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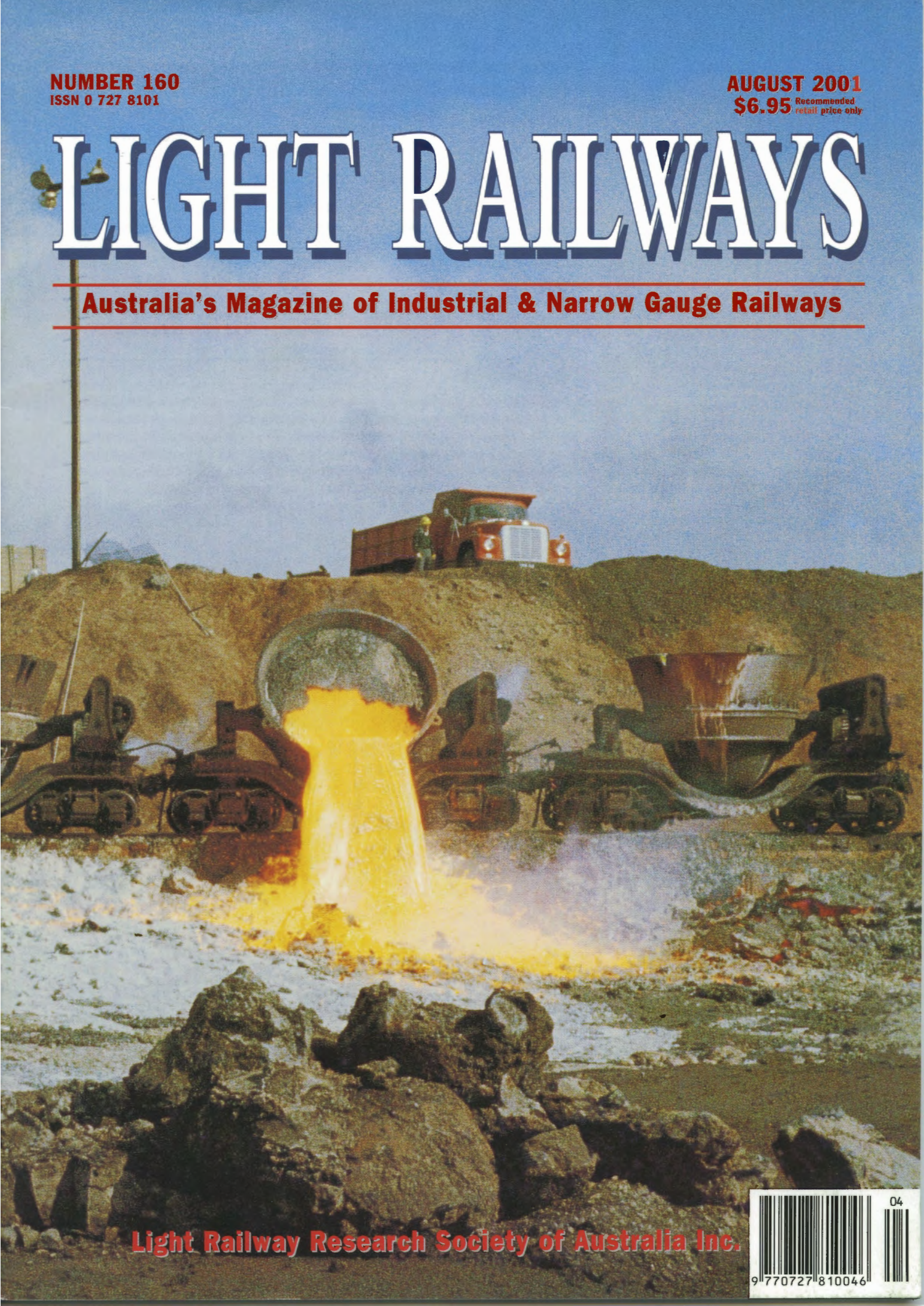
LIGHT RAILWAYS

Australia's Magazine of Industrial & Narrow Gauge Railways



Light Railway Research Society of Australia Inc.

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LIGHT RAILWAYS
Australia's Magazine of Industrial and Narrow Gauge Railways

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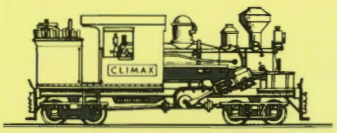

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Conversions:

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

Contents

Comment

I've been a rail enthusiast for a very long time. Though, as I mentioned in LR 139 in my first Editorial, being Phil Belbin's son made that pretty much mandatory.

I've also worked in the Advertising Industry for a long time, and if I've learned anything, it's about the futility of trying to tell people what should interest them – let alone what they should buy! Human beings have to be convinced of the benefits of an idea or product, and that's not always a simple task.

Nevertheless, as Editor it's my sacred quest to give our readers, and potential readers, what they wish to see whilst hopefully opening the eyes of some to further possibilities. The fact is, to a classic 'mainstream' enthusiast, the entire world of 'light railways' is an unchartered frontier full of potential new discoveries, and it's my job to wherever possible help facilitate that process of discovery.

In any case, in an era when so much competes for our attention, it's satisfying just to know that some people out there still care about trains and railways. A magazine such as ours, which has been here for forty years, can feasibly look forward to being here (in one form or another) in another forty. If my particular contribution has assisted in that cause, then my time has been well spent. *Bruce Belbin*

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

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

Light Railways is the official publication of the Society. 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.

Cover: *At BHP's Whyalla steelworks, on Friday 23 April 1965, the time-honoured practice of dumping the molten slag is in progress, depositing yet another ladle load of waste material onto the burgeoning lineside moonscape. The loco providing both motive power for the train and steam for the tipping operation is one of a pair of 'Standard Porter Switchers' transferred from Newcastle steelworks in 1963 as a stop-gap measure when major upgrading at the South Australian plant saw significant parts of the 3ft 6in gauge network converted to standard gauge. Formerly Newcastle Nos 25 (BHP/1938) and 21 (BHP/1930), they were classified at Whyalla as 'B class' and rechristened B1 and B2 respectively (a fact that caused some present-day amusement to the Editor's young children*). With the arrival of new diesels in August and September 1965, both locos were retired and later scrapped. Photo: Ron Preston. [* For those not blessed with the knowledge, B1 and B2 are the names of the two 'Bananas in Pyjamas'.]*

Steam in the Archives

Boiler records for industrial locomotives in Victoria 1906-1935

by Peter Evans

Introduction

For a number of years, records for Victorian steam boilers have been hard to find. Since at least the early 1990s, the Public Records Office of Victoria (PROV) has held ten volumes of first registrations from 1930 to 1935, but no other records were listed in the holdings. Investigations with the relevant issuing authority drew a blank, as the Occupational Health and Safety Authority (OHSA) was adamant the remaining records held by it had been dispatched to the PROV. These records have finally been made available for public access as VPRS 7854/P1 and VPRS 7854/P2, providing an almost complete record of first registrations for boilers for the years 1906 to 1935, and unlocking the secrets to the registration details for the boilers of the vast majority of Victoria's industrial locomotives. Boiler records provide a fascinating insight into the history, technology and power levels of our industrial past. It is hoped that this article will make them more accessible.

The writer has examined every record and electronically indexed those likely to be of use to industrial railway, sawmill and tramway researchers. Ideally, the entire 10,000 records should have been indexed, but time was available to index only those references directly applicable to the work of the LRRSA. The resultant database includes 1038 records or slightly more than 10% of the available records. Before examining those records pertinent to industrial locomotives in Victoria, a little background might be appropriate.

The legislation

The first record of a legislative attempt to better regulate the use of boilers in Victoria was a proposed bill to improve provisions for inquiries into boiler explosions. The bill was introduced into the Victorian Parliament in November 1882.[1] The bill foundered but, in November 1884, a parliamentary committee was formed to further consider the problem of boiler explosions. Despite a conclusion that current boiler laws were inadequate, no further action was taken at the time, although the committee continued to meet sporadically over the next few years.[2] By 1886 it was apparent that boiler explosions in Victoria's industrial works were increasing at an alarming rate compared with the rest of the world. Complacency, the number of old mining boilers in use, and the poor quality of the often-mineralised water

The Metropolitan Gas Company operated three 2 ft 6 in gauge steam locomotives at its works in West Melbourne. The first two locomotives were built by Societe Anonyme des Usines Metallurgiques du Hainault, Couillet and supplied through Decauville et Cie, Paris. (See Light Railways *90). The locomotives were 861 of 1886 and 986 of 1886. Both survive today and the most original locomotive, 986, is shown at Menzies Creek on the Puffing Billy railway in May 1998. The two locomotive boilers were registered under the Decauville name as BLA 1329 and BLA 1330 in 1908, and allowed a working pressure of 120 psi. Both were entered in the register as being built in 1888. The inspector noted that both boilers were in "splendid condition", and that the locomotives were only used one or two days each week. BLA 1329 was replaced with a new 160 psi boiler in 1927 and registered as BLA 6961. The boiler was built by Robison Brothers of South Melbourne and retained the original copper firebox. BLA 1330 was replaced in 1930 and registered as BLA 7529. This boiler also retained its original copper firebox and was allowed a pressure of 160 psi, but this time was built by the employees of the Metropolitan Gas Company. Did the Gas Company make the change due to the Great Depression and the need to both save money and create work for skilled employees it wished to retain? Photo: Peter Evans*

available to Victorian mining plants were largely to blame. In Victoria, one in 287 boilers exploded in 1885/86. In the USA it was one in 885, in England one in 2000, and in Germany one in 3000.[3]

Mining boilers were the first boilers to have mandatory inspections under the *Mines Act No. 1514* of 1897. Subdivision 6 of clause 145 made provision for any boiler used in mining to be examined by an engineer to determine its fitness for further use. This still left a large number of boilers unregulated but, for a time, further progress in this direction stalled. It was not until July 1899 that MLA Alexander Peacock introduced a boiler inspection bill designed to bring industrial boilers under regulation. The boiler committee set fees for inspection but progressed no further, and the bill was eventually withdrawn.[4]. In November 1904, a major step forward was made when the *Boiler Inspection Act* was read for a second time. The boiler committee made steady progress over the next two years, culminating in the passage of the *Boilers Inspection Act No. 2071 of 1906* through the Legislative Assembly in December 1906.[5]

The new act covered boilers and digesters in every city, town and borough; but specifically excluded boilers for domestic use in private houses, the Victorian Railways, the Melbourne Harbour Trust, the Geelong Harbour Trust, boilers used in steamships, mining boilers (which were inspected under a separate Act), and boilers with less than 50 square feet heating surface used for cream separators, milking machines and firewood saws. New boilers awaiting sale were also excluded. The regulations were extended in April 1911 to include boilers working in country areas (which included sawmills and timber tramway locomotives). The change was

When former Victorian Railways 4-6-0 locomotive W 227 entered private ownership, the boiler was registered as BIA 6054. The locomotive was built by the Baldwin Locomotive Works, USA, and carried builder's number 6633 of 1882. It was purchased by the McIvor Timber & Firewood Company for £1500 in 1924, by which time the boiler records reveal it had a replacement boiler constructed at the VR Newport Workshops in 1907. After the McIvor Company ceased operations, the locomotive was repurchased by the Victorian Railways for £50 in February 1934. Apparently not thinking much of its bargain, the Railways scrapped the locomotive and sold the boiler to sawmiller William Richards shortly afterwards. The mill was destroyed in the 1939 bushfires and the site was abandoned. Today, the partially cut-up boiler lies amid the ferns near Matlock on the Great Dividing Range. Photo: Peter Evans

BIA 6740 stamped on the backhead of this boiler positively identifies it as coming from Kerr Stuart 0-4-2T locomotive 797 of 1902. Built to the gauge of 2ft for the Mount Ellison tramway in the Northern Territory, it was purchased by machinery merchants Cameron and Sutherland in 1907 and later re-sold to Whim Well Copper Mines Pty Ltd in Western Australia. In 1920 it reappeared at the Block 10 Misima gold mine on Misima Island off the coast of New Guinea. In 1922 it was purchased by machinery merchants Miller and Company of Melbourne and regauged to 3ft, possibly for use on sawmiller Joseph Timms' proposed tramway to the Acheron Valley. It was sold to Gembrook sawmiller E A C Russell in 1926, at which time it gained its Victorian boiler registration. It was not a success in its intended use and was set aside and eventually scrapped in the early 1950s. However, the boiler has survived and is currently situated at the Lake Goldsmith steam rally site in Victoria. Photo: Peter Evans

The new boiler inspection legislation only guaranteed the integrity of the materials and construction - it could not control the day-to-day management of the boiler. Explosions still occurred. The Goodwood Timber & Tramway Company operated a 2ft gauge tramway between its mill in the Mullungdung forest and the railway station at Port Albert from 1910 to 1920 (See Light Railways *124). We know from the boiler records that the first two locomotives used on the line were registered on 18 June 1912 as BIA 2759 (builder "Arthur Kopgeal" [sic] number 3961 of 1910, but actually an Orenstein & Koppel), and BIA 2760 (builder "Krauss & Company", number 6415 of 1910). A third locomotive was registered in 1914 as BIA 3408 (maker given as "Orenstein & Koppel", number not given, built 1900. The identity of this locomotive is not positively known at present, although several theoretical possibilities exist, notably Orenstein & Koppel 683 of 1900. On 1 September 1914 the boiler of "Mona" (Krauss 6415) exploded, killing its driver Bert Dudley. With Australia at war with Germany, a replacement boiler from the original manufacturer was out of the question. The boiler records reveal that a new boiler was constructed in Melbourne by Kelly & Lewis, delivered to the Goodwood Company at Port Albert, and registered as BIA 3733 in 1915. However, in an effort to keep as many locomotives operational as possible, a minor frenzy of boiler swapping seems to have occurred. By the time Orenstein & Koppel 3961 was converted into an articulated locomotive by Warburton sawmiller J F Ezard in 1928, it is impossible to say which boiler it carried. Photo: E G Stuckey collection, courtesy M J McCarthy. Thanks are due to Mike McCarthy and John Browning for suggestions in relation to the supposed identity of the mystery locomotive.*

made possible by a regulation promulgated in the *Victorian Government Gazette* under an Order-in-Council. (A register of digesters was kept separately and is held by the PROV as VPRS 8820. Entries in the latter registers will not be considered here).

Boilers had to be registered within one month of the Act becoming law and, after passing an initial inspection, had to be re-inspected every year thereafter. Owners had to register a new boiler within one month of taking possession. Boilers were to be prepared for inspection by their owners with at least twenty-eight days notice to be given by the inspector of the day he intended to carry out the inspection. The inspections were carried out by the Department of Mines and Water Supply from 1907 to 1909 and by the Department of Mines from 1909 to 1935. Amending Acts in 1915, 1928 and 1958 continued the regular inspections. From at least 1906 to 1935, registers were kept of all first inspections and form the basis of the records described here. Subsequent inspections were noted in the registers up until about 1915 when the practice seemed to have stopped in favour of maintaining individual correspondence and inspection files for each boiler. These files were destroyed with the permission of the Keeper of the Public Records in 1984.

How the records are arranged

Despite the unfortunate destruction of the correspondence files, the surviving records are extremely valuable. They are arranged in two permanent transfer consignments. P1 covers the years 1930 to 1935 in 10 volumes, and P2 covers the years 1906 to 1929 in 77 volumes. Each volume (unit) contains 100 records. The number at the top of each page was assigned as the BIA (Boiler Inspection Act) number for an individual boiler. Transfer P2 Volume 1 contains records 001 to 100, Volume 2 contains 101 to 200, Volume 3 contains records 201 to 300 and so on. P2 unit 77 ends at BIA 7700 and P1 unit 1 starts at 7701. From P1 unit 7 the style of volume changes, with two entries to an opening and the pattern no longer holds good. However, the electronic index allows records to be easily located. The last BIA number in Volume P1/10 is 9100, but included inside the back cover is a handwritten list of BIA numbers from 9101 to 10525 with the name of the maker and very occasionally of the owner beside it. This seems to have been intended for the use of inspectors only and the implication of the list is that no further volumes exist. Further research is required to see whether or not post-1935 records of first inspection may have survived.

"BOILERS INSPECTION ACT 1906."

No. 2071. Sec. 14.

RECORD OF FIRST INSPECTION AND TEST OF BOILER.

Registered No. 7249 **Date of Registration** 21.8.25.

Type of Boiler Locomotive **Date of Make** 1925

Horse Power 35 **Name of Maker** Rhmea Manufacturing Co

Materials ... ... Mild steel

Brands ... ... Obi Type

Tensile Strengths ... 55 000 lbs □"

Shell—Length 7ft 6" , diameter 35" x 41" , thickness of plate ½"

Class of riveting Butt Rvt. DBS , diameter of rivets ⅝ , pitch of rivets 3" x 6"

Percentage strength of joint 84 **Calculated bursting pressure of Shell** 1126 lbs □"

Size of dome 15" Dia. , thickness of plate 7/16 double rvt lap joint

Ends—Thickness of plate 7/16 Tubes—Number 76 , diameter 2 , pitch 3"

Stay tubes—Number 9 , diameter 2" Stay bolts—Number 9 , diameter 1¼ P 7 x 5 Pr.

Gusset Stays—Length , width , thickness

Angle rivets in end plate—Number , diameter , pitch

Furnace—Design of Fielbon Loco type

Cylindrical type—Length , diameter , thickness of plate

Anti-collapsing rings, Adamson's joints, &c.—Number , centres

Cross Tubes—Number , centres

Loco. Type—Length 3ft 11" , breadth 2ft 9" , height 3ft 4"

Thickness of plates 7/16.

Method of staying Screwed rvt , diameter of stays 1" , pitch of stays 4½"

Girders—Dimensions through stays , pitch 4½"

Bolts—Number , diameter 1"

Calculated working pressure of Furnace 211 lbs □"

Safety Valves—Design of Spring loaded

Number 2 , diameter 1½"

Dead Weight—Diameter , weight of ball , distance from fulcrum to centre of valve and to end of lever

Set to blow-off at pressure of 200 lbs □"

Water Gauges—Number one **Test Cocks**—Number 3

List of other Mountings Injectors (2) Pressure gauge, Blow off cock, Feed check valve & Regulator valve

Date of External Inspection 25.8.25. **Date of Internal Inspection** 25.8.25.

