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Australia's Magazine of Industrial & Narrow Gauge Railways

LIGHT RAILWAYS



Light Railway Research Society of Australia Inc.



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Australia's Magazine of Industrial and Narrow Gauge Railways

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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 met
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

2005 is a special year for the Puffing Billy Railway. Fifty years ago, on 8 June 1955, building on the start made by the 'Farewell' specials of the previous year and the work of the 'Citizens' Committee' in March (when \pounds 1250 was raised to guarantee against losses by the VR), the Puffing Billy Preservation Society was formed.

In those days, operations were restricted to the section of track between Upper Ferntree Gully and Belgrave (now part of the broad gauge electric suburban network) as a landslide near Selby prevented trains from running any further.

Remarkably, this section of the Gembrook line had once been the scene of another groundbreaking exercise when, thirty-four years earlier, it was chosen as the site for Australia's first installation of automatic signalling. Lit by 'slow burning' oil lamps, their motors and track circuits powered by Waterbury glass soda cell batteries housed in wooden boxes, these cutting-edge safeworking pioneers successfully guarded the Puffing Billy trains for nine years.

The line lost these signals in 1930, but it's pleasing to see a couple reappear on the PBR in recent times, a reminder of a grand, historic experiment. Bruce Belbin

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

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

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

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

Front Cover: In August 1972, CSR's Macknade Mill number 9 (Hudswell Clarke 1863 of 1952) is on its way to the sugar terminal at Lucinda, North Queensland, with a trainload of bulk sugar. Originally delivered to neighbouring Victoria Mill, where it was named CORONATION, it was the last of 34 0-6-0 tender locomotives built by Hudswell Clarke for CSR Ltd between 1912 and 1952. It was retired from service in 1976 and now resides within the Puffing Billy Steam Museum at Menzies Creek, Victoria. Macknade and Victoria Mills still operate bulk sugar trains to Lucinda, though, as a glance at page 16 will reveal, the motive power has changed somewhat. Photo: John Shoebridge Back Cover: During the crushing season, drinkers leaving the Post Office Hotel at Mossman, North Queensland, must not only be mindful of vehicular traffic on the adjacent street, but also be careful not to be run over by a cane train! In November 2004, Mossman Mill's chimney towers majestically in the background as EM Baldwin B-B DH DAINTREE (7303.1 7.77 of 1977) brings a train of empty wagons down Mill Street. Photo: Bill Kerr

Automatic Signals on Single Lines, Victorian Government Railways. First Installation to be brought into Operation in Australia.

from THE RAILWAY ENGINEER January 1923, submitted by Mark Langdon

The advantages obtained from the use of automatic signals on single lines of railways, both from the safe working and economic aspects, have long been recognised in the United States of America, where, according to the information available at December 31, 1921, 19,445 miles, or 7.5 per cent. of the total single line track mileage, is operated under their protection. Single track forms 90 per cent. of the total track mileage in the United States, while it is only 37.2 per cent. of the track mileage in Great Britain, where the existing signalling and safe working methods are considered quite adequate for the traffic carried. The situation in the Colonies, however, is more nearly akin to that of the United States, and an important decision was arrived at by the signal engineers of the Government railways of Australia, that automatic signalling of single lines without the use of single-line tokens (e.g., staff or tablet) may be regarded as perfectly safe.

A length of 11 miles of single line between Upper Hutt and Lower Hutt on the New Zealand Government railways is being equipped with automatic signals using similar circuits

to those about to be described, but operated by alternating current, and the New South Wales Government Railways Commissioners have authorised the installation of automatic signals for a length of 80 miles of single line which is under course of construction. The South Australian Government railways are providing automatic signals for the single line between Eden and Murray Bridge, a distance of 51 miles, and in the meantime have installed power signals at several crossing stations and are installing signals at the remaining crossing stations as material comes to hand. The intermediate signals between stations however, have not yet been installed. The Victorian Government railways are the first to give practical effect to the decision of the Signal Engineers' Conference and bring single-line automatic signalling into operation in Australasia. This is the first country in the British Empire outside Canada to adopt such a system for single-line working. By the courtesy of the Victorian Railways Commissioners we are enabled to give the following description of the installation, together with the accompanying diagram and photographic reproductions.

The standard track gauge of the Victorian Government railways is 5ft. 3in., but in some parts of the system where hilly districts are served there are branches of 2ft. 6in. gauge. Such a section, which is single line, commences at Upper Fern Tree Gully, 25 miles from Melbourne, and continues on to Gembrook, a distance of 18 miles. On this route, which passes along the Dandenong Ranges, are a number of pleasure resorts much frequented by tourists and the city dwellers. From each station on the narrow-gauge railway there are many beauty spots to visit, and during the summer months the traffic over the line is exceptionally heavy. In addition, many week-end cottages have been erected along the route, and the whole district is expanding yearly, requiring a greatly



Although the automatic upper quadrant signals described in the article were decomissioned in 1930, and the narrow gauge line between Upper Ferntree Gully and Belgrave was closed for conversion to broad gauge in 1958, three-position upper quadrant signals can still be seen in action on today's Puffing Billy Railway. Here, on 31 March 2004, signal L1943 watches over the level crossing at Cockatoo as Garratt G42 passes on a Belgrave-bound test train. Photo: Peter Ralph



Fig. 1.-Signal Arrangements, Upper Fern Tree Gully to Belgrave.

increased train service. In order to accommodate the increased traffic, it became necessary to provide an additional crossing station at Upwey, 1% miles from Upper Fern Tree Gully.

On the narrow-gauge railway the train-staff and ticket system, in conjunction with Winter's single-line block instruments, is in operation, and after investigating the different methods by



Fig. 2.—Intermediate Automatic Signals. Normal position of Signal Arms with Control Track Circuits Unoccupied.

which an increased track capacity could be effected, the Chief Engineer of Signals and Telegraphs, Mr. F. M. Calcutt, recommended that the installation of three-position, upperquadrant, electric signals be adopted between Upper Fern Tree

Gully and Belgrave, a distance of 31/2 miles, retaining the present train-staff and ticket working for the remainder of the line for the present. The Railway Commissioners approved of this, and arranged for the work to be carried out and be brought into service before the heavy summer traffic commenced It was decided to operate the signals on the absolute permissive block system, with "Normal Danger" departure signals, as originated and developed by the General Railway Signal Company, of Rochester, N.Y., and Melbourne. In this system the standard features of the A.P.B., as used in the United Stated, Canada, and elsewhere, are retained, i.e., the directional stick relay and the double "Caution" indication of an opposing train; and, in addition, the departure signals have been made "Normal Danger" and electrically interlocked one with the other. This arrangement eliminates even the remote possibility of two trains entering the single line in

opposite directions at the same instant which exists in standard A.P.B., as accepted by the United States railways, and might, at the most, necessitate one train backing out after both trains had been stopped at the intermediate signals. The principle of overlaps is the same as that laid down in the manual of the Signal Section of the American Railway

Association, which says: "Overlaps are not desirable for following movements, as adequate advance information can be provided in the signal system. Overlaps are necessary for opposing movements where adequate advance information cannot otherwise be provided." The signals were installed and brought into service on December 22, 1921, in time to meet the Christmas and New Year holiday traffic. Since that time the signals have been working satisfactorily, and it is likely that other single lines will be equipped with automatic signal in the future.

Fig. 1 shows the signalling arrangements between Upper Fern Tree Gully and Belgrave, with the controls for following and opposing movements. The distance between signals is also shown, with the position of the signal arms when the tracks are unoccupied. The ruling grade between Upper Fern Tree Gully and Upwey is 1 in 30, rising to Upwey. Leaving

Upwey for Belgrave, the gradient is 1 in 40, falling for part of the way and then rising at a gradient of 1 in 40. The line curvature is very sinuous, there being a number of 3-chain and 5-chain curves.



Fig. 3.---Train occupying Track Section. This has caused Signal ahead of L. 1318 to go to " Danger," hence L. 1318 goes to " Caution " from " Clear " position.

Methods of Working a Train through Single-line Sections.

Upper Fern Tree Gully and Belgrave are attended crossing stations and Upwey is an unattended crossing station. When a train arrives at Upwey, the guard, unless other arrangements are made, is in charge of the station until the departure of his train, and when two trains are at the station the guard of the train arriving first is in charge.



Fig. 4 .--- Train passing Signal Location.

The starting or departure signals at Upper Fern Tree Gully and Belgrave for the single-line sections to Upwey are controlled by an operating switch, and the home or arrival signals at those two stations are mechanically operated. By "single-line section" is meant the entire section of track extending between two crossing stations; and any division of this single-line section, the entrance to which is governed by a fixed signal, is termed a "track section."

In operating a train through the two singleline sections between Upper Fern Tree Gully and Belgrave, the following method is adopted:-A track indicator is provided at Upper Fern Tree Gully and Belgrave to indicate when the departure signal will respond to the operation of its control switch. When the single-line section is unoccupied and the opposing departure signal arm at the next crossing station in advance is at "Stop," the track indicator shows "Track Clear." When a train travelling away from the station is in the first track section ahead of the departure signal, or when the opposing departure signal arm at the station in advance is in the "Caution" or "Clear" position or when a train is approaching in the opposite direction, the track indicator shows "Track Occupied."

When the track indicator shows "Track Clear" and the train is ready to proceed on to the single line, the departure signal control switch

is operated, and this closes the signal mechanism circuit, allowing the signal arm to rise to the "Proceed" position. At the same time the opposing departure signal arm at the opposite end of the single-line section is locked in the "Stop" position. As soon as the train enters the single-line section, the track indicator changes to "Track Occupied", and the signal arm returns to "Stop." Should one or more trains be required to follow in succession before a train is due to arrive from the opposite end of the single-line section, the switch is left in the reverse position, and the signal will then work automatically when the track sections are cleared.

The intermediate signals between two crossing stations work automatically. The operation of these signals depends upon the direction of the traffic, and this is provided for by means of a "stick relay." The track section between two signals is divided into two track circuits for the purpose of

> operating the directional stick relay. When a train passes a signal and short-circuits the track section immediately ahead of the signal, a circuit is taken through a contact, making from 40 to 90 deg., connected in the signal mechanism and working in conjunction with the signal arm, and then the circuit is continued on through a bottom contact of the track relay to the stick relay coils. The holding circuit for the stick relay is taken through a top contact of the stick relay istelf, made when the relay is energised, and a bottom contact of the signal control relay, operative when the signal control relay is de-energised.

> When a train approaches from the opposite direction, the track circuit in advance of the track circuit immediately ahead of the signal is short-circuited when the train reaches that point. This track circuit is in the control of the signal control relay operating the signal mechanism, and as the track relay is de-energised, the

circuit is opened and the signal arm goes to the "Stop" position without energising the stick relay for the opposing direction. By this means the direction of traffic is detected by the stick relay, which is energised during the time a train is moving through a track section in one direction, and de-energised during the same period with a train moving in the other direction. As the signal control circuit is selected through



Fig. 5 .- Releasing Switch Box and Point Connections, Upwey.

contacts on the opposing stick relay, protection is thus ensured that conflicting signals will not be displayed.

Fig. 2 shows the position of the signal arms when the singleline sections are unoccupied. Fig. 3 show that a train has entered the section at Fern Tree Gully, and 1,286 having gone to "Danger", 1,318 goes from "Clear" to "Caution". In fig. 4 the train is a section further, and now 1,318 goes to "Danger." When the train reaches a predetermined point approaching Upwey station, the departure signal arm controlling the entrance of that train into the single-line section ahead automatically rises from the "Stop" position to "Proceed", provided (1) that the first track section ahead of the station is unoccupied; (2) that the opposing departure signal arm at the next crossing or terminal station is in the "Stop" position; and (3) that there is no train approaching in the opposite direction on any track section of the single line ahead. In this way the departure signal works automatically, and no manual operation is required.

Should, however, trains be required to cross at Upwey, the train due to arrive first is usually sent into No. 2 Road. If the trains are closely approaching the station at the same time, the arrival signal in both directions will be automatically placed to the "Stop" position; but in the case of the arrival signal showing "Proceed", the train must be brought to a stand, the guard or fireman goes forward and unlocks the padlock of the ground facing point lever, seen in Fig. 5, and then sets the facing points for the train to enter No. 2 Road and after seeing that that no train is entering or leaving the opposite end of the station, verbally instructs the driver to proceed, passing the arrival signal arm in the "Stop" position. This arm, it will be noticed, has a pointed end, and may be passed when in the "Stop" position under the same conditions as apply to automatic signals.

As No. 2 Road is non-track circuited the control of the arrival signal is only arranged from the through or No. 1 Road and the reversing of the points opens the signal mechanism circuit, which is taken through a point contact box detection the position of the points, causing the signal arm to go to "Danger". As soon as the train has passed clear of the facing points, the guard restores and locks the points in their normal position set for the through road; and when the train has stopped clear in No. 2 Road, the arrival signal for the approaching train in the opposite direction will go to "Clear"; and at the same time the departure signal arm for that train will also go to "Caution" or "Clear" provided that the track section ahead or the single-line section in advance us unoccupied respectively. When the train is due to leave No. 1 Road, the departure signal having operated as described, the train can then proceed without any further signalling operation.

When a train is due to leave No. 2 Road, the guard goes to a releasing switch box, seen in the foreground of Fig. 5 - there is a switch box at each exit - opens the box and presses the plunger firmly in, holding it there for a couple of seconds, when the departure signal arm will go to the "Caution" or "Clear" position, dependent upon the clearance ahead; and at the same time the opposing departure signal arm is locked in the "Stop" position.

When the departure signal arm goes to the "Caution" or "Clear" position by the operation of the plunger, the guard moves the lever and sets the trailing points for the train to pass from No. 2 Road, still keeping the releasing switch box open. When the points are reversed, the opposing arrival signal arm goes to "Danger", as the control circuit for the mechanism is detected through the point contact box when in the normal position. After the front of the train has passed the departure signal, the releasing switch box is closed and locked, and when the whole of the train has passed over the points, the guard restores and locks the points in their normal position set for the through road, and the train can then proceed on its way.

