

NUMBER 191
ISSN 0 727 8101

OCTOBER 2006
\$7.95 Recommended
retail price only

LIGHT RAILWAYS

Australia's Magazine of Industrial & Narrow Gauge Railways



Light Railway Research Society of Australia Inc.



LIGHT RAILWAYS

Australia's Magazine of Industrial and Narrow Gauge Railways

No 191 October 2006

ISSN 0 727 8101 PP 342588/00002

Editor: Bruce Belbin,
PO Box 674 St Ives NSW 2075.

Research, Heritage & Tourist Editor:

Bob McKillop,
c/o PO Box 674 St Ives NSW 2075.

Industrial Railway News Editor:

John Browning,
PO Box 5646 CQ Mail Centre QLD 4702.

Distributor:

GORDON AND GOTCH LIMITED.

Printed by ROSSPRINT.



Light Railway Research Society
of Australia Inc. A14384U
PO Box 21 Surrey Hills Vic 3127

COUNCIL

President: Bill Hanks (03) 5944 3839

Secretary: Phil Rickard (03) 9870 2285

New South Wales Division

PO Box 279, Moorebank NSW 1875

President: Jeff Moonie (02) 4753 6302

Secretary: Peter Charrett 0418 223 270

South Australian Group

6 Dunedin St, Dover Gardens, SA 5048

Secretary: Arnold Lockyer (08) 8296 9488

South-east Queensland Group

365 Fairfield Rd, Yeronga Qld 4104

Secretary: Bob Gough (07) 3848 3769

Tasmanian Representative

11 Ruthwell St, Montrose, Tasmania 7010

Ken Milbourne (03) 6272 2823

MEETINGS

Regular meetings are held in Adelaide, Brisbane, Melbourne and Sydney.

For dates, times and locations of future meetings, see LRRSA NEWS, page 25.

Subscriptions: \$48.00 for year ending 30 June 2007, providing six issues of Light Railways magazine, information on Society activities, 25% discount on LRRSA publications, etc. Overseas: \$A72.00 economy airmail. Payment by cheque, money order, Bankcard, Mastercard, or Visa. Contact the Membership Officer, PO Box 21, Surrey Hills, Vic. 3127. Fax (03) 5968 2484. Email: lrrsa@lrrsa.org.au

Sales: Back issues of *Light Railways* and other publications available from LRRSA Sales, PO Box 21, Surrey Hills, Vic 3127.

LRRSA Web Page:

<http://www.lrrsa.org.au>

Conversions:

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

Contents

The view from Alum Mountain	3
Paradise lost?	13
Industrial Railway News	17
Book Reviews	22
Letters	24
Research	27
Heritage & Tourist News	27

Comment

Last year, on a visit to the NSW Southern Highlands home of a *Light Railways* reader, I was treated to the sight below, of a radio-controlled gas-fired Innisfail Tramway Fowler 0-6-2 hauling a train of log wagons around his marvellous garden railway. Since then, I've been delighted to discover just how much modelling based on Australian prototypes is going on out there, particularly in Gauge 1 and On3O. For many, it's a great way to follow their interest in a creative but still reasonably affordable way.

Many years back, an old friend (and one of the pioneers of 'light railway' preservation) was caught up in the meltdown of a major project in which he and many of his artifacts had become involved. After eventually finding good homes for all the historical hardware that had been in jeopardy, he swore to me that never again would he own a locomotive "that couldn't be picked up in one hand"!

Not everyone would go quite that far, but '12 inches to the foot' railroading can certainly involve some expensive and stress-inducing activities (as I know from personal experience).

Light Railways is not a modelling, nor a live steam, magazine as such - other publications already serve those markets well - but I'd like to think that 'light railway' modellers and live steamers would still regularly find a lot to interest them within our pages. After all, as a well-known politician once said, the things that unite us are very much greater than the things that divide us. *Bruce Belbin*



PHOTO: DAVID BURKE

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

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

Light Railways is the official publication of the Society. All articles and illustrations in this publication remain the copyright of the author and publisher. Material submitted is subject to editing, and publication is at the discretion of the Editor.

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

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

Front Cover: The most spectacularly scenic line of the sugar cane tramways of Fiji is the outermost length of the main line south from Lautoka Mill, which runs up the Sigatoka River valley to the settlement of Kavanagasau, fully 132km from the mill. Cuvu-based 0-6-0DH 22 (Clyde 59-204 of 1959 - ex Isis Mill, Queensland) hauls a short train of empties for the farms at the terminus in July 2005. Photo: Ian Dunn



The Village of Bulahdelah from Alum Mountain.

Photo: Bulahdelah Historical Society Collection

The view from Alum Mountain

The Bulahdelah Alunite mines, NSW

by John Shoebridge

Introduction

For almost 75 years, the mineral alunite was won from a series of quarries near Bulahdelah in New South Wales. This article sets out a brief history of the operation with some details of the mines and tramways that were involved. It concludes with a description of what remained in 2004.

The rural community of Bulahdelah is situated on the Pacific Highway some 280km north of Sydney. After crossing the Karuah River, northbound travellers can not fail to be impressed by the prominent rocky pinnacle overlooking the township. Although this peak is only 292 metres above sea level (and thus of insufficient elevation to have official status as a mountain), it was named 'Bulahdelah Mountain' by the explorer John Oxley in 1818. Locally it is more commonly known as 'Alum Mountain', the official designation of the trig station on its northern end. Of greater significance is the fact that the hill is composed largely of the mineral alunite, said to be the largest deposit in Australia.

The Mineral

Alunite or alumstone is a compound of aluminium sulphate and potassium, formed by the action of volcanic sulphur vapour on trachytic rock. Over the years, the refined product, alum, has been used for medicinal, agricultural and industrial purposes. For many years its principal use was for the manufacture of fertiliser, today it finds a place as a flocculant (for water purification).

In his book, *Mineral Resources of New South Wales* (1901), the Government Geologist Pitman states:

What is probably one of the most remarkable deposits of alunite in the world occurs east of the township of Bulla Delah in the Parish of Bullah Delah, County of Gloucester. It consists of a narrow mountain range (about three miles long and having a maximum altitude of nine hundred feet) which for a mile or more in length is composed almost entirely of the mineral alunite of greater or less purity.

Four varieties of alunite are recognised by the Manager of the mines, viz:

- 1) 'Light Pink' containing 1.7% of silica;
- 2) 'Chalk White', 16.4% of silica;
- 3) 'Purple', 19.5% of silica;
- 4) 'Granular', 39.5% of silica.

....only the pink ore is at present worked, shipments are kept below 10 percent silica content. In the main quarry a face of sixty feet in width is being taken out, the stone is subjected to rough hand picking before being loaded into trucks, the 'Purple' and 'Chalk White' ore being discarded.

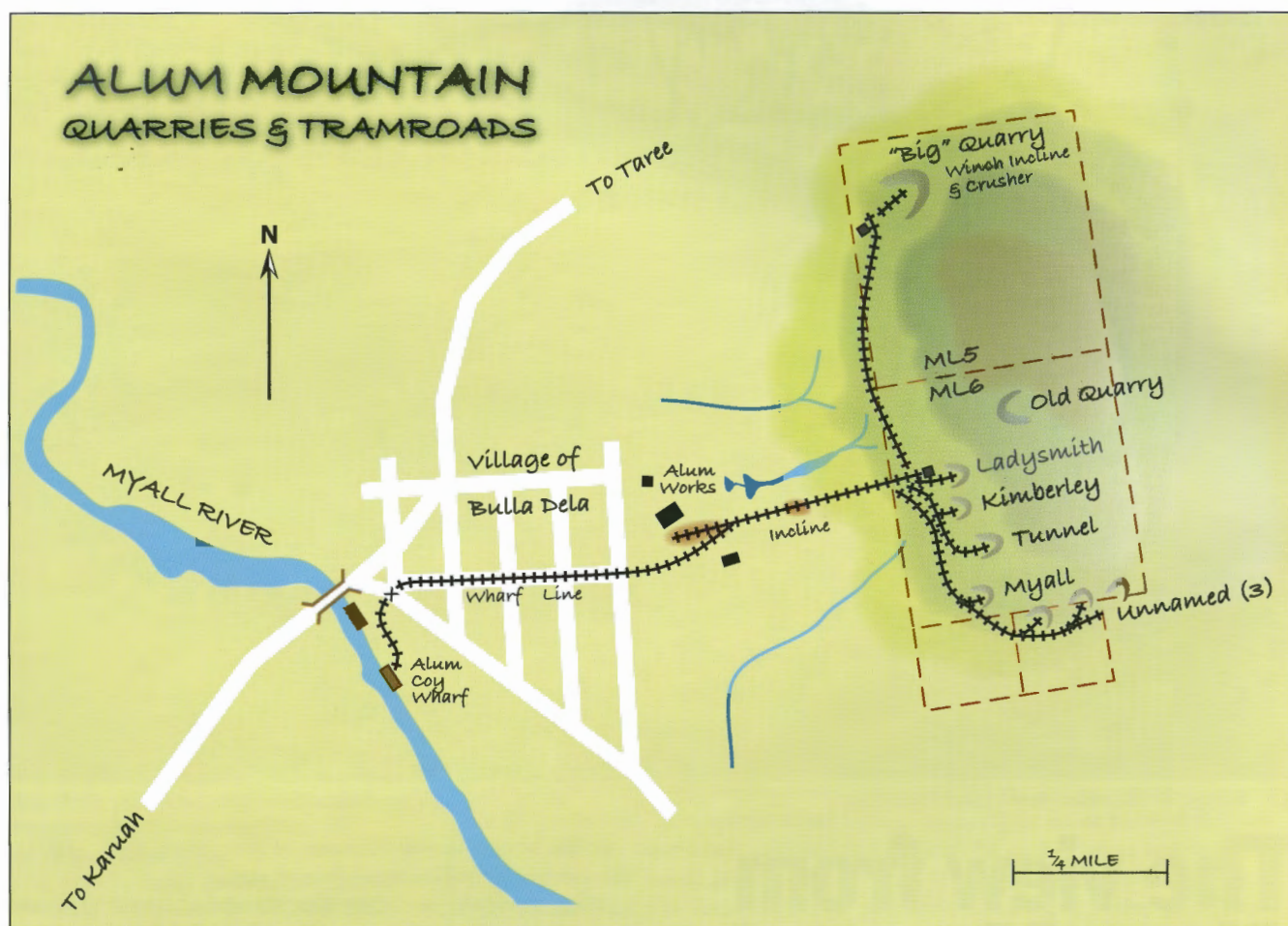
It is carried by a horse tram to the base of the central escarpment and is then sent down an incline worked on the main and tail rope system on the slope of the talus. From the bottom of the incline it is conveyed on carts to the wharf on the Myall River half a mile distant whence it is shipped to England for the manufacture of alum. The works are situated at Runcorn on the Manchester Canal and the mines are owned by the Australian Alum Company Limited.

HISTORY

The Runcorn Alunite Company

Around 1850 the small township of Bulahdelah was established close to the head of navigation on the Myall River to serve adjacent smallholdings and timbergetters. Within this town were several sawmills and in 1876, John Cassidy a millworker, drew the attention of a visiting geologist to the unusual deposit in the adjacent 'mountain'.

Two year later in 1878 an English firm, the Runcorn Alunite Company, commenced mining operations. Their



workings were on the eastern side of the mountain opposite the top of the (later) incline at the location now known as the 'Old Quarries'. One account states that "all treatment" was carried out at the mine and that the treated mineral was shipped to England. These operations were suspended around 1884 with only the manager remaining as caretaker.

[It may be that some calcining was done at Bulahdelah but it is more likely that the term "treatment" referred only to breaking and hand sorting. The means of transporting the ore is not known but as there is no evidence of a tramway, the nature of the terrain would lead to the conclusion that pack horses were used.]

The Australian Alum Company

Two years after this pioneer operation was abandoned, Mr C Seaver, a mining engineer associated with the Gloucester goldfield, investigated the deposits and was instrumental in the formation of a new company. Financed in 1886 by a Sydney syndicate, the venture was initially known as The Great Australian Alum Mine. By 1888 it was the Australian Alum Company Limited, with offices in Cape's Chambers, Bond Street Sydney.

Up until this time, the mountain had been vacant Crown Land, but now the whole area was reserved for mining purposes and formal leases were issued. The Mines Department Annual Report for 1890 states that the first mineral lease of 35 acres was taken up by the Australian Alum Company in 1888. Subsequently additional leases were granted and by 1890 the Company held nine leases totalling 575 acres.

A new mine, (known as the 'Big Quarry') was opened on ML 5 at the northern end of the deposit and a tramway was laid from the workings, across a saddle of the hill and along the side of the outcrop to connect with the upper end of an incline.

It is not clear when the incline itself was constructed, but it

was probably working by 1888, when the Company opened a treatment works at the foot of the mountain and sought tenders for the transport of alum from the Bulahdelah wharf to Sydney or Newcastle. It was not until October 1896, however, that an application was lodged by the Company for a special lease of five acres of land for a tramway "from the eastern end of Church Street Bullah Delah to Bullah Delah Mountain". Moreover, it appears that this lease was not finalised until May 1898. Thus it appears that the incline may have been in use for some time before the formalities were complied with.

The Company's manager, Mr H Abbott, had been sent to England and America to investigate markets and on his advice the local treatment works was established. Abbott proposed that lower grade alunite would be processed here for local consumption while the better quality mineral would still be shipped to England. Initially things went well and before the end of that year, the works were expanded, another kiln was constructed and a larger boiler was floated in from Winda-Woppa.

The wood-fired kilns roasted the raw alunite to remove inherent water and sulphur trioxide. The material was then moved on a short tramway to a crushing and grinding plant. The pulverised rock was flushed with water into lead-lined vats and boiled in a dilute sulphuric acid solution. The resulting liquor ran into crystallising tanks and the alum crystals which formed were neutralised by the addition of caustic soda, harvested, washed in hot water, then crushed, screened and bagged for local consumption. The water for the processes came from two small dams (which still exist) due east of the works, whilst the manager lived in the nearby 'Mountain House' (no longer standing), which was erected for him in 1890.

The plant had a capacity of 25 tons per week, which at that time exceeded the entire Australian market for alum. Despite employing only two men and a boy, it was never able to operate on an economic scale and only worked intermittently for about eight years. By 1893 the NSW Mines Department Report noted that the quarry output was sorted on the mountain, the premium rock sent overseas and the remainder discarded as unsaleable.

A contemporary newspaper report (1892) states that another works was opened at Widnes (near Runcorn) in Lancashire also on his recommendation and that the Company had expended some £40,000, "half of this ... in Bulahdelah". The British works was known locally as the 'Iron Bridge Alum Factory' and was absorbed into the Brunner-Mond chemical conglomerate around 1919. In 1927 along with other Widnes factories it became part of the Imperial Chemical Industries complex.

[It is my belief that the English works was not newly constructed but purchased from the old Run Corn Company and that the remaining £20,000 was the purchase price.]

For much of 1889, trade was slack and a 'Suspension of Labour' clause was invoked over the Company's leases, which allowed the lessee to retain a lease in time of trade shortage without the generally specified number of employees. The first of many such applications over the years, it permitted the workforce to be reduced to two men who were employed bagging and shipping stockpiled stone. Mining and local treatment re-commenced in 1890 and continued for a few years but by 1893 the local works had closed and all of the alunite was exported. In 1907, a Mr G Collins was granted mineral leases in the vicinity of the Old Quarry. He recruited miners and may have done some work but does not appear to have commenced commercial production.

