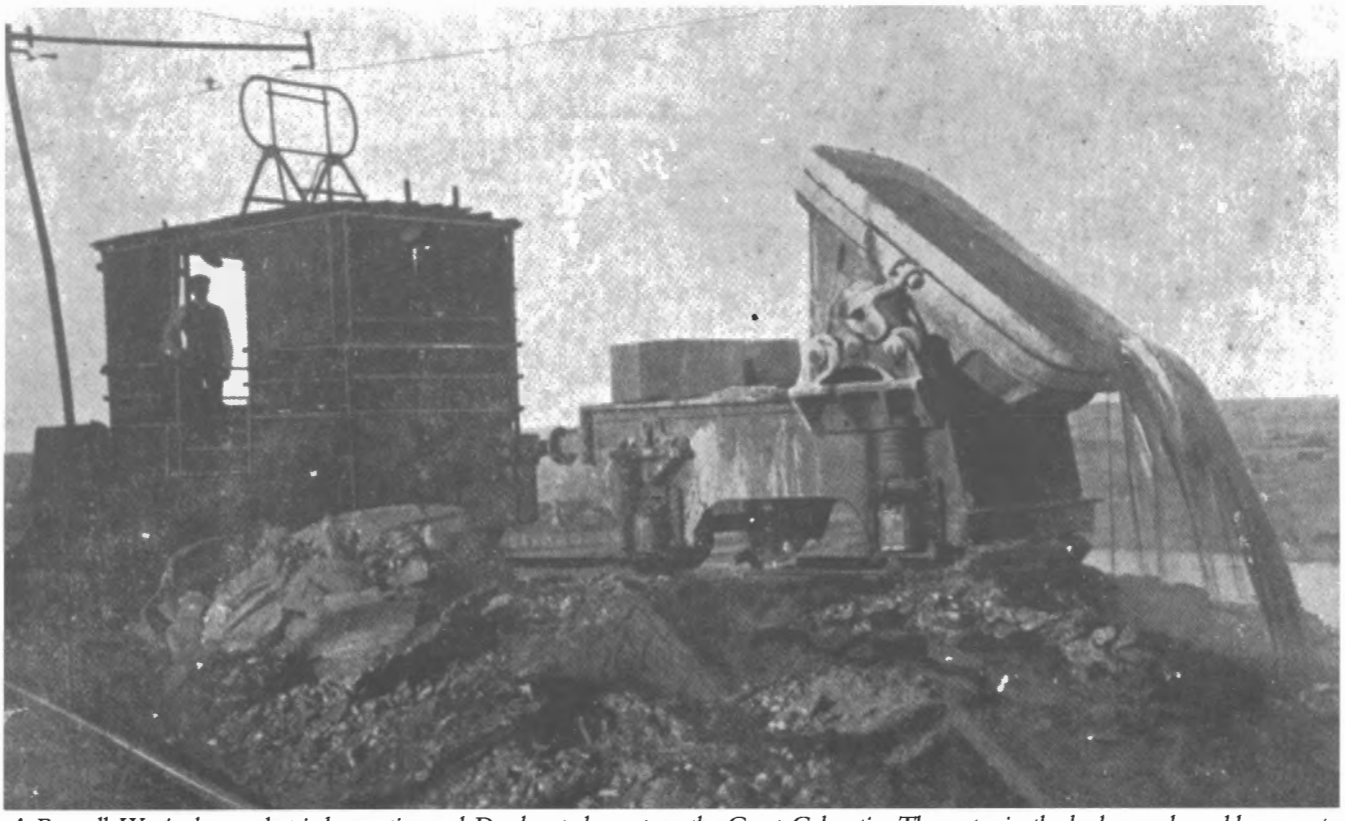
At first all work was concentrated on the upper levels and no exploration or development work was done, the objective being to get a return from the mine as quickly as possible. As set out below, there was a rapid re-employment of the workforce at the three mines:[13]

	Great Cobar	Chesney	Cobar Gold M	**TOTAL**
1 December	280	7	5	**242**
6 January	387	22	18	**427**
1 February	531	36	48	**605**
8 February	532	80	75	**637**

In January 1916, the smelter furnaces were relit and before long, blister copper was once again being loaded into railway trucks for the long journey to Port Kembla where the refining process was now carried out.[14]

Wartime operations under the Receiver sought to maximise returns at minimal expense and the Mine Manager, Hogan Taylor, was instructed to severely curtail all expenditure. In any case, shipping restrictions meant that imported spare parts were no longer available. Of necessity, maintenance was reduced, repairs were postponed and machinery was cannibalised for spare parts. It would appear that one of the three electric locomotives was a victim of this process.

The war also exacerbated the perennial problem of recruiting experienced workers leading to an inevitable increase in union militancy. In February 1917, Hogan Taylor proposed that, following closure of the Mount Boppy mine, an additional 150 men should be employed to work a third shift



A Bagnall-Westinghouse electric locomotive and Dewhurst slag pot on the Great Cobar tip. The water in the background would appear to be the salt tank, thus placing the location as opposite the blast furnaces, where slag was tipped in later years. The locomotive, by this time, has been enclosed with a metal cab and has a bow collector in place of the original pantograph. The rudimentary headlamps can just be discerned. The end-dump pot is one of two later sold to Hoskins Ltd, for use at Lithgow and Port Kembla Steelworks, eventually surviving into BHP ownership. *Photo: Commercial Postcard; JW Shoebridge Collection*

at the Great Cobar, thereby allowing placing in commission a second smelting furnace.[15] The response of a meeting of the Federated Mine Employees Union, which by tradition opposed multi-shift working, was to pass a resolution to consign Hogan Taylor's letter to the waste paper box! Thus, only one furnace could be maintained in blast. Despite this, for the next three years the plant managed to produce an average of 50 tons of blister copper per week.[16]

The recommencement of smelting meant that slag once again had to be disposed of and, rather than extend the dumps to the South (requiring additional rails and overhead wiring), dump tracks were laid parallel to The Peak railway branch line and tipping commenced over the former coal stockpile area. One constraint to the resumption of full production was the shortage of electric motor (locomotive) drivers, but union support was forthcoming to achieve an early resolution of this difficulty.[17]

The timing of the reopening was fortuitous for the debenture holders. The demands of war, particularly for munitions, had a dramatic impact on copper prices. The Sydney copper spot price was only £55 per ton in July 1914, but increased to £105 10s per ton in March 1916 and was quoted at up to £160 by December of that year. Copper prices then fell, being £137 5s per ton in February 1917.[18] Great Cobar joined with the other Australian copper producers to negotiate a fresh contract to supply 50,000 tons of copper to the British Munitions Department for 1917 at £120 per ton cif, a £20 increase over the 1916 rate.[19] Buoyant prices enhanced the financial performance of the Great Cobar mine. The government loan was repaid in full by March 1918.[20] But, as the NSW Chief Inspector of Mines noted, despite the attractive copper prices, there was "little impetus to prospecting or the vigorous opening of the small mines."[21]

Pressure of production and the extreme shortage of experienced workers contributed to the deaths of seven men between November 1915 and October 1918. Six were killed underground and one on the surface.[22] The latter accident took place in December 1917 when P Schevenks, a surface labourer touched the overhead trolley wire. Of the men killed underground, one slipped and fell whilst handling timber, one fell down a shaft, another down an ore pass and four miners perished under falls of ground. One of the latter, Peter Hannon, had the misfortune to be the last recorded fatality at the Great Cobar.[23]

It appears miraculous that there were not more deaths underground. On 14 January 1918, the west cage in the main shaft broke free and dropped 1400 feet to the bottom. Fortunately ore was being wound at the time and no one was seriously hurt, but the incident was indicative of a serious state of affairs. By the end of 1916, the upper levels were almost worked out. The big creep in 1913 had made mining above 400 feet too hazardous, so work now moved down to 14-level even though the stopes there were said to be in a very dangerous state.[24] The Mines Inspector, in pressing for improved methods of stope filling, noted that the earlier recommendation for a ventilation connection to the Cobar North mine (so reluctantly carried out) had greatly reduced the air temperature and made possible the concentrated work at this depth.

Until that time, all efforts had focussed on production, with no regard to future operations. By the end of the year reserves were critical and some exploratory and development work was of necessity commenced. An extension of 14-level in 1918, together with diamond drilling, revealed some 62,000 tons of ore in sight.[25] Despite the end of the war, mining continued at the same high pressure into 1919 and until the final closure in March.

Set out below are the results achieved over these four years.[26]

Year	Ore Raised (Tons)	Copper (Tons)	Value (£)
1916	165,382	2642	264,200
1917	142,608	2694	314,299
1918	122,672	2415	217,350
1919	25,843	520	54,000

The bid for suitable ore

As the fortunes of the Great Cobar company waned in 1914, proposals had emerged to save the mine through construction of a new government railway line to transport basic sulphide ore from the CSA Mine, to the west of the town, to the Great Cobar to use as flux for the company's refractory ores. A large public meeting was held in June 1914 to form a Cobar CSA Railway League.[27]

The government initially opposed the proposed 6½-mile line on the grounds that it would serve one particular company. In evidence to the Minister, George Blakemore, then manager of the CSA mine, said the mine was a very low-grade prospect and it would only pay if large quantities of ore could be transported to the Great Cobar for use as flux.[28] The Minister, Mr Camm, expressed support for construction of the line in August 1915 to relieve the economic hardships of Cobar, but required the estimates for its construction to be reduced below £20,000.[29] Eventually, the estimates were reduced to the desired level and construction work on the line commenced in December 1916.[30]

Construction work on the CSA railway line helped to provide relief to the Canbelego unemployed in early 1917, following closure of the Mount Boppy Gold Mine.[31] The line, constructed at a cost of £18,000, was eventually opened in January 1917. It set a new departure in railway construction, according to The *Western Age*, on the grounds that it was the State's first "purely mineral line laid down for the purposes of providing transport assistance to the mining industry."[32]

In his evidence to the Parliamentary Standing Committee on Public Works in February 1916, George Blakemore had stated that the CSA mine contained 500,000 tons of basic ore, which could supply all the flux required by the Great Cobar smelters.[33] Also in 1916, further reserves of basic ore were discovered during the extension of No.5 level in the Cobar Gold Mine, so much so that the company felt sufficiently confident to close the more expensive Chesney operation.[34] At the same time it reported that its furnaces had been modified to require less of the basic ore in the feed.

As construction of the CSA line neared completion, arrangements were made for loading from the mine dumps. At the CSA Mine, the new railway was run across the furnace's slag heap in a cutting about 4ft deep to facilitate the hand-loading of fluxing material.[35]

By early 1918, the boom copper prices had receded and market prospects were increasingly uncertain. The Copper Producers Association accepted the offer from the British Ministry of Munitions to 30 June 1918 for the Australian output of copper at £108 fob per ton Sydney in January 1918.[36] At this price, the Great Cobar Mine was a loss-making proposition, with its cost of production under wartime conditions having risen to over £80 per ton.[37] Moreover, the company faced further increases in labour, coal, coke and rail freight charges.

The Great Cobar applied for the suspension of labour conditions on the Cobar Gold Mine and Chesney leases before the Mining Warden at Cobar in April 1918. The evidence given by Hogan Taylor at this inquiry generated widespread concern in Cobar, as the key engine of the local economy was spluttering to a halt. Taylor revealed that the Cobar GM and Chesney were providing only siliceous ores, which the smelters had in abundance. The critical problem was to obtain sufficient basic ore to use as flux. He also stated that the Receiver had purchased all the basic ore available from other mines in the Cobar district.[38] The *Western Age* newspaper and Cobar Council immediately mounted a campaign for an inquiry as to the statements by Messrs Horgan Taylor and Blakemore regarding the use of CSA ore by Great Cobar. The argument was that the investment in the CSA railway had been to "afford facilities for the smelting of basic ore from the CSA mine at Cobar" thereby assisting "the development of the whole of the mining industry in Cobar district."[39]

What the Cobar interests had expected from the government's investment was the development of the Great Cobar smelters as a central processing facility that would prolong the life of the mine and help maintain a vibrant copper industry. Now it appeared that one or more of the parties had failed to honour their commitments. A delegation was duly dispatched to Sydney to wait on the Premier. They gained an audience with the Minister for Works, who advised that the CSA railway was making a loss. The mayor, Ald. Duffy, responded that if the line was not paying, it was because the CSA Company had not carried out its part in supplying the Great Cobar with basic flux.[40]

George Blakemore was most offended by these accusations and his mood was not helped by a threat by the Minister for Railways to close the CSA railway line.[41] In a feisty interview with the Minister for Works, Mr Ball, George Blakemore subsequently revealed that the Great Cobar manager had rejected offers to take CSA ore for flux and there had been no approach by the Receiver's representative until 14 August 1918 and a price for the ore had not been discussed until 11 October.[42]

By then it was all too late for the survival of the Great Cobar mine. As the slaughter on the battlefields of Europe came to a close and the guns were silenced, the market for copper collapsed. The British Ministry of Munitions had extended the contract for Australian copper to the end of 1918, but sales beyond that date were almost impossible to obtain. Copper prices were now in freefall: the London price of copper was £100 per ton in December 1918 and only £77 by March 1919.[43]

Great Cobar finale

The Receiver in London dispatched his advisory engineer, Mr Pellew Harvey, to Australia on 30 December 1918 "to confer with the local management because of the uncertain outlook in the near future and the basic condition of the Great Cobar undertaking."[44] Immediately on his arrival in Sydney, telegraphic instructions were sent to Cobar that it had been decided to recommend to the Receiver in London to suspend operations on 16 March 1919. It stated that the decision was reached in view of the "continued and serious fall in the price of copper, the uncertainty of the market, inability to dispose of the product at current quotations and the losses incurred in working the mine."[45] Smelting operations ceased at 4 o'clock on Sunday afternoon, 16 March. The *Western Age* reported that "the big plant is now enshrined in darkness at night and the only work proceeding is the unwatering of the mine."[46] The debenture holders were owed a final figure of £667,300, while shareholders claimed they had lost £932,000 in the venture.

