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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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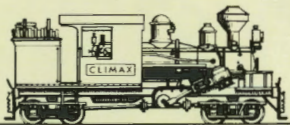
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Conversions:

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

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Comment

The NSW north coast town of Bulahdelah, which has many happy associations for me, going right back to my childhood, has recently become a battleground between green & heritage advocates and commercial & business interests over the proposed route of the Pacific Highway's Bulahdelah Bypass.

In its current form (known as 'Option E'), this will cut through the base of the town's iconic Alum Mountain and seriously compromise some significant remains of the former alum mining tramways, as well as Aboriginal sites and remnants of the district's early European settlement.

The heritage group would prefer Options A or B, which take the highway through open country to the west of town and leave Bulahdelah and its heritage sites in peace, for the enjoyment of locals and tourists. To a roadhouse proprietor or café owner, however, being left in peace is the stuff of nightmares!

In its choice of Option E, the NSW Roads and Traffic Authority appears to have endorsed the view that Bulahdelah's survival as a highway 'service town' is paramount.

The detailed arguments are far too complex to canvas here and, for those with internet access, I would suggest visits to the following:
www.pb.com.au/bulahdelah/pdfs/tech/T16_Heritage.pdf
www.pb.com.au/bulahdelah/pdfs/CFG_Notes12.pdf
www.users.bigpond.com/mlclmcrll/park.htm

In the Research section of our last issue we saw how, in the case of the Mittagong Ironworks dig, commercial and heritage interests were able to reach a satisfactory compromise. I sincerely hope that, in the case of the Bulahdelah bypass, a happy outcome for all concerned will also eventuate. *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.

Cover: Through the bush and over the creek, recently restored Perry 0-6-2T locomotive number 7 (6634.52.1 of 1952), formerly of North Eton sugar mill, Queensland, runs trials on the Lake Macquarie Light Railway, near Newcastle NSW. Photo: Grahame Swanson



A good rubdown, then... Stripped right down, the boiler drum was thoroughly wire-brushed prior to the application of the protective coating. Meantime, the motion work is under refurbishment in the workshop and the cab is with the welders. Photo: Grahame Swanson

The Lake Macquarie Light Railway

Part 2: The Steam Locomotives

by John Shoebridge and Grahame Swanson

The previous article in this series covered the construction of track and the erection of structures on this private railway; now we relate the acquisition of the two steam locomotives give details of the overhaul of the first.

Acquisition

It had always been the intention that the Lake Macquarie Light Railway should be a steam operation. Thus the search for suitable motive power had commenced years before and many avenues were examined. A number of locomotives of the appropriate size were investigated and rejected. In some cases the owner had other plans and in others, the machine was obviously beyond the restoration resources of the project.

Eventually two 2ft (610mm) gauge 0-6-2T locomotives were found that were not too remote from the site and inspection revealed that they were in reasonable order. On first enquiry they were also 'Not for Sale', but after some persuasion and the assurance that they were going to a good home, where the intention was total restoration of both locomotives, a mutually acceptable price was negotiated.

The deal done, a small working party (the first of many) went westwards to take down the motion work and make the locomotives ready for loading. Although they had been

purchased and delivery arranged, at the new site there was not even a length of track on which to place them. A sympathetic fellow enthusiast kindly donated some lengths of 45lb rail and another working group lifted them. They were soon moved on site and hurriedly spiked in place where the new shed could be built over them.

On Friday 17 August 2001, two semi trailers arrived at the LMLR, each carrying one locomotive. With no room to turn around on site, they were adroitly backed all the way from the main road in turn, 300 metres down a narrow lane. After negotiating the gateway, a large mobile crane made short work of the unloading (see report in LR 161).

A number of visitors were there to admire and photograph the moment. Others called in over the following weeks, before the shed was built around the engines (see LR 185). Now the real work of restoration could commence.

History

Both locomotives were built by the Perry Engineering Co Ltd, Adelaide, South Australia to the order of the North Eton Co-operative Sugar Milling Association for their cane railway near Mackay, Queensland. Outshopped in 1941 and 1952, they were allocated builder's numbers 2382.41.1 and 6634.52.1 and running numbers 6 and 7 at the mill. Perry Engineering built a number of these locomotives for sugar mills. The design was developed from an 0-4-0T produced for the Victorian State Rivers & Water Supply Commission for use at Hume Weir, constructed to detailed specifications laid down by consulting engineer LC Leslie. Later Leslie became Perry's Chief Engineer. The North Eton locomotives spent their entire working lives on the mill system south-west of Mackay until put out of use in 1968, replaced by diesel power.

In 1972 North Eton mill sold the two locomotives to Keith Duncan, who moved them to his property in the Megalong Valley (west of Sydney, NSW) where he intended to operate them as a tourist attraction in conjunction with his tea rooms. Some track was laid and rolling stock constructed, but the line never operated commercially. Number 6 was the only locomotive steamed whilst in Megalong, the last time in 1986. Both had been stored under cover and were found to be generally complete and in fair condition.

Refurbishment

Despite this, it was obvious that a number of things required attention and rather than do 'half a job' on both locomotives, the decision was taken that number 7 would be fully overhauled and that the other would remain 'laid up' for the time being. Two reasons influenced this choice. Firstly, number 7 was the last steam locomotive built by Perry Engineering, thus earning a degree of historical significance. Second, it was in the worse condition, meaning that the learning curve of 'steam locomotive overhaul' would be less steep the second time around.

In May 2002 work on the locomotive commenced in earnest. The first job tackled was to strip the machine down to the bare frames and boiler. Before work commenced, a fellow enthusiast who had heard of the intended restoration most kindly organised a set of the original Perry working drawings, without which the job would have been infinitely more difficult. Also of inestimable value was that one of our team had served his apprenticeship with Perry Engineering. Incredibly, he could recollect working on this very locomotive, and his efforts towards its restoration demonstrated that the skills learnt so long ago had in no way been diminished by the years.

To allow work on the boiler, the cab, tanks, dome, sand boxes and funnel were removed and here the front-end loader



Improvisation - the name of the game when undertaking such a large project in a home workshop. Here the Colchester lathe drives the pony truck wheels while the flanges are reconstructed. Note the reduction gearbox to provide extra slow speed for metal deposition. Photo: Grahame Swanson

proved invaluable. The steel cladding was next removed and the insulation stripped. The fact that any asbestos was long gone simplified matters considerably.

The boiler tubes were removed and new ones ordered. In the event, the size required was sourced in Queensland but had to come from China! Whilst the tubes were on their way, the drum was de-scaled and wire brushed and the water spaces inspected via the washout holes. The boiler expansion brackets were rusted and frozen solid so the boiler was lifted sufficiently to rectify the problem. The tube plates were thoroughly cleaned and, when the boiler inspector had indicated



...and a Lick of Paint. Well, actually, three coats of multi-part epoxy provide an acceptable finish to the boiler cladding. The cab is back and the side rods again in place. Photo: Grahame Swanson

his approval of the condition of the bare drum, the 75 tubes, having duly arrived, were annealed and expanded in.

All shell fittings (including the throttle valve) were dismantled, inspected, refurbished and put back with new gaskets and insertion packing. The throttle rod required building up with stainless steel where it had for so long passed through the gland as it had rusted and worn to a 'ladies waist' profile. A number of the back-head items, including the gauge glasses, had been pilfered or damaged so replacements were fabricated in the workshop to meet present-day standards. Similarly new brass Cardew valves on the cylinders had to be manufactured. Finally the pressure gauge required re-calibration on the dead weight tester.

The spark arrestor and the ash pan had long succumbed to rust and complete new ones were cut, shaped and welded. A new firebox door was also thought to be appropriate.

Frames and wheels

The ends of both buffer beams bore evidence of heavy shunting and were badly torn and distorted. These sections were cut off, new steel was welded in place and ground smooth to look like new. At the same time, the auxiliary drawhooks (a relic of dual-gauge operation at the sugar mill) were removed. The frames were cleaned and inspected and found to be undistorted and in good condition except for one crack on the left hand side frame above the trailing axle box. This was gouged, welded and ground flat.

The locomotive was jacked and packed on a crib of sleepers and in turn the wheel sets were removed for overhaul. The swing links suspending the trailing truck were found to be virtually worn through and had to be replaced. Otherwise the springs, suspension and brake gear were in tolerable order. The crank pins responded to careful attention with emery cloth, and the journal brasses were re-metalled, bored and scraped in.

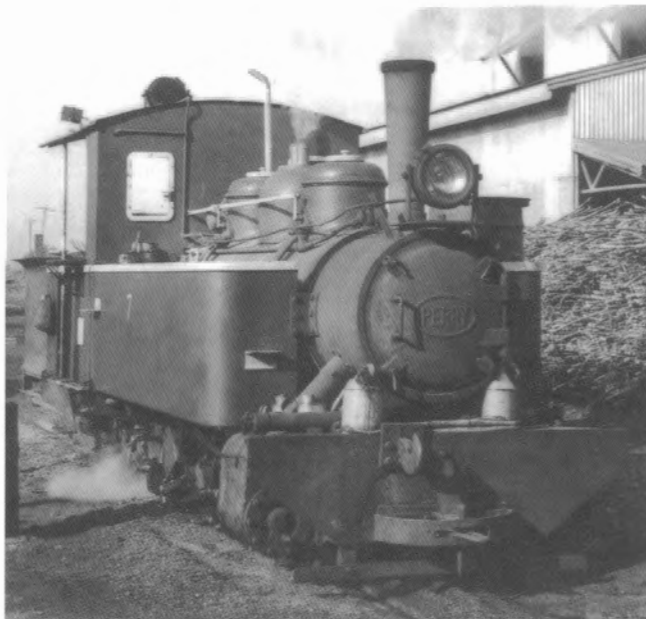
No work was needed on the driving wheel tyres but the flanges on the trailing truck were in very poor condition, requiring re-profiling. For this purpose a jig was put together with the wheel set running between centres driven by a belt through an auxiliary gearbox from the Colchester lathe. After hours of electric metal deposition with the MIG welder, a tipped tool on an improvised tool post had the flanges back to original profile. Unfortunately the driving wheel axle lubrication felts and springs had succumbed to years of immersion in rainwater, requiring the manufacture of a new set.

All the valve gear and side rods were badly rusted. However hours of finishing (power-tool smoothing and polishing) and draw filing brought them back to life. New oiling pots were made and all motion bushes and brasses were renewed and bedded in.

Fortunately the original cylinder rings, although seized in place, responded to six months soaking in diesel oil and were retrieved in perfect condition. A hone was made to suit the cylinder bores, which were thus restored to an acceptable condition. The piston rods and the slide bars were badly pitted and both were ground. New gland bushes were manufactured to suit the new undersize rods and the slide bars shimmed appropriately. The renewal of gland packing all round completed this part of the job.

Tanks and Cab

The cab required a new roof, but was otherwise in fair condition. However in the interests of authenticity it was decided that the whole assembly should be reconstructed to the original specifications and appearance. Similarly, although the side-tanks were deemed repairable, patching would have



Number 7 at the mill in the early 1960s, fitted with a four-wheel tender. At the time, North Eton painted its locomotives a mid-green colour with white trim and red buffer beams.

Photo: CS Small, from Bruce Macdonald collection

only meant more work later. New tanks were fabricated then coated internally with two-part epoxy sealant, the only excursion from the original drawings being that the tops of the tanks are now removable, to allow for the inspection and further application of the protective coatings.

Final steps

The boiler inspector returned and applied a hydraulic test that revealed that three firebox wall stays required replacement. Replacements were turned, screwed and fitted and, in April 2004, the inspector observed the steam test and passed the boiler first time. We had an operational locomotive. His certificate permitted the original 180lb/sq inch (1240kP) working pressure: a credit to the builder, the manner in which the locomotive had been maintained and stored and – may we say it – to our restoration team.

Now we had a real locomotive and it was proud little group that crowded into the cab for the inaugural run down the short length of track in March 2004.

For the finishing touches, the exterior of the boiler was painted with heat-resisting enamel. New cladding patterned from the original was screwed in place. At this time the decision was taken to rely on air alone for heat insulation thus reducing the risk of corrosion. This done, the sand boxes etc were put back in place.

Although those fitted were still functional, in the interests of appearance, the smoke box door dogs and handles were re-made to the original appearance. New cylinder drain cocks were manufactured and the mechanical lubricator overhauled. The lubrication lines were replaced, then finally, in May 2004, after steam trials, the little Perry was painted and professionally lined out using artistic license, from a paint scheme taken from a Welsh locomotive. (Yes, the team includes someone with such a trade and an eye for a different and striking colour scheme). The end result was a credit to all concerned (see front cover).

We now had the track in place and an operational locomotive. The next steps – to prepare our rolling stock and establish the operational procedures for the Lake Macquarie Light Railway will be covered in the final article.

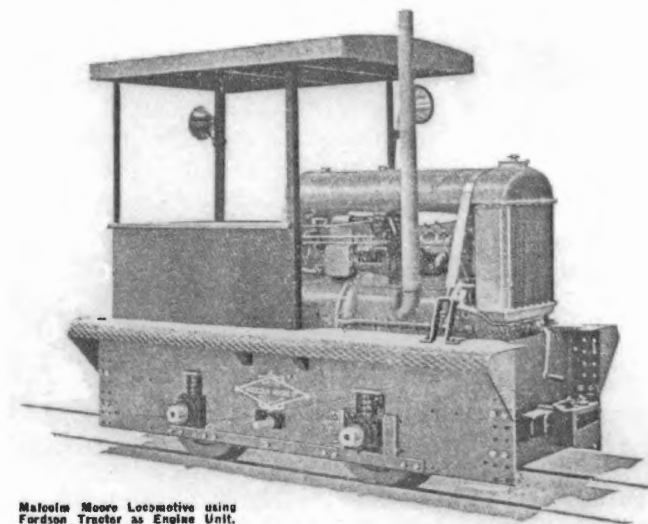
Some Malcolm Moore fragments

by John Browning

About 30 years ago, I visited the Malcolm Moore works in Williamstown Road, Port Melbourne. Since the 1920s Malcolm Moore had become a significant manufacturer of a wide variety of equipment including cranes, winches, road construction machinery, tractors, materials handling systems, escalators and lifts, ropeways, cableways, locomotives and rolling stock. By the mid 1970s, the company was a shadow of its former self and it was taken over in July 1976. I received a friendly reception and was shown a few items of railway interest. It was explained that there was no builder's list of locomotives but there were some sketchy details available of some of the more recent products. I was able to make some notes and was given copies of a few printed publicity sheets. Not much has come to hand since then apart from a few items passed on by Ted Stuckey and other Victorian friends. This brief survey is presented as a tribute to this fine originator of home-grown railway technology in the hope that it will provoke further interest and research. All the illustrations are taken from Malcolm Moore publicity material.

Tractor Appliance Company 503 Flinders St Melbourne Victoria

A Tractor Appliance Company (TACL) locomotive publicity sheet, possibly dating from the late 1920s, acknowledges that Malcolm Moore Pty Ltd is the builder and patentee of the "Fordson Locomotive", available in gauges from 2ft to 5ft 3ins. It shows a locomotive hauling a rake of at least 15 loaded skips on track of around 2ft gauge. The locomotive side frames are made up of steel channel sections. The specification is for a 4 ton 22hp machine and demonstrates that the guarded drive from the back axle of the tractor unit to a layshaft behind the locomotive's rear axle consisted of gear wheels, while the drive from layshaft to the rear axle was changed from gear wheels to chain according to the direction of travel. Three speeds were available in each direction and the axles were connected by a chain. The locomotive was available with two different wheelbases, 36.5 inches (928mm) or 60 inches (1525mm). An article in LR 168 provides further information about these locomotives.



Malcolm Moore Locomotive using Fordson Tractor as Engine Unit. —Fig. 179.

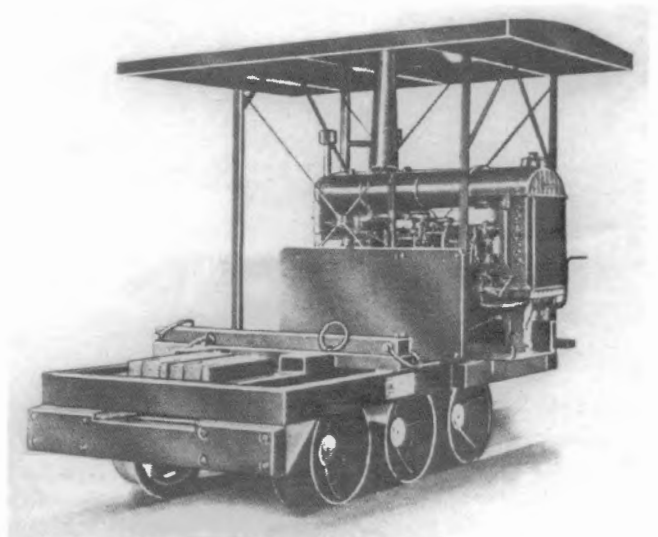
Locomotive chassis

A later Malcolm Moore Ltd catalogue sheet dated 22 February 1933 shows a narrow gauge locomotive fitted with a Fordson tractor unit but it is advertised as a "Locomotive Chassis" that "takes any car, truck or tractor engine". The locomotive has plate frames, and rolled steel plate is used to create a footplate on each side. This type appears to have a layshaft between the axles, and features a sprung adjustable height coupler/buffer. The type was said to come in three weights – 4, 6 and 8 ton – with six gears in forward and reverse, thanks to a two-speed reversing gearbox. It was claimed that "various government railway departments are using them for shunting and running trucks on spur lines". Rather perplexingly the specifications state that the drive is by side rods even though the illustration indicates chain drive. An illustration shows one of these locomotives hauling a long rake of skips, identified as one of three supplied to Eildon Weir.