The arrival signals at Upper Fern Tree Gully and Belgrave

are mechanically-operated lower-quadrant signals. An electrical reverser is fitted to the up arrival signal at Upper Fern Tree Gully, and is controlled through the track circuit between the up arrival signal and the opposing departure signal. No electrical equipment is fitted to the Belgrave down arrival signal as the track circuits terminate at that point.

The three-position, upper-quadrant, low-voltage signal mechanisms are the standard Model 2A type of the General Railway Signal Company. Four-ohm neutral track relays are used for the track circuits, 1,000-ohm line relays are used for stick and other purposes, and 670-ohm three-position polarised relays, supplied by the General Railway Signal Company are used for the signal mechanism controls. Waterbury soda cells in rectangular glass jars of 500 amperehour capacity are used for signal and track circuit purposes. Two cells, connected in parallel, are used for each track circuit, and an adjustable track resistance, manufactured at the Victorian Railways signal shops, is inserted in series with each track circuit for the purpose of preventing waste of energy and injury to the battery when a train is short-circuiting the track circuit. The batteries and track resistances for feeding two track circuits are housed in a wooden box, an example being shown in Fig. 6. A larger box is used for the housing of the stick, track, and control relays, and twenty cells, connected in series, which are used for signal operation. These are placed near the signal masts, and wire connections from the boxes to the signal masts are carried in galvanised-iron pipe.



Fig. 6 .- Track Battery Box.

Aristos copperweld wire, No.10 B. & S.G., 30 per cent. conductivity double-braided and weatherproof, is used for the line wire between different signal locations. From Upper Fern Tree Gully to the up end of Upwey station three wires are required; between the up and down ends of Upwey station eight wires are required; and between the down end of Upwey station and Belgrave three wires are required. The ordinary railway telegraph poles are fitted with an additional arm for carrying these wires. Kerite wire, No. 16 S.W.G., is used for connections between the poles and the relay boxes. The rails are bonded by two No. 8 S.W.G. galvanised-iron wires wedged into the rails with channel pin clips being fitted on to the fishplates for holding the wires in position. Long-burning oil lamps are used for the signal and marker lighting. The signal installation work was carried out by the Signal Department staff under Mr. F. M. Calcutt, Chief Engineer of Signals and Telegraphs.

The British agents for the A.P.B. system are the British Power Railway Signal Company Limited, Caxton House, Tothill Street, S.W.1.

Alexander Croll's Timber Tramway: Myall Lake

by Jim Longworth

Mayers Point

Mayers Point is a minor promontory on the northern shore of Myall Lake north of Newcastle, named after the late Thomas Mayers of Bungwall.¹ Extensive timber tramways of Allen Taylor Pty Ltd once terminated on the northern shore of Mayers Point.² Chronologically Taylor's tramway was the third to terminate on the point, it being a development of the tramway built by the Australian Timber Export Company around 1906,³ but forfeited during 1912.⁴ The first timber tramway installed at Mayers Point was that constructed by Alexander Croll in 1896.

Alexander Croll

Alexander Croll was born in Scotland in 1835. After completing an apprenticeship, he sailed as shipwright on various ships, ending up in Australia where a Captain Newton employed him at Pelican Bay, Manning Point. John Wright, with whom Croll had shared his apprenticeship, took up land in the Myall Lakes district, and Croll joined him there. Alexander's first experience in sawmill work was as benchman with John Wright at Duncan MacCrae's mill, which was established in 1862 at the mouth of Boolambyte Creek as the first such venture in the district.

Alexander Croll married Eliza Jane McKay in 1867 and settled in the Bungwall district. In 1872 he formed a partnership with John Wright and John Rodger to establish a sawmill at Bungwall. When the partnership was dissolved, Alexander took over the mill and carried on the business with the assistance of his eldest son James, and from about 1900 his second son Alex, when it became known as A Croll and Sons. Subsequently, Alex took over management of the Bungwahl operation.

Bungwall Flat

Known as Bungwall Flat, Bungwall and finally Bungwahl, this village, located between Myall Lake and Smiths Lake, grew from Croll, Wright and Roger's sawmill. Croll also set up a general store there and a public school was opened in 1876. In its heyday, the village boasted three hotels, a police station and a Church of England. In 1924 A & J Croll advertised over 1000 acres of land for sale at Bungwahl, subdivided into blocks from 40 to 200 acres. The township itself which then consisted of a general store, post and telegraph office, school of arts, public school, saw mill and several comfortable residences, was 'at the centre of the estate.'

Bungwall Sawmill

Croll, Wright, and Rodger's sawmill seems to have been established about 1872-73, being the third erected in the Port Stephens district. The partnership was dissolved in October 1877 when Wright retired after being bought out for $\pounds 2000$ by his partners. The continuing partners carried on under the name, style, and firm of "Croll and Co.".⁵ Three years after Wright's departure Croll bought Rodger's half share of the business for $\pounds 3000$.

Despite the great slump in the colony's timber trade, Croll managed to keep the mill operating, and during the 1890s

Depression, his was the only mill in the district to continue its operations uninterrupted. Around 1894–95 Croll entrusted the Sydney agency for his entire operations to Allen Taylor.

By 1907 the mill, powered by a 16 horsepower engine, was producing about 800,000 superfeet of timber a year. The logs brought in for milling were principally tallow-wood, blue gum, flooded gum, and a little grey gum, plus some turpentine logs for use as piles.⁶

Early one morning in July 1911, fire was seen issuing from the mill. Despite the efforts of a bucket brigade that brought water from the lake, the mill was almost totally destroyed, only the boiler surviving intact, with the overall loss valued at about $\pounds 1500.^7$ Loss of the mill meant loss of employment for some 50-60 mill-hands and teamsters, resulting in a general depression in the district. The cause of the fire was deemed accidental and rebuilding commenced immediately.

Croll's Mayers Point Timber Tramway

During the latter months of 1895, Croll applied to the Department of Lands for a lease for the Special Purpose of a tramway and landing place.⁸ A lease was granted from 1 April 1896 to 31 December 1910 for a tramway and works in connection therewith, covering an area of 13 acres 2 roods 25 perches, for an annual rent of £25.° The decision to build the tramway may have been influenced by the timber tramway that had been built by Hudson Brothers sometime during 1877, between Smith and Myall Lakes.¹⁰

While the tramline was under construction in August 1896, James Croll was charged with having in his possession parts of certain trees for use in constructing the tramline, valued at $f_{1,9}$, the property of the Government of NSW. The local forester, Augustus Rudder, stated that he had found certain grey gum timbers that had been worked up and placed in the tramway. He had traced tracks from the stumps of several grey gum trees in the forest to the tramway. The space between stump and tops measured from 40ft to 70ft. Croll produced a permit issued by the Department of Mines to cut inferior woods, but the forester argued that the trees were 'the pick of the forest'. William Woodrow was the foreman over the men engaged in constructing the tramway. Constable Cooper was unable to corroborate the evidence or the class of the timber and the case was dismissed. The further charge for removing timber without a licence was withdrawn. At the end of the proceedings, the Police Magistrate swore James in as a magistrate of the colony and formally welcomed him to the Bench.11

The tramway ran downhill from Forest Reserve No. 20969 above the headwaters of Shingler's Creek, to a timber loading wharf on the southern shore of Mayers Point.¹² Logs transported on the tramway were loaded onto punts at the Mayers Point wharf and taken along the northern shore of the lake to the company mill at Bungwall. There they were unloaded and sawn into marketable timber

The terms of the special lease for the tramway were extended from 1 January 1911 to 31 December 1915 for: Two landing places and a strip of land 50 links wide, 3 miles 7¹/₄ chains long, extending in a north-westerly direction from the foreshores of Myall Lake through the land districts of Stroud and Taree.¹³

By 1907, Croll was operating some three to four miles from the tramway and its terminus in order to obtain good logs. The Australian Timber Export Company had obtained permission to build its tramway which was to run virtually parallel a little to the north of Croll's tramway and it was believed that this would hasten the demise of the area as a timber getting area. Nevertheless, Croll's tramway seems to have still been in use as late as 1912,¹⁴ and the lease was not forfeited until 1918.¹⁵

Shipping

As Myall Lake was only a couple of feet deep in places, no vessel of any draft could run direct to the mill, so cut timber was punted from the mill to Port Stephens for transhipment.16 Croll and Co. launched a punt in November 1877, but because of the hot weather the seams opened up and she sank. The punt was left to lie in the shallow water until such time as the planks swelled up again and regained the positions as originally intended.¹⁷ The firm lost a large quantity of timber when the Colleen Bawn was lost the following month. During 1878 the mill built a 'fore and aft' schooner to carry its cut timber from Port Stephens to market in Sydney.

Alexander Croll & Sons subsequently formed a joint venture with Mitchell Brothers to build and operate the steam vessel Kalanga. The Kalanga was used to carry timber punted from both the Mitchell Brothers and Croll's mills on the Myall Lakes to market. Later the sawn timber was transhipped at Windywopper, now Winda Woppa, just below Tea Gardens. Traffic on the lake increased to the point that it necessitated the provision of a public wharf at the growing township of Bungwall. Croll was the successful tenderer and he constructed the wharf during 1897, engaging the services of a diver, a Mr Christian from Sydney.18

When Alexander Croll's father-in-law, John McKay, died in 1878, several of the local mills closed on the day of the funeral. Messrs Croll and Co.'s steamer conveyed employees and other residents of Bungwall and the surrounding district to the funeral that was held at Bullahdelah.

While on one trip between Bungwall and Port Stephens, the company's steam lighter was swamped by a sudden squall, causing it to heel over at such an angle that water poured into the stokehole. Sinking fast she took another lurch causing the timber deck cargo to slip off and into about 20ft of water. The engineer, Mr Franklin waded into the stokehole, waist deep in water to keep the fire going. Getting the steam pumps to work, he saved the vessel.

Alexander Croll died at his residence Huntley at Bungwahl on 16 August 1917, aged 82. Both Wright and Roger had predeceased him.

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Location map and route of tramway. Source: Parish Map of Topi Topi, 1903.



With builder's number the same as running number, Kalamia Mill's No. 1059 handles a navvy train, probably during the 1950s. Photo: Ken Rogers collection

Malcolm Moore V8 locomotives in sugar mill service

by John Browning

Introduction

To meet Australia's wartime needs, Malcolm Moore Ltd is believed to have produced 92 2ft gauge petrol locomotives for the Australian Army at its Port Melbourne factory from 1943. These were three tons in weight and were fitted with a Ford Mercury V8 engine and truck transmission with a reversing box to allow four speeds in either direction.¹ Following the war, many were put on sale as surplus, some apparently unused, and so became available cheaply to sugar mills. More than 20 are known to have been used in sugar mill service.

Previously, most internal-combustion locomotives used in the Australian sugar industry had been imported from Britain, although some Australian units, including a handful of Malcolm Moore 'Fordson' locomotives, were used by sugar mills. In the immediate post-war era, import restrictions and severe delays in supply made diesel locomotive purchases from overseas problematic. Although equipped with a thirsty petrol engine, the Malcolm Moores used the same fuel as most tractors and other agricultural machinery. In addition, the replacement of the petrol engine with a Fordson or other model of diesel was relatively straightforward, and had become common by the mid to late 1950s. Although it was in theory necessary for the driver to have a 'ticket' from the Queensland Machinery Department to drive a Malcolm Moore, the required test was far less stringent than that for the steam locomotive driver's ticket.

This did not mean that there was not disagreement about appropriate rates of pay. In 1951, Bingera Mill was convicted by the Industrial Magistrate for a breach of the award in paying a Malcolm Moore driver as a "Simplex driver" and not as a "Locomotive & Traction driver", but this judgement was set aside by the Industrial Court on appeal.² The matter did not end there, for in its award of May 1954, the Industrial Court instituted the separate classification of 'Malcolm Moore driver' with a rate of pay 2d. per hour more than that of a 'Simplex' driver. This was justified by the determination that a Malcolm Moore locomotive was more powerful than a 'Simplex' but not comparable with an "ordinary steam or diesel locomotive." The court established that there were at least three different engine types fitted to Malcolm Moore locomotives, ranging from 28hp to 60hp (with the Ford V8 being at least 60hp), while the Motor Rail 'Simplex' petrol and diesel locomotives used by sugar mills were normally fitted with a 20hp engine.³

Malcolm Moore V8 locomotives are known to have been used at Moreton, Bingera, Fairymead, Proserpine, Inkerman, Kalamia, Tully, South Johnstone, Mourilyan and Mossman Mills. Their major uses were for the delivery of portable track, for navvy train haulage, for cane haulage on light lines, and for mill yard haulage and the removal of ash and filter press mud from the mill.