The Australian Alunite Company

In 1910, ownership of the property passed to the Melbourne-based Australian Alunite Company, although they appear to have continued the Bulahdelah operations

under the old name. The years between 1890 and 1919 were the most prosperous for the alum mines, but demand fell at the end of the Great War and, by 1924, the operation was in decline. The final blow came in April 1927, when the mines and tramways were seriously damaged by torrential rain. Although they were restored to production, the finances of the Company had been seriously depleted and operations ceased by the end of that year. In 1931 the Company was placed in receivership and much of the machinery sold for scrap. The manager, EH Heighway, was discharged, a 'Suspension of Labour' clause was again granted by the Mines Department, and the property was placed in charge of a caretaker.

From 1906 to 1926, the Company's engineer was Mr McDermott King, who had learnt his trade at the Australian Kerosene Oil Company's mines at Katoomba.

Subsequent Ownership

Australian Alunite was re-organised as the Alunite Mining Company, but by 1933 control had passed to the Australian Alunite Syndicate. This group survived on the sale of ore salvaged from the dumps until production from the quarries was recommenced in 1935.

By 1940, ownership had once again changed to Alunite (Australia) Pty Ltd, a subsidiary of Sulphates Pty Ltd. The advent of World War II and the labour shortages that followed greatly restricted operations, but somehow the mines struggled on until 1952. Production finally ceased in June of that year, the Company stating that the increased freight cost on alunite (now railed to Melbourne for eventual export to Germany) had led to the decision.

The manager, Mr LH Cassidy, was retained to oversee the disposal of the properties and in 1968 the leases were taken over by Commercial Minerals Ltd. Since that date, no further production has been reported and much of the area previously worked has been dedicated as State Forest Reserve.



Pausing for the photographer, a quarryman (centre) holds a man-sized spalling hammer. The potential hazards of the mining process are well evident in this photograph of Myall Quarry in 1902.

Photo: Bulahdelah Historical Society Collection

MINING

Leases and Locations

Initially mining was on leases ML 5 and ML 6. Some time in the 1940s, the leases were re-issued so that ML19 (replacing ML 5) covered the northern end of the mining area, and ML 6 (unchanged) the southern, the incline, lower depot and works site was on ML 18, the bins and dump at the foot of the incline foot occupied ML 11, while the new road up the mountain was built on ML 21. (ML 20 and 22 appear to be unexploited prospects south of ML 5) The area covered by ML 18 was held as late as 1970 by Mr AA Deans, however he does not appear to have worked there on a commercial basis.

The most productive working faces were known as: *Old Quarry*, *Big Quarry*, *Ladysmith*, *Kimberley*, *Tunnel Quarry* and *Myall Quarry*. There were also many small, un-named, workings all over the western hill side, (mostly prospecting entries), whilst the old quarries on the eastern side of the outcrop do not appear to have been connected to any of the post-1890 workings.

Methods of Working

Even though the mountain was virtually all alunite, only a small portion of the deposit was of marketable quality and selective extraction was always necessary for the financial viability of the operation. In general the deposit was prospected by means of shallow shafts, followed by quarrying from open faces.

The high-grade stone in the *Big Quarry* was followed downwards for some 30 metres below the tramway. This eventually required the construction of an incline operated by a steam winch to bring the trucks up to the main tram level. Similarly in the very large *Tunnel Quarry*, inclined drives followed the vein downwards for some 15 metres. These were

then worked by means of adits and glory holes. *Ladysmith* and *Kimberley* (the names indicate they were opened around 1900) both ran in on the level from the tramroad horizon.

Despite a newspaper reference of 1890 to electric lighting in the mines, everything was done the hard way. The faces were hand-drilled and then blasted and large rocks broken with spalling hammers. The material was then hand picked, the marketable product manually loaded into wooden skips and the refuse discarded.

[It is my assumption, given the obvious primitive plant evidenced in all photographs, that this reference to electric lighting referred only to the processing works.]

Picking left huge amounts of lower-grade stone. Some remained in the quarries but, more often it was tipped down the hillside. From each face, a rail track was laid onto a dump and unmarketable stone was loaded into skips, run out on these lines and dumped. When markets revived, these old dumps were revisited and the ore picked over by hand once again.

The open quarry faces were worked in the heat of summer or through the winter frost and rain. Although the alunite (a relatively soft mineral) was not in itself difficult to mine, throughout the life of the mines, the company had little capital to invest and methods remained crude and laborious. It was not until the late 1940s that manpower shortages forced the introduction of compressed air drills (from a portable compressor) in place of hammer and steel to drill the holes. A little later, gelignite replaced black powder and a bulldozer was used to strip overburden and open out the quarry faces.

In 1890, 1500 tons of mineral were shipped, but production fluctuated considerably. (In 1916 it was down to 325 tons, but by 1918 it rose to 3400 tons). All in all, it was never a large operation, with the maximum annual output of 3500 tons in 1909.



The Big Quarry Incline. When the working faces in the Big Quarry descended below the main tramway level, a powered incline was necessary. Beyond the crude shed housing the boiler and steam winch is the track running to the main incline. Photo: Bulahdelah Historical Society Collection



The incline loading point which served the Tunnel and Myall Quarries. The horse has brought in two loaded skips and is now hooked onto two empties in the shunt outside the smithy. The driver (in waistcoat) will soon take him back to the faces. Meantime one of the loaded skips has been run onto the staging and the end door removed and thrown aside (by the man leaning on the skip holding the hammer). Next the two brawny young fellows will use the long poles to lift the rear of the skip, (the sleeper across the rails across the rails acting as a fulcrum) so the remainder of the 30 cwt load will fall through the hole in the staging directly into the (just visible) incline truck. Photo: Bulahdelah Historical Society Collection

Tragedy

As well as arduous, the work was often hazardous, as evidenced by a major fall of ground in the *Kimberley* workings in August 1909, which buried three miners.

Men working nearby rushed to their aid and Stephen Crockford and Patrick Kelly were extricated, seriously injured but alive. Their workmate, Charles Keel remained buried. The two rescued men were stretchered down the mountain to their homes where Crockford, who had sustained dreadful head injuries, died soon after. Rev Perry, the Methodist clergyman, treated Kelly, who had a broken leg and internal injuries, till Dr Bowker arrived in his buggy from Stroud.

Two miners remained behind to dig for Keel and they were soon joined by men who had hurried up from the village. From the injuries it was obvious that he had died instantly. Charles Keel was Stephen Crockford's son-in-law, so that day young Mrs Keel lost both husband and father. The following morning, attended by his wife and accompanied by their two infant children, Patrick Kelly made an agonising journey, in the butter-factory wagon, to Dungog Hospital.

In the evidence later given before the Coroner, the Inspector of Mines stated that it was his opinion that had the quarry been more skilfully worked, the accident may have been avoided. From the evidence, it would appear that, despite the underground method of excavation, the Mines Department had considered the workings to be a "quarry rather than a mine" and thus not to be under their jurisdiction. The Jury handed down a finding of "accidental death", together with a rider recommending "that this and other quarries should be under Government Supervision".

TRANSPORT Main Incline

The self-acting incline was located roughly in the centre of the leases. It was the key element in the operation, and for most of the life of the undertaking was the sole means by which the output was sent down from the mines.

It appears likely that the incline was altered over the years. Early reports state that the upper section was double track, but later photos clearly show only a single line. One enigmatic photograph shows the incline track planked over as if to allow timber to be skidded down. From the dress of the persons in the photo it appears to be taken in the 1930s, but no further details are known.

As noted above, Pitman states that the incline was operated on the "main and tail system" and an early report (1907) states that there was a boiler house near the top drum. Initially this may have been the case, but certainly in later years, it operated as a balanced jig with a passing loop in the centre of two single-track sections. There is some evidence that the track gauge may also have changed in the process. Thus the description below applies to site inspection and evidence from photos taken in the 1920s.

The line was some 680 metres in length, the loop was symmetrical and the points were set by means of a "metal disc struck by the ascending empty skip". One newspaper report states it had a gradient of 1 in 1.25 but this is probably the maximum grade near the brow. (From modern survey plans the overall gradient was more like 1 in 3.5.)

The incline track was laid with 45 lb steel rails and the gauge appears to be of around 3 feet, the track followed the talus slope with little in the way of earthworks. There was a shallow excavation (hardly a cutting) at the crossing loop and a slightly deeper one in the rock where the line terminated at the top.

[A cursory examination of the incline in 1999 revealed only one sleeper. Fires had burnt from the ends inwards so that the dogspike holes were inconclusive but the gauge appears to have been wider than 2ft 6in.]

The vehicles which ran on the incline also carried 30 cwt (1½ tons). They were hopper-shaped wagons solidly constructed of timber with bottom doors. The size of the rope indicates that there were only two trucks on the incline.

A brakeman controlled the operation from the 9ft diameter rope drum, which was set on a solid timber frame above and behind the top transfer point. The brake is said to have comprised several turns of hemp rope operated by a foot lever. Although no evidence has survived regarding the signalling system, some arrangement would have been necessary if the descending loads were to be stopped over the specific dumping point.

Incline Brow

As with all mining operations, arrangements were changed over the years. Initially at the top (brow) of the incline there was a single transfer point (landing), the original (1880) tramroad to the North serving the *Big Quarry* at this point. By 1900 the *Ladysmith* workings had been opened on the same horizon and the line terminated on the opposite side of this landing.

Shortly afterwards a line was laid on this same level from the south side of the incline to *Kimberley Quarry*. As these workings developed downwards, another line was run to them (also to the south) from a new loading point, some 15 metres lower down the incline track.

The same tramline appears to have been extended to the *Tunnel Quarry* when it was opened and again as the *Tunnel* workings developed downwards, a third (bottom-most) loading point was constructed (some 10 meters lower still) and a new tramline laid to the south. It was this line which was (at an undetermined date) extended to the *Myall Quarry* and eventually on to the two exploratory tunnels at southernmost point of the leases.

The transfer arrangements at the incline loading points were crude in the extreme, with neither tippers nor bins. There was a merely a timber bridge to carry the skiproad rails over the incline track. The alunite was tipped directly through a hole in this staging from the face skip into the incline car. As the incline vehicles had the same capacity as the face skips, the incline had to be run once for each skip tipped, so the whole operation was obviously geared for only a small output.

Incline Foot

When the alum works was in operation, the rails at the foot of the incline were elevated on a lengthy timber trestle (whilst still necessarily maintaining a falling gradient) terminating some 8 metres above ground level atop the calcining kilns. The superior grade mineral was dumped before reaching the kilns into a heap beneath the track whence it was bagged for export and moved by horse dray to the wharf. The trucks with a lower grade material were lowered a little further so that their loads dropped directly into vertical brick calcining kilns.

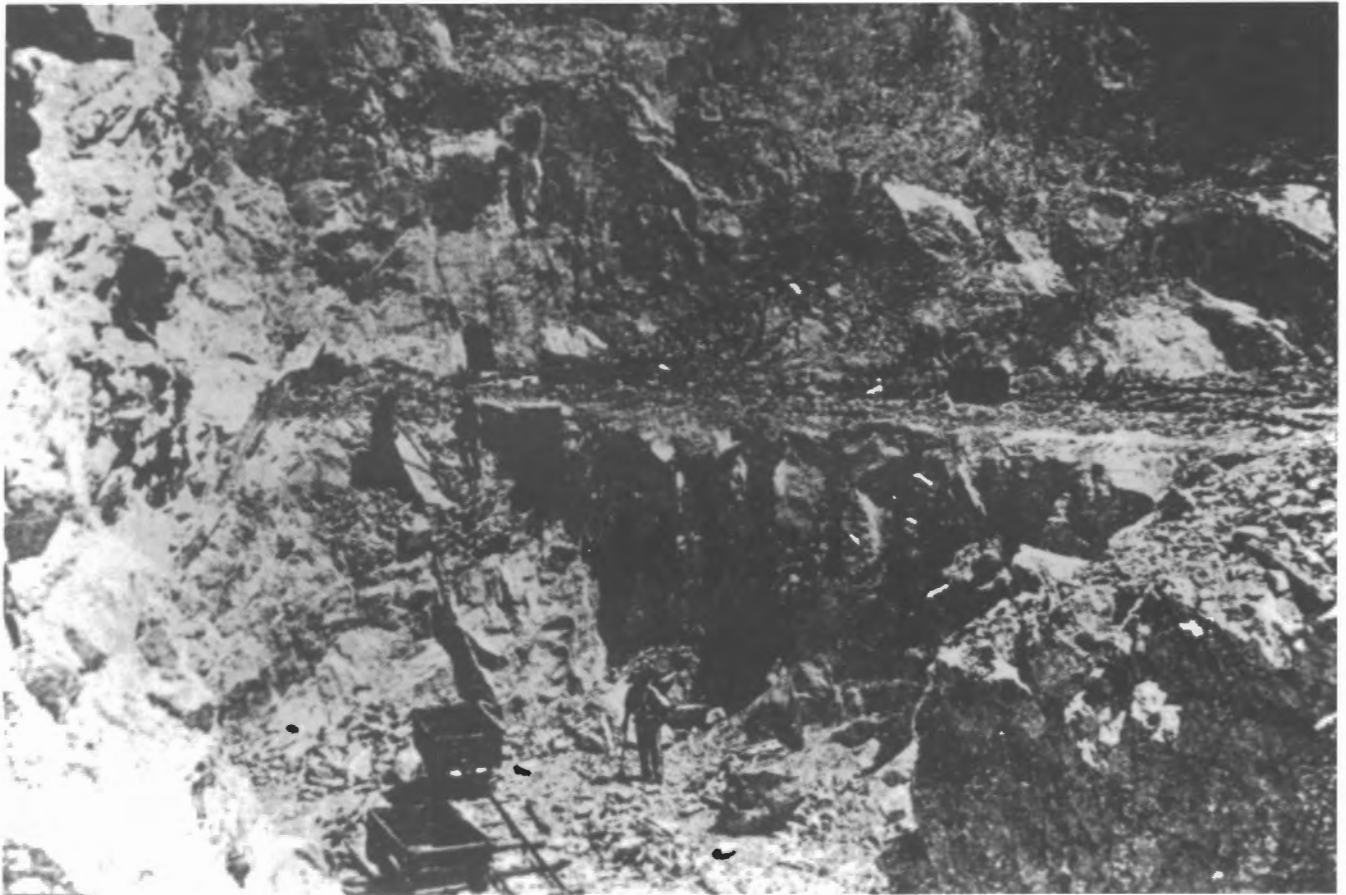
After the processing works closed, the trestle was shortened and a wooden bin was built to allow drays to be loaded. A plan dated 1930 shows two sidings, one connecting to the wharf railway and the second curving onto a trestle to allow mineral to be stockpiled as required.

In 1942 the Council grader was hired and a road was made up the hillside. Although it required constant maintenance, motor lorries could now ascend as far as a small bin which had been constructed under the south skip line. The use of the incline was discontinued and it was allowed to fall into disrepair. By the early 1950s the rails had been lifted and sold and the rope drum had been rolled down the hillside. Subsequently all the timber structures and sleepers have been destroyed by bushfires.



The incline foot site around 1924. The trestle has been shortened and the wharf line has been in use for 15 years. Two loaded trucks are about to gravitate to the river, the set rider on the back truck operating the brakes. The horse has pulled the trucks from under the bins and now waits with the driver to follow down and bring back the empties.

Photo: Bulahdelah Historical Society Collection



The Big Quarry, Alum Mountain. 1900.

Photo: EF Pitman, NSW Govt Printer Collection

Quarry Tramroads

From the incline brow, steel-railed tramroads ran about one kilometre north to the *Big Quarry* and a similar distance south (past the *Myall Quarry*) to an un-named exploratory tunnel on the southern extremity of the mountain.

These tramways were horse-worked and to maintain gradients in favour of the load, a number of quite substantial rock cuttings and sidling embankments were constructed. Branch lines were laid in when a quarry was opened and reclaimed for the next working face when it had finished.