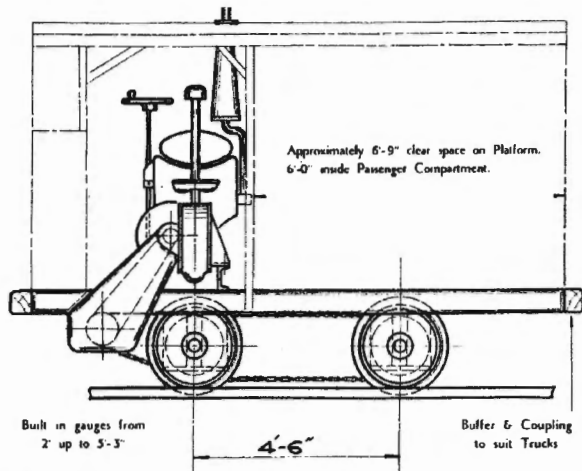
Standard tractor locomotive

Another publicity sheet features "A logging locomotive for Australian Mills". It shows a 6-wheeled locomotive with a transversely-mounted Fordson tractor unit at one end, covered by a well-braced canopy. The other end of the locomotive is fitted with a bolster to carry one end of a log, the other end of which would be carried on a log bogie. A metal transmission guard (not visible in the illustration below) hides the drive from the engine unit to a transverse layshaft under the end of the frame, from which power would be taken to the axles by chains. Three speeds were available in either direction. The locomotive shown has wide wheel treads for use on timber rails. The first locomotive of this type was stated to have been four years old. It worked up a maximum grade of 1 in 9, and did three return trips in seven hours on a four mile (6.4km) line. If this was the locomotive supplied to Jim Marchbank in the Otways in 1936,¹ it would make the date of the publicity sheet about 1940. On the reverse of the sheet is a diagram showing the design for a "Platform loco-railcar", a four-wheel vehicle also with a transversely-mounted tractor unit and with chain drive to a layshaft.



Logging locomotive

It was apparently intended to have an all-over enclosed body and could feature a passenger compartment or a cargo space. Also on the reverse of the publicity sheet was an illustration of "The standard tractor locomotive" showing the locomotive mentioned previously at Eildon Weir. An accompanying note gave the price of the "Logging Locomotive" as £725, of the "Platform Loco-Railer" as £645, and of the Standard Tractor Locomotive as £545, all plus tax.



This is a general purpose locomotive which operates on power kerosene fuel. The power unit is the famous Fordson engine, which is installed in a platform type chassis. This chassis enables a body to be mounted for carrying passengers or goods in addition to hauling trucks. It is specially suited for use on light railways up to 20 miles in length or may be used as a shunting engine.

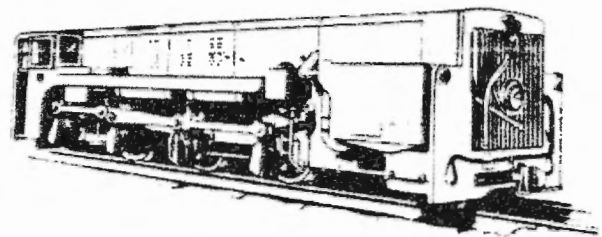
Platform loco-railer

A further publicity sheet shows the "Fordson Industrial Locomotive" – in fact the same type as the "Locomotive Chassis" of 1933, now stated to be a 3½ ton locomotive with three forward and reverse gears. The Eildon Weir illustration appears again, stated to be 2ft gauge. So does the transverse-engined "Timber Hauling Locomotive", the first of which is now stated to be more than 8 years old. Other locomotives to be featured on this publicity sheet are the flameproofed 3ft 6ins gauge 0-4-0DM built in 1942 for Australian Iron & Steel's Mt Keira Colliery in NSW (although not identified as such), and the well-known 2ft gauge 3-ton 65hp "Ford V-8 Locomotive", of which 92 were stated to have been supplied to the Army for hauling stores from beach-heads to storage dumps. A unit had been supplied to a chemical industry in Adelaide and worked for five years before requiring overhaul. The illustration shows a cabless unit hauling about 15 explosives wagons, and may show ICI's Dry Creek operation in Adelaide.



Ford V-8 locomotive

Under the slogan "Power to Create Power", an advertisement in *The Port of Melbourne Quarterly* for July-September 1951 gives an illustration of one of twenty 10-ton 3ft gauge 102hp 0-4-0DM locomotives built for the Victorian State Electricity Commission's Kiewa Scheme. Small line drawings illustrate a "light industrial" 4wDM locomotive available in 28hp or 35hp and the well-known 200hp flameproofed 3ft 6ins gauge 0-6-0DM type built for underground use in Australian Iron & Steel's Illawarra district coal mines in NSW. The light

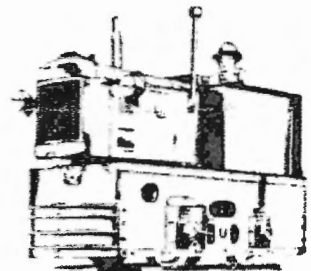


200 h.p. Diesel Locomotive designed for underground haulage in coal mines.

industrial locomotive appears to be fitted with a Fordson Major power unit although proper bodywork including side panels is fitted.

A 1955 specification for the "Moore" standard New Fordson Major locomotives (FL series) refers to a 4wDM of 50hp or 4wPM of 32.4hp to run on kerosene. Gauges available were 2ft, 2ft 6ins, 3ft and 3ft 6ins. Six speeds were available in either direction, and chain drive connected the drive unit to the rear axle and the rear axle to the front axle. The performance figures table gives detail for six models, the FL35, FL40, FL45, FL50, FL55 and FL60, apparently representing different gear ratio settings.

Finally, I list some scanty details of different post-World War II locomotives or locomotive types extracted from Malcolm Moore records.



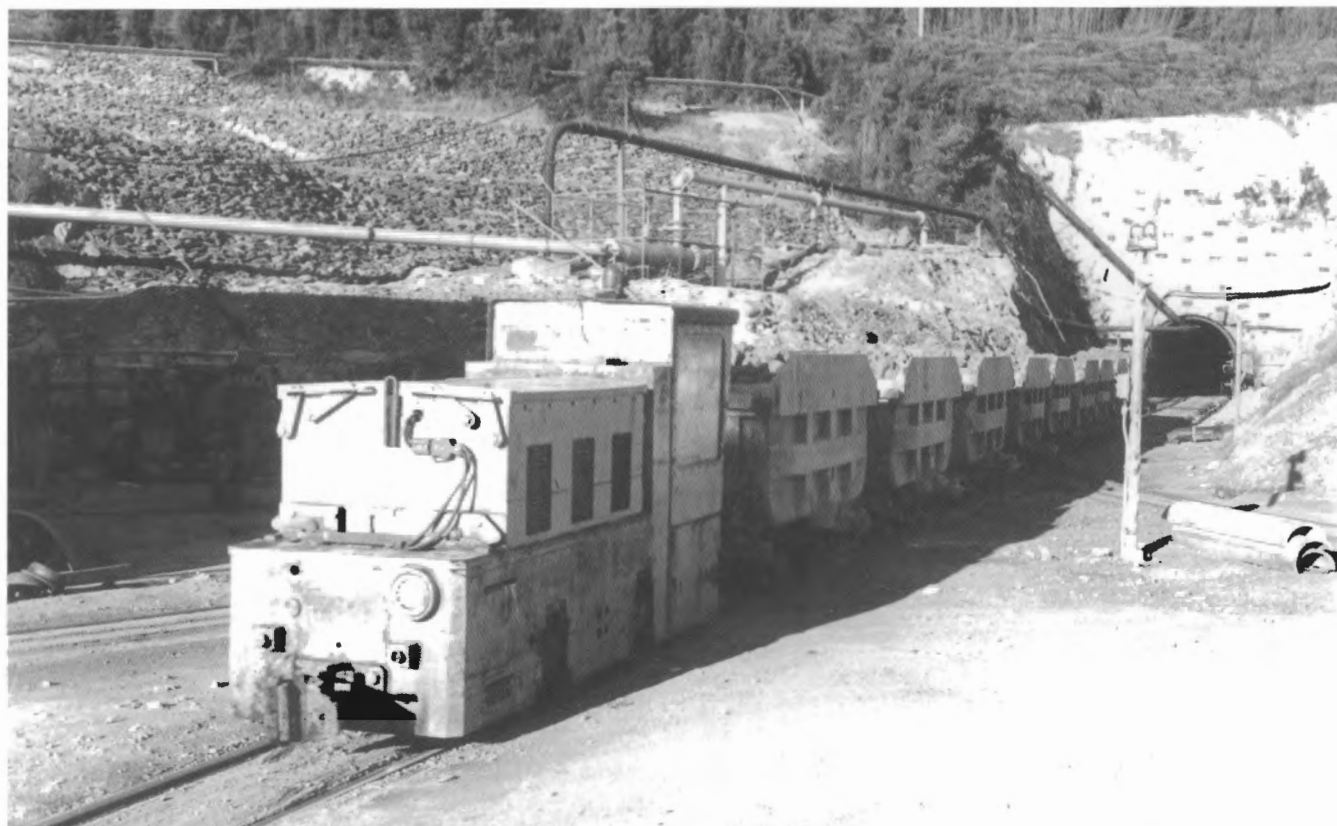
Light industrial locomotive available in 28 or 35 h.p.

LOCOMOTIVE DETAIL	AUTHOR'S COMMENT
DHL-112/GT	2ft gauge 0-4-0DH supplied to Colonial Sugar Refining Co Ltd, Victoria Mill, Q, 1956. Builder's number understood to be GT-112-DH-1
6MFL 6 ton 5ft 3ins gauge MF65R engine	Massey Ferguson engine.
Mod 6 MFL Series 1100 In 125-471/6/62 (list 48120)	4wDH locomotive built for Massey Ferguson (Aust) Ltd for use at their Sunshine Works. Quite possibly the same as the above.
10-102 100hp 10 ton Feb 1951	3ft gauge 0-4-0DM. State Electricity Commission of Victoria, Kiewa Scheme. Twenty of these were delivered from 1949.
4 ton 2ft gauge Model L48 Fordson Major No.46	? *
Model L47 Serial numbers 1 > Jan 1948 (Fordson Major)	It has been suggested that two 4wDM locomotives supplied to the W.A. Harbour & Lights Department in 1947 were Type L47.
5 ton 3ft 6ins gauge loco L48 to Mackay Massey Harris, Q, Dec 1954	For use at the Sunshine Works in Brisbane.
5 ton 3ft gauge L48	A 4wDM photographed at Port Stanvac, south of Adelaide, appears to be of this type and gauge*

* The 3ft 6ins 4wDM formerly at the Bellarine Peninsula Railway and now at Alexandria in Victoria is a Model L48 (builder's number 2 of 1948) and it appears that a number of these were delivered to the State Rivers & Water Supply Commission of Victoria for use at Hume Weir and Rocklands Dam.

Reference

1. Houghton, Norman, 1992. *The Beechy: The life and times of the Colac – Beech Forest – Crowes narrow gauge railway 1902-1962*. LRRSA. p.104



Ten-ton Gemco No.2 on a full ore train at 7 Level adit. The cab roof has been raised for increased driver vision over the battery box when running out of the mine. Photo: L Johnson Collection

The Jewel in the Crown Pasminco Rosebery mine railway

by Ross Mainwaring

Part 2: The final years

Development of 7 and 15 Levels for rail haulage

In 1969 shaft sinking began for a 6.7m diameter concrete lined shaft, sunk 530m in the hanging wall. A new main haulage adit, 7 level (5m by 5m), was blasted out from the surface to intersect the shaft. Dillingham Constructions of Melbourne and Shaft Sinkers Pty Ltd of South Africa won the contract for this work. At least two diesel locos worked the muck trains out to the surface. The workforce peaked at about 1000 men; expenditure on the entire project was in the order of \$13 million.

The winding engine chamber up on old 4 Level was accessed by a 463m long adit which also acted as the major ventilation intake. The chamber, hewn out of solid rock, was 39m long by 14m high. To wind the two 7-tonne shaft skips, a 1040kw automatic Koepe winder was installed in addition to a 520kw Koepe on the main cage used for materials. The contractors for this work were GEC-AI²²

Shaft sinking was stopped 10m below 19 Level, 148m short of the planned depth, due to the slow rate of shaft sinking and other problems. However, this enabled an early start to double output by the introduction of sublevel open stoping below 14 Level, progressively replacing cut and fill stoping. Rock hoisting began on 25 October 1971; hoisting capacity was about 36 skips an hour.²³

The estimated capital cost to equip the new rail haulage system on 15 Level was \$117,000, including two new locomotives and ancillary equipment at \$43,000 and 14 Granby cars plus six trolleys at \$60,870. On 24 December 1970 a telex was sent to Mr Reg Mann, Electrical Engineer for George Moss, ordering

(EZ Order No.LR0191) two five-ton locos with contactor controllers and Westinghouse battery charging equipment. Each loco was quoted at \$12,275 including battery. The 80 volt, 40kwh Exide batteries were supplied through Battery Service Company of Tasmania.

Willison automatic couplings, supplied by Industrial Steel Co, were requested (Type DX1926) but in February Gemco advised that: "The general size weight and drawbar pull capacity of the coupler is out of all proportion to the size of the locomotive." The manufacturers built smaller couplers (Type DX536) priced at \$209, which were more in keeping with the diminutive rolling stock. A third five-ton Gemco was supplied (EZ Order No.EE1740) on 24 May 1971. This unit cost \$14,650 including two batteries and carried Serial No.12692/94/40/71. Wheel diameter was 18in and wheelbase 39in. Two Westinghouse model DDV3Z 40/70 battery chargers were also supplied. Production from 12, 13 and 14 Levels was trucked on 15 Level using new six-ton, 110 cubic feet Granby cars and five-ton Gemco battery locos. The Granbys were built by Phoenix Foundry of Launceston. They had forged wheels with taper roller bearings fitted to the axles.

Willison automatic couplings adorned each end. Derailments on the 45lb rail posed difficulties with rerailing so they were not popular with drivers or shift bosses. A round trip from the upper Level ore passes to the No.2 shaft ore pass was 1090m traveling on a grade of 1:268 in favour of the load. Trip time occupied about 22 minutes. Two five-ton locos handled 16 cars serving the ore passes down which fell the ore from 12, 13 and 14 Levels above. From 15 Level the ore pass system discharged down to a loading station at 17.5 level. The shaft skips, wound up the shaft, then discharged at an unloading station 25m above 7 Level.

The locomotive requirements of 7 Level, the new main transport artery of the mine, received particular attention. On October 16 1970, an order (EZ Order No.8884) was placed with George Moss for two ten-ton battery locomotives.

These units had a fully enclosed cab, hydraulic disc brakes with manual over-ride and one 25hp traction motor with a double ended shaft driving a worm drive gearbox on each axle. This arrangement produced significant energy losses in the gearboxes and in wheel-scrubbing from rigid coupling of the front and rear axles. A deadman safety device working through a solenoid was also fitted. The battery was a Chloride Company of Australia 54ND 19 cell 495 amp/hour capacity unit. The locomotives looked very smart in their yellow paint scheme and protective cab to keep out the snow, sleet and rain of the West Coast.

They were put to use hauling rakes of 110 cubic feet Granby cars from the shaft unloading station to the surface along 7 Level. The 25hp motor was adequate as the load was all down grade with the hardest work pulling the first rake of empty cars inbye on the greasy rails in the morning. As an interim expedient the ore was dumped into a surface transfer pass, which accessed 8 Level and the old No.1 shaft transport system to the crusher. From 1971 to 1979 the original small Granbys were used for this purpose. Later, new ore bins were built below a dumping point on 7 Level. Further along from the transfer pass was a gravel bin, and then a mullock tip where ore could be temporarily stockpiled if there was a problem in the mill circuit.

The new project was officially opened by the Tasmanian Premier, Mr Bethune, on 19 October 1971. After the speeches the manager, Mr E A Henderson, and EZ's managing director, Mr Noel Kirby, treated the 150 guests to a smorgasbord luncheon for which a master chef had been brought across from Melbourne. Some guests were taken underground and a ten-ton Gemco pulled four-wheeled trolleys fitted with seats for the occasion. The employees were not forgotten - the three hotels in the district were supplied with kegs of beer by EZ. Unfortunately at this time the Company's profitability was severely tested by intense competition in an oversupplied world market.²⁴

Six years after No.2 shaft was operational, management decided to sink a decline roadway down from 17 Level to access the deeper ore bodies such as E, F, H and J lenses. It was not economically viable to deepen the shaft without major inconvenience to production, because the Koepe winder could only operate from one predetermined depth. All rubber-tyred diesel equipment was introduced from 1980; diesel fuel was sent below in rail tankers.