	MAL	COLM MOORE FORD 2ft GAUGE V8 LOCOMOTIVES USED IN SUGAR M All except the prototype believed ordered by the Commonwealth Department of Supply &	ILL SERVICE
B/n	Date	Details	Identity
811	1942	Imperial Chemical Industries Ltd, Dry Creek, South Australia Moreton Mill, Nambour, 1956; fitted with Fordson diesel engine c.1967 Nambour & District Historical Museum Association, Nambour, 2004	JOE
1001	1943	Mourilyan Mill, 1949; fitted with Fordson diesel engine, 1958; out of use by 1975; dismantled; remains displayed in navvy area, 1990; sold or scrapped by 1995	
1007	1943	Bingera Mill by 1951 (stationed at McIlwraith) fitted with Ford diesel engine Gin Gin Mill by 1970 Bingera Mill (with tramway), 1975; fitted with Perkins diesel engine by 1977 dismonded by 1000 cold on grammad by 1004	69 166
1008	1943	Bingera Mill by 1950, sold of scrapped by 1954 Bingera Mill by 1951 (stationed at Givelda) fitted with diesel engine by 1964 Gin Gin Mill by 1966 dismantled by 1970 at Wallaville but later returned to Bingera Mill sold or scrapped by 1994	67 171
1009	1943	Bingera Mill by 1951 (stationed at Ralf's Siding) fitted with Perkins diesel engine, 1956 Gin Gin Mill (with McIlwraith Tramway), 1964 Bingera Mill (with tramway), 1975; fitted with Ford diesel engine by 1977 dismantled by 1990; sold or scrapped by 1994	66 "McIlwraith"
1011	1943	Babinda Mill, 1949, fitted with Fordson diesel engine Roger Anderson, Wonga Beach, Q, 1998 Peter Evans, Newcastle area, NSW, 2004	2, 19
1013	1943	Inkerman Mill by 1953; fitted with diesel engine after 1954 and by 1958 out of use after 1963 Puffing Billy Preservation Society, Menzies Creek, Victoria, 1982	
1016	1943	Tully Mill, 1948 or 1950; fitted with diesel engine; derelict by 1975; scrapped	32
1025	1943	E A Sloman & Sons (dealers); Bingera Mill, 1948 fitted with Perkins diesel engine and hydrostatic transmission, 1969 Gin Gin Mill, 1969	68 168
		Bingera Mill (with tramway), 1975 Fairymead Mill by 2004	"Hydro"
1037	1943	Tully Mill, 1948 or 1950; fitted with diesel engine; derelict by 1976 scrapped c.1977	H11
1039	1943	Mourilyan Mill, 1949; fitted with Fordson diesel engine, 1960; out of use by 1975 Andrew Forbes, Kerrisdale Mountain Railway, Victoria, 1999	10
1040	1943	Tully Mill, 1948 or 1950; fitted with diesel engine?; scrapped by 1975	10
1042	1943	Mossman Mill, 1953; fitted with Fordson 4-cylinder engine preserved after 1992	-, 007 STUMPY
1046	1943	possibly State Electricity Commission of Victoria or State Rivers & Water Supply Commission of Victoria (fitted with Hercules diesel engine) Proserpine Mill, 1962; fitted with Ford diesel engine by 1964; out of use 1972 sold or scrapped by 1975	
1051	1943	Moreton Mill, 1947; fitted with reconditioned engine, 1954 fitted with Fordson diesel engine, c.1966 Australian Narrow Gauge Railway Museum Society, Woodford, 2004	SANDY JIMPY
1054	1943	Tully Mill, 1948 or 1950; fitted with Fordson diesel engine, 1960 derelict by 1975; scrapped c.1976	H9
1057	1943	Babinda Mill, 1949; fitted with Fordson diesel engine; out of use by 1994; Roger Anderson, Wonga Beach, Q, 1998 Peter Evans, Newcastle area, NSW, 2004	1, 20
1058	1943	Royal Australian Navy, South Australia? Moreton Mill, 1947; out of use 1978; preserved at mill 1979 Nambour & District Historical Museum Association, Nambour, 2003	JIMPY, SANDY
1059	1943	Kalamia Mill by 1950; fitted with diesel engine?; out of use by 1961 John O'Hara Enterprises, Ayr, 1973; sold or scrapped by 1975	No.1059
1060	1943	South Johnstone Mill by 1947; fitted with Ford diesel engine about 1962 Sydney Olympic Park Authority, Newington Armory, NSW, 2004	11, 17
?	1943	South Johnstone Mill by 1950; fitted with Ford diesel engine c.1962 scrapped 1982	12 .
?	1943	South Johnstone Mill by 1951; fitted with Ford diesel engine c.1962 scrapped 1982	13
?	1943	Mossman Mill, 1952; derelict by 1976; scrapped	JESSY
?	1943	Fairymead Mill; fitted with diesel engine?; sold or scrapped by 1975	
?	1943	Qunaba Mill (only known from Bundaberg Foundry parts order dated 1966 - this unit r from Fairymead Mill when the Spring Hill tramway was taken over by Qunaba in 1955.	nay have been obtained)

Modifications

In sugar mill service, the Malcolm Moores were modified to suit the requirements of their operators. A variety of driver canopies appeared. Not all the Malcolm Moores purchased by sugar mills were fitted with their original canopies, and these received home-built protection from the elements. In the case of those which did have canopies, replacements were fitted as the old pressed metal roofs became rusted or bent. Similarly, the outward-splayed angle iron roof supports were replaced by simpler vertical ones. New couplers were fitted, the driver's seat replaced, and frequently ballast weights were added as experience showed that the locomotive's weight was insufficient to take maximum advantage of the engine power. As mentioned previously, replacement diesel engines were usually fitted within the first ten years of mill use. Sometimes, this necessitated a lengthening of the engine compartment, which was often accommodated by adding a frame extension at the front end, such as at Babinda Mill.

Bingera Mill was one which went in for quite major rebuilding of their Malcolm Moore locomotives, with running boards, ballast weights, cab steps and sandboxes being fitted, as well as diesel engines. Their most radical reconstruction was carried out in 1969, when locomotive 1025 was rebuilt with a Perkins 6-cylinder diesel engine and hydrostatic drive.

Portable track transport

During the days of hand cane cutting, the mills owned quantities of portable line which was supplied to growers and harvesting gangs for laying in the field during harvesting operations. Although by the early 1950s, this practice had been discontinued in some mill areas, it persisted in others. Each slack season, the track was taken back to the mill for maintenance by the "rail gang". This often included coating with tar as a preservative. Not only did the portable track have to be transported at the start and finish of each season, it was also frequently moved around as harvesting progressed, and Malcolm Moore locomotives, with their light weight, were able to venture onto lines not available for steam locomotive use in order to gain access as close to the paddock as possible. The rail was usually transported on line bogies which were often made from cut down cane trucks. With the introduction of the mechanical chopper harvester, the use of portable track was discontinued and so this role disappeared.

The navvies

The navvies were an important part of the cane transport system. They moved around the tramline system during the crushing season, giving attention of trouble spots as they developed, and were responsible for clearing up derailments, including reloading spilt cane. They also did much maintenance and upgrading work during the slack season. In days gone by, timber sleepers and earth ballast was the standard for many cane tramways, and all work was done by pick and shovel. The Malcolm Moore was able to haul the navvies to the work site, and handle useful loads of ballast, rail or sleepers. Its speedy performance enabled it to get in and out to trouble spots between cane trains. The increased availability of flexible road transport to take the navvies to the work site, and the introduction of heavy bogie ballast hoppers and mechanised track equipment has meant that in more recent times the Malcolm Moore became no longer so suitable for this kind of work.

Malcolm Moore units used for portable line haulage and navvy duties were frequently stationed away from the mill at navvy depots. In the 1950s, South Johnstone Mill kept one at Silkwood and one at Japoon, Tully Mill kept one at El Arish, and Mourilyan Mill kept one at Cowley.⁴



The most famous of all, SANDY "the Cane Train", (1058), still with a Ford V8 petrol engine fitted, stands in the yard at Moreton Mill on 4 January 1978. The canopy roof has met with an accident. Photo: John Browning

Cane haulage

At the end of the second world war, many sugar mills still had branch lines that were laid with rail too light for steam locomotive use, and isolated feeder lines which served government railway sidings. These tramways (often known as "horse lines") had commonly been worked by contractors using horse haulage. The advent of the Malcolm Moores often enabled cane on these lines to be hauled by locomotives for the first time, and subsequently the lines would be upgraded for main line locomotive use or else cut back.

On arrival at Moreton Mill in 1947, one of these locomotives was based at the River Depot for use on light lines near the Maroochy River.⁵ The last place where Malcolm Moores were regularly used for cane haulage on light line was the McIlwraith area of Bingera Mill, where a Malcolm Moore was noted hauling rakes of four 6-tonne bins as recently as 1981.

Yard shunting

Before the days of mechanised mill yards, it was necessary to shunt the rakes of cane from the full yard and over the weighbridge to the tippler, and remove the empty trucks to the empty yard. Arrangements for this work varied from mill to mill, and at some, lighter duties were carried out by horses. The Malcolm Moores were able to take over light duties in the yard, and were also useful for the many other odd jobs around the mill in the days before road vehicles were used as widely as they are today, for example hauling waste ash from the mill boilers, removing filter press mud to be spread on the cane fields as fertiliser, or shunting narrow gauge wagons used for bagged sugar transportation. In addition, before the start of the crushing season, trucks loaded with cordwood had to be hauled to firewood stacks in the mill yard for starting up the boilers. During the crushing, if there was a shortage of bagasse fuel, firewood had to be taken from the stacks to the boiler station, a job for which a Malcolm Moore was used at Mossman Mill.6

Mechanised yards mean that light yard locos are no longer required, and more efficient boilers able to burn only bagasse (with a little fuel oil at times), and rubber-tyred vehicles for transport around the mill and to remove sugar and by-products from the mill have again eliminated the role formerly performed by the Malcolm Moore.

Moreton Mill and "Sandy the Cane Train"

Moreton Mill initially purchased two surplus Malcolm Moore locomotives in 1947.⁷ A further two were obtained from ICI in South Australia in 1956.⁸ One of these was from the 1943 series but the other is claimed to have been the prototype, built by Malcolm Moore the year before.

The story of *Sandy the Cane Train* commemorates the exploits of one of the Malcolm Moore locomotives at Moreton Mill.⁹ This story, based on fact, tells of how *SANDY* was able to haul cane over an outmoded and heavily graded light line from the North Maroochy River valley after the newer main line via Bli Bli had been blocked by an accident, so keeping the mill supplied with cane.

A locomotive named SANDY, still fitted with a V8 petrol engine, was preserved in the mill grounds, but it seems that it is not the original SANDY, which is believed to have swapped identities with another Malcolm Moore, JIMPY, at some time, probably in the 1960s.

Two Malcolm Moore locomotives remained available for use at Moreton Mill right up until 2003, the last year of the mill's existence.

South Johnstone Mill

Although used mainly for portable line haulage and navvy duties, the three Malcolm Moores at South Johnstone (where they were known as known as 'beetles') were occasionally pressed into service for cane haulage in the case of main-line locomotive breakdowns or other emergencies. The V8 petrol engine provided plenty of power, and it is claimed that a Malcolm Moore in original condition could haul as many as 70 loaded trucks on the level. This was possible because the V8 petrol engines could produce maximum power at low revolutions. The engines roared and gulped petrol, and the exhaust system became red hot, but the load could be hauled. Such usage tended to result in frequent engine replacement! There were plenty of war surplus Ford V8 petrol engines available in the early 1950s. When re-engined with a more economical four-cylinder Fordson diesel, these units were far less favoured for hauling heavy loads. At low revolutions, the diesel engine did not produce enough power, and much clutch slipping was required to take up a load at high engine revolutions, a less than desirable practice.10

Mossman Mill

At Mossman Mill, two Malcolm Moores were used for a time on the Whyambeel and Bamboo Creek branches in the Miallo area following the termination of a private haulage contract in the early 1950s. On these heavily graded lines, the Malcolm Moores struggled with 15 to 20 cane trucks, approximately 30 to 40 tons, and so were never particularly satisfactory for the task, particularly when considering their appetite for petrol. However, they proved quite suitable for moving navvy gangs and their supplies around during the crushing season when three or four loaded ballast trucks were sufficient for the job of "picking up holes" in the track.¹¹

Tully Mill

Tully Mill used four Malcolm Moores for shifting rails, and assisting with yard shunting and cane haulage. Three EM Baldwin 8-ton 0-4-0DH locos were purchased in 1965 to replace them.¹² However, with the advent of mechanical chopper harvesting and the consequent cessation of portable rail transport, the Malcolm Moores were soon made completely redundant as the Baldwins displaced them on navvy duties.

Kalamia Mill

Kalamia Mill's use of its Malcolm Moore locomotive must have been successful, for in 1960 it took delivery from Commonwealth Engineering of the prototype Model GA locomotive, a small 4wDH designed specifically as a modern replacement for the Malcolm Moore V8.¹³ This was the only example sold to a sugar mill, presumably because of the high capital cost of such a replacement when compared to the cost of re-engining a Malcolm Moore with an industrial diesel engine.

Bingera Mill

Unlike other mills, which seem to have purchased Malcolm Moores in ones or twos, Bingera Mill appear to have purchased four Malcolm Moore locomotives as a job lot. These were first registered by the Queensland Machinery Department in September 1951. At the time of registration, they were sited at Givelda, McIlwraith, Ralf's siding, and the mill. It is believed they were purchased for cane haulage on various light lines.

Givelda is an area to the south of the Burnett River. The connection to the main tramline system was by a balanced incline on the Givelda bank of the river and a steam winch





Mossman Mill's 1042 has acquired a cab step, battery support, new canopy roof and high buffer for shunting canetainers. It sits in the mill yard with Baguley 0-6-0DM MOWBRAY (3378 of 1954) on 21 August 1985. Photo: John Kramer

on the mill side. The Malcolm Moore brought loaded cane trucks to the top of the incline on the Givelda side, and they were hauled to the mill from the opposite bank by a main line loco. (One can imagine the Malcolm Moore crossing the river by similar means should it have to return to the mill for attention.) In 1960, a locomotive bridge incorporating a zig zag on the northern bank was built, and main line locomotives could work through to Givelda, displacing the Malcolm Moore from these duties.¹⁴

Ralf's Siding is 12km west of Bingera Mill, on the old Invicta Mill tramline, at the point of its connection to the main mill tramline that was made in 1943. A steam locomotive was stationed here for many years. The Malcolm Moore brought cane trucks here and they were made up into rakes for steam haulage to the mill. The mill-based Malcolm Moore is believed to have worked in the mill yard and on various light lines to the south and east.

The McIlwraith tramline network was adjacent to the QGR Mount Perry branch some 20km west of Bingera Mill. The network of light lines, dating from 1918, converged at McIlwraith station yard, where cane was transhipped into QGR wagons for transport to the mill. Before the advent of the Malcolm Moores, horse haulage had been used to bring the cane to the transhipment yard. In 1964, this area was transferred to Gin Gin Mill in a rationalisation of assignments, and a connecting line was built from Wallaville, where Gin Gin Mill was situated.¹⁵ The Malcolm Moore at McIlwraith was also transferred to Gin Gin ownership. The following year, Gin Gin Mill was purchased by the owners of Bingera Mill, and some if not all of the remaining Malcolm Moores were also transferred to Gin Gin to assist with the elimination of steam traction on its predominantly light lines. Gin Gin Mill remained in operation until the end of 1974, when it was closed, and a connecting line built from Bingera to Wallaville to enable cane to be transported to Bingera Mill.





