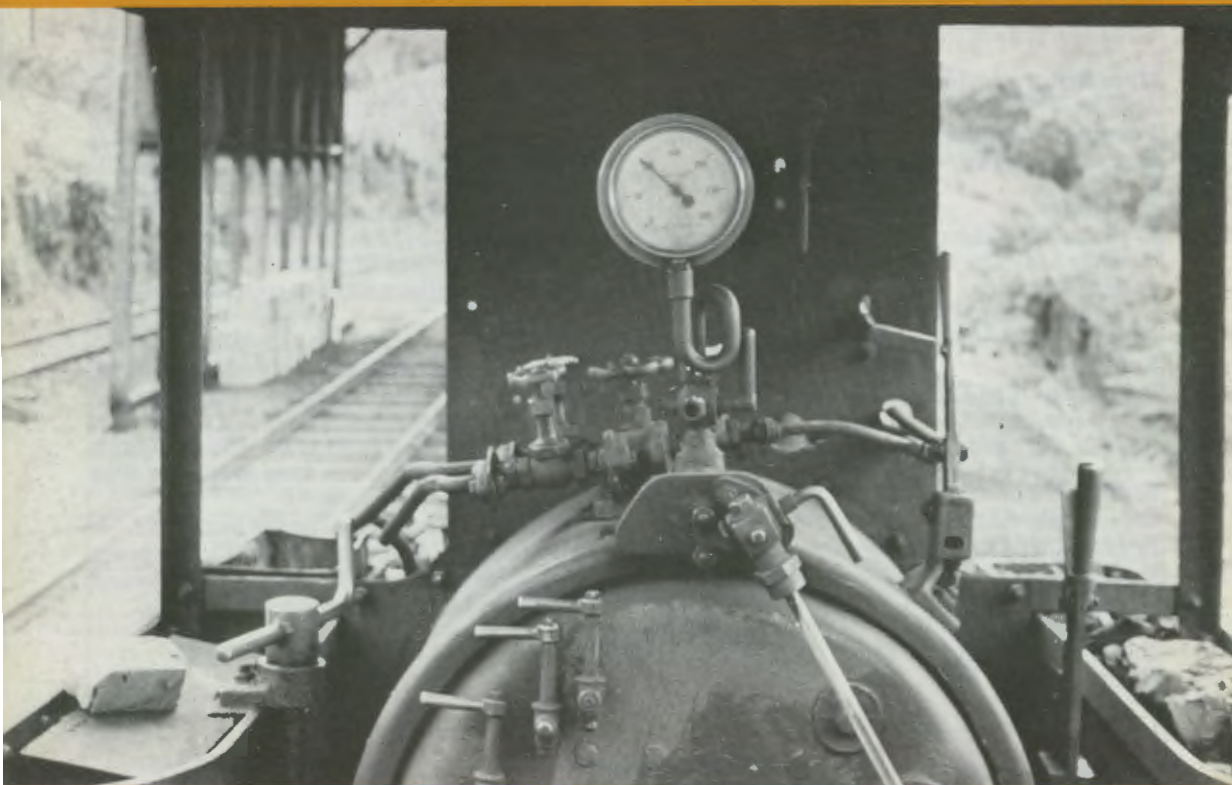


# **LIGHT RAILWAYS**

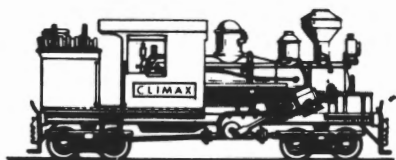
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Whilst every effort is made to ensure the accuracy of articles published in *Light Railways* errors may creep in. Additional information is being discovered all the time, and this sometimes contradicts previous information.

If you see any errors, or can add information, please contact the editor, and so help us to record the full history of Australia's light railways.

Articles and news items are always welcome and should be forwarded direct to the editor. It greatly assists if they are typed or written on one side of the paper only and double spaced.

Historical references to sums of money in *Light Railways* are in Australian pounds (£). One pound equalled two dollars on changing to decimal currency in 1966.