The closure of the Great Cobar meant that, for the first time, all mines in the Cobar district were closed and 1200 men, upon whom virtually the entire population of the place, amounting to 5000 persons, depended, were out of work. The reopening of the CSA Mine brought renewed hope, but the tragic fire at this mine in 1920 threatened the extinction of the entire town of Cobar. Most of the mining community pulled up their roots and went elsewhere in search of work. Whole streets of houses were sold and shipped to other towns. Some travelled as far as the new subdivisions of Bankstown in Sydney, while a number of the company staff residences were moved to Lambton 'B' Colliery at Redhead, near Newcastle. The once bustling mining town slipped into the slumber of a small pastoral centre.

There were hopes that the State Government might once again reopen the works when copper prices improved. However, the debenture holders decided to realise what they could for their assets. The great plant that had been the subject of so many public relations campaigns and the cause of so much investor anguish was sold piecemeal.

The State Government commissioned one final report regarding the mine's prospects. Prepared by senior Mines Department officials (Messrs JB Jacquet, Chief Inspector of Metalliferous Mines, and JR Godfrey, Cobar District Inspector of Mines) it held out no hope. The officials thoroughly investigated the situation, but eventually reported that they could not see a future for the mine under current wages and existing method of working. Even with the stated 237 000 tons of ore reserves, smelting could only proceed for two or three years.[47] It was noted that the wages bill at Cobar alone amounted to 47 per cent of the total cost of copper.

The following costs were disclosed:

Cost per ton FOB of Electrolytic Copper (1919)[48]

Function/Category	Cost
Ore breaking, raising and smelting	£104/5/9
Refining and freight	£17/8/9
Sydney and London Office expenses	£2/10/0
Less value of gold and silver recovered	£11/2/10
Total Cost	£113/18/0
World Copper price	£104/11/4

The authors acknowledged that the closure of the mine and demolition of the smelters would be a fatal blow to Cobar and a major loss to the State's mineral resources, but they could not recommend any further State Government support.

"Scattering the Bal": The mine is sold

The major purchaser of the Great Cobar plant was A Goninan and Company Limited, from Wickham, Newcastle, engineers and iron founders, who had extensive connections to the coal mining industry. Some items also went to Joseph Edwards a second hand machinery dealer from Sydenham, Sydney. Hoskins Iron & Steel Limited (who had previously acquired most of the Great Cobar's Lithgow assets) also acquired machinery and rolling stock directly from the Receivers for re-use in their Lithgow iron and steel works.

Goninans set up an office in Cobar and the dismantling of the works commenced. Much of the plant was of a specialised nature and as a consequence went as scrap, being broken up with dynamite to feed the newly commissioned open-hearth processes in the Newcastle Steelworks. Some plant survived in a number of places. Some boilers went to the New Guinea Copper Company at Tahira (see LR 47), others to the Lithgow iron and steelworks, while the converter house became the AGE Factory at Lidcombe in Sydney, readily recognisable from the train until the site became a sports facility in the 1980's. The Andrew Barclay winding engine from the Main Shaft went to Hoskins' new Steelworks Colliery at Lithgow (and when that mine closed it was moved to BHP's John Darling Colliery near Newcastle). The steel-framed engine house became the store building at Elrington Colliery on the Cessnock coalfield.[49] This structure outlasted the colliery and the subsequent engineering works on the mine site and at the time of writing (2002) it was still intact.

Goninans resold one of the electric overhead hot metal cranes, most likely from the mould shed, to Hebburn Limited in 1926.[50] It was set up to serve the new coal wagon repair shops at Hebburn No.1 Colliery, Weston NSW, and survived in regular use until 1964 when the facility closed. The hand-powered gantry crane from the powerhouse was similarly acquired by Hebburn Limited and, after lying for many years out of use, it was re-erected in 1947 in the new fitting shop at Hebburn No.2 Colliery. Converted to electric operation it operated for a further thirty years.[51] No doubt many other items were similarly reused, but were remembered in local legend only in terms that some piece of ancient machinery "came from some big mine out west".

By 1924 virtually all metal worth salvaging had gone and the leases reverted to a Mr Curtis. Some sporadic attempts were made to work the surface ores by means of an extension of the mullock pit, with the old derrick crane being relocated as part of this operation. The resultant massive excavation remains a prominent feature of the old mine site.

The great steel stack that had dominated the works still remained, a monument to the grandeur of the Great Cobar. Several attempts were made to fell it, but its sturdy construction held firm. It finally succumbed to the forces of the explosive destruction in June 1932.[52] A few brick and timber structures, including the timber ore bins, stood until the late 1950's when the property was taken over by Cobar Mines Limited and levelled in a clean-up campaign.

When visited by one of the authors sixteen years later, there was little in the way of landmarks to guide the visitor in the site's past history. The most prominent remnant was the Great Cobar administrative building. Its interior had been converted to other uses but the external appearance was unchanged and it had survived long enough for its historical significance to be recognised. By then it had passed into the ownership of the Cobar Shire Council.

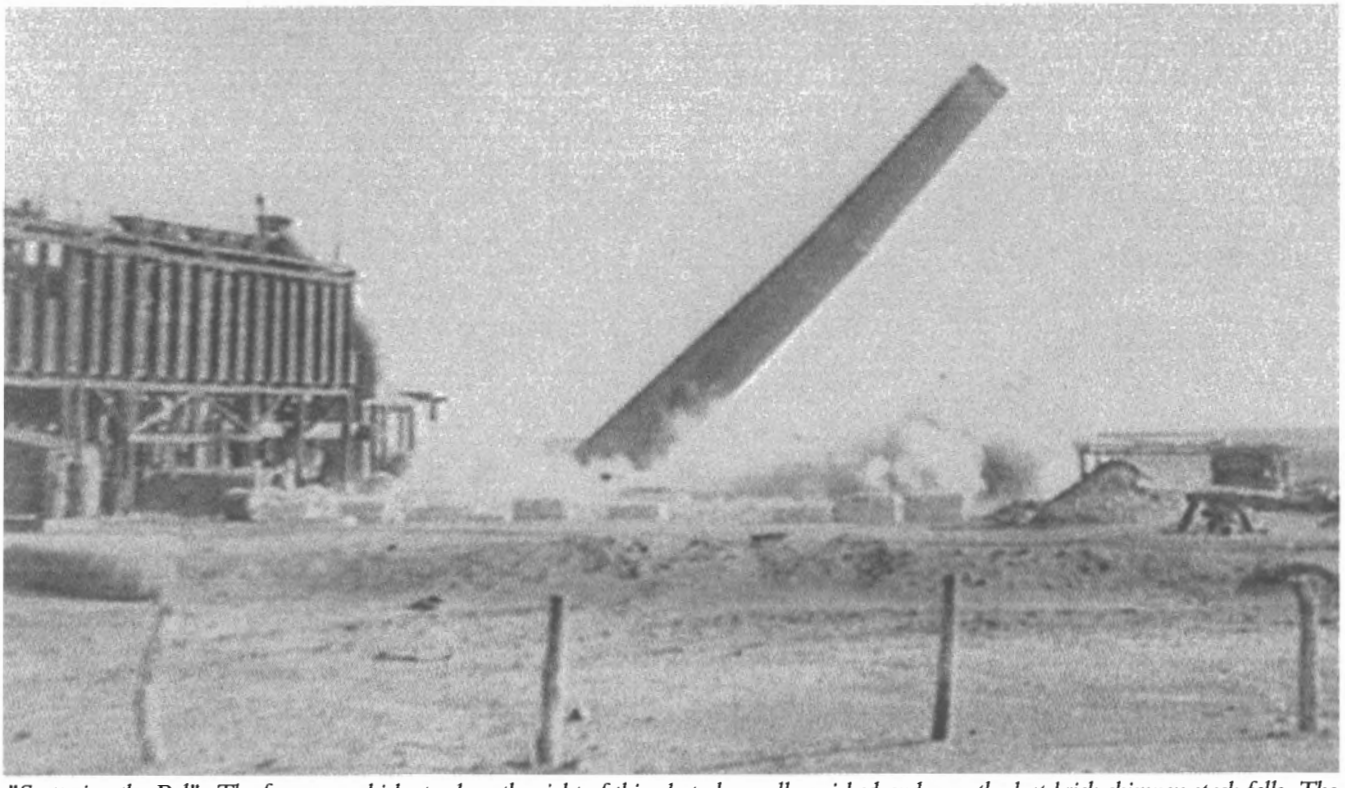
The wooden derrick was still intact at the edge of the open cut, where it had last been used. The furnace bases and the powerhouse engine beds located the site of the works, while the slag dumps were being dug up and crushed to provide the local council with road base. Several converter vessels had escaped the scrappers and were located in a small depression. Some remaining electric railway poles were found, hidden in the low scrub.

Although today a security fence denies public access to the property, the huge slag dump remains as an imposing sight for the visitor approaching Cobar on the Barrier Highway.

Disposal of Railway Plant

Much of the railway equipment also survived to serve new masters and again some items had surprisingly long lives.

The four John Fowler 2-4-0T steam locomotives were brought from behind the blacksmith shop where they had been stored since 1909 and prepared for sale. They were



"Scattering the Bal". The furnaces, which stood on the right of this photo have all vanished and now the last brick chimney stack falls. The furnace bins in the background remained until set afire in 1957. *Photo: JW Shoebridge Collection*

cleaned and at least one was steamed on a short length of track prior to sale. Goninans purchased these locomotives along with the other plant in August 1921 for later resale.[53]

One Fowler locomotive was noted several years later at the Commonwealth Rolling Mills at Waratah and is believed to have been cut up there.[54] The other three went to Tulloch's Phoenix Ironworks at Rhodes (Sydney) and in 1922 they were combined to create a single standard gauge 2-4-0T locomotive. It was sent to the Rhodes Timber Company, a Tulloch subsidiary, which operated a timber tramway at Mount George near Wingham in NSW.[55] The locomotive proved to be a complete failure and was returned to the works, where it was scrapped.

Other rolling stock from the narrow gauge system was sent to the Lithgow iron and steelworks and, after lingering in the Cobar Paddock storage area for varying periods, went into the furnaces.

From the standard gauge, the two surviving electric locomotives were sold to Hebburn Limited. They were transferred to Weston on railway flat wagons and stored under the screens at Hebburn No.2 Colliery. The company's intention was to electrify the 3-mile railway from Hebburn No.1 to No.2 colliery. Transmission line poles were erected alongside the track, aligned so as to be suitable for trolley wire side brackets.[56] Ironically, the high cost of copper following the slump in local production was cited as the reason for not proceeding with the project.

One of the Dewhurst bogie rail hopper wagons delivered in 1907 to The Great Cobar for ore traffic. The old vehicle was still use at Port Kembla Steelworks when this photo was taken in 1969. *Photo: JLN Southern*

Around 1929 one of the Bagnall – Westinghouse locomotives was incorporated in an electric crane for Elrington Colliery. Although the buffers and couplings have been removed, the underframe remains clearly recognisable as that of a locomotive. This photograph was taken in July 1964, after the mine had closed and not long before the machine was cut up for scrap. *Photo: JW Shoebridge*

As part of this proposal, Hebburn Ltd also acquired the two motor generator sets and, in 1923, they were installed in the Hebburn No.1 power house.[57] Although they never again fed the locomotives, their installation allowed the new turbo-alternators at Hebburn No.2 to supplant the aging steam plant at Hebburn No.1. Both sets remained in use supplying direct current to the mine and parts of Weston township until around 1946.

Of the other standard-gauge rolling stock, the Pollock slag pots were worn out from constant use and joined the scrap metal queue. The two Dewhurst pots were also cut up full of solidified slag, but two Dewhurst matte wagons evidently saw further use at the Lithgow steelworks. Six steel bogie Dewhurst hopper wagons (together with two end dump ladles) also went to Lithgow steelworks as part of the acquisition by Hoskins Iron & Steel Ltd. They subsequently went to Port Kembla when the Lithgow plant was transferred to the new Australian Iron & Steel works there between 1928 and 1932. In 1969 the six survivors remained in daily use at Port Kembla for the removal of mill scale.[58] The exact date of their demise has not been established, but by any account they had long and useful lives. The wooden four-wheel hopper wagons were taken back to Goninans' works in Newcastle and rebuilt into colliery hoppers for resale.