The most transformed. Bingera Mill's "Hydro" (1025) at the mill on 12 May 1978. Only the chassis and bonnet front and top are recognisable. A comparison with the photo of No. 1059 at Kalamia is instructive. Photo: John Browning

The connection of McIlwraith to the Gin Gin tramway system in 1964 meant that rather than working cane downhill to the OR, the task was now to work it uphill to the new connection near McIlwraith School. It was a real treat in 1981 to see the Malcolm Moore, dwarfed by the 6-tonne bins it had to haul, its two-man crew perched upon it, struggling along with its load. An additional delight of this backwater was the springloaded gate through which the Malcolm Moore had to pass, and which could be negotiated with careful driving without dismounting from the locomotive! Alas, this could not last.

Following the absorption of the Gin Gin Mill tramlines by Bingera, part of the McIlwraith network was upgraded for main line loco use after 1981, and the remainder was closed. Up until this time, at least one Malcolm Moore was based at McIlwraith and another at Wallaville where it is thought to

have shunted the road delivery point in the old mill yard and possibly also worked on the light lines in the Currajong Farms area.

Latter years

A handful of Malcolm Moore locomotives remained available for use at a number of sugar mills up to the 1990s. These were generally for navvy use, and so tended either to be found standing idle in the mill yard, or out with the track gang on the line somewhere. A late innovation was the use of a Malcolm Moore locomotive for tourist services. In 1991, South Johnstone Mill's number 17, which had been overhauled a few years earlier, went into use hauling a short passenger train between the mill and South Johnstone township. The same year, Mossman Mill's unit was overhauled and repainted, maybe with possible use on the Bally Hooley commuter service in the Port Douglas area in mind, although it was never used for this purpose.

Two Malcolm Moores remained in service at Moreton Mill until its closure after the 2003 season, but following this only one locomotive remained available for use in sugar mill service, the much rebuilt "Hydro" which had migrated from Bingera to Fairymead Mill.

1. Malcolm Moore publicity brochure of about 1947; Peterson, John. The Unknown Soldier. Narrow Gauge & Industrial Railway Modelling Review Volume 2 No.16. Ram Publications, Pinner, England

2. Australian Sugar Journal (ASJ) Vol 43 No.9 p.667

- 3. ASJVol 46 No.3 p.181
- 4. Len Heaton, interviewed by the author, January 1992

5. Alcorn, Berenis & Dunn, Robin, 1997. Moreton Sugar Mill - Sweet Heart of Nambour, p.128.

- 6. E.M.Loveday, personal communications 29/1/1992 & 6/4/1992
- 7. Alcorn, Berenis & Dunn, Robin, 1997. Moreton Sugar Mill Sweet Heart of Nambour, p.128.
- 8. Keith McDonald notes
- 9. Jean Chapman, 1966. Sandy the Cane Train, Angus & Robertson, reprinted 1977
- 10. Len Heaton, interviewed by the author, January 1992.
- 11. E.M.Loveday, personal communications 29/1/1992 & 6/4/1992 12. ASJVol 56 No.12 p.968

13. Browning, John (Editor), 1990. Australasian Locomotive Builders Lists 4. Commonwealth Engineering (Qld) Pty Ltd, Light Railway Research Society of Australia

14. ASJVol 52 No.3 p.257; ASJ Vol 52 No.4 p.308

15. ASJ Vol 55 No.11 p.785, p.789



Bingera Mill's "McIluraith" (1009) has been heavily rebuilt with tractor canopy, frame extension, sandboxes, running board complete with concrete ballast, and substantial cab steps. Here it is hauling its maximum load of four 6-ton bins of cane over the light lines at McIlwraith on its journey to McIluraith School where it will deposit them in the holding loop to be picked up by a main line locomotive. 30 September 1981. Photo: John Browning



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Special thanks to contributors to the Locoshed and Cane Trains e-groups

http://groups.yahoo.com/group/Locoshed http://groups.yahoo.com/group/Canetrains

EDITORIAL

The recent sudden announcement of the closure of Fairymead Mill has foreshadowed the likelihood of further sugar milling rationalisation in Queensland. The final abolition of the remnants of the cane assignment system from the start of 2005 enables farmers in certain areas to contract with the mill that will offer the most favourable terms, for the first time since 1915. The defection

of around 80 growers from Bundaberg Sugar to Isis was sufficient to precipitate the closure of Fairymead and it remains to be seen if such a move will benefit growers in the long term. With low sugar prices persisting, much land that went into cane production in the boom years of the early 1990s has reverted to grazing or other crops while urban encroachment is a significant factor in some areas. Apart from possible closures brought on by competitive forces, it is likely that the larger millers will further rationalise in Mackay, the Burdekin and Innisfail districts, while the future of Mossman looks shaky. With this latter exception, mill closures are unlikely to lead to extensive tramway losses, but the diversion of haulage to road transport in the case of Isis Mill is a worrying and probably unsustainable development.

NEW SOUTH WALES

BLUE CIRCLE SOUTHERN CEMENT, Berrima (see LR 165 p.18)

1435mm gauge

Goninan Bo-Bo DE 024 of 1967 remains in its shed at the cement works, apparently not seeing any use. Melanie Dennis 1/05

BLUESCOPE STEEL LTD, Port Kembla

(see LR 180 p.18)

1435mm gauge The recently rebuilt and repainted English Electric Australia Bo-Bo DE D28 (A.053 of 1961) was noted at Steelhaven on 21 January. It is generally similar to D19 (A.033 of 1960), rebuilt in 2003, but with a different cab roof profile and some minor painting details. On 25 January, ex-BHP English Electric Australian Co-Co DE D51 (A.111 of 1965) was at Steelhaven, freshly painted in South Spur Rail Services' blue livery following refurbishment by United Goninan there. Chris Stratton 1/05; Chris Walters 1/05

QUEENSLAND

BUNDABERG SUGAR LTD, Bingera, Fairymead & Millaquin Mills

(see LR 181 p.18)

610mm gauge

A visit to Bingera Mill on 23 January 2005 revealed most of Fairymead Mill's locomotives there for slack season maintenance. Those unaccounted for were noted at Fairymead on 9 February when Clyde 0-6-0DH 56 (56-89 of 1956) was in the locoshed, dismantled Ruston & Hornsby 9 (339211 of 1953) and Com-Eng 4wDH 72 (GA1148 of 1961 rebuilt Fairymead 1971) were in the mill yard, and Clyde 0-6-0DH 55 (DHI.6 of 1954) at the navvy depot 'Bush Paddock'. Also at Bush Paddock was Malcolm Moore 4wDH 1025 of 1943, formerly at Bingera Mill. On 3 February, Bundaberg Sugar announced the immediate closure of Fairymead Mill, claiming that this step had been forced upon it by about 500,000 tonnes of district cane being lost to Isis Mill. This has become possible with industry deregulation meaning that 2005 is the first year since 1915 that farmers are able to sell cane to the mill of their choice. Observant readers will have realised that a recent application by Bundaberg Sugar for Commonwealth sugar industry adjustment funding was for improved cane transport links which are exactly the ones necessitated by closure of Fairymead.



Victoria Mill's Walkers B-B DH VICTORIA (599 of 1968 rebuilt Tulk Goninan 1994) emerges from the mangroves as it arrives at Lucinda following a run from Victoria Mill, 29 August 2004. The load is 84 loaded 11-tonne bulk sugar wagons and a brake wagon. The name on the front end of these locomotives is a welcome innovation. Photo: Scott Jesser



Top: BlueScope Steel's newly overhauled and painted English Electric Australia Bo-Bo DE D28 (A.053 of 1961) pictured at the Port Kembla Steelhaven workshops on 21 January 2005. Photo: Chris Walters **Centre:** The penultimate train to cross Moreton Mill's lifting bridge, 5 January 2005. The EM Baldwin 0-6-0DH locomotives PETRIE (6/2300.1 6.68 of 1968) and BLI-BLI (6/1257.1 7.65 of 1965) have been turned to face north. Nine days later, they left the Moreton Mill tramway for ever. Photo: Edward Millington. **Above:** On 23 January 2005, just eleven days before the announcement of the closure of Fairymead Mill, EM Baldwin 0-6-0DH RUBYANNA (3460.1 7.70 of 1970), spotless in new paint, sits inside the workshop building at Bingera Mill. Photo: John Browning

LIGHT RAILWAYS 182 APRIL 2005

Fairymead cane will now be transported to Bingera and **Millaguin** Mills for crushing.

The cane lost to Bundaberg Sugar is from 78 farmers from the southern part of the Millaguin Mill area and from Bingera Mill's Wallaville area. It is reported that very little cane will remain to be transported by rail from Wallaville to Bingera, perhaps as little as 80 bins a day. Unless the capacity of the Burnett River ferry at Fairymead is significantly upgraded, it appears that much of the Fairymead cane for Millaguin will be transported by road transport. A Bingera Mill tramline once ran to Invicta and Tegege, but unless it is restored it appears that all Fairymead cane for Bingera may have to cross the QR at the Meadowvale drawbridge crossing, with most of it having travelled a roundabout route via the Fairymead mill yard.

Editor 1/05 & 2/05; David Mewes 2/05; Australian Canegrower 21/2/05 via Chris Hart; Bundaberg NewsMail 11/2/05 via Barry Blair; Carl Millington 2/05

BUNDABERG SUGAR LTD, Moreton Mill

(see LR 181 p.19)

610mm gauge

Demolition of any remaining sections of track became difficult after 31 December 2004 when all tramway easements expired and arrangements had to be made with individual landowners for any train movements and for any remaining track materials to be removed.

EM Baldwin 0-6-0DH locomotives *BLI-BLI* (6/1257.1 7.65 of 1965) and *PETRIE* (6/2300.1 6.68 of 1968) departed Moreton metals for Bingera Mill on 14 January. The mill's four 4-wheeled ballast wagons have also gone to Bingera. Com-Eng 0-6-0DH *JAMAICA* (B1112 of 1956) remained at the mill site. The Gemco track jack and at least some of the remaining navvy wagons were noted at Fairymead Mill's Bush Paddock depot in early March.

Carl Millington 1/05; Editor 3/05

BUNDABERG SUGAR LTD, Innisfail district mills

(see LR 181 p.19)

610mm gauge

Local rumour suggests that **Mourilyan** Mill will close at the end of the 2005 season when the backshunt connection with **South Johnstone** at Currajah has been eliminated. Although there is a possibility of **Babinda** Mill losing cane to Mulgrave, it is claimed that Bundaberg Sugar owns the farms in the border zone between the two. Shane Yore 2/05

CSR LTD, Herbert River Mills

(see LR 181 p.20)

610mm gauge

Victoria Mill's EM Baldwin 4wDH 8002.1 8.78 of 1978, known as 'Hambledon', was moved during February, first from outside the locoshed to the navvy area, and subsequently to the scrap storage area. This locomotive has been stored in the open without an engine for several years. Its old engine and transmission, together with a replacement engine acquired some years ago

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were recently transferred to the Macknade Mill locoshed.

A specialised 4-wheel vehicle for use in aligning rail before welding has been completed at Victoria Mill. It has a series of arms and pullies for aligning the rail.

On 4 March, it was noted that Victoria Mil's preserved Hudswell Clarke *HOMEBUSH* (1067 of 1914) had been moved to the bin shop at the mill. Steven Allan 2/05, 3/05; Chris Hart 2/05

CSR PLANE CREEK PTY LTD

(see LR 181 p.21) 610mm gauge Slack season track maintenance has seen resleepering work being done on the South West line. Carl Millington 1/05, 2/05

HAUGHTON SUGAR CO PTY LTD, Invicta Mill, Giru

(see LR 181 p.21)

610mm gauge

The CSR Railsafe system is being implemented at Invicta Mill in 2005 and at other CSR mills, with similar systems being used elsewhere. Railsafe is integrated with an Electronic Mimic Board in the Traffic Office and the program 'TOTools' (Traffic Officer Tools). The primary purpose of the system is to provide safe operation on the rail network using GPS technology. When a radio call comes through from a locomotive requesting a new clearance, the Traffic Officer will move the train's icon on the Railsafe computer. A train is represented by a head icon and a tail icon and both need to be moved for a new clearance to be registered. Brakewagons will also have GPS transponders fitted, so the Traffic Officer will not be able to place the tail icon past the current location of the brakewagon. The GPS equipment enables the train display to move on the Electronic Mimic Board to represent its actual position at any time.

The Traffic Office computer and the locos are fitted with a number of warnings, some of which are: Vehicle Proximity (crossing loops and the mill yard are not included), SPAD (clearance authority breach), Vehicle Overspeed (either over 35kph, or over the speed limit for that section of track), Approaching workcrew, Approaching new speed zone etc. The display on the loco is a multi-functional touch screen and will generally display the current location, distance to clearance authority limit, distance to restrictions, and the running schedule (ie. sidings to be visited and the number of bins to be delivered). The "running sheet" is live, so as delivery instructions are updated on the TOTools computer in the Traffic Office, an alert sounds on the Railsafe unit on the appropriate loco, letting the driver know the run instructions have changed. The driver needs to confirm this alert, thus reading the new information. As bins are collected on the return



Top: A Plane Creek Mill navvy train at South-West Line Siding 1, 12 February 2005. Com-Eng 0-6-0DH D8 (FC 3777 of 1964) heads up a regauged QR bogie flat wagon, a home-made ballast plough, and Tamper Model TSR-PS sleeper renewer/scarifier 825817 of 1987. Photo Carl Millington **Centre:** Invicta Mill acquired this Mitsubishi linecar in 1987 and it is still in service on 13 February 2005, almost 18 years later, Does anyone know who adapted it for rail use? Photo: Jason Lee **Above:** Cab interior of Invicta Mill's EM Baldwin B-B DH BURDEKIN (10215.1 7.82 of 1982). The screen on the left is the new Railsafe display unit. Photo: Jason Lee



Top: Victoria Mill's Walkers B-B DH HERBERT (612 of 1969 rebuilt Walkers 1993) crosses a low bridge over a floodway on the Stone River line as it nears Trebonne, west of Ingham, on its way to the mill. The impressive load is 255 four-tonne cane bins and a brake wagon. 7 October 2004. Photo: Scott Jesser **Centre:** Proserpine Mill's Walkers B-B DH 12 (673 of 1971 rebuilt Bundaberg Foundry 1998) with bogie brake wagon number 1 (Walkers 1998) in the mill yard on 25 July 2004. Photo David Rowe **Above:** On a wet 23 January, Mackay Sugar's Walkers B-B DH 7321 (643 of 1970) is loaded ready for its return journey to New South Wales. This standard gauge locomotive was purchased for eventual rebuilding and use for cane haulage on the 2ft gauge but after five years in Queensland it has been sold for reuse as surplus to requirements. Photo Brett Geraghty

trip, the driver enters this information into the Railsafe system, and the Traffic Office TOTools computer is instantly updated with this information, as is the Railsafe computer, so the Traffic Officer knows the exact load on each loco at any given time and from where the bins were collected. Heavy rains in January completely washed away all the RSU (remote shunting unit) 'landing pads' built for use by the drivers on the single operator

locomotives for health and safety reasons. They will need replacing.