**Cover:** Driver's view on the footplate of the Fowler locomotive *Wee Georgie Wood* at Farrell Junction, Tullah tramway, Tasmania on 5 October, 1960. Photo: Glen Johnston

# NOTES ON THE ADELAIDE TIMBER COMPANY LTD. WILGA AND WITCHCLIFFE, WESTERN AUSTRALIA

by Lindsay Watson

(Editors Note: This article has received late amendments as a result of publication of *The Shepherdsons: Timber Milling in Australia, 1849-1984* by David Mack in late 1986. This book provides a comprehensive history of the timber enterprises operated by the Shepherdson family in South Australia, Western Australia and the Northern Territory, including the Adelaide Timber Company.)

## The Adelaide Timber Company

George William Shepherdson moved to Western Australia in 1894, following experience in timber milling near Adelaide. His ambition was to set up his three sons in business in the West and a timber mill was soon established near Mundaring<sup>1</sup>. The following year George returned to South Australia leaving the enterprise in the hands of his sons. The business was incorporated as the Adelaide Timber Company Limited on 10 January, 1898<sup>2</sup>.

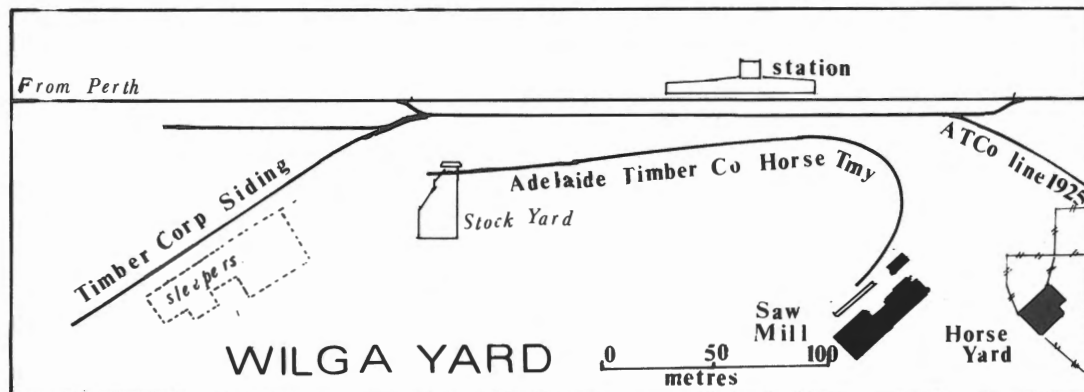
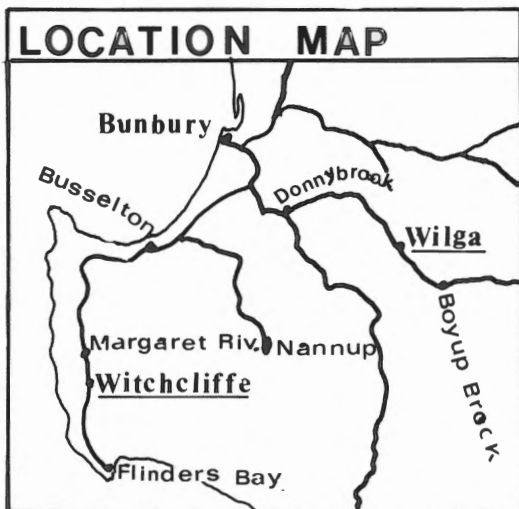
The enterprise initially prospered with the construction of the weir at Mundaring for the Goldfields water supply scheme and the company hired additional plant from Benjamin Sexton, a well known Western Australian timberman. Sexton owned a timber mill at Noggerup and had been involved with the South West Timber Hewers Cooperative<sup>3</sup>. By 1897, work on the weir was nearing completion and prospects for the Shepherdson's venture looked grim. In mid-1899 the Mundaring mill was closed and moved to a site near Greenbushes, in the heart of the jarrah country<sup>4</sup>.