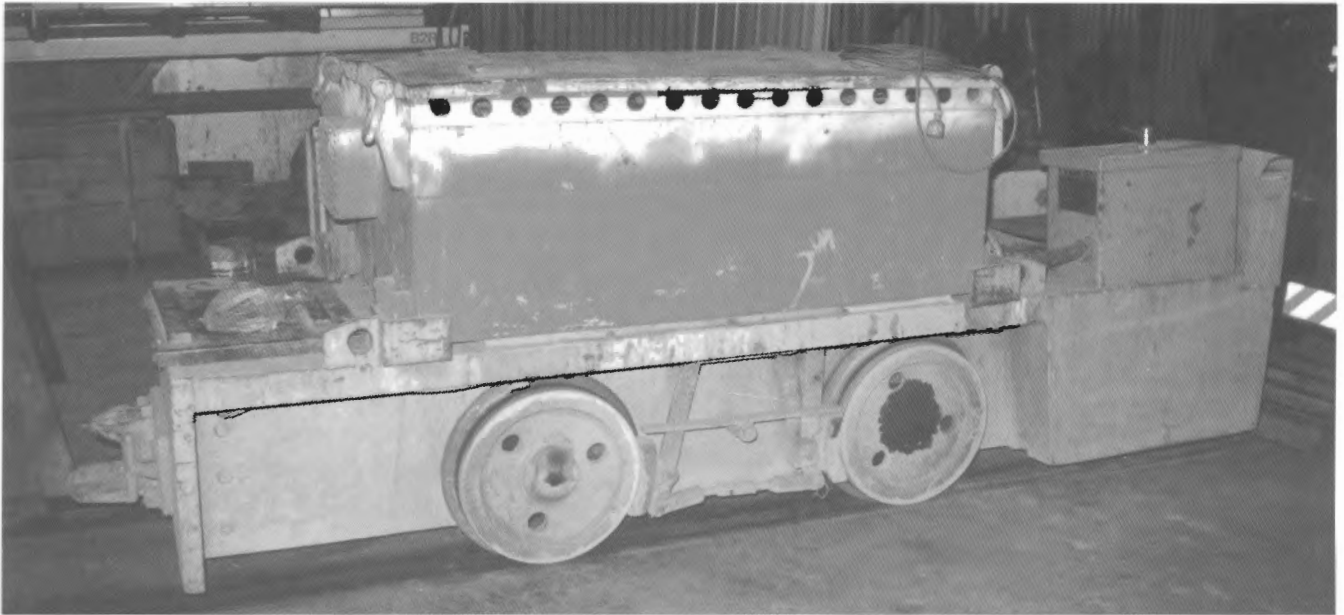
Latter day rail operations

During the 1970s, with an increase in mill capacity from 300,000 tons per annum (tpa) to 600,000tpa it was decided to operate the ten-ton locomotives in tandem. This decision meant that a third loco was required as a standby unit; proper maintenance was not possible with the only two in daily use. The Gemcos had been designed to pull 8 Granbys but were actually handling 10, aggravating the maintenance problem. It was decided to place one loco at each end of the rake, with an electrical 'umbilical' cord connecting one to the other. This was a failure as the cable continually broke in service. The Department of Mines insisted that the driver must only drive from the leading loco; this presented difficulties at the unloading bins as the driver had to watch the Granby doors over the ramp, risking hitting his head. To overcome this danger a camera monitor was fixed in the cab for the driver's safety. Later, with the fitting of a remote control feature, it was no longer necessary and was removed.

In October 1977 Gemco quoted for another ten-ton loco with thyristor control suitable for remote control and tandem operation. On 20 October 1978 EZ ordered this unit (EZ Order No.129120) at a cost of \$41,918 including SS10 Thyristor controller and SAAB-Scania two speed remote control. This loco carried Serial No.2362-3/175/79 of 13.2.1979. The battery (54 MPT13 cells, 570 amp/hour) was supplied by Chloride Batteries of Australia for \$6723; the charger was a Westinghouse costing \$7380. The height of the driver's cab was raised 8 inches after experience with No's 1 and 2 to afford visibility over the



Rosebery's Granby cars under construction at Phoenix Foundry, Launceston. Note the Granby tipping ramp for trial purposes behind the completed car on right. Photo: L Johnson Collection



A five-ton Gemco in the surface workshop, 17 September, 2002.

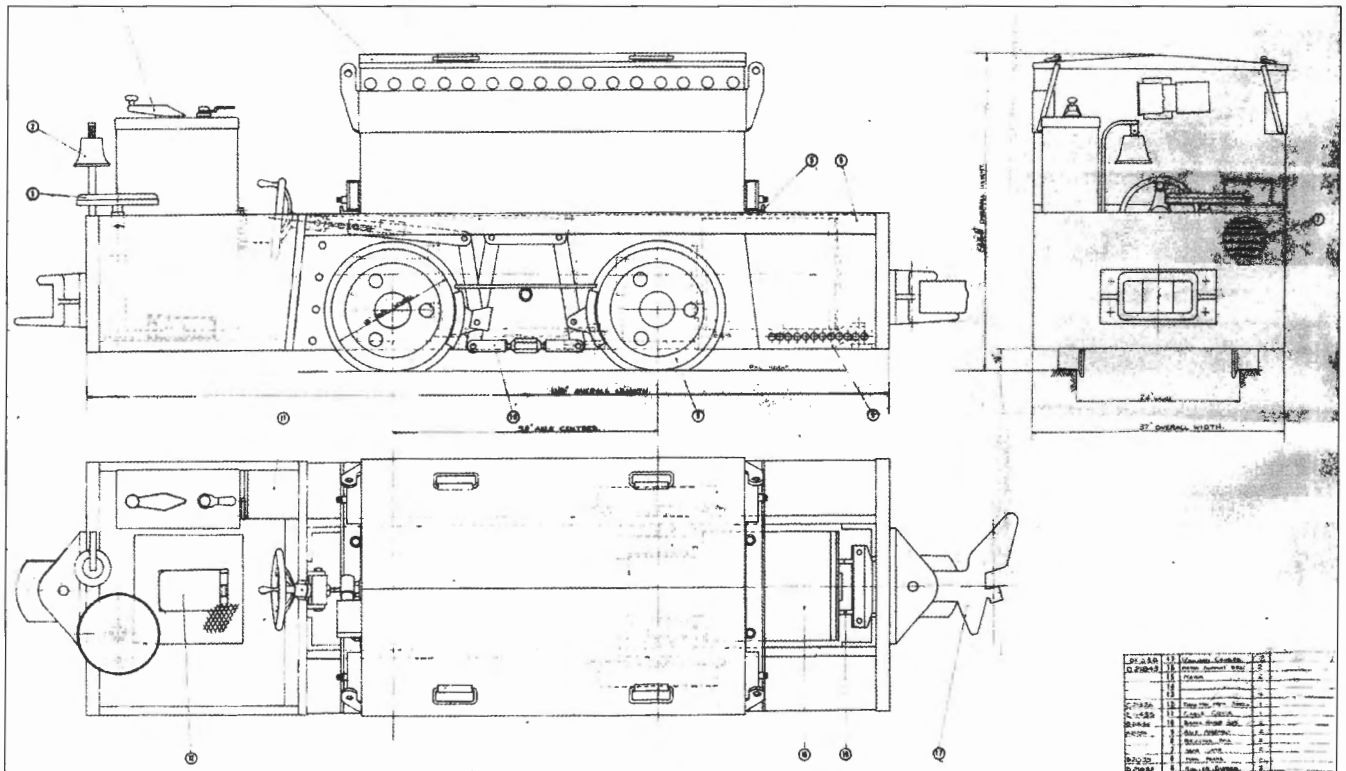
Photo: Author

top of the battery box. An antenna was mounted on the roof for the remote control device which was to be used at the loading and unloading points. Many different antenna types were experimented with over the years. No.3 successfully entered service, after some circuitry modifications to the remote control feature, in the last week of April, 1979. At the same time No's 1 and 2 were converted to thyristor control for compatibility. These controllers as supplied by Gemco for \$6750 were Siemens five step bi-directional type.

Alternative proposals for 7 Level were examined including an overhead electric trolley wire system but capital expenditure constraints were very much in favour of the current setup. Nevertheless in 1982 a battery trolley proposal was tried. This was a four wheel truck frame that was fitted with a flat top to carry two MPJ13 570 amp/hour batteries, coupled in between two ten-ton locos, like the meat in a sandwich!

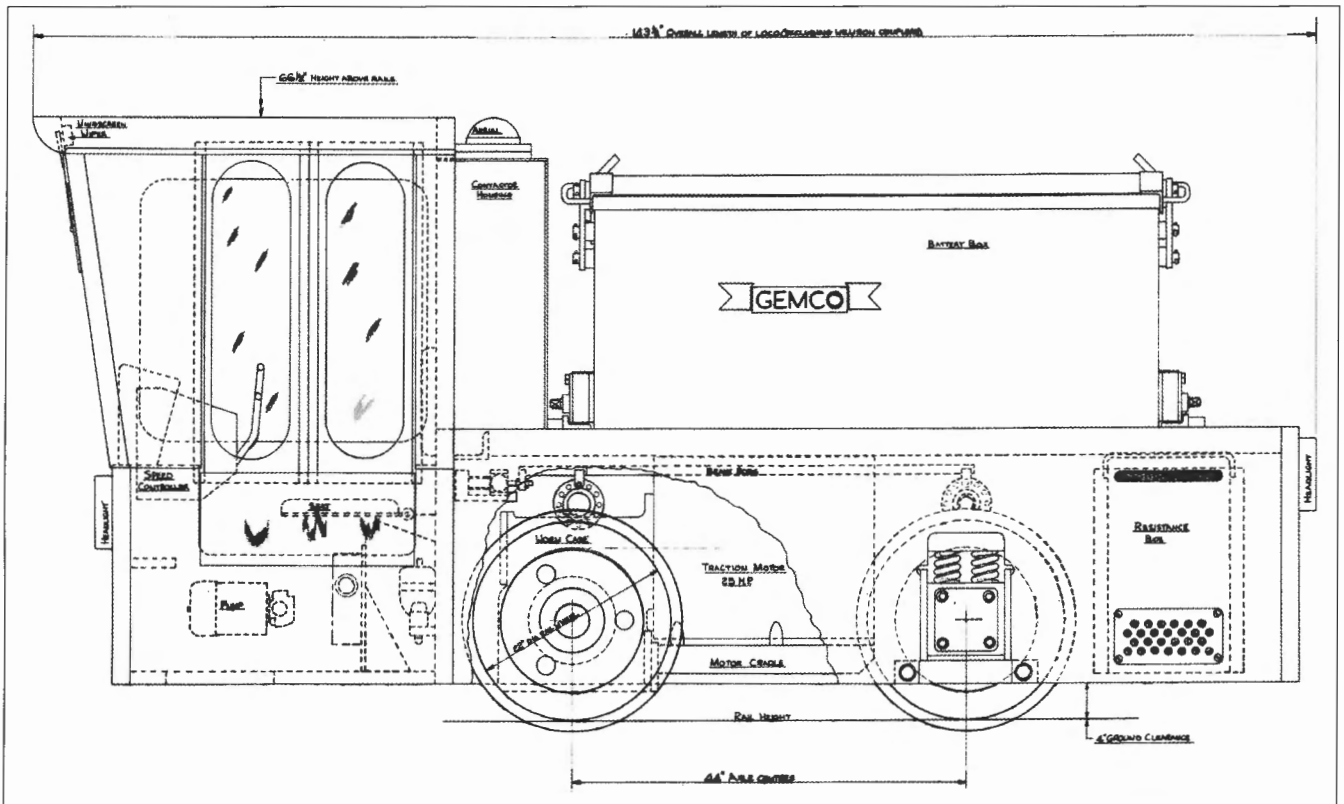
Each trolley battery was electrically connected to its respective locomotive so that when the loco's own battery had fully discharged it was disconnected and the trolley battery was brought on line in an attempt to see out the eight hour shift. By trying this idea it was hoped to reduce the battery requirement to four, and that all batteries would receive four hours rest each cycle. Unfortunately the batteries did not have the amp/hour capacity to match the duty required of them. Shunting at the loading and unloading points "ate up the amps" so after 18 months the battery trolley was abandoned. The introduction to the market of larger capacity traction batteries of 603 amp/hour solved the problem.

The five-ton Manchas lasted until 1982 when rail haulage finished on 8 Level with the exhaustion of the upper levels of the mine. Way back in 1966 two spare three-ton Manchas, later to be replaced by Gemcos, had been transferred to the



General Arrangement drawing of five-ton Gemco locomotive.

Author's collection



General Arrangement drawing of ten-ton Gemco locomotive.

Author's collection

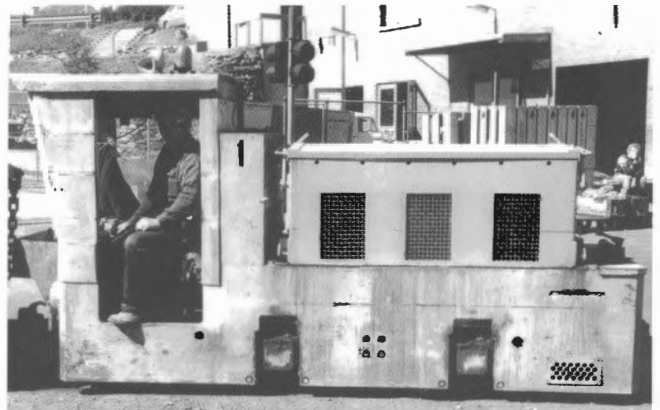
Hercules mine which closed in 1986, while two five-ton locos were donated to the tourist railway, *Wee Georgie Wood* in the neighbouring town of Tullah. This group had no use for them so they were subsequently sold, for their traction motors, to the Temco ferro alloy smelter at Bell Bay. Both 1½-ton Trammers returned to Western Australia. The remaining locos were sold at auction in Burnie.

Opportunity knocked in February, 1982 when Gemco quoted \$32,980 F.O.T Perth for a 5.5 tonne battery loco and offered an additional unit ex-stock for \$30,000 F.O.T Perth, complete with battery box. Additional locos were needed to maintain production on 15 level, North End. EZ accepted with the proviso by the Electrical Engineer, Mr Jim Hillhouse, that larger battery boxes be fitted as the quoted boxes would only accept a standard Chloride 140 volt, 32kw/h battery as compared with the 15 level 5t locos which used 80 volt 40kw/h batteries. These locos were ordered in December, 1982; a larger capacity battery was fitted: Chloride MPE 15, 108 volts and 471 amp/hour (50kw/h), which from experience was adequate.

An interesting feature of the 5.5-tonne loco was the positioning of the single 15hp traction motor at about 10 degrees to the vertical, directly driving the rear axle through a gearbox. A cardan shaft powered the leading axle, but in later years this was replaced by chain drive. The problem with shaft drive was that all wheels had to be maintained to the same diameter, otherwise slipping would occur. This might be tolerable with greasy rail conditions but on dry rail it was detrimental to the gearboxes. Both locos worked on 15 Level but were not really a success so when production tapered off they were transferred to the surface to work the miners' trains on 7 Level. One loco was coupled to each end of the set with an electrical cable strung through the cars from one end to the other. As originally supplied, cabs were absent but now with the locomotives running out onto the surface the drivers needed protection from the weather. Elphinstone of Burnie (later to become Caterpillar Elphinstone) built new cabs..

The seat in a ten-ton locomotive incorporated a dead man safety device, activated by the driver's body weight. Two-way radios were fitted in the cab. Sanding gear was absent as the usual load was only 80 tonnes and the track along 7 Level was favourably graded. At the end of 1992 these locos were sent to Elphinstone for new cabs and upgrading of the electrics to include dynamic braking. The cab area was extended forward to include additional seats and was fully enclosed with a glass windscreen, wipers and two sliding doors. Counterweights were attached to the back end to compensate for the additional weight of the cab. Names were bestowed upon the locos: "*Doran's Dart*" - a driver, "*Pigden's Pet*" - an electrician, and "*Pitt Pony*" - an engineer. Each loco upgrade cost in the vicinity of \$100,000.

Traction batteries were charged in the charging room by Westinghouse "Westronic" chargers, one charger per battery. Batteries had 54 cells at 2.5 volts and once a month a day long equalising charge was given. Battery boxes were colour coded to maintain charging discipline. An electric water still provided pure water for topping up the cells. Gemco built battery racks for racking the battery box on and off the loco



Ten-ton Gemco, No. 1, with first cab modification.