It is expected that Invicta Mill will commence in May as a new boiler at Pioneer Mill will not be ready until June or July. Jason Lee 1/05, 2/05

ISIS CENTRAL SUGAR MILL CO LTD

(see LR 181 p.21 & 180 p.21) 610mm gauge

The additional 500,000 tonnes of cane secured from former Bundaberg Sugar farmers will be transported by road vehicle from each farm to the nearest siding. There will be around 80 additional loading 'pads' required, and another 200 new bins. Semitrailers will haul three 7-tonne bins at a time and the maximum haul distance will be up to 60 kilometres.

The reopening (on 2ft gauge) of the old QR line Dillarnil branch from its current terminus at Promiseland to Booyal has been considered by Isis Mill. This would reduce the road haulage distance from Wallaville but it is believed that at this stage it will not be proceeded with and Wallaville cane will be transported to Adies, just west of the mill. *Australian Canegrower* 21/2/2005 via Chris Hart; Carl Millington 2/05

MACKAY SUGAR CO-OPERATIVE Association Ltd

(see LR 181 p.21)

610mm gauge

Standard gauge Walkers B-B DH 7321 (643 of 1970), stored at the North Eton mill site since 1999, was sold before Christmas for use by an interstate rail operator. It was loaded on 23 January for transport to Lithdow in NSW.

Mackay Sugar has made a decision not to convert any of its three ex QR Walkers DH-class B-B DH locomotives stored at North Eton for cane haulage. Only 900mm gauge CC02 (587 of 1968) remains in running condition and it will probably be offered for sale. CC01 (586 of 1968) is without an engine - used to re-power *BALBERRA* (657 of 1970) and DH25 (607 of 1969) is also without an engine, with its body in a very poor state. The future of these locomotives is unknown at this stage, with resale of parts a possibility.

Work is being done to permanently couple Clyde 18-tonne 0-6-0DH locomotives *HABANA* and 11 *MARIAN*, which will have its cab removed. The combined unit will most likely work at **Racecourse** Mill. This in turn will free up a Baldwin B-B DH within the group, probably 6 *MIA MIA* (9815.1 10.81 of 1981) which will be allocated to a mill on a day-to-day basis to assist with handling the cane from roaming harvesting groups. These groups can have a major effect on cane scheduling, with larger ones loading up to 100

LIGHT RAILWAYS 182 APRIL 2005

Industrial NEWS Railway

6-tonne bins in a day. It is planned to weight *MIA MIA* from 28 tonnes up to 32 tonnes to increase its haulage capacity, probably in 2006.

Racecourse is the now Mackay Sugar's central locomotive maintenance facility. New lines were laid near the Racecourse locoshed in 2004 to accommodate the additional locomotives. Approximately 35 were there in late January with six Walkers 94 class and an Eimco at **Pleystowe**. Pleystowe is now the central bin maintenance shop for slack season maintenance.

A 24-tonne Clyde 0-6-0DH locomotive, believed to be 9 *PALMYRA* (63-273 of 1963) was transported to the Detroit Diesel workshop in Mackay around 22 February for engine repairs.

A number of locomotives were active on a variety of duties during February including Eimco B-B DH 18 *GARGETT* (L255 of 1990) which was used on bin transfers in the **Marian** and Pleystowe Mill areas. Clyde 0-6-0DH 31 *SEAFORTH* 61-233 of 1961 was used on navvy duties on **Farleigh** Mill's Costello's Line, while Com-Eng 0-6-0DH *PIONEER* (Al2358 of 1962) was hauling rail north from Calen for the rerailing project between Pindi Pindi and Wagoora.

Carl Millington 1/05, 2/05; Brett Geraghty 1/05, 2/05; Brad Peadon 1/05; Brian Millar 2/05

WESTERN AUSTRALIA

BHP BILLITON IRON ORE PTY LTD

(see LR 181 p. 22) 1435mm gauge

A further new Trackmobile road-rail unit has recently arrived and been put into service.

Track upgrading work between Goldsworthy Junction and Finucane Island has been done in preparation for the installation of a new rotary dumper at Finucane Island. This will allow trains from Yandicoogina and Mining Area C to be unloaded there rather than congesting Nelson Point and the tunnel conveyor. Richard Montgomery 3/05

FORTESCUE METALS GROUP LTD

1435mm gauge

This company is in the process of developing iron ore mines in the Chichester Ranges of the Pilbara. The iron ore will be transported by rail to Port Hedland for export.

During 2004, Fortescue made an application to the National Competition Council for a declaration allowing third party access to BHP Iron Ore's rail network. In late 2004, the Council indicated that it could consider access to the Mount Newman railway but not the Goldsworthy line. The two were technically under separate ownership and the Goldsworthy line was ineligible for consideration because its operations formed part of a production process using the criteria previously established in the dispute between Robe and Hamersley in 1999. This decision was based on the fact that all Goldsworthy ore is blended after arrival at the port while some Mt Newman line is consigned to rail transport in already marketable form.

To compel third party access, the Council would further have to establish that access would be good for competition in at least one related market and that the costs of a duplication of the rail line would be uneconomical. Such consideration was suspended when BHP Iron Ore applied to the Federal Court for an order prohibiting the Council from further considering Fortescue's application. With progress stymied, in February 2005, Barclay Mowlem and China Railway Engineering Corporation (CREC) signed a joint venture Memorandum of Understanding to build a 400km open access railway as part of the Fortescue project. CREC and Fortescue have already signed a 'build and transfer' contract for the project, which includes all earthworks, culverts, bridges, rail, sleeper and rolling stock requirements for the new rail line, scheduled for completion in 2006. http://www.barclaymowlem.com/viewnews.asp?id=BAR-250073N

PILBARA RAIL CO

(see LR 179 p.21)

1435mm gauge

The Pilbara Rail Company is a 50:50 joint venture between Robe and Rio Tinto Iron Ore, which operates and maintains the joint rail assets of Robe and Hamersley Iron. Rail assets are still owned by the respective companies but recent observations have indicated fairly indiscriminate use of the Robe and Hamersley General Electric Co-Co DE locomotives, identified by their number series, 94xx and 70xx respectively.

The only non-standard locomotives in service are a pair used for shunting at Dampier, originally built by AE Goodwin for Mt Newman (G-6035-02 of 1969 and G-6041-02 of 1970 respectively) and rebuilt by Goninan in 1987 (072 and 073). They came from BHP Iron Ore to Pilbara Rail in 2002 via United Goninan in Perth and are numbered 5051 and 5052. Operating in multiple they are known as 'Bill' and 'Ben' respectively.

General Electric 7094 (52841 of 2000) was in the shed at 7 Mile on 9 January on blocks with accident damage to the No.1 end and the coupler pushed all the way into the pocket.

http://www.roberiver.com.au/operations/pilbararail.html; Richard Montgomery 1/05



Just 16 of the Mackay Sugar locomotives at Racecourse Mill on 28 January, 2005, on the new storage lines built last year. Visible are locomotives built by Clyde (both Models DHI-71 and HG-3R), Com-Eng, EM Baldwin, Eimco and Walkers (former DH and 73 class). The two closest locomotives on the extreme right are on shop trollies. Photo: Brett Geraghty

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

Built by Baldwin

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

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

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

The Aramac Tramway

By Peter Bell & John Kerr

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

48 pages, A4 size, 49 photos, 5 maps and plans, references, bibliography and index. \$15.00 Soft cover (LRRSA members \$11.25) Weight 350 gm.

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Gauge Beech Forest Line Part 1 Photographs by Edward A.Downs, published by Puffing Billy Preservation Society. Very highquality landscape format book of duotone photographs dating from 1930s, but mostly from the 1940s. 48 pages, soft cover, A4 size. \$35.95 (LRRSA members \$32.35) Weight 280 gm

Echoes through the Tall Timber

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

\$22.95 (LRRSA members \$20.66) Weight 375 gm

Postage and packing: Within Australia, up to 500 gm: \$4.80; 501 gm to 3 kg \$9.00 Send to: LRRSA Sales, P.O. Box 21, Surrey Hills Vic 3127, Fax (03) 5968 2484. Payments may be made by cheque, money order, Mastercard, Visa or Bankcard.

Focus on Victoria's Narrow

Gauge Gembrook Line Part 1 Photographs by Edward A.Downs, published by Puffing Billy Preservation Society. Very highquality landscape format book of duotone photographs from the mid-1930s to the mid 1940s. 48 pages, soft cover, A4 size. \$35.95 (LRRSA members \$32.35) Weight 280 gm

Powelltown

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

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

The Innisfail Tramway

The History and Development of the Geraldton Shire Tramway and the Mourilyan Harbour Tramway by John Armstrong & G.H. Verhoeven. 128 pages, A4 size, 99 photos, 22 maps/diagrams. \$37.90 Hard cover (LRRSA members \$28.43) Weight 650 gm. \$29.95 Soft cover (LRRSA members \$22.46) Weight 470 gm.

Modernising Underground Coal Haulage

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

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

Laheys' Canungra Tramway

by Robert K. Morgan, revised by Frank Stamford Describes Queensland's largest timber tramway. 32 pages plus soft cover, A4 size, 28 photographs, plus maps/diagrams and index. \$9.95 (LRRSA members \$7.46) Weight 220 gm.

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

Describes a network of over 320 km of tramways which linked 66 major mills to the Warburton railway. 320 pages, A4 size, 280 photos, (incl. 52 duotones), 50 maps/diagrams, (incl. 14 four-colour maps). \$59.95 Hard cover (LRRSA members \$44.96) Weight 1500 gm.

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

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

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

Bellbrakes, Bullocks & Bushmen

A Sawmilling and Tramway History of Gembrook 1885-1985 - by Mike McCarthy 104 pages, soft cover, A4 size, 71 photographs, 17 maps and diagrams, references and index. \$26.00 (LRRSA members \$19.50). Weight 500 gm.

John Moffat of Irvinebank

A Biography of a Regional Enrepreneur, 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 honestv"

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Coal, Railways and Mines - the Story of the Railways and Collieries of J&A Brown

by Brian R Andrews

384 pages, A4 size, hardbound, 420 photographs (28 in colour), 112 maps & diagrams and index. Published by Iron Horse Press (ARHS, NSW Division). Available from ARHS Bookshop, 67 Renwick Street, Redfern NSW 2016 RRP \$88.00.

There can surely be no reader of LR who has no knowledge of the railways of J&A Brown in NSW, particularly the Richmond Vale Railway, the coal line that ran from the Pelaw Main and Richmond Main collieries at Kurri Kurri, to coal shoots and a connection with the NSWGR at Hexham. It was famous for both its use of ex-Mersey Railway 0-6-4Ts and ex-Railway Operating Division 2-8-0s, as well as using steam power from two years after its opening in 1855 (by John Eales, predecessor of J&A Brown) to its closure in 1987.

The ARHS published Giff Eardley's book on the line, The Railways of J&A Brown, in 1972, but the present work by Brian Andrews is without a doubt (and as he states) the definitive work. I cannot recommend it too highly for both the quality of its content and its production. The sheer number of photographs, maps and diagrams (including drawings of all the locomotive classes and much of the rolling stock) and the use of gloss art paper really do impress. The ten chapters deal in minute detail with all aspects of the line and its history, from the genealogy of the extended Brown family, through early mining operations, the building of Eales' railway from Minmi to Hexham, mining ventures and railways in the Adamstown area of Newcastle, to details of of traffic operations, ticketing, safe working, strikes and lockouts, floods and diversions, accidents (to quote some of the chapters' titles). Even details of the use of underground electric locomotives at Stockrington No.2 Colliery are included.

Brian has managed to unearth much of the information through his employment with Coal & Allied Industries (successors to J&A Brown Abermain Seaham Collieries) for nearly 20 years, giving him access to information not previously available to enthusiasts. He complements this with maps and diagrams, copied from original documents, all produced to a very high standard (Brian was, by profession, a draughtsman). He has also delved into the story of the Brown

family and corrected (he says) some ill-founded myths, particularly those relating to 'Coal Baron' John Brown (1851-1930), reputedly the wealthiest man in Australia. Brian shows that he was not the ruthless capitalist of myth, but was a fair, if determined, man with a philanthropic side to him. A myth that Brian should have more firmly quashed was that one of J&A Brown's ex-ROD 2-8-0s hauled the Armistice Train at the end of World War One. This was not so. Unfortunately, Brian's claim that Eales' two locomotives (later J&A Brown's Nos 1 and 2), built by R&W Hawthom in 1856, were destined for the Crimean War should also be treated as a myth, as there is no firm supporting evidence.

Information relating to locomotives (including the loan of 2-8-0s to the South Maitland Railway and, in turn, the SMR's 2-8-2Ts brought onto the RVR to replace the 2-8-0s) leave few details unrecorded. One might wish there were less, both words and pictures, of the sad withdrawal and scrapping of the ex-ROD locomotives. It is interesting to note that although purchased from 1920 to 1927, these 13 locomotives were brought into traffic on the RVR from 1926 to 1931 and at no time were all in traffic together. The first withdrawal was in 1932, the last in 1973. All of the ex-ROD locomotives were used by railway companies in the UK before arriving in Australia and it is a pity that Brian has not shown the running numbers given to those used on the Great Western and London & North Western Railways.