Pressure of Hydraulic Test 350 lbs □" **Working pressure allowed** (see footnote) 200 lbs □"

Date of Issue of Certificate **Date of Expiry of Certificate**

Owner's Name and Address State Forests Commission of Vic Boiler situated Yarra District

NOTE.—British Board of Trade Rules relating to Steam Boilers to be applied in calculating stresses.

(1) Give any particulars (*a*) as to the state and condition of the boiler, and (*b*) of all appliances used in connexion therewith and the fitness thereof for the particular purpose for which such appliances are required.

(2) Recommendations and general remarks (which may be continued on the back hereof).

STAMPED THUS on Front

B.I.A. 7249
T.P. 350 W.P. 200
25.8.25
HP 35

American boiler built of rather low tensile strength steel, workmanship rough, a few rivets had to be caulked during hydraulic test

Asst Commissioner

P. Balstrup
Signature of Inspector.

THE CHIEF INSPECTOR,
MINES DEPARTMENT,
MELBOURNE.

Date, Sept 1st 1925

Above: *The LRRSA logo, Climax 1694 of 1928, lived out its retirement at the Forests Commission of Victoria State Sawmill in Erica. It was rescued by the Puffing Billy Preservation Society in May 1865 and officially returned to service on 12 November 1988. It is shown at Erica in the early 1950s well-covered with employees from the State Sawmill. Photo courtesy Ross Sinclair.*

Page 6: *When Climax 1694 was registered in 1928 it received BIA 7249. From his comments at the foot of the registration page, boiler inspector P. Balstrup obviously took a dim view of the workmanship that went into the boiler. The boiler is currently out of service awaiting major repairs. VPRS 7854/P2 unit 73 folio 7249. Reproduced with the permission of the Keeper of the Public Records*

Each entry under an individual BIA number has spaces to record the date the boiler was registered for inspection, owner, address at which the boiler was inspected, date of inspection, boiler type, maker, construction date where known, builder's number where known, and a host of construction details and dimensions of the individual components making up the boiler. Finally, each entry has a space for comments made by the boiler inspector, which range from a terse comment to almost a short essay on the boiler, its history, and the use to which it will be put.

Some general observations

From 1906 to 1910 the inspectors seem to have had their hands full coping with the boilers around Melbourne. It would seem that boilers were registered in groups in each volume by general geographic area before the inspectors were dispatched to make their rounds, as subsequent entries have been made in a different hand. In other cases, all entries on the one page are made in the same hand. On other occasions the inspector seems to have operated as a lone agent seeking out boilers for registration, as one or two records are marked "boiler not stamped, waiting to have BIA number assigned." Occasional pages were left blank and must have been filled up later, resulting in certain discrepancies in the year sequence for date of registration.

After 1911, when inspections were extended to outlying areas and included sawmills and boilers in railway yards, the records become more interesting. The large numbers of old and worn-out portable engines working in railway yards and allowed only a low pressure (60 psi and under) correlate well with known firewood producers, and it would seem that most firewood mills were powered by the oldest and worst boilers in Victoria. One thing is certain - these initial inspections must have come as a rude shock to the owners of the boiler. On several pages the inspector's comments relate to difficulties experienced with angry and uncooperative owners. What is surprising is the very large numbers of portable engines stated to have insufficient strength in the crown of the firebox, with heavier girders ordered to be fitted. Given that Victorian inspectors adopted the British Board of Trade rules for boiler inspections and that the vast majority of Australian-owned portable engines were of British make, were the British selling cheaper and lightly constructed engines to their Australian cousins that could not be sold at home?

Registrations up until the First World War account for over one-third of the available records. During the war there is a drop-off in the rate of registrations, no doubt due to the difficulty of importing boilers, and it is in this sort of case that fully indexing the records might shed fascinating light on any surge in local boiler manufacture. The period following the war shows a surge in new registrations, especially in sawmills, and a shortage of plant is indicated by the increase in the number of old boilers overhauled and by an increase in second-hand boilers brought in from other Australian States, especially Queensland, New South Wales and Tasmania. At least one New Zealand connection with an Australian sawmiller

Hudswell Clarke 646 of 1903 was one of four sister locos purchased in 1924/25 from Wallaroo & Moonta Mining & Smelting Co. in South Australia by Australian Cement Company at Fyansford. Curiously, only three of them appear in the boiler records. Retired in 1964, 646 is now on the Bellarine Peninsula Railway at Queenscliff, where Ray Graf photographed it on 29 December, 1998.

(McDonald Brothers) is amply demonstrated. Unfortunately this post-war surge in work for the inspectors has a parallel rise in incomplete entries in the registers.

Many of the pages in the volumes are only partly filled out. Just why this should be so is difficult to say. Certainly, with boilers condemned on first inspection, the inspector would not have filled out all the details. Other blank pages may pertain to a widely used and standardised boiler type to which the measurements could be imputed from other records. Many of the boilers were inspected before sale, and the subsequent correspondence files might have made illuminating reading. On the other hand, the incomplete entries may simply reflect the additional work required of the small number of inspectors available.

There is a dramatic slowdown in the number of new boilers registered in the early 1930s and a large number of boilers are recorded as "built for stock", before this type of entry also slows. A resurgence in boiler registrations shows up in 1934 just before the records cease. At the same time, a whole new generation of boiler manufacturers starts to emerge, with the older generation disappearing from the ledgers, and boiler repairers (such as F W Grocke and George & George) starting to emerge as important manufacturers in their own right.

Although these boiler registration records shed some illumination on our industrial railway, sawmill and tramway history, the records are sometimes frustratingly incomplete. They probably raise just as many questions as they answer. Many of these questions could have been answered once and for all by the now-destroyed correspondence files.

Industrial locomotives in Victoria

Because the electronic index is large and difficult to publish and, in deference to the interests of the readers of *Light Railways,* only records pertinent to industrial locomotives are included here. This includes locomotives known to have been constructed using boilers and engines from other sources. The table that follows includes basic registration details of all industrial locomotives (and replacement boilers) identified in Victoria. Obviously, there is too much detail on each page for the entire entry to be included in the table, so researchers should note that this table is not intended as a substitute for the original records. The items recorded in each entry of the table include:

Unit: This is in two parts, P1 or P2 to indicate the permanent transfer followed by a forward slash and the unit number within that transfer. It is the first key to locating the record.

BIA number: this is the second key, and locates the record (folio, or page) number within the unit.

Year: This is the year in which the owner notified the inspecting authority that a new or second-hand boiler had been obtained that fell under the Boiler Inspection Act.

Owner: The owner of the boiler.

Location: This is the place where the boiler was inspected and was sometimes the maker or importing agent's address. In the case of places not likely to have an easily described location (such as a sawmill), the address given seems to have been the station at which the boiler inspector alighted from the train.

Maker: The firm that built the boiler. For older boilers the maker was often unknown and either left blank in the original record or filled in as "not known". In both cases this is recorded in the database as "not known".

Built (year): Listed wherever identified in the original record. Since one of the reasons for downgrading the allowable pressure was the age of the boiler, it was in the interest of owners to disguise the age of the boiler if possible, even though this meant playing what was effectively the precursor to Russian Roulette with the lives of themselves and their employees. At least one record has an entry from an exasperated boiler inspector who complained that the owner did everything in his power to disguise the age of the boiler. Where the boiler inspector had to make an educated guess at the age of the boiler and recorded this as an estimate using the words "about" or "approximately" this is recorded in the table with a c for "circa" after the year.

Builder's number: Listed wherever identified in the original record. The inspector frequently recorded the maker's number of portable engines so he could identify them again but, frustratingly, this practice was not often extended to locomotives. This column also contains occasional comments.

Note that the records listed include nine model locomotives (mostly intended for amusements), which had boilers large enough to require registration under the Boiler Inspection Act. Not included are the large numbers of former main-line locomotive boilers sold into industry for non-locomotive use. Note that this listing forms only part of a much larger electronic database. Bona-fide researchers are welcome to seek further details by sending their queries to PO Box 21, Surrey Hills 3127 and marked to the writer's attention.

BIA 2178 was Marshall 28708 of circa 1902, a portable steam engine first registered to Toombullup sawmillers Hill & McPherson, and last used to drive Clark & Pearce's "Old" No.4 sawmill in the Rubicon Forest. The photograph shows the typical stamps applied by the boiler inspector at the time of registration. Note the regularity of the subsequent yearly inspections. *Photo: Peter Evans*

Unit	BIA	Year	Owner	Location	Maker	Built	Number
P2/14	1329	1908	Metropolitan Gas Company	West Melbourne	Decauville	1888	-
P2/14	1330	1908	Metropolitan Gas Company	West Melbourne	Decauville	1888	-
P2/23	2238	1911	McIvor Timber & Firewood	Tooborac	Baldwin	1889-	
P2/23	2239	1911	McIvor Timber & Firewood	Tooborac	Baldwin	1889	10057
P2/24	2328	1911	Sanderson, A. (deceased)	Barramunga	Not known	1891c	-
P2/24	2330	1911	Sanderson & Grant	Barramunga	Not known	1890c	-
P2/24	2231	1911	Sanderson & Grant	Barramunga	Kitson & Co	1891c	-
P2/24	2232	1911	Sanderson & Grant	Barramunga	Kitson & Co	1891c	-
P2/24	2234	1911	Sanderson & Grant	Barramunga	Baldwin		7556
P2/24	2354	1911	Henry, W R and Sons	Forrest	Beyer Peacock	1890c	-
P2/24	2364	1911	Cuming, Smith & Company	Britannia Creek	W G Bagnall		682
P2/25	2402	1911	Hayden Brothers	Barwon Downs	Baldwin	1895c	-
P2/25	2476	1911	Hermon & Gillis	Warburton	John Fowler	1884c	5851
P2/27	2667	1912	Hayden Brothers	Barwon Downs	Baldwin	1890c	-
P2/28	2756	1912	Rubicon Lumber & Tramway	Alexandra	Strauss Co [sic]	1891	-
P2/28	2759	1912	Goodwood T & T Company	Port Albert	Arthur Kopgeal	1910	3961
P2/28	2760	1912	Goodwood T & T Company	Port Albert	Krauss & Co	1910	6415
P2/30	2951	1913	Gunn, W W	Crossover	Not known	1890c	-
P2/30	2956	1913	Vict. Powell Wood Process	Yarra Junction	Baldwin	-	37718
P2/30	2960	1913	Henry, W R and Sons	Forrest	Hunslet	1912	-
P2/30	2969	1914	Warburton T & T Company	Warburton	John Fowler	1913	-
P2/31	3034	1913	McIvor Timber & Firewood	Tooborac	Baldwin	-	
P2/32	3179	1913	Vict. Powell Wood Process	Yarra Junction	W G Bagnall	1913	-
P2/34	3382	1914	McIvor Timber & Firewood	Tooborac	Baldwin	-	-
P2/35	3408	1914	Goodwood T & T Company	Port Albert	O & K	1900	-
P2/35	3484	1914	Vict. Powell Wood Process	Powelltown	Stewart [sic]	-	
P2/36	3528	1914	Stone Siddeley	Geelong	W G Bagnall	1906c	-
P2/36	3529	1914	Stone Siddeley	Geelong	W G Bagnall	1904c	-
P2/38	3733	1915	Goodwood T & T Company	Port Albert	Kelly & Lewis	1915	-
P2/38	3756	1916	Vict. Hardwood Company	Powelltown	Kerr Stuart	1904c	-
P2/45	4498	1919	Rubicon Lumber & Tramway	Alexandra	Krauss	1891	-
P2/48	4742	1920	Vict. Hardwood Company	Powelltown	Lima M & L Co		-
P2/51	5022	1921	Loch Valley SM Company	Noojee	Baldwin	1914	-
P2/51	5034	1921	State Rivers & Water Supply	-	Baldwin	1905c	-
P2/51	5036	1921	Cameron & Sutherland	South Melbourne	O & K	1909	-
P2/51	5086	1921	Goodwood T & T Company	Noojee	Beyer Peacock	1882	-
P2/52	5160	1922	Loch Valley SM Company	Noojee	Not known-	-	
P2/52	5191	1922	Kerang & Koondrook tram	Koondrook	Phoenix F'dry	-	T 267
P2/52	5192	1922	Kerang & Koondrook tram	Koondrook	Phoenix F'dry	-	D122
P2/58	5243	1921	Mahony, J J (MODEL)	North Melbourne	J J Mahoney	-	-
P2/58	5800	1924	Hermon, H & Sons	Warburton	John Fowler	1923	-
P2/59	5859	1924	Elphinstone Redgum SMC	Elphinstone	Sharp Stewart	1902	-
P2/60	5972	1924	State Rivers & Water Supply	-	A Harman	1924	-
P2/60	5982	1924	Lutz, A A (MODEL)	South Melbourne	Thompson's	1924	-
P2/61	6013	1924	Goodwood T & T Company	Noojee	Islington WS	1915	-
P2/61	6054	1924	McIvor Timber & Firewood	Tooborac	Newport WS	1907	-
P2/62	6112	1924	Goodwood T & T Company	Noojee	Islington WS	1915	-
P2/63	6229	1925	Australian Cement Company	Fyansford	H'well Clarke	-	-
P2/64	6311	1925	Gibson, Alex (MODEL)	Northcote	Alex Gibson	-	-
P2/64	6347	1926	State Rivers & Water Supply	Red Cliffs	Kerr Stuart	-	
P2/64	6385	1925	Australian Cement Company	Fyansford	Vulcan (USA)	1916	2533
P2/64	6386	1925	Australian Cement Company	Fyansford	Vulcan (USA)	1916	2540
P2/65	6403	1925	Federal Motor Co (MODEL)	Richmond	F W Grocke	1925	-
P2/66	6552	1927	State Rivers & Water Supply	Hume Weir	Perry Eng.	1923	-
P2/66	6553	1927	State Rivers & Water Supply	Hume Weir	Perry Eng.	1925	-
P2/66	6554	1927	State Rivers & Water Supply	Hume Weir	Perry Eng.	1926	-
P2/67	6661	1926	Australian Cement Company	Fyansford	H'well Clarke	1906	-
P2/67	6662	1926	Australian Cement Company	Fyansford	H'well Clarke	1907	-
P2/67	6683	1926	Rubicon Lumber & Tramway	Alexandra	Krauss	1924	-

Unit	BIA	Year	Owner	Location	Maker	Built	Number
P2/67	6691	1926	State Rivers & Water Supply	Glenmaggie	Not known	-	-
P2/67	6693	1926	Metropolitan Gas Company	West Melbourne	Peckett & Sons	1926	-
P2/68	6740	1926	Russell, EAC	Gembrook	Kerr Stuart	1914	-
P2/68	6746	1926	State Electricity Commission	Yallourn	Thompson's	1926	-
P2/68	6779	1926	Verto, Percy (MODEL)	Carlton	George&George	1926	-
P2/28	6789	1926	Millers Machinery Merchants	South Melbourne	Not known	1910c	-
P2/69	6806	1926	State Rivers & Water Supply	Hume Weir	Perry Eng.	1927	-
P2/70	6930	1927	Millers Machinery Merchants	South Melbourne	Bremner	1910	-
P2/70	6961	1927	Metropolitan Gas Company	West Melbourne	Robison Bros	1927	[replace]
P2/70	6973	1927	British Phosphate Comm'n	one of the islands	O & K	1927?	-
P2/71	7029	1927	State Rivers & Water Supply	Hume Weir	Perry Eng.	1927	-
P2/71	7030	1927	State Rivers & Water Supply	Hume Weir	Perry Eng.	1927	-
P2/71	7053	1927	Forests Commission Victoria	Erica	Johnson & Sons	1927	[Harman]
P2/71	7080	1927	Richards, W & Sons	Warburton	Davey, Paxman	1910	[L. Liz?]
P2/71	7090	1927	State Rivers & Water Supply	Not given	Johnson & Sons	1927	-
P2/72	7142	1928	Vict. Hardwood Company	Powelltown	Lima M & L Co	1912	-
P2/72	7176	1928	Melb. & Met. Board Works	Melbourne	T & F Johnson	1928	-
P2/73	7210	1928	Victorian Railways	North Melbourne	Krauss	-	
P2/73	7247	1927	State Rivers & Water Supply	Hume Weir	Perry Eng.	1926	-
P2/73	7248	1927	State Rivers & Water Supply	Hume Weir	Perry Eng.	1926	-
P2/73	7249	1928	Forests Commission Victoria	Erica	Climax	1928	-
P2/73	7264	1928	Wilson, James (MODEL)	North Creswick	James Wilson	1928	-
P2/73	7271	1929	Ricketts, Mr (MODEL)	St Kilda	Newham+Roberts	1929	-
P2/73	7273	1928	State Rivers & Water Supply	North Melbourne	Trevor	1928	-
P2/73	7291	1929	Melb & Met. Board Works	Silvan Dam	Perry Eng.	1928	-
P2/73	7292	1931	State Rivers & Water Supply	Hume Weir	Baldwin	-	
P2/73	7293	1929	Mel. & Met. Board Works	Silvan Dam	Perry Eng.	1928	-
P2/73	7294	1929	Mel. & Met. Board Works	Silvan Dam	Perry Eng.	1928	-
P2/73	7295	1929	Mel. & Met. Board Works	Silvan Dam	Perry Eng.	1928	-
P2/73	7296	1929	Mel. & Met. Board Works	Silvan Dam	Perry Eng.	1928	-
P2/74	7390	1929	Mel. & Met. Board Works	Silvan Dam	Perry Eng.	1928	"No.6"
P2/74	7391	1929	Mel. & Met. Board Works	Silvan Dam	Perry Eng.	1928	"No.3"
P2/76	7529	1930	Metropolitan Gas Company	West Melbourne	Metro. Gas Co.	1930	[replace]
P2/77	7686	1930	Mel. & Met. Board Works	Silvan Dam	Perry Eng.	1929	-
P2/77	7687	1930	Mel. & Met. Board Works	Silvan Dam	Perry Eng.	1929	-
P1/02	7856	1930	Donaldson, G S (MODEL)	Coburg	Donaldson	1930	-
P1/04	8032	1931	State Rivers & Water Supply	Hume Weir	O & K	1910	-
P1/05	8111	1932	Fry, A G (MODEL)	Ballarat	A G Fry	1932	-
P1/08	8593	1934	McKay, H V	Sunshine	Newport WS	1900	-
P1/08	8672	1935	Rubicon Lumber & Tramway	Alexandra	Krauss	1907	[repair]
P1/09	8844	1934	State Rivers & Water Supply	Yarrawonga	"USA"	1920c	-
P1/09	8849	1934	State Rivers & Water Supply	Yarrawonga	Perry Eng.	1920c	-
P1/09	8858	1934	State Rivers & Water Supply	Yarrawonga	Not known	1920c	-
P1/09	8896	1935	Kerang & Koondrook tram	Koondrook	Sentinel	1928	-
P1/10	9072	1935	Australian Cement Company	Fyansford	Ruwolt & Co	1935	[replace]

Can we expect more records?