One Locomotive becomes a Crane

An interesting note appears in the Hebburn files for 1923 regarding an approach by the NSW Railways for the loan of one of the locomotives to be trialed on the coal roads at The Dyke at Newcastle.[59] Nothing appears to have eventuated and both machines lay derelict until around 1929, when one was rebuilt into a yard crane for Elrington Colliery.[60]

The superstructure, controller, buffers and brake column were removed, while the machinery, mast and jib from a stiff-leg derrick crane were mounted on the frame. The original wheels and gears were retained, the brake mechanism was altered and a single, smaller 415-volt alternating current motor replaced the direct-current traction motors.[61] The crane unit had been built by Butters Bros, Glasgow, Scotland and was purchased around 1924 by BHP from the State Shipyard (near Ryde), for use in the early stages of sinking the Elrington Colliery shafts.[62]

For more than thirty years this machine operated successfully in the mine timber yard, unloading pit timber from rail trucks and reloading it onto underground mine trolleys. The traction motor was more than once damaged when the crane was hit by runaway mine cars. Eventually it was disconnected and in latter years the crane moved itself along by means of its own hoist rope.

Elrington Colliery closed in December 1962 and the crane was cut up for scrap in 1966. The original Great Cobar electric loco frame, wheels, gears and cast ballast weights were still recognisable.

One Locomotive becomes a Brake Van

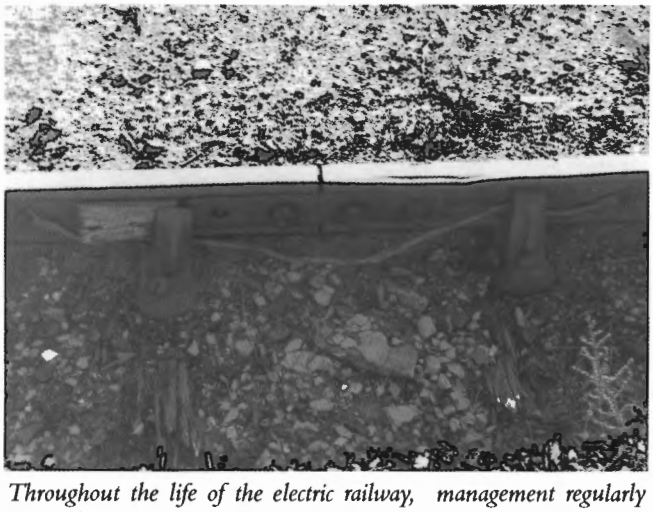
Around 1940, with the wartime increase in coal traffic from Hebburn No.2 and Elrington Collieries, a deputation of the shunters on the Hebburn Railway (who usually rode

The Hebburn Railway brakevan was built on the frame of one of the Great Cobar electric locomotives. It saw little use and was usually stored on the house-coal road at Hebburn No 1 Colliery where this photo was taken in 1964. Shortly afterwards, following representation from one of the authors, it was donated to the Sydney Tramway Museum. Photo: JW Shoebridge

the buffer of the last vehicle) asked for a van to shelter them from the elements. Accordingly the second electric locomotive was hauled from Hebburn No.2 to the waggon shops at the No.1 colliery to be suitably converted.[63]

The sides and ends were enclosed with timber and the metal roof replaced. The original side-railing and roof supports remained under the cladding. End platforms were added, the buffer beams were extended and the automatic couplings replaced with drawhooks. All electrical equipment had vanished although the original brake gear remained. New sand boxes were fitted, the cast side weights were taken off and the vehicle was ballasted with old rails.

Unlike the earlier conversion, the modified vehicle was not a success and after a few trial runs train crews refused to use the van, claiming that the short wheelbase made it unsafe.[64] To add to its unpopularity, it also proved not to be sufficiently free-running for gravity shunting. The replacement of the original wheels and brasses made no improvement and the van was laid aside whilst a conventional (CHG type) van was hired from the South Maitland Railways.



Throughout the life of the electric railway, management regularly reported the theft of copper rail bonds. Amazingly one survived on the bullhead track from the mine to the main line and was photographed in 1964. The track dates from 1897 and the bond from 1907. Photo JW Shoebridge

So the sad old relic remained, forgotten on the house-coal road behind the Hebburn No.1 boiler house and amazingly survived the eventual scrapping of Hebburn colliery plant. In 1965, Coal and Allied Industries Ltd (successors to Hebburn Ltd) donated the van to the South Pacific Electric Railway (SPER, which operates the Sydney Tramway Museum).[65] The SPER Board, after some consideration, decided that its preservation did not lie within its terms of reference and offered it to the newly formed Cobar Regional Museum. The locomotive relic was moved directly from Weston to Cobar by road.[66]

A New Life for Cobar

Cobar was to experience several mining revivals after 1920, but the Great Cobar would no longer be a prominent player in these developments. The first revival occurred between 1937 and 1950, then in June 1965 the old CSA mine commenced ore production at a rate of 335,000 tonnes per year. Since then, the giant Elura lead and zinc mine, the McKinnon Tank mine on the site of the old Peak mines and, most recently, the New Cobar Open Cut Mine have revived the town as a major Australian mining centre.

The late Ken Mc Carthy, eminent light railway and industrial archaeology researcher, poses beside the one of the relocatable electric railway poles (used on dump roads) Photographed when the site was investigated in 1964. Photo: JW Shoebridge

With the revival of Cobar's fortunes, the Cobar Shire Council recognised the need to diversify the economic base away from mining to avoid the dramatic boom and bust of the past. The development of tourism based on the town's mining heritage would contribute to this aim. Council acquired the grand administrative building of the Great Cobar mine in 1969 for a historical museum. The museum was established by a group of dedicated volunteers, with management passing to the Council in 1988. A professional curator was appointed and the museum has been developed as the Great Cobar Heritage Centre, one of regional Australia's outstanding museums. Its exhibitions and interpretative material capture the essence of the founding of Cobar, portraying the rich combination of Aboriginal, pastoral and mining history that has created the community of today. The museum collection includes an extensive collection of documents and photographs of mining operations over the years. Its most important heritage item is the Great Cobar electric locomotive, partly restored as a static exhibit and displayed under cover in the museum courtyard.

Future development of the museum complex includes a 5km discovery track to link the museum and some of Cobar's best-known landmarks. The old Chesney Mine headframe and winding house (see LR 156, p.11) were recently demolished to make way for the New Cobar open cut mine. The headframe has been re-erected as part of a Miners' Memorial at the entrance to Cobar opposite the former Great Cobar administrative office and the winding house is to follow.[67] The headframe is now sited on the North Cobar No.2 shaft, just off the Barrier Highway.[68]

The huge slag heap remains a dominant landmark as one enters the town, while the adjacent open cut workings to the west and the company reservoir on the eastern side, which had received the life-giving water delivered by train in the 1902 drought, have other tales attached. Mine shafts abound around the site. One wonders if today's visitor has any idea of the investment in blood, cash and sweat that went into creating these barren heaps and desolate holes.

Acknowledgements

The authors express their thanks to the former curator at the Great Cobar Heritage Centre, Colin Jones, and the present curator, Josh Tarrant, and their staff for the assistance provided in the preparation of this and earlier articles. As the articles are based on research stretching over many years, there are many others who have helped out in various ways. We offer special thanks to Brian Andrews, Victor Solomons, Allan C Baker, the staff of the Newcastle City Library's Regional History section and the staff of the NSW Department of Mineral Resources Library. We trust that this essay offers a useful contribution to the task of documenting the town's fascinating mining history.

Thousands of tons of ore were hauled over The Peak branch line to feed the Great Cobar smelters, Here in 1997 are the fast decaying remains of the track near the Chesney Mine. Photo Bob McKillop

The Bagnall-Westinghouse locomotive from Great Cobar mine, once a brake van at Hebburn Colliery and now preserved at the Great Cobar Heritage Centre. The timber cladding has been removed, revealing the original railing and roof supports Since this picture was taken, it has been placed under cover, making photography difficult. Photo: JW Shoebridge

The Great Cobar company built a fine new administration office in 1910. It has survived a number of owners and many uses; now in 2002 the still handsome building appropriately houses the Great Cobar Heritage Centre. *Photo: Bob McKillop*

End Notes

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4 *The Western Age* (Incorporating the Cobar Herald), 27 February 1915, 'Great Cobar Mines to Reopen'.
5 *The Western Age*, 15 May 1915, 'Great Cobar – Meeting of Debenture Holders'. See Part 3 (LR 156) for details of the Pellew-Harvey report.
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8 *The Western Age*, 4 September 1915, 'Proposed Government Assistance Turned Down by Caucus'.
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12 *The Western Age*, 18 September 1915, 'Great Cobar Crisis'.
13 *The Western Age*, 15 February 1916, "Great Cobar Employment"
14 *The Western Age*, 4 January 1916, "Great Cobar Smelting on Thursday"
15 *The Western Age*, 25 February 1917, "A Third Shift at Great Cobar. Proposed Compromise to Waste Paper Box"
16 *The Western Age*, 10 July 1917, "Great Cobar"
17 *The Western Age*, 4 January 1916, 'Great Cobar Smelting on Thursday'.
18 *The Western Age*, 9 February 1917
19 *The Western Age*, 11 November 1916, "Big Copper Deal"
20 *The Western Age*, 15 March 1918, "Great Cobar"
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28 *The Western Age*, 17 April 1915, 'CSA Railway; Deputation to the Minister'.
29 This would allow Cabinet to deal with the matter, rather than the Parliamentary Select Committee on Public Works
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31 *The Western Age*, 27 March 1917, "'CSA Railway: Absorbing Canbelego Unemployed'.
32 *The Western Age*, 15 January 1918, 'CSA Mine: Opening of the Railway'.
33 *The Western Age*, 12 April 1918, 'Cobar's Prospects' (edit).
34 NSW Mines Dept Report 1916
35 *The Western Age*, 11 May 1917, "CSA Mine Limited: Interview with Mr G Blakemore"
36 *The Western Age*, 12 February 1918, 'Copper Output, British Offer Accepted'.
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39 *The Western Age*, 18 April 1918, 'Cobar's Prospects'.
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42 *The Western Age*, 7 February 1919, 'Cobar's Prospects: The CSA Railway Supply of Basic Ore to Great Cobar'.
43 *The Western Age*, 7 February 1919, 'Cobar's Prospects: The CSA Railway Supply of Basic Ore to Great Cobar'; and 4 March 1919, 'Copper Market, Panicky Situation'.
44 *The Western Age*, 3 January 1919, 'Great Cobar'.
45 *The Western Age*, 11 March 1919, 'Great Cobar, Projected Closure of the Mine'.
46 *The Western Age*, 18 March 1919, 'Copper Crisis'.
47 The basic wage had that year been increased from £10 to £12 per week
48 NSW Mines Dept report 1920
49 Elrington Colliery, although owned by BHP Collys Ltd, was operated by Hebburn Ltd and shared a joint Superintendent (S Mc Kensey) and Chief Engineer (A W Shoebridge).
50 Hebburn Ltd Board Minutes 22 Sep 1926.
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66 Personal Communication from Mr V Solomons Secretary, Sydney Tramway Museum.
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68 It is ironic that this shaft, brought to the attention of the visitor, has never wound a single ton of commercially mined ore.

There's a Tram Coming!

A story about Colin Puzey, a man with Determination

by Keith Watson

The Baldwin steam tram is a well known and loved piece of machinery, not only in the USA but also Australia and New Zealand. Those of you know these famous engines will be pleased to know that another tram is under construction in West Australia, in the tiny town of Gelorup just south of Bunbury. The man behind this project is the amazing Colin Puzey, who is surmounting all the challenges involved - literally single handed, as he lost his left arm in a railway accident many years ago.

Colin had held the position of Plant Operator at the State Power Station in Bunbury for 26 years. When they decided to close the station Colin said he wanted a project that he could get his teeth into and decided he would build a steam tram. Now most of us are content to build small models of these but Colin decided to build it full size - yes, 3ft 6in gauge!

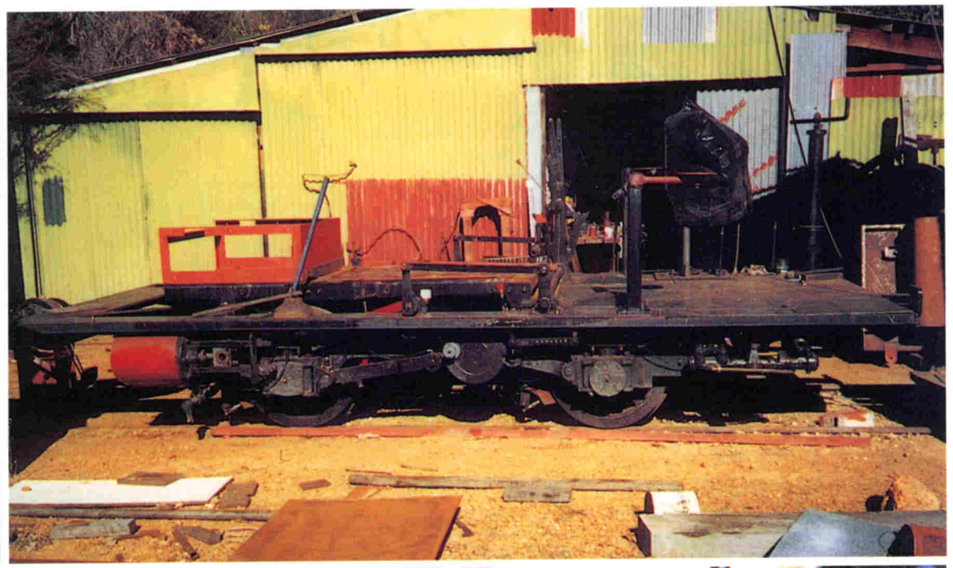
The first thing he had to do was a drawing. With skill and dexterity he produced drawings of the tram that I can testify would do justice to any drawing office. Try drawing with a pencil and rule with one hand. It's very difficult!