The delightful steam railway crane used at the Hexham workshops is inadequately illustrated and vaguely described as having been 'constructed by Appleby in England'. It was actually built by Applebys Ltd of Leicester in the period c1898-1910 and a photograph of it is appended to this review. A minor criticism (if it can be called that) is that no builder's photos are included, showing the locomotives in their pristine glory, yet several such photos exist (including one of the ex-ROD locomotives). If space was a problem, surely some of the myriad views of coal trains could have been sacrificed. Another omission is a photograph of locomotive No.4 (the ex-NSWGR Kitson of 1878) as received in 1891, with its original ogee-topped saddle tank. More puzzling is that we are denied a view inside the 'Fodder Shed', that repository of withdrawn locomotives. One entered this Aladdin's cave with a sense of awe, for where else in Australia was there such an eerie collection of historically significant locomotives?

However, these are all minor points and I can only recommend that you reward Brian for his monumental effort by buying a copy of his book and, in so doing, assure yourself of years of pleasureable browsing. *Richard Horne*

Industrial Narrow Gauge Stock and Trackwork

by Sydney A Leleux

68 pages, 175mm x 235mm. Card colour printed cover. 15 colour, 95 black & white photographs and 5 catalogue illustrations. Published 2004 by The Plateway Press, Taverner House, Harling Road, East Harling, Norfolk NR16 2QR, England.

This interesting book, printed on high quality art paper, is an illustrated guide to narrow gauge rolling stock and trackwork, based on photographs taken by the author. The fascinating variety of wagon types illustrated includes skips, tippers, hoppers, tubs, opens, flats, tanks, air compressors, transporters and man cars, as well as a variety of special purpose wagons. The section on trackwork includes points, turntables and crossings. The many locations featured represent the wide range of industries that narrow gauge railways once served. Each photograph is accompanied by an extended caption so that the book is a treasure trove of useful information.

This book will be of interest to the Australian reader because, although the illustrations all come from the British Isles, Australian industrial



On 3 February 1966, the Applebys steam railway crane is at work in the yard at Hexham Engineering. Behind it, Richmond Vale Railway ex-ROD 2-8-0 number 15 (North British 21866/1918) is under overhaul. Photo: Richard Horne

narrow gauge railways were often inspired by British applications and frequently used British or British-derived equipment. It explains the working methods and types of rolling stock chosen for different industrial processes and applications. It will be able to assist in the interpretation of photographs and documentary sources dealing with Australian narrow gauge industrial railways. Lastly, it is a wonderful resource book for the modeller.

The book is attractive and well produced, and it seems to be free of typographical errors. It can be ordered from the publishers at £8.95 plus £1.61 postage and may also be available from local outlets. Orders can be placed by using the Plateway Press webpage at:

http://www.plateway.co.uk/index.php Recommended. John Browning

Video Review

Industrial Steam in China

98 minutes, "A" Class Films, Cricklewood Depot, 32 Church Street, MINMI NSW 2287. \$40.00 plus \$5.00 P&P (within Australia)

This DVD contains scenes of four Chinese steam-powered industrial railways recorded on railfan tours in the last two years.

The first segment of 18 minutes features the **Dahuichang Limestone Railway**, a 762 mm gauge operation located close to Beijing. This line conveys unbraked mine skips in rakes of about 30 between the quarry bins and a processing plant a distance of about two kilometres. Trains are worked by 0-8-0 tender locos of which two, of the four on the roster, are required in steam to operate the service.

The line is covered in a logical sequence following empty trains from the works along the double-track to the quarry and the return of loaded trains. At the appropriate points scenes of shunting, loading and unloading are included as are views from, and in, the loco cabs. Notable features are the use of winches, sprags and tipplers to control proceedings. The trackwork varies from quite good on the main line to wonderfully decrepit at the termini.

The second segment records a visit to the **Benxi Steel Works** 60 km east of Shenyang. Here SY-class 2-8-2 standard gauge locos perform the many and varied tasks associated with a large steel works. Numerous shunting moves are depicted in a heavy industrial environment, many involving specialised vehicles such as hot-metal wagons. At this site the photographer seems to have had limited ability to chose the best location so some shots suffer from intervening industrial clutter to the detriment of composition and clarity.

The third segment is about 19 minutes covering the overburden removal railways at the **Beilutian Coal Mining Administration**'s large open cut mine at Yima in Henan province. Here the coal seam is removed by road truck but the overlying 140 metres of rock is excavated by mechanical shovels into side-tipping wagons that are pushed and pulled zig-zag fashion by JS-class 2-8-2 locos out of the pit and on to the dump; a process requiring 40 minutes of hard steaming and hard work for the two firemen on each engine. Three or four trains an hour are required to deliver an average of 4000 tonnes to the dump.

The remainder of the DVD is also shot in Henan on the Pindingshan Coal Mining Administration system which serves 12 coal mines, a power station and other installations associated with the coal industry. In addition to coal trains, a passenger service is provided. The sequence starts with locos being prepared for a day's work at the depot where, unusually for an industrial line, the engines are cleaned before entering traffic. Motive power consists of 25 standard-gauge locos of the SY, JS and QJ (2-10-2) classes. Unfortunately this segment, at about 32 minutes, is too long for the material available. There seems to have been an attempt to include all material even when the quality of some shots is not up to scratch. These detract from the better shots of which there are sufficient to illustrate each location.

The photography generally is good with shots correctly exposed and framed. Trains are allowed to run into and out of the scenes without the unnecessary use of the zoom lens. One slightly annoying trait is camera shake. While appreciating the difficulties of using a tripod in the industrial environment, this extra effort is required if the videographer aspires to sell the finished product. As previously noted I feel that some tighter editing of the Pindingshan segment, in particular, would have been beneficial, however this is offset by the well-edited Dahuichang segment.

The narration is unobrustive, if somewhat uninspired, providing the basic information about what is happening at each location. I would like to have seen some maps or diagrams to indicate the location of the lines and the layout of the systems and the industries they served: those unfamiliar with the areas may need to consult a good map or the internet.

This is a video for the hard-core industrial railway enthusiast. There are no pretty engines in pleasant rural scenery here; it's all smoke and grime. A useful record of the sights and sounds of the fast-disappearing era of the steam-powered industrial railway. *Colin Harvey*



ADELAIDE: "What is a 'Light Railway'?" At the April meeting we will discuss the age-old question "What do you think constitutes a 'Light Railway'?". Location: 150 First Avenue, Royston Park.

Date: Thursday 7 April at 8.00pm. Contact Arnold Lockyer (08) 8296 9488

BRISBANE: "Railways of Southern Africa" Peter Kenney will be giving a presentation on the railways of Southern African. 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 8 April at 7.30 pm. Entry from 7 pm.

HOBART:

Please contact Ken Milbourne on (03) 6272 2823 for details of the next meeting.

MELBOURNE: "New Zealand Coalfields"

Colin Harvey will be giving a talk on the coalfields of New Zealand, and their railways.

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

Date: Thursday 14 April at 8.00 pm

SYDNEY: "South African 2ft Gauge Railways"

Ross Mainwaring will narrate and show slidesof various South African 2ft gauge lines and industrial sites from the time when he lived in and travelled around South Africa.

Location: Woodstock Community Centre, Church Street, Burwood, (five minutes walk from Burwood railway station). Date: Wednesday 27 April at 7.30pm.

MEMBERS' ADS

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A collection of rare Australian railway books including: Railways of J&A Brown (Eardley), Railways of the South Maitland Coalfields (Eardley), Tender Into Tank (Preston), Railways of Australia (Nock), Railway Freight Wagons in NSW 1982 (Beckhaus), Generation One (ARHS), Chasing Australia's Last Steam Trains (Hardacre), Six and a Half Inches From Destiny (Turton), North of the Harbour (Clark), The First Hundred Years (Oberg)

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Dear Sir,

Orenstein & Koppel Compound Mallet 0-4-4-0T Steam Locomotive (LR 180)

Lew Jones' reference to the Douglas Shire Tramway's Mallet locomotive in his letter in LR 180 has prompted me to ask a question of my own concerning the three O&K 0-4-4-0T Mallets that operated in Australia.

I have read somewhere (unfortunately I cannot recall where I read it or who wrote it) that the most likely reason for the high pressure cylinders on these locomotives being placed behind the rear set of wheels instead of in front of them, was that it enabled the leading set of wheels to be positioned closer to the rear set, giving the locos a shorter total wheelbase. Photographs would appear to support this suggestion.

I have also read, probably in the same place, that contrary to the oft-repeated claim that this cylinder arrangement was unique to these three locos, there were in fact other small Mallets (in Europe, I think) with this same arrangement.

Can anybody verify or refute either of these claims?

Darryl Grant

Balwyn, Vic.

Dear Sir,

"Where is it?" (LR 180)

With regard to the "Where is it?" photo in LR180 and having reviewed other photos of Broome WA that I have copies of, I have made the following observations: • The O&K loco appears to have all the

right bits in the right places, except its headlamp is missing • The train is on the curve out of Napier Terrace into Dampier St, having just arrived

from the deep water jetty or goods yard at Mangrove Point. The consist and its loading is very typical of the Broome trains

• The land mass in the background on the eastern side of Roebuck Bay is the same as I've seen in other photos

• Pearling luggers are moored on the western side of Roebuck bay, which at the time had very little or no mangrove growing in this location (probably all cut out for firewood). Other photos show the area as just a sandy beach upon which the luggers were beached at low tide. The mangroves have since regrown

• A photo taken from the right of this shot looking up Dampier St, shows the aerial pole line with four crossarms. This photo shows only three, but the bottom pair of wires dips down to the left of the pole, which would indicate them dropping to a fourth arm on a pole out of view. Fewer wires would have been needed outside Chinatown.

On the basis of the above points, taken from other photographic evidence, the location has to be on the corner of Napier Terrace and Dampier St in Chinatown, Broome.

The tramway was regauged from 2ft to 3ft 6in in 1907, but the O&K loco did not arrive until 1910. A second loco arrived in 1923 and it is assumed that it replaced the O&K. On that basis, this photo would have been taken sometime between 1910 and 1923.

Bill Hanks

Upper Beaconsfield, Vic.

Dear Sir

The Guthega-Munyang tunnel (LR 180)

I have a special interest in the history of the Snowy Mountains Authority after working on the Scheme for nearly 30 years (with a few breaks whilst overseas), from late 1971 to 1998 in all operational areas except Guthega-Munyang, Kosciusko Region.

The article is well researched and written from the available sources, but I noticed a couple of misconceptions especially the last dot point on page 4.

• The potential energy of water on a reaction type turbine is due to Gross or Static Head of pressure, measured as the difference between the upstream head pond level in the dam and the tailrace level. [downstream of the turbine]. It has nothing to do with tapering the diameter of the penstock, or the angle of inclination.

• There also seems to be confusion on the use of words "penstock" and "pipeline". They are one and the same. However an inclined pressure pipeline or tunnel is normally referred to as a penstock in hydro engineering.

Frank M Mitchell Barrengarry, NSW

0 /

Dear Sir, Artarmon Quarry Tunnel (LR 180)

With reference to the 'Research' item on the Artarmon quarry tunnel, the brickworks were owned by the North Shore Brick & Tile Company and were located off Herbert Street in St Leonards. There was a standard gauge siding into these works off the 'St Leonards Meat Siding', which in turn connected to the NSWGR North Shore line.

Leaving railway property, the brick siding crossed Herbert Street near the railway substation and passed through a gate beyond which there was a curved brick platform adjacent to the kilns. The 1934 NSWGR Metropolitan Division Local Appendix states that this siding could accommodate seven four-wheel vehicles. Departmental locomotives were permitted to pass over the Herbert Street level-crossing to place or lift traffic, but vehicles were 'conveyed to and from the siding and the Brick Yard by the Brick and Tile Company's shunting horse.' I visited the site during the 1950's. At that time the clay pits were out of use and the area was occupied by a number of post-war Nissan Hut type industrial buildings. The rails had been lifted, but there were sufficient sleepers remaining to allow the track locations to be traced across the first brick pit and through the tunnel (which ran below Westbourne Street) to the second pit adjacent to the Pacific Highway at Gore Hill.

There was a second small platform close to the St Leonard's end of the tunnel and evidence of several sidings. It was not clear if the line through the tunnel was an actual extension of the main line connection, but I recollect that the dimension of the sleepers indicated that it was standard gauge.

Most of the site has now been developed beyond all recognition, with the main works site now part of the Royal North Shore Hospital car park. However, a mystery remains. A friend and fellow railway enthusiast who was raised in the district accompanied me on the excursion. He stated to me at the time that in the 1940s he clearly remembers seeing the remains of a small steam locomotive near the private platform. Anecdotal evidence from an older resident of the area confirmed that there was "a small steam train used there." Numerous enquiries over the intervening years have failed to bring to light any further information about this locomotive.

John Shoebridge Dora Creek, NSW

Dear Sir,

Re: Comment LR 181

"Was it something I said?" you ask? Perhaps not, however. Perhaps it is the plethora of Clyde and EM Baldwin yellow monsters on the front and rear pages of our wonderful magazine that is a little off putting to the punters!

Are the editors short of more interesting photographs? Consider this; Holdens or Falcons in a supermarket car park are about as interesting as repeat photographs of the above marques.

It has often been said that we need to focus on the whole light railway system and not the locomotive.

Andrew Forbes

Kerrisdale, Vic

Dear Sir,

St Lawrence, central Queensland

I recently came across a copy of *The Northern Argus* for 31 January 1874. This newspaper was published in Rockhampton, Queensland. One page 4 there is an account of a heavy cyclone that struck the central Queensland coast on 22 January, with extensive destruction at Rockhampton and at St.Lawrence, about 100 miles north up the coast.

It is obvious that at the time St Lawrence was intended for greater things than eventually came to pass. There was shipping to wharves there, a Customs House, which was completely destroyed, and a Court House as well as hotels and houses, all of which were badly damaged.

The newspaper states "Captain Hirst also

mentions that, with the embankment and wharf, a tramway with the stores was also carried away." Presumably it was a fairly short tramway.

Repair work proceeded without delay following the cyclone, for the little settlement on Waverley Creek was the port for the thriving Copperfield Mine, near present-day Clermont. John Kerr noted from the Mackay Mercury of 14 March 1874 a report that "the township will be connected with the new wharf by a substantial tramway, a most valuable auxiliary." Any further information would be of interest.

WW Henderson Corinda, Old

Dear Sir.