As of 1990 when the writer last checked, OHSA still held a large number of boiler records. These included currently operating boilers dating back to 1946, preserved operating boilers (traction and portable engines etc), both in hard-copy and computer formats. Also held were accident details, although these were regarded as confidential. Files were maintained on design drawings and pressure computations for various boilers. The whereabouts of these current records is not presently known. We might expect that documents for registrations 1935 to 1945 might eventually turn up. Another possible source would be accident records from BIA inquiries held independently of Coronial enquires (VPRS 24) which were only held when a death resulted from an accident. We can only wait and see.

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3 Wannan 1894: 102.
4 *VPP, Votes and Proceedings of the Legislative Assembly* 1889-1890, Volume 1, pp 19, 56, 117, 133, 135, 136, 226
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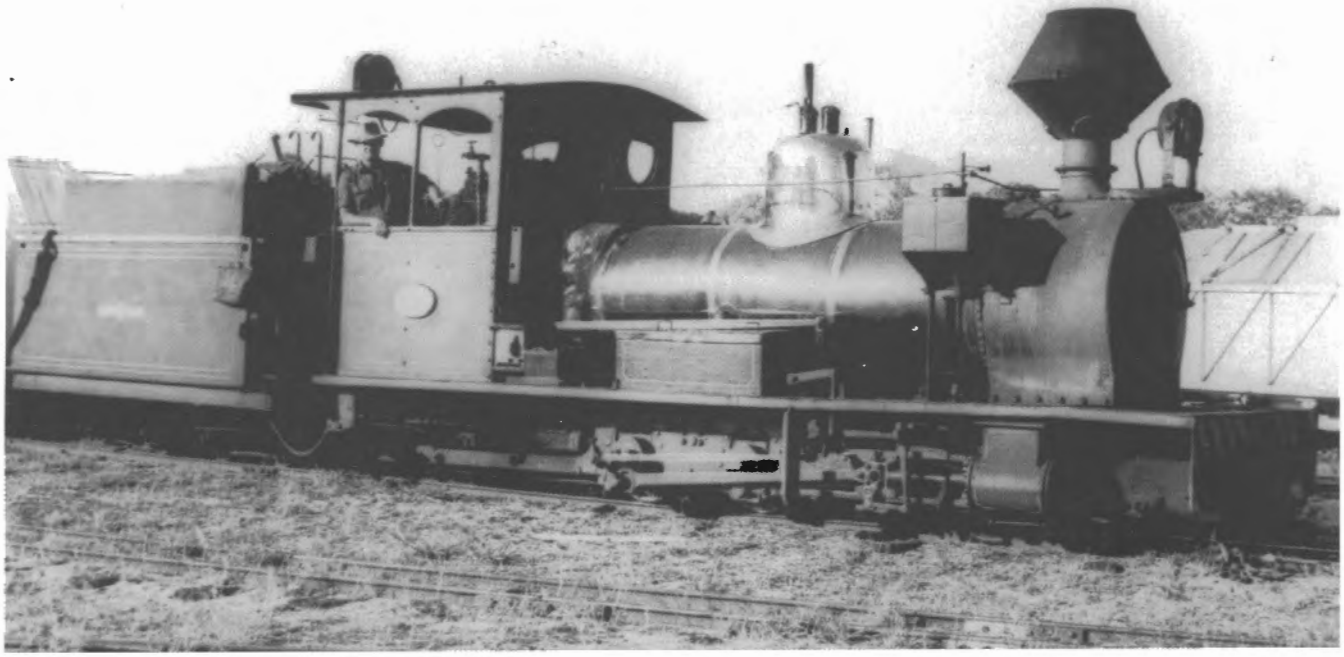


Fifty Years' Hard Work in Field and Mill

by Bill Kerr

Onetime steam locomotive driver Italo Toscano has just completed a rare achievement - 50 years with the same employer, CSR Ltd's Macknade sugar mill at Ingham, North Queensland. And he is still going strong!

Like an increasing number of small cane growers, Italo, 65, has depended on an off-farm job to make ends meet in the current period of low world sugar prices and adverse cane growing conditions. While it is not unusual for cane growers to hold down jobs at the local sugar mill, Italo's half century of combining cane growing with shiftwork at the local mill is a record unlikely ever to be beaten. CSR recognised Italo's long service when manager Col Smith presented him with a model cane mill roller made by mill staff.

His Italian-born father Leonardo came to the Herbert River district in 1930 to cut cane, and 11 years later bought his own farm. In 1950, 14-year-old Italo began working as a sugar laboratory assistant, riding his pushbike 3km to the mill for a midnight start. Two years later, he was out of the lab and on the footplate of a steam locomotive. He spent 18 years on Macknade's fleet of seven steam locomotives, originally on Fowlers and later Hudswell Clarkes. During his last three years on the rails he drove diesels.

The picture above shows Italo at the controls of Macknade number 4 in 1967, ready to haul a load of bulk sugar to Lucinda Terminal. The steam locomotive was a hybrid, created from a Hudswell Clarke frame and a Fowler boiler.

The Hudswell Clarke (1553 of 8 May 1924) was originally number 6 loco at the former Hambledon Mill at Cairns, which closed in 1992. It was decommissioned at Hambledon in 1957 and two years later was sent to Macknade where it was married with a boiler from Macknade's number 4 Fowler (12823 of 3/1911).

In 1964 it was converted to oil burning, along with other Macknade steam locomotives. After decommissioning in 1972 it was sold to a private buyer who later sold it to Sandhurst Town at Bendigo, Victoria.

According to Italo, the locomotive was used mainly for hauling sugar to the bulk terminal. It worked well enough except the small boiler meant that it struggled a bit with loads on longer runs because of inadequate steaming capacity.

Italo recalls with affection his days on locos at Macknade. He enjoyed making the daily runs into the cane fields to deliver empty cane bins and to collect full ones. He got to know all the farmers and cane cutters along his route.

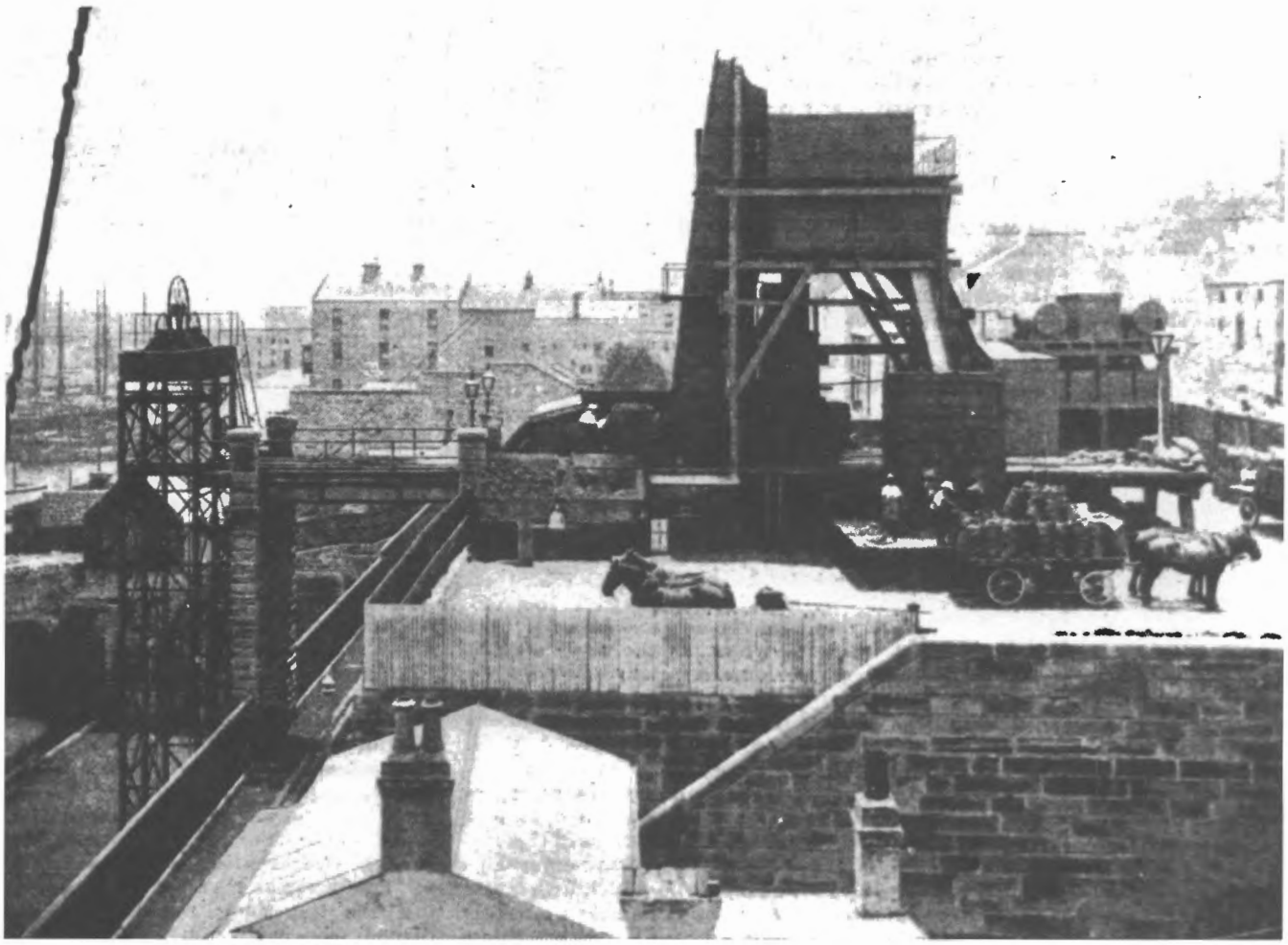
When his loco days drew to an end he became a platform engine driver in the mill, controlling the machinery which turns the giant cane crushing rollers. Eventually he became leading shift operator, responsible for the mill's entire crushing plant. Today, he sits at a computer terminal at the busy crushing station, controlling the area where cane is tipped and crushed and from where bagasse is sent to the boiler station for use as fuel. The work he does once required four operators.

"Technological change and a diminishing workforce are the biggest changes which have taken place in the past 50 years. When I started here, horses pulled the cane trucks to and from the mill carrier and we crushed less than 200 tonnes of cane an hour. Now we do 550 tonnes an hour."

Despite a very basic education, Italo's positive approach to change has helped him adapt to the computer age. "You've got to move with the times. You can't stay in a rut. The fact that I am still here after 50 years is testament to the company's attitude to its employees - I only deserve half the credit. The mill and the workers are like a team. If you are prepared to keep pace with change and learn new skills they will help train you and give you opportunities."

Although Italo and his wife Giovanna have two sons, Robert and Daniel, and a daughter Patricia, he does most of the work on the farm himself. He grows 3500 tonnes of cane in a good year but he recognises that the family farm which he originally ran in partnership with his father is no longer viable on its own.

When he retires in the next year or so he plans to spend more time with his wife and do more fishing.



The Coke Yard at Darling Harbour gasworks. *From the* Sydney Mail, *16 April 1898.*

The Australian Gas Light Company's Head Station at Darling Harbour

by Jim Longworth

While the extensive 3ft gauge industrial railway of the AGL gas works at the Sydney suburb of Mortlake has been described previously (in LR 97)[1], readers may be interested to know that this was not the only gasworks light railway in Sydney, nor was it the first.

Four years after the Australian Gas Light Company was incorporated, on 7 September 1837, the dim and smoky radiance of burning oil and tallow were finally supplanted in the streets of Sydney. On Her Majesty's Birthday, 24 May 1841, a new light burnt in some two dozen gas lamps "throughout the whole of the widespread city".

The company's gas was generated at the "Head Station" that had been erected on land between Jenkins Street and the eastern shore of Darling Harbour, an embayment on the southern side of Sydney Harbour. Up to 90,000 cubic feet of purified gas was stored in gas holders cut out of the solid rock. Further land was purchased at Woolloomooloo Bay, and again later at Haymarket.

Towards the end of 1869 the company reclaimed the water frontage in Darling Harbour, and spent no less than £50,000 on new works and plant. The new works included a chimney 120 feet high, new retort house (182 feet long 80 feet wide and 60 feet high), condensers, scrubbers, retorts, and purifiers.

In addition to the new retort house were the coal sheds. The coal sheds were connected to the wharf by tramway that was elevated about eleven feet above the ground. A coal hoist at the wharf consisted of a three story building with steam winch, weighbridge, hopper and a derrick to project over the ship's hold. The steam winch hoisted the coal out of the hold and deposited it into the hopper, from the bottom of which the coal fell into the wagons on the high level tramway. Running parallel to the side of the coal shed the line contained a series of turntables at the entrances to each of the coal sheds. The wagons were constructed such that on turning a spindle the weight of the coal opened the hopper doors that formed the bottom of the wagon, and the coal dropped into the middle of the shed below. Winding up the spindle tightened the chains that were attached to the half hopper doors forming the bottom, whence the wagon was ready to be returned to the wharf for reloading. The wagons were made of wrought iron, held about half a ton of coal, and could be moved between wharf and coal sheds by one man.[2] Another series of tramways was located at ground level, presumably for carrying skips of coal from the coal store sheds to the retort house.

Coal was fed into flat-bottomed retorts (shaped like a D lying on its back), that were kept at a bright red heat. On being heated the volatile gas was emitted from the coal in the retorts. The gas ascended from the retorts via the Ascension Main into the Condensing (sometimes called the Hydraulic) Main. Here the tar was deposited, but as the gas was still at about 130-140 degrees Fahrenheit (60-70°C) it still carried heavy hydrocarbons. The heavy hydrocarbons, ammonia, sulphuretted hydrogen, carbonic acid, etc were removed in the condensers and purifiers. The gas being then cleaned, was conveyed to be stored

in the gas holder (often, but incorrectly, called a 'gasometer') and finally distributed through the network of mains to the end users around the city.

On removing the gas, the residual coke was removed from the retorts and disposed of along a third light railway.[3]

Further extensions to the works were undertaken about 1880, including lengthening the retort house by 110 feet, and a new gas holding tank 152 feet in diameter was excavated 36 feet into the ground. About the end of October 1880 land was purchased between Jenkins and Kent Streets to provide for a coke yard. Work included building a high retaining wall along Jenkins Street, installing a hydraulic hoist to lift the trucks loaded with coke from the level of the works up to the level of Kent Street above, and a bridge was built over Jenkins Street that would carry trucks of coke from the top of the hoist across Jenkins Street into the coke yard, at a total cost of £8,000.[4] Here the coke was bagged up, and distributed to end users by horse drawn dray, exiting from the coke yard by Kent Street.

Finally, the gasworks at Mortlake were built and began supplying gas to Sydney's expanding suburbs on the 28th of May 1886. The works at Mortlake represented a change in company policy, which had previously been to try and meet demand by erecting small works close to the areas to be supplied.[5] With the success of the Mortlake works the need for the company's small works such as the original Head Station at Darling Harbour diminished, and finally ceased.

The works is commemorated today by the aptly named 'Gas Lane' running between Jenkins Street and Kent Street in Millers Point.