At this time significant changes were taking place in the structure of the timber industry in Western Australia. The amalgamation of English based firms in 1902, which resulted in the formation of Millars' Karri & Jarrah Coy, generated fears of a

monopoly in the Western Australian timber industry<sup>5</sup>. However, a move by Bunning Bros into sawmilling from 1905, and the expansion of new firms such as Adelaide Timber helped allay these concerns.

## Wilga

Wilga, situated 899 ft above sea level, 165 rail miles south east of Perth, was the highest altitude station on the Donnybrook-Boyup Brook railway, which was initially known as the Preston Valley Railway. The second state of this line was completed by the Railway Construction Branch of the Public Works Department (PWD) and handed over to the WAGR in March 1909<sup>6</sup>. Completion of this railway



opened up new areas of Jarrah forest for exploitation and Wilga, a safe working station, served two timber companies: the Timber Corporation Ltd (later Westralian Jarrah Forests Co) and the Adelaide Timber Company Ltd.

The Timber Corporation's facilities at Wilga consisted of a 16 chain long siding at the Donnybrook end of the station. Either side of the siding were loading and storage areas for the Corporation's products, mainly sleepers and sawn timber<sup>7</sup>. The siding was installed in October 1925 and closed in June 1937, when the points were removed.

#### **Adelaide Timber Coy, Wilga**

The Adelaide Timber Company moved their Greenbushes mill to new concessions near Wilgie Springs in 1908<sup>8</sup>. The mill site was later officially named Wilga as a small town grew up around the timber operations.

The move to Wilga was prompted by the proposed construction of the "Preston Valley" railway line to connect Donnybrook and Boyup Brook. The Adelaide Timber Company mill, which was to remain under ATCo ownership until 1984, was located at the Boyup Brook end of the Wilga yard.

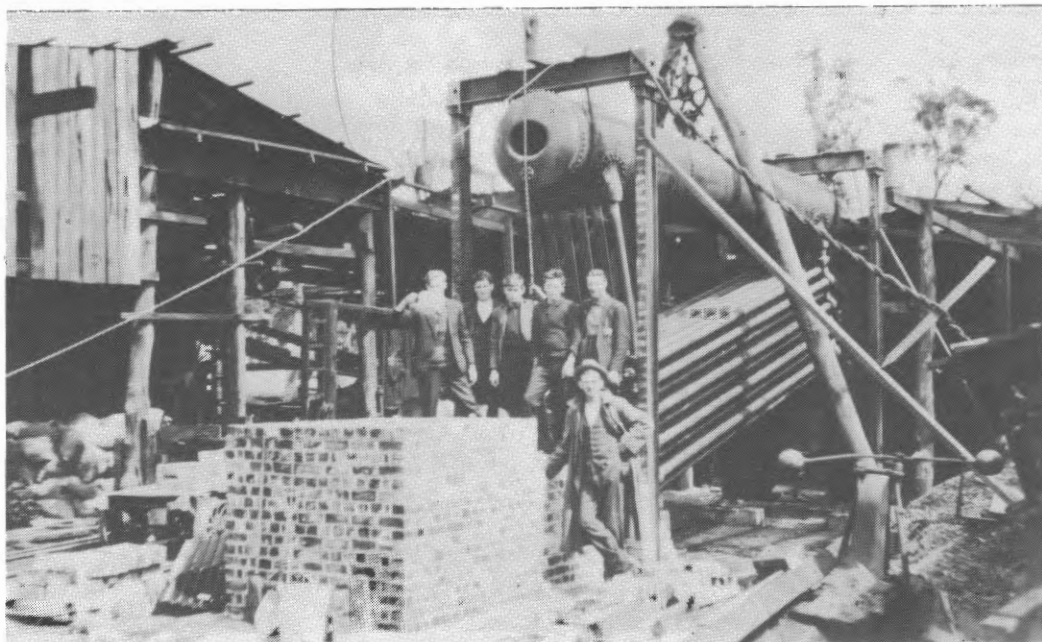
Horses were initially used to bring logs to the mill using 'whims'. They also provided haulage on a wood and iron railed tramway from the mill to a storage area opposite the low level station platform. The tramway formed a "J", with the straight leg parallel to the WAGR line<sup>9</sup>. The outer rail of the curve was iron and the inner, wood. Situated next to the mill were the horse stables.