Miniature Trains for the Adelaide and Taronga Zoos by H. V. McKay 'Sunshine Harvester Works'

The HV McKay 'Sunshine Harvester Works' legend was firmly rooted in the vision and pluck of the young Mr McKay, and his extraordinary rise from a bush smithy to a world leading manufacturing enterprise. Sunshine had a major impact on the social and economic development of Australia, and was a significant contributor to the mechanisation of agriculture around the world.

Of interest to light railway enthusiasts, is that Sunshine also manufactured miniature train sets. One was for the Adelaide Zoo, completed in February 1925. Another was for Taronga Zoo, completed in October 1929. As well as these steam-outline internal combustion locomotives, Sunshine manufactured at least one live steam miniature train, the aesthetically challenged 2-2-2 that was operated at Frankston in 1941 (Letter, LR 161, p.24.) and Flemington Race Course, Melbourne in 1942 (Photograph: 19 December 1942. RAAF Christmas Sports Carnival. ID No.137420. Australian War Memorial).

Superficially the locomotives for the Adelaide and Taronga Zoos were similar. Carriages for both trains appear to have been of similar design. However, on more detailed comparison there were several significant differences between the two locomotives:

· The radius of curvature of the concave under boiler skirt on the Taronga Zoo loco was much smaller.

• The smoke box saddle front skirt on the Taronga Zoo loco was vertical, leaving a flat plate behind the front buffer beam.

· The boiler barrel on the Taronga Zoo loco sat lower relative to the height of the cab roof. · The boiler dome on the Taronga Zoo loco is taller, but less ornate.

Given these identifiable differences, some questions about their history can be addressed: 1. The builders plate on the loco at the 'Historic Village Motel', Coolangatta was genuinely for the locomotive, and the driver's cabin had been modified since new (LRN. No.49, p.3).

2. The loco at the 'Historic Village Motel', Coolangatta probably came from Taronga Zoo, not from Adelaide (LRN. No.51, p.4). Photographs taken by Ken McCarthy at Coolangatta (in my posession) show it had an under boiler skirt with a small radius. 3. McKay did build the Adelaide loco (Letter. LR 155, p.24).

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Also, as in good historical research, other questions are raised:

1. Did the 'Sunshine Harvester Works' manufacture any other miniature trains? 2. Was the locomotive illustrated in LRN. No.61, p.3, also a Sunshine locomotive, though it carries a 'Days' plate? There appear to be physical similarities to the HV McKay 'Sunshine Harvester Works' locomotives built for the Adelaide and Taronga Zoos.

3. Can a researcher with time in Melbourne access the HV McKay archives for further detailed information?

4. Can anyone supply a photograph of the loco at Taronga Zoo that was mounted on a 'locomotive style underframe' (LRN. No.51, p.4)?

Jim Longworth

Cheltenham, NSW

"Where is it?" (LR 181)

We have received two letters from readers who have identified the scene as the early Nauru Island 2ft gauge phosphate railway. Mike Pearson (Boroko, PNG) advises that there was a similar photograph in the Australian magazine, The Leader, of 10 October 1911, p.21; while Jim Longworth (Cheltenham, NSW) reports that a similar photo appeared in The Australasian Manufacturer. 6 September 1919, page 22, in an article titled 'The Phosphate Deposits of Ocean Island and Nauru'.

While Light Railways has had several articles on the railways of Nauru and Ocean Island over the years, these have not made reference to electric railway operations. We expect that readers will be interested to learn more about this aspect of railway operations on Nauru. Editors



These stamps from Nauru provide some idea of the appearance of the narrow gauge electric locomotives that once ran on the island. Some artistic licence can be noted. The bow collector on the left seems to have been a source of confusion, whilst the "red engine" on the right has developed a proliferation of wheels, although the number of axle boxes remains correct. John Browning collection



Builder's photo of the Taronga Zoo locomotive and train.

Photo: Museum Victoria collection



The locomotive, and one of the carriages, built for Adelaide Zoo.

Photo: Museum Victoria collection



Cheetham Salt Limited Laverton works, Victoria

The Sanctuary Lakes housing development has now obliterated almost all trace of the former Cheetham Salt Limited Laverton works with its once extensive 2ft gauge tramway network. The processing works has been demolished and it and the saltpans covered by 'McMansions' and 'Starter Castles'. The only trace left of the tramway is at the far outer reaches of the works where the sand line to the beach enters the Parks Victoria Cheetham Wetlands Reserve. Here there can be found the remains of one of the bridges over the water channel and a four-wheeled truck halfsubmerged. Since this is just inside the wetlands boundary, it is likely to survive as the only in-situ reminder of this once extensive industrial tramway system.

Peter Evans

Lighthouse tramways WA

A new book, *Lighthouses of Albany* by Stan Austin (WA Museum, Albany, 2004), contains fascinating photographs of Breaksea and Eclipse Islands and the tramways and rolling stock used for supply transport. On Breaksea there appears to just have been a short tramway only slightly longer than







Caldwell Vale's builder's photo of the 0-4-0 locomotive built for the Tongan Government c1914.

Coming Events

APRIL 2005

3 Wee Georgie Wood Railway, Tullah, TAS. Narrow gauge steam train operations, 0930-1600 [last operating day of the season]. Phone: (03) 6473 2228 or 6473 1229 (AH).

15-17 Hunter Valley Steamfest, Maitland, NSW. A celebration of steam to mark the 150th Anniversary of Railways in NSW, including 50 steam train rides to Newcastle, Singleton and Dungog, street steam, steam equipment rally, steamboats, market stalls and entertainment. Phone: (02) 4931 2877; Web: www.steamfest.com.au

16-17 Richmond Vale Railway, Kurri Kurri, NSW. Two steam trains operating for Steamfest 2005 – adults \$15, concession \$10, children \$7. Drive to the museum or take free bus from Maitland railway station. Phone: (02) 4937 5344 (weekends).

24 Cobdogla Irrigation Museum, SA. Open day with narrow gauge steam train rides and heritage engines. Phone (08) 8588 2323.

MAY 2005

1 Puffing Billy Railway, Gembrook, VIC. The Great Train Race – Australia's unique and challenging fun run against Puffing Billy's Big Brother, G42. Start 0930 at Belgrave railway station. For information, phone (03) 9754 6800.

15 Richmond Vale Railway, Kurri Kurri, NSW. Model Exhibition with steam trains operating. Phone: (02) 4937 5344 (weekends).

15 Cobdogla Irrigation Museum, SA. Open day with narrow gauge steam train rides and heritage engines. Phone (08) 8588 2323.

14-15 Campbelltown Steam Museum, Menangle, NSW. Oil, Steam & Kerosene Field Days with narrow gauge trains, traction engines, steam rollers and vintage machinery on display. Phone: (02) 4626 3500.

22 Bennett Brook Railway, Whiteman Park, WA. Friends of Thomas the Tank Engine Day with the Fat Controller and narrow gauge steam and diesel trains. Information: (08) 9439 2821.

JUNE 2005

12 Cobdogla Irrigation Museum, SA. Operating day with Humphrey Pump and narrow gauge steam train rides and heritage engines. Phone (08) 8588 2323.

12-13 Richmond Vale Railway, Kurri Kurri, NSW. Coalfields Steam Weekend – steam train rides, traction engines, machinery displays and stalls. Phone: (02) 4937 5344 (weekends).

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.

the 'suspended jetty' with a donkey being used (at least for some time) for the climb to the lighthouse. Eclipse Island had a longer tramway that ran from the 'summit' to the lighthouse. The 'summit' was the end of a flying fox that ran from a timber platform served by a derrick on a lower level platform above the boat anchor point. This may have been one of the most complex systems used in Australia to get supplies and people - from a boat to the lighthouse. Stan Austin ran the service boats for many years and he gives first-hand accounts of events and general operations. David Whiteford

Caldwell Vale loco to Tonga

Bruce Macdonald is seeking advice on a very early Caldwell Vale 0-4-0 internal combustion-engined locomotive that was built for the Government of Tonga, possibly as early as 1914. The accompanying builder's photograph shows the locomotive, with 'No. 1' clearly marked on its superstructure, so possibly more than one locomotive was supplied.

In a recent visit to Nuku'alofa, the capital of Tonga, I noted a street named 'Railway Road'. I asked locals about this and the conventional wisdom is that a light railway carried copra down this street to a wharf on the foreshore. I have provided information to my local colleagues in Tonga to place an article seeking further information about the railway and its locomotive(s) in a local newspaper. Similarly, if any Light Railways reader can provide any more information on the Caldwell Vale locomotive and its operation in Tonga, Bruce and I would be delighted to hear from you.

Editor



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

NEWS

Queensland

BALLYHOOLEY STEAM RAILWAY, Port Douglas 610mm gauge

Further to the report in LR 181 (p.27), the official relaunch of the Ballyhooley Steam Railway (BSR) as a volunteer operated attraction occurred on Sunday, 20 February. 0-6-2T BUNDY (Bundaberg Foundry 2/1952) and carriages adorned with balloons streamers arrived at the Port Douglas platform at 10.15, then awaited the regular 'commuter' shuttle train hauled by 0-6-2T SPEEDY (Bundaberg Foundry 6/1952). The carriage from the 'commuter' train was attached to the special, which then departed with 124 happy passengers. Commencing on 2 January 2005, steam-hauled passenger trains now operate on Sundays and public holidays. The off-season timetable allows three return trips, but high passenger loadings during January allowed an additional service (a 10am trip). There was an average passenger loading of 205 per operating day during January, which got the operation off to a healthy start.

The BSR operates over 5km of track, commencing at the Port Douglas Marina Mirage station, which is the old canecutters barracks from Mossman Mill. The train departs the station and trundles alongside the marina and turns left at the

Yacht Club. The track follows the back road for a few hundred metres. passing the local football oval, and then leaves the road and heads into mangrove country. After a couple of S-bends, the wayside halt of 'Dougies' is passed, which services a backpacker hostel hidden in the mangroves. After this stop a speed board allows trains to pick up speed on the long flat straight that runs for nearly a kilometre. As it nears the resorts, the track passes the depot, the reef helicopter pickup area and manicured lawns. Here the track levels, speed is checked and the 'Country Club' station, serving the Sheraton Country Club resort, and a crossing loop is entered. The train departs over a level crossing and passes over more lawns, bike paths and golf buggy tracks, running parallel to the main Port Douglas Road. It passes a new development under construction, and then across a very wide level crossing that services the reception area of the Rydges Resort. Rydges Platform, which supplies a steady stream of bona fide commuters, is reached 100 metres beyond. From here the train continues through yet more tropical resort gardens, over another level crossing to the big sweeping right hander that leads to the destination station. St Crispins. There is a steep downhill grade into the station and, as the carriages are not braked, this descent is treated with respect, especially if it is wet, early in the morning, or the grass has not been

mowed recently. St Crispins has two spur sidings and the loop siding, which also has a turntable on it. From here the line proceeds towards the Mossman mill cane system, but BSR trains don't run beyond the bridge at the far end of the loop line head shunt.

Michael Lee 02/05

DURUNDUR RAILWAY, Woodford 610mm gauge Aust. Narrow Gauge Railway Museum Soc. Inc.

Public passenger services resumed on 20 February after almost two years of closure due to public liability insurance problems. The previous schedule of operations on the first and third Sunday of the month is being followed at present while staff are retrained and new crew members undertake initial training. Volunteers cleaned up the grounds during January in readiness for public operations. The annual independent inspection of the track was undertaken on 14 December 2004 and the track was assessed as "suitable for the traffic task that is required of the track", although several sleepers were identified for replacement. A fallen tree was discovered across the track on 11 December which required urgent attention. The track gang has received a number of maintenance items from the Moreton Sugar Mill, including a complete works train comprising Malcolm Moore 4wDM JIMPY (MM 1051/1943), the bridge carpenters' wagon and a railmounted compressor wagon fitted with a Ford diesel motor. Restoration work on the former Douglas Shire Tramway passenger carriage No.29 is nearing completion.

Durundur Railway Bulletin No. 277, February 2005; Bob Gough 12/04

PIONEER VALLEY TOURIST RAILWAY, Finch Hatton 610mm gauge

A proposal for a 610mm gauge tourist operation from Mirani to Finch Hatton and a sugar industry museum has again been revived. The first stage of the proposal involves a bus ride from Mackay to Mirani, a steam train ride from there to Finch Hatton and a traditional sugar industry precinct at that location. A request to use the Mirani-Finch Hatton line for the operation was denied by Mackay Sugar in October 2003.

The Daily Mercury, 9 November 2004

New South Wales

ILLAWARRA TRAIN PARK,

Albion Park 610mm gauge Illawarra Light Railway Museum Society

Running days in January were the 9th and the 23rd. On 9 January, 0-4-0ST *KIAMA* (Davenport 1596/1917) operated the main train service with the ex-ER&S 4wDM No.4 (Hunslet 4582/1955) on the bay road. Ex-CSR Victoria sugar mill 0-6-0 *CAIRNS* (HC 1706/1939) was the operating steam locomotive on the second



ANGRMS' Hudson Hunslet 4wDM (B/n 2660 of 1942) ex-Cattle Creek Mill outside the workshops at Woodford, on 20 November 2004, prior to its conversion to a brake van for use on Durundur Railway passenger trains. Photo: Bob Gough

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running day, which saw a welcome back to service for ex-ER&S 4wDM No.2 (Hunslet 4578/1953) on the bay road services, although it was down for a short time with injector problems. Donations were collected for victims of the Boxing Day tsunami, which were passed on to charities collecting for this cause. Work continues on the Vernier diesel man-car following its conversion to 610mm gauge.