[Although Baker states that the Big Quarry workings were served by a steam main and tail haulage, site investigations have revealed no evidence of this (i.e. there are no rope marks on any rock faces in cuttings nor any indication of rollers on the trackbed) and it is my opinion that he was referring to the steam winch on the small incline.]

In one of the few surviving Manager's reports there is mention of a "turntable". This appears to have been located close to the main incline brow and was probably used so turn the face skips so that their end doors faced the incline.

There was also for a time a steam-powered crushing plant on the mountain. It was sited close to the top of the *Big Quarry* incline and its location is confirmed by the sized refuse that has been dumped down the hillside at this point. The crusher ceased work in 1910 (perhaps this is when the *Big Quarry* finished) and was said to have been powered by the boiler of the incline winch. The Robey boiler still on the mountain was moved to its present location in 1930 and this more than likely is the boiler referred to above.

The wooden skips used on the mountain had dumb buffers, hook couplings, straight sides and a top-hinged door at one end. Each skip carried 30 cwt of mineral and the track gauge appears to have been 2 feet.

The horses drew the empty skips by means of rigid limbers. As there was little forage on the mountain, they were led up

the mountain each morning from their stables beside the works dam. Near the stables was a blacksmith's shop where the horses were shod and general repairs carried out. At the top of the incline there was a shed housing a forge for sharpening drills and picks. No doubt the skips were also repaired at these locations.

[How the horses were hitched to the loaded skips is a bit of a mystery. Photos show that limbers (as opposed to trace chains) were in use. Also that the "fixed end" of the skips had a cock hole for their attachment, yet they also fail to show any similar fitting on the "door end". Perhaps (though it does not seem likely) the skips were allowed to gravitate to the incline under the control of sprags.]

After the main incline closed in 1942, the very small production and reduced distances no longer warranted horse haulage and the skips were hand-wheeled to and from the faces.

Transport To the Wharf

For many years after the mines opened, horse drays loaded the alunite under the incline bins and transported it over public streets to the Myall River where it was stockpiled (in bags or in bulk) near the Government wharf (some 100 metres downstream from the bridge) to await shipment.

To reduce cartage costs, a tramline, two kilometres in length was laid, in June 1909, from the incline bins to the river. At the same time, the Company leased riverside land some 150 metres downstream from the Government facilities. On this property they built a timber bin with chutes, which could load directly into vessels alongside.

The tramline was laid with steel rails and a survey plan dated February 1930, indicates that the track was connected directly onto the end of the incline with one siding under the incline bin. The line crossed Scott Street, and then ran down the western side of Church Street. Approaching the



Looking up the Alum Mountain Incline, well strewn with spilled alunite. The track gauge can be estimated by comparison with the figures in the group. Of note is the (very) light rope and the wooden roller. The centre passing loop can just be discerned up the hill, and the style of clothing would indicate the photo was taken in the 1920s.

Photo: Bulahdelah Historical Society Collection

Bulahdelah Bridge it turned south across the street on a sweeping curve, crossed Lower Myall Road and ran for a short distance along the river bank onto a level timber trestle leading to the top of the shiploading bin.

A horse moved the trucks under the incline bin for loading, then hauled them to the top of the grade (on the Company's boundary) from which point they gravitated down Church Street under control of a lad riding on the rear buffer beam. Just short of the curve near the end of the street, the gradient changed and here the horse, which had followed after the loaded trucks, was attached with a trace-chain to haul them over the crest of the hill and onto the bins. When they were empty he returned them back to the incline.

[It is not clear if the trucks were normally exchanged between the incline and the wharf line. If this was to be done it would require:

- *All vehicles to be fitted with brakes.*
- *A secure, yet easily released, means of coupling trucks onto the rope.*
- *Some means of securing the top truck while the bottom one was exchanged.*

Accordingly I tend to think that this was not the practice. Baker states the trucks ran singly but in photos the two trucks appear coupled together. Indeed there may have been only two trucks on the wharf line and two on the incline. Also the photo of the wharf trucks shows they had no drawbars.]

In September 1915, the wharf line came into tragic prominence when children playing on the line near the top of the grade knocked the chocks from under the wheel of a truck. In the subsequent runaway, one small boy, Billy Wood aged five, lost both legs and died shortly after. Jack Stokes, also five, had his arm crushed, but survived after being taken to Sydney for specialist treatment.

Despite the recommendation of the earlier Coroner's Jury in 1909, there is no record of any investigation into the



Two loaded hoppers posed for a photograph on the Wharf Tramway at the site of the 1915 accident. Note the sturdy timber construction similar to the incline trucks, the absence of drawbars and the screw-operated timber brake-blocks. Photo: Bulahdelah Historical Society Collection



The drougher Myall River loading timber at the Government Wharf. The photo was taken around 1924 from the Buladelah road bridge and the Alum Company's Wharf and shiploading bin can be seen in the background with a heap of alunite stockpiled under the tramway gantry.
Photo: Bulahdelah Historical Society Collection

accident by the Mines Department, no doubt because the line ran on the verges of public streets, and thus occupancy was granted by Stroud Shire Council rather than by means of the usual Mining Purposes Lease.

In February 1924, Council negotiated a payment of £10 per annum from the Company for the use of Council lands on which the tramway and wharf stockpile area were situated. Later the same year Council requested that the Company repair the level crossing over the Bulahdelah to Lower Myall Road. The wharf line was in regular use until the Australian Alum Company ceased operations in 1927.

In August 1933 the new owners negotiated with the Council for reinstatement of the tramway 'permit'. Council agreed, subject to the repair (again) of the level crossing and relinquishment of a small area at the wharf, the rent to be the same as previously paid. However in February 1934, the Syndicate called tenders for the road haulage of alum stone from their dump to the riverside and by July it was reported that Mr J Leary had already moved some 150 tons on the wharf. A newspaper report in 1936 noted that the line was in place but disused. The actual date when it was lifted has not been determined.

Transport by Water

The head of navigation for coastal ships on the Myall River was the Bulahdelah bridge. Downstream the river flowed via The Broadwater to the Port Stephens estuary at Winda Woppa, some 12 km distant. There were a number of sawmills in the town. Indeed one was right at the wharves, and small coasters especially from the Allen Taylor's fleet, regularly called here for timber. When required they also loaded (bagged or bulk) alunite for Sydney.

Otherwise it was loaded into punts or droghers and taken to Winda Woppa for transhipment into larger ships. At one time, the Australian Alum Company owned a steam punt, *Uralla*, for this purpose. She was set aside in 1925 (after the NSW Navigation Department ruled that a certificated master and engineer should be employed) and dismantled in 1931. The hulk, stripped and abandoned, is still visible some 10 km downstream from Bulahdelah.

As the mineral was of relatively low value, exports to England usually went as ballast with the output being stockpiled until a suitable freight rate could be negotiated. After the mine was reopened in 1933, the output still went by sea, but now to Melbourne where Sulphates Ltd, the new owners, had a chemical works on the Yarra River.

By 1940, only a few ships called at Bulahdelah and the Company contracted with a Mr Gooch to cart bagged stone in his lorry to Newcastle. A shed was rented from the Newcastle and Hunter River Steamship Co near their wharf where bagged alunite could be stacked until shipping space became available. In 1941, as coastal shipping was further disrupted due to war conditions, the output, now only a few tons per week, was road hauled to the North Coast railway at Stroud Road. After the War, shipping never revived and rail transport was used till the operation was closed.

Today

There is still quite a deal to see at Bulahdelah. In 1984, the area at the foot of the incline was dedicated as *Mountain Park* with fireplaces, picnic tables and tourist amenities. The Company dams and the some of the residue from the old works can still be seen there, while the line of the incline is just discernible through the foliage.



A view looking down the Alum Mountain Incline with Buladelah village in the background. The cast iron roller once carried the rope over the brow and the absence of the latter leads to the conclusion that the photo was taken after the incline closed.

Photo: Bulahdelah Historical Society Collection

Presently, all this area at the foot of the incline is under threat as it lies on the selected route of the freeway bypass around Bulahdelah township. Surveys were carried out to identify the flora and fauna and Aboriginal artefacts at risk. Steps have been taken to isolate these from the development, but as usual there has been little interest in the preservation of items of our industrial heritage.



In August 2006, the Robey Boiler keeps a lonely vigil on Bulahdelah Mountain.

Photo: John Shoebridge

The old Company track up the mountain (along ML 21) has been re-graded and in fine weather a car can be driven right to the lower tramway level. Part way down the incline, a portion of the rope drum remains where it was rolled down into the scrub. It has clearly been dynamited to remove the cast iron. Wire rope (around 2 inch circ.) and presumably from the incline, is used on many of the fences within the reserve.

The main quarry-level tramways are now walking trails (the work done by the Forestry Commission to accomplish this has removed virtually all remains of the tramway track) and some of the quarries are readily accessible on foot. All over the hillside are to be found embankments, trial pits, adits and waste dumps. The Robey boiler (about 4 nhp) brought in from the Big Quarry is still at the top of the incline and here and there can be found an occasional length of pipe or rail. Overall there are few metal remains but for the view alone, it is worth climbing the Alum Mountain.

From vantage points at the western end of the ridge there is a spectacular view of Bulahdelah, and from the east the view extends over the Broadwater to the Pacific Ocean. There is no trace of the wharf line and the site of the Alum Company wharf itself is now occupied by a marina.

Acknowledgements

Much of the above information has been drawn from a monograph written by the late Ted Baker and published by the Bulahdelah Historical Society. Further information from the NSW Mines Department Annual Reports and from Pittman's *The Mineral Resources of New South Wales*, (NSW Govt Printer 1901).

Mrs Betty Camps, whose father Mr Cassidy was the last manager, has been of invaluable assistance. The Bulahdelah Historical Society have been of considerable assistance and the accompanying photographs have been published with their kind permission. Especially, the assistance of LRRSA Member, Colin Wear (deceased) and his wife Mary of Bulahdelah with photographs, newspaper extracts, hospitality and guidance during site investigation is most gratefully acknowledged.



One of the old Clyde 170hp units, Lautoka 5 (58-189 of 1958), crosses the Dreketi Inlet, between Vuda Point and Saweni, with a loaded train for Lautoka mill in December 2005.

Paradise Lost?

by Ian Dunn (photos by the author)

The Fiji Islands lie about four hours' flight north-east of Sydney. For the average holidaymaker, there's sun, surf, sand, scuba diving, and an exotic lifestyle. But for the railfan, there's an additional attraction: several hundred kilometres of 610mm gauge cane tramways, which still present as pure Queensland sugar tram, 1960s style.

The Fiji Islands were annexed by the British Crown in 1874 and soon thereafter the Australian Colonial Sugar Refining Company began actively exploiting the ideal soil and climate to produce sugar. Many small operations were eventually consolidated into half a dozen major mills, of which four survive and flourish today – Lautoka, Rarawai and Penang on the main island, Viti Levu, and Labasa on the next biggest island, Vanua Levu. At their peak, the tramways comprised 654km of track, and the largest system, based on Lautoka and Rarawai mills, still exceeds 200km in length. From its southernmost terminus, Kavanagasau, to the mill in Lautoka is a run of 132km, which can take several days! At the northern extremity, Drumasi is 40km from Rarawai mill at Ba. There are numerous spurs and branches diving off into the valleys, but the main line hugs the sheltered western coast

of Viti Levu, passing through all manner of coastal scenery – through mangroves, along sandy beaches, beneath cliffs and across substantial inlets. The small system serving Penang mill is separated from the main lines of Viti Levu, and, of course, the Labasa system is quite discrete on Vanua Levu. Until the 1960s, about thirty Hudswell Clarke and Fowler steam locos ran the system, with some assistance from a heterogeneous collection of internal-combustion types. CSR undertook dieselisation of its Fiji systems at the same time as its operations in Queensland, with the same type of loco – Clyde diesel-hydraulic 0-6-0 machines of two types: 18 Model DH71 170h.p. locos built from 1956 to 1964, and eight larger Model HG3R 263h.p. locos in 1964-5.

Fiji was granted independence in 1970, and, following several years of unrest in the sugar-growing community, CSR terminated its operations in 1973. These were taken over by the government-owned Fiji Sugar Corporation, which now runs the mills and the tramways. In the 1970s and 1980s, some EM Baldwin, Baguley-Drewry, Hunslet and Plymouth locos were obtained, some new, some second-hand. Most of the locos based at Lautoka and Rarawai are still the Clyde 0-6-0s. Locomotives seen on the Lautoka system in 2005-6 are Clyde 0-6-0s Nos. 1, 4, 5, 8, 9, 10, 11, 12, 13; 14 and 22, Baldwin 0-6-0 No.16, Baguley-Drewry 0-6-0 No.18 and a Hunslet 0-6-0, also numbered 18 (possibly from Rarawai or Labasa).



Top: With just four empty cane trucks left, Clyde 0-6-0DH Lautoka 22 (59-204 of 1959) skirts the beach at Malo Malo. **Right:** To reach fields up to five kilometres from the tramway, much use is made of tractor/trailer combinations on which a cane truck can ride. Fold-up rails at the rear allow loading and unloading using the tractor's winch. This wagon is being unloaded at Navo loop near Nadi in July 2005. **Below:** While Clyde 14 (68-655 of 1968) waits on a spur, Hunslet 18 (9285 of 1987) powers south with a mixed load of bins and whole-stick wagons from the Lovu area, just north of Lautoka in December 2005.



As in many post-colonial situations, the loss of access to capital and expertise has caused a gradual, but sustained, degradation of the infrastructure, and now there are serious doubts about the future of the tramway. A report into the restructuring of the sugar industry, commissioned in 2003 by the Fiji Government from Indian consultants, has recommended, *inter alia*, the replacement of the cane tramway by road transport. While this would no doubt relieve the burden on the Fiji Sugar Corporation, the total inadequacy of Fiji's roads and the magnitude of the task mean that the implementation of such a recommendation would sound the death knell to the tourist industry in western Viti Levu, a major blow to the economy. The government has, therefore, put this recommendation in abeyance, but *the sword of Damocles* still hangs over the tramway. Since 2005, the Rarawai and Lautoka systems have been separated, by the collapse of a bridge pier into the Teidamu River, thus severing the connecting link between the two systems, which remains otherwise intact. As a result, some farms which were served by Lautoka mill are now connected to Rarawai mill. Recent years have also seen a steady reduction in the number of branch lines worked, particularly in areas around Nadi and north of Lautoka, and the lengthy Qeleloa branches, east of Nadi, were abandoned at the end of 2005. Conversely, the branches around Natadola, Cuvu and Sigatoka in the south are all still intact and used.

The sugar season runs from early July to mid-December, and the best period for photography is July to October, when the weather is more clement. Fiji being tropical, there is plenty of rain, but the western and northern coasts of Viti Levu are

drier, and there are many days of cloudless skies. The Lautoka system is based at that mill, with operations controlled by radio from a number of bases along the main line. Trains of empties head north and south from Lautoka, mostly in the late afternoon, although the trains to the far south can leave at any time, because their transit time is anything up to twelve hours. Full trains from the Lautoka and Nadi areas tend to head back to the mill in the afternoon also, but, again, the full trains from the Sigatoka valley and the Coral Coast in the south take many hours and so it is possible to see trains at any time of the day on the main line. Operations in the south are controlled from the company office and depot at Cuvu, west of Sigatoka. Empties often head east out of Cuvu for Makasiko and Kavanagasau at about 1pm and reach Kavanagasau about sunset. Long-distance trains from Lautoka to the Sigatoka area usually change locomotives mid-way at Savu Savu (Seashell Cove). Loads are long, 50 to 60 trucks, and speeds in the vicinity of 20-25km/h.

The local people are invariably friendly and the tram crews are very hospitable. A good base for a photographic sojourn is Nadi, where there are plenty of motels, some right on the tramway. Other places to stay include the Sigatoka area in the south (to get coverage of the operations out of Cuvu up the Sigatoka River valley) and Ba in the north (to cover Rarawai mill's operations).