This method of operation satisfied the mill's needs until the timber reserves in the location capable of being handled by labour intensive methods were exhausted by about 1920 and the tramway fell into disuse. A stockyard and cattle race were erected on a portion of the line in August 1920. A railway was needed to reach further reserves of timber and lines were constructed from 1920. These were initially horse worked, but a converted traction engine took over operations in 1921. A turnout was provided at the Boyup Brook end of Wilga station in April 1925. The mill tramway ran off the passing loop<sup>10</sup>.

In the late 1920s, the ATCo timber concession was extended to a new area east of the Donnybrook-Boyup Brook railway. In order to extend the mill



The converted Ransomes, Sims & Jefferies traction engine, *Snorting Liz* and Hunslet 4-4-0 locomotive *Red Nell* at Wilga.  
Photo: E Shepperdson



Installation of the Babcock & Wilcox water tube boiler at Wilga mill in 1929.

Photo: E Shepperdson

tramway to serve this area, it was necessary to cross the WAGR line by means of an under pass, which was approached by a cutting<sup>11</sup>. The new line was about ten miles in length.

The original Wilga mill equipment was driven by a 16 hp Marshall portable boiler and two 14 hp Robey & Coy boilers. In 1929 the mill was upgraded and a Babcock & Wilcox water tube boiler with a power output of about 100 hp, ex-Bailey's mill at Quaileup, and a 52 hp horizontal steam engine replaced these installations.

### Locomotives at Wilga

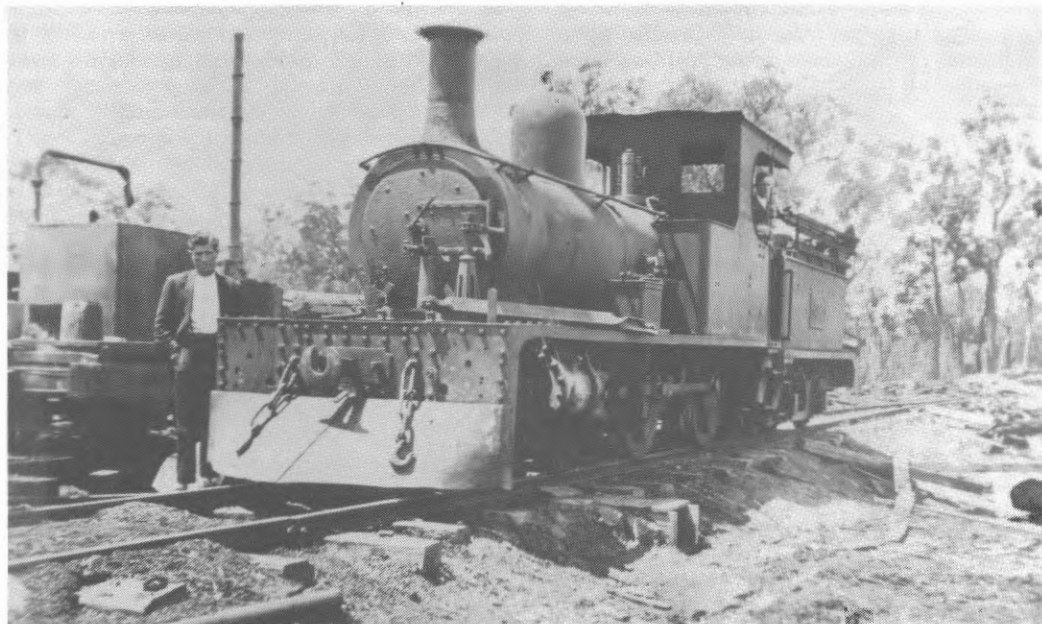
Two steam locomotives have been recorded as having worked at Wilga. The first was a Ransomes, Sims & Jefferies steam traction engine (B/No. 180477 of 1905) fitted with rail wheels and a chain drive to the rear axle. This unlikely "locomotive" has the distinction of having the largest diameter driving wheels of any 3 ft 6 in gauge steam locomotive to work in Western Australia.