Photo: L Johnson Collection

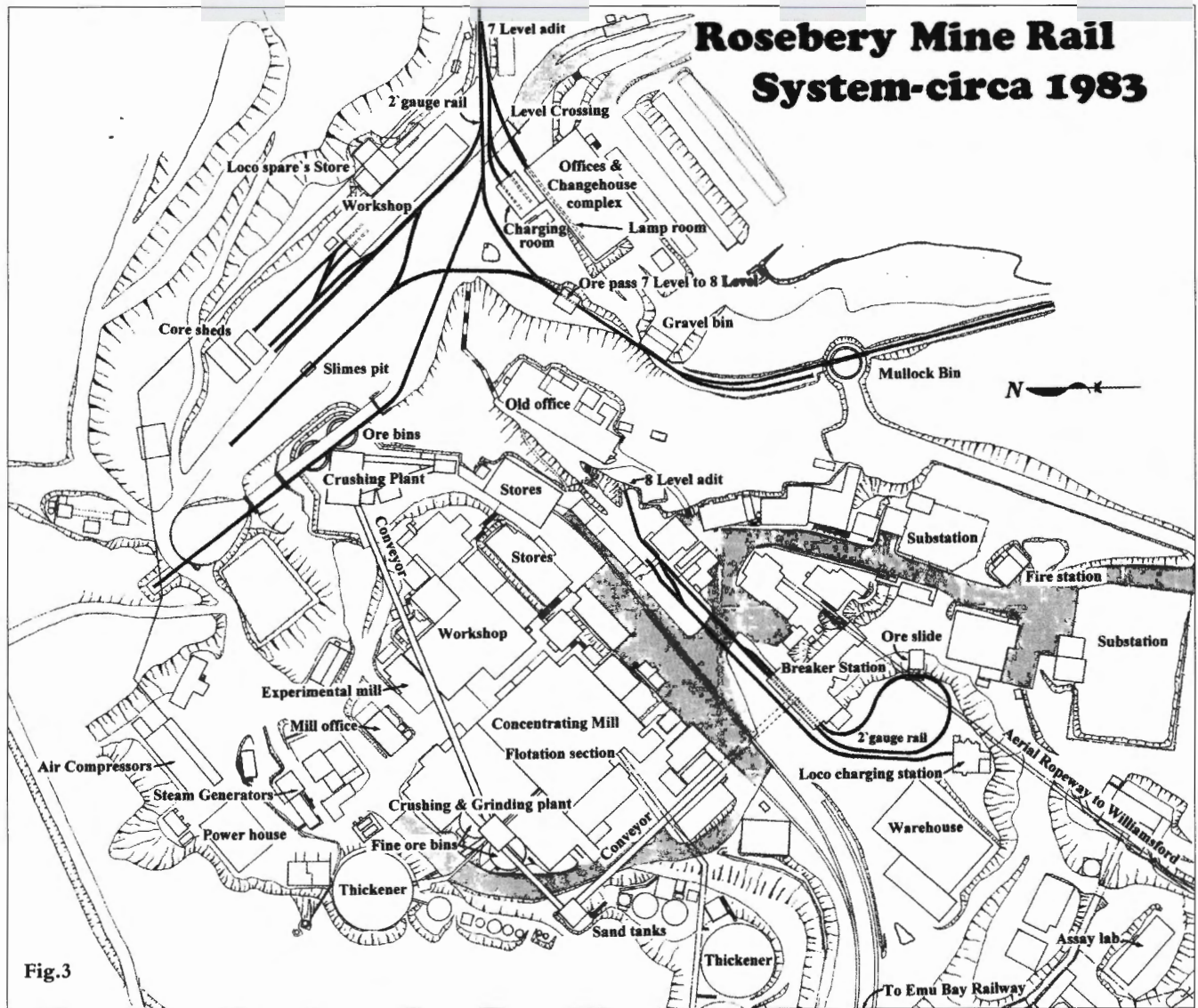


Fig.3

chassis, but these were soon replaced by an overhead electric crane, operated by the loco driver. Over time the locomotive's springs would sag or the wheels wear, adversely altering the height relationship between chassis and battery rack.

The story goes that a Gemco standing in the charging room had its control key accidentally left in the remote control position. When an empty set passed by on its way back into the mine, this miscreant loco dutifully trundled along behind in obedience to the beckoning of the remote's radio signal. Great was everyone's surprise when it suddenly showed up at the loading station.

A feature of the rail system was the remote control of the locomotives at the loading station at No.2 shaft and for unloading at the surface ore bins. A ten-ton Gemco was coupled to each end of a rake of 16 Granby cars. At the No.2 shaft ore bin, which held 300 tonnes, the driver remotely controlled the loading of the cars from an operating station; the bin door was pneumatically activated to open and close. On one occasion the loco on a full rake took off by itself, leaving the driver standing in bewilderment at the loading point. It shot out of the tunnel, and lurched violently through the yard trackwork before heading off towards the mullock bin. Fortunately the bin was practically full so as the speeding Granbys automatically tipped in double quick succession, the rapidly accumulating rock spewed up over the rails retarding the forward progress of the runaway.

In more usual circumstances, when normal loading was

complete the driver climbed aboard the leading Gemco and drove the 1km out to daylight. A 240 volt colour light signalling system of red and green lights was used in the tunnel as an additional safety feature for the drivers. This was activated by a magnet beneath the loco and reed switches on the track. Out in the sunshine the full set passed over a level crossing to enter the mine yard. This crossing was protected by bells, activated by magnets placed between the rails. The track then ran along the southern edge of an embankment to the bins, which overlooked the mill down below on 8 Level. A little distance before the embankment was the site of a diamond crossing, which accessed the 8 Level transfer pass (see Figure 3)

The first rail laid was 45lb. This was replaced by 63lb which in turn was partly replaced by 83lb, of which some 500m was laid. Steel sleepers with Pandrol clips were used from 1992 to 2000, but as acid water rusted the sleepers away, timber replacements became the norm. A further problem with steel sleepers was that they sometimes bent in derailments, compromising the gauge.

If on arrival at the first surface unloading point, the driver found the bin to be full, air rams drew aside the Granby tipping ramp so that the full set could run through to the second unloading point. Here the driver left his cab and climbed upstairs to an operations room where he was able to remotely unload the full set. The protruding side wheel of each Granby mounted the ramp to unhinge the side of the car, the rock tumbling down into the concrete bin. Any recalcitrant mud was blasted from the car with an air lance.



Gemco 5.5-tonne loco charging its batteries on the charge house road while attached to the transport train. Much smaller batteries, those for the miner's lamps, are in their charging racks on the right. 17 September 2002. Photo: Author □ A very work-stained 10-ton Gemco stands outside the charge house on 7 Level in 1980. The open truck behind the loco was probably to match couplings. Granby Willisons were higher than the couplers on the transport cars. Photo courtesy M Dix □ Right angle crossing on the 7 Level main line with building covering the transfer pass down to 8 Level on the right, 1988. Photo courtesy M Dix





No.2 unloading cars at the 7 Level bins, 17 September 2002.

Photo: Author

Tipping of the 80 tonnes only took a few minutes and then the driver walked to the Gemco at the rear of the rake, changed the 'master and slave' switch, and journeyed back into the mine. 20 to 22 trips a day were possible working two 12-hour shifts. During the 1970s three shifts of eight hours, five days a week, were worked. In the 1980s second hand Granby cars from Mt.Isa in Queensland were purchased; their capacity was 110 and 120 cubic feet. Gable end cars, used on 15 Level, North End, were also bought second hand from Mt.Isa.

Man transport cars, built in the Emu Bay Railway workshop at Burnie, carried the miners from the lamp room, beneath the main office building, out across the yard and into the mine. The four-wheeled vehicles, holding about 16 men, were adorned with blue side curtains to keep out the inclement West Coast weather. A 5.5-tonne Gemco was coupled to either end of the set for the trip underground. Coupler heights were not compatible with the previous Granby haulage on 15 Level so additional bolt holes were drilled in these locos to enable a coupler alteration to suit the transports. Between shifts both locos recharged their batteries while standing on the lamp room road.

Accidents.

Compared with other facets of mining at Rosebery, the rail system was relatively free of accidents. The levels were easily graded, so runaways, a frequent cause of accidents, were not much of a problem. However, in 1950, a "trucker" was fatally jammed between a timber leg and the hood of a side tipping skip. He apparently dismounted from a rake of 13 skips which was being pushed back underground by a Mancha.

In May, 1962, an outside contractor was hit and fatally injured by a rake of skips on 8 Level while later the same year Mr J McLachlan, a loco driver, suffered a broken leg in a derailment.²⁵



Ten-ton Gemco in trouble in 7 Level yard. A piece of timber was wedged in the road crossing, comprehensively derailing the loco. The battery box parted company with the chassis. Photo: L Johnson Collection

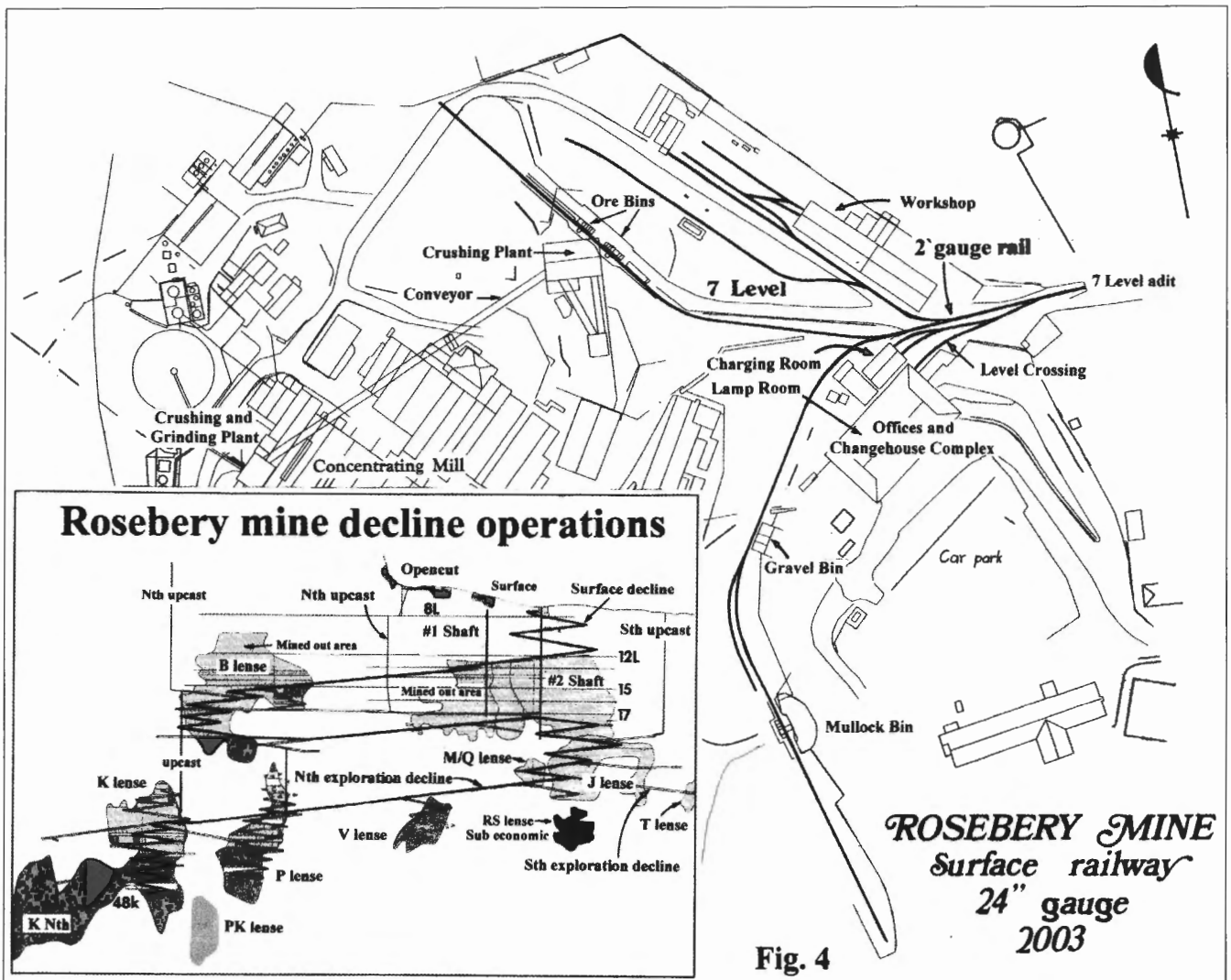


Fig. 4

The Decline down below 17 level

During the initial development of the decline from 17 Level, rubber tyred vehicles tipped mullock into a loading chute to fill rakes of five Granby cars. A roadway dug some 35m above 17 Level allowed access to ore and mullock bins servicing No.2 shaft. On top of the passes a substantial grizzly was built to control oversize rock, which could be broken down by a hydraulic breaker. Workshop facilities in a room 27m long by 8.5m high were provided with a rail siding.²⁶

Large machinery components were broken down for transport underground. Special rail trolleys with mounting jigs were built for this traffic. Clearances along 7 Level and 17 Level were checked by templates fitted to a trolley. The actual decline was graded at 1 in 9 with 20m radius curves, allowing for long straights running parallel to F Lens which has a strike length of 300m. It was necessary to provide roadbase material for the decline as the host rocks slimed unduly.

The roadbase was purchased externally and brought underground in rail trucks which were tipped on 16 Level for discharge into a sublevel in the ore and mullock pass area. Production from J Lens began in January, 1993, at that time representing about 50% of the reserve tonnes and 65% of the zinc, with grades of over 30%.²⁷

In 1994 the Deep Exploration project began when \$45 million was committed to a drilling program and a 5.5km extension to the decline to develop the newly discovered P and K lenses. Pasmenco's aim was to build the resource base to 20 million tonnes along with a mill capacity of 1.0mt/p.a.²⁸

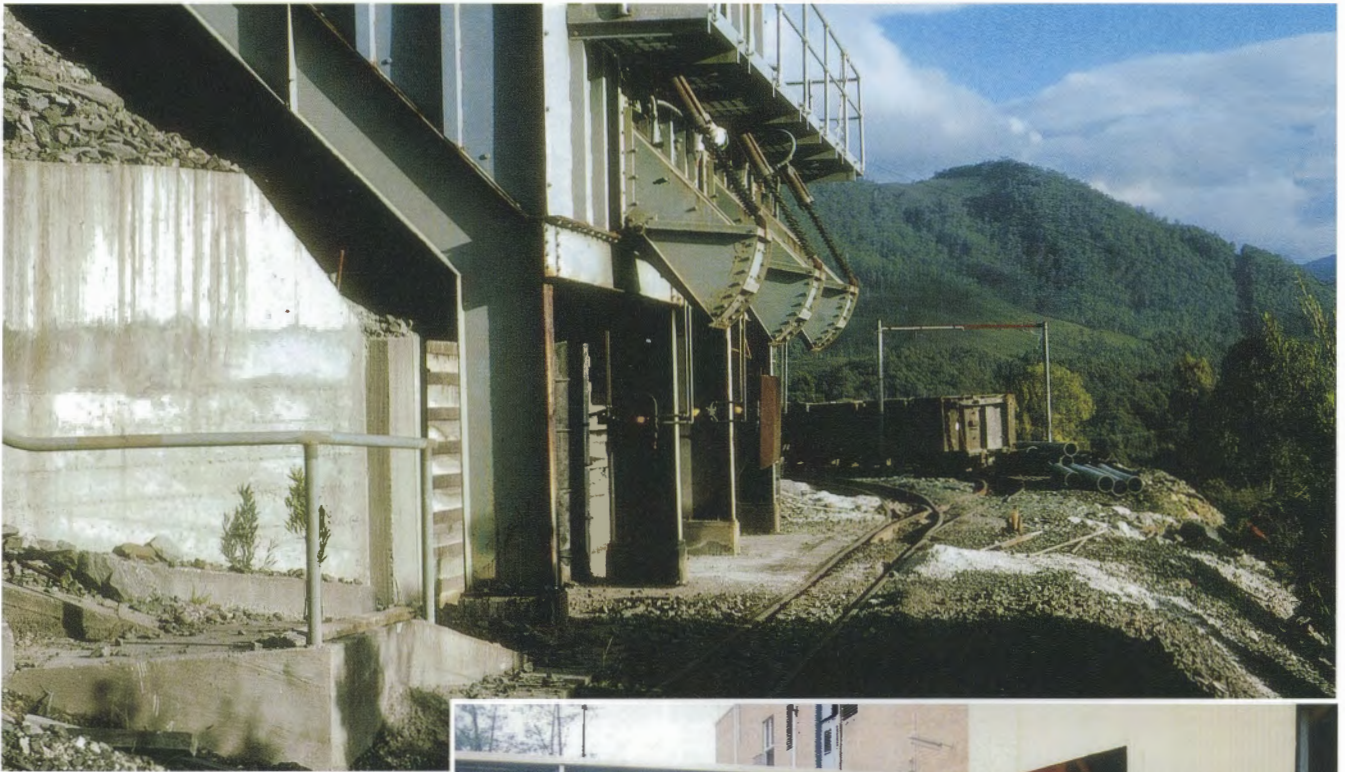
With depressed base metal prices through the 1990s, hard

times hit Pasmenco and administrators were appointed in September, 2001. To secure Rosebery's future \$10 million was spent on the development of a new decline from the surface to 17 Level. This scheme would do away with No.2 shaft and the 7 Level rail system. The then General Manager, Mr Brett Fletcher said: "The materials handling system at Rosebery has always been one of the highest cost elements on site. We conservatively expect this (decline) to shave 10-20% off the total site operating costs." Fletcher added: "The decline makes good money in the short term and makes Rosebery a more attractive asset in the long-term for future buyers."²⁹ Total zinc revenues could exceed \$60 million for a total capital commitment of \$10 million.

Barmenco was contracted to develop 1800m of decline with the portal opening out into 7 Level yard. Readily accessible would be 137,000 tonnes of remnant ore and 223,000 tonnes of high grade ore from the shaft pillar. 40t and 50t Caterpillar Elphinstone diesel trucks now carry the ore up to the surface, in a time of 1¼ hours. A round trip from K lens is 22kms. Current extraction is 850,000 tonnes p.a., composed of 60% zinc, 30% precious metals, 8% lead and 2% copper.

Rosebery, said by the company to be "the jewel in the crown" has many years of life ahead of it, but the little 2ft gauge railway, regrettably the last survivor of the Tasmanian West Coast mining industry, has finally gone the way of the once extensive underground railways of Mt Bischoff and Mt Lyell.

Because it was not viable to deepen the shaft to serve the ever increasing depth and distance of the furthest ore bodies,



Gravel bin on 7 Level with Granbys in the siding. Cutting through the trees on the right is the route of the aerial ropeway to Williamsford. 1988. Photo courtesy M Dix
 □ No.3 outside the charging room in 1995. Note the Willison coupler arrangement to match the Granbys. The cab has now been extended and fitted with sliding doors on each side. Photo: L Johnson Collection
 □ 10-ton Gemco No.1 as rebuilt, shunting fuel tank trucks on 7 Level. Photo: L Johnson Collection



continuing the decline all the way to the surface was the only option. Shaft mining would have required another 800 metres of sinking to reach the horizon of the base of K lens, 1500m down inside Mt Black. From this depth, ore haulage time would be limited by man and equipment movements and winder maintenance. Rail haulage would be limited by man and equipment movements, ore chute blockages, track maintenance and battery changes. The hard economics for Pasmenco, now known as Zinifex, was that the Rosebery mill must be fed with 110 tonnes of ore per hour.