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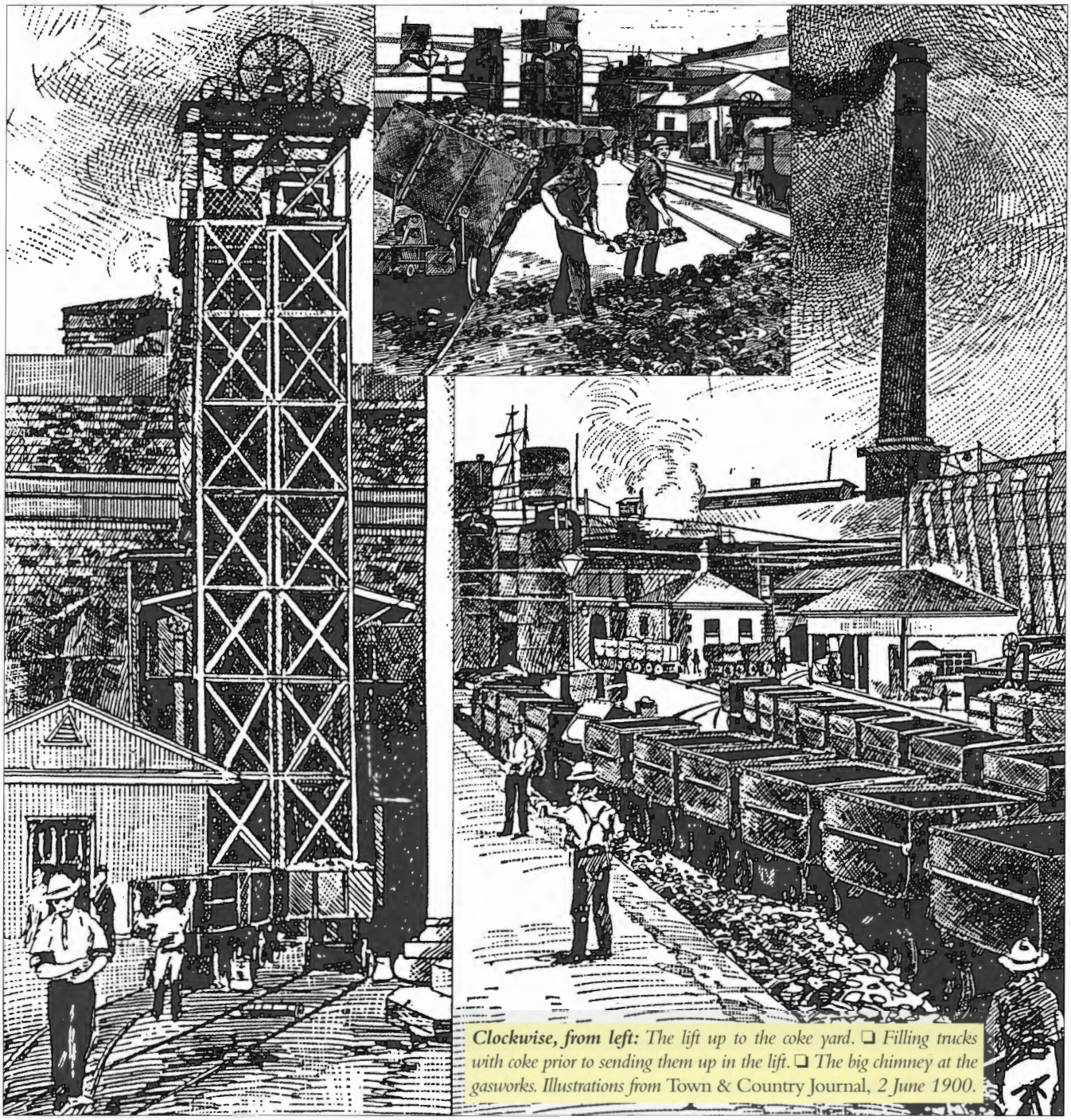
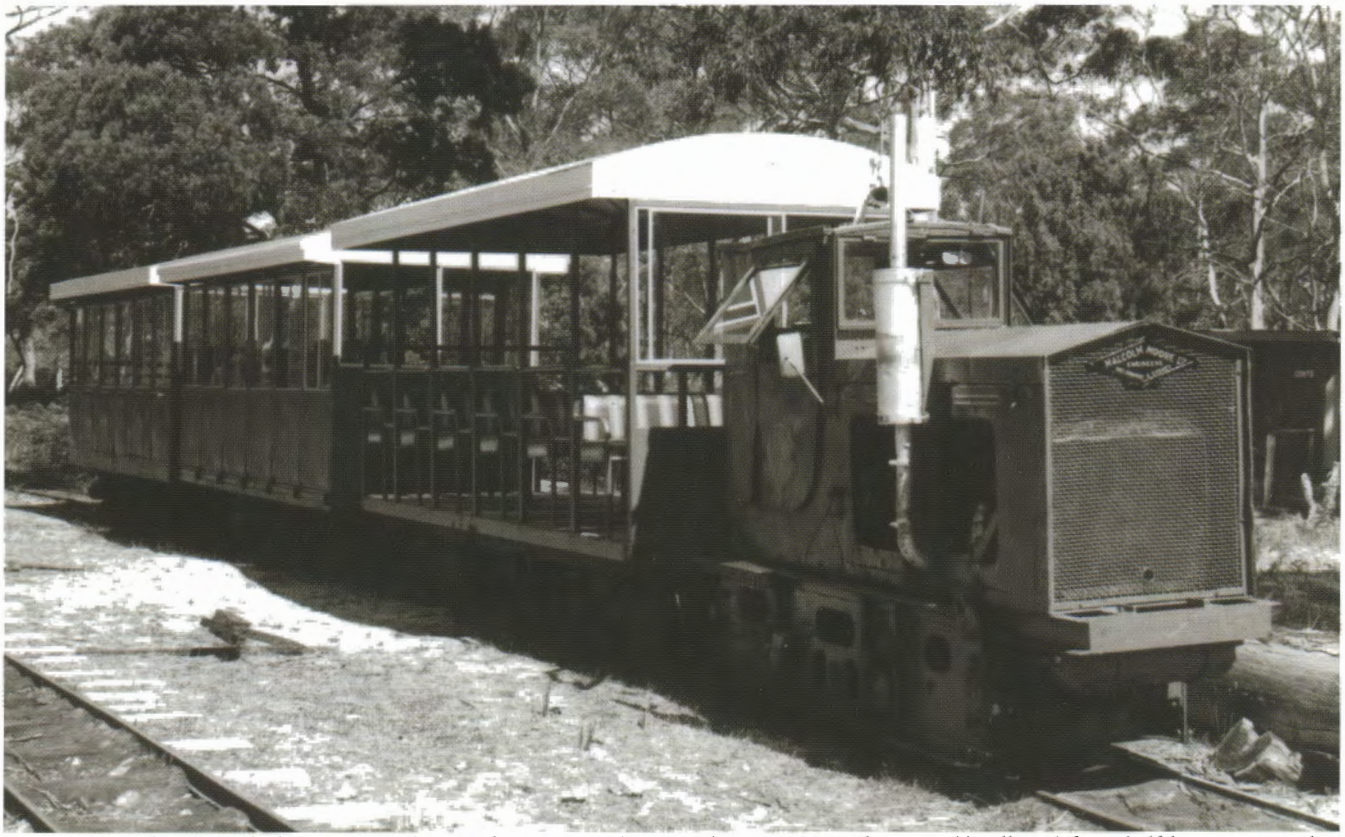


Clockwise, from left: *The lift up to the coke yard.* ❑ *Filling trucks with coke prior to sending them up in the lift.* ❑ *The big chimney at the gasworks. Illustrations from* Town & Country Journal, *2 June 1900.*



Number 5 and train parked at Deep Hole on a hot summer day in February 1980. The timetable allowed for a half hour stopover, but passengers could opt to take a later train back, giving more time to enjoy the fantastic beach. *Photo: Jim Shugg*

Memories of Early Tourist Operations at Ida Bay

by Jim Shugg

In 1976 when I was twelve years old, I first heard of the 2ft gauge Ida Bay Railway in southern Tasmania. The line had recently ceased carrying limestone on its eleven kilometre run from quarry to wharf in favour of road transport. My parents and I made the two hour journey south of Hobart, and one of the locals kindly gave us a ride in the "Galloping Goose" rail-motor (see LR 157), from the Ida Bay township part way to the quarry. He let me drive back - ease in the clutch and off you go - and so began a five year association with the line in its early years as a tourist railway.

The IBR reopened for passenger business in the summer of 1977-78. Over the next four years I pestered the succession of operations managers to let me go down during the school holidays to help out on a volunteer basis and do whatever jobs were going. They all agreed, and soon there was no aspect of the railway I wasn't involved in. Some of my favourite recollections might be of interest to readers.

Locomotives and rolling stock

There were three serviceable locomotives in those early years, all ex-Army Malcolm Moore four-wheel chain driven machines built during the Second World War.

Number 5 (1056 of 1943) had a 6 cylinder Perkins diesel installed in place of the original Ford V8 in 1977. The new engine was far too large for the space available, so the front of the loco above the frame was simply chopped off and extended by more than two feet, to accommodate the radiator; the air compressor for the passenger carriage brakes was slung underneath this extension. The tendency of this locomotive to buck on uneven track was countered by weighting down her rear end with old truck batteries.

This loco could effortlessly haul all four bogie passenger cars with a full load of 96 passengers up the occasional steep grades on the return journey from the Deep Hole terminus. A five-speed box from an International truck had replaced the original gearbox, but you could start off in second, even on a slight upgrade under load, then "set and forget" in third. On the one time I eased her into fourth to test her out she just surged away on the flat grade with a light throttle, a bit too fast for my liking. I never even contemplated using fifth gear! She was well over-powered for the job and had endless torque, but needed plenty of sand to aid traction in the frequent wet weather.

This loco was the only one to give any serious trouble. She broke a rear spring (probably because of the stresses imposed by the bigger engine), which we replaced with a heavy rubber block, because no other springs were immediately available. This worked when tested running light but under load the loco bobbed around alarmingly, and soon derailed with a trainload of passengers after just a few metres. One of the reserve locos came to the rescue, but the consensus among the forty or so passengers was that they would hang around and watch/help rerail the diesel, and only then resume the trip (behind a V8). It shot the timetable to hell, but we gave the kids free ice creams and chips, and no-one asked for a refund! A spare spring was located later in the day, which fixed the problem.

Another time, the reversing box gear shift (located under the driver's seat), which selected the direction the five speeds operated in, partly disengaged itself. In hindsight, the symptom - intermittent power loss when under load up hill - should have enabled us to identify the problem straight away, but we thought it was down to a slipping chain. Four hours of back breaking work in the dark later, someone noticed the real

cause, corrected in 90 seconds with a piece of stout rope, tying the shift lever into place.

But the end for number 5 came in April 1980, when one of the other drivers ignored the oil pressure gauge. They later found a big puddle of oil some miles down the track, but the little loco still managed to haul her load back to the depot, spraying oil all over the place, except of course where it was needed, and with no one noticing anything wrong. It was only when she was started up again for the next run that things ground to a sudden, noisy, permanent halt. Number 5 sat in the shed for a few years after that, but I understand she has since been fitted with another (smaller) diesel engine.

The other two locomotives still had the original V8s fitted. The most carriages I ever hauled behind a V8 was two (partly because of lower patronage in the later years), but I doubt the 32 hp would have been enough for much extra loading. One time in 1978, however, the diesel failed at the far end of the line, and one of the V8s hauled the dead loco, two bogie cars, a 4-wheel passenger wagon and about fifty passengers on the seven kilometre journey home. Although it was a dry day, we had to fire up the diesel on one of the steepest grades to help out (she'd burst a water pipe but had cooled enough to allow for brief assistance).

Unlike in the diesel, you had to climb up and down the four speeds in the old crash gearbox to keep the V8s moving under load. When it was wet, it was a bit tricky to co-ordinate the foot throttle, double-declutching gear changes, and the two stubborn sand box controls, so sometimes I'd get a passenger to come up front to help with the sand on the return up-hill journey. But overall, the V8s were more involving and fun to drive. And apart from regular oil and water top ups, plus chain and axle box greasing, they never needed any major workshop attention in my time at Ida Bay.

One of them, number 2 (1017 of 1943), did not have a starter motor, but usually just a three-quarter turn of the (very heavy) crank, even on the coldest of Tassie winter mornings, would get her roaring. On one occasion, preparing to leave Deep Hole on the return journey, the crank handle was nowhere to be found, so I had to uncouple the loco and get three or four passengers to give me a push. Dropping the clutch in second gear when the loco was just barely moving was enough to get her going, and also to reveal the crank handle lying on the ground between the tracks!

No such hassles with the other V8, number 3 (1038 of 1943), which had mod-cons including a starter motor and a sloping windscreen (more aesthetically pleasing than the straight up and down windscreens of 2 and 5). Also, she had no muffler, which gave you a beautiful exhaust burble on idle, turning into a husky growl under acceleration. But no more, as this engine too has apparently been replaced with a diesel.

One day I measured the fuel consumption on the diesel loco. Four return trips amounted to about 32 miles, and used ten gallons of fuel, which gave a little over three miles to the gallon. We took 25 minutes for each journey of just over 4 miles giving an average speed of 10 mph.

The only other motive power at that time was the privately owned railmotor, but never again in my time at Ida Bay did I see it leave its little shed. The remains of two other Malcolm Moore locos were also at the depot: number 1 (1010 of 1943) derelict, minus engine, wheels and cab, and number 4 (1052 of 1943), an open cab design, with no engine and in pieces.

The passenger wagons used on the train were built on top of bogie flat cars (see LR 150 p.31). The axle boxes, as I recall it, were inscribed TGR 1896, and I believe they were originally from the long defunct government operated North East Dundas Tramway on the west coast of Tasmania out of Zeehan. They were beautifully smooth and quiet riders, and dwarfed the little Malcolm Moore locomotives.

A view of the depot at Ida Bay, 30 March 1986, seen from the quarry side. Number 1 is in the platform on a 3-car train. During school holidays, trains of up to 4-cars loaded with over 90 passengers were not uncommon. The single-bladed points look very primitive, but did not cause any problems, provided they were tackled at low speed. *Photo: John Buckland*

Number 2 with a works train, parked in front of the railmotor shed at Ida Bay township, in February 1980. The water tank was used to replenish the picnic ground facilities at the Deep Hole end of the line. *Photo: Jim Shugg*

Operations

The Ida Bay Railway was a commercial tourist operation, pure and simple. Scant attention was paid to any aspect of the line's heritage; operational expediency was paramount. Although there was a perfectly serviceable passing loop and turntable at the Deep Hole end of the line, a balloon loop was built in the early days, with many of the storage sidings cut short, ripped up or ballasted over, to make turning trains a simple operation.

Several years later, in 1980, a crossing loop was built about halfway along the line to facilitate the operation of two trains, running on the hour. Because there was no signalling on the line, and no communication between trains and/or depot, "safe-working arrangements" consisted of the driver of the first train to reach the loop promising to wait for the second train to arrive! On the very first day that we started running two trains, I was about to leave the depot with a half-full train when a carload of customers pulled up. They begged us to wait for their friends, who eventually pulled up in a second car, meaning we left 15 minutes late, but with a respectable passenger loading. Would Joe, driving the other train, have waited that long at the halfway loop? Visibility along the line was pretty good, except for a few corners where cuttings and bush obstructed the view ahead. And sure enough, after rounding one of those corners, I saw the other train up ahead. No danger, but a nuisance. That was one of the few times we ran a loco at full speed (using all four gears) in reverse, with Joe reversing his train back to the loop. Driving backwards was quite hard on the neck, more so when you were pushing two fully loaded carriages and couldn't easily see where you were going. The passengers seemed to really enjoy the unusual movement though, the two trains running with the locos nose-to-nose (although not coupled together).

In the winter months, trains did not run on some weekdays without prior arrangement, and this gave us time to catch up on trackwork. There was one moderate up-grade on the down journey, affectionately known as the "39 steps", because at each rail joint the surrounding sleepers had sunk into the ballast over time, presumably because of the vibration of the wheels passing over the joints. The resultant ride had an uncomfortable bucking motion, and it was getting noticeably worse. So a multi-function ballast wagon was built, comprising two four-wheel trucks (flexibly) welded together, with a tipper bucket and heavy-duty jack mounted on it. We towed the wagon down to the 39 steps, parked it over each joint, jacked up the offending sleepers, and wedged a few rocks underneath to hold the sleepers up. Then after a couple of hours of that, ballast was dumped directly onto the track, and the rest of the gaps under the sleepers filled in. It took about a day for three of us to turn the worst 300 odd metre section of track on the line into a smooth-riding fettling masterpiece.

Sadly, one of the four-wheel trolleys used to build this ballast wagon came from underneath the rail-motor's 8-seater carriage, which was the only original passenger wagon on the line. It was chopped up without a second thought, another example of operational expediency taking precedence over a piece of the line's history.

In 1981, the quarrying company, which still owned the western four kilometres or so of track between the depot at the Ida Bay township and the quarry, invited tenders for its disposal. The track was overgrown, but in good condition and of a heavier weight per yard than much of the eastern section from Ida Bay to the wharf. Apparently this was because this section of the line was originally built to carry heavier steam locomotion. About the time the lighter Malcolm Moore locos were introduced in the early 1950s, the line was extended from the original Ida Bay wharf a further six kilometres to the current terminus, using lighter rail. During quiet periods when the "main line" was blocked by the parked passenger train, I used to take number 3 up this section of track for a quick light engine blast up the continuous gradient. The bush along side the track was dense, forming a tunnel of

vegetation in places, completely different to the estuary and light forest landscape along the rest of the line. For me, nothing could beat working up through the gears, with the unmuffled V8 growl echoing off the acacias.

I did not know about the tender for disposal at the time, but suspected the worst when I was asked to take one of the V8s up "my track" as far as I could go, to where about sixty ore wagons, minus their hoppers, were stored. Most of them were still coupled together, and after coupling the loco onto the first wagon, a few sharp jolts back down the slope freed up their simple inertia braking system. I towed them back down to just before the depot, and a month later, the last wagon in the row marked the newly truncated end of the line. I'm still rather sad that the section of track that first introduced me to the Ida Bay Railway is now long gone.

Now equipped with an Isuzu diesel, loco number 1 (formerly number 3) sits in the platform at Ida Bay with a single car in tow, April 1982. Photo: Bruce Belbin

On a happier note, one balmy summer evening in January 1981, the whole Ida Bay township population (all 20 of them), plus a few people from nearby Hastings, turned up to greet the return of the last train at just before 6pm. They loaded up the carriages with eskies and kids, and we made a special run back down to the Deep Hole for a locals' barbecue. On the way, we stopped at Ida Bay itself, and raided an abandoned oyster farm. We collected mussels and other shell fish from rocks at the end of the line, threw an old sheet of corrugated iron onto the fire, dumped our booty on that, and then helped ourselves as the shells popped open. Steak and snags for main course, washed down with the smoky stout favoured in that part of the world. We were joined by some yachties who had recently competed in the Sydney-Hobart yacht race, and had a ball!

The beach at Deep Hole is whiter than white, and accessible only by train or boat: one of Tassie's hidden treasures, especially when the weather is fine. I wasn't a big drinker, and was happy to work the return run that night, which I did by leaving the loco in third gear for most of the way, with the hand throttle set at a reasonable clip, while I hung out the door with a torch lighting the way.

In 1982 I started university and took on a (paying) part-time job. The IBR operating company gave up their lease on the line, and new managers took over. Apart from a brief visit in 1983, I've never been back.

Acknowledgements

Special thanks to Tut and June Ludbey.