With the imminent threat to the system's survival, the enthusiast photographer should not tarry if he wants to capture an authentic 1960s cane tramway system in intensive operation in the 21st century.

Pre-Trip Homework: *Lonely Planet Guide to Fiji* has all the information any tourist requires.

The essential railfan read is 'Cane Train', by Peter Dyer and Peter Hodge, published by the NZ Railway and Locomotive Historical Society in 1988, now out of print, but available on-line from second-hand dealers for about \$30.

Getting There: *Air Pacific* daily from Sydney, *Virgin Blue* daily from Brisbane – all-inclusive packages are often available, but avoid those that include 'resorts', as these are frequently on islands off the coast and not handy to sugar trams! On the other hand, packages often offer *West's Motor Inn* (see below), which is very suitable. Current passport required, no visa needed.

Accommodation Nadi: *The West's Motor Inn* westsmotorinn@connect.com.fj (\$Fj75-90/night), and *Raffles Gateway Hotel* raffesresv@connect.com.fj (F\$Fj70-100/night); both have good restaurants. Raffles is literally a short walk from the airport terminal. *Tokatoka Resort Hotel* tokatokaresort@connect.fiji.com, a little more up-market, is also near the airport.

Getting Around: The road system of Fiji is basic: the only major tarred road in western Viti Levu is the Queen's Road, the two-lane, cane-truck infested highway from Tavua and Ba through Lautoka, Nadi and Sigatoka to the capital, Suva. Most side roads are sandy or rocky, with abominable surfaces. While the ordinary car can negotiate these tracks, a small four-wheel drive is preferable. Although many roads are execrable, it is quite possible to 'cade the trams and get multiple shots of the same train along the scenic west coast section. To do so, it is necessary to take the Old Queen's Road past Momi Bay, through Lomawai and the beautiful Natadola Beach and Malo Malo Fijian village. Despite this road's being the former highway, it is a real driving adventure.

Hire Car (Nadi Airport): *Avis*, *Hertz* and *Budget* (expensive), *Sharma's Rental Cars* email – fiji@sharmasrental.com (c. \$Fj60/day, all inclusive, for a small air-con car), *Khan's Rental Cars* <http://www.rentalcars.com.fj> (similar prices to *Sharma's*). Australian driver's licence is valid.

Other Transport: Frequent, cheap, fully air-conditioned (i.e. no windows!) buses on main highway: Ba-Lautoka-Nadi-Sigatoka-Suva; taxis in urban areas (\$1/km)

Maps: Good maps are essential and hard to obtain. Fiji Map Series 31 Topographic Maps M26 (Ba), L27 (Lautoka), L28 (Momi), L29 (Sigatoka) cover the main line. Available only from Lands Department Map Shop, P.O. Box 2222, Government Buildings, Suva, for \$6.00 each, plus postage of about \$5.00. No credit cards; a bank draft is the safest and most convenient way to send money. Do NOT send cash – it will disappear. I have not been able to source these maps in Australia.

Petrol: About \$1.95/litre

Money: \$A1.00 is about \$Fj1.25. Westpac and ANZ operate in Fiji, branches at Lautoka, Namaka, Nadi, Sigatoka and Suva. ATMs at airport, Namaka, Nadi, Lautoka and Sigatoka allow direct withdrawals from your Australian account.

Food: Plenty of restaurants – Fijian, Indian and European cuisines, lots of fresh fruit and fresh fish. Tap water potable in large towns, bottled water freely available.

For the Rest of the Family: Swimming, scuba diving in coral reefs, the Coral Coast Tourist Railway, shopping for native goods, sightseeing in Fijian and Fijian-Indian villages.



Top: In July 2006, Clyde 10 (65-432 of 1965) waits in a spur as Baguley-Drewry 18 (3770 of 1983) heads north through Wailoko Junction with the Nadi to Lautoka 'pick-up', which runs each afternoon to collect small lots of loads from the sidings en route.

Right: A consequence of the poor track standards and the unsprung wagons is frequent derailments. Most are not as spectacular as this one at Sabeto, just north of Nadi airport. The usual remedy is simply to push the derailed wagons aside, and retrieve them at the end of the season. **Below:** Clyde 10 inches a loaded train past the debris of an earlier accident on the Nadi back road in July 2005.





Industrial Railway NEWS

Industrial Railway News Editor : John Browning
PO Box 5646, CQ MAIL CENTRE 4702
Phone: (07) 4931 3611 (w); (07) 4926 6356 (h)
0407 069 199 (mob). Fax: (07) 4931 3700
e-mail: ceo8@iinet.net.au

**Special thanks to contributors to the Cane
Trains, Locoshed & LRRSA e-groups**

<http://au.groups.yahoo.com/group/canetrains/>
& <http://Canetrains.net>

<http://finance.groups.yahoo.com/group/LocoShed/>
<http://au.groups.yahoo.com/group/LRRSA/>
and to Barry Blair's Inside Rail enews

NEW SOUTH WALES

LILYVALE MUSHROOMS, Helensburgh

(see LR 184 p.16)

610mm gauge

Work began on demolishing the remains of the mushroom farm north of Helensburgh in late August. The farm used the old NSWGR single track tunnel between Helensburgh and Cawley for cultivation of mushrooms. A 2ft gauge railway

had been used to transport fresh trays of spores from the preparation shed to the tunnel and then to transport the mushrooms from the growing area in the tunnel to the packing shed.

A quantity of rolling stock remains had been left on the derelict site including some mine skips and some specialised wagons, as well as the remains of one of the locomotives. It appeared that nothing would be salvaged from this most interesting operation. John Garaty 9/06

QUEENSLAND

BUNDABERG SUGAR LTD, Bingera Mill

(see LR 190 p.16)

610mm gauge

A serious derailment took place on the Bucca line at Sawmill Siding adjacent to Goondoon Road on 28 August. EM Baldwin B-B DH *GIVELDA* (5800.2 6.75 of 1975) was hauling 56 full bins when 31 bins parted company from the train. The crew tried to out run the breakaways, but as the train trailed across the Sawmill Siding points, the tenth bin derailed. The runaway 31 bins came hurtling into the rear of the train with many falling off a small bridge. The line was closed for at least 3 days for clearing and rebuilding operations. With EM Baldwin B-B DH *DELAN* (5800.3 7.75 of 1975) being stuck behind the wreckage, EM Baldwin 0-6-0DH *MANOO* (3875.1 7.71 of 1971) was used to cover its duties.

On 26 August, a driver's assistant was reportedly assaulted by three youths who had been joyriding on a train. The train was halted by the crew near Moore Park Road and the assistant was attacked when he approached the youths' vehicle to read the number plate.

Lincoln Driver 9/06; *Bundaberg NewsMail* 29/8/06 via Lincoln Driver

BUNDABERG SUGAR LTD, Innisfail district (see LR 190 p.16)

610mm gauge

A Bundaberg Sugar statement on 22 August announced the permanent closure of **Mourilyan** Mill. Upgrades will be carried out at **South Johnstone** and **Babinda** Mills in preparation for the 2007 season. Government funding is being sought for cane transport projects including the construction of a new cane railway bridge to provide a direct connection between the Mourilyan and South Johnstone cane areas.

Babinda Mill did not commence crushing until 1 August because of post-cyclone repairs and production was disrupted on 30 August by a fire in the bulk sugar bin.

A rake of new 10-tonne bins for Mulgrave Mill was delivered over Bundaberg Sugar tracks from Boogan, near Mourilyan. They were brought across to Babinda Mill on 5 July by EM Baldwin B-B DH 26 (7844.1 8.77 of 1977) and then hauled north for temporary storage at Frenchman Creek loop by Clyde twin unit 0-6-0DH 2 *GOONDI* (55-56 of 1955) and 3 (56-90 of 1956).

In spite of the closure of Mourilyan Mill, three locomotives are still based there, all Clyde 0-6-0DHs, namely 15 (66-491 of 1966), 18 (56-83 of 1965) and 20 (63-289 of 1963). EM Baldwin B-B DH locomotives 25 (6470 1.76 of 1976) and 26 (7244.1 8.77 of 1977) have been returned to South Johnstone Mill. Clyde 0-6-0DH 12 (55-60 of 1955) has also been transferred from Mourilyan to South Johnstone.

Following the removal of the former Mourilyan Mill tramway crossing of the QR at Ramlegh North, a short line has been constructed along Ramlegh Road east of the QR to a new loop.

Shane Yore 7/06 & 8/06; Rod Milne 8/06; ABC News Cairns 30/8/06



Dignity and impudence. Victoria Mill's Walkers B-B DH CAIRNS (681 of 1972 rebuilt Bundaberg Foundry 1997) waits while the Queensland Sugar Industry Corporation's Com-Eng 0-6-0DH G1023 of 1958 shunts sugar boxes at Lucinda Bulk Sugar Terminal, 27 August 2006.

Photo: David Rowe

Industrial Railway NEWS

CSR LTD, Herbert River Mills

(see LR 190 p.17)

610mm gauge

Two **Victoria Mill** locos were posted temporarily at **Macknade Mill** at the start of the season to cover locomotives out of service. Clyde 0-6-ODH **CANBERRA** (65-433 of 1965) was at Macknade until 24 July. EM Baldwin 0-6-ODH **HOBART** (4413.1 7.72 of 1972) was there until 17 August, when Clyde 0-6-ODH 11 (65-385 of 1965) returned to service fitted with a new engine. **HOBART** returned to Macknade for a few days at the end of August because of problems with 11.

Wet weather conditions saw the paint brushes out in the Victoria Mill loco shed around mid July. Many of the locomotives have had their names applied to the rear of the cab. Loco crews were also put to work fabricating track panels at the navy shed with floodlights fitted up to allow the labour to go on day and night.

Macknade Mill is once again hauling cane from the Stone River area in the Victoria Mill area, this traffic commencing on 7 July when Chris Hart took EM Baldwin B-B DH 19 (7070.3 4.77 of 1977) out there. Walkers B-B DH **CAIRNS** (681 of 1972 rebuilt Bundaberg Foundry 1997) was rostered on to raw sugar haulage because the designated unit, Walkers B-B DH **CLEM H MCCOMISKIE** (605 of 1969 rebuilt Walkers 1991 and Solari 2004) was not ready for service until it took over on 17 July. This continued until 8 August when **CAIRNS** once again took over because of mechanical problems with **CLEM**, to be replaced once again by **CAIRNS** on 30 August.

Reinaudo Engineering at Macknade is assembling an order of 11-tonne bogie bins, and the first consignment was hauled from there to Victoria Mill by **HOBART** on 17 August. It is believed that the bin chassis are manufactured by Camuglia at Boogan near Innisfail and the sides by Firmi Engineering at Halifax.

Chris Hart 7/06 & 8/06; Steven Allan 7/06 & 8/06

HAUGHTON SUGAR CO PTY LTD,

Invicta Mill, Giru

(see LR 190 p.19)

610mm gauge

Com-Eng 0-6-ODH **SCOTT** performed the longest run ever done by a locomotive of this type on 16 July when it travelled from Dalbeg 2 Siding to Kalamia Mill. Harvesting contractors had not realised that Invicta Mill was closed because of rain and had filled four bins before a halt was called. As a result, the loco was despatched from Invicta to pick up the bins and take them 130km to Kalamia before returning light engine to Invicta. Scott Jesser 7/06; Jason Lee 7/06

ISIS CENTRAL SUGAR MILL CO LTD

(see LR 189 p.20)

610mm gauge

A turbo-charged 6-cylinder engine has been fitted into EM Baldwin 11 (10130.1 6.82 of 1982)

rather than the GM V12 originally planned. By contrast, Walkers B-B DH **ISIS No.3** (600 of 1968 rebuilt Walkers 1994) has been fitted with a Caterpillar 3412 V12 engine.

Brian Bouchardt 6/06

MACKAY SUGAR CO-OPERATIVE ASSOCIATION LTD

(see LR 190 p.20)

610mm gauge

Farleigh Mill's Clyde 0-6-ODH 31 **SEAFORTH** suffered a torque brake failure around the middle of July and as a result was swapped with Pleystowe Mill's 14 **ALEXANDRA**, which is equipped with the gear ratios that will enable it to cope with hilly country around Farleigh, including the Habana lines.

An unprecedented accident took place on the night of 19 July, when Pleystowe Mill's Walkers B-B

DH 37 **CALEN** (972 of 1972 rebuilt Bundaberg Foundry 1995) came into a collision with a camel on the line at Pinevale. The camel was at first stunned but left the scene of the accident after about 5 minutes. There has been a report that it succumbed to its injuries some weeks later.

Another collision, this time with a cow, took place at Howell's Loop north of Constant Creek on Farleigh's north coast line on 22 July. It involved a full train of 110 six-tonne bins hauled by Walkers B-B DH 24 **NETHERDALE** (699 of 1972 rebuilt Walkers 1997), which was derailed along with 8 bins. The line was closed for approximately nine hours whilst the bins were re-railled and the loop repaired around the derailed locomotive. The locomotive remained derailed across the track until a pad could be built for large cranes to carry out the lift the following day.



Top: The Innisfail district banana crop is recovering well as Bundaberg Sugar's Clyde 0-6-ODH 15 (66-491 of 1966) heads its rake towards South Johnstone Mill at Wangan on 26 August 2006. This locomotive is based at the closed Mourilyan Mill. Photo: David Rowe **Above:** Recalled to cane haulage this year has been Pleystowe Mill's Com-Eng 0-6-ODH **SEPTIMUS** (A2128 of 1958), seen here at the loco shed on 15 August 2006. Photo: Brett Geraghty



Top: Com-Eng 0-6-0DH PIONEER (AI2358 of 1962) heads a short ballast train being loaded at Ossa 7 Siding on Farleigh Mill's north coast line on 12 July 2006. Photo: Brett Geraghty **Right:** Walkers B-B DH ISIS No.3 (600 of 1968 rebuilt Walkers 1994) powers its rake through Childers on 30 June 2006. Photo: David Rowe **Below:** Showing off its cut-down short end nose is Pioneer Mill's Walkers B-B DH JERONA (647 of 1970) on the road crossing at Payards 2 Siding, on 18 August 2006. Photo: Scott Jesser



A more serious accident took place on the morning of 28 July when two trains collided head on about 100 metres south of Racecourse Mill's Marwood 03 siding. Clyde 0-6-0DH *ROSELLA* (64-317 of 1964) was hauling fulls towards the mill when it met EM Baldwin B-B DH 7 *NORTH ETON* (6780.1 8.76 of 1976) hauling empties cab leading. The Clyde suffered enough damage to keep it out of traffic for a few weeks but damage to the Baldwin included a twisted frame, engine and transmission damage, and cab damage, leading it to be withdrawn for the remainder of the season. This incident meant that Clyde 0-6-0DH 30 *CONINGSBY* (61-232 of 1961) was transferred from Pleystowe to Racecourse Mill, and Com-Eng 0-6-0DH *SEPTIMUS* (A2128 of 1958) was taken from track maintenance duties to be restored to cane haulage at Pleystowe. In addition, Racecourse Mill's Clyde 0-6-0DH 43 *CHELONA* (59-201 of 1959) was also noted on cane haulage duties.

In mid-August it was discovered that a crown wheel tooth had become detached in a bogie of EM Baldwin B-B DH 5 *SHANNON* (7126.1 5.77 of 1977) and as a result the bogies were removed and replaced by those from *NORTH ETON*.

Tagney Surveys of Mackay operate a modified quad bike to carry out work on Mackay Sugar's rail lines. The vehicle has guide wheels at the front, and the forward pair of rubber wheels sit on the track while the rear wheels straddle the rails.