And so it must be – after 65 years the squealing of steel flanges on steel rail, the roar of ore tumbling down into the bins, the banging and crashing of mine cars – these sights and sounds abruptly ceased in April 2003. An era had ended. As Fletcher said, “the next phase in the development will drastically improve the working conditions and profitability of the business.” Possibly so, but it will be of no interest to the rail historian.

Auction Sale

Tasmanian Valuers and Auctioneers conducted a two day auction at Burnie on 6 & 7 August 2003. An observer reported that two 10-ton Gemcos were sold to Index, a machinery merchant of Brisbane, for around \$3000 each. This company also bought the man transport cars. The third 10-tonner passed into private ownership, while the two 5.5-tonne Gemcos were sold to a buyer in Western Australia for around \$5000 each. Of the remaining 5-ton Gemcos, one had previously departed for the West Coast Pioneers Museum at Zeehan, but the others probably went for scrap. A sad finale to an interesting little railway!³⁰

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Glossary.

- Adit:** *A nearly horizontal passage from the surface by which a mine is entered.*
- Argentiferous:** *Yielding silver.*
- Backs:** *The height of ore available above a given working level.*
- Calcine:** *Ores exposed to heat to remove sulphur.*
- Flotation:** *An ore concentration process that takes advantage of the principles of surface tension and colloid chemistry.*
- Footwall:** *The wall under the ore body.*
- Galena:** *Common lead sulphide.*
- Grizzly:** *A grating of steel bars for the screening of ore or stone.*
- Hanging wall:** *The upper wall of an inclined ore body.*
- Koepe:** *A system of hoisting without using drums, the rope being endless and passing over pulleys instead of around a drum.*
- Lang Lay rope:** *A steel rope in which the wires in each strand are twisted in the same direction as the strands in the rope.*
- Lens:** *A body of ore, thick in the middle and thin at the edges.*
- Level:** *A horizontal passage in a mine.*
- Mullock:** *Waste or refuse rock.*
- Ore body:** *Generally a solid and fairly continuous mass of ore.*
- Plat:** *The floor of a level near its intersection with a shaft.*
- Rill stoping:** *Ore is cut back from the winzes in such a way that an inverted pyramid-shaped room is created, with its apex in a winze and its base at the level.*
- Sill:** *The floor of a gallery in a mine.*
- Skip:** *A large hoisting container used in an inclined or vertical shaft.*
- Spelter:** *The zinc of commerce, more or less impure, cast in slabs from molten metal.*
- Sphalerite:** *A sulphide of zinc, contains 67% zinc.*
- Stope:** *An excavation from which ore is extracted.*
- Strop:** *A band of metal.*
- Sub-level:** *An intermediate level a short distance below a main level.*
- Sulphide:** *A compound of a metal and sulphur.*
- Underlay shaft:** *A shaft sunk in the footwall and following the dip of the ore body.*
- Winze:** *An inclined shaft down from a level.*
- Zinc-blende:** *Sphalerite.*

The author wishes to thank the following people for their kind assistance:

Mr R Bracken, Mr L Cookson, Mr M Dix, Mr J Hillhouse, Mr L Johnson, Mr I Morrison, Mr N Toombes and Staff of Burnie library.



End of the line: the two 5.5-ton Gemcos, three 10-ton Gemcos, Granby and transport car awaiting auction day at Wivenhoe on 5 August 2003. Photo courtesy Ray Graf



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NEW SOUTH WALES

JUNEE RAIL WORKSHOPS

(see LR 179 p.18 & 187 p.17)

1435mm gauge

Ex BHP Newcastle Goninan Bo-Bo DE Locomotive 57 (057 of 1982), still in BHP yellow, has joined FOLLY (051 of 1977) as an active shunter at Junee Rail Workshops.

Brad Peardon 1/06

THE MANILDRA GROUP, Narrandera

(see LR 177 p.18)

1435mm gauge

Walkers B-B DH 7340 *GEM OF THE WEST* (702 of 1972) seems to have settled down to a sedate life on the private sidings at the Narrandera mill. It was noted there slumbering with grain hoppers on 30 December.

Editor 12/05

TRANSFIELD PTY LTD, Cormorant Road, Kooragang Island

762mm gauge

(see LR 163 p.19)

A visit in late December revealed that the underground tunnelling equipment thought to have been used on the Northside Tunnel project in Sydney is still stored in the open here. Apart from a large number of flat cars, cement carriers and personnel cars, at least two locomotives have been noted, Gemco 15-tonne 4wDH units 7 and 9 (288/90 and 290/90 of 1990).

Brad Peardon 2/05

Unwin Street, Rosehill

narrow gauge

A small disused narrow gauge rail system has been noted at an old Main Roads building last

LOCOMOTIVE, ROLLING STOCK & EQUIPMENT MANUFACTURERS

BUNDABERG FOUNDRY ENGINEERS PTY LTD, Q

(see LR 172 p.19)

1067mm gauge

A new workshop compound fence has been constructed at the Foundry and behind it are the two remaining Walker's DH-class B-B DH locomotives stored for eventual rebuild for cane railway use, Kalamia Mill's DH29 (611 of 1969), and Bingera Mill's DH41 (623 of 1969).

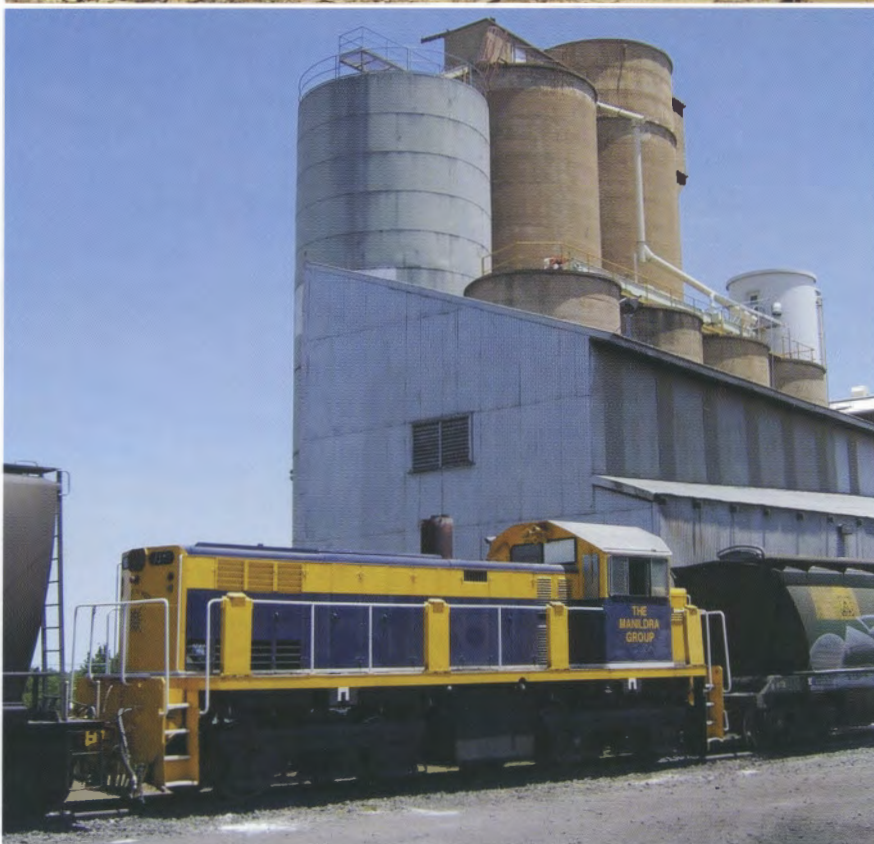
Lincoln Driver 1/06; Editor 1/06

ONTRAK ENGINEERING PTY LTD, Maraylya, NSW

(see LR 175 p.22)

This company is currently overhauling bogie locomotive gearboxes for Mackay Sugar. In 2004 they overhauled/rebuilt the two F&M Baldwin 4wDH locomotives built in 1994 for the Blue Mountains sewerage tunnel project, as can be seen from their web site.

Brett Geraghty 3/06; <http://www.ontrakengineering.com.au>



Top: Goninan B-B DE BHP57 (057 of 1982) shunts 4814 at Junee Roundhouse on 4 January 2006. Photo: Brad Peardon **Above:** Manildra's Walkers B-B DH 7340 (702 of 1972) in the shadow of the Narrandera flour mill, 30 December 2005. Photo: John Browning

used by Australian Logistical Services. There were two tracks running from outside the building and through to the other side, with one crossover between the two tracks. The premises are vacant and no rolling stock of any type was noted
Brad Peardon 2/06

QUEENSLAND

BUNDABERG SUGAR LTD, Bingera Mill

(see LR 187 p.17)

610mm gauge

As part of the upgrading of the line connecting the former Fairymead Mill area with Bingera Mill, Mercer's Loop, on the Bingera side of Rosedale Road, has been repositioned and relayed so that through trains will be able to run unimpeded with loading done on the loop line.
Lincoln Driver 2/06

BUNDABERG SUGAR LTD, Moreton Mill

(see LR 186 p.18)

610mm gauge

A visit in January revealed that the Perseverance Creek bridge was the only creek tramway bridge to have been removed. The full infrastructure for the line up Howard and Mill streets remains in place including the cane train warning beacons at either end of the street section, the track sensors, the crossing lights at the Howard Street - Currie Street (old Bruce Highway) intersection and the crossing lights control box in Mill Street.

Some drama was generated locally when the lifting span of the heritage-listed Big Lifting Bridge over the Maroochy River fell on 4 January, possibly due to a component failure of the lifting mechanism although human interference could also have been a factor. The Shire Council was quick to suggest that the bridge was the responsibility of Bundaberg Sugar.

Carl Millington 1/06; *Sunshine Coast Daily* 6/1/06 via Carl Millington

CSR LTD, Herbert River Mills

(see LR 187 p.18)

610mm gauge

Major works at the Herbert River bridge between Cordelia and Macknade are going ahead. The Cordelia approach is being upgraded, wider decking is being installed on the bridge so that derailed bins end up in the river less often, and a new floodgate is being installed at the Macknade side.

The eventual goal to reduce the number of district sidings from 304 to around 200 is under way with 12 upgraded sidings to be installed by the end of the slack season. A new junction is to be built for Victoria Mill's Elphinstone line, and the yard at Bambaroo is being completely reconstructed. Bogie brake wagons at Victoria and Macknade are having their package compressors replaced with the more conventional diesel engine and separate compressor.



Top: Bingera Mill's newly relaid Mercer's Loop with steel sleepers on the points and concrete on the main line, 13 February 2006. Photo: Lincoln Driver **Centre:** Parked on the far end of Mercer's Loop from the picture above is Bingera Mill's Gemco track jack (241380085201-R806-80 of 1980), 13 February 2006. Photo: Lincoln Driver **Above:** Mourilyan Mill's Clyde 0-6-0DH 17 (55-57 of 1955) strains as it hauls a rake across the QR crossing at Ramleigh with the pointsman weighing down the kangaroo lever in time-honoured fashion, 20 September 2005. Photo: John Browning



Above: A cavalcade of cane railway superpower waits at Mackay Sugar's Racecourse Mill for the annual slack season maintenance, with five of the company's seven Walkers 73-class conversions in view. 40 DULVERTON (690 of 1972 rebuilt Walkers 1997) is closest to the camera behind the bogie brake wagon, 25 January 2006. Photo: John Browning

Right: A rarely-seen unit is Proserpine Mill's Gemco linecar (built around 1976), here in the mill yard on 8 January 2006 Photo: David Rowe

Below: Perhaps hardly "light railways" but one of Australia's most spectacular industrial railways is the BHP Billiton iron ore line in the Pilbara. Here, new Electro-Motive Co-Co DE units 4302 MOOKA and 4308 COWRA look splendid in this night shot at Hedland on 1 March 2006. Photo: Richard Montgomery



Macknade Mill's Clyde 0-6-0DH 12 (65-434 of 1965) was the truck shop shunter at the mill during February.

Four QR bogie wagons with a spare set of bogies have been purchased from Smorgon Steel at Gladstone for future use as brake wagons. The six complete wagons are HWAf 36739, HWAB 35830, HWAB 35961 & HWAf 41097 while the bogies will come from HWAf 35921.

Herbert River Express 5/2/06 via Steven Allan; Steven Allan 12/05; 2/06; Rob Stanier 12/05; Chris Hart 2/06; Brett Geraghty 3/06

CSR PLANE CREEK PTY LTD, Sarina

(see LR 187 p.20)

610mm gauge

Walkers B-B DH 4 *CARMILA* (676 of 1971 rebuilt Bundaberg Foundry 7317 of 1996) suffered a transmission failure during the 2005 season. A spare Voith transmission was loaned by Mackay Sugar for use in this locomotive. The favour was returned later in the season with Plane Creek loaning a transmission to Mackay Sugar.

Slack season track maintenance work has seen some interesting visitors to the mill network. In late February, CSR's Herbert River Plasser KMX-12T tamper The *PACKER* (445 of 1998) began tamping the Southern Cane Railway between Koumala and Karloo. Also in late February Mackay Sugar's Canon Ballast Regulator BREG2 (1775577 of 1977) was involved in track renewal work on the Main (Alligator Creek) Line near Cliftonville Junction. The Hi-Rail weed sprayer from Specialist Weed Control at Brandon was working nightly in mid February.

The bogies of QR wagons HWAB 36764 and HWAB 35892 have been purchased from Smorgon Steel in Gladstone.

Carl Millington 2/06; Brett Geraghty 3/06

HAUGHTON SUGAR CO PTY LTD, Invicta Mill, Giru

PIONEER SUGAR MILLS LTD, Inkerman Mill, Home Hill

610mm gauge

(see LR 187 p.20)

As usual, the Invicta Mill locomotives were parked at the mill end of the marshalling yard for the summer break to be above flood level. Unfortunately a number were moved back to the

workshops area in preparation for engine oil changes and left there, only to be flooded when the Haughton River burst its banks. As their mechanical drive trains have now been under water, they will probably need more attention than originally planned.

Of the locomotives that remained high and dry, work is being done on the transmission of EM Baldwin B-B DH *BURDEKIN* (10215.1 7.82 of 1982) so that it can become the Dalbeg run locomotive. Walkers B-B DH *CLARE* (655 of 1970 rebuilt Tulk Goninan 1995) is having work done on the engine and cooling systems, and having RSU equipment fitted.

At the end of January, Inkerman Mill's EM Baldwin B-B DH *BOJACK* (7280.1 9.77 of 1977) was shifted across the Burdekin River to the Invicta system for RSU training. Its Willison couplers were inverted to allow it to work with Invicta stock. It was noted at Mulgrave Road with Invicta Mill's Walkers B-B DH *CROMARTY* (708 of 1973 rebuilt Bundaberg Foundry 7346 of 1996) and *CROMARTY*'s bogie brake wagon (built at Invicta in 1996 using F&M Baldwin bogies). Jason Lee 1/06, 2/06

MACKAY SUGAR CO-OPERATIVE ASSOCIATION LTD

(see LR 186 p.21)

610mm gauge

During the latter part of the season, Walkers B-B DH 44 *WALKERSTON* (672 of 1971 rebuilt Pleystowe 1994) suffered a transmission failure. A spare Voith transmission had already been lent to Plane Creek Mill for fitting in one of its locomotives, so Plane Creek made a similar unit available for fitting into *WALKERSTON*. The two transmission units will be swapped back during the current slack season. *WALKERSTON* is also receiving a new engine and cooling system, while its Voith transmission is being rebuilt in Brisbane.

The decision to fit EM Baldwin B-B DH 6 MIA MIA (9815.1 10.81 of 1981) with a KTA19 Cummins engine has been rescinded. Instead, the existing Detroit 12V71N engine will be run to failure and then replaced.

One half of the 'cow and calf' unit, Clyde 0-6-0DH 60-125 of 1960 (formerly *HABANA*) is being fitted with a new Cummins QSM 11 engine replacing

the old Detroit 6-71N motor. This work is being carried out by Farview Engineering Pty Ltd at Farleigh. If this engine proves to be a success it will probably set the precedent for the replacement of all existing 2-stroke engines in the Clyde and Com-Eng fleet at Mackay Sugar as the demise of the 2-stroke engine is inevitable because of EPA requirements. The other half of the double unit, Clyde 0-6-0DH *MARIAN* (56-104 of 1956) will receive a new engine in 2007. Work was due to commence at the Marian Mill truck shop in March to bring the 380 ex-Millaquin Mill bins into service. The bins will be extended from 5-tonne to 6-tonne capacity, new 14-inch wheels will be fitted into hornguide axle mountings, and Willison couplers will be fitted. Previously, the 6-tonne bins at Mackay Sugar have had 'W' bracket axle mountings. Although economical in initial cost, it has been found that they cause excessive flange wear.

The reconditioned bins will be used in the Marian Mill network over the Messmate Range to the Narpi, Geeberga and Hampden areas and the 4-tonne bins released will be used to bolster numbers for the Cattle Creek area and Pinnacle road feeder.

A number of siding rationalisations and loop extensions are being carried out to improve operations. Changes in the Narpi area are to accommodate the new 6-ton bin conversions. Another significant change will be the cutting back of most of Trimms Branch on the eastern bank of the Pioneer River at Mia Mia because of the sale of the farm that used the terminal siding (Gap 05).

The availability of the new bin conversions on the Messmate Range has led to consideration of changing the method of operation. Currently, train lengths are severely limited. A number of options are being looked at to double the average size of rakes and to free up a bogie diesel for use elsewhere.