Next he made up a pair of 'A' frames in his workshop to carry a steel 'I' beam above, and set them up outside his workshop. On the ground he placed two pieces of 45lb rail at a gauge of 3ft 6in and used this as a basis to start construction.

He ordered two lengths of 15in x 4in channel for the tram's two side frames and proceeded to cut one side of the channel off. Then he carefully marked out pieces of ½in plate and welded them to the long side of the channel.

His bench drill was set up outside on a special bracket to allow him to drill the many holes required to attach the various parts. The steel was transformed from a channel to a side frame with cutaways and apertures for the axle boxes & guides and spring hangers. A large cutaway at one end was for the steam cylinder to fit into.

The five main frame components were bolted together ready to receive the many smaller components Colin had made including the axleboxes, crankshaft sub-frame and main bearings, as well as spring hangers and steam brake mountings.



The tram is fitted with steam and hand brakes, the steam brake cylinder being from a Weir feed pump. but with an operating valve made to replace the original.

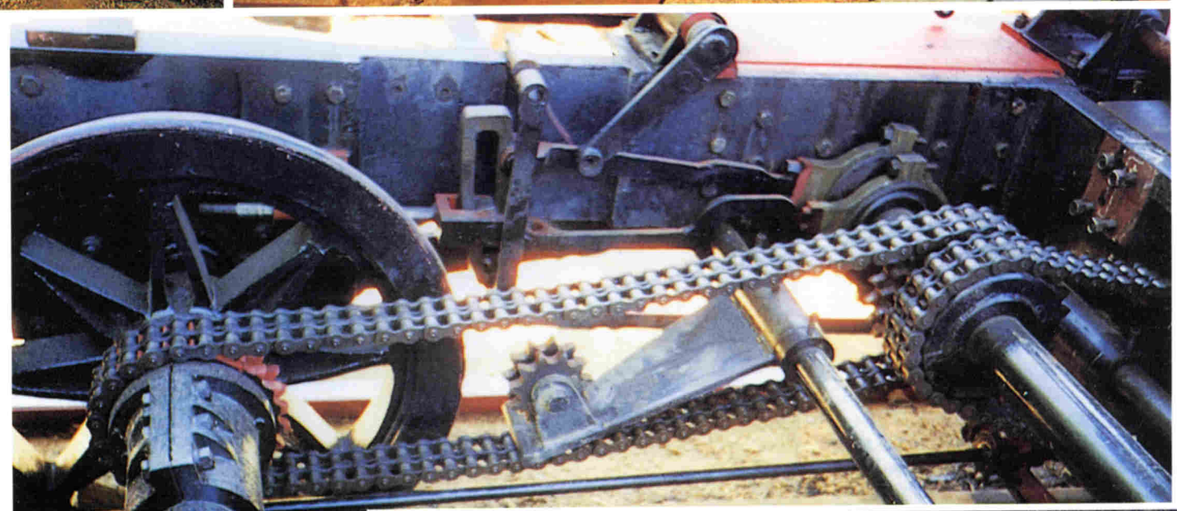
The dimensions of Colin's masterpiece will be: length over sills 16ft, width over frame edges 7ft, width over body 7ft 8ins and height over clerestory roof 10ft.

Colin is to be congratulated on his fantastic effort and I know he has shown incredible ingenuity in so much that I have not covered here. Typical of his skill and determination was his solution to the fact that the valve faces of the cylinders he used were badly scored and worn, preventing the good closure required for steam. To have these remachined would have been an enormous task, and expensive as well. So Colin set about cleaning them up. He took a piece of mild steel about 6in x 4in square, then he cut and fitted three pieces of bastard file to give a cutting face and retained them with contact cement. "Simplest is best!" as Colin would say.

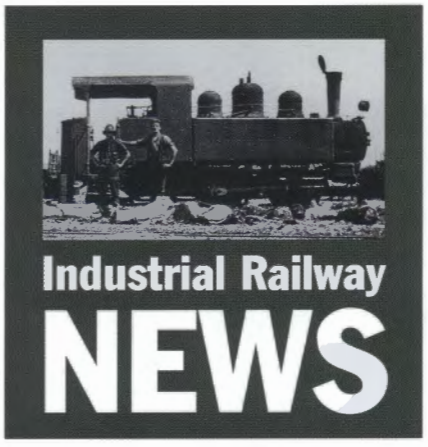
Next he made the facing tool to slide on the same path as the slide valve, and to apply pressure he made a floating fulcrum with a counterweight to push the facing tool hard against the valve face. Now all he had to do was push and pull the file box several hundred times and gradually the valve face was cleaned up to a steam tight fit. This system of refacing could be applied to all kinds of sliding valve surfaces.

Now all you dreamers who are "Gunna do it", take heed of Colin's tenacity and get on with it!

(This story will be followed up as soon as the engine is completed and steamed for the first time.)



Photos, from left: *The Steam Tram & Railway Preservation Society's 103A (Baldwin 11676 of 1891) is a typical Sydney steam tram motor, one of only three to survive into preservation. Like many of its kind, it saw private and industrial service after retirement from the government tramways. In May 1976, Bruce Belbin photographed it leaving the depot area at Parramatta Park, with a single B class trailer in tow.* ❑ *The five main frame components of Colin's tram bolted together and set up above the two rails.* ❑ *The frame assembly with most of the major parts fitted apart from the connecting rods. The 7in x 10in cylinders, driving wheels and the crank disc are prominent. A small Weir feed pump is fitted under the running plate at the rear right.* ❑ *The Stephenson's valve gear and eccentrics on the crank shaft and the 1¼in pitch duplex roller chain to give the drive via split sprockets to the ex railway wheel and axle sets. (The chain tensioner is not in the correct operating position in this view.).* ❑ *Construction really going ahead. The Hoskins under type boiler has a firebrick furnace. When fitted, the boiler barrel will be heated by direct fire to the underside of the shell with hot gasses passing through the fire tubes and finally up the stack Photos: Keith Watson*



Industrial Railway NEWS

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EDITORIAL

Following the publication of Craig Wilson's new book *Built by Baldwin* the method of recording EM Baldwin builder's numbers had been adjusted in order to more accurately Baldwin's own record keeping. The main differences are the use of full stops rather than hyphens, and the serial numbers being separated from the date numbers by a space rather than a full stop. Craig's book is highly recommended to all those who take an interest in Australian industrial railways and will be reviewed in *Light Railways* in due course.

John Browning

NEW SOUTH WALES

AUSTRALIAN TRAIN MOVERS & WESLEY SERVICES PTY LTD, Londonderry

1067mm gauge

Ex-Mt Isa Mines 0-6-0DH 5802 (JA4282 of 1964) has been offered for sale by this company, having last been recorded for sale at auction from Mt Isa in October 2001. The price asked is $40 000 plus GST. The locomotive's current whereabouts are not known.

http://www.a-tm.com.au/forsale.html via Chris Stratton (Locoshed internet group)

BRUCE FORD EQUIPMENT

610mm gauge

Offered for sale is a 1990 Atlas Copco LM35 underground rail bogger located in New South Wales, "recently through the workshop", at a total cost of $15 000. Enquiries were invited on (08) 9496 3112.

Just Trucks 8/02 via Ray Graf;
http://www.brucefordequipment.com.au/

NEW ENGLAND ANTIMONY MINES NL, Hillgrove

(see LR 167 p.19)

610mm gauge

An update of the information on the Gemco "trammer" 0-4-0BE locomotives sold for preservation at the June auction. Lot 60 has been found to carry a metal number 8 and stick-on number 4, while Lot 62 has a metal number 9 and stick-on number 2.

Ray Graf 10/02

PASMINCO, Cockle Creek

(see LR 140 p.19)

1435 mm gauge

It has been announced that the Cockle Creek lead smelter will be closing in the next few years. A Goninan Bo-Bo DE (019 of 1964) is in regular internal shunting use here, fitted with twin Rolls-Royce engines.

Daily Telegraph 25/10/02 via Leon Oberg (Locoshed internet group)

LOCOMOTIVE, ROLLING STOCK & EQUIPMENT MANUFACTURERS

EDI RAIL, Maryborough

(see LR 155 p.16)

Three Walkers B-B DH locomotives are stored at the former Walkers yard in the Maryborough Industrial Estate off the Bruce Highway to the north-west of the town. These locomotives are owned by Tully Mill and are held pending rebuilding. They are DH24 (606 of 1969), DH36 (618 of 1969), without a cab, and CC03 ex DH56 (643 of 1970).

Chris Walters 9/02

Top: *BHP Port Kembla's GEC Australia Bo-Bo DE D44 (A.272 of 1975) hauls hot coils at the hot strip mill, 30 April 2002. Photo: Brad Peadon* ***Above:*** *Racecourse Mill's Clyde 0-6-0DH 53* MUNBURA *(67-570 of 1967) hauls cane besides Cowleys Road 21 June 2002. Photo : David Rowe*

Top: *CRT's Walkers B-B DH 7334 (696 of 1972) shunts containers at Yennora, 13 July 2002. Photo: Brad Peadon.* ***Centre:*** *Mulgrave Mill's E.M.Baldwin 0-6-0DH 11 (4413.2 8.72 of 1972) hauls small and large empty bins over Grey Creek, 16 September 2002. Photo: Daven Walters* ***Above:*** *Pioneer Mill's Walkers B-B DH JARDINE (592 of 1968) hauls a rake of 119 full bins at Airdale 1, 25 July 2002. Photo: Scott Jesser*

Industrial Railway NEWS

QUEENSLAND

BUNDABERG SUGAR LTD, Bingera and Fairymead Mills

(see LR 166 p.19)

610mm gauge

It appears that Locotrol operations with EM Baldwin B-B DH locomotives on the line between **Bingera** and Wallaville were being trialled on the afternoon of 11 September when *GIVELDA* (5800.1 5.75 of 1975) led about 60 empty bins towards Wallaville with *OAKWOOD* (5800.2 6.75 of 1975) in the rear. Similar locomotive *DELAN* (5800.3. 7.57 of 1975) was noted back at Bingera Mill later in the month. It had been working from **Fairymead** Mill last year. Ex-QR Walkers B-B DH *KOLAN* (633 of 1969 rebuilt Bundaberg Foundry 1996) was noted several times in September working Wallaville - Bingera trains. Com-Eng 0-6-0DH locos *INVICTA* (A1513 of 1956) and *SHARON* (A1935 of 1959) are based at the Wallaville out-depot to work old Gin Gin Mill lines in the area.

At Bingera, awaiting repairs, was E.M.Baldwin 0-6-0DH 70 (3406.1 7.70 of 1970) which has a cracked frame. Also observed at Bingera Mill on 25 September was Fairymead Mill's Clyde 0-6-0DH 55 (DHI.6 of 1954) while Bingera's EM Baldwin 0-6-DH *MANOO* (3875.1 7.71 of 1971) was noted about to depart Fairymead Mill with a cane transfer to Bingera.

Noted at Bingera Mill's navvy depot at Manoo, on the highway east of the mill, were EM Baldwin 4w-2DH (4529.4 12.72 of 1972 rebuilt 8860.2 8.79), a ballast plough rebuilt from Ruston & Hornsby 4wDM 387893 of 1955, six 4-wheel ballast hoppers, a four-wheel mower and a bridge span jack similar to the ones used by Mackay Sugar. All this equipment is stored on isolated sections of track with no direct access to the mill's main line.

Carl Millington 9/02 & 10/02; Brad Peadon 9/02; Chris Walters 9/02 (both Locoshed internet group)

BUNDABERG SUGAR LTD, Moreton Mill

(see LR 166 p.20)

610mm gauge

Tramway operations have been scaled back for what is expected to be the last year of operations. E.M.Baldwin 0-6-0DH locomotives *BLI-BLI* (6/1257.1 7.65 of 1965) and *PETRIE* (6/2300.1 6.68 of 1968), together with Clyde 0-6-0DH *MORETON* (63-289 of 1963) are the only locomotives seen with any regularity on cane haulage east of Nambour. Normal runs have been *BLI-BLI* to Dunethin Rock, the Horse line, and short branches north of the Maroochy River, *MORETON* to Valdora and Coolum and *PETRIE* to the Punt Line and Paynter's Creek, which has been in operation for its full length.

EM Baldwin B-B *COOLUM* (5565.1 10.74) continues to work the shuttle train through Nambour from Howard Street yard to the mill,

and occasionally ventures east of Howard Street yard. It is also reported to do a run to River Depot with *MORETON* early each Monday morning, returning to the mill with cane harvested on Sunday to commence the week's crushing at 8am. The other main line locomotives are spare although Com-Eng 0-6-0DH *JAMAICA* (B1112 of 1956) substituted for *COOLUM* on the Howard Street shuttle on 10 October. Malcolm Moore 4wDM *JIMPY* (1051 of 1943) was on navvy duties north of the Maroochy River in late September.