New railmotor, number 8, and Malcolm Moore 1038 (loco number 1) at Ida Bay, March 2000. *Photo: Dale Shugg*

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NEW SOUTH WALES

BBC Hardware Pty Ltd, East Maitland
narrow gauge
A timber yard not far from East Maitland station has a short section of narrow gauge track, probably 2ft gauge. A single wagon, possibly built locally, is used for moving pallets around the yard.
Brad Peadon 5/01 (Locoshed internet discussion group)

BHP LTD, Port Kembla
(see LR 159 p.19)
1435mm gauge
At the start of May, a variety of locomotives were receiving (or waiting for) workshops attention as a result of the rigours of steelworks life. English Electric (Aust) Bo-Bo DE D17 (A.0131 of 1960) required repairs to fractured fuel tank mounts, while GEC Aust Bo-Bo DE locos D36 (A.237 of 1971) had a ruptured fuel tank after hitting some scrap metal, D38 (A.239 of 1972) had a failed generator, and D42 (270 of 1974) a failed traction motor.
NRC's Clyde Co-Co DE 8108 (82-1027 of 1982) returned to BHP from Port Augusta after repairs for collision damage in early April.
The lease period for the three Austrac Goodwin Co-Co DE locomotives ended with their departure from the Illawarra district for Junee on 20 June after a period when they were not used. 101 (G-6048-09 of 1972) & 103 (84179 of 1963) worked up until at least 19 April but it is believed that 102 (G-6048-13 of 1972) had stopped working before then as a result of mechanical problems.
Clyde 0-6-0ST *BRONZEWING* (457 of 1937) ran a dinner tour on 19 May and was due to run a daytime tour on 3 June.
Chris Stratton 5/01, 6/01; John Garaty 5/01 (all Locoshed internet discussion group)

GRAINCORP LTD,
Carrington Bulk Grain Terminal
(see LR 159 p.19)
1435mm gauge
Perceptive and keen eyed viewers of the photograph of the Vollert locomotives published in LR 159 will have noted the little problem of what appear to be fuel tanks and exhaust outlets in what were described as battery units. In fact, although built as battery locomotives these units have at some time been rebuilt with an air-cooled Deutz engine driving through a hydrostatic pump. It appears that the engines are five-cylinder units of about 125hp. Above the fuel tanks are mounted ballast weights consisting of substantial amounts of inch plate steel to replace the weight of heavy batteries.
David Rowe 6/01

Seen shunting at Carrington bulk grain terminal on 25 March 2001 is EM Baldwin 6wDH WORIMI *(4877-1-9-73), the maker's one and only standard gauge locomotive.* *Photo : Brad Peadon*

BUNDY'S LAST GREAT ADVENTURE

It is expected that the TV documentary of the ANGRMS Bundaberg Fowler 0-6-2T No.5 on its journey last year to many Queensland sugar mills between Nambour and Mossman will be shown on the Channel 7 Network on 15 September. Channel 7 have indicated they wish to show this program on Frank Warrick's *World Around Us* on the same date nationwide Australia. Plenty of scenes of the Bundy Fowler travelling along some spectacular track can be anticipated. Overseas sales of the program suggest it will be seen in many countries.
David Mewes 5/01

SILVERTON TRAMWAY PTY LTD,
Broken Hill
(see LR 159 p.20)
1435mm gauge
Goodwin Co-Co DE 961 (G-3388-04 of 1965) arrived at Broken Hill from Australian Southern Railroad on 30 May for service on the Silverton Tramway. It began work on 1 June and operated in combination with Goodwin Co-Co DE 29 (83828 of 1961) on ore shunting duties, enabling the load to be raised from 18 wagons to 25. It is understood that 961 was to enter the shops in mid-June for some body repairs.
Brad Peadon 5/01; Bob 6/01 (Locoshed internet discussion group)

QUEENSLAND

BUNDABERG SUGAR LTD,
Bundaberg district
(see LR 159 p.20)
610mm gauge
An interesting development is the naming of locomotives at **Fairymead** and **Millaquin** Mills, and those currently known are shown below:

Fairymead			
55 TANTITHA	0-6-0DH	Clyde DHI.6	1954
60 WAIMEA	0-6-0DH	Clyde 60-219	1960
70 RUBYANNA	0-6-0DH	EM Baldwin 3406-1-7-70	1970
751 BUCCA	B-B DH	EM Baldwin 6104-1-8-75	1975
80 MIARA	B-B DH	EM Baldwin 8988-1-6-80	1980
82 FAIRYDALE	B-B DH	EM Baldwin 10048-1-6-82	1982
91 BOOYAN	B-B DH	B'berg Fdry 001	1991
Millaquin			
(46) QUNABA	4w-2DH	EM Baldwin 4529-?-1-73	1973
reb	EM Baldwin	8860-2-8-79	1979
reb	Millaquin		1980 & 1988
(47) BURNETT	0-6-0DH	Com-Eng AH2967	1963
561 MARGAM	0-6-0DH	Clyde 57-159	1957
591 ASHFIELD	0-6-0DH	Clyde 65-441	1965
731 VULCAN	B-B DH	EM Baldwin 5317-1-11-73	1973
732 CALAVOS	B-B DH	EM Baldwin 4983-1-7-73	1973
752 BAROLIN	B-B DH	EM Baldwin 6456-1-11-75	1975

The names were picked following a competition in which several of our correspondent's suggestions were adopted. For the start of the 2001 season, a number of transfers have also taken place. *BUCCA* has been transferred from Fairymead to Qunaba depot, while EM Baldwin 0-6-0DH *MANOO* (3875-1-7-71 of 1971) has been transferred from Qunaba to **Bingera** and EM Baldwin B-B DH *DELAN* (5800-3-7-75 of 1975) has gone from Bingera to Fairymead.

Fairymead started crushing on 4 June with Millaquin and Bingera due to commence on 18 June. Following Fairymead's start, plantation cane was transferred to Fairymead from the Bingera area by a variety of locomotives including EM Baldwin B-B DH *OAKWOOD* (5800-1-5-75 of 1975) and *GIVELDA* (5800-2-5-75 of 1975), and Walkers B-B DH *KOLAN* (633 of 1969 reb. Bundaberg Foundry 1996). Similarly, *BAROLIN* and *CALAVOS* were transferring cane on the south side of the Burnett River to the Qunaba ferry.

A new set of traffic lights is being installed on the Fairymead system at Oyster Creek off Lindemans Road where a subdevelopment has started. The lights will be run by PLC (programmable logic controller) which involves inductive loops 450mm underground that sense when a bin is above them. In the future a telephone line will be connected so that the mill electricians can monitor the installation via computer. If there is a fault, they will be able to find it before going out to effect repairs.

Lincoln Driver 6/01

BUNDABERG SUGAR LTD, Innisfail district

(see LR 159 p.21)

610mm gauge

All three mills in the Innisfail district will be operating for the 2001 season. At **South Johnstone Mill**, the tramway operations crews have been trained to Bundaberg Sugar standards, GPS has been fitted to all locomotives and the South Johnstone traffic control is being integrated with the other two mill systems. All level crossings at South Johnstone are being upgraded to Bundaberg Sugar standards.

Peter Lukey 6/01

Top: *Leased National Rail Corporation Clyde Co-Co DE locos 8102 (82-1021 of 1982) and 8106 (82-1025 of 1982) and BHP units B-B DE D6 (Com-Eng 1950) and Co-Co DE D49 (GEC [Aust] A.243 of 1972) gathered outside the diesel shop at Steelhaven on 23 March 2001. Photo: Brad Peadon*

Above: *This large 4wBE locomotive, photographed in February 2000, was used at the loading station of the now closed Hellyer mine in Tasmania. It may possibly have originated as a double-ended underground mining unit but no definite details are known. Photo: Stuart Dix*

Industrial Railway NEWS

BUNDABERG SUGAR LTD, Moreton Mill, Nambour

(see LR159 p.21)

610mm gauge

Local uncertainty about the future of the mill tramway system surfaced in a local newspaper article in June where issues such as damage to local roads and the possible costs to individual canegrowers of constructing road vehicle loading ramps were raised. Unrelated reports suggest the canvassing of closure of lines south of the Petrie Creek valley rather than the whole system. It is believed that ANGRMS have been invited to have their Bundaberg Fowler 0-6-2T work at the mill on 7-11 August.

Nambour News 14/6/01 via Steve Malone; Steve Malone 6/01 (Locoshed internet discussion group)

COMALCO ALUMINIUM LTD, Weipa

(see LR 149 p.19)

1435mm gauge

An unconfirmed report has it that a new General Motors type locomotive may be purchased for use on this railway.

John Cleverdon 6/01 (Locoshed internet discussion group)

CSR Ltd

(see LR 157 p.20)

CSR Ltd announced in June that it would not sell its sugar business until it was worth more. It suggested that it would be irresponsible to sell off its sugar assets during a period of extremely poor performance and lowest-ever valuation. With a dramatic turnaround in earnings this year, the value of the business and prospects for a successful sale would improve. Taiwan Sugar, believed to be involved in a consortium with Mackay Sugar and Canegowers, had continued to express interest in a deal with CSR up until May.

A two-day strike by 700 workers at CSR's seven sugar mills took place at the end of June over a pay dispute and was followed by an overtime ban and then a week-long lockout of 1000 employees in mid-June that coincided with the programmed start of crushing at the Burdekin mills. The impasse was resolved when the pay dispute went to arbitration and normal operations were able to commence.

ABC Country Hour 18/5/01, 30/5/01, 31/5/01, 12/6/01; *Australian Financial Review* 21/6/01 via Bruce Belbin; Chris Hart 6/01

CSR LTD, Herbert River mills

(see LR 159 p.21)

610mm gauge

Crushing at **Macknade Mill** began on 23 June with the mill processing grub-affected cane, much of which had to be brought in from the **Victoria Mill** area. Victoria Mill was expected to commence in early July. EM Baldwin B-B DH

CANE RAILWAY NAVVIES & THEIR EQUIPMENT

Photos by Brian Webber; notes by John Browning

The maintenance of the cane railway is a very important task and requires some interesting items of specialised rolling stock and mechanised equipment, even though many small jobs are carried out today using road vehicles. Although heavy maintenance takes place during the slack season, work goes on throughout the crushing season also. Brian Webber photographed a variety of maintenance activities during the 2000 season. There are other types of vehicles not featured here, including inspection cars, self-propelled ballast ploughs, ballast regulators and track jacks, not to mention a track laying rig, a bridge girder crane, and even a unit that supports two adjacent spans of a bridge while a pier is replaced. Perhaps these can be featured at a future time . . . .

Clockwise from above: *The simplest of tasks is to clear spilt cane and trash from mill yard tracks. Here, Moreton Mill workers use garden rakes to keep Howard Street Yard clean of debris. The rubbish is placed on a bogie flat wagon which possibly dates back to Mapleton Tramway days, although, like "grandfather's axe" it is doubtful if much if any of the original remains. The locomotive is Clyde 0-6-0DH* MORETON *(63-289 of 1963).* ❑ *Most mills use obsolete cane locomotives for navvy train haulage, but Tully has three 8-tonne EM Baldwin 0-4-0DH locomotives that were supplied in 1965 for portable line haulage and other general duties. Here 2 (6-1082-2-2-65) sits outside the depot at El Arish ready to haul its train to wherever replacement sleepers are required. Tully Mill makes its own concrete sleepers and the wagon in use here is a modified steel cane truck.* ❑ *Pictured adjacent to the bridge over the QGR on Farleigh Mill's system is this self-propelled machine that can withdraw and replace sleepers from beneath the rails. It is also fitted with a rotary scarifier that can clear the ballast from above the sleepers. This is one of several such units (Model TSR-TRS) built by Tamper Fairmont during the 1990s for Mackay Sugar.* ❑ *Farleigh Mill's train shown here shows an interesting variety of vehicles in the charge of Com-Eng 0-6-0DH* CARLISLE *(AI3271 of 1963). Apart from the modified steel cane trucks for sleepers, we have a couple of tool wagons built on bin underframes and the proverbial "garden shed on wheels".* ❑ *The largest and most impressive track maintenance unit is this modern high speed production ballast tamper that serves CSR's Victoria and Macknade Mills. It is a scaled down version of the type used on main line railways, with an equivalent price tag. Built by Plasser Australia, this Model KMX-12T machine (445 of 1998) weighs 24 tonnes. It can travel to the work site at 40 km/hr and is fitted with a track monitoring computer so that regular readings of track conditions can be made and trouble spots identified early.*

BRISBANE (5423-1-9-74 of 1974), together with brake wagon 5, was on loan from Victoria to Macknade from 22 June to assist with this work. The Macknade Mill ballast plough built from Motor Rail "Simplex" 4wDM 3717 of 1925 returned from loan on the Burdekin on 21 June.
Chris Hart 6/01

SOUTH AUSTRALIA

AUSTRALIAN SOUTHERN RAILROAD, Whyalla
(see LR 159 p.22)
1067mm gauge
A display of four coloured lights is to be found on the side of Clyde Bo-Bo DE DE1 (56-109 of 1956) which appear to be connected with the radio remote control system. The lights are mounted on the left hand side at the A end, and on a 45° angle, with red at the top and then blue, orange and white, and can be seen on the photo on page 18 of LR 158. Clyde Bo-Bo DE CK1 (67-496 of 1967) is fitted with a video camera on the B end to assist with coupling operations.
Bob James 5/01 (LocoShed internet discussion group)

TASMANIA

ABERFOYLE RESOURCES LTD, Hellyer Mine
1067mm gauge
It has been discovered that a locomotive was used at this now closed mine in connection with the loading operation. A large yellow battery electric locomotive, possibly once double-ended, was used to haul out the cable from the unloader to the rake of empty wagons. It then was coupled to the rake, allowing the cable to be used to pull it and the wagons through the loading station. The cable end of the locomotive is fitted with a rudimentary cab while there appears to be a control equipment compartment at the other end. The locomotive was observed at the Hellyer mine in February 2000 although the mine first opened in 1989. Further details would be welcome.
Stuart Dix 5/01

VICTORIA

SKILLED ENGINEERING, Yallourn
(see LR 157 p.21)
900mm gauge
Malcolm Moore 0-4-0DM 36 of 1949 appears to have come into the ownership of Skilled Engineering in 1994 and was observed out of use at the back of the workshops in January 1998. It is reportedly still there.
John Cleverdon 5/01 (Locoshed internet discussion group)

WESTERN AUSTRALIA

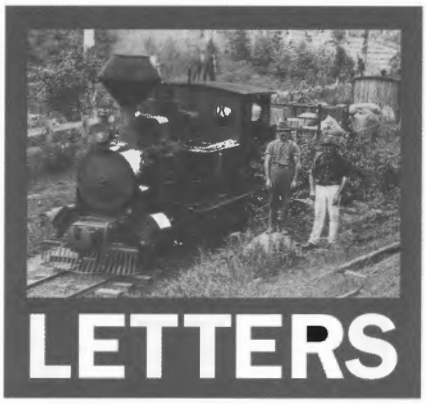
BHP IRON ORE
(see LR 159 p.22)
1435mm gauge
On 21 June, the world's biggest train, hauled by all nine of the AC6000 locomotives totalling 48,000hp, ran a distance of 281 kilometres to Port Hedland. This was a specially filmed record attempt that proved successful. The train was 7.35 kilometres in length and consisted of 882 ore wagons weighing 95,000 tonnes. Two drawgear failures were experienced, which were fixed by a mobile breakdown gang travelling behind the train. After the first incident, in the Chichester Ranges, the train was restarted with the banking assistance of two Dash-8 locomotives that were brought up from the rear. The leading locomotive on the train was GE Co-Co DE 6076 *GOLDSWORTHY* (51068 of 1999).
Leon Oberg 6/01; *The Age* 23/6/01 via John Cleverdon

Industrial Railway NEWS

PEMBERTON TRAMWAY CO
(see LR 159 p.22)
1067mm gauge
The log traffic has been good with there being four loads for the Sunday train to collect from Lyle more often than not. In past years, two loads a week would have been more typical.
Simon Mead 6/01

CHRISTMAS ISLAND

ASIA PACIFIC SPACE CENTRE
The Commonwealth Government announced on 24 June that it has agreed to provide up to $100 million to pave the way for the Asia Pacific Space Centre (APSC) to establish a spaceport on Christmas Island in the Indian Ocean.
It is planned that a rail system will link a Technical Complex with the Launch Complex, with each launch pad being served by a rail connection. A storage building for rail vehicles and related equipment will be required. The assembled launch vehicle is designed to be moved horizontally on a rail vehicle which will be moved by remote control to the launch site. The payload and launch vehicle will be accompanied by an emergency response unit on its rail journey to the launch pad. Further details can be found on the internet at <http://www.environment.gov.au/epg/eianet/notifications/christmasisland/assessmentreportwordpdf.html> and <http://www.dotrs.gov.au/media/macdon/archive/2001/june_01/m191_2001.htm>
Press release 24 June 2001 and Environment Assessment Report: *Proposal to construct and operate a satellite launching facility on Christmas Island* via Colin Harvey.



LETTERS

Dear Sir,

Bulk Sugar Terminals (LR158)

I was interested to read Barry Campbell's letter, in *Light Railways* 158, April 2001, referring to Queensland's bulk sugar terminals.

Your readers may be interested in the photograph (below right) of the diesel locomotive *ALEX S HAMILTON*, used at Mackay Bulk Sugar Terminal, which was Australia's first bulk sugar terminal, opened in 1957. As Barry explained, the locomotive was named after the Chairman of the Mackay Harbour Board, a local cane grower. A $24m redevelopment of Mackay sugar wharf, completed in March 2000, now allows cargoes of more than 60 000 tonnes to be loaded.

Between 1954 and 1964, the Queensland industry converted from manual handling in jute bags to bulk. Combined storage capacity of Queensland's seven terminals is now 2.1 million tonnes, making the system the world's largest, most advanced bulk sugar storage and handling facility. Limited storage capacity is available at the mills themselves.

By 1997, more than 100 million tonnes of raw sugar had been shipped through the bulk terminals. A 30 000 tonne ship can now be loaded in less than a day, compared with up to six weeks for bagged sugar.

The official souvenir booklet of the terminal's opening on 27 July 1957, states that 360 sugar boxes, each of 6 tonnes capacity, were used to transport sugar to the terminal. The silver-painted boxes were railed from Marian, Pleystowe, Plane Creek, Cattle Creek and North Eton sugar mills, with Racecourse and Farleigh using road transport. Each railway W flat wagon carried four boxes measuring 8ft x 8ft x 5ft 6in. The boxes which were carried on road trucks measured 9ft x 7ft 6in x 5ft 6in. All the boxes were of steel-framed construction lined with marine plywood, and the insides were sprayed with a resin to give a glossy finish. They were filled through the top and each box had a side door for emptying when tilted by overhead electric hoists at the receiving station.

On arrival at the terminal, road vehicles drove directly onto a weighbridge on the northern side of the receiving station, while rail wagons were shunted by diesel locomotive onto a rail weighbridge on the southern side. After weighing, the electric hoists picked up the outside edges of the boxes, tilting them to discharge their loads into a 40ft x 6ft receiving hopper between the two weighbridges. Sugar was then delivered by conveyors to the apex of the roof of the 150 000 tonne capacity storage shed, which was 995ft long x 150ft high x 87ft high.

With regard to financing of the Mackay terminal (which cost £1.6m) the booklet states that "The Harbour Board is to continue its responsibility for repayment of the interest and redemption on the loans it has undertaken to finance the project. To cover this amount and interest on Harbour Board funds invested, the Sugar Board will make annual payments over a period by agreement."

Barry Campbell is not quite correct in stating that last year the sugar terminal organisation became a "grower owned company". In fact, some 360 million shares in a new company called Sugar Terminals Limited (STL) were issued to eligible growers and sugar millers in December 2000. Share entitlements were based on a detailed analysis of sugar production over the nine seasons 1989 to 1997. The company has been valued at $338 million. There are more than 12 000 individual shareholders - over 229 million shares went to growers and over 130 million to sugar mill owners. STL's General Manager, John Desmarchelier, said the directors anticipated a positive cash flow from operations in 2000-01 and would give early consideration to a dividend policy. STL has entered into an 8-year sub-lease (with options for renewal) with Queensland Sugar Ltd to manage and operate the terminals. QSL will pay STL rent for the use of the terminals for receival, storage and shipping of raw sugar.