Brad Johns, 02/05

RICHMOND VALE RAILWAY, Kurri Kurri 1435mm gauge Richmond Vale Preservation Cooperative Society Ltd

During January 2005, the RVR was the scene of some unusual train movements as a result of a film contract with Bluewater Pictures from Sydney. Ex-BHP steelworks Bo-Bo DE No.34 was the operational locomotive for an extensive range of train movements for the film crew. It moved breakdown crane No. 1073, ex-South Maitland Railways 2-8-2T locomotives Nos. 25 and 24, and ex-BHP steelworks Bo-Bo DE No.42 out of the depot to clear the area at the portals for nighttime filming. Extensive preparation work was required for various scenes, which included numerous runs by three ex-NSWGR stainless steel carriages propelled by No. 34 towards Pelaw Main, the rear one fitted with a false front to simulate a British e.m.u. train. Shoots were also made of double-track 'main line' in 'heavy rain' and runs of the 'e.m.u. train' beside the camera car. The film, 'Like Minds' starring Toni Collette, Richard Roxburgh and Tom Sturridge, is due for release in mid-2006. Graham Black 01/05

STATE MINE HERITAGE PARK & RAILWAY, Lithgow

1435mm gauge

A visit was made to this museum on 6 January 2005. In the carriage shed, No.1 road has been given over to Rail Industry Service Providers, which is rebuilding ex-NRR 49-class locomotives 4903 and 4906 there. On the middle road, 2-6-2ST 2605 (Dübs 2794/1892) is the first item in front of the viewing platform, now showing its pristine appearance

following its cosmetic restoration after fire damage. The first vehicle in No.3 road is ex-SAR carriage BF 343, which is being restored under a 'Work for the Dole' project to passenger services operate between Eskbank and State Mine. The ex-AIS Port Kembla Bo-Bo DE steelworks shunters were all in the vard outside the shed, with D20 and D23 currently operational. D20 stands out in its recently applied original AIS orange livery. Additional work is required to get D21 operational, following which D23 will undergo overhaul. Five of the ex-Portland Commonwealth Cement 4-wheel hoppers have been cleaned up and painted in grey undercoat, significantly improving their appearance. The museum has established an ongoing trackwork program which will see major re-timbering of the State Mine shunting yard. The ex-BHP Nebo Colliery 4wDH underground loco and the ex-Angus Place Colliery Vernier man-riding car No. 149 (see LR 180, p. 30) have both been placed in the bath house, where there is an interesting display of 2ft 6in gauge colliery underground rolling stock (see LR 177, p.29). Recently completed colliery skips were placed on the track outside the workshop.

Plans are underway for a new series of blacksmithing classes in 2005. Among these are a weekend package deal that will include a full series of classes and accommodation in Lithgow. The museum is installing new interpretive panels featuring the stories of some State Mine blacksmiths as part of the upgrade of the blacksmith shop. Editor, 01/05; Ray Christison, 02/05

Victoria

ALEXANDRA TIMBER TRAMWAY & MUSEUM 610mm gauge

The ATTM reached a milestone on 12 December 2004 when it carried its 300,000th passenger since records began in 1998. The passenger, Rhonda Miller of Eildon, was given a gift bag containing ATTM souvenirs to mark the occasion. The Society has also received advice that it passed the accreditation audit of its operating system carried out in November 2004 by officers of the Victorian Department of Infrastructure. Volunteers were kept busy on Saturday, 8 January 2005, as a large tree had dropped a branch over the line and further inspection revealed that the tree had further potentially dangerous faults. The tree was cut down and the limbs were sawn up for firewood, leaving the track in readiness for the public running day the following morning. Patronage was down for the day, but the Marshall portable, back in steam after a refit, greeted those who attended with the John Fowler 0-6-0T (11885 of 1909) operating passenger trains. The first of the ATTM diesel running days was held on 23 January with Kelly & Lewis B/N 5957 operating passenger trains. The previous day. volunteers had selected and moved materials for a new set of points to be installed in the main line near the locomotive shed. It will form the final leg of the turning Wye being installed south of the track loop at Alexandra.

Timberline 82, February 2005

PUFFING BILLY RAILWAY 762mm gauge

Emerald Tourist Railway Board The PBR celebrates its 50th Anniversary during 2005 and a number of special events are planned. A film night is scheduled for 8 June, to be held in the Scots Church Hall in Russell Street, Melbourne, the same location as the inaugural meeting of the Puffing Billy Preservation Society. Former Queensland Railways B-BDH DH59 (Walkers 646/1970) was noted in its new VR-style blue and vellow livery on 8 January and renumbered as DH31. This number has raised a number of queries. Evidently the PBR numbering system is based on Victorian Railways practice under which each class of locomotive had its individual prefix and a group of numbers. The NA class are numbered 1 to 17 (with 18-20 reserved for future additions!). When the first ex-TGR V-class diesel arrived it became D for diesel and was given the number 21. The numbers 22-30 have been reserved for future diesel-mechanical type locomotives. Thus DH31 is the start of a new class of diesel-hydraulic locomotives and carries the first available number for that class. The Climax locomotive (1694 of 1928) has been transferred to Belgrave for restoration work. The boiler has been stripped and partly assessed. Christopher Hart, 01/05; Bill Hanks 01/05; PBR Monthly News 379, February 2005

Western Australia

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

The WALRPA operation at Whiteman Park celebrated its 20th Anniversary on 3 December 2004. WA Premier Peter Dowling was on hand to officially open the railway on 8 December 1984 when he drove the Maylands 4wDM locomotive from Central Station (now Whiteman Village Junction) to Mussel Pool. The first revenue-earning services operated the following day, with 12 trains carrying the grand total of 305 passengers. The Anniversary celebrations included a successful Christmas barbecue in the Whiteman Village Junction forecourt with 45 members and volunteers in attendance. Two train trips were run around the loop. The BBR operated trains to transport passengers to and from bush dances on Saturday nights from February to mid-April, a task it shared with the Perth Electric Tramways Society. Bennett Brook Railway Worker, 2/05

Historic Mill Workshops,

Yarloop 1067mm gauge Yarloop Workshops Inc.

In 1895, brothers C. and E. Millar opened a sawmill at Yarloop, 126 km south of Perth. Following an amalgamation of eight timber companies to form Millars Karri & Jarrah Company in 1902, Yarloop became the maintenance site for the new company's astonishing array of assets which, by 1910, included 12 sawmills, 450km of railway track and 33 locomotives. Initially, the workshops were housed in the former sawmill shed, but they quickly outgrew this. Facilities on the site were extensive, and could cope with the complete overhaul of a steam locomotive or large mill engine as well as the construction of rolling stock. Replacement parts were catered for with a completely equipped pattern shop and foundry. By 1930, more than 100 maintenance personnel were employed. The workshops continued to work until 1978, when some of the buildings were damaged in a cyclone. Millars closed the workshops and moved most of its maintenance facilities to the 'top yard' until the Company was taken over by Bunnings in 1983.

A preservation group has since



At the official relaunch of the Ballyhooley Steam Railway, on Sunday 20 February, Bundaberg Fowler 0-6-2Ts SPEEDY (BF 6/1952) and BUNDY (BF 2/1952) depart Port Douglas with a 4-coach train carrying 124 passengers. Photo: Paul Dove



Ex-Moreton sugar mill 4wDM JIMPY (Malcolm Moore 1051 of 1943) at Woodford platform on 11 December 2004 with the compressor wagon and the bridge carpenters' wagon following its delivery to the Durundur Railway. Photo: Bob Gough



The cab interior of 2-6-2ST 2605 (Dübs 2794/1892) at the State Mine & Heritage Park, Lithgow, reflects the high standard of the ex-Portland Cement, ex-NSWGR locomotive's recent restoration. Photo: Bob McKillop

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moved onto the site and, after much volunteer effort, the historic workshops have been opened to the public.

A visit was made to the Yarloop Workshops as part of the Australian Forest History Society's recent conference in WA. The majority of the buildings have been carefully restored. While most of the machinery was disposed of at closure, replacements are steadily being collected and placed in position to give the visitor an idea of what a complex facility it must have been in its heyday. The pattern shop retains numerous original wooden patterns, which are steadily being catalogued by volunteers. Sidings still connect most of the workshop buildings, and the locomotive shop houses ex-Donnelly River Timber Tramway 2-6-0 locomotive Yx176 (James Martin 178 of 1896) and the ex-Millars 0-6-0 DH (Clyde 61-241 of 1961) which is operational. Outside the workshops stand several former locomotive boilers and, on a nearby siding, a number of Millars' former timber wagons.

At the southern end of the complex is a shed housing a collection of restored sawmill engines. These engines are steamed on special days and were in operation for the AFHS visit. The standard of restoration is high, and excellent interpretive information is available.

The Yarloop Workshops is a truly unique heritage site of great significance. The intact nature of most of the original buildings and the careful repair and conservation work carried out by the Yarloop volunteers provide the visitor with an insight into both the technology involved in maintaining a large, widely distributed industrial undertaking, and the lives of the personnel responsible for the work. Admission charges are very moderate for such an interesting attraction: Adults \$5. Pensioners \$4, Children \$3 and Family \$12. Several hours could comfortably be spent inspecting the workshops and restored steam machinery, and there is a 2.5km heritage trail to guide the visitor around the township of Yarloop. The steam machinery is operational from 10.00 am to 4.00 pm on the following dates in 2005: 10 April, 8 May, 12 June, 10 July, 14 August, 11 September, 9 October, and 13 November. A visit is very highly recommended. Peter Evans 01/05

Heritage &Tourist

Overseas

DARJEELING HIMALAYAN

RAILWAY, India 610mm gauge Our last report on the Darjeeling Railway was in LR 148 (p.31), which also covered the Darjeeling Himalayan Railway (Australia) group. We have received a firsthard report of a visit between 29 November and 1 December 2004. The experience commenced on a special charter train of three carriages (Falconhurst No.26, Narsing No.11 + one other) hauled by B-class 0-4-0ST locomotive No. 791 (North British 20640/1914). The atmosphere at Siliguri Junction station was thick with the pollution found around most Indian cities and towns, and made worse by the banked fire in 791. The train crew (driver, fireman, coal breaker and sander plus quard - very smart in his white uniform) was all busy readying the locomotive for the long day ahead.

Once underway, the train settled into a steady speed of 10-15kph as it paralleled the Hill Cart Road. Most road vehicles overtake the train, and even some enthusiastic bike riders sped by. The first water stop was at Sukna, where the exchange of staff for the section was noted. The entire system appeared to be a relic of the past British safe working system with some Indian variations. Soon the train was tackling the lower foothills, winding around the hills as it steadily climbed, crisscrossing the Hill Cart Road. The locomotive exhaust was a continuous roar, as it squealed around the bends, climbing continuously. Stopping for water in the sections, the morning passed very quickly. As the Up diesel-hauled passenger train was close behind, the crew made every effort to complete every watering as quickly as possible, restricting the opportunity to take photographs somewhat.

At Tindharia workshops an Indian railway official served as a guide for an inspection, but he was not familiar with their operation. It was like visiting a museum of industrial machinery as most equipment probably dates back to the days when the British administered the



Richmond Vale Railway's Ex-BHP steelworks Bo-Bo DE 34 hauls breakdown crane No. 1073, ex-South Maitland Railways 2-8-2T locomotives 25 and 24, and ex-BHP steelworks Bo-Bo DE 42 out of the depot to clear the area at the portals for nighttime filming by Bluewater Pictures, in January 2005. Photo: Graham Black



Former Queensland Railways B-BDH DH59 (Walkers 646/1970) seen in its new VR-style blue and yellow livery, and new number (DH31), on the Puffing Billy Railway on Christmas Eve 2004. Photo: Ray Graf



On 12 September 2004, James Martin 178 of 1896 seems impatient to move out of the stillness of the locomotive workshop at Yarloop and into the waiting West Australian sunlight to celebrate 150 years of the steam locomotive in Australia. Photo: Peter Evans

railways. However, it all appeared well maintained and in regular use. B-class locomotives noted here were Nos. 783 (Sharp Stewart 4562/1900), 788 (NB 20144/1913 - chassis only) and 804 (NB 23302/1925), QUEEN OF THE HILLS, while No.792 (Baldwin 44912/1917) was in steam at the station with a 2-carriage train. The special continued on to Kurseong (1458 meters), arriving at 3.20pm an incredible journey of 66km in 6 hours! During the climb, magnificent views over the foothills of the Himalayas can be seen, the railway line clinging precariously to the cliff faces, with traces of the landslides of recent years still being visible. The following morning our reporter visited Kurseong depot, where No.791 was photographed being prepared for the 10 am departure of the special, while No.805 (NB 23300/1925) was cold in the shed with "side wall stay bar" leaks. The group hired a taxi (700 Rupee) to line-side the train on the last leg from Kurseong to Darjeeling. Bill Dunn, 02/05

FERRYMEAD 2 FOOT RAILWAY.

A small group of enthusiasts is

610mm gauge

New Zealand



Darjeeling Himalayan Railway 0-4-0ST No.791 (North British 20640/1914) at the head of the special charter train, November 2004. Photo: Bill Dunn

establishing a 2ft gauge railway based on industrial locomotives and rolling stock at Ferrymead Historic Park outside Christchurch. The collection is based around two FC Hibberd 4wDM locomotives and rolling stock from the Lake Grassmere salt works of Dominion Salt in Marlborough. The group, operating as The Ferrymead 2 Foot Railway Inc., has established a circuit of track around the park complex and has restored one of the Planet locomotives to operating condition. Its rolling stock collection – awaiting restoration – includes five salt tubs (skips), seven mine tubs, a pit prop wagon and a pair of pit prop log bogies. The group recently obtained several items of rolling stock from the Lautoka sugar mill in Fiji, including the only surviving 1st class carriage from the Free Passenger Train. Len King, 01/05

WELSH HIGHLAND RAILWAY

United Kingdom 597mm gauge The board of the Festiniog Railway Company resolved at its last meeting on 18 February that ex-Tasmanian Railways pioneer Beyer-Garratt K1 (Beyer Peacock 5292 of 1909) would not bear a name, but that it would be dedicated at an appropriate ceremony to the work carried out by all at Beyer Peacock in recognition that it was the first Garratt locomotive built.

The board took advice on the proposed naming of the engine from the Heritage company which is responsible for monitoring the heritage fleet. The unanimous advice of the Heritage company and its archivist was that, on account of the engine's historical significance being the first of its kind, there was a responsibility to keep the appearance of the engine as original as possible. So, K1 will also be painted in its original livery.

K1 project leader Colin Hill, who has played a major role in the restoration of K1 over the past nine years, has decided that the time has come to hang up his overalls and retire from the project.

Michael Whitehouse (Chairman, Festiniog Railway Company), Gareth Williams (Chairman, Ffestiniog Railway Heritage Limited) 2/05 K1 Committee 3/05. both via Website.



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