Capital plans have been announced that give a high priority to rail maintenance expenditure. A new Tamper resleeper machine will be purchased to replace George Moss RSLEP2 (521684004739-R841-85 of 1985), along with a new hydraulic spike puller. Marian Mill's Pinnacle No.1 and Farleigh's Ashburton Hollow bridges will be replaced by culverts. Five new brake wagons will be ordered depending on the successful introduction to service of Brakevan No.6, a new prototype third generation brake wagon. It is believed that the construction of Brakevan No.6 from an ex-QR bogie wagon is about to commence.

A further capital project will be to investigate the closure of Pleystowe Mill and expansion of Racecourse to include an ethanol plant. Meanwhile, recent rerailing work at Seaforth depot has used 60lb rail originally rolled in 1888. Brett Geraghty 7/06 & 8/06; Tony Wells 7/06; Tony Gray 7/06; Tom Badger 8/06; *Mackay Daily Mercury* 29/7/06

THE MULGRAVE CENTRAL MILL CO LTD, Gordonvale

(see LR 190 p.20)

610mm gauge

Another 80 new 10-tonne bins arrived at the mill on 9 July, delivered once again by rail from Boogan with Bundaberg Sugar responsible for their haulage through to the connection at McDonnell Creek. A further 20 bins were due in September.

Preserved John Fowler 0-4-2 *NELSON* (20273 of 1934) and carriages have been moved out of the shed at "Siberia" which is being demolished and replaced because of cyclone damage.

Tom Porritt 7/06; "guido 1985" 8/06

PIONEER SUGAR MILLS LTD, Pioneer Mill

(see LR 189 p.21)

1067mm & 610mm gauge

Alterations have been made to the two Walkers B-B DH locomotives *JARDINE* (592 of 1968) and *JERONA* (647 of 1970) to improve visibility for RSU working. The short end has been chopped down to improve visibility, thereby halving fuel capacity.

On 6 July a number of derailments disrupted operations at Pioneer Mill including one at Airdale 5 Siding. This is a 2ft gauge Kalamia Mill siding off the dual gauge line and the points were left in the wrong position leading to the 3ft 6ins gauge Pioneer train of full bins hauled by *JARDINE* being diverted into it at speed with disastrous results.

Brett Geraghty 7/06; Jason Lee 7/06; Scott Jesser 8/06

TULLY SUGAR LTD

(see LR 190 p.20)

610mm gauge

The long overhaul of EM Baldwin 0-4-0DH *TULLY 1* (6/1082.3 2.65 of 1965) has now been

completed. It carries the small name *Charlotte* painted on the back of the cab.

The bogie brake wagon in use at the mill is No.3, with No.2 out of service. They were both constructed by the mill from ex-QR wagons. No.1 brake wagon was built using the chassis of Clyde 0-6-0DH DHI.4 of 1954.

The poor harvesting conditions following Cyclone Larry mean that loco crews are expected to inspect all full bins and identify those that appear to have an excess of roots and dirt in them. These bins are shunted into lots of five and are tipped between rakes of clean cane in order to reduce the effect on processing.

An unfortunate incident occurred on 18 August when Walkers B-B DH *TULLY-8* (606 of 1969 rebuilt Bundaberg Foundry 2004), hauling full bins, ran into Saini's Loop on the Murray Branch at speed, colliding with the bins parked there. The rear windows were smashed, the rear walkway and stairs needed extensive repair, and the front and rear hand rails had to be replaced.

The new Mort's Branch off Davidson's Road went into use around the middle of August.

Carl Millington 7/06; Roy Pease 8/06



Top: The crushing effect on full bins as they felt the full force of Walkers B-B DH *TULLY-8* (606 of 1969 rebuilt Bundaberg Foundry 2004) and train at Saini's Loop on 8 August 2006. Photo: Roy Pease
Above: The Tagney Surveys quad bike and driver heading away from Farleigh Mill's Kuttabal catchpoints on 19 July 2006. Photo: Brett Geraghty

TASMANIA

HYDRO-ELECTRIC COMMISSION,

Lake Margaret

(see LR 190 p.20)

610mm gauge

On 15 August, the West Coast Council rejected the Hydro-Electric Commission's application to demolish all but three sections of the pipeline alongside which runs a 2ft gauge service railway. The Council says it now intends to seek national heritage listing, saying that the decision was made in the interests of the region's cultural heritage, as well as power needs. However, the Hydro says that the decision ignores major safety concerns.

ABC News 17/6/06

WESTERN AUSTRALIA

BHP BILLITON IRON ORE PTY LTD

(see LR 190 p.20)

1435mm gauge

It reported that one of the new Electro-Motive Canada Model SD70ACe Co-Co DE locomotives is to be repainted in a scheme for the 40th anniversary of iron ore exports.

Richard Montgomery 6/06

LEIGHTON / KUMAGAI JOINT VENTURE,

Perth Metro Rail Tunnel

(see LR 190 p.21)

900mm gauge

Tunnelling workers on the city rail project have been offered cash bonuses in an effort to ensure that construction deadlines are met. Breakthrough of the tunnel boring machine at William Street took place on 31 August as it made its second 470m run from Esplanade to William Street. It will now commence the final section of the second tunnel to Northbridge.

West Australian 15/8/06; WA Media Release 31/8/06

OVERSEAS

FIJI SUGAR CORPORATION

(see LR 190 p.21)

610mm gauge

Landowners at Sorokoba blocked the main Rarawai Mill tramline in July preventing the transport of cane from much of the mill area, including Tavua, for more than three four weeks. The blockaders demanded a substantial payment from Fiji Sugar Corporation to reopen the line, following the expiry of the lease in March. 660 tons of cane on rail trucks was condemned after it could not be delivered to the mill. The line was finally reopened on 3 August following a High Court injunction and five villagers were later charged with obstructing the line.

Fiji Times 20/7/06 & 27/7/06; *Fijilive* 1/8/06; 2/8/06; 3/8/06; 8/8/06

OBITUARIES

Harold ('Harry') John Wright, 1926-2006

Harry Wright was a regular contributor to Light Railways until recent years. Graham Black has submitted this tribute to Harry:

I first met Harry around the mid seventies and like all who met him, became his friend. Harold (Harry) John Wright was born 30th November 1926 in Rabaul, New Guinea, where his parents were missionaries. Soon after they moved to Australia and Bonville near Coffs Harbour. Harry and his younger brother attended school in Coffs Harbour travelling to and fro by train and this is where his interest in steam began.

Leaving school, a career in the Post Office was short as Harry joined the RAAF in late 1944. Harry did not see overseas service, something he regretted, as he was a true Australian patriot. De-mobbed in late 1945 it was back to the post office until the interest in steam became his work. Early 1949, Harry started as a cleaner at Eveleigh shed in Sydney and worked his way up the ladder as a fireman and driver through to Chief Class Inspector. He retired early in 1987 for health reasons.

Harry was a true railwayman. He recorded in his personal diary, and on film, all manner of railway interest and history either at work or pleasure. As Rex his son said at the funeral service, Harry's photos were great in number but of indifferent quality. Rex also stated that Harry was a stickler for obeying all road rules except when chasing steam. Harry visited many overseas countries following his love of steam and made many friends there. He joined many railway societies, was active in the Methodist Church, the United Grand Lodge and the Morisset Hospital Welfare Association. Harry wrote many railway books and articles for magazines and freely gave advice on railway matters to all who asked, greatly enjoying anyone dropping in for a chat. His last 10 years or so had been plagued with many health problems and sadly Harry passed away peacefully Sunday 19 August 2006.

Harry's funeral service was held on Friday 25 August at St. Lukes Uniting Church Belmont, accompanied by many tears, mostly of laughter, by the large gathering of family, friends and railwaymen. Harry Wright will be missed by all who had the privilege of meeting this great man.

Graham Black

Graeme Stuart Breydon, 1951-2006

All those associated with the railway heritage movement in Australia were shocked to learn of the death of Graeme Breydon on Monday, 21 August 2006. Graeme took ill whilst travelling on the Puffing Billy Luncheon Train that day and died in Box Hill Hospital.

Joining the Puffing Billy family in 1964 at the age of 14, Graeme was fulfilling a childhood dream to work with trains. One of his most endearing childhood memories was travelling from the city on the electric train with a bunch of likeminded children before jumping on Puffing Billy to enjoy the ride up to Emerald Lake Park. These trips soon became fortnightly excursions with the group, who are still involved with Puffing Billy. During his time at Puffing Billy, Graeme worked in many volunteer roles, including conductor, booking clerk, ticket salesman, and station master. He served on the Puffing Billy Preservation Society for many years and was their current Treasurer.

Graeme's organising abilities were great and his contacts with the business world through his main employer contributed to the growth of Puffing Billy over the years and later to Heritage Rail in Victoria and Australia. He served on the Emerald Tourist Railway Board, was CEO of Puffing Billy for several years, and was Chairman at the time of his death.

Graeme was a tireless worker on National Heritage matters and at the time of his untimely death he was contributing through ATHRA (Association of Tourist and Heritage Rail Australia) to many matters as well as working as a consultant with the Australasian Railway Association. In 2005 he was awarded the prestigious Australasian Railway Association's (ARA) Rail Industry Individual Award for Excellence for his work as the convenor of the safety committee of the Association of Tourist and Heritage Rail Australia (ATHRA). His primary role in the past 18 months has been to assist in the development of national legislation, regulation and codes of practice for safety.

Graeme as a person was extremely well known and liked. He was very loyal to all his colleagues, leaves behind many close friends and will be greatly missed by his family and friends of many years.

*From Association of Tourist Railways tribute.
Editors*



Book Reviews

Furnace, Fire and Forge

by Bob McKillop

A4 size, 320 pages on art paper with hard cover and colour dust jacket. 241 black & white photographs, 17 coloured photos; 51 maps and diagrams. Published 2006 by the LRRSA, PO Box 21, Surrey Hills VIC 3127. Recommended retail price \$59.95 (see advertisement for details).

This book by Bob McKillop and co-authors describes the history of iron and steel making and associated railways in the town of Lithgow, on the western side of the Blue Mountains in NSW. The story of nineteenth century iron making, particularly the earlier works at Mittagong, south of Sydney, introduces the Lithgow story. The Mittagong works were sited to use small iron ore and coal deposits in the district and struggled to make money. Some of the persons involved also had an exaggerated opinion of their capabilities. This birth of the iron making industry matured into the works at Lithgow in 1874, which inherited the experience and some of the handicaps. Iron making at Lithgow was based on the availability of coal (but not the good coking coal required for iron making), some small iron ore deposits and a single large land holding in the valley. Iron ore was also known to occur at other locations in the central west of NSW close to the expanding government railway network. The small capitalists and entrepreneurs who drove the successive iron making enterprises, were frequently undercapitalised, and in some cases did not understand iron making technology, relying on experienced artisans from the industry in Britain to build small furnaces and rolling mills. Engineers, in the modern sense of the word, were unknown. Photographs of the works in the book document the expansion from what was virtually a cottage industry. There are also some excellent plans of the valley showing the ironworks and related industry.

The industrial practices were similar to those in Britain at the time and based on small groups of workers on contract or piece rates. One of the major customers for the works was the government railway in NSW, for which iron rails were produced and old rails were recycled by re-rolling. The market for iron rails from Lithgow, in place of higher quality imported steel rails, was improved by having connections in the NSW government. The government also offered low freight rates for transport of finished products to Sydney and the coast. McKillop describes an extended period of

government patronage into the twentieth century, and the occasional bribery of members of Parliament to achieve this.

The author focuses on the industrial, financial and political aspects of the industry and the stories of the personalities who were close to the day-to-day operations, and staked considerable personal fortunes. The book covers the introduction of steel making and larger scale blast furnaces for iron making by William Sandford at the turn of the twentieth century. This narrative provides the background for the story of the railway operations later in the book.

Financial problems, despite considerable support from the NSW government via a long-term contract for supply of rails, resulted in the works being claimed by the bank, and then sold to the Hoskins brothers from Sydney. The Hoskins brothers had a different view of industrial relationships from the previous owners, taking more control of the operations and removing the previous autonomy of many of the workers. This in turn encouraged the formation of more active unions and some major industrial disputes. It also placed the operation on a better financial basis, helped by the increasing protection for Australian industry following Federation. In the late teens and the early twenties it was recognised that to compete with the Broken Hill Proprietary Co Ltd, the other steel producer in Australia, Hoskins needed an integrated steel-works close to markets and a port. Port Kembla was chosen and new facilities built and equipment gradually moved from Lithgow to the new site. There is an interesting collection of photographs showing the stripping of the facilities. This resulted in a depression in Lithgow, which lasted for decades and affected attitudes in the town for generations. For the persons involved in the move from Lithgow to Port Kembla this was a huge opportunity, but for those left behind it was a tragedy. Around a third of the book describes the railways used to supply raw materials from locations as far away as 200km, with a collection of local coal mines, some beneath the valley, and quarries for iron ore, limestone and magnesite. A number of

these were located in mountainous terrain along the Mudgee railway line north west from Lithgow. A more substantial branch railway was built to the iron ore deposit at Cadia, near Orange. The railways at the iron and steelworks consisted of a standard gauge network and meandering tramways at the unusual narrow gauge of 2ft 2in, worked by cable, horses and manpower. A variety of typical British steelworks locomotives were used to move coal, coke, iron ore, scrap, molten iron and steel, and products around the plant. The locomotives are well documented, including the usual moves both inside and outside Hoskins ownership. There is an excellent collection of photographs and maps of these railways.

Maps of the Lithgow works at different periods are provided and there are two excellent plans of the works and railways from around 1926 with a key to the hundred and twenty or so separate facilities on the site at this time. There are also plans of the works and associated coal mines and coke works from different periods that are a little more difficult to relate for the casual reader.

Other sections of the book describe the industrial and community cultures in Lithgow and more recent efforts to celebrate the industrial heritage in the town. There is also a useful summary of iron and steel making technology.

I recommend this book as a well written and engaging story of the development of early heavy industry in NSW, with a cast of larger than life characters.

Tony Weston

No.259: The curious story of a forgotten locomotive

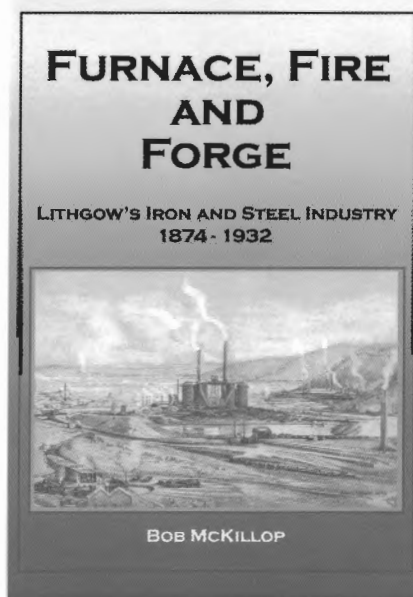
by Ralph Holden

170mm x 240mm, 40 pages on art paper with colour card cover. 13 black & white photos, and one diagram. Published 2006 by Railmac Publications, PO Box 290, ELIZABETH 5112. Recommended retail price \$11.00.

This interesting and well-presented little book deals principally with the story of an early internal-combustion locomotive that came to the Port Lincoln Division of South Australian Railways in 1913. Supplied by Ironside, Sons & Dyckerhoff and built by Ruhrthaler Maschinenfabrik of Mülheim in Germany, it has been seen as an ambitious but unsuccessful early attempt to find a substitute for the use of steam locomotives for light duties on country branch lines.

The locomotive was an early precursor of many that served in a variety of industrial applications and as such will be of interest to many readers. To add to the interest, the book also deals with the smaller but still substantial 40hp Ruhrthaler that was used by the Western Australian Department of Public Works at Broome and Wyndham and that survives to this day. Both locomotives featured in an article in LR 184.