A feature this year has been the more regular raising of the Maroochy River bridge span after the trains had crossed north, it remaining aloft until they returned. Once on the south side, the crew of the last returning loco again turned the capstan to lift the bridge. On each occasion, it was necessary to attach/detach a four-chain sling to achieve the objective resulting in a five-minute operation. It is reported that the small lifting bridge at Petrie Creek will soon be removed by order of the navigation authorities, and that the big lifting bridge across the Maroochy River will also be removed once the tramline closes.

Uncertainty continues regarding the future of the mill beyond 2002, although the tramline seems doomed. It has been reported that Bundaberg Sugar have rejected a farmer buy-out proposal. Because the proposed ethanol plant at Yandina could not be in operation before 2004, attempts have been made to induce Bundaberg Sugar to crush cane in 2003 and at the time of writing, it is believed that no statutory notice of closure had been given.

It is expected that the mill will be crushing until mid-December.

Ron Aubrey 9/02 & 10/02; Brad Peadon 9/02; Chris Walters 9/02 (all Locoshed internet group); *Queensland Country Life* 22/10/2002; Carl Millington 10/02 Rod Milne 10/02; Ron Preston 10/02; David Burke 10/02

BUNDABERG SUGAR LTD,
Innisfail district mills
(see LR 161 p.19)
610mm gauge

Babinda Mill's Clyde 0-6-0DH locomotives 2 *GOONDI* (55-56 of 1955) and 3 *DARADGEE* (56-90 of 1956) are still operating in multiple, but *DARADGEE* currently has no engine, so merely functions as a driving platform and brake tender. It is not known how permanent this arrangement will be.

South Johnstone Mill's Com-Eng 0-6-0DM 7 (AI51111 of 1975) was noted with ballast wagons at Bellenden Ker, north of Babinda, on 14 September. Ex-Babinda Mill 0-6-0DH 5 *BRAMSTON* was noted working out of **Mourilyan** Mill on 17 September. By mid-September Com-Eng 0-6-0DH 38 (AH4695 of 1965) had resumed yard shunting duties at South Johnstone Mill.

Top: *South Johnstone Mill's ex-Innisfail Tramway Com-Eng 0-6-0DM 7 (AI57111 of 1975) with South Johnstone ballast hoppers at Bellender Ker on the Babinda Mill network, 14 September 2002. Photo: Daven Walters* ***Centre:*** *Pioneer Mill's unique Walkers 0-6-0DH 583 of 1968 hauls a rake of fulls near Lochinvar, 25 July 2002. Photo: Scott Jesser* ***Above:*** *1ully Mill's Com-Eng 0-6-0DH pairing of No.14 (AK2663 of 1963) and No.10 (AD1341 of 1960) head out from the mill with empties, 18 September 2002. Photo: Brad Peadon*

An unusual collision took place on 19 September when a Mourilyan Mill train smashed into a crop-duster helicopter parked too close to the line at Dinner Creek Road, Eubenagee. The chopper had landed to replenish chemicals just prior to 7am. The cane loco hit one of the helicopter's blades which was overhanging the cane line, causing a reported $100 000 worth of damage.
On 10 October, the leading locomotive of a multiple-unit pair hauling cane to Babinda mill was derailed at points almost opposite the Miriwinni Hotel. The locomotive ended up at right angles to the track and nearly toppled onto the Bruce Highway. The highway was closed for a short time while a mill crane rerailed the loco.
Brad Peadon 9/02; Chris Walters 9/02 (both Locoshed internet group); *Townsville Bulletin* 20/9/02 via Brad Peadon; *Courier-Mail* 20/9/02; *Innisfail Advocate* 16/10/02

CSR LTD, Kalamia Mill
HAUGHTON SUGAR CO PTY LTD, Invicta Mill, Giru
PIONEER SUGAR MILLS PTY LTD, Pioneer Mill
(see LR 165 p.19 & 166 p.21)
610mm & 1067mm gauges
Kalamia and **Invicta** Mills' 2ft gauge systems are linked by dual gauge track shared with 3ft 6ins gauge **Pioneer**. Invicta Mill takes cane from the Coverton area, while Kalamia normally picks up from as far as Airdale 4 on the Clare Road. The remainder of the connecting section between them, about 10 kilometres, is not normally used for 610mm gauge cane haulage but is served by Pioneer Mill. Pioneer Mill's Walkers 0-6-0DH 583 of 1968 is officially known as *ARAMAC* although no name is carried.
Bead Peadon 9/02; Chris Walters 10/02 (both Locoshed Internet group); Scott Jesser 10/02

CSR LTD, Herbert River Mills
(see LR 167 p.20)
610mm gauge
A variety of cane bin trails are being carried out at **Victoria** Mill. A pair of standard 4-tonne bins have been extended in height by about 300mm and permanently coupled with a fixed link. Because these bins will not fit through the tipplers, they are running around the system loaded with cane. A pair of Burdekin district 6-tonne bins have been reduced in width and height to fit the tipplers and are permanently coupled with a fixed link. The pair are in normal service as 5-tonne capacity vehicles but are not allowed to be taken from the rails. They are recognised by the weighbridge computer as a big bin. Six pairs of standard 4-tonne bins have been fitted with improved fixed coupling links and another six fitted with a special chain link coupling. These bins are in normal service but are recognised as big bins at the weighbridge and so will not be uncoupled. Finally, an 11-tonne bogie bin is being fitted with strain gauges so that the forces it is subjected to can be discovered. This will provide data to predict the potential life of these bins and to inform design decisions about possible future bogie bins.

Macknade Mill continues to haul cane from Victoria Mill's Lower and Middle Stone on a daily basis. E.M.Baldwin B-B DH locomotives *BRISBANE* (5423.1 9.74 of 1974) and 20 (7070.4 4.77 of 1977) each are used on this run, with *BRISBANE* doing one run a day and 20 one or two runs a day.
On 25 September, Macknade Mill's EM Baldwin B-B DH 19 (7070.3 4.77 of 1977) did a run to Victoria Mill and from there with empties to Victoria's Nyanza line, from where cane was hauled back to the Victoria mill yard.
Victoria Mill's Hudswell Clarke 0-6-0 *HOMEBUSH* (1067 of 1914) was used for the annual Maraka Festival passenger rides on 19 October.
Chris Hart 9/02 & 10/02; Steve Allan 9/02 & 10/02 (Locoshed internet group)

CSR PLANE CREEK PTY LTD
(see LR 165 p.19)
610mm gauge
Remote shunting technology to allow one man operation of locomotives has been tested at the mill, following an Industrial Relations Commission conference in July. In early September Walkers B-B DH 4 *CARMILA* (676 of 1971 rebuilt Bundaberg Foundry 1996) was removed from traffic for about three days for remote control tests.
A small four-wheel wagon has been noted running coupled to the brake wagon used on the Locotrol train to Karloo. A 205 litre drum is mounted on the yellow bin frame with control gear attached to the brake wagon. It is believed this is a flange greaser but more details are sought.
Clyde 0-6-0DH 2 (57-147 of 1957) remains dismantled and derelict in an area behind the mill, but of Com-Eng 0-6-0DH 3 (FA1036 of 1959) only the cab now remains. It is assumed the remainder has been scrapped. Hansen linecar 1314 of 1975 is stored off the track adjacent to the fuel tanks outside the loco shed.
Sugar Times 6/8/2002; Brad Peadon 9/02; Chris Walters 9/02 (both Locoshed internet group); Tony Wells 9/02; Scott Jesser 9/02; Editor

GYMPIE ELDORADO GOLD MINES PTY LTD
(see LR 163 p.20)
610mm gauge
This mine has a total of fifteen Gemco 3.5 tonne battery locomotives and 30 Granby wagons available for use. There are two 4wDH locomotives, an old Baldwin and a new Bermagui Foundry loco.
Underground Mining Equipment & Technology, &/02 via Ray Graf; Editor

ISIS CENTRAL SUGAR MILL CO LTD
(see LR 166 p.22)
610mm gauge
A series of breakdowns with the Walkers B-B DH locomotives has led to EM Baldwin B-B DH 10 (7267.1 6.77 of 1977) being put back on to cane haulage on a couple of occasions with Clyde 0-6-0DH 9 (75-812 of 1975) seeing use for the first time for over a year, on navvy duties. The mill's two bogie ballast wagons are having ploughs fitted to each bogie.
Carl Millington 9/02 & 10/02

Industrial Railway NEWS

MACKAY SUGAR CO-OPERATIVE ASSOCIATION LTD
(see LR 166 p.22)
610mm gauge
Marian Mill's Clyde 0-6-0DH 14 *HAMPDEN* (61-235 of 1961) was renamed *ALEXANDRA* between 8 September and 21 September. The name change was required as **Farleigh** Mill also have a locomotive named *HAMPDEN*. The location Alexandra is in the **Racecourse** Mill area. **Pleystowe** Mill's Clyde 0-6-0DH 2 *PLEYSTOWE* (64-321 of 1964), reportedly allocated to Farleigh Mill was noted at Marian on 8 September and was still there two weeks later.
On 28 September Farleigh Mill's Walkers B-B DH 40 *DULVERTON* (690 of 1972 rebuilt 1997) hauled a rake of 42 full bins south across the Pioneer River at Balnagowan (just west of Pleystowe) and then proceeded to haul them off in the direction of North Eton, clearly destined for Marian Mill. This cane would normally be crushed at Farleigh.
Harsco Track Technologies (formerly Fairmont Tamper) have delivered a TTH sleeper crane to Marian Mill during September. This four-wheeled self propelled machine can haul wagons loaded with sleepers to the work site and lay them out at the trackside for spot sleepering operations.
Attempts have been made to number track equipment in a common series. Early in September, BREG 2 (Tamper 1775577 of 1977) and TTAMP 2 (Plasser) were noted at Racecourse and BREG 3 (Plasser 431 of 1997) at Marian, while RSLEEP 4 (Tamper 582 of 1987) was at Farleigh. Racecourse Mill's EM Baldwin 4wDH *ROAD RUNNER* (6/2612.2 10.68 of 1968) is numbered BALD 2.
Mackay Sugar is reportedly keen to implement remote shunting technology using hand-held portable equipment to allow one man operation of locomotives. A locomotive has been fitted with the necessary equipment but talks with unions failed to reach agreement.
Following a business review, Mackay Sugar has announced its intention of forming an alliance partnership with Transfield Services Ltd. It is understood that the alliance, which is proposed to be in operation for the 2003 season, will involve Transfield in the operation and maintenance of the cane railway system.
Sugar Times 6/8/2002; Brad Peadon 9/02; Chris Walters 9/02 (both Locoshed internet group); Scott Jesser 9/02; David Rowe 10/02; Chris Hart 10/02; *ARHS Bulletin* 9/02; Editor

M&Q EQUIPMENT PTY LTD,
47 Tile Street, Wacol
(see LR 146 p.18)
narrow gauge
An examination of the company's web site indicates that all the locomotives mentioned in LR 143, apart from one, are no longer listed. The remaining locomotive is reference MU1186, an 8-ton Gemco 24 inch gauge battery locomotive. The significant addition is reference MU3002 which is listed as "H.E.C. Underground locomotive diesel powered - 24" gauge - Perkins powered". H.E.C. could stand for Hydro Electric Commission, but is any such locomotive known in their ownership? It should be remembered that equipment listed on this site is not necessarily at the Wacol storage site.
http://www.mqequipment.com.au/

MOSSMAN CENTRAL MILL CO LTD
(see LR 156 p.21)
610mm gauge
The mill is facing major financial problems as a result of poor harvests and low sugar prices and has to find $3.5 million by 31 May 2003 or face closure. It was reported that the Ballyhooley train service at Port Douglas ceased operations on 31 October. It is suggested that the entire operation at Port Douglas, including steam and diesel locomotives and rolling stock, will be offered for lease to a new operator who will be expected to manage and run it.
ABC Cairns 7/10/02; *Townsville Daily Bulletin* 9/10/02 via Peter Murray; *Queensland Country Life* 19/10/02 via Barry Blair (all Locoshed internet group); Graeme Belbin 10/02

MT ISA MINES LTD
(see LR 162 p.21)
1067mm gauge
A disposals auction was due to be held by Lex E Simhauser on 18 September. Offered for sale at the disposals yard in May Downs Road, Mt Isa, was a "Gemco underground electric locomotive chassis and bogie, with two 200hp electric drive motors, 440v DC", number 1783. This is probably one of a batch of locomotives supplied by Gemco in 1983. On sale at the mine site was Walkers B-B DH 5803 (682 of 1972), which had twice been offered for sale in 2001. Also offered was Com-Eng 0-6-0DH 2788 (EC1655 of 1962), originally supplied to Theiss Brothers for Snowy Mountains Scheme work.
http://www.lexsimshauser.com.au/mim_auction/mim_auction.htm; Ray Graf 9/02

TULLY SUGAR LTD
(see LR 156 p.21)
610mm gauge
E.M.Baldwin 0-4-0DH 2 (6/1082.2 2.65 of 1965) was noted on 18 September out of use at the mill without wheels while Com-Eng 0-6-0DH No.18 (A060113 of 1977) was also there about to have a new engine fitted.
Chris Walters 9/02 (locoshed internet group)

SOUTH AUSTRALIA

WMC LTD,
Olympic Dam, Roxby Downs
(see LR 144 p.21)
914mm gauge
There are 28 Mining Technologies International ore cars available for haulage by the two Clayton Equipment 25 tonne electric locomotives here.
Underground Mining Equipment & Technology, &/02 via Ray Graf