There is a range of other slack season work being done on the locomotives. High capacity fuel tanks are being fitted to Marian Mill's original three



Inkerman Mill's EM Baldwin B-B DH *BOJACK* (7280.1 9.77 of 1977) with Invicta Mill's brake wagon *CROMARTY* at Mulgrave Road on the Invicta system on 3 February 2006. Photo: Jason Lee

Industrial Railway NEWS

Emco B-B'DH locomotives, more than doubling fuel capacity. Four sets of bogie loco final drive gearboxes are being overhauled by Ontrak Engineering Pty Ltd in Sydney. MTU Detroit are currently fitting an exchange Detroit 12V71N engine to EM Baldwin B-B DH 5 *SHANNON* (7126.1 5.77 of 1977) and will fit an exchange Detroit 12V92T to Emco B-B DH 20 *BOONGANNA* (L257 of 1990).

Six QR bogie wagons with a spare set of bogies have been purchased from Smorgon Steel at Gladstone for future use as brake wagons. The six complete wagons are HWAB 35942, HWAM 35952, HWAM 41098, HWAFF 36743, HWAB 41133 & HWAFF 41099 while the bogies will come from HWAB 41053. It is intended that one will be converted for use as brake wagon 6 in the 2006 season.

Locomotives noted on track maintenance trains around the system in February included EM Baldwin 4wDH 10 (4529.3 11.72 of 1972 rebuilt 8860.1 8.79 of 1979 and Marian Mill 1980), Com-Eng 0-6-0DH *PIONEER* (AI2358 of 1962) and 54 *DAKENDEN* (FB3169 of 1963), Clyde 0-6-0DH 29 *VICTORIA PLAINS* (66-490 of 1966) and EM Baldwin B-B DH 33 *FOULDEN* (7220.1 6.77 of 1977).

Brett Geraghty 1/06, 2/06, 3/06; Carl Millington 2/06

TULLY SUGAR LTD

(see LR 187 p.21)

610mm gauge

Com-Eng 0-6-0DH *TULLY No.18* (AO60113 of 1977) is receiving a rebuilt motor, new cab and air-conditioning during this slack season.

The new Cummins QSK19 engine has finally arrived for EM Baldwin B-B DH *TULLY No.7* (10684.1 4.83 of 1983) which was fitted with a second-hand unit temporarily last year due to the non-arrival of the new one.

Roy Pease 2/06

WESTERN AUSTRALIA

BHP BILLITON IRON ORE PTY LTD

(see LR 187 p.21)

1435mm gauge

The first of the new batch of Model SD70ACe Co-Co DE locomotives built by Electro-Motive Canada to enter service was 4301 on 19 November. The last one to be delivered, 4300, was delivered by ship on 24 February.

Builder's numbers are believed to be 20038540-01 to 20038540-14. Much of the early running of these units was as remote control units in 2- or 3-rake trains. The locomotives have been named after sidings, with the following names having been noted:

4301 *BING* 4306 *GARDEN* 4310 *WHEELI*
4302 *MOOKA* 4307 *SHAW* 4311 *POONDA*
4303 *WALLA* 4308 *COWRA* 4312 *MINDY*
4304 *GILLAM* 4309 *GIDGI* 4313 *KURRAJURA*
4305 *COONARIE*

Duplication work between Hedland Yard to the south side of Bing Siding is progressing well with new switches and signals installed at Goldsworthy Junction. When finished the new dual track line will become the main departure line, and the existing line will be the main arrival line. It seems that both lines will be signalled bi-directionally.

A contract has been signed with United Goninan for the manufacture and supply of 23 ore cars and 118 ore car hoppers and for the pre-purchase of stainless steel for 360 ore cars.

Richard Montgomery 2/06; United Group media release 17 January 2006

FMG CHICHESTER PTY LTD

(see LR 187 p.21)

1435mm gauge

In January, the company stated that it was close to finalising most of its main contracting partners. Port construction at Port Hedland began in early February and the company expected to complete contract negotiations with the preferred supplier of locomotives in the first quarter of the year. Railway construction was due to commence in May.

The Age 30/1/06; *The Australian* 6/2/06; ABC Online 9/2/06

LEIGHTON / KUMAGAI JOINT VENTURE,

Perth Metro Rail Tunnel

(seen LR 187 p.21)

900mm gauge

Amidst claims and counter-claims of delays and cost blowouts, the first section of tunnel from Esplanade Station to William Street Station, was completed on 7 February. An early return to work after the Christmas holidays had seen 130 metres completed from January 3. Since tunnelling started on 25 October 2005, 471 metres of tunnel had been completed, with the fastest speed attained by the tunnel boring machine (TBM) being 15 metres in a day.

After the transit of William Street Station, the TBM will continue for another 303 metres to Northbridge. It will then be dismantled and returned to Esplanade to complete the second of the twin tunnels.

The West Australian 3/1/06; Government of WA media statement 7/2/06

OVERSEAS

RONPHOS CORPORATION, Nauru

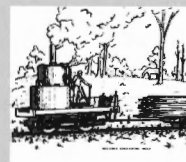
915mm gauge

(see LRN 55 p.19)

This company has been set up by the Nauru Government to rehabilitate the country's phosphate industry with assistance from the Australian company Incitec Pivot Ltd. Incitec Pivot is refurbishing the mining and processing plant in exchange for a share of the phosphate output.

With a projected output of 500,000 tonnes per year and reserves of up to 45m tonnes, the reactivation of railway operations on Nauru would have to be considered as a serious proposition.

smh.com.au 20/11/2005; Editor 3/06



LRRSA NEWS

MEETINGS

ADELAIDE: "Film & Slide Show"

John Meredith will present film and slides featuring the Driving Creek Railway, located in the North Island of New Zealand.

Location: 150 First Avenue, Royston Park.

Date: Thursday 6 April at 7.45pm. Contact Arnold Lockyer (08) 8296 9488

BRISBANE: "Portuguese Narrow Gauge Steam in the Sixties"

Gerry Ohmer will show slides and movie of Portuguese NG Steam in the Sixties.

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 7 April at 7.30 pm. Entry from 7 pm.

HOBART:

There will be no meeting in April

MELBOURNE: "Gold diggers, kauri cutters, and gum diggers in Aotearoa"

Bill Hanks will be making a presentation on his recent visit to New Zealand..

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

Date: Thursday, 13 April at 8.00 pm

SYDNEY: "John Shoebridge"

Well known Newcastle historian John Shoebridge will talk about his research methods and about researching the Newcastle Coal & Copper Company and the 'Glenrock Railway', which ran from Newcastle through the suburb of 'The Junction', through two tunnels and beside the seashore to Burwood Colliery at Glenrock Lagoon.

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

Date: Wednesday 26 April at 7.30pm.

COMING EVENTS

On Sunday 14 May from 10.30am, the NSW Division will be running a tour to the 12in gauge Smokey Mountain & Grizzly Flats RR, Lot 9 Mountain Road, Warnervale, which features half-full size narrow gauge locomotives. Enclosed shoes compulsory. For further particulars ring Ross Mainwaring 9449 2738 or Jeff Mooney 4753 6302.

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

The Golden City & its Tramways Ballarat's tramway era

by Alan Bradley.

Published by Ballarat Tramway Museum Inc.

Using the wealth of the 1850s goldrushes, the founders of Ballarat built a magnificent provincial city. This book is not a dry technical history but describes how the citizens of Ballarat used the trams in their daily lives. It brings to life the difficulties experienced in the second world war, when lights were dimmed and petrol severely rationed. The book also addresses the technology, economics, politics, working conditions, and competition from other forms of transport. Many wonderful photos dating back to the 1880s. 144 pages, A4 size, hard cover, 119 photographs (15 in colour), 4 maps, bibliography, index.

\$43.95 (LRRSA members \$39.56) Weight 900 gm

The Mapleton Tramway

The line of the diminutive Shay locomotives

By John Knowles, published by the author

The Mapleton Tramway was an 18 km long 2 ft gauge railway, which climbed the steep ranges, west of Nambour, about 110 km north of Brisbane. In many places the line was located on shelves in the mountainsides with magnificent views over the coastal lands to the sea. It used steep gradients and very sharp curves, and reached 380 m. altitude. It was operated by two small Shay locomotives. It carried sugar cane, logs and sawn timber, fruit, cream, small livestock, as well as passengers and mail.

Includes seven scale drawings of the rolling stock and locomotives.

92 pages, A4 size, plus card cover, 81 illustrations, references, and index.

\$28.50 (LRRSA members \$25.65) Weight 480 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.

Mountains of Ash

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

Describes a network of over 320 km of timber 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.

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.

Bellbrakes, Bullocks & Bushmen

A Sawmilling and Tramway History of

Gembrook 1885-1985 - by Mike McCarthy

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

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

John Moffat of Irvinebank

A Biography of a Regional Entrepreneur, by Ruth Kerr

Published by J.D. & R.S. Kerr

296 pages, 243 mm x 172 mm, 3 maps, 47 photographs, references, bibliography and index.

Not a railway history, but a history of an Australian mining magnate who was very much involved with associated railways and tramways in North Queensland. He was seen as a "monument to honesty". Includes information on construction and operation of railways and tramways of Chillagoe, Mount Molloy, Mount Garnet, Irvinebank and Stannary Hills.

\$45.00 hard cover (LRRSA members \$40.50)

Weight 950 gm

\$30.00 soft cover (LRRSA members \$27.00)

Weight 820 gm

"Decauville" Portable Railway

Illustrated Catalogue No.105 January 1905

Reprint published by Karl Paskarb

Illustrates everything you need to build a 2 ft gauge industrial railway "as supplied to the British, Indian, Colonial and Foreign Governments". This is a reprint of the English language catalogue of Decauville products.

72 pages, 280 mm x 215 mm, plus coloured card cover, numerous photographs and illustrations. Very high quality reprint.

\$42.50 (LRRSA members \$38.25) Weight 320 gm

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www.lrrsa.org.au



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- If joining in April or May, pay \$54.85 (\$68.95/\$80.85 overseas) and receive 7 issues of Light Railways (Nos 189-195).

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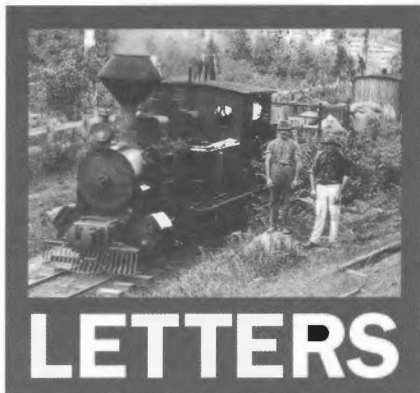
(occupation)

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Name on Card

Signature



LETTERS

Dear Sir,

Baguley diesel locomotive

A small 2ft gauge 4wDM locomotive has been preserved at the Campbelltown Steam & Machinery Museum since 1994. Fitted with a 2-cylinder Lister diesel engine (CS65993) and an exhaust conditioner, it was identified after some enquiry as built by EE Baguley Ltd of Burton-on-Trent, England.

Recently, diligent research in the Baguley records by Roy Etherington has identified the locomotive from the engine number quoted in the specification sheet. It is Baguley 3391 and was ex-works on 2 May 1952. It was exhibited at the British Industries Fair at Castle Bromwich in 1952 and its destination is then shown as simply RMP (Railway, Mine & Plantation Equipment Ltd). There are no official works photos of 3391, but a General Arrangement drawing exists. Thanks to Bob Darvill for forwarding this information.

This detail may help to solve another mystery. *The Queensland Government Mining Journal* for 11 November 1952 stated that Sargeants Ltd had an 18/21 hp underground locomotive on hand. Bill Henderson once told me that Sargeants obtained an RMP underground locomotive that the Queensland Mines Department had refused to certify for underground use. It remained unsold for some time at the company's Alice Street works in Brisbane. It seems likely that this is the same locomotive. The early 1950s was the period when many small narrow gauge diesels were introduced to underground coal mines in Queensland.

In 1994, the locomotive now identified as Baguley 3391 was reported (in LRN 102) as having been "rescued from the basement of a Technical College in the Sydney area" by Paul Simpson. By this time it had bodywork and a cab that appear not to be original. It would be very satisfying to know some more details of its acquisition, and any other information about its history. I wonder if it shows any evidence of having been put to use at any time before 1994?

John Browning
Rockhampton, Qld

Dear Sir,

A Little Orphan

In lieu of our August meeting, the South Australian Group of the LRRSA decided to visit the West Torrens Railway Signal, Telegraph & Aviation Museum at 112 Marion Road, Brooklyn Park.

Whilst there, I was approached by Mr Gordon Oakes, a member of the Australian Railway Historical Society. Mr Oakes advised me that, in 1975, he had donated to the Mile End Railway Museum (now the National Railway Museum) a 2ft gauge dump truck, which he had retrieved from Farina, on the old narrow-gauge Central Australian Railway.

I have since contacted Mr Oakes, and he has provided the following history:

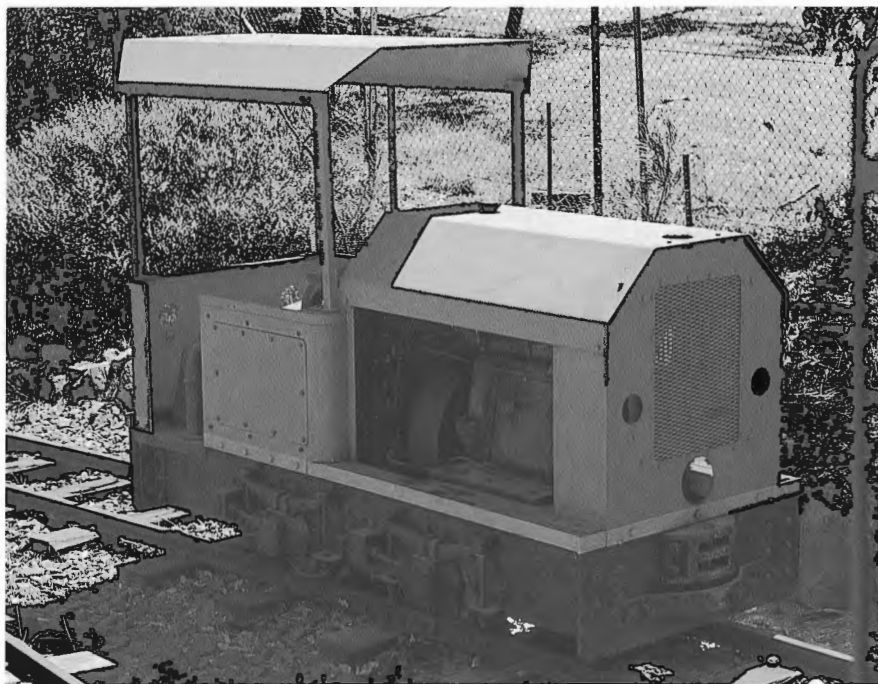
"I was working for the Department of Civil Aviation at Leigh Creek Airport from 1969 to 1974. I discovered this truck in two parts, the underframe and body, halfway down the side of the railway dam at Farina. I loaded it into my trailer and brought it back to my house at Leigh Creek. I laid sections of track in my yard and used the truck, together with a smaller 2ft gauge

trolley (previously used to feed the cement mixer during construction of the Leigh Creek airport, around 1947) for my garden and to carry coal for heating my house.

Further investigations revealed that this dump truck had been used to transfer coal from the main line to the donkey engine and boiler, which had been used to pump water from the dam for the steam locomotives. When these were withdrawn from the CAR, the truck was apparently abandoned down the side of the dam, where I found it.

When it was transferred from Leigh Creek to Dubbo, in early 1974, I loaded the dump truck onto a Commonwealth Railways' bogie flatcar at Telford, for despatch to the then Mile End Railway Museum."

Arnold Lockyer
Dover Gardens, SA

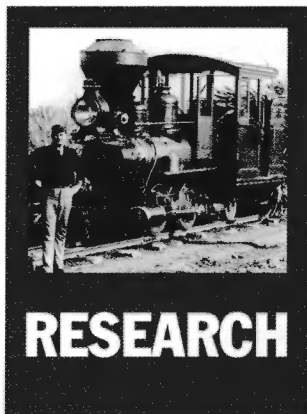


The mysterious Baguley 4wDM locomotive, seen during an Open Day at the Campbelltown Steam & Machinery Museum, in November 2002.

Photo: Bruce Belbin



The 2ft gauge side-tipping wagon, originally from Leigh Creek. Photo courtesy National Railway Museum



Tanawha World Railway, QLD

The final photograph provided by Bob Gough of Queensland theme park railways is of a rail motor that operated at Tanawha World on the Old Bruce Highway on the Sunshine Coast. This 2ft gauge line was located near Super Bee not far from the Buderim turnoff. The rail motor was built by a Mr Drysdale at Woodrige in Brisbane and had a Holden 186 motor and auto-transmission with chain drive to a single rear axle. A similar rail car built to 368mm gauge later operated at the Train Place, Beenleigh (LR 141, p.24). Does any reader have further information on the Tanawha World operation or the rail car pictured here?