The book centres around the author's theory that the two Ruhrthaler locomotives were brought to Australia as part of trials shrouded in secrecy that were instigated by Engineer Henry Deane in his efforts to find suitable internal-combustion



locomotives for the Trans-Australian Railway. Holden goes to great pains to adopt a persuasive approach, and he rightly points to a number of puzzling circumstances surrounding No.259 that cannot readily be explained. However, on his own admission, he can only produce circumstantial evidence to support what appears to be a grand and unnecessarily complex theory. In addition, some misreading of the evidence can be cited while other possibly significant facts are either ignored or unknown to the author.

There are two major issues regarding the origins of No.259 that demand explanation. The first is that the customer recorded in the Ruhrthaler records is "Australische Regierung" (Australian Government) rather than South Australian Government. Students of builder's lists will readily appreciate that there may or may not be significance in this. The second issue is more troublesome. In spite of arriving at Port Lincoln on 30 July 1913, the locomotive appears not to have entered service until 6 June 1914.

The author repeats a claim made in a German document written by Jens Merte, a well-known researcher, that on 5 June 1912 when the 100hp South Australian locomotive was ordered, Ruhrthaler had not produced a locomotive larger than 20hp. While this could be true, the author neglects to mention that just 12 days later a 40hp locomotive left the Ruhrthaler factory. This is the same size as the one delivered in 1913 to the Western Australian Government for use initially at Broome and later at Wyndham, in spite of the author making great play of this being "twice the size of anything previously constructed". In fact the efforts to associate the origins of this West Australian locomotive with the South Australian one must be treated with the greatest scepticism. (The author does not mention the almost contemporaneous introduction of another significant internal-combustion locomotive by the Western Australian Government, built by Charles Price in Manchester and entering service at Midland Workshops in June 1912.)

Unfortunately, there is little evidence to show that the author has done much research into the history of early internal-combustion locomotives. A standard gauge machine of 80hp was produced in England as early as 1902 and a number of narrow gauge examples of up to 50hp were available from a variety of British builders by 1912. While not wishing to deny the ambition of the 100hp Ruhrthaler, it is worth noting that the proposed 1914 design for a Trans-Australian Railway internal-combustion locomotive with electrical transmission was to incorporate a 1000hp power plant.

This is an interesting publication that demonstrates the author's passion for his subject, surely deserving of recognition. It also shows the seductive power of speculation building upon assumptions depending in the absence of specific evidence upon guesses, inferences and presumptions. This means that great caution should be exercised by anyone tempted to regard this as a work of substantial history, although hopefully it will provoke further serious research.

John Browning

COMENG: A History of Commonwealth Engineering Volume 1: 1921-1955

by John Dunn

A4 size, 316 pages on art paper with colour dust jacket. 475 black & white photos, 30 colour photos and pictures; 24 diagrams and maps. Published 2006 by Rosenberg Publishing Pty Ltd, PO Box 6125, DURAL DELIVERY CENTRE 2158. Recommended retail price \$59.95. Details and order form at <http://www.rosenbergpub.com.au>

This labour of love is magnificently presented, well produced and lavishly illustrated. It deals with the history of Commonwealth Engineering and its predecessor, Waddingtons. The book naturally concentrates on the production of buses, railway rolling stock and other vehicles but is also a very valuable social history in charting the story of many individual workers, workplace relations, management concerns, and the financial and political issues in which the company was enmeshed, particularly after 1946 when government owned and depending heavily on government contracts. Interviews with 350 former employees have provided a rich vein of detail and human insight.

The company's engagement in matters strictly within the orbit of *Light Railways* during the period was limited. There is information on the steam tram locomotives used by Waddingtons as shunters, and on the production, in association with English Electric, of two batches of steel-works diesels for Australian Iron & Steel. The construction of the first nine Com Eng cane railway diesels in 1955 is also covered. It had always been suspected that the design of these was closely related to the type produced in England for the Railway, Mine & Plantation Equipment Company (RMP) by EE Baguley Ltd. This book provides some clues as to how Com Eng got hold of the design!

The photographs are well reproduced and among the colour pages are some delightful paintings from the brush of the late Phil Belbin.

The author spent many years with Com Eng as a design engineer. His writing tends to be more descriptive than analytical but he does a great job in chronicling the first 34 years of the company's

history. I will be very keen to see the promised Volumes 2 and 3.

This book should have a place on the shelves of all those with a serious interest in Australian road and rail transport history, and indeed of all those who wish to gain a greater understanding of the development of Australian manufacturing industry over the last century. Highly recommended.

John Browning

Peninsula Pioneer

A history of the railways of Eyre Peninsula and their role in the settlement and development of the region.

by Peter Knife

A4 size, 336 pages on art paper with colour card cover. 333 black & white photos, 42 colour photos; 190 maps and diagrams. Published 2006 by the author, PO Box H201, AUSTRALIA SQUARE 1215. Recommended retail price \$55.00. Details and order form at <http://www.peninsula-pioneer.com>

This definitive – even encyclopaedic – history of the railways of the Eyre Peninsula is a magnificent achievement and will be greeted with great interest. The author and printer are to be congratulated on the enormous amount of work that has gone into the book's contents and presentation.

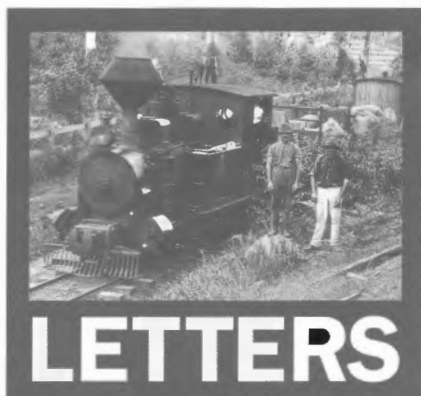
Although the great majority of the book is about government railways, a chapter deals with a number of lines that are more directly relevant to the particular interest of readers of *Light Railways*. These include jetty tramways and there is also plenty of information on the BHP line at Coffin Bay. The BHP Whyalla lines are not fully covered. Perhaps of greatest interest is the account of the Tod River reservoir construction in 1919-21, accompanied by a photograph of the ex-Mourilyan Mill 2ft gauge jackshaft drive Fowler at work there. This locomotive survives to this day at the Australian Sugar Industry Museum in north Queensland. The book also contains interesting information about locomotives used by railway construction contractors.

This beautiful book will provide great enjoyment to all those who are interested in any aspects of country railways in Australia, particularly of the 3ft 6ins gauge variety. Highly recommended.

John Browning



Mulgrave sugar mill became interested in the benefits of diesel power quite early and, in 1953, imported a Baguley/RMP model BG6 0-6-ODM from Britain. Two years later, it became the first mill to completely dieselise its tramway system, with the bulk purchase of five ComEng model A 0-6-ODM machines, here seen lined up in the mill yard shortly after delivery. Photo: John Dunn collection



Dear Sir,

North Borneo's Australian Jeep Trains [LR 189]

Philip Dandy's article on the efforts of Australian Army engineers to get the North Borneo Railway operational in 1945 made most interesting reading as my wife and I had ridden the tourist train over the northern part of this line on 18 June 2006. Our journey commenced at Tanjung Aru, the city station for today's Kota Kinabalu, formerly Jesselton. Kota Kinabalu is located at the Northern end of what is now the Sabah State Railway.

The tourist train is a joint venture between the Sabah State Railway and Sutera Harbour Hotels and has been operating since January 2000. The six train carriages, originally built by Hitachi and now sporting the cream and green colours of the North Borneo Railway (NBR), were sitting in the dock platform road. Inside they have been restored to more than their former glory with lots of varnish, brass plaques, tables and ceiling fans. We are greeted by one the carriage attendants in turn of the century uniform and are taken to our seats for the day.

The railway workshops and perway depot adjacent to the station are caught in a 1960's time warp. The tourist train is steam-hauled and 2-6-2 No. 6-016 (Vulcan 6276 of 1955) is simmering outside the locomotive shed awaiting its call to duty. A true wood burning loco since new, it has recently been restored and painted in dark green. A back-up steam locomotive No. 6-015 (6275/1955) was under repair, while a third, No. 6-014 (6274/1955) supplies the parts required to keep the other two in service.

Most of the railway restored by the Australians in 1945 is still in business. Rail motors run four passenger trains each way per day carrying the locals and their goods along the line, and goods trains also operate. The railway turns east at Beaufort to follow the Padas River to the present terminus at Tenom, located high in the hills, 268km from Tanjung Aru. The Malcolm Moore 4wPM No. 30 reported to be on static display at the station in 1997 (LR 186 p.13) was not sighted.

With the usual whistling by the engine driver from the single note whistle, lots of steam, wood smoke and the smell of hot cylinder oil, we got under way 'on time' at 10am. It is a slow trip as the metre gauge track is a little uneven and there are plenty of level crossings. The major stations passed

were Putatan, Kinarut and Kawang, which each had passing loops for smooth rail operation. As we pass these locations on the outbound journey, our train passports are stamped with the station names.

Following a stop at Kinarut to visit the Tien Shi temple, the train resumed its southward journey at 11.05am. We crossed small bridges and rivers, passing by padi fields with water buffalo enjoying a cool mud bath in the tropical countryside. We passed through the only tunnel on the railway that had been blocked by the Japanese with a locomotive and wagons, as described in the *Light Railways* article. Finally we crossed the major bridge over the Papar River, which was destroyed during WW2 and had to be completely rebuilt by the Australians, before arriving at Papar.

Here the passengers detrained and headed toward Papar town centre to enjoy a bit of shopping in the local market. The locomotive was turned on 'the world's slowest turntable', watered and firewood topped off. The northbound rail motor entered the station to pick up passengers and, following its departure at 12 noon, the tourist train set out on its return journey 10 minutes later.

All too soon we were back in Kota Kinabalu, with the train arriving on time at 2pm. It was impressive to see that this isolated railway far from major cities runs to its advertised times. The locomotive ran around the train and shunted the carriages for the next run before returning back to 'loco' for servicing, the next south-bound rail motor then appeared in the station to take more passengers to the outstations. With a friendly wave from the driver the rail motor departed.

Without the actions and foresight of the 9th Division engineers in repairing the line, bridges and tunnel including the brilliant idea to invent the jeep loco, most of this would have been lost to the jungle and swamps. It has served Sabah well being a testament to all concerned both locals and expatriates. As I write, plans have been drawn up to rebuild the line in an upgrade program to start later this year.

Kevin Waid
Hornsby, NSW



Engine 6-016 (Vulcan 6276 of 1955) takes water after being turned at Papar ready for the return run to Tanjung Aru on 17 June 2006.
Photo: Kevin Waid

Dear Sir,

South Maitland Railways 10-class Locomotives (LR 190)

I write as a recent subscriber to *Light Railways* to warmly complement the editors upon its quality and very interesting material. The latest issue – August 2006 – is particularly informative and impressive.

Perhaps you will allow me to make a slight explanation regarding the report on page 26 headed 'Maitland Steam Heritage Park'. Hunter River Training Company is a not-for-profit company 50% owned by the Ministerial Holding Corporation of NSW, which employs over 2000 apprentices throughout the State. Some time ago we purchased the East Greta Junction Workshops.

With this we acquired two 10-class locomotives – the first of the line being No.10 brought out from Beyer Peacock in 1911 and No.18, which arrived in 1915. Our Training Company, through an appeal, raised \$350,000 to bring No.10 back to pristine condition and certified for mainline operation. No.18 will return to its home at East Greta Junction in August 2006 and it is still owned by the Hunter River Training Company. We shall, of course, continue to work closely with 3801 Limited.

Milton Morris AO
Chairman,
Hunter River Training Company
Maitland, NSW

Dear Sir,

Days 0-4-0DM locomotive (LR 34, 41, 184, 186 and 189)

I am writing to add a few notes about the 0-4-0DM Days locomotive at Cornwall Colliery.

Firstly, I apologise for the loose wording of my reference to the ex Hobart Municipal Tramways' sprinkler car in LR 41, which Richard Horne pointed out. You can always rely on your sins finding you out in LR sooner or later!

I enclose a photo of the sprinkler cab on the loco frame at Cornwall in November 1966. I noted the gauge of the line to the new shaft as being 1000mm, but I did not say how I had measured it and I might have

been wrong. I noted Ruston diesel motor 235667 (size 20, class DL) as being "with the ex Hobart sprinkler cab" and Ruston 0-4-0 279571 (size 40, class DL) as being in the loco shed.

I also enclose a photo that Jack Shennan took of the sprinkler at Cornwall in the late 1950s, probably fairly soon after it arrived from Hobart, as it is still complete apart from the tank. The HMT obviously did not waste paint on the section of cab behind the tank ends.

TGR traffic returns indicate that coal traffic out of Cornwall finished around the end of 1963, although mine production probably ceased a little earlier. I visited Cornwall again recently and most of the houses are still occupied, although the remains of the mines and trams have largely disappeared into the bush. The new Blackwood Colliery is reviving mining at Cornwall.

Jim Stokes
Curtin, ACT



The 0-4-0DM Days loco frame with cab from ex-Hobart Municipal 'Tramways' sprinkler car at Cornwall Colliery, November 1966.

Photo: HJW Stokes



The ex Hobart Municipal ramways sprinkler car at Cornwall Colliery in the late 1950s.

Photo: Jack Shennan

COMING EVENTS

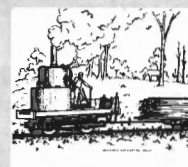
LRRSA NSW Division Inc.

GLENROCK COLLIERY WALKING TOUR Sunday 5 November 2006

LRRSA researcher John Shoebridge will conduct an industrial railway tour along the route of the former Glenrock colliery railway. The walking tour will depart from the former NSWGR connection at Civic station at 1130, allowing participants from Sydney time to travel there by train.

The tour will follow the route through Newcastle suburbs to The Junction, then onward to Merewether Beach. The former tunnels and formation remains will be explored. The original Burwood Colliery site has recently been cleared, revealing several railway and mining relics.

Please contact Jeff Moonie (02 4753 6302) or Ross Mainwaring (02 9449 2738) for further details.



LRRSA NEWS

MEETINGS

ADELAIDE: "Bring along the tape you'd most like to show the members"

Members are invited to bring along a favourite tape - one you believe your fellow members will enjoy.

Location: 150 First Avenue, Royston Park.

Date: Thursday 28 September at 7.45pm.

Contact Arnold Lockyer (08) 8296 9488

BRISBANE: "Narrow gauge in the UK today"

The October meeting will feature a Presentation by David Mewes on the narrow gauge aspects of his recent trip to the UK.

Location: BCC Library, Garden City Shopping Centre, Mount Gravatt. After hours entrance (rear of library) opposite Mega Theatre complex, next to Toys'R'Us.

Date: Friday 13 October at 7.30 pm. Entry from 7 pm.

MELBOURNE: "La Trochita - 75 cm gauge in Argentina"

Roger Willsher will present an illustrated talk on the 402 km long 75cm gauge Ingeniero Jacobacci to Esquel railway in Patagonia, southern Argentina. The railway is still operated by Baldwin and Henschel 2-8-2 tender locos.

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

Date: Thursday, 12 October at 8.00 pm

SYDNEY: "The Araleun Branch Line Railway"

We have all dreamed of building our own private 2ft gauge tramway, and Ian White has done just that. Ian will talk on how he sourced materials for construction of the line, and on his operating methods to convert a paddock into a functional 1km long tramway.

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

Date: Wednesday 25 October at 7.30pm.

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

Furnace, Fire and Forge

Lithgow's Iron and Steel Industry 1874-1932
by Bob McKillop

The story of Australia's first and only inland heavy industrial centre, from its beginnings with the opening of New South Wales' Great Western Railway into the Lithgow Valley in 1869 and the establishment of the first blast furnace there in 1874, to the final closure of the iron and steel works in 1932. It covers the technical, commercial, industrial and political history of the operation.