TASMANIA

TASRAIL SERVICES PTY LTD,
Emu Bay Railway
(see LR 165 p.21)
1067mm gauge
Two ex-Emu Bay Railway Walkers B-B DH locomotives are reported to have been disposed of. 1002 (577 of 1963) has gone to the Van Diemen Light Railway Preservation Society at Don in Tasmania while 1105 (642 of1970) has been sold to the Beaudesert Rail project in Queensland.
Ray Graf 9/02; Alan Robert 10/02

VICTORIA

Lorne
1067mm & broad gauge
The jetty at Lorne has the remains of a tramway extending from the shore along to almost the end of the jetty. The gauge appears to be 1067mm. The line included two sidings, one of

Four ex-BHP Iron Ore Co-Co DE locomotives at Goninan's Bassendean factory, 23 August 2002. They are all General Electric types produced by Goninan as rebuilds of earlier A E Goodwin locomotives. Leading the line is 5513, Goninan 078 of 1988, a rebuild of A.E.Goodwin G-6012-02 of 1968. Three may be refurbished for Pilbara Rail. *Photo: Kieran Wright*

which ran alongside the former fish sheds now partially converted into a restaurant and fishmonger. The end of the jetty includes about 7m. of track to about 2.5m gauge on which is a rail mounted crane on a wagon. The builder's plate appears to have been removed and there is no other evidence of a builder. The journals of the wagon have "N 4 ½" stamped on them. The crane wagon is self-propelled and appears to be still in use to lift boats out of the water onto the jetty. Any further information about the tramway and crane at Lorne would be welcome.
Steven Haby 9/02 (Locoshed internet group)

WESTERN AUSTRALIA

PILBARA RAIL

(see LR 165 p. 21)
1435mm gauge
A locomotive shortage means that Pilbara Rail have reclaimed A.E.Goodwin Co-Co DE 3017 (G-6043-04 of 1970 rebuilt Commonwealth Engineering) for shunting use. It is believed that it will be sent to the Port Lambert shops for reconditioning. It is also believed that Goninan in Perth may be reconditioning and repainting for shunting and possible second unit use three ex-BHP Iron Ore Co-Co DE locomotives built by A.E.Goodwin in the late 1960s and rebuilt by Goninan in the late 1980s.
Richard Montgomery 9/02 (Locoshed internet group)

BILL'S MACHINERY MARKETING SERVICE PTY LTD,
Gnangara Road, Landsdale

narrow gauge
An examination of this dealer's web site shows that only one locomotive remains from those listed for sale in LR 143. This is reference B6088, an unidentified underground electric locomotive. There are still numerous rail boggers and components available.
http://www.bmms.com.au/

OVERSEAS

FIJI SUGAR CORPORATION

(see LR 167 p.22)
610mm gauge
It has been reported that the Fiji sugar industry is insolvent and that an urgent Reform Program will be implemented from 2003. The program is said to include the introduction of a "user pay" system of cane transport and it is unknown what the implications of this will be for the tramway systems. Payment for cane on a quality basis and an increase in mill capacities by 15% are also proposed. However, the extensive politicisation of the industry and racial tensions make it extremely difficult to obtain wide stakeholder support.
Chris Hart 9/02

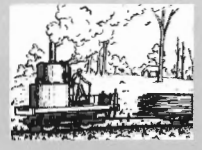
PT ANEKA TAMBANG,
Pongkor Mine, Java, Indonesia

762mm gauge
This gold mine is situated about 30km west of Bogor and uses battery locomotives underground and a 250 volt overhead wire system to bring trains to the surface. Apart from at least 20 English locomotives by Clayton and Pikrose, the mine also has ten Australian Gemco units. There are eight Gemco 3.5 tonne "Hauler" 4wBE locomotives, of which five were underground. The other Gemco locomotives seen were a 1½ tonne battery "Trammer" and a dismantled 10-tonne 4wBE locomotive.

Number	Type	B/n	Date
-	0-4-0BE Trammer	12713/174/	?
8BL002	4wBE Hauler	5593-70-93	1993
8BL004	4wBE Hauler	?	1993?
8BL007	4wBE Hauler	5895-79-93	1993
8BL0023	4wBE 10-tonne	292-95	1995

Any information about the other Gemco locomotives delivered here would be welcome. They are believed to be numbered in the series 8BL001 to 8BL008.
Ray Gardiner 9/02

This 10 ton 762mm gauge 4wBE locomotive 8BL023 (Gemco 292-95 of 1995) at PT Aneka Tambang, Pongkor Mine, Java, seems to be one of the last locomotives built by Gemco. 17 July 2002. Photo: Ray Gardiner



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 5 December.

BRISBANE: "E M Loveday Trophy Night"
Members are invited to bring a photograph relaying to light railways for entry in the competition. Slides, short video segments, prints (colour or b&w) are all eligible. Also, please bring items for a 'supper'.
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 13 December at 7.30 pm. Entry from 7 pm. Contact Bob Dow (07) 3375 1475

MELBOURNE: "Climax Locomotives"
We expect to have Steve Hauff, one of the authors of the recently published book "The Climax Locomotive", speaking on Climax locomotives. Steve is currently visiting Australia, and is a very interesting and knowledgeable speaker. *(NOTE the change of day and date for the meeting.)*
Location: Ashburton Uniting Church Hall, Ashburn Grove, Ashburton.
Date: TUESDAY, 10 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.

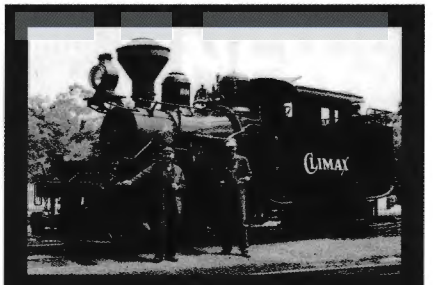
MEMBERS' ADS

FOR SALE

Illawarra Light Railway Museum Society Ltd has available (for nominal prices to preservation groups) a large variety of new boxed steam gaskets and packings, some new spares for steam pumps and also a variety of flanged and threaded valves and fittings. Catalogue $5, refundable on first order. Enquiries to: Hon Secretary, ILRMS Ltd, PO Box 244 ALBION PARK NSW 2527. Ph 02 4256 4627, Fax 02 4256 0203, e-mail ilrms@gghome.com

FOR SALE

Railroad Model Craftsman - all issues 3/94 to12/00
Model Railroader - 15 issues '94 to '99
Trains - 30 issues '94 to '99
Make an offer, pay the freight and they're yours. Best offer to 90 West St, Casino 2470 by 14/01/03. Will reply to all correspondence.



Book Review

Steam on the Lens Volume II

Walhalla Railway Construction – The Photographs of Wilf Henty

Compiled by John Kiely and Russell Savage MLA

Pub: Russell Savage MLA, Mildura, Vic. 2002 Soft Cover, A4 Landscape, 107 duo-tone photographs. Review copy courtesy of the publisher.

In the last few years regular visitors to Walhalla will have noticed more changes in this old Victorian gold mining town than in the previous three decades.

A replica Star Hotel has been built on the site of the one burnt down in 1951, mains electricity has finally arrived and the railway arrived for the second time with the opening of the Walhalla Goldfields Railway, the rebuilding of which was recorded by thousands of photographs taken by hundreds of people.

In 1910, when the railway first opened, it was a different story. Cameras were few and cumbersome. To lug a big glass-plate camera around the mountains (indeed, anywhere) was a major undertaking, To then develop and print the images in primitive conditions required considerable wizardry. This book reproduces over one hundred wonderful photographs made by Wilfred Henty who was employed as a book keeper and pay clerk by the Railway Construction Branch during the building of the Victorian Railways' 2ft 6ins gauge Moe to Walhalla railway (1904-1910). Very few of Henty's Walhalla line photographs have been previously published and certainly not of the quality presented here.

The images start with a gang preparing the track bed in Moe station yard and proceed chronologically and geographically northwards to Walhalla. The fine detail in many of these photos is extraordinary – the clothing of the men, the engineering methods, the earthworks and bridgeworks, the manual labour involved in the whole undertaking of building a railway nearly a century ago, are all carefully depicted.

The lengthy trestle bridges over the La Trobe and Tanjil river flats, the high timbered country around Erica, the serpentine track around steep mountain sides near Platina to the rocky Stringer's Creek gorge to reach Walhalla – all receive due attention. Of particular value are the sequences of photos showing the same location over a period – firstly a cleared, precipitous hillside with just a foot track to mark the position, then the formation being hewn from the hillside, to finally the track laying and ballasting. Of interest is that despite the size of the undertaking, the number of men engaged on any task is minimal; from excavating cuttings to forming embankments, bridge building to actual track laying, the gangs consist of a maximum of ten or a dozen men.

Tools are basic – shovels, wheelbarrows, tip drays, 2ft gauge construction tramways with hand-pushed skips and 4ft gauge temporary tramways with horse-drawn wagons. Only when we reach tracklaying and ballasting does locomotive 1A appear on construction trains.

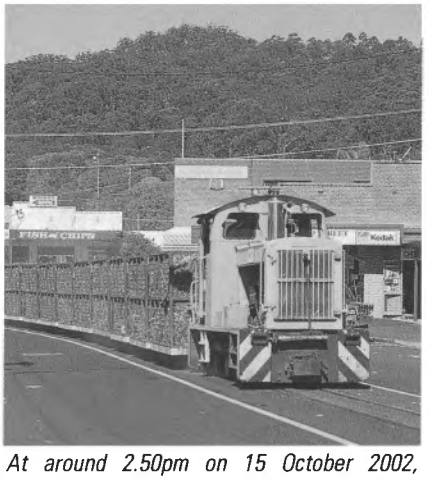
Some wonderful characters are depicted - my favourite being "John Bronn, Ganger". Here is a man of authority in the world of gangers – bewhiskered, old VR frockcoat with double row of brass buttons, bowyangs and weathered hands. His appearance testifies to a lifetime of manual labour.

I am pleased to say I failed to note a single real typo, (trolley/trolly excepted) a great credit to the publisher and the team of dedicated people who assisted. Unfortunately I also failed to find a map, the lack of which will be felt by all who don't know the line intimately.

Over eighty of the photos are full-page, the balance half that size. Maybe a couple of the full pagers don't do justice to that size; the rest, however, are just magnificent! Captions, though not lengthy, are concise and evidence of much careful and diligent research showing detailed knowledge of the line and construction methods depicted.

Only available in soft cover, your reviewer would have wished that there were a hard-cover version for no particular reason other than he prefers them! This limited edition book is definitely recommended, particularly if your interests encompass steam narrow-gauge railways in glorious scenery, railway construction, men and engineering in pre-rubber-tyre days, VR 2ft 6ins modelling or just excellent historic photography. If you missed the publisher's pre-publication offer, check the LRRSA Sales Dept advert, members' separate Sales List or Internet page for availability. Recommended.

Phil Rickard



At around 2.50pm on 15 October 2002, Moreton Mill's Com-Eng 0-6-0DH JAMAICA *(B1112 of 1956) heads a string of loaded bins along Howard Street. Photo: Ron Preston*

Video Review

Maroochy Harvest. Vol 1

78 minutes. VHS PAL. Available from the producers Railscene Products, PO Box 1180, NAMBOUR Qld 4560. Price $35 including postage within Australia. Payment by Bank Cheque or money order.

Each year for around 100 seasons, the locomotives of the 2ft gauge railway of the Moreton Central Mill at Nambour have hauled the sugar cane farmed on the lush river flats and hills around the Maroochy River to the crush. However, a shadow has hung over the little railway for several years as the mill owners ponder the profitability of their operations and, if the prophets of doom are correct, 2002 is destined to be the last season for the mill.

It is a real possibility that, as you read, the very last bin of cane has rolled through the lush fields, been hauled up Howard Street, Nambour, snaked its way across the highway and come to rest in the mill yard.

For those who knew this delightful system, and for those who would like a record of the fascinating operations, the production of *Maroochy Harvest* is a timely addition to the video library. The footage of this 1 hr 18 minute video was recorded during the 2001 season, the last crush in which all eight diesel locomotives were in use. For many years, the "twins", *VALDORA* and *MAROOCHY*, usually basked in the sun on the north side of the Maroochy River so it came as a pleasant surprise when the opening sequence showed the pair struggling over a hill with a full load.

The following scenes portray all eight locomotives in action while operations on the Punt, Horse, Valdora, Coolum and Dunethin lines are featured. Time is spent showing the Bli Bli Cutting while shunting at Store Road sidings is well covered. Naturally, the lifting bridge operations are the subject of scrutiny.

Howard Street Yard, including road operations, and the transfer runs up that street receive good coverage together with the mill yard and loco depot. A real bonus is the sequences taken on the hills of the Eudlo Flats branch, a line not used in 2002 and unlikely to see rail haulage again.

The video is professionally narrated, the camera work clear and rock steady, and is good even when the camera is allowed into a loco cab for a run along a rocky branch line. Most sequences are taken at a leisurely pace and, if you wonder how many bins are behind the struggling loco, the camera lingers to allow the counters to indulge. The commentary contains a good range of statistics, history and descriptions to support the subjects.