Lanitza Tramway, NSW

Frank Mack of the Clarence River Historical Society is seeking information on the horse-worked tramway constructed by the Public Works Department from Lanitza Siding on the North Coast Railway in New South Wales to a quarry at Glenugie. The line was used to obtain ballast during construction of the Glenreagh to South Grafton Section of the line in the 1914-1915 period. If any reader has information on the specifications of the line, its operations or photographs could they please contact Frank, c/- the Society at PO Box 396, Grafton NSW 2460; or email: frankm17@tpg.com.au

Victorian Heritage Register

Recent additions to the Register of places formerly associated with industrial railways include Walkerville Lime Kilns, Walkerville (Reg. No. H2043) and Bell Point Lime Kiln, Waratah Bay (Reg. No. H2068). Both these places, only a few kilometres apart, front onto Waratah Bay, located between Cape Liptrap and Wilsons Promontory in south-eastern Victoria. Both had jetty tramways

from the limekilns and storage sheds as all output was dispatched via coastal vessels, mostly to Melbourne. Walkerville (at least) also had firewood tramways heading inland. The Walkerville limekilns jetty tramway was covered briefly in *Light Railways* 71 (January 1981, pp. 21-2). Both operations would make interesting research projects. The Heritage Register listing can be found on: www.heritage.vic.gov.au
Phil Rickard

Coal River Precinct, Newcastle NSW

The University of Newcastle formed the Coal River Working Party in 2003 as an interdisciplinary research group with an interest in Newcastle's colonial heritage, particularly around



Bob Gough's photo of the Holden-engined 2ft gauge railcar at Tanawha World on the Queensland Sunshine Coast.

the Coal River precinct. The group has discovered Australia's oldest coal mine, which is also the oldest in the southern hemisphere. The mine was opened as part of the former Coal River convict settlement at Newcastle in 1804. It exploited an upper split of the Dudley seam, outcropping below what is now Fort Scratchley. Underground transport of coal was by wheelbarrows. The mine was abandoned in 1824 and the old tunnels were sealed off with the construction of Fort Scratchley in 1885.

The entrances to the mine were unknown until the discovery in 2004 of an old map dated 1856. This showed a proposed tramway to the Newcastle Breakwater as well as three mine entrances. Further investigations pinpointed the tunnel entrance sites and proposals were made to drill into them. The first drill hole was made in September 2005 and discovered a tunnel into which a TV camera was

introduced. Further investigations are planned to reveal more details of the beginnings of Australia's coal industry. Further details of the Working Party and its findings can be found at: <http://www.newcastle.edu.au/ser vice/archives/coalriver/>
Ray Graf, John Browning and Erik Eklund

Sulphide Corporation Smelter, Cockle Creek NSW

Readers of *Light Railways* will be aware that the historic lead and copper smelters at Cockle Creek, south of Newcastle, closed in 2004. A company locomotive shunted the standard gauge sidings and there were several narrow gauge industrial lines on the site. The Newcastle

demolisher rely on the fact that the buildings were erected on slag containing lead. Research by the NIHA has shown that the slag dump was not under these buildings and they were constructed on unfilled land. As this issue of LR went to press, the matter was still before the local council.

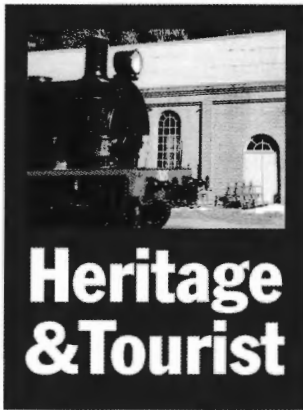
For more information, see the NIHA website:

www.niha.hl.com.au/index.php or contact Bob Cook on (02) 4926 1117. John Browning, Rod Caldwell, Bob Cook

Mittagong Ironworks research project

Further to the report in LR 187 (p.24), Mittagong researcher Leah Day has provided an update on historical research on the old Fitzroy Ironworks and the archaeological dig of the site. Leah assisted the LRRSA team with information on the Mittagong operation for the Lithgow iron and steel works research project. Following this, she joined with fellow historian Tim McCartney to launch a project in November 2002 to further research the Fitzroy Ironworks for a proposed book focusing on their historical role in Australia's early industrial history. Their objective is to record a better understanding of the turbulent and often uncertain times in which the Fitzroy Ironworks operated, and the personalities who built the industry, their struggles and their feeling of despair in the face of failure. The project has unearthed an amazing amount of new material.

The research also identified the site of the original 1848 ironworks to be that on which Woolworths proposed to build a shopping complex in 2004. The resultant archaeological dig and the open day last November were covered in our previous report. Through cooperative negotiation with the archaeologists and the NSW Heritage Office, Woolworths has modified its plans for the site to include a significant proportion of the relics in its complex. The retained area will be 40 metres by 45 metres. A local artisan is constructing a model of the old works and research for the book is continuing in order to leave a legacy for future generations of the town's role in Australia's early industrial history. Now that legacy has been enriched by the discovery of relics of the first iron works.



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

NEWS

Queensland

DALBY PIONEER PARK MUSEUM

750mm gauge

Alan Gilbert

Henschel 0-6-0T 29583 of 1956 is still to be found at this location. It is the 'sister' of the steam locomotive on the Walhalla Goldfields Railway and it is obvious that it has seen very little use. However, in spite of the benign climate, 21 years of open storage are beginning to take their toll with superficial deterioration now setting in.

John Browning, 1/06

PETER FORD, Mt Pleasant,

Mackay

610mm gauge

Former Pleystowe Mill Hunslet 0-4-2T *SEAFORTH* (1026 of 1910) has been moved from storage at the Mackay Heritage Railway's harbour site to its owner's back garden. The locomotive is visible from the Mackay-Bucasia Road on the left after crossing the rail overpass when travelling in from the northern beaches.

John Browning, 2/06

MAPLETON & DISTRICT COMMUNITY ASSOCIATION

610mm gauge

Maroochy Shire Council

Further to the report in LR 187 (p. 27), there has been some confusion in rail enthusiast circles regarding the status of the former Mapleton Tramway and Moreton Sugar Mill

Shay locomotive (Lima 2800/1914 with parts of 2091/1908) following a report on Channel 10 television. This made the incorrect claim that the Shay was to go to The Workshops Rail Museum at Ipswich for restoration. Rather, an agreement has been reached for the locomotive to go to The Workshops Rail Museum for under cover storage while the Maroochy Shire Council seeks to obtain funds for the restoration and display. This will also give Council time to consider to what state the loco should be restored – working or static, with static currently the preferred option. Once it has been decided what is to be done and funding is available, the work will be done at Ipswich Railway Workshops under the supervision of The Workshops Rail Museum. David Mewes, 01/06

New South Wales

ILLAWARRA TRAIN PARK,

Albion Park 610mm gauge

Illawarra Light Railway Museum Society

The ILRMS have sold the remains of the two A&D Munro Shay locomotives (B/No 906 of 1904 & 2097 of 1907) that are surplus to their requirements to Sketches Mountain Resort at Ravensbourne in Queensland. The items sold include the remains of a boiler, fuel bunker and 762 mm gauge bogies. These items left the Albion Park museum site on Tuesday 14 February 2006. It is the intention of the Sketches Resort to restore the locomotive as a static display in a replica of the original engine shed as the old Munro line ran near the property. The project has aroused much local interest. General information on the resort can be found on www.mountainresort.com.au.

David Jehan, 02/06

RICHMOND VALE RAILWAY,

Kurri Kurri 1435mm gauge

Richmond Vale Preservation Cooperative Society Ltd

Coal hopper JJ 579 of the non-air hoppers demonstration train was the next in line for restoration. This wagon, actually H579, is a 10-ton non-air hopper originally built for the Australian Agricultural Company's No 1 and No 2 Hebburn Collieries, some time between 1910 and 1920. The original wooden underframe was replaced with a steel frame in the late 1950s or early 1960s. Its final working days were

carrying coal between Strockington Colliery and Hexham, which finished September 1987.

Early in the start of the non-air hopper project, a decision was made to paint as many of the hoppers in their original owner's colours and name or letter codes. Where duplicate lettered hoppers exist, eg. CC, A, B, E, H, they were to be painted and coded in some long vanished colliery scheme if the hopper dimensions are close to the originals. JJ stands for James Johnston, owner of Buchanan Borehole Collieries Ltd., whose hoppers were loaded at De Sallis siding, located between Surveyors Creek Bridge and No 3 tunnel, on the Richmond Vale Railway.

Restoration of No. 579 commenced in June 2005. It soon emerged that the hopper was badly rusted. Because of the thickness of the rust on the hopper steelwork, every board had to be removed, the steelwork cleaned and sanded back to bare metal before painting with rust-proofing paint, then it was re-bolted back on. When all the bottom two rows of boards had been replaced, the hopper was lifted out of the frame using the Coles rail crane to allow work to start on the frame. The bolts on the 'W' irons were removed and replaced one at a time so the alignment of the axle boxes would not be disturbed. Once complete, the wagon frame was cleaned and sanded down before painting first in. Then the 'W' irons, springs, axle boxes, buffers and draw gear were painted black and the rest received two coats of Venetian Red.

Returning to the hopper frame, the two top boards on both sides were removed and the steelwork sanded down and painted. The new timber was then cut to size, painted and bolted to the frame. The last jobs were the sign writing and the addition of the wagon registration plates. This left only the lifting of the hopper frame back in to the wagon frame, which was completed on 13 January 2006.

This restoration, the most extensive of the hopper restoration program so far, cost just over \$1600 and required 219 man-hours of volunteer work.

Graham Black, 01/06

Victoria

ALEXANDRA TIMBER TRAMWAY & MUSEUM

610mm gauge

A visitor to this site in early January 2006 found restoration work on

the Cheetham Salt Works 4wPM locomotive No.1 owned by Peter Evans under way. Its frame has been cleaned, rust proofed and repainted, and work was going on to equip it with an operational reversing gearbox, of which several were obtained from Cheetham in varying states. A couple of interesting exhibits were 18-C-25, the Sewell 4wPM locomotive from Waranga Reservoir, and SEC2, a KS line car built by Victorian Railways and formerly used on the 3ft gauge SEC Kiewa line.

Hudswell Clarke 0-6-0 1098 of 1915 was under repair on site in a shed. Hudswell Clarke 0-6-0 1555 of 1925 is no longer here, and is believed to be located in the Flowerdale area. The boiler of Hudswell Clarke 1553 was on site. This is from the locomotive that was involved in an abortive regauging on behalf of the Walhalla Goldfields Railway. It has now been acquired by a private owner from Melbourne, where the boiler is expected to join the chassis and other parts for reassembly as a 2ft gauge locomotive.

A number of projects were completed during January 2006, including restoration of the seats in the 'small passenger carriage' (originally from a Melbourne cable tram trailer), improvements to the level crossing at the Station Street entrance to the museum and the above restoration work on the Cheetham Salt 4wPM locomotive. The ATTM is also making a submission to the Shire of Murrindindi for a 2km extension of the tramway from the current terminus to the junction of UT Creek Road and the Goulburn Valley Highway. We will bring further news of this project in future H&T reports.

John Browning, 1/06; *Timberline* 88, 2/06

COAL CREEK BUSH TRAMWAY

610mm gauge

Coal Creek Heritage Village

On Saturday 5 November 2005, five Victorian candidates were assessed for their 'Basic Boiler' and 'Reciprocating Steam Engine' operator's certificates of competency. Over the previous 18 months they had gained much practical experience and studied the theoretical details of boiler and steam engine management. All passed their assessments, thus

providing one newly qualified operator to assist the Alexandra Timber Tramway and the Coal Creek Bush Tramway in their steam operations. Hopefully the other three successful candidates will from time to time be able to assist where needed. There is a continuing difficulty in sourcing steam engine and boiler plant that is accessible for volunteers to gain 'hands-on' training. Roy Odgers and the management of Coal Creek Heritage Village are to be congratulated on the successful running of a very comprehensive steam-plant management course. By running this course in his own time and arranging a group examination, Roy has made a very positive contribution to the retention of steam skills to be passed on to future generations.

A visitor on 2 January found Bundaberg Foundry 0-6-2T No.2 *COUNT STRZELCKI* (7 of 1953) in green livery hauling a two-car train. The two carriages are side-bench saloons built by Kiewa Works, 005 of 1981 being closed and 7 of 1983 open. A third similar car was in the shed, not in use, but a works plate could not be found on it. Ruston & Hornsby Model 20DLU 4wDM 1 (354040 of 1953), painted black, was parked in the main station while blue Hunslet 4wDM 3 (4582 of 1955) was in the shed. Ruston & Hornsby Model 20DL 4wDM 235657 or 235677 of 1945 has been completely dismantled and its remains are to be seen near the depot. On a siding in a paddock at the bottom end of the loop is a collection of track maintenance vehicles including the remains of an ex CSR 'Invincible' line car. Narrow gauge coal mining skips are on display at a couple of places in the heritage park which is pleasantly laid out in a creek valley.

The steam locomotive appears to be in very good condition. On leaving the station the train descends to a large loop that surrounds the more rural part of the Coal Creek site. On completing the loop circuit, the train has to reverse back to the main station.

Roy Odgers, 11/05, Peter Evans, 1/06; John Browning, 1/06

KERRISDALE MOUNTAIN RAILWAY 610mm gauge **Andrew Forbes**

John Browning received a warm welcome when he visited this

private site on 4 January. The standard and care given to making every detail impeccable and spotless could easily lead to an impression that everything you see is brand new. The line runs from a depot area at Bottom Points and climbs past a siding at Strath View to Top Points. Here the direction of travel changes and the train continues past a loop to the Summit station.

The locomotives are No.1 *GEORGE*, a 4wDM with belt drive built on site in 1995, Malcolm Moore 4wDM No.2 *MAL* (1039 of 1943) and No.4, a heavily reconstructed Ruston & Hornsby Model 20DL 4wDM (285301 of 1949). Three four-wheel carriages are available for use. No.3 is an open 12-seater car built in 2002 while No.5 & No.6 are canopied 9-seaters rebuilt in 2005 from cars

built in 1997 for a tourist railway on St Helena Island in Queensland. Plans are well advanced to construct an 0-4-0TG rack & adhesion steam locomotive, with a boiler and other parts on hand. It is also planned to build a bogie carriage.

John Browning, 1/06

MILL VALLEY RANCH,

Tynong North 610mm gauge Ruston & Hornsby 4wDM Model 20DL 223725 of 1944 is on display outside the relocated Tynong Station building near the entrance to this Christian Youth Camp, together with a bogie flat on Rubicon Tramway bogies that saw service on Jim Baines' Yangardook Tramway. Track materials are on hand and it is hoped to build a circuit around a small lake on the property.

John Browning, 1/06

PUFFING BILLY RAILWAY

762mm gauge

Emerald Tourist Railway Board

Updating the report in LR 185 (p. 28), refurbishment of the boiler of the Climax logging locomotive (S/N 1694 of 1928) has been completed at the locomotive rebuild and maintenance shop of Linc and Joan Nickerson at Battle Ground, Chelatchie, Washington. Linc is a long-time Puffing Billy volunteer who offered to rebuild the Climax boiler "at a price that could not be refused". The boiler entered the shop in October 2005 where it was cleaned and scaled off. The original boiler front course was in bad condition, so a new one was rolled, welded and riveted in place, while new tube sheets were also constructed and fitted. The work was completed in early February 2006 and Alan Gardner and Harry Hibgame of the ETRB were present to witness the hydrostatic test and take delivery of the boiler on 12 February.

Steve Hauff, 2/06

WOMBAT GULLY TRAMWAY

457mm gauge

Wombat Gully Tramway Trust

As listed in 'Coming Events', the Wombat Gully Tramway located at Leneva, 10 km from Wodonga on the Beechworth road, will have public operations on 15-16 April 2006. This regular Easter event runs in conjunction with the Border Steam & Oil Club's annual rally where miniature, traction and stationary steam engines, along with numerous other pieces of

Coming Events

APRIL 2006

1-2 Puffing Billy Railway, VIC. *Day Out with Thomas*, featuring *THOMAS* and *DANIELLE* in steam performing in Emerald yard and *THOMAS* hauling special steam trains to Nobelius or Clematis and return. Also on 8 and 9 April. Bookings (03) 9754 6800.

1-2 Redwater Creek Heritage Museum, Sheffield, TAS. Weekend running with narrow gauge steam trains 1100-1600. Operations on the first weekend of the month. Phone: (03) 6491 1613 or 6424 7348.

2 Wee Georgie Wood, Tullah, TAS. 610mm gauge steam train operations, 0930-1600. Also operating on 8-9 and 16 April (Easter Sunday) – last operating day of 2005-06 season. Phone (03) 6473 2228 or 6473 1229 (AH).

9 Illawarra Light Railway Museum, NSW. Regular monthly operating day with two train operations, electric mining tramway and miniature trains at Albion Park from 1100-1700. See www.gghome.com/ILRMS or phone (02) 4256 4627. Also on Easter Sunday 16 April, 14 May and 11 June.

14-16 Terowie's Days of Rail and Screen, SA. Reel-to-reel movie weekend celebrating Terowie's history of Steamrail. Bookings: (08) 8659 1039 (Mary), (08) 8659 1012 (Judy).

15-16 Wombat Gully Tramway, Wodonga, VIC. Annual steam Rally in conjunction with the Border Steam & Oil Club. Narrow gauge train rides, miniature, traction and stationary steam engines, and historic agricultural equipment. Information: Damian on 03 9873 1003(ah) or dmccrohan@optusnet.com.au.

15-17 Alexandra Timber Tramway & Museum, VIC. Easter Gala event with narrow gauge steam and diesel trains (1000-1545) and museum displays. Also steam-hauled trains operate on 9th and diesel on 23rd. Information: Bryan 0407 509 380 or Peter 0425 821 234.

16 Cobdogla Irrigation Museum, SA. Open day with Humphrey Pump and narrow gauge steam train rides and heritage engines. Also Open Day on 16 April with steam train and in conjunction with the National Street Rod Rally. Phone (08) 8588 2323.