G. & C. Hoskins and its predecessors used twenty locomotives at Lithgow steel works and associated plants. The works railways, and those of the limestone quarries, iron ore mines, and collieries which supplied the raw materials, are described and illustrated in the book.

320 pages, hard cover, A4 size, over 250 photographs, 80 maps, plans and diagrams

\$59.95 [LRRSA members \$44.96] Weight 1,600 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.

Settlers and Sawmillers

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

by Mike McCarthy

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

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

The Golden City and its Tramways

Ballarat's tramway era

by Alan Bradley.

Published by Ballarat Tramway Museum Inc.

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

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

The Mapleton Tramway

The line of the diminutive Shay locomotives

By John Knowles, published by the author

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

Includes seven scale drawings of the rolling stock and locomotives.

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

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

Laheys' Canungra Tramway

by Robert K. Morgan, revised by Frank Stamford.

Describes Queensland's largest timber tramway with one Climax locomotive and 3 Shay locos.

32 pages, soft cover, A4 size, 28 photographs, plus maps and diagrams, references and index.

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

The Innisfail Tramway

The History and Development of the Geraldton Shire Tramway and the Mourilyan Harbour Tramway

by John Armstrong & G.H. Verhoeven. 128 pages, A4 size, 99 photos, 22 maps/diagrams.

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

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

Mountains of Ash

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

Describes a network of over 320 km of 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)

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.

Postage and packing: Within Australia, up to 500 gm: \$4.80; 501 gm to 3 kg \$9.50

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.

For more books, see our web site:

www.lrrsa.org.au



An invitation to join the LRRSA

Membership of the LRRSA offers you:

- Light Railways magazine, mailed to you six times a year
- Substantial discounts (usually 25%) on LRRSA publications
- Opportunity to purchase Light Railway News on CD-ROM
- Meetings in Adelaide, Brisbane, Melbourne and Sydney
- Tours to places of light railway interest

Annual Subscription for year ending 30 June 2007 is \$48.00

Includes LR Nos 190 to 195 (Overseas by airmail: NZ, PNG, Japan, South-east Asia - \$A60.00; Rest of world - \$A72.00).

- If joining in June or July pay \$48.00 (\$60.00/\$72.00 overseas) and receive 6 issues of Light Railways (Nos 190-195).
- If joining in August or September, pay \$40.00 (\$50.00/\$60.00 overseas) and receive 5 issues of Light Railways (Nos 191-195)
- If joining in October or November, pay \$32.00 (\$40.00/\$48.00 overseas) and receive 4 issues of Light Railways (Nos 192-195).
- If joining in December or January, pay \$24.00 (\$30.00/\$36.00 overseas) and receive 3 issues of Light Railways (Nos 193-195).

- If joining in February or March, pay \$16.00 (\$20.00/\$24.00 overseas) and receive 2 issues of Light Railways (Nos 194-195).

- If joining in April or May, pay \$56.00 (\$70.00/\$84.00 overseas) and receive 7 issues of Light Railways (Nos 195-201).

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

I, _____
(full name of applicant)

of _____

(address) _____

(postcode) _____

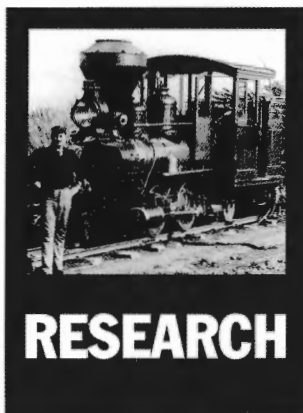
(occupation) _____

desire to become a member of the Light Railway Research Society of Australia Inc. In the event of my admission as a member, I agree to be bound by the rules of the Society for the time being in force. I enclose cheque/money order for \$48.00, or please charge my Visa/Mastercard No.

Expires _____

Name on Card _____

Signature _____



RESEARCH

LRRSA Yahoo Group

The LRRSA has started an email mailing list based at YahooGroups, a free, easy-to-use email group service. The purpose of this list is to enable members and non-members to exchange information about any aspects of past, present and preserved Australian industrial, light and narrow-gauge railways. The area covered includes Papua New Guinea, Fiji, and the Pacific phosphate islands, and wartime

narrow gauge operations by Australian military operations abroad.

The Group covers industrial, light, and narrow gauge railways as defined in the coverage of the *Light Railways* magazine. Topics for discussion will include, but not necessarily be limited to:

- a) **Industries:** Industry news that may affect associated industrial rail, whether directly or not.
- b) **Current sightings:** Visit reports and sightings from the current day, whether of past or present operations.
- c) **Research:** With questions, discussion, and findings
- d) **LRRSA News:** Meetings, tours, publications and news
- e) **Photography:** Requests for photos, sharing of photos and discussion of same.
- f) **Industrial railway modelling:** For those who want to have the industrial world at home.
- g) **Overseas:** Welcome in cases of relevant important breaking

industrial railway news or as part of research that takes in operations, locomotives and builders overseas. LRRSA member Brad Peadon has agreed to be moderator of the group. By joining this group, you will be able to easily send messages to fellow group members using just one email address. YahooGroups also makes it easy to store photos and files, co-ordinate events and more. Non-members of the LRRSA are welcome to join.

To join this mailing list, please send an email with "LRRSA YahooGroup membership" in the Subject line to the group moderator (Brad Peadon, alcogoodwin@yahoo.com.au) providing details of yourself and of your interest in joining the group. Entry to the Group must be approved by the moderator as a precaution against spammers.

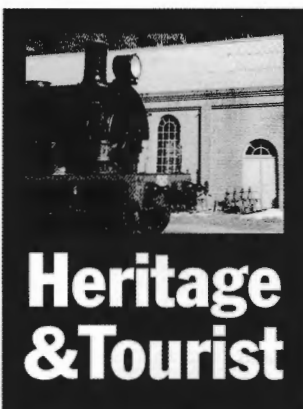
It is envisaged that material posted on this group may be adapted by the editors of LRRSA publications for use in the Society's publications, including *Light Railways* and the

LRRSA web-site www.lrrsa.org.au. The LRRSA YahooGroup supports and encourages membership of the Cane Trains YahooGroup, an already established forum for all aspects of Australian cane railway interest. This group can be found at: <http://au.groups.yahoo.com/group/canetrains/>

Frank Stamford

Gold Coast tramways

Peter Jones is researching industrial tramways on Queensland's Gold Coast, particularly Neranwood, Southport (used to build the road to Burleigh), Nerang (from Molendina to Nerang Mill), the Rocky Point sugar mill tramway and the tramway to the Beenleigh distillery. The Rocky Point mill is covered in LR 92 (April 1986). Peter is seeking further information on these tramways from readers. If any reader can assist, can they please get it touch with Peter on (07) 5574 8293, 0413 379 410 on email to: peter_aj1950@yahoo.com.au.



Heritage & Tourist

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

Email address for H&T reports is: rfmckillop@bigpond.com

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

shed for repairs. Accordingly, the Perry worked all trains, every day for more than twelve months continuously. Its only 'day-off' was Christmas Day!

During the twelve months of continuous operation, the Perry clocked up some impressive statistics. It ran 10,000 kilometres with over 6500 circuits of the track; made over 26,000 station stops; burned nearly 150,000 litres of diesel; evaporated nearly two million litres of water; and hauled three-quarters of a million passengers. All this has been accomplished without a breakdown. On the very few occasions when a running problem developed, repairs were executed within an hour or so, even within minutes!

Feed-water is softened and has tannin and a pH control additive, and this treatment enabled the boiler to continue without a washout during the twelve months. It is blown down when raising steam of a morning, while a feed-water technician samples the boiler water on a regular basis to check its quality. Light up commences soon after 8am daily and the boiler is shut down around 5.30 pm. During the twelve months the boiler never became cold!

To mark the Perry's significant achievement, all four regular drivers assembled in front of the locomotive for a group photograph on 13 July 2006. It is claimed that these are the only 'full-time' steam

locomotive drivers employed in Queensland, and that the Dreamworld Railway is thought to be the only railway in Australia that runs a steam locomotive every day of the year (Christmas Day excepted)

Ted Hancox, 07/06

ROCKY POINT SUGAR MILL

610mm gauge

A visit to the mill's motor workshop on 13 July 2006 provided an update on the rebuilding of former Rocky Point Mill 0-4-0WT (John Fowler B/N 16249/5/1924), which was moved back to its home from the Dreamworld Railway in December 2002 (LR 176, p.27). Tom Hurley is rebuilding the locomotive as a tourist attraction at the mill. The intention is to display the loco in front of the mill office so that it can run on rollers or a short length of track using compressed air. The present status of the work is shown in the photograph on p.32.

Bob Gough 07/06

New South Wales

ILLAWARRA TRAIN PARK,

Albion Park 610mm gauge

Illawarra Light Railway Museum Society

The last few months has seen much progress at Albion Park, while the first half of 2006 also saw the ILRMS hosting some interesting events, ranging from the 'Steam Up'

enthusiast day in March to the highlight of the year, the running day on 9 July, when the ex-BHP Coal Operations Vernier man car No. 112 entered service following extensive restoration. The day was well attended and the man car gave those who rode in it the experience of coal miners as they travelled to their work stations.

Locomotive works restoration programs continue with the ex-Condong sugar mill Ruston & Hornsby 40DL Model 4wDM getting closer to a return to service. This work has progressed to the point where the engine will be started shortly, while a new cab is under construction. Painting preparation on the 'Simplex' ex-Goondi sugar mill is continuing and this unit is scheduled to return to service early in 2007. The ex-Lithgow and Port Kembla steelworks 0-4-0ST and ILRMS front icon WALLABY (Hawthorn & Leslie 2988/1913) is also on the painting roster. It has been cleaned down for painting preparation and much needed attention to rusted areas. Application of the undercoat on the locomotive had commenced by 10 August 2006. A new addition to the ILRMS collection is the Matisa BL09M ballast tamper (7664 of 1967) formerly at the Inkerman sugar mill in Queensland. It arrived at Albion Park in July and is awaiting assessment for future operations there.

NEWS

Queensland

DREAMWORLD GOLD COAST RAILWAY

610mm gauge

As reported in LR 185 (p.26), ex-Bingera sugar mill 0-6-2T (Perry Eng. 5643/51/1 of 1951) underwent its five-year inspection in June 2005. Since then the rebuilt ex-Racecourse mill 4-6-0 (Baldwin 45215 of 1917) had an unusually long stay in the

Heritage & Tourist

In terms of infrastructure, restoration works to the Otford Signal Box are nearing completion. This covers repainting the building, both inside and outside, together with construction of a miniature display park adjacent to the signal box. Shelters have been constructed for displaying an ambulance car and colliery skips. A fettlers' shed will be constructed in this area by the end of the year. The ILRMS has received Federal Government funding to construct a much needed museum building. It is intended that this building will enable the permanent display of ILRMS artefacts currently stored in the main shed.

Brad Johns, 08/06

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

The most recent non-air coal hopper wagon to be restored at the RVR is A2536, which was completed on 8 July 2006. A Goninan & Company built this wagon for the Aberdare Collieries, located on the Cessnock coalfields. This hopper is different to the others in the demonstration non-air train as it is fitted with top hungry boards. The restoration of the frame was very easy as it only needed a clean down and painting. In contrast, the hopper required a major rebuild. Every board on it had to be replaced along with most of the steel work. Three bracing steels plus two lifting beams were replaced on the hopper framework. Close to 100 metres of new boards were then bolted on using over 350 new bolts. This was covered by nearly 30 litres of paint inside and out. In late August, the RVR received a cheque from the Mineworkers Trust for \$19,255.00 for the restoration of the remainder of the non-air hopper wagons in the demonstration train.

Graham Black, 08/06

WEST DARLING MACHINERY PRESERVATION SOCIETY

1067mm gauge

This group was last reported in LRN 116 (February 1997, p.10). This noted that a circular track had been established in a park in Blende

Street opposite the Sulphide Street railway museum. A steam outline locomotive (then described as a 4-2-0PM) was then being prepared for use on the line. A follow-up visit in January 2006 found that the line has been in operation for several years after an extended period of non-use due to insurance problems. The unusual locomotive

is built on the chassis of a locomotive previously used at a park in Silverton, but evidently has a new body.

The train operates on the third Sunday of the month (from 10am-1pm). The locomotive hauls a single bogie passenger car around the oval track, which occupies half the block, and which was formally

occupied by Silverton Tramway tracks. A oval shed over the track serves as a station during operating times and a lock-up shed for the locomotive and carriage at other times.

The white Gemco 4wBE locomotive numbered D25T and two four-wheel man transporter cars reported at the Society's workshop in Crystal Steel in December 1996 was noted near the headframe of the old 'South' mine in January 2006. Ray Graf, 07/06

Coming Events

OCTOBER 2006

1 Bennett Brook Railway, WA. *Friends of Thomas the Tank Engine (FOTTE)* Day with the Fat Controller keeping the train on time, unlimited train rides and amusement games and rides for all. Enquiries & bookings: (08) 9381 9648.

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

1 Illawarra Light Railway Museum, NSW. Operating day with two train operations, electric mining tramway and miniature trains at Albion Park for long-weekend from 1100-1700. Phone (02) 4256 4627 or www.ilrms.com.au

1 Durundur Railway, Woodford, QLD. Narrow gauge steam train operations from 1000-1600 with barbecue and picnic facilities available. Also on 15 October - and 1st and 3rd Sunday of each month. Phone (07) 3278 9110 for information.

1 Australian Sugar Cane Railway, Bundaberg, QLD. Former sugar cane railway locomotives operate in the Botanic Gardens every Sunday, public holidays and on Wednesdays during school holidays. Information at (07) 4152 6609.

7-8 Alexandra Timber Tramway & Museum, VIC. Steam-hauled narrow gauge steam trains (1000-1545) and museum displays for 'Woodies Gala' on 7th. Also diesel trains operate on 22 October. Information: Bryan 0407 509 380 or Peter 0425 821 234.

7-8 Redwater Creek Heritage Museum, Sheffield, TAS. Weekend running with narrow gauge steam trains 1100-1600. Phone: (03) 6491 1613 or 6424 7348.

8 Wee Georgie Wood Railway, Tullah, TAS. narrow gauge steam train operates 10am-4pm. Also on 29 October. Phone: (03) 6230 8233.

14-15 Puffing Billy Railway, VIC. *Day Out with Thomas*, featuring THOMAS and DANIELLE in steam preforming in Emerald yard and THOMAS hauling special steam trains to Nobelius or Clematis and return. Also on 21-22 and 28-29 October. Bookings (03) 9754 6800.

21-22 Menangle Narrow Gauge Railway, Campbelltown, NSW. Narrow gauge steam and diesel locomotives operating, together with traction engines, stationary steam and vintage engines, machinery, etc. Information: 0417 215 513.

21 Australian Sugar Cane Railway, Bundaberg, QLD. Official commencement of the track extensions 9.30am. Information (07) 4152 6609.

NOVEMBER

5 LRRSA NSW Division Glenrock railway tour. Industrial railway walking tour of the formation and relics of the former Glenrock colliery railway at Newcastle - see page 25 for details.

11-12 Wee Georgie Wood Railway, Tullah, TAS. narrow gauge steam train operates 10am-4pm. Also on 19 and 26 November. Phone: (03) 6230 8233.

12 Alexandra Timber Tramway & Museum, VIC. Steam-hauled narrow gauge steam trains (1000-1545) and museum displays. Also diesel trains operate on 26 November. Information: Bryan 0407 509 380 or Peter 0425 821 234.