While the video would have benefited from some tighter editing, it stands as a lasting record of a fascinating railway that has delighted many for a lot of years but, if the reports are true, may not operate again.

Ron Preston

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

***New !* Focus on Victoria's Narrow Gauge Walhalla 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 circa 1940 to 1956, most never previously published, 48 pages, soft cover, A4 size.
$35.95 (LRRSA members $32.35) Weight 280 gm

***New!* Railways, Mines, Pubs and People and other historical research** by Lindsay Whitham published by Tasmanian Historical Research Association. Fascinating collection of 18 historical research projects, including tramways around Catamaran, Zeehan, Sandfly, Waddamana, Port Arthur and many others. Essential reading for anyone interested in Tasmanian tramways, 264 pages, soft cover, A5 size, 64 photos, 33 maps.
See Review in Light Railways No.166
$25.00 (LRRSA members $22.50) Weight 425 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

The Bonanza Narrow Gauge Railway
The Story of the Klondike Mines Railway
by Eric L. Johnson, published by Rusty Spike Publishing. History of a 3 ft gauge 31 mile long railway at Dawson City, Yukon Territory, near the Arctic Circle - Canada's most northerly public railway, which operated from 1906 to 1913. 164 pages, soft cover, near A4 size, 82 photographs, 13 maps, 34 drawings and other graphics.
See Review in Light Railways No.166
$40.00 (LRRSA members $36.00) Weight 560 gm

Rails to Rubicon
A History of the Rubicon Forest
by Peter Evans
200 pages, A4 size, over 200 photos, many maps and diagrams.
$37.95 Hard cover (LRRSA members $28.46) Weight1000 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.

Tasmania's Hagans
The North East Dundas Tramway Articulated "J" Class by Geoff Murdoch, published by the author. 71 pages, soft cover, A4 size, 42 photographs, 2 maps, 38 diagrams/drawings, references and bibliography.
$20.00 (LRRSA members $18.00) Weight 300 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 and 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.

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.

Postage and packing: Within Australia, up to 500 gm: $4.80; 501 gm to 3 kg $9.00
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- If joining in April or May, pay $49.00 ($60.00/$66.50 overseas) and receive 7 issues of Light Railways (Nos 171-177).

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

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(occupation)
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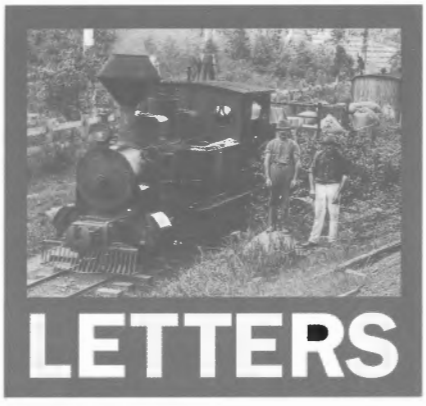


LETTERS

Dear Sir,

Four and Six-Coupled on Sugar Mill Tramways (LR 148, August 1999)

At the time of publication of this article by John Knowles I didn't make comment, as John Browning had added the expert opinion of the late Mike Loveday about the virtues or otherwise of the various wheel arrangements chosen by sugar mill operators.

However, I would now like to quote a paragraph from an article published in the *Proceedings of the Queensland Society of Sugar Cane Technologists, 1936*, which may shed a little light on at least one reason of choice.

From page 76: "*For instance, locomotives of the 0.4.0 and 0.6.0 types have been definitely proved to be heavier on track maintenance than those of equal weight of the 0.4.2 or 0.6.2 types; therefore, when purchasing additional locomotives, wheel combinations of the former types should be avoided.*"

From a design point of view, the rear pony wheels stabilise the locomotive by acting as a pair of "handles", as in a wheelbarrow. This is particularly desirable with fully compensated suspensions, as any imbalance of the fore or rear weight will cause the locomotive to sag at the heavier end. The massive buffer weight fitted to the 0-6-0 Fowlers was required to counterbalance the heavier tail end of these locomotives. The 0-4-2 Fowlers were not fitted with this weight.

The rear pony truck fitted with side movement control also stops the locomotive from "tail wagging", particularly on over-gauge track.

Peter Lukey
Babinda, Qld

Dear Sir,

Our First "Light Railway" (LR 167)

I was interested to read Jim Longworth's letter, in your October issue, and to ponder the question he posed therein.

In his article "The Convict Railway at Port Arthur, Tasmania" which appeared in the April 1954 issue of the Australian Railway Historical Society *Bulletin*, the late Gifford Eardley brought up the same issue. By way of repudiating a Tasmanian tourist brochure's claim that the Port Arthur line was the first railway in Australia, he wrote: "*...Tasmania's first railway was opened in 1836 and it is recorded that the Australian Agricultural Company opened an inclined tramway at Newcastle in 1827, between their coal mine and the staiths at Port Hunter. The same company built a second line between the staiths and their 'B' pit during 1830. It would also be interesting to know how the stone was conveyed to build the breakwater at Nobby's, near Newcastle, in 1818.*"

Unfortunately, Mr Eardley did not elucidate exactly where "*...it is recorded...*".

South Johnstone Mill (LR 166)

In the cover caption of LR 166, it was said that three members of South Johnstone Mill's steam fleet survived into preservation, Nos 5, 6 and 10.

Technically speaking, there is a fourth, as the frame, wheels, cylinders and other parts of the original No.5 have also survived. This was a Jung 0-4-0WT (B/N 1052/1906) which was purchased by South Johnstone Mill, together with a Krauss 0-4-0WT (B/N 3266/1895) and the Japoon Tramway on which they ran, from owners Adelaide Steamship Co. in 1916.

It was sold to transport contractor W Frost, Mossman, in 1930, for haulage of cane to Mossman Mill and was reportedly scrapped in 1953, though it is thought that this actually involved selling off the locomotive's boiler for use elsewhere and abandoning the remainder. Some years later, the Jung's remains were rescued by the late EM Loveday.

According to the list of preserved sugar cane locomotives on your web site, these remains now reside with Graham Chapman at Murrumba Downs, in Queensland.

Lucien Henry
Melbourne, Vic

Dear Sir,

Saving our Railway Heritage

The movement to save Australia's railway heritage has a major problem - a lack of funds to preserve all the items of Australia's railway heritage that have not been scrapped. Many items are "preserved" in the open air. They will not last forever exposed to the weather as metal rusts, wood rots and vandals smash. Many in the rail heritage movement are reaching their senior years. Many railfans are single males with no dependents. Yet only a few rail heritage societies have proper bequest programs.

The Society with the best bequest program is Victoria's Puffing Billy Preservation Society which carries a message about bequests in every issue of its magazine and has recently devoted a full page to the subject of bequests. It recognizes those who have left it money in their wills. Not surprisingly Puffing Billy is believed to have received more bequests than any other Society.

If more rail heritage groups follow the lead shown by the Puffing Billy Preservation Society we can expect more items to be preserved and restored.

Mark Plummer
Keilor, Vic

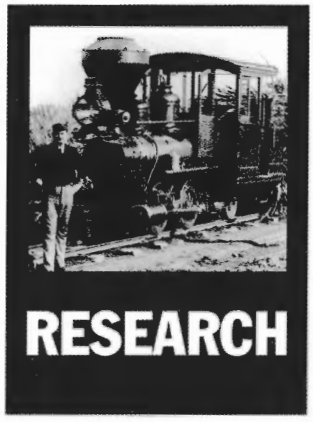
Where is it?

This old print, the original of which is 8 inches x 6 inches and mounted on card, was recently purchased from an antique dealer by LRRSA member Ray Graf

It shows a four-wheeled battery-electric locomotive exiting (or perhaps simply posing outside) a mine tunnel.

The only identification on the print is "Set 1 No. 4" written on the back in green crayon. The dealer thought it may have originated in Tasmania, as several (non-railway) photos acquired along with it supposedly showed Tasmanian scenes.

The fact that the figure bending over on the right is blurred, as the camera has failed to stop his movement, suggests a slow shutter speed, which in turn suggests that the photograph may be older than it at first appears.



Australian Narrow Gauge Convention

The Sixth Narrow Gauge Convention will be held at Tara Anglican School for Girls, Masons Drive, Parramatta (in Sydney) on 19-20 April 2003. A full range of modelling contests is planned for the convention to inspire and encourage modellers in their endeavours. The model categories are steam locomotives, passenger cars, freight cars, non-revenue rolling stock, structures, diorama and internal combustion locomotives and railcars. There are also photographic categories. The Web site is: www.geocities.com/austnarrowgaugeconvention

For Registration, please contact Peter Knife, PO Box H201, Australia Square, NSW 1215; Phone (02) 9487 8881 (AH); E-mail: austnarrowgaugeconvention@yahoo.com.au

Wilf Henry Photo Collection, Victoria

A magnificent set of some 22 photographs taken by Wilf Henty of the construction of the Moe-Walhalla railway was reproduced in *Steam on the Lens:* a photographic memorial to Wilf Henty, edited by John Kiely and Russell Savage and published by Savage about 2000.

Henty (1882-1941) was a member of the well-known Western District pioneer family and was a bookkeeper and pay clerk for Victorian Public Works Department during the Walhalla line's construction. He joined the department in 1900 and was still serving, building silos at Werrimull in 1941 when he died. According to Russell Savage he left a large photographic record of railway construction and activities from his postings all over Victoria, including construction at Redcliffs which has also featured in LR.

Steam on the Lens was a limited print run and copies are hard to come by. Russell Savage has now published a second volume on the construction of the Walhalla railway from Moe with 107 photographs including the twenty odd from the first Henty book for the sake of continuity (see page 24). Most of the Henty photographs are now held in the State Library of Victoria, although Russell is holding negatives of the photos used for this second volume.

Ian Bevage

Tamarama Wonderland City

David Burke has provided some details of a 15-inch gauge fairground railway that operated in Wonderland City at Sydney's Tamarama Beach. Some of the trackwork is visible in a 1900 photograph of Wonderland City published in *The Sydney Weekly* of 2-8 October 1997. David has also pointed out what appears to be a cable tram dummy in the photograph, possibly from Sydney's King Street line.

A postcard sketch of Wonderland City by Marge Hopper, dated 1979 but based on school-day memories, sent to David by Jack Atkins appears to relate to such a cable tram dummy.

If any reader has further information on the Wonderland City fairground railway or the cable tram dummy we would be most pleased to hear from you.

Bannisters Point Railway, Ulladulla, NSW

Ray Graf has drawn our attention to an article, 'The Bannister Express' by Peter Waler in *Australian Sea Heritage* No.27. It tells the story of the narrow gauge (2ft) railway that transported mineral 'silica' from an open cut mine near Lake Conjola to a crushing plant and sea wharf complex at Bannisters Point, 6km south near Ulladulla on the NSW South Coast. Peter tells of a journey he made on the train as a young boy in 1944, then provides some background on the mining operation, together with a few details of the railway and its rolling stock. He refers to Alex McAndrew's *The Narrawallee Story Retold* (published by the author in 1995) for further details of the operation.

Coming Events

DECEMBER 2002

1 Wee Georgie Wood Steam Railway, Tullah, TAS. Steam trains (610mm gauge) operating 1200-1600. Phone Anne Orake, (03) 2228 (W)/1229 (H).

6-7 Wee Georgie Wood Steam Railway, Tullah, TAS. Steam train (610mm gauge) twilight run for carols at 1800 on 6th; operating 1200-1600 7th. Phone Anne Drake, (03) 2228 (W)/1229 (H).

7 Puffing Billy Railway, Belgrave VIC. Santa's Special Trains. Also on 14 and 21 December. Information on (03) 9754 6800.

7 Menzies Creek Steam Museum, VIC. Quarterly running day with engines in steam and TACL tractor operating.

15 Cobdogla Irrigation & Steam Museum, Barmera, SA. Steam Open Day. Phone (08) 8588 2323.

JANUARY 2003

5 Wee Georgie Wood Steam Railway, Tullah, TAS. Steam trains (610mm gauge) operating 1200-1600. Also on 18-19 January. Phone Anne Drake, (03) 2228 (W) /1229 (H).

25 Puffing Billy Railway, Belgrave VIC. Night Train operates. Information on (03) 9754 6800.

FEBRUARY 2003

2 Wee Georgie Wood Steam Railway, Tullah, TAS. Steam trains (610mm gauge) operating 1200-1600. Also on 15-16 February. Phone Anne Drake, (03) 2228 (W) /1229 (H).