The traction engine was most likely imported by Shepperdson Brothers or Benjamin Sexton. It is reported as having been converted for rail use in 1921<sup>12</sup>, about the same time as the original wooden railed tramway fell out of use. Edgar Shepherdson, a son of one of the original Shepherdson Brothers

and still resident of Wilga, recalls that the locomotive was known locally as *Snorting Liz*, possibly because of the unique single cylinder exhaust. The driving wheels, about 5 ft in diameter, were purchased from the WAGR Midland Railway shops<sup>13</sup>. They were driven by a cog drive wheel fitted just inside the right hand wheel, an arrangement which resulted in a speed of about 3-4 mph. However, the 2-2-0 wheel arrangement gave poor traction, so the locomotive was later converted, by means of an endless chain linking the right hand drive wheel to the front wheel, into an 0-4-0. In 1922 Bertie Shepperdson purchased the tender from Western Australia's pioneer locomotive, *Ballaarat*, and brought it from Lockeville to Wilga to carry water for *Snorting Liz*<sup>14</sup>. This Ransomes, Sims & Jefferies product has survived and is now on display at Wilga on a short section of track, together with two timber bogies.

The second locomotive was a 4-4-0 Hunslet (B/No 305/1883). Originally No 1 on the Emu Bay and Mt Bischoff Railway in Tasmania, it had come to the Australian Lumber Co at Bowelling, Western Australia in 1922<sup>15</sup>. It was purchased by the Adelaide Timber Co in 1928. Named *Red Nell* by the mill workers, the 4-4-0 finished its working





4-4-0 Hunslet locomotive, *Red Nell* at Wilga.

Photo: E Shepperdson

life at Wilga, probably in 1939<sup>16</sup>, and was left derelict, until finally scrapped in 1964. On a 1981 visit to the Wilga mill site, the cab and tender tank could still be identified lying amongst the scrap.

The fireman for part of *Red Nell's* service at Wilga was the late Wilfred Nettleton, the scribe's grandfather. He had the misfortune to lose his thumb during one of the many derailments which occurred on the Wilga operation.

A converted motor lorry was also used for rail operations at Wilga. The antique motor truck was converted to railway use at the Karriadale mill and was purchased by the Adelaide Timber Company in 1922<sup>17</sup>. Known as *Oajah*, it was used for shunting and navy work there until 1932, when it was transferred to the East Witchcliffe mill.