18-19 LRRSA Timber, Copper & Gold Tour, Erica and Walhalla, VIC. A guided tour covering all the facets of narrow-gauge rail transport in the Erica and Walhalla region. Contact LRRSA Tours c/o Peter Evans, 3/22 Princetown Rd, Mt Waverley for details (enclose a SAE or e-mail address).

19 Richmond Vale Railway, NSW. 'Santa Special' train - see Santa arrive by steam train and hand out small presents. Entry fees apply, then all train rides are free. Phone: (02) 4937 5344 (weekends).

19 Cobdogla Irrigation Museum, SA. Operating day with narrow gauge diesel-hauled train. Phone (08) 8588 2323. Also on 17 December.

DECEMBER

4 Wee Georgie Wood Railway, Tullah, TAS: narrow gauge steam train operates 10am-4pm. Phone: (03) 6230 8233.

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

16-31 Semaphore to Fort Granville Steam Railway, SA. Miniature steam trains operate daily during school holidays, unless temperature in Adelaide is 35 degrees or above. Phone: NRM (08) 8341 1690.

Note: Please send information on coming events to Bob McKillop - rfckillop@bigpond.com - or the Editor, Light Railways, PO Box 674, St Ives NSW 2075. The deadline for the December issue is 27 October.

Victoria

ALEXANDRA TIMBER TRAMWAY & MUSEUM

610mm gauge

During the year ended 30 June 2006, the ATTM operated on 58 days; an increase of ten over the previous year, while the 3764 passengers carried on the trains was a modest increase over the previous figure (3643). High summer temperatures and reduced coach traffic restricted visitor numbers, but additional running days and the introduction of market days more than offset this decline. The cost was additional strains on volunteers, which has impacted on restoration work at the museum.

The 0-6-0T (John Fowler 11885 of 1909) has continued to be an attraction on steam running days, but it will be withdrawn during 2007 for re-tubing of the boiler. The Kelly & Lewis 0-6-0DM 5957 has been the main operating locomotive on diesel-operating days, with sister locomotive 4271 also performing well on several occasions.

Restoration work has been restricted by the demands of operating days, but some progress was made on the Hudswell Clarke 0-6-0 (1098 of 1915), with the boiler being removed from the frames and a start being made on the brake hangers. In response to the museum's development application to the Shire of Murrindindi for a 2km extension of the tramway, an 'on site' meeting was scheduled for 29 August to examine the proposal in detail.

Timberline No.91, August 2006

PUFFING BILLY RAILWAY

762mm gauge

Emerald Tourist Railway Board

Overhaul of the former Victorian Forestry Commission Climax logging locomotive No.1694 is entering a new phase following the return of the refurbished boiler from the

USA in April (LR 189, p.30). Stage 3 tasks include the manufacture of a new smokebox, new castings such as a blastpipe, profiling and re-tying of the wheel sets, testing of the axles for cracking, overhaul of the brake system, and the design and manufacture of a new spark arrestor and ash pan. Volunteer workdays commenced on 12 August 2006 and will be held on the second Saturday and third Sunday of each month.

Fund raising is a core element of the project. One such event is a special train scheduled to operate from Emerald to Gembrook and return hauled by the two Decauville locomotives from the West Melbourne Gasworks on Sunday 17 September. This would celebrate the 120th birthday of the 0-4-OST Decauville 861 *JOHN BENN*. We will bring a full report of this event in the next issue. If you can help the appeal with a donation

or as a volunteer, please check <http://climax.puffingbilly.com.au/> or write to *Puffing Billy Climax Locomotive Appeal*, PO Box 451, Belgrave VIC 3160.

The Puffing Billy Railway operated a funeral train on Wednesday 30 August to farewell their Board chairman and Society Treasurer Graeme Breydon (page 32). Garratt G42 hauled a long train of passenger cars to Gembrook, and tucked in behind the loco was an

Heritage & Tourist

NQR open wagon carrying Graeme's coffin. In what was explained as an old British tradition, the top layer of coal in the bunker was painted white (although the resulting smoke was still fairly black!). The roar from the Garratt storming Fielder Bank was something all those present will remember for a very long time as a spectacular and appropriate tribute. The various speakers at the ceremony spoke of Graeme's life and contributions to many organisations and individuals. It was a fantastic effort from the people who made it happen over the last week, under very trying emotions.

Bill Hanks, Peter Homann 08/06; Editor

Tasmania.

WEST COAST WILDERNESS RAILWAY, Queenstown

1067mm gauge

Federal Hotels Limited

WCWR ran the first of two scheduled enthusiast days on Saturday 19 August. The day started with a photo session at the Queenstown workshops, with ex-Mt Lyell 0-4-2T Abt Locomotives Nos.1 (Dübs 3369/1896) and 5 (NBL 24418 of 1938) in steam, while the Drewry 0-6-ODM D2 (Vulcan Foundry D194 of 1953) was parked in front of the shed. A special goods train then ran from Queenstown to Lynchford, hauled by Abt loco No.1 and comprising ex-TGR open wagon C217, a ballast wagon, bogie flat wagon FW3 and the recently restored Mt Lyell four-wheel guards van. This train ran to Lynchford ahead of the scheduled passenger train (hauled by Abt No.5 with three coaches), where it reversed and hid around the corner on the southern side of the yard. After detraining from the passenger train, the small group of enthusiasts set up for photos, firstly with a re-run of the passenger arriving at Lynchford, then followed by No.1 arriving on the goods for a cross with No.5. No.1 then headed back to Queenstown with its goods train, whilst No.5 continued its journey on to Strahan. The day was rounded off with dinner and a video showing at Strahan that evening. The rain kindly held off for the events at Lynchford. Rob Bushby, 08/06



The drivers of the Dreamworld Railway 0-6-2T (Perry Eng. 5643/51/1 of 1951), Peter Gough, Teddy Hancox, Casey Hancox and Paul Jones, pose for a photograph in front of the locomotive on 13 July 2006 to mark its 12 months in continuous service without a break. Photo: Bob Gough



Ray Graf photographed this unusual steam outline locomotive operating on the West Darling Machinery Preservation Society track in Blende Street, Broken Hill, on 15 January 2006. It is departing the 'station' – which serves as the storage shed – with its bogie passenger carriage. Perhaps a reader can suggest an appropriate wheel arrangement to describe this contraption?

Heritage & Tourist

South Australia

COBDOGLA IRRIGATION MUSEUM 610mm gauge Cobdogla Steam Friends Society Inc.

Following some months of lobbying by the local member of Parliament and others, the Cobdogla Steam Friends have been gifted all the 60 and 63lb rail in the Loxton station yard. Bert Easthope, General Manager of Genesee & Wyoming Australia, formally handed over the rail to the Cobdogla Steam Friends Society at a formal closing ceremony of the station yard on Wednesday 2 August 2006. A 'Last rail vehicle' into the station yard in the form of a Toyota road-rail vehicle was part of the proceedings. Also included was an extensive photographic display dating back to the coming of the railway to Loxton, and some broad gauge section cars and railway memorabilia from the Loxton Historical Village. About 200 people attended the closing ceremony, including a number who had worked on the railway.

Society volunteers had begun preliminary work cutting fishplate bolts and lifting some panels of track on 29 July and lifting of track began in earnest following formal ceremony. The Society has added a hydraulic dog spike puller to its track lifter for pulling the spikes, and has the use of a 5-ton 4WD forklift supplied by Hentschke Transport of Loxton. The intention is to lift and stack all the track panels prior to running a semi-trailer shuttle to deliver them to Cobdogla. By 13 August, about half of the track had been lifted, all the fishplates removed and the welded rail sections cut into 40-foot panels. In addition, some 250 tons of ballast had already been transported to Cobdogla.

At Cobdogla the new locomotive and carriage shed was completed in May. The Loxton rail, together with that collected from Riverton a couple of years ago, should enable completion of the line to Loveday. With over 4000 sleepers to be cut to length and drilled, the Society is building a sleeper production line. When finished, broad gauge sleepers will be rolled into the saw to be cut

to length before being rolled along to the drilling machine. The drill is fully adjustable for various rail sizes and drills all four holes in one operation. The completed sleepers are then rolled along to be stacked onto pallets. Once sufficient sleepers have been stockpiled, track-laying weekends will be initiated.

Denis Wasley, 08/06

Western Australia

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

The *Friends of Thomas the Tank Engine Day* (FOTTE), held on May 21, was again an outstanding success with approximately 1800 attendees. The steam-outline 4wDH *ASHLEY*, built by Kless Engineering of Marayong in NSW in 1986 (LR 188, p.31) had been prepared for the event and painted blue in lieu of its original orange from its days as the 'Orange Blossom Special' at the Harvey Fruit Bowl railway. On FOTTE Day *ASHLEY* ran in 'top and tail' formation with *MAYLANDS* (4wPM ex-Maylands Brickworks) between Whiteman Village Junction and Mussel Pool using the railway's original small rolling stock. It performed well and proved a big hit with the children. In all, four trains were run throughout the day utilising all the railway's available locomotive and rolling stock fleet. In July the Association received the matching rolling stock that had

been used with *ASHLEY* at the Dizzy Lamb Park at Wanneroo. These carriages are currently being re-furbished for use on the BBR.

Bob Baker, 08/06

BOYANUP MUSEUM OF TRANSPORT & RURAL INDUSTRIES 1067mm gauge Boyanup Foundation

This museum has recently closed and is not expected to reopen until late 2007. Back in 2001 the operation was active in restoring ex-industrial and private railway locomotives (LR 161, p.31), but these activities have since declined. By 2005, the operator was unable to meet the public liability insurance requirements required by the PTA to keep the lease of the land and the local council declared the site unfit for public access. From 1 January 2006, Rail Heritage WA (i.e. the ARHS WA Division) took over the lease, thereby gaining access to repair and conserve its rolling stock as necessary. Rail Heritage WA and the Shire of Capel are now members of the Foundation and are guiding the efforts of local volunteers to rehabilitate the site and upgrade the facilities.

The museum is currently closed to the public, while access to the site is confined to members and volunteers of Rail Heritage WA. This situation will continue while renovations proceed and exhibits are upgraded. The future focus of the museum is under review, but railways will remain an important part of its

collection. With the new management regime in place, additional items of rolling stock may be relocated to Boyanup.

Philippa Rogers, 08/06

Overseas

CLEETHORPES COAST LIGHT RAILWAY, United Kingdom

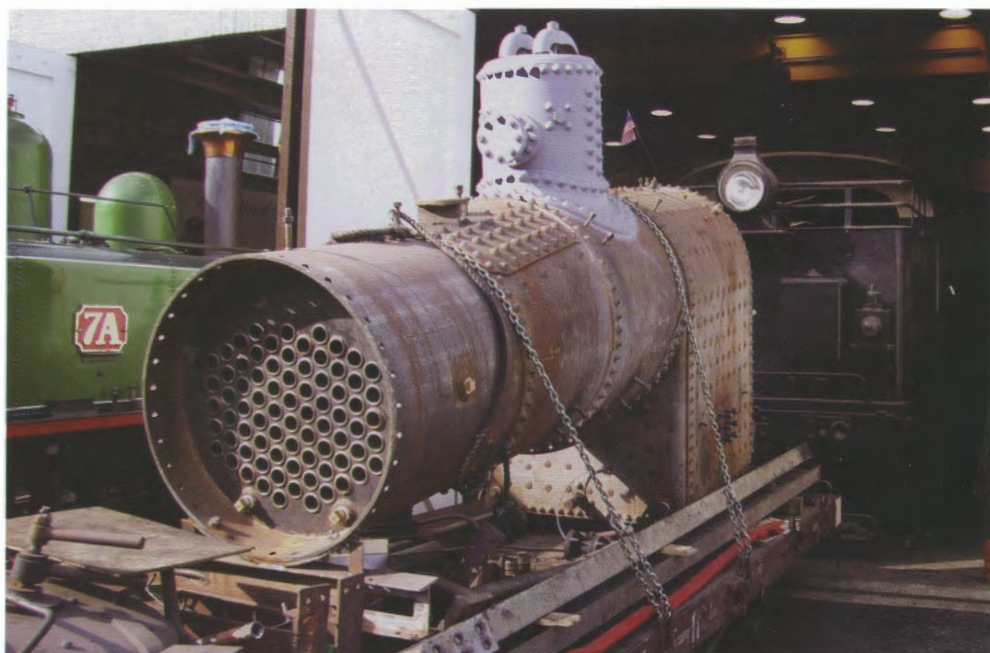
381mm gauge
As reported in LR184 (p.31), the half-scale replica of the K1 Garratt locomotive previously at the Bush Mill Railway at Port Arthur, Tasmania, is located at the Pennygrove Railway in Coleford. Recently the 0-4-0T+T *MOUNTAINEER*, the 4wDH locomotive and carriages have arrived at the CCLR at Cleethorpes in northeast Lincolnshire.

MOUNTAINEER and the diesel locomotive were in the workshops on 13 July 2006, the former awaiting a boiler inspection, while the carriages were in use. A visitor on 11 August was advised that *MOUNTAINEER* had been in use for about two weeks.

CCLR Webpage, 3/8/2006; Robert Darvill, both via John Browning

CORRECTIONS

Further to the report on the *Smokey Mountain & Grizzly Flats Railroad* which appeared on p.27 of LR191: Arthur Birch worked at the Reptile Park until 1975 (not 1970), but he began building the SM&GFR in 1970. Loco No.37 is *TURTLE* and its owner is Brett Roper.



The repaired boiler for Climax 1694 basks briefly in the sunshine outside the Puffing Billy's Belgrave workshops on Saturday 5 August 2006. The new front section of the barrel is clearly seen along with the new tube plate and tubes. Behind the boiler is the rest of the Climax, whilst to the left is 7A minus its driving wheels. Photo: Steve Holmes



0-4-2T Abt locomotive No.5 (NBL 24418 of 1938) takes water at Lynchford with the Strahan-bound passenger train during the West Coast Wilderness Railway Enthusiasts' Day on 19 August 2006, while the demonstration goods train headed by Abt No.1 (Dübs 3369/1896) crosses on the right. Photo: Rob Bushby.

□ The recently completed locomotive shed at the Cobdogla Irrigation Museum with the ex-WC&IC 0-4-0ST (Bagnall 1801/1907) on the left and the 4wDM Simplex (Motor Rail 7369/1935) on the right. Photo: Denis Wasley. □ Passed for solo passenger work just four days earlier, ex-Tasmanian Railways pioneer Garratt 0-4-0+0-4-0 K1 (Beyer Peacock 5292/1909), sporting Welsh, British and Tasmanian flags, worked 3-coach shuttles between Caernarfon, Dinas and Waunfawr during the Welsh Highland Railway's 'Superpower' weekend on 9-10 September. Photo: © Andy Rutter



COLOUR MISCELLANY

Clockwise from below: Following line repair work, the remains of bins lie scattered around the derailment site at Sawmill Siding on Bingera Mill's Bucca line, 2 September 2006. Photo: Lincoln Driver. □ The restored ex-Wongawilli Colliery 1977-built Vernier man car No.112 stands at Yallah station on the ILRMS Albion Park railway in August 2006. Photo: Brad Johns. □ EM Baldwin B-B DHTULLY No.7 (10684.1 4.83 of 1983) comes through Jones Loop in Riversdale with its full rake, 26 August 2006. Photo: David Rowe □ 4wPM steam outline locomotive ASHLEY sitting on the pit shed road at the Mussell Pool workshops of the Bennett Brook Railway. Photo: Bob Baker. □ The Richmond Vale Railway's most recently restored non-air coal hopper wagon, A2536, poses for Graham Black's camera. □ The rebuilding of the John Fowler 0-4-0WT ROCKY POINT (B/N 16249 of 1924) at the Rocky Point sugar mill's motor workshop had reached this stage on 13 July 2006 when Bob Gough took the photograph. Its appearance is much improved on that evident in the photograph on page 29 of LR 176.