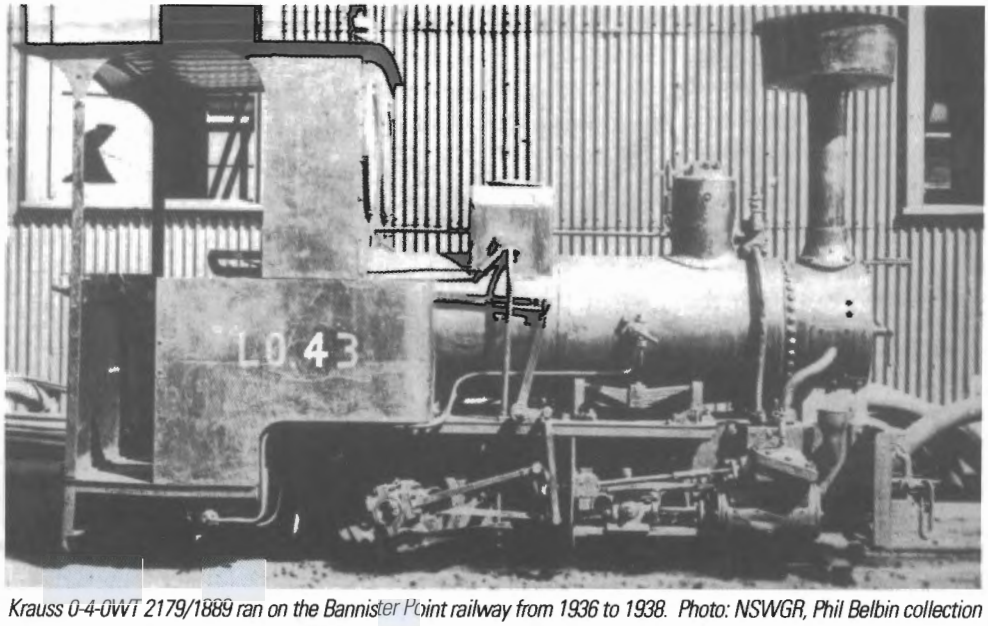
14 Puffing Billy Railway, Belgrave VIC. St Valentines Day Night Train operates. Information on (03) 9754 6800.

Bantry Bay Explosives Magazine

The NSW National Parks & Wildlife Service has recently published on its web page a copy of a draft management plan for this site. Light railways were used to transport explosives between lighter and store. The plan includes a history of the site, plans of the track layout, photographs and a drawing of an item of rolling stock.

It is worth a look, if for nothing else but to see how professional historians, archaeologists and conservators treat light railways in an industrial precinct.

Jim Longworth



Krauss 0-4-0WT 2179/1889 ran on the Bannister Point railway from 1936 to 1938. Photo: NSWGR, Phil Belbin collection

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. Note new 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@ozemail.com.au

NEWS

Queensland

BALLY HOOLEY TRAIN, Port Douglas 610mm gauge
At the beginning of November, the management of Mossman Mill, owners and operators of the Port Douglas tramway, announced the following:

- All services on the Port Douglas tramway finished at midnight 31/10/2002
- The Mill will not be re-instating services.
- The equipment is not for sale.
- The Bundaberg Fowlers are not for sale.
- They have operated only spasmodically of a weekend due to accreditation problems.
- All rolling stock, the Fowlers and the diesel, will be part of a package put out to tender for a new operator to manage and run.

Editor, 11/02

DURUNDUR RAILWAY, Woodford
610mm gauge
Aust. Narrow Gauge Railway Museum Soc. Inc.
A visit to the museum by a group of enthusiasts from the 'LocoShed Group' in September found 0-6-2T Bundy No.5 (Bundaberg Foundry 5/1952) operating the shuttle trains. Also noted around the yard were Goondi No.1, the 4wDM Gemco ex-Marian Mill, 0-6-0 *MELBOURNE* (HC 1701/1938), a Ruston 4wDM and two Malcolm Moore 4wPMs. Most of the group's interesting collection of narrow gauge locomotives is stored away from the view that the average visitor might see, but some very helpful members took the group around for a very interesting 'sticky beak'. It was noted that no membership forms were kept on hand for people who may be interested in joining the Society.
Brad Peadon, LocoShed E-mail Group, 9/02

TIMBEERWAH MOUNTAIN RAILWAY, Cooroy 610mm gauge
Russell Savage MLA has been busy working on the construction of a railmotor which was recently completed at his Mildura workshops in Victoria. Classified RM1, the rail motor is about 6 metres long and will seat 12 adults. It has two power bogies driven by a 6-cylinder petrol engine and is fitted with airbrakes. Back in Queensland, a branch line is under construction on Mount Timbeerwah leading to a lookout site. This will feature a bridge over a waterfall gully. RM1 arrived at Cooroy and was placed on the TMR tracks in mid-September.
Russell Savage 8/02; John Browning 10/02

New South Wales

STATE MINE HERITAGE PARK RAILWAY, Lithgow
1435mm gauge
A year on from the disastrous fire of October 2001, the State Mine project is experiencing exciting times with development occurring on many fronts. Following the refitting of the cab roof on ex-Australian Iron & Steel (AIS) English Electric (Q) locomotive D20, it has been undergoing a complete makeover, including repair/replacement of rusted panels and a repaint in its original AIS orange colour scheme. D20 has also received some mechanical attention and is expected to be operational by January 2003. The ex-AIS underground mine transport (1067mm gauge) is also receiving a repaint. Construction of a new carriage shed has commenced at the State Mine site. This will be fully enclosed and included fire protection and security systems. Work has also commenced in earnest on re-sleepering the main running line through the State Mine area. This has included an extended process of removing silt and coal waste that had built up on this line over a 35-year period.
Ray Christison, 10/02

ZIG ZAG RAILWAY, Lithgow
1067mm gauge
The AIS ex-Nebo Colliery Bo-Bo DH underground flameproof locomotive 19 has been in use on track construction and maintenance tasks over recent months. Built by EM Baldwin at Castle Hill in 1978 (B/No. 7744.1 9.78) the 40-tonne locomotive was fitted with a Caterpillar 3406PCTA engine, which presented Baldwins with some design headaches in achieving the 1525mm height restriction specified by AIS. No.19 was completed in September 1978, but was not delivered until the following February. Following run-aways on the 1 in 11.5 grades at Corrimal Colliery, the loco was rebuilt with dump brakes in November 1981. On closure of Corrimal Colliery, it was transferred to Nebo Colliery and hauled the last underground coal trains there on 27 April 1993, when Nebo was combined with the adjacent Wongawilli Colliery, renamed Eloura Colliery, and all production was directed through the Wongawilli portal. The loco remained at Eloura Colliery for service on material trains until transferred to the Zig Zag Railway earlier this year.
On 25 October 2002, it was noted at the depot, together with ex-Emu Bay Railway B-B DH 1004, which appeared to have been given a fresh coat of paint.
Editor, 10/02

Victoria

ALEXANDRA TIMBER TRAMWAY & MUSEUM
610mm gauge
Work commenced on the development of new workshop facilities at the museum site in September. A building that had been stored near the site of the former Rubicon loco shed was moved to the museum complex and the first tasks for its erection commenced. It will house the museum's large lathe (suitable for turning wheelsets), a power hacksaw, a smaller lathe and a grinder. The small carriage was returned to the train consist on 23 August following roof repairs. The timber tramway recreates the

Ex-Gin Gin Mill 0-6-0T No.3, BUNYIP *on static display at the Gin Gin Museum on 24 April 2002. After many years standing in a park at Wallaville,* BUNYIP *was partially restored for display at the museum in 1993.*
Photo Brian Webber

Russell Savage's rail motor RM1 photographed on arrival at his Timbeerwah Mountain Railway near Cooroy.
Photo: Russell Savage

The opening of the Workshops Rail Museum at North Ipswich on 1 September 2002 provided Brian Webber with the opportunity to photograph the 610mm gauge ex-Qunaba Mill 0-6-2T FLASH *(Perry 6160.48.1 of 1948) in the main display hall.*

sawmilling era of the Rubicon Forest and provides an essential starting point for bushwalkers and others interested in exploring the history and the sites of the forest. *Timberline* 68, 10/02; Ray Graf, 10/02.

PUFFING BILLY RAILWAY
762mm gauge
Emerald Tourist Railway Board
The Puffing Billy Railway carried its seven millionth passenger on 30 September, an achievement that received good coverage in the Melbourne media. There were heavy passenger loadings during the September-October school holidays, which required an additional Belgrave to Menzies Creek train to be operated on 6 October. On Saturday, 21 September, there were two wedding special trains over the line. Locomotives in traffic in October were 6A, 7A, 12A, 14A, *PECKETT*, *CARBON* and DH59, with 8A in the workshops for a boiler strip down and overhaul of the suspension.
Some 60 volunteers attended an information night on 18 September to introduce the new CEO, Ray Levers. Ray spoke on the new draft strategic (10-year) plan.
PBR Monthly News 11/02

Western Australia

BASSENDEAN RAIL TRANSPORT MUSEUM Various gauges
A new exhibit at the ARHS museum at Bassendean is the standard gauge M636 Co-Co DE from the Mount Newman Railway – 5499, built by Comeng (C6098-04 of 1975). It stands beside the ex-Adelaide Timber Company 2-6-0 Y 71 (Beyer Peacock 2762/1886) in the section of industrial locomotives at the museum.
Kieran Wright, 9/02

BENNETT BROOK RAILWAY, Whiteman Park 610mm gauge
WA Light Railway Preservation Assoc. Inc.
Despite concerns regarding public liability insurance, WALRPA reports good progress is being made. New procedures and guidelines brought about by Rail Accreditation are being implemented and attention

is being given to risk management and hazard reporting. On 7-8 September, a section of track was replaced at the site of the new level crossing south of Whiteman Village Junction on the Mussel Pool line. Four 45lb/yd track panels were removed and replaced by three panels of 60lb/yd rail. Following ballasting of the new section, construction of the level crossing commenced. The Australian Railroad Group has donated all the semaphore signalling from the Kwinana Yards to WALPRA and these were transported to Whiteman Park on 9 September. It is planned to erect some of the signals at Whiteman Village Junction as Distants, Homes and Advanced Starters.

Bennett Brook Railway's October *Friends of Thomas the Tank Engine* event was held over the weekend of 19 and 20 October. The weather was excellent on both days, and a total of 906 passengers were carried. This was lower than had been hoped, and lower than past FoTTTE events. The committee will be having a look at the reasons for this lower than normal turnout to see if there are areas that can be improved in future. This was the first time a two day event had been tried.

Operations on the two days differed from the railways "normal" FoTTTE day format due to track maintenance constraints and locomotive availability. A further issue affecting operations was the fire hazard, the steam train having started a fire the previous weekend. BBR's Perry 0-4-2T *Betty Thompson* was rostered on the Mussel Pool to Whiteman Village Jct line with one of the diesels assisting at the back of the train from Mussel Pool. With the diesel doing most of the work this minimised spark emissions from BT1. By the way - BT1 does have a spark arrester, but having a relatively small boiler (short flame path) and a very strong exhaust blast, it can sometimes create more sparks when working hard than the arrester can handle. Two "fast attack" fire units were utilised to shadow the train on each run to further minimise the risk.

BBR Newsletter, Simon Mead 10/02

The magnificent lines of the ex-Nebo Colliery BB DH EM Baldwin locomotive No.19 are evident in the August 2002 photograph of it at Clarence on the Zig Zag Railway. *Photo Ray Graf*

Richmond Vale Railway: Former BHP Newcastle steelworks 80-ton centre-cab Bo-Bo DE locos 53 (Goninan 018 of 1964) and 54 (Goninan 020 of 1965), and Treadwell hot-metal ladle car No.8 arrive at Richmond Main on 20 July 2002, towed by end-cab Bo-Bo DE 34 (Goninan 3 of 1954). *Photo: Graham Black*

The Gemco and the Planet (at rear) approach Platform 3 at Whiteman Village Jct from Kangaroo Flats with a 5 coach train on Sat. 19/10/02 during BBR's October Friends of Thomas the Tank Engine *weekend.* *Photo: Simon Mead*

The ex-Mount Newman M636 Alco locomotive No.5499 dwarfs the ex-Adelaide Timber Company 2-6-0 No.71 on the adjacent track, at the ARHS Museum at Bassendean. Photographed by Kieran Wright in August 2002.

The Alwyn Zinn steam outline loco on display at Wycliffe Wells Roadhouse in the Northern Territory. Photo: Daven Walters

Members of the K1 group watch as the first fire in K1's new boiler builds up, 15 September 2002.
Photo: Michael Chapman

Heritage & Tourist

ROTTNEST ISLAND
The Bickley Battery walktrail was completed during 2002. The Bickley Battery's two six-inch guns are no longer there but most of the buildings, and the branch railway from the main Kingstown to Olivers Hill line are still in place. The trail follows the old railway line for 1km, and from a photograph it appears that concrete has been laid between the rails.
David Whiteford, 10/02

Northern Territory

WYCLIFFE WELLS ROADHOUSE
610mm gauge
The second 610mm gauge locomotive built by Alwyn Zinn at Ipswich, Queensland in 1972 is now located at the Wycliffe Wells Roadhouse, together with three open tourist carriages and a circle of track. When inspected on 26 August 2002, the train was on static display only as insurance problems prevent its operation.
Chris Walters, 10/02

Overseas

WELSH HIGHLAND RAILWAY, United Kingdom 597mm gauge
Updating the report in LR 167 (p.31), the first fire was lit in the new boiler for K1 at the Boston Lodge Works of the Festiniog Railway on 15 September 2002, amid much celebration by members of the K1 group. At 2.38pm, the whistle was blown for the first time. This is a replica as the original whistle disappeared during the dismantling of the locomotive. The official steam test was carried out on 7 October and fitting of the new boiler to the frame was to commence on 11 October.
At the Welsh Highland Railway Society's Annual General Meeting on 14 September, it was announced that the livery for K1 will be black with red lining (the same livery originally carried in service in Tasmania). It was also announced that she will carry the nameplates *HERBERT WILLIAM GARRATT* in honour of the engineer who designed her.
Michael Chapman, 9/02; WHR Home Page, 10/02