### The Witchcliffe Railway Link

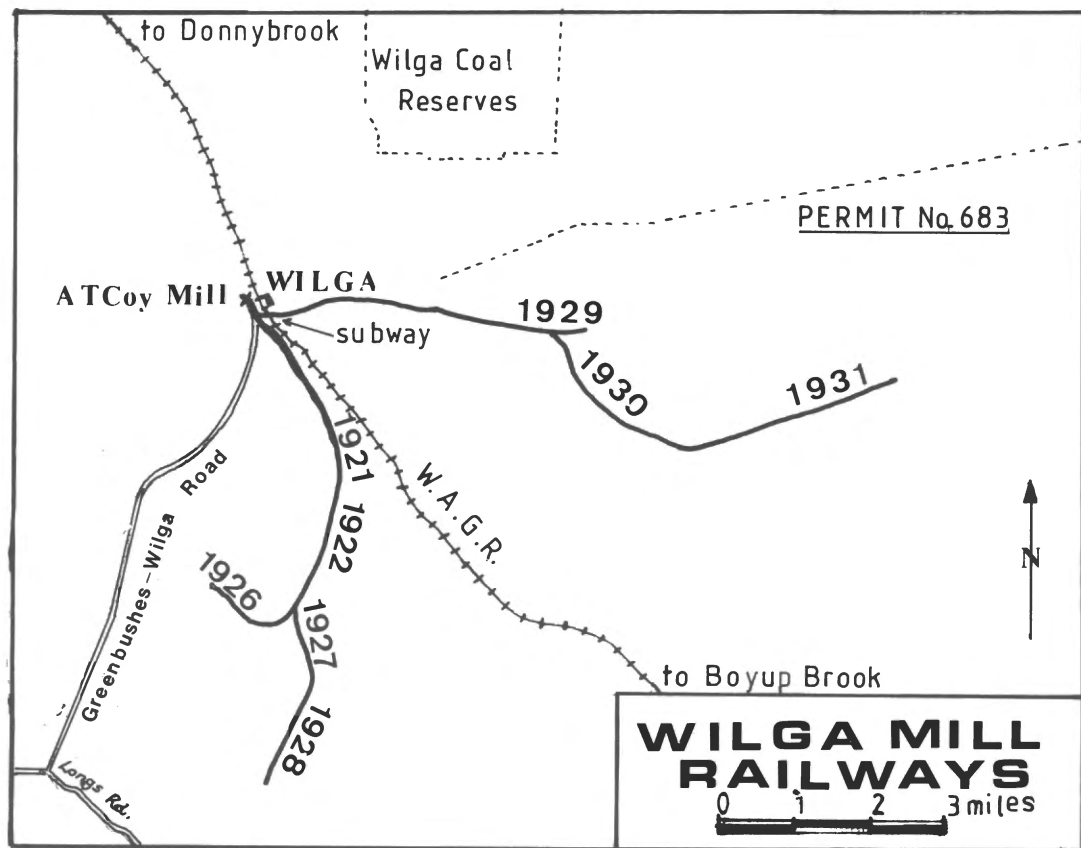
Railways were first introduced to the Flinders Bay area in the 1880s as part of the MC Davies timber empire, connecting Boranup and Karriedale with Hamlin Bay. On 12 August 1902, a new company known as Millars Karri & Jarrah Coy Ltd, 1902 was incorporated in London, made up of the eight English financed WA based timber companies. MC Davies Karri & Jarrah Coy formed part of that group. Under Millars, the railway was extended north to what is now Margaret River, passing on its way the location of Witchcliffe.

In the 1920s group settlement schemes in rural

areas for new immigrants, particularly British ex-servicemen, were promoted by the government. The scheme aimed to establish dairy farms and each farm was partly improved with fencing and a house ready for occupation. The Flinders Bay area was thought to offer suitable land for such schemes. To connect the isolated 3 ft 6 in gauge line with the nearest WAGR station at Busselton, 42 miles 42 chains of railway was built to join the Millars line at Witchcliffe. The PWD Railway Construction Branch completed this line in October 1924 and the former Millers line to Flinders Bay, 24 miles 27 chains in length, was upgraded and handed over to the WAGR on 1 April 1925<sup>18</sup>. The former Millers alignment north of Witchcliffe was abandoned. Although the group settlement scheme was not a success, Margaret River was established on this basis.

### The East Witchcliffe Mill

When the WAGR rail link reached Witchcliffe, WA Jarrah Forests Pty Limited were established as one of the three main timber producers in the state. In 1924 they established a sawmill at a site 1 mile 38 chains east of the station at a locality known as East Witchcliffe. A private railway was constructed to connect the mill with the WAGR siding<sup>19</sup>. As constructed, Witchcliffe yard was provided with 430 ft of standing room for wagons and no structures.



WA Jarrah Forests began exporting timber out of both Witchcliffe and Margaret River in the second half of 1924. However, the company encountered industrial trouble in 1928 and with contracting markets in 1929, the company went into liquidation. On 27 December 1929, the Adelaide Timber Company purchased the mill and all assets of WA Jarrah Forests Limited from the liquidator<sup>20</sup>. They took over operation on 1 January 1930 with a greatly reduced workforce. In order to seek new markets, the company opened a Kalgoorlie office in 1932. The business prospered and mill operations were expanded. By 1939, the private railway was reported to be 8.5 miles in length<sup>21</sup>.

The Busselton to Flinders Bay railway was closed by the WAGR on the 1 July 1957, spelling the end to railway operations at East Witchcliffe<sup>22</sup>. The original mill at East Witchcliffe was destroyed by fire in July 1972 and a new mill was opened in April 1974<sup>23</sup>.