This important event had its origins in April 1998, when the Queensland Government approved the establishment of a committee of sugar industry representatives with certain responsibilities to facilitate the transfer of ownership of bulk terminal assets and leases to an industry-owned company. That committee was known as the Bulk Sugar Terminals Management Group (BSTMG). Sugar Terminals Limited (STL) was registered in August 1998 by BSTMG and commenced commercial operations in August 2000. Sugar Terminals Ltd holds the bulk sugar terminal assets as well as leases from port authorities. Its Board of Directors comprises two directors representing grower shareholders, two representing miller shareholders and one independent director.

Today, raw sugar is transported from mills by road, government railway or mill-owned railway systems to the bulk terminal servicing that mill area. At the terminal receiving station, each rail or road unit is electronically identified, together with the mill source, sugar brand, quantity of raw sugar delivered and storage location. The control room computer at the receiving station records this data. An example of Australia's innovative approach to bulk handling was the commissioning, in 1979, of a 5.76km off-shore facility at Lucinda, near Ingham, which increased the maximum cargo load from 7000 tonnes to 50 000 tonnes at that port.

Bill Kerr
Brisbane, Qld

Dear Sir,

Light Railway: Hagita and Waigani Plantations, Milne Bay, Papua New Guinea

On a recent visit to Milne Bay, I was able to interview Brother Graham Furness about the light railway from Gabagabuna wharf to Hagita and Waigani Plantations. Brother Graham came to Sideia Island Catholic Mission, Papua New Guinea in 1959. The mission at Sideia had a school and sawmill and a tramline ran on the jetty to the store and sawmill. This jetty was within the lagoon. (A photo from the *Post Courier* in 1978 shows this line). Later the sawmill was moved along the coast and had a jetty on the opened sea.

When the Catholic Church wanted to build a high school in 1970 the land available at Sideia was too small to accommodate a boarding high school. The mission purchased the run down Hagita Plantation from Burns Philp. When Br. Graham came to prepare the site for the school, he found the disused railway running from the wharf at Gabagabuna to Hagita and Waigani Plantations. The rail in

Newly delivered ComEng 0-6-0DM ALEX S HAMILTON *(B/N F1018 of 1957) shunting sugar boxes at Mackay bulk sugar terminal.* *Photo: WA Jones*

the main line to Hagita was of 30lb rail while the rest of the lines were of 20lb rail. Br. Graham used the larger rails from this line and neighbouring Le Dava plantation to develop the sawmill at Sideia. The railway lines remained in situ until bulldozed by Milne Bay Oil Palm Limited in 1985, as reported by Al Bovelt in his letter of May that year.

The history of Hagita and Waigani Plantations at present is not fully know at the moment but "The Plantation Dream - Developing British New Guinea and Papua 1884 - 1942" by D. E. Lewis (1996), The Journal of Pacific History, Australian National University, provides part of the story. For instance, it states that Burns Philp purchased Hagita plantation in 1935, through its newly acquired subsidiary, Robertson River Plantations (p.211). Br. Graham believed the previous owner was Lever Brothers.

During the Second World War Milne Bay, and particularly this section of Milne Bay, became the base for up to a "million Allied Servicemen". Giligili and Le Dava plantations became US bases and an airstrip was constructed at Giligili. Hagita Plantation became an Australian army base. The heavy rail on the mainline presumably dates from this time and is probably part of a supply railway to the base.

Hagita is located about 3km from Gabagabuna. The railway ran from the wharf through Dala Plantation to Hagita and extended approximately another 4km to Waigani Plantation. It is possible that a branch also went to Le Dava and Giligili Plantations. If this is so, this may be a notable system linking five plantations.

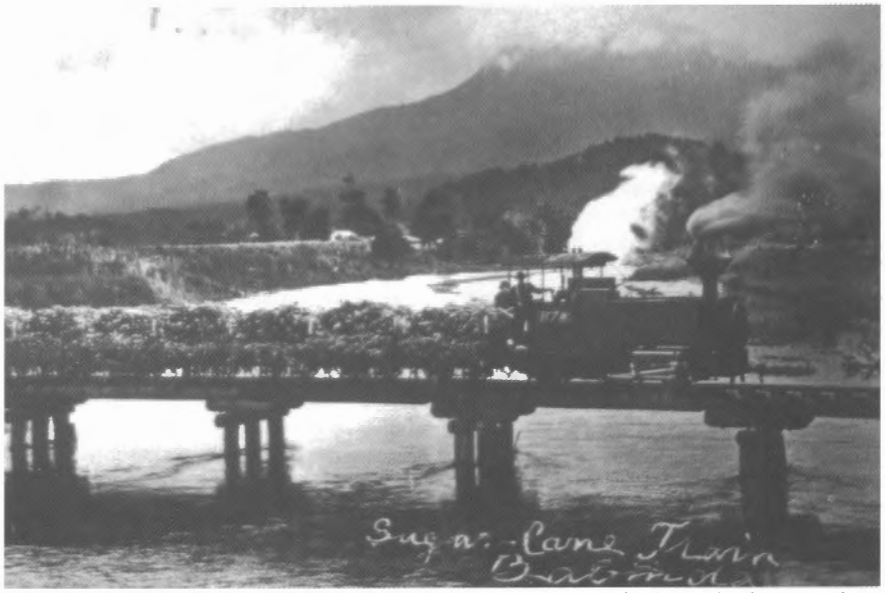
The lighter rails are described by Br. Graham as being tied by threaded bars and bolted together. The heavier rail was on metal sleepers. The gauge was probably 2ft. Wheel sets were of the disc type and about 14 inches in diameter. Al Bovelt's letter states "I took photos at Hagita of U.S. railway lines, steel rails and sleepers, track to centre line of the rails 33 inches, so probably I should have measured inside of the rails which would have been about 30 inches".

Bruce Hoy from the National Museum and Art Gallery wrote "...the tramway that served Waigani Plantation at Milne Bay before the war. I have noticed it marked on the Milne Bay Army Maps I have here". It will therefore require another visit to determine the gauge or gauges. Because of the ravages of war and then bulldozing for the oil palm, it is very difficult to tell whether there was a plantation railway system prior to the war (if so, it probably had 14lb rail, which I did not see.)

How many railways were in operation during the war? Two different rail sizes were used. Both Allies and the Japanese commonly used 20lb for field railways, while 30lb is more commonly associated with 2ft 6in gauge railways, which agrees with Mr. Bovelt's description. After the war Burns Philp may have used the supply line laid by the Allies as the main line and extended it into the plantation using salvaged 20lb rail.

Could readers of *Light Railways* please check with relatives who served in Milne Bay or New Guinea about the use of railways by the Allies or Japanese in Papua New Guinea? I am sure there are a lot more than Bob McKillop and I have discovered. We have just scratched the surface so to speak.

Michael R. Pearson
Port Moresby, PNG
Michael_Pearson@education.gov.pg



Babinda Mill's Fowler 0-4-2T ANZAC *brings a loaded train across Babinda Creek. Photo: R Alston*

Dear Sir,

Diamond Stacks at Babinda

Retired drivers of the steam locomotives used by Babinda Mill generally concur that all were fitted with either straight or tapered stacks; none were fitted with the classic 'diamond' spark arrestor.

Our roster of steam locomotives comprised three 1915 vintage 0-4-2T Fowlers, one 0-6-2T Orenstein & Koppel, one War Dept 4-6-0T Hunslet, one 1933 Fowler 0-4-2T and a 1950 Perry 0-6-2T.

All photographs of Babinda Mill locomotives I have managed to collect in the past have shown that the old drivers were correct. However, this recently acquired photograph (above) has come as a complete surprise. The locomotive is Fowler 0-4-2T B/N 14666 of 1915 (*ANZAC*) crossing Babinda Creek about 5km south of the mill. It is clear that the locomotive is fitted with a 'diamond' stack.

The John Fowler general arrangement drawing shows this 'diamond' stack as standard. The builders numbers on this drawing are 14173, 14418, 14666 (Babinda) and 14458, 14667 (South Johnstone).

Peter Lukey
Babinda, Qld

Dear Sir,

Identifying the Mapleton Shays (LR 157, LR 155)

You performed a distinct service in your comments on my letter in LR 157, in noting features which have allowed identification of these locomotives.

Clearly what Bill English Jr told me about the date of rebuilding the two engines into one was wrong. Telescoping events in the memory of the interviewee is one of the pitfalls of oral history. Bill told me he worked for Moreton Mill for one season after the closure of the Mapleton line, but then obtained other work, because, like many mill staff, he was paid off at the end of the crushing season. In his memory, he brought the rebuild into the period just after he worked for the mill.

Mike Loveday, in ARHS *Bulletin* No.240, October 1957, stated that in 1946 he saw *MAPLETON* in service and Dulong with parts missing. *MAPLETON* was said to be still serviceable and *DULONG* abandoned, by both C C Singleton in his article in the *Bulletin* for November 1947, and Ken Rogers in the August 1948 *Bulletin*, the latter probably following the visit which led to the Rogers and Buckland photos dated October 1947 which you mentioned.

In his article on the tramways of Moreton Mill in the October 1957 *Bulletin*, Singleton said the rebuild was *DULONG*, with parts, including one bogie, from *MAPLETON*. In the same *Bulletin*, Loveday considered the rebuild to be *MAPLETON* with a new steel cab. He did not mention the chimney.

I should have had all this at my fingertips when interviewing and writing to Bill English, although I must admit that I was most interested in obtaining from him details about the Mapleton line itself, before closure.

Following points I make below, it is clear from the dome (but not the chimney) that the boiler of the rebuild is from *MAPLETON*, and from the buffer that the frame is probably from *MAPLETON* (the buffer and bolt locations on the front headstock fit those of *MAPLETON*, not *DULONG*). The bunker was new or much repaired, that from *DULONG* was too rusted, while if from *MAPLETON* there is no sign of the holes from the agent's plates.

If the engine (ie cylinders and crankshaft) came from *DULONG*, as Bill claimed, that is consistent with the 1941 views of the QR engineers mentioned in my letter. So too is

use of the boiler which they reported to have been the better, ie that from *MAPLETON*. As it would have been impossible from seeing the rebuild to know where its engine came from, Mike Loveday's conclusion that the rebuild was *MAPLETON* with a new steel cab is not surprising. The conical chimney could have come from *DULONG* or been newly made. All mill locomotives at the time had diamond chimneys, so simplicity of manufacture cannot have been the reason for having a conical.

That leaves the date. ARHS *Bulletins* are no further help. I first saw the rebuild in August 1952. It was therefore created at some time in the years 1948 to 1952 inclusive. Perhaps other visitors can reduce this range.

Now the ways of distinguishing the two engines prior to the closure of the line.

DULONG entered service in 1908 carrying its name on the cab sides, and *MCSM* on the bunker sides, and with a diamond chimney, the top part of the diamond deeper than the bottom, overall shorter than the cab height, and a high dome. It also had a buffer/coupler with three pockets vertically, steps on each side of this coupler, large poling pockets on the headstocks (all of these at each end), a bell on the boiler, a plate (presumably for the number, but blank so far as can be seen) on the smokebox door, a plate (presumably the builder's) low down on the left cab side, and a considerable arch over the bolster in the upper bar on each side of the bogies. All of this is derived from photographs. Except for the name, *MCSM*, and the bogies, these features can be seen in the photo on the cover of LR 138.

In 1911, *DULONG* overturned from a bridge (1912 company AGM). Photographs of the outcome show the chimney and cab to have been smashed. The cab seems to have been rebuilt to the original form, but the chimney in all later photographs, including one while the engine was still in mill ownership (ie prior to 1914), was conical. The mill's only other locomotive at the time, *MORETON*, then had a conical chimney (it is in the distance in the cover photo of LR 138), so fitting such a chimney to *DULONG* might indicate that at the time conical was considered better (although *MORETON* later, and all other mill locomotives until the 1950s ran with diamonds).

These conical chimneys (including that fitted early to *MAPLETON* - see below) had a rim projecting a few inches to the inside at the top, and *DULONG* had such in 1937, but such rim had gone by the closure, and the rebuild had none.)

Other changes to *DULONG* include: the smokebox was lengthened between 1924 and 1935, the steps in front of the headstocks were removed about 1925, a steel strip wrapped around the middle pocket of the buffer/coupler served as a compatible buffer for the rolling stock, the agent's plates had gone from each side of the bunker by the end, the front of the cab was braced to the frame on the right side in the 1930s and on the left by 1942, and the arch in the top bar of the bogies was much reduced by 1937 and eliminated by the end (on both bogies of the rebuild and the two discarded bogies, these bars are horizontal or almost so).

The earliest known view of Mapleton Tramway Shay locomotive MAPLETON. *Photo: FR Morris*

In what I think is the earliest known photo (above) of *MAPLETON*, it has a conical chimney. While the photo is undated and not necessarily taken when the engine was brand new, its early date is indicated by features of the engine which do not all appear in other photographs: rails on the sides and front of the boiler, large headlight, bell, and builder's plate on the side of the smokebox. The brake van also carries boards saying *MAPLETON TRAMWAY*, which were not carried for very long. Longer lived features in the photo which distinguish the engine are (as you suggested) the low, fat dome, the low curved buffer, the small poling pockets, and the slight arch in the top bars of the bogies. Every other photo of the locomotive with these features (dome etc) shows it with a diamond chimney, overall about the same height as the cab roof, with the lower part of the diamond deeper than the upper.

The upper picture on page 14 of LR 155, showing the engine with the diamond chimney, is of similar date to the accompanying one, showing all these features except, so far as I can tell, for the plate on the side of the smokebox.(The photo is attributed to F R Morris, about whom I know nothing. Several QR photos pre 1930 are also attributed to him. That does not mean he was a Queensland resident. Any further information on him will be welcome.)

MAPLETON obtained an extended smokebox by the 1930s, the front of the cab seems to have been braced to the frames on the right side only, and the part-bulkheads on each side of the rear of the cab had windows, at least latterly. The agent's plates seem to have remained on each side of the bunker to the end.

Various changes to the cab roofs and cab structure of each engine are visible in photos, but are not essential to distinguishing them. As above, both engines seem to have had bogies without arching in the top side members at the end. Both locomotives had a grip bar across the frame above the front headstock, but *MAPLETON* seems to have lost it earlier than *DULONG*.

Your identifications in LR 155 and reasons therefor (most importantly the different domes) are therefore confirmed. I wrongly assumed that the conical chimney on *MAPLETON* in the accompanying photo was evidence that it was the engine with the conical chimney until 1944. Again, had I been on top of my questions to Bill English, I would have noticed a contradiction between his identification of the engines in photos (or my interpretation thereof) and his (clearly correct) statement that *DULONG* had the three pocket coupler/buffer. In any case, the various enthusiast visitors to the line must have identified the engines according to information provided by the engine crews, very likely the Englishes Sr and Jr.

The biggest mystery is why *MAPLETON* had a conical chimney, as in the photo. That this is probably the earliest known photo of the engine does not say that it arrived from the builder with that chimney. The conical chimney could have resulted from a temporary change with Dulong, but it is difficult to see why that would have been done. As *MAPLETON* is clearly in service in the photo, it does not seem likely that the exchange was made to keep *DULONG* serviceable. Perhaps it was a trial, to test steaming or spark arresting.

Bill English Jr was fireman to his father 1938 to ca 1942, then Nambour driver until closure (this corrects what I said in LR 157).

I have a short book on the (complex) history of the Mapleton Tramway in preparation. Following your comments in this exchange, it will now contain an accurate identification of the engines.

John Knowles
New Malden, UK

Dear Sir,

Early Australian Electric Locomotives (LR 159, p25)

The Hunt system had one major peculiarity which never seems to be noticed, probably because it is so rare, yet it was the major selling point of the system and was always mentioned in articles of the period. The Hunt system was unique in that it used a gauge of 21.5 inches measured from the outside head of the rails because the rolling stock used OUTSIDE flanges.

The rolling stock was designed for carrying comparatively heavy loads around very sharp curves, minimum radius 12 feet, and used flexible four wheel trucks enabling the axles to point at the centre point of the curve and the load to be carried on the tip of the outside wheel flange to minimise friction. How this was achieved I am not exactly sure. Normal short wheelbase four-wheel bogies were also offered. The catalogue page reproduced clearly shows the outside flanges when you know what you are looking at.

Hunt experimented with steam traction and produced a Fairlie type 0-4-4-0T, actually a Meyer, that could negotiate the 12ft radius curves, but an article dated June 16, 1892, implies that steam power was found wanting due to the smoke and steam emitted and they decided to continue with electric traction both OHW and storage battery.

Just to muddy the waters I have found one engraving of a four-wheel Hunt OHW electric mining loco with conventional inside flanges, but all other illustrations show outside flanges.

Jeff Lanham
Hautefort, France

Dear Sir,

Campbell Island Railway

Probably the most southerly railway in Australasia is the old jetty track on New Zealand's remote Campbell Island at 55° 55' S (for contrast, Australia's Macquarie Island is at 54° 62' S). The line runs from the jetty to a storehouse situated on a rising grade some 350 metres away. The line was overgrown and no rolling stock was visible when the photo was taken in January 2001. The gauge appears to be 1067mm (3ft 6in).

Campbell Island is part of the Province of the South Island of New Zealand. Earlier industries of whaling, sealing and attempts at farming and grazing have disappeared; the only regular occupants now are scientists working on NZ research projects related to the Southern Ocean environment.