21-23 Richmond Vale Railway/Hunter Valley Training Company, NSW. *Hunter Valley SteamFest 2006*, with mainline steam trains hauled by a range of locomotives, including ex-SMR 10-class Nos. 10 and 18, the Street Steam exhibition in Maitland and heritage trains every hour at the RVR. Buses from Maitland station to the RVR. Information: <http://steamfest.com.au/Reservations>: (02) 4931 2877.

22-23 National Railway Museum, SA. 150th Anniversary of Railways in South Australia celebrations. The NRM will be the focus of the celebrations with a special VIP re-enactment train from Adelaide to Port Dock, 1067mm gauge trains hauled by 0-6-0T *PERRONE* and 457mm gauge steam trains. Phone: (08) 8341 1690; web site: www.natrailmuseum.org.au

MAY 2006

1 Adelaide River railway museum, NT. Adelaide River Railway Precinct Open Day. Information: phone (08) 8976 7101; Mobile 0417 838 578.

7 Puffing Billy Railway, VIC. *Great Train Race* – race against Puffing Billy's big brother G 42 from Belgrave to Emerald Lake to try and beat Australia's world-famous heritage train. Information and entry: phone (03) 9754 6800 or www.puffingbilly.com.au

14 Alexandra Timber Tramway & Museum, VIC. Steam-hauled narrow gauge steam trains (1000-1545) and museum displays. Also diesel trains operate on 28 May. Information: Bryan 0407 509 380 or Peter 0425 821 234.

21 Bennett Brook Railway, WA. *Friends of Thomas the Tank Engine* (FOTTE) Day with the Fat Controller and a range of exciting activities for the young and old. Phone (08) 9249 3861.

JUNE 2006

11-12 Alexandra Timber Tramway & Museum, VIC. Steam-hauled narrow gauge steam trains (1000-1545) and museum displays over Queens Birthday weekend. Also diesel trains operate on 25 June. Information: Bryan 0407 509 380 or Peter 0425 821 234.

NOTE: Please send information on coming events to Bob McKillop – rfmckillop@bigpond.com - or The Editor, *Light Railways*, PO Box 674, St Ives NSW 2075.

Heritage & Tourist

historic agricultural equipment, are on display.

The Wombat Gully Tramway began life on Jack Elliot's farm in 1973, its founders being Denys Steinhauser along with Jack, Maurie Brown, the late Bill Odgers, the late Alan Douglas and the late Doug Stamford. Over the years the track was extended to form the present 400 metre loop and the yard and assorted buildings also took shape. Like any good bush tramway it is a mishmash of scavenged equipment and buildings!

The rail and points were obtained from 34 different sites. A combination of blade points and stub points are used, the latter being in the yard. The original station building was a Victorian Railways station from Wormbete, near Geelong on the Wensleydale line. Unfortunately it sustained a white ant attack and was moved to another site a decade or so ago. The present building is the shunters cabin from Bandiana, just outside Wodonga.

The way and works gang shed is an original VR gangers shed from Beechworth and has so far survived the ravages of our termites. The engine shed came from a Geelong quarry and at one stage contained some historic equipment, including a large lathe from the former Albury locomotive workshops and a blacksmith's forge. The two Victorian Railways signals came from Everton, junction on the former Beechworth and Bright lines.

Rolling stock is even more varied, most of it being built from bits and pieces. The petrol-engined locomotive *WOMBAT* is the stayer. Originally powered by a series Ford Prefect engine, it now has a rather inauspicious Datsun 1000 engine that occasionally blows enough smoke to convince the gullible that it is a steam loco. The original steam loco was *ANNA*, a 0-4-0 styled after a North American logging locomotive. The boiler came originally from a quarry battery at Beechworth and the steam engine came from a steam shovel at Geelong Cement where it operated the shovel jaws. *ANNA* was replaced by No. 3, later to be named *BILL ODGERS*, in 1983. This is a 2-4-4T

based on the Maine 2ft gauge locomotives. The boiler came from a steam tractor at Condobolin and the steam engine came from a mine winch at Glen Wills

The original carriages were four-wheelers with a lot of the parts coming from packing crates! The two bogie carriages were built in the late 1970s, many of their fittings being salvaged from carriages to be burnt at Junee. The bogies came from the former SECV 20-inch gauge briquette tramway at Yallourn. The four-wheel guards van was converted from a bakers cart obtained from an Essendon bakery! The annual Easter event is quite a family affair with Bill Odgers' son Roy now stepping up to the footplate. He and some other dedicated volunteers come up to Leneva every year from Melbourne and do work on the locomotive throughout the year. The Steinhauser children and now grand children are also very much in evidence filling in many roles. As always with voluntary organisations more hands are always welcome.

Anyone wanting more information about the Easter running or the Wombat Gully Tramway can contact Damian on 03 9873 1003(ah) or dmcrohan@optusnet.com.au. Camping at the rally is permitted by prior arrangement.

Damian McCrohan, 02/06

WALHALLA GOLDFIELD RAILWAY 762mm gauge **Walhalla Tourist Railway Committee of Management**

Saturday 7 January was not a very brisk day for customers, but the railway was in operation with plenty of staff on hand to ensure good service for the visitor. EM Baldwin 4wDH 030 *KASEY* (3225.4 2.70 of 1970) hauled cars 1NQRW and 2NBW from Thomson to Walhalla along the spectacular line through Stringer's Creek Gorge. This ex-tunnelling unit has been nicely converted but its small wheels and long wheelbase give it an unusual look below the footplate. It was stated that John Fowler 0-6-ODM 14 (4210051 of 1951) was out of service awaiting spare parts. It appears that Walhalla Station rather than Thomson is becoming the operational headquarters of the railway. In the station at Walhalla was parked ex-Emu Bay Walkers B-B DH 576 of 1963, which was still not yet ready to enter service.

John Browning, 1/06

Tasmania

DON RIVER RAILWAY

1067mm gauge

Van Diemen Light Railway Society Inc.

A visitor to the Don River Railway on 29 December 2005 found a hive of activity with one locomotive in steam, together with a static display of railmotors and diesel locomotives. The ex-Emu Bay Railway 4-8-0 No. 8 *HEEMSKIRK* (Dübs 3855/1900) was running regular passenger trains to Coles Beach. Our visitors took this train on the last run of the day and noted that the locomotive was burning a mixture of old pallets and a touch of coal to keep the firebox temperature lower, in order to prolong the life of the firebox. A tour of the locomotive shed and workshop was a highlight. It is a real Pandora's box of goodies from the old lockers, tools, casting patterns, and machinery needed to maintain the locos, along with the engines themselves either waiting for repairs, just being stored or undergoing rebuilds. Spotted in the shed was ex-EBR C2 four-wheel wagon in pristine condition loaded with junk, and an interesting collection of perway vehicles both hand-operated and petrol-powered. Outside was a Ruston & Hornsby industrial rail tractor sitting just off the turntable. A most enjoyable afternoon was had with very helpful and informative volunteers at hand to answer all questions.

Kevin Waid, 02/06

IDA BAY RAILWAY

610mm gauge

A visitor to this railway in January noted operating 4wPM locomotives No. 1 (Malcolm Moore 1038, originally No.3) and No.3 (Malcolm Moore 1056, original No.5 and previously numbered 2, then 3). The original IBR locomotives Nos. 1 and 4 Malcolm Moore 1010 and 1052) were in a dismantled condition. The original MM No.2 (B/N 1017), which was converted to a 'tram loco' and named *TEDDY BEAR*, was missing. Rolling stock comprised railcars No. 7 (the old IBR workers' railcar) and No.8 (built on a Lake Margaret railcar underframe); and various bogie flat cars, 4-wheel ballast wagons and other items. The steam locomotive chassis reported in LR 185 (p.28) – ex-Magnet and Tullah Tramway Orenstein & Koppel 0-4-0T (719 of 1901) and the Tullah Tramway's *WEE*

MARY WOOD (J Fowler 17732 of 1927) – are located at the truncated end of the line to the quarry. Steve Zvillis, 01/06; John Browning 01/06

REDWATER CREEK, Sheffield

610mm gauge

Redwater Creek Steam & Heritage Society Inc.

Passenger trains, comprising the ex-Boulder tramway green passenger carriage PB1, the ex-NE Dundas Tramway red carriage A1 and guards van DB1 hauled by composite Krauss 0-4-0WT (5682/1906 and 5800/1907) were operated daily between 1 and 16 January 2006. With improved publicity, including radio advertising, passenger numbers showed a 90 per cent improvement on previous years. *SteamFest 2006* was held from 11-13 March with the 2ft gauge steam train again the main attraction. We hope to have a report on this event for the next issue of *Light Railways*. Peter Martin, 2/06

WEST COAST WILDERNESS RAILWAY, Queenstown

1067mm gauge

Federal Hotels Limited

A family who rode on the WCWR train from Queenstown to Strahan, then took the bus back to Queenstown on New Year's Day report that the trip was well worth the money, despite the wet conditions. Stops were made at Lynchford for water and coffee and a wander round the station exhibits, then the train passed thru Halls Creek and up the rack to Rinadeena for water. The noise of the Abt steam locomotives with both rack and rail working together sounds not unlike a Garratt, and you ask how does something this small make all that sound? The journey continued down the rack to Dubbil Barril for lunch where passengers watched the shunting moves and loco turning on the small turntable. They changed trains there for the diesel trip to Regatta Point stopping at Teepookana for honey tasting and a walk to the river. This train has the extra carriage in which the food for the lunch stop is carried. With an annual rainfall of 4-5 metres per year, rain is to be expected in these parts and so it was on New Year's Day. The wet conditions contributed to the Wilderness atmosphere of the journey. A jarring note was the yellow mud in the rivers, which comes from the mine tailings. Kevin Waid, 02/06



Above: Bundaberg Fowler 0-6-2T No.2 COUNT STRZELECKI (BFC 7 of 1953) at the main station at Coal Creek on 2 January 2006. Photo: John Browning. **Left:** The former UK War Department and North Eton sugar mill 4-6-0T (Hunslet 1239 of 1917 – see LR 185, p. 26) was photographed at the Workshops Rail Museum, Ipswich, by Camille Geraghty over the Christmas holiday period, when the Museum hosted a 'Thomas' exhibition. For the occasion, it was given a face and nicknamed 'Trenchie' (in recognition of its WW1 'trench railway' activities). **Below:** The 2-4-4T BILL ODGERS with the passenger train on the Wombat Gully Tramway. The rustic station is an original VR gangers shed, while the depot is behind. The station has received a fresh coat of paint for the steam rally on 15-16 April. Photo: Alexander McCooke.





Above: Former Emu Bay Railway 4-8-0 No.8 HEEMSKIRK (Dübs 3855/1900) at the Don River railway station awaiting departure for Coles Beach on 29 December 2005. Photo: Kevin Waid.
Right: The restored non-air hopper wagon JJ 579 at the Richmond Vale Railway in January 2006. Photo: Graham Black. **Below:** Youthful passengers brave the wet conditions at Rinadeena as the fireman replenishes the water tanks of the West Coast Wilderness Railway Abt 0-4-2T locomotive No. 3 (Dübs 3730/1898) on New Year's Day 2006. Photo: Kevin Waid.



Western Australia

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

The railway maintained a hectic daily schedule during the Christmas school holiday period. A feature this year was *The Great Rail Race*, a twice-daily race between a BBR train and an electric tram from Whiteman Village Junction Station to Mussell Pool. While the tram had a higher speed than the trusty BBR Planet diesel locomotive pulling three carriages, it was handicapped by a tram line that was twice as long as its rival, there were several bends to negotiate and the line passes through a populated village. The train crew therefore devised a number of distractions to ensure that each race would be a cliffhanger. On one occasion the ruse of the locomotive leaving its carriages behind at the station and having to return to collect them failed when the tram crew – unaware of the plot – stopped to allow the engine crew to complete their additional task!

The BBR has a new locomotive, a steam-outline 4wDH named *ASHLEY*. It was built by Kless Engineering of Marayong in NSW in 1986 for the Harvey Fruit Bowl railway and went to the Dizzy Lamb Park at Wanneroo north of Perth in 1994. The locomotive is in good condition, but requires a new fuel tank, couplings and fittings to match existing BBR stock, and other minor work. It is hoped to

have the locomotive ready for the *Friends of Thomas the Tank Engine* Day on 21 May 2006. *BBR Railway Worker*, Feb 2006; John Browning 2/06

KOJONUP TOURIST RAILWAY 1067mm gauge

Kojonup Shire Council

This wheat belt town on the former WAGR Katanning to Donnybrook railway line has restored 5km of track from Kojonup toward Farrar and operates a tourist train over this section. The train is very much a 'light railway', comprising a small diesel-powered Daihatsu truck converted to rail and a converted Mini Moke, operating push-pull at either end of two light 'tourist-type' 18-passenger carriages. The KTR formally operates over the WA Queens Birthday long-weekend in September-October at the height of the Wildflower season, but has recently gained approval to operate charter trains at other times. The KTR also has the second generation Perth Zoo 'train' built in 1988 as a road vehicle by Willis Light Engineering. The steam-outline locomotive is built on a Land Cruiser chassis and is based on the profile of the former WAGR H class 0-6-0T locomotive. It is planned to convert this train for 1067mm gauge rail operations Gwenda Kinniburgh, 12/05 and 1/06; Lindsay Watson, 12/05

**MINING HALL OF FAME,
Kalgoorlie 610mm gauge**
Updating the report in LR 177 (pp.29 and 31), the surface tourist train at this site hauled by a Gemco

4wBE locomotive has been closed. Management advises that visitors now walk to the various points of interest. Mining Hall of Fame correspondence, 2/06

Overseas

HONG KONG RAIL MUSEUM

610/1435mm gauge
The Hong Kong Railway Museum, which is part of the Hong Kong Heritage Museum, and is located at Tai Po Market in the New Territories. The museum is small, but very well worth a visit. Exhibits consist of the old Tai Po Market station which was built in Chinese style, five standard gauge coaches and one Australian built standard gauge Bo-Bo diesel-electric locomotive (Clyde 059 of 1955) No 51. However, the gem of the display is the 610mm gauge 0-4-4T steam locomotive (Bagnall 2227 of 1923) which operated on the Kowloon Canton Railway narrow gauge branch line between Fanling on the main line and Sha Tau Kok. The line operated between 1912 and 1928, after which the locomotive was sold to the Victorias Milling Co in the Philippines. The Hong Kong Heritage Museum bought the locomotive in 1995 and has restored it back to the configuration that it had when in service in Hong Kong. David Jehan, 02/06

STATFOLD BARN RAILWAY, UK

610/762mm gauge
Graham Lee, chairman of Burton-on-Trent based LH Group Services, has recently been in the news in

Heritage & Tourist

relation to the establishment of the company's fully owned subsidiary, the Hunslet Steam Company, which is manufacturing new Hunslet and Kerr Stuart steam locomotives. He has also established narrow gauge garden and field railways at his Statfold Farm. Standard gauge and 610mm and 762mm gauge tracks from a loading dock allow locomotives or rolling stock to be unloaded and rolled onto a triple-gauge turntable and directed into the loco shed. The central road is triple gauge, with 610mm and 762mm gauge tracks on either side. The first line was a 610mm gauge garden railway some 550 metres in length. The 762mm gauge field railway was added later and there are plans to extend it to form a complete loop some 3km in length. Locomotives include ex-Harrogate Gasworks 0-6-0ST SBR No.1 (Peckett 2050/1944); 0-4-2ST *TRANGKIL* No.4 (Hunslet 3902/1971) built to 762mm gauge for Trangkil Sugar Mills in Indonesia, but converted to 610mm gauge during restoration; 762mm gauge ex-RNAD 0-4-0DM (Hunslet 2019/1939) and a 4wDM Motor Rail Simplex. Four more steam locos from Indonesian sugar mills have been acquired and are under restoration. In addition, the farm railway is the base for building new Hunslet Steam Company locomotives. *Narrow Gauge World*, Nov/Dec 2005



Kieran Wright photographed the ex-Isis Sugar Mill 0-6-0 DM ROSALIE (John Fowler 411019 of 1950) hauling a demonstration freight train on the Bennett Brook Railway in September 2005.

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Clockwise from below: Kerrisdale Mountain Railway's Ruston 4wDM No.4 (285301 of 1949) with the recently rebuilt St Helena cars at the upper terminus of the line, 4 January 2006. Photo: John Browning. □ Hot work! The driver tops up the radiator of the Mini Moke on the Kojonup Tourist Railway train in readiness for another run. The Mini Moke operates in push-pull configuration with a diesel-powered Diahatsu truck converted to rail. Photo: Gwenda Kinniburgh. □ After cancelling an order in 1976, Mourilyan became the last mill to operate a bogie locomotive, 27 years later. Here EM Baldwin B-B DH 26 (7244.1 8.77 of 1977), ex South Johnstone Mill, approaches the mill yard with a train from the south, 22 September 2005. Photo: John Browning □ The steam-outline locomotive of the former Perth Zoo road train at the Kojonup Tourist Railway. The locomotive and train are being converted to rail operation. Photo: Gwenda Kinniburgh. □ Henschel 0-6-0T 29583 of 1956 stored in the open at Dalby Pioneer Park Museum, 15 January 2006. Photo: John Browning. □ A reader has sent us this photograph of the 0-6-0DH locomotive built by Walkers of Maryborough (B/N 570 of 1956) as a demonstration unit in conjunction with the North British Locomotive Company of Glasgow. It allegedly undertook commissioning trials at North Eton mill and possibly Racecourse mill in December 1956, then operated briefly at several mills before going to the Mourilyan Bulk Sugar Terminal in 1960. The locomotive became No.11 at Mourilyan sugar mill in 1992 and was sold to a private buyer in Victoria in 2001. It has now been restored to the high standard evident in this photograph.