### Locomotives at Witchcliffe

The former Midland Railway Company 0-6-0T locomotive *Fremantle* (Hudswell Clarke B/No 381/1891) arrived at the East Witchcliffe mill in April, 1926. Previously owned by the PWD, it is thought that *Fremantle* was used by their Railway Construction Branch on the building and upgrading of the Busselton-Flinders Bay railway<sup>24</sup>. Most probably, *Fremantle* was purchased by Bunning Brothers after completion of this line and they in turn hired to locomotive to WA Jarrah Forests Limited until April 1927.

WA Jarrah Forests obtained their own locomotive in April 1927 when they purchased Y-class 2-6-0 No 71 (Beyer Peacock No 2762/1886) from the South Australian Railways<sup>25</sup>. The locomotive retained its Number "71". It gave reliable service hauling log rakes between the bush landing and the mill and sawn timber to the WAGR siding at Witchcliffe. No 71 remained in service at the mill



Hudswell Clarke 0-6-OT locomotive *Fremantle* watering at East Witchcliffe in the late 1920s.  
Photo: E Shepperdson



Locomotive Y.71 at Bassendean Rail Transport Museum in November 1972. Photo: Lindsay Watson



until railway operations ceased in 1957. It was stored in the loco shed at east Witchcliffe until 1971, when it was donated to the Australian Railway Historical Society and transported to Bassendean. It is now on display in the Railway Museum with the tender from WAGR locomotive G.67.

The converted motor lorry, *Oojah*, was transferred to East Witchcliffe in 1932. Here mill engineers fitted a Ford V8 engine and transmission, together with a Ford truck cab<sup>26</sup>. It was used mainly for shunting and hauling sawn timber to Witchcliffe siding until 1957. In late 1957 it was used to bring in the rails from the disused bush railway.

### Acknowledgements

The assistance of David Whiteford and Mike Wheeler in preparation of the article is gratefully acknowledged.

### References

1. Mack, David, *The Shepherdsons: Timber Milling in Australia, 1849-1984*, published by Author, 1985, p. 6.
2. *Ibid*, p. 7.
3. Mills, Jenny, *The Timber People: A History of Bunnings Limited*, Bunnings Limited, 1986, p. 45.
4. Mack, *op cit*, p. 8.
5. Robertson, JR, "A History of the Timber Industry in Western Australia", History thesis, University of WA, November 1956.
6. WAGR Annual Report, 1908.
7. EEL plan No 13164, Sheet 16.
8. Mack, *op cit*, p. 10.
9. EEL plan No 13164, Sheet 16.
10. *Weekly Notice*, 17/25.
11. Mack, *op cit*, p. 18.
12. *Light Railway News*, No 22, June 1981, p. 2.
13. Mack, *op cit*, p. 64. The statement that the 5 ft diameter driving wheels came from the WAGR leaves a mystery as to their origin. The largest driving wheels on WAGR locos were the 4 ft 9 in wheels on the R-class, but the first R-class withdrawal was not until January 1924.
14. *Ibid*, p. 65.
15. Rae, Lou, *A History of Railways and Tramways on Tasmania's West Coast*, Rae, 1984, pp. 202, 204. Mack, D, p. 65.
16. Ellis, RF, *ARHS Bulletin* No 548, June 1983, p. 142. Mack states 1942 (p. 66).
17. Mack, *op cit*, p. 66.
18. WAGR Annual Report, 1925.
19. *Weekly Notice*, 47/24.
20. Mack, *op cit*, p. 36.
21. *Weekly Notice*, 19/39.
22. WAGR Annual Report, 1957.
23. Mack, *op cit*, p. 41.
24. This locomotive was also used on the Perth Firewood Supply Company from 1919-1921, see *Light Railways* No. 76, April 1982, pp. 84-6.
25. Fluck, RE *et al*, *Steam Locomotives and Railcars of the South Australian Railways*, Mile End RMS, Roseworthy, 1986, p. 123.
26. Mack, *op cit*, p. 66.