David Burke
Buradoo, NSW

The remains of the railway at Campbell Island, January, 2001. Photo: Catherine Burke

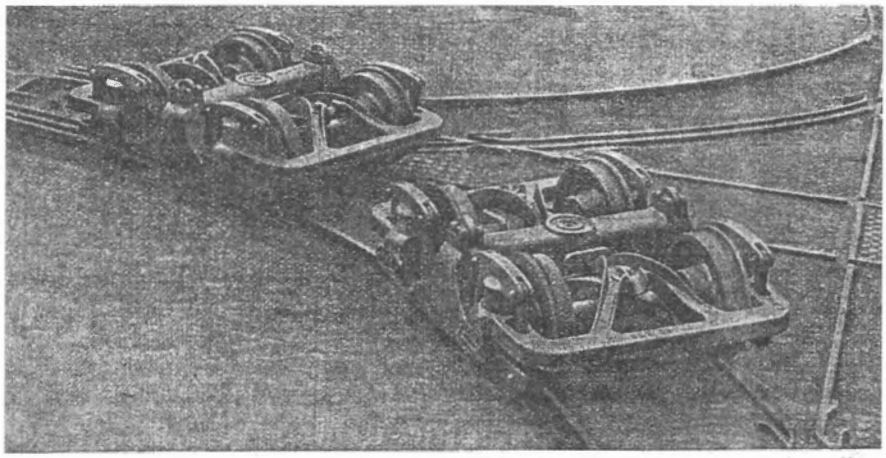


FIG. 3. TRUCKS FOR EIGHT-WHEEL CARS.

Dear Sir,

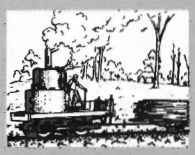
Evelyn Scrub Horse Tram

In the *The Northern Sun*, (Vol.16, No. 53), Jan-March 2001 (a quarterly historical journal published in Ravenshoe, Qld) there is an article titled "William J Daniel, 1910" which states:

In the early days there was a wooden tram line from the Evelyn Scrub area into Turulka rail siding and about 6 horses would pull very big loads of soft wood, maple oak, etc. The horses in single file pulled loads over the bridges without reins. The tramline was owned by CTL and closed in 1923.

Does any reader, subscriber or researcher know anything of the tramway and its history?

Dennin McLean,
Paddington QLD



LRRSA NEWS

MEETINGS

ADELAIDE: "Indian NG Industrial Rwys"
Mark Carter will be showing slides of NG industrial railways in India, many of them steam-powered, taken during his visits in 1978, 1979 and 1983.
Location: 150 First Avenue, Royston Park.
Date: Thursday 2 August at 8.00 pm.
Contact Arnold Lockyer (08) 8296 9488.

BRISBANE: "Slides by Greg Stephenson"
Greg Stephenson will be showing slides of a number of subjects, including recent activities in Tasmania.
Location: BCC Library, Garden City Shopping Centre, Mount Gravatt.
After hours entrance opposite Mega Theatre complex, next to Post Office.
Date: Friday 3 August at 7.30 pm. Entry from 7 pm. Contact Bob Dow (07) 3375 1475

MELBOURNE: "Frank's Travels"
Frank Stamford will be giving a presentation on his recent pilgrimage and travels in the backwoods of North America. Sites of industrial and narrow gauge railway interest from Newfoundland to the Yukon will be covered. Not to be missed!
Location: Ashburton Uniting Church Hall, Ashburn Grove, Ashburton.
Date: Thursday, 9 August at 8.00 pm.

SYDNEY: "Talyllyn Railway"
To celebrate its 50th anniversary as the first preserved railway in the world, we will be showing video of its pre and post-preservation operation, followed by slides of operations 20 years ago and today.
Location: Woodstock Community Centre, Church Street, Burwood, (five minutes walk from Burwood railway station).
Date: Wednesday 22 August at 7.30 pm.
Contact Jeff Moonie (02) 4753 6302.

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

LRRSA Publications

The Innisfail Tramway
The History and Development of the Geraldton Shire Tramway and the Mourilyan Harbour Tramway
by John Armstrong & G.H. Verhoeven
Describes a public 2 ft gauge tramway in north Queensland which had 13 steam locomotives, 13 passenger cars and about 250 goods wagons.
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.

Laheys' Canungra Tramway
by Robert K. Morgan, revised by Frank Stamford
Describes Queensland's largest timber tramway, with one Climax and three Shay locomotives. Many evocative pictures of geared steam locomotives in magnificent scenery.
32 pages plus soft cover, A4 size, 28 photographs, plus maps/diagrams and index.
$9.95 (LRRSA members $7.46) Weight 220 gm.

Settlers and Sawmillers
A History of West Gippsland Tramways and the Industries they Served 1875-1934
by Mike McCarthy
Timber tramways serving over 100 sawmill sites from Beaconsfield to Trafalgar.
168 pages, soft cover, A4 size, 96 photographs, 17 maps and diagrams, 6 graphs, one loco diagram, references and index.
$31.90 (LRRSA members $23.93) Weight 700 gm.

Bellbrakes, Bullocks and Bushmen
A Sawmilling and Tramway History of Gembrook 1885-1985 - by Mike McCarthy
Describes a network of 3 ft and 3 ft 6 in gauge timber tramways, and associated timber mills.
104 pages, soft cover, A4 size, 71 photographs, 17 maps and diagrams, references and index.
$26.00 (LRRSA members $19.50). Weight 500 gm.

Arsenic and Molasses
A Pictorial History of the Powelltown Tramway and Timber Milling Operations
by Frank Stamford
Companion volume to the book *Powelltown*, but with an emphasis on photographs. All the photographs are different to those in *Powelltown*.
88 pages, hard & soft covers, A4 size, over 100 photographs, 8 maps and diagrams, glossary and index.
$36.00 Hard cover (LRRSA members $27.00) Weight 650 gm.
$24.00 Soft cover (LRRSA members $18.00) Weight 470 gm.

Powelltown
A History of its Timber Mills and Tramways
by Frank Stamford, Ted Stuckey, and Geoff Maynard.
Victoria's only timber tramway to provide a passenger service. Six steam locomotives.
150 pages, soft cover, A4 size, 150 photographs, 22 maps and diagrams, references and index.
$22.00 (LRRSA members $16.50) Weight 550 gm.

Modernising Underground Coal Haulage
BHP Newcastle Collieries' Electric Railways
by Ross Mainwaring
Battery and overhead-wire electric locos at Burwood, Lambton, and John Darling collieries.
60 pages, soft cover, A4 size, 18 photographs, 13 maps and diagrams, references and index.
$16.50 (LRRSA members $12.38) Weight 230 gm.

Books from Other Publishers

Echoes through the Tall Timber
The Life and Times of a Steam Man 1895-1984
by Dorothy Owen, published by Brunel Gooch Publications
The life story of Harry Matheson, who drove logging winches, and mill engines in the Warburton-Powelltown area. The challenge of surviving the depression and bushfires is really brought to life in this very well written book.
176 pages, soft cover, A5 size, 48 illustrations.
$22.95 (LRRSA members $20.66) Weight 375 gm

Tasmania's Hagans
The North East Dundas Tramway Articulated "J" Class
by Geoff Murdoch, published by the author.
Detailed history and superb diagrams of the unique Hagans 2-4-6-0T locomotive. Includes scale drawings of all N.E.D.T locomotives.
71 pages, soft cover, A4 size, 42 photographs, 2 maps, 38 diagrams/drawings, references and bibliography.
$20.00 (LRRSA members $18.00) Weight 300 gm

Firewood Tramways of the Walhalla Mines 1865-1915
A Research Paper on the History of the Firewood Tramways of the Walhalla Mines
by Terry & Brenda Jenkins. Published by T. & B.J. Publications.
Traces almost 100 km of mostly horse-drawn firewood tramways around Walhalla, Victoria.
272 pages, hard cover, A5 size, 96 photographs and maps, references and bibliography.
$30.00 (LRRSA members $27.00) Weight 530 gm

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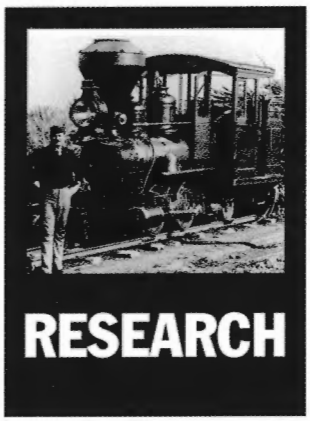


RESEARCH

Newcastle Coal & Copper Coy Locomotives, NSW

The efforts of the dedicated researchers into the history of the Lithgow iron and steel industry [see LR 156, p.27] have come up with the identity of the two 0-4-0ST locomotives imported by the Newcastle Coal & Copper Company in 1857. The search originated from the information that the Eskbank Ironworks acquired two locomotives for its operations in 1880 [LR 152, Letters, p.25]. In January 1880 the Newcastle Coal Mining Company advertised for sale a 'second-hand locomotive, engine and duplicate parts', and two locomotives were reported as being shipped from Newcastle for further use in the western district of NSW on 10 September 1880.

John Shoebridge has advised that the Newcastle Coal & Copper Company board reported in December 1856 that they had commissioned their manager, Alexander B Brown (then visiting Britain), to place orders for railway equipment, including two locomotive engines and "spare component parts". These arrived in Newcastle NSW towards the end of 1857. One was in service by late November 1857 and the second in July 1858. When the Coal & Copper Company failed in 1864, "certain assets" reverted to Dr Mitchell. He probably kept at least one locomotive in use, but by 1875 they were in possession of a Mr McGillicuddy (nothing further known) and it was he who sold the locos to the Newcastle Coalmining Co (formed 1875 with Stuart Keighley as General Manager).

Bruce Macdonald coordinated efforts to try and identify the locomotives for the joint LRRSA/LDHA project on the history of the Lithgow iron and steel works. Jack Southern's notes of interviews with former Lithgow employees in 1938 included a reference to the first Eskbank loco being built by Nelson Bros of Glasgow. Although there is no manufacturer of this name, Bruce thought Neilson might be a possibility. Based on this information, Richard Horne and Frank Jux searched out possible candidates for the locomotives from records in the United Kingdom. They finally had success at the Stephenson Locomotive Society's library, when Frank, recollecting that Dr Mitchell was a Scot, looked for records of Neilson & Company of Glasgow. Neilson's original order book has been lost, but a list derived from old sources revealed that Neilson 394 and 395 were 12in X 18in cylinder locos ordered by Alexander Brown and shipped in 1857. Richard was subsequently able to confirm this identification from similar records held at the National Railway Museum in York. Although no date is shown, surrounding entries would confirm delivery in 1857.

Editor

WA Timber Industry Family History

Pemberton Family Stories, edited by Alison Daubney and published in June 2001, covers six families who tell of their early lives in Pemberton. Both timber mill and WAGR railway operations are included, with a few railway photographs. One chapter is headed 'The Locomotive Man' and the introduction says the timber mill and locomotives played a major role in Roy Kelly's life from 1924. On his retirement, in 1983, he was the longest serving employee on record. The book is published by and available from Alison Daubney at PO Box 30, Northclifffe, WA, 6262. ISBN0646499661.

David Whiteford

Perth Zoo Railway, WA

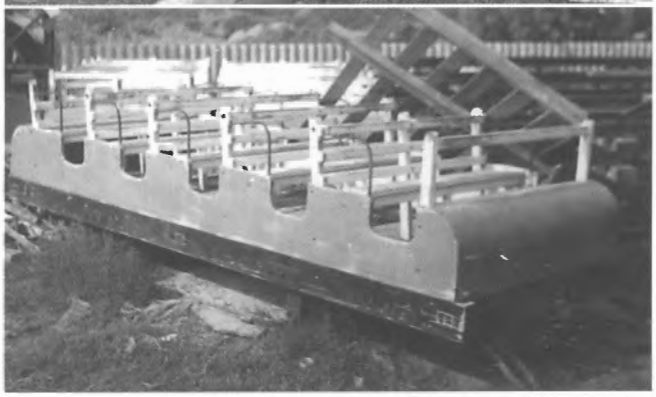
We have recently come across some interesting information about the South Perth Zoo Railway. John Peterson provided the accompanying photographs of a steam outline miniature locomotive and passenger car he took at Geraldton in Western Australia in the 1970s. The builder's plate on the locomotive reads 'STATE ENGINEERING WORKS, MAKERS. LEIGHTON, VIC', while the number '1954' on the cab side may refer to the date of manufacture. John states that the power unit appeared to be a converted tractor.

David Whiteford has identified the loco and carriage from John's photographs as those used on the Perth Zoo Railway and filled in some details from *The State Gardens Boards twenty years progress and policy, 1919-1939.* Perth, State Gardens Board of Western Australia, [1939]:

The Zoo train was installed in the early 1930s and used light rails which had lain in the ground at Rottnest Island for 20 years. This would have been the public (later, Army) jetty to settlement line. By courtesy of the Rottnest Board, one-third of a mile of line was secured and laid, under the guidance of the Commissioner of Railways. A Ford Car was converted into an imposing little railway engine and hauled zoo-manufactured "trucks". Over a period of 7 years the train turned in an average of approx £9 per week – nearly all profit, and "it is sometimes jocularly claimed to be one of the finest railway investments in Australia"!

David goes on to state that the Ford Loco was obviously replaced – more than likely in the 1950s. The Zoo's annual report for 1967/68 notes increased admissions and, accordingly, patronage of the train. There is little mention of the train until the 1972/73 report, which says "Beyond further palliative treatment, the worn-out train track was lifted."

The *West Australian* newspaper of 7 July 1973 reported that Mr W Swinbank of Geraldton now had the train and track and hoped to lay a 600 foot circular track with services starting within 6 months. The article gives the loco's weight as 4½ tons, states that it is powered by a four-cylinder Ferguson tractor petrol engine, and says that the equipment was sold by tender. Three carriages were then in Geraldton. The carriage John Peterson photographed looks very similar to those in a 1930s photo of the train and could well be modified originals. Mr Swinbank owned the Separation Point Caravan Park in Geraldton and had wanted to lease some land adjacent to the park for construction of the railway. The Geraldton line was never built and, in 1982, the *Daily News* reported that Mr Swinbank was planning to retire to the Wanneroo area and intended to take the train with him, still with plans to construct a public railway. He said that the loco's engine was still turned over regularly. This article says that the engine was made in 1954 at the State Engineering Works (Rocky Bay, near Fremantle). The fate of the stock is not known at this stage.



Locomotive and rolling stock from the former Perth Zoo Railway stored at Geraldton in the 1970s. *Photos: John Peterson*

Heritage & Tourist

50 Years of Railway Preservation

A key event in the history of the railway preservation movement was the operation of the inaugural train on the world's first railway to be restored by volunteers, the Talyllyn Railway in Mid-Wales, on 14 May 1951. A re-enactment of this first preserved train operated on 14 May 2001 to commemorate fifty years of railway preservation. The 50th Anniversary celebrations on the Talyllyn Railway include a series of events through to September 2001, commencing with the Jubilee Weekend on 12-14 May, the Jubilee Festival Week from 21-29 July, which includes 50 hours of steam operation around the clock on 27-29th, and Victorian Week from 5-11 August. The Heritage Railways Association mounted a special exhibition, *Steaming On – 50 Years of Heritage Railways*, at the National Railway Museum, York, to celebrate the myriad of individuals involved with heritage railways over the last 50 years. Today, heritage railways in Britain control some 680km of line and attract more than 7.8 million visitors a year.

Your editor visited the Talyllyn Railway on 7 May and experienced the flavour of this very special heritage line. A short report on this visit is provided in the Overseas section of this column. Our own Puffing Billy Railway has a special affiliation with the Talyllyn and it, of course, is also a pioneer in the railway preservation stakes, with the Puffing Billy Preservation Society being formed in 1953 and reopening its first section of preserved line in 1962.

The 'Little Railways' of both Wales and Australia have made and continue to make a major contribution to railway preservation and to tourism in their respective economies.

Bob McKillop

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NEWS

New South Wales

MENANGLE NARROW GAUGE RAILWAY 610mm gauge
Campbelltown Steam & Machinery Museum

LRRSA Councillor Peter Evans attended the Expo Steam & Machinery rally at Menangle on Saturday 19 May as guest of Ray Graf. Peter reports he had the opportunity to ride on the footplate of the diminutive 5-ton 0-4-0WT steam locomotive. This delightful little 2ft gauge machine was built by Hudswell Clarke (B/N 1423 of 1922) to the design of English light railway merchant Robert Hudson. The locomotive was originally used by the National Portland Cement Company at its works on Maria Island on the east coast of Tasmania. The works closed in 1930 when the ARC Geelong Cement Company at Fyansford absorbed the Maria Island company. Unsuitable for the 3ft 6in gauge railway at Geelong, the small locomotive was sold to the Corrimal Colliery in 1944, and worked on the Illawarra escarpment until its condition deteriorated in 1963 and it was set aside. It was purchased for private preservation in 1967 and restored to full working condition.

Peter also took delight in the early R. Hornsby & Sons "D"-type portable steam engine (B/N 4919 of 1883). The engine was displayed very much as it must have looked towards the end of its working life, which was spent on an agricultural property in New South Wales. The boiler is beyond repair, but the elderly engine was under steam provided by a Marshall "Britannia"-type portable engine with its characteristic circular firebox (B/N 3505 of 1900).

Peter Evans, 6/01, via *Timberline*

RICHMOND VALE RAILWAY
1435mm gauge
Richmond Vale Preservation Co-operative Society Ltd

The 2001 Steamfest weekend on 28-29 April was expanded to incorporate a Food, Wine and Craft Fair, organised by Kurri Kurri "Towns With a Heart" Coordinator Neil Gorman. In addition to train rides, attractions included music, children's rides, food, wine and craft stalls. The event was well advertised and large crowds attended both days. To simplify the logistics of the combined event, it was decided to provide free entry to the site and collect individual fares for train rides. The spare BHP diesel locomotive cab was erected on the Richi platform to serve as a ticket office. Three trains hauled by 2-8-2T No.30 (BP 6294/1925), 0-4-0ST *MARJORIE* (Clyde 462/1938) and the Planet 4wDM (Hibberd 3715/1955) operated over the weekend and kept close to their timetables.

The ex-Government Railways 4-wheel brake-van CHG 16269 was restored over the summer break. The van has emerged from the workshops freshly painted and lettered. The van is regularly used in the consist of *MARJORIE's* train and its much improved appearance has brought many favourable comments from the public.

Link Line May/June 2001

Victoria

ALEXANDRA TIMBER TRAMWAY & MUSEUM
610mm gauge

The 2001 Easter Gala event attracted a large number of visitors, who took advantage of the fine, warm weather. New attractions included displays of axes, saws and other logging tools by Bruce Rogers of Beaufort and Jack Gilbert of Benalla. Bruce split a large number of shingles to demonstrate this art to visitors.

On the Saturday night a volunteers' BBQ was held. As usual, Bryan Slader cooked up a storm and, when everyone had eaten their fill, the stayers settled down to watch steam and music videos in the new visitors' centre till late in the evening. The Easter weekend was financially successful. The only drawback was that the 8hp Marshall blew a fire-tube and it is now apparent that all the tubes will need to be replaced before it is steamed again.

Motor Rail Simplex 4wDM 7351 of 1938 arrived at the museum in March 2001. J Howard & Co used the loco for construction work in Victoria before its sale to Cheetham Salt at Laverton in the 1950s. Peter Evans purchased 7351 in 1987 and its motor was fitted to MR 10058 in 1989. The loco is now stored at Alexandra awaiting restoration.

Another Malcolm Moore (1023 of 1943) arrived in Alexandra from Campbelltown, NSW, by road on 16 June 2001. This locomotive was obtained by the Museum around October 1998 and it is

Coming Events

AUGUST 2001

5 Cobdogla Irrigation & Steam Museum, Barmera, SA. Steam Open Day. Phone 08 8588 2323.

11-12 Puffing Billy Railway, Belgrave VIC. *Thomas the Tank Engine comes to Puffing Billy – a family fun attraction at Emerald town.* Enquiries and bookings: 03 9757 0770.

11-19 Riverboat Federation Centenary Event, VIC. Series of events at Echuca, Swan Hill and Robinvale. Phone 08 8382 4210.

12 Illawarra Light Railway Museum, NSW. *Public Holiday Weekend Special.* 610mm steam train, electric miners' tram and 184mm miniature train rides. 1030-1600. Ph. 02 42 564627.

18-31 Celebrating Federation by Rail, National. Track trolleys from Normanton (Qld), Murwillumbah and Bathurst (NSW), Barrarat (Vic), Burnie (Tas), Adelaide (SA), Alice Springs (NT) and Perth (WA) will be worked to Canberra (ACT). To arrive on 6 October.

25-26 Riverboat Federation Centenary Event and Spirit of Steam Rally, Euston, VIC. A special Federation riverboat and steam weekend. Phone 03 5026 9414.

28 ARHS Puffing Billy Luncheon Train Tour, VIC. ARHS/Victoria special Luncheon Train tour to Gembrook and return hauled by 861, Peter Peckett's little red brother.

SEPTEMBER 2001

8 Goulburn Steam Museum, NSW. The grand auction sale (originally scheduled for 14 July) will be held on-site. Contact Bruce Macdonald on 02 6288 7759 for details.

9 Illawarra Light Railway Museum, NSW. *Two Engines in Steam.* 610mm steam train, electric miners' tram and 184mm miniature train rides. 1030-1600. Ph. 02 42 564627.

14-15 Richmond Vale Railway, Kurri Kurri, NSW. Friends of Thomas the Tank Engine weekend.

8-30 Riverboat Federation Centenary Event, Berri/Goolwa, SA. A special Federation riverboat and steam weekend. Phone 08 8382 4210.

24-27 Australian Mining History Conference, Kalgoorlie, WA. Conference theme 'Empire, Nation, Region and Identity', with special events at Kalgoorlie. Phone Mel Davies: 08 9380 2939.

30 Illawarra Light Railway Museum, NSW. *Demonstration Diesel Freight Trains.* 610mm steam train, electric miners' tram and 184mm miniature train rides. 1030-1600. Ph. 02 42 564627.

OCTOBER 2001

22 Pichi Richi Railway, Port Augusta, SA. *Tracks to Federation* – celebration with steam trains to and from Port Augusta. The day will feature a parallel run of a double-headed PRR steam train and diesel-hauled East-West train from Stirling North to Port Augusta.

believed that it has never seen service. As with all of the Malcolm Moore built locos of this type, it was obtained by the Department of Supply in 1943/4. At some time this loco is recorded as being stored at Wedderburn, Victoria. Reputed to have been purchased "as new" still in its crate, by late 1992 it was privately owned and at the Menangle Narrow Gauge Railway near Campbelltown.

The Malcolm Moore was received in a dismantled state and will be used to assist the other Alexandra Malcolm Moore (1049 of 1943), initially to allow the wheels on 1049 to be repaired from the current 'u' shaped tyres. Some items from Malcolm Moore 1023 have yet to be located, namely the coupler pockets and an engine hood cover, as well as a few other minor pieces.

Peter Evans, Peter Medlin, Chris Holmes, June 2001

BELLARINE PENINSULA RAILWAY, Queenscliffe

1067mm gauge

Ex-Pioneer Sugar Mill 0-4-2T *KLONDYKE* (Perry 271/1927) returned from the Abt Wilderness Railway (LR 157, p.31) shortly before Easter. It had suffered a broken axle in Tasmania and required a frantic effort by workshop staff to get it ready for service over the Easter period. This was achieved through a late night effort and *KLONDYKE* joined the other four steam locos for the Easter steam extravaganza. Ex-Fynasford Cement 0-4-2ST No.6 (Hudswell Clarke 646/1903) has been repainted in a deep maroon livery. On Sunday 13 May, *KLONDYKE* operated services as the solo locomotive.

Rail News Victoria, June 2001

HEATHERLIE QUARRY & TRAMWAY, Halls Gap

Further to the report in LR 149 (p.29) on this historic quarry and tramway in the Grampians National Park, the Victorian Public Heritage Program has provided a $15,000 grant to enable urgent stabilisation work to be carried out on the base of the stone chimney.

Victorian Planning Minister, John Thwaites, highlighted the role of the Public Heritage Program in ensuring that heritage buildings are maintained for the future. He said, "We are extremely fortunate in Victoria to have such a rich and diverse heritage. Places such as the Heatherlie Quarry provide a fascinating insight into our social and economic history."

Aarat Advertiser, 24 May 2001, via Ian Stanley

KERRISDALE MOUNTAIN RAILWAY 610mm gauge

The last of the track on the 'top road' to the summit was completed in March 2001 (LR 155, p.30). A left-hand turnout, ex-Smithfield munitions tramway, was utilised to make a head shunt and road into the platform (yet to be built). Further projects for 2001 include construction of the summit platform, a second road shed with service pit and buffer stops.

Andrew Forbes, 4/01

OLD BEECHY LINE

Colac and Otways residents have begun work on a 10-year project to re-establish the historic Beech Forest railway line as a walking track from Colac to Crowes (see LR 149, p.28). Initially funds granted under the Centenary of Federation Community Grant Scheme will be used for work on a kilometre long section of the line between Forest and the former Buchanan station. Committee president, Tom Grogan, said that care would be taken to ensure that as many of the features of the railway as possible are retained. Although the sleepers and rails were removed in the 1960s, there were still many reminders of the past such as cuttings, culverts and water tanks. The dream was to have a path that could be walked or cycled the entire 70 kilometres from Colac to Crowes. Much of the rail line is still in public ownership and some sections, such as the 4.5km from Barongarook to Birnam Station, were already well established walking tracks.

Geelong Advertiser, 18 May 2001, via Norm Houghton

PUFFING BILLY RAILWAY

762mm gauge

Emerald Tourist Railway Board

The Climax geared loco (1694 of 1928) made several trips following its Gembrook Centenary celebration 'final' appearance on 17 December 2000 (LR157, p.17). 1694 operated farewell trips on 7 April from Belgrave to Cockatoo and return, with several photostops. These were booked in three sections at premium fares to raise money for boiler work. Work on 1694 to bring it back to operating condition is expected to be a medium- to long-term project, as Garratt loco G42 (and possibly the ex-South African NGG Garratt) will be restored in the first instance.

A shortage of serviceable steam locomotives resulted in the return of D21 to service in early May 2001. On Thursday the down 1030 train was triple-headed by NA12, DH59 and D21 hauling 15 carriages, thus enabling each train for the day to be steam-hauled part of the journey. The NA was detached at Menzies Creek and returned light to Belgrave to haul the

RED CLIFFS HISTORICAL STEAM RAILWAY 610mm gauge

Many hundred of visitors flocked to Red Cliffs for a steam train event with a difference on the weekend of 16-17 June 2001. The Red Cliffs Historical Steam Railway group brought together its own Kerr Stuart 0-4--2T locomotive (B/N 742/1901) and the Bagnall 0-4-0ST (1801/1907) from Cobgogla, South Australia. In doing so, a historical link of 75 years earlier was renewed. Both locomotives had worked together on the development of the Cobdogla-Loveday Irrigation Settlement Scheme before the Kerr Stuart came to Red Cliffs to haul coal to the local pumping station.

The celebration had a two-fold purpose. The first was to acknowledge the 100th birthday of the Kerr Stuart; the second to officially open the additional 1km of line, complete with turntable. On the Sunday, Tim Fischer, Member for Farrer, unveiled a plaque commemorating the birthday, while Russell Savage, MLA, officially opened the track extensions.

Crowds queued to "ride the rails", with trains operating at a half-hourly timetable. All up, they carried around 1500 passengers over the two days. A non-stop musical program of local bands and school choirs, together with many stalls and the aromas from foods mingling with the smell of hot oil and steam, gave the whole weekend a carnival atmosphere.

Representatives of the Cobdogla Irrigation & Steam Museum indicated that they would like to repeat the day sometime and issued an invitation for the Kerr Stuart to run at their museum at Cobdogla. Ian Hinks, 6/01

***Top:** On Sunday 17 June, Russell Savage, MLA, cuts the ribbon to officially open the track extensions, as Member for Farrer, Tim Fischer, Kerr Stuart 0-4-2T 742 and various crew and passengers look on. **Above:** Visiting Bagnall 0-4-0ST 1801, from Cobdogla Irrigation & Steam Museum in South Australia, tries out the new turntable.* *Photos: Ian Hinks*

Heritage & Tourist

12-noon train. Likewise, it swapped with DH59 at Menzies Creek, so that the 1415 train would be steam-hauled out of Belgrave.
Rail News Victoria, May, June 2001

WALHALLA GOLDFIELD RAILWAY 762mm gauge
Walhalla Tourist Railway Committee of Management
Adding to our report in LR 159 (p.29), the Victorian Government will provide the funding to complete the final stage of the restoration of the Walhalla Goldfields Railway line to the historic Gippsland mining township of Walhalla.
The Henschel & Sohn Kassell built loco (25427 of 1956) arrived at Thomson on Saturday 16th June and was placed in the loco shed. As at 30 June it had not been steamed and was waiting for the final documentation to be completed before crew training can commence. The loco has been repainted green and still carries the number 103. It has now also been named "Spirit Of Baw Baw". The loco has been extended at the rear by approximately four feet and this caters for the fuel (coal) bunker and the air tanks associated with the fitting of Westinghouse brakes.
ABC Local Radio via Peter Medlin, 6/01, Peter Medlin 7/01

Tasmania

REDWATER CREEK STEAM & HERITAGE SOC., Sheffield
610mm gauge
Further to LR 157 (p.30), the boiler examination of the composite Krauss 0-4-0WT (B/N 5682/5800) required a 'complete boiler removal' to allow for an extensive inspection of those parts of the boiler which are normally hidden behind the side tanks or under 'lagging.' This major task was postponed to mid-winter 2001. The Society will remove the boiler from the frame and have all the outside sandblasted and coated with a protective paint. Any suspect boiler-mounting studs will be replaced and all boiler stays will be drilled about 20mm deep from the outside and in the firebox. If a boiler stay breaks in service or is broken, water and/or steam will pour out of the 3mm diameter hole in the stay - warning the driver that there is a problem. After sandblasting, the Inspector will 'dye test' the plate to make certain the minor cracks in the firebox are not continuing into the water space causing a potential weakness in that area. All suspect areas of the boiler will be 'thickness tested' with the Inspector's Electronic Thickness Testing Machine to check that the plate is not 'wasted away' internally where it cannot be seen. The locomotive will be fully repainted during reassembly. Mechanical overhaul is scheduled for the same period in 2002.
On 6 June 2001, the Queen Victoria Museum moved 0-4-0WT ex-Mt Lyell No.10 (Krauss 6067/1910) from Sheffield to Launceston.
While owned by the Museum since the 1960s, the locomotive was 'rescued' after standing on a railway wagon near the Roundhouse in Launceston and taken to the Karoola site of the Second River Tramway circa 1970. Agreement was reached with the Queen Victoria Museum to operate the loco at Sheffield over the summer period and send it to Launceston for display during the winter. However, this was recently rescinded and the Museum recovered the loco for static display at the former Launceston Railway Workshops. Peter Martin, 6/01

South Australia

PORT DOCK STATION RAILWAY MUSEUM, Port Adelaide
1067mm gauge
Saturday 26 May 2001, marked the formal hand-over of ownership of BHP electric locomotive E1 (Metropolitan Vickers 1928 – see LR 149, p.31) from the Australian Electric Transport Association's museum at St Kilda SA, to the Port Dock Station Railway Museum. Invited guests from both St Kilda and Port Dock, in addition to those involved with its original acquisition in 1968, plus people associated with its relocation and restoration were amongst the 60 strong crowd at the event. St Kilda Tramway Museum President Colin Seymour paid tribute to those who originally saved the 1928 Metro-Vickers UK built locomotive, an arranged for its move from Whyalla to St Kilda.
Following many years of negotiations, the Railway Museum was successful in gaining acknowledgment and agreement to have the locomotive donated to, and transferred to Port Adelaide, subject to it being restored and displayed undercover. Naturally this was a small concession, as the opportunity to get E1 on display adjacent to 1914 Baldwin built steam engine BHP 4, and both undercover in the one place was too good to miss. E1 is finished in black with red buffers.
At the ceremony, which formed part of the "Behind the Scenes" celebrations on 26-27 May 2001, E1 was reunited with a repainted BHP 4-6-0 No.4 (Baldwin 41242 of 1914) to mark the centenary of the Whyalla-Iron Knob tramway.
Bob Sampson, 6/01

PORT LINCOLN RAILWAY MUSEUM 1067/1435mm gauge
Eyre Peninsula Railway Preservation Society
The heritage-listed railway station at Port Lincoln is home to a museum of historical artefacts and memorabilia of the railways of Eyre Peninsula. On 5 March 2001, members of the EPRPS rescued three standard gauge ballast wagons from the standard gauge BHP Coffin Bay Tramway. The wagons were trucked from BHP's Proper Bay site and unloaded just south of Port Lincoln railway station. Gerald Petrie, 6/01

Western Australia

BENNETT BROOK RAILWAY
610mm gauge
WA Light Railway Preservation Association
The May 2001 "Friends of Thomas the Tank Engine Day" was held on the 20th of that month. Unusually for that time of year the day dawned wet and miserable and didn't improve much. Despite that, attendance was well on a par with previous events with over 1700 passengers carried, proving that *THOMAS* is reasonably weather proof! The two steamers (Perry

4wDM MAL *(Malcolm Moore 1039/1944) hauls a set of right-hand points up to middle station on the Kerrisdale Mountain Railway, while* GEORGE *has exited the switch-back ahead of* MAL. *Photo: Andrew Forbes*

and NG15-118) worked a two train shuttle service on the Mussel Pool line in conjunction with the Gemco diesel, while the Fowler diesel ran trips around the loop line. Train services commenced at 9:30am and the last train arrived back at the depot about 5:15pm. During the day, the trains completed 29 round trips to Mussel Pool and 17 trips around the loop line for a total of around 157km for the day. Other attractions included bus and tram rides, a fun fair, fairground organ, tractor display, and electric go-karts. All the locos carried appropriate "Thomas" faces, as did the coaches at each end of each consist. The Fat Controller was of course present to make sure the trains all behaved themselves and to get photographed with the kids! Getting sufficient motive power ready for FoTTTE day required remarkable achievements by the mechanical department. The weekend before, the railway only had one serviceable locomotive, the Fowler. The Gemco was up on blocks with its wheels out being built up and re-profiled, with new sprockets and chains to be fitted. It didn't get back on its wheels until the Friday evening prior to FoTTTE day. The two steam locos were still in the final stages of their summer maintenance and the boiler inspector could not get out to the railway to witness the steam test and issue their boiler tickets until Saturday, the day before FoTTTE day! To their credit all four locos ran all day without problems despite three of them having minimal test running.

Simon Mead, 6/01

Overseas

MISIMA MINES LIMITED, Papua New Guinea 610mm gauge

The history of the Block 10 Misima Gold Mines Company tramway that operated between 1920 and 1922 is covered in *Light Railways* No.51 (August 1975). Misima Mines Limited commenced large-scale mining on the island in 1986. During these operations several 4-wheel wagons and track from the old Block 10 Company tramway were recovered. As the Misima Mine is nearing the end of its operations, a sustainability plan has been put in place to establish new employment and income-earning activities. Two of the recovered wagons and a short section of track have been restored for use in a slipway, which will form part of a proposed ship repair facility on the island.

Post Courier, 1 June 2001

TALYLLYN RAILWAY, Tywyn, Mid-Wales 686mm gauge
Talyllyn Railway Preservation Society

A visit on 7 May 2001 found 0-4-2T No.7 *TOM ROLT* (Talyllyn 1991) in charge of the 10am train from Tywyn to Abergynolwyn (10.4km). After passing the railway workshops at Pendre, the line passes though attractive rural countryside, then climbs of the southern side of a valley, offering picturesque views over the Welsh countryside. Originally built to serve slate quarries, the line now carries tourists who take walks to explore the water falls, unspoilt woodland and the remains of Bryn Eglwys slate quarry. There is a large station at Abergynolwyn with refreshment rooms, a shop and toilets. An extension was opened from here to Nant Gwernol in 1976. Tywyn is a somewhat decayed Victorian seaside resort town and the preserved railway plays a key role in maintaining its well being. The townspeople have a strong sense of ownership and pride in their 'little railway'. To the visitor, the Talyllyn offers a special charm of a small, friendly operation run by a dedicated group of volunteers. They provide a 7-day a week operation between 1 April and early November, plus a number of special events that feature heritage activities related to the Victorian era and the inevitable *THOMAS*-type events.

For the light railway enthusiast, there is an excellent narrow gauge railway museum at Tywyn station. Exhibits that caught my eye were *GEORGE HENRY*, a 0-4-0VB loco of 1877 that worked at Lord Penrhyn's slate quarries, No.13 from the Guinness Brewery in Dublin, and *DOT* a diminutive Beyer Peacock 0-4-0WT similar to Wallaroo & Moonta Mines No.7, which subsequently worked on Henry's timber tramway in Victoria. Editor

Talyllyn Railway No.7 TOM ROLT *and its train's congenial guard at Abergynolwyn, 7 May 2001. Photo: Bob McKillop*

Ex- BHP electric loco E1 newly ensconsed in Port Dock Museum with ex-BHP steam loco No.4. Photo: Bob Sampson