## IDENTIFICATION WANTED

This photograph was passed onto me by Steve Martin and the photographer is stated to be D Berriman. It is claimed to show a 2 ft 6 in gauge Fowler diesel locomotive used for dismantling duties on the narrow gauge line between Walhalla and Erica. Can anybody confirm this, as the design appears to be similar to an FC Hibber *Planet*? Any information on the identity of the locomotive, operator and date would be most welcome.

**JB**



## PERRY 2714/51/1

by Bruce Belpin

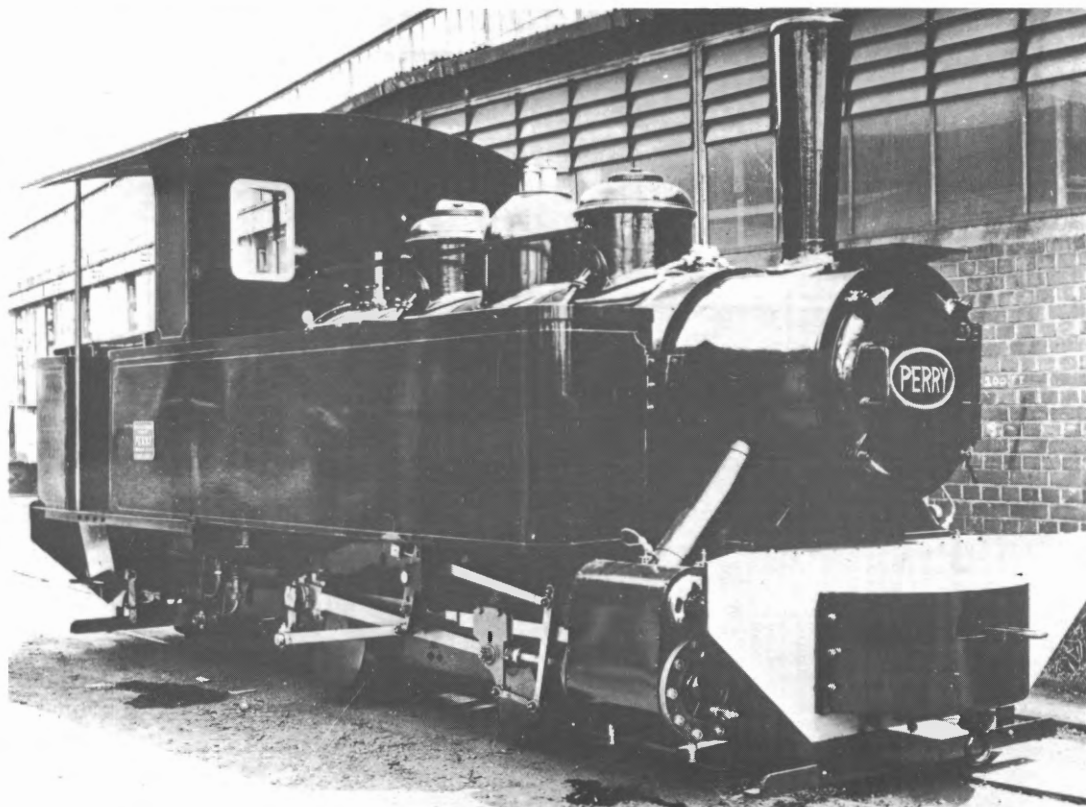
Perry Engineering Company, of Mile End, South Australia, became the first Australian builder to enter the canefield market when, in 1934, they delivered an 0-6-2T machine (B/N 9351) to Kalamia Mill. In the following eighteen years they provided thirteen 0-6-2 and six 0-4-2 locomotives to the sugar industry, of which twelve of the former and four of the latter survive today.

Their first 0-4-2 (B/N 8967 of 1939) was a complete departure from what had become a definite Perry style. Supplied to Inkerman Mill, it was a virtual copy of the three Hunslet locos already working there. The following five 0-4-2's were distinctively Perry, with large sand domes, outside admission piston valves and prominent Company logo cast into the smokebox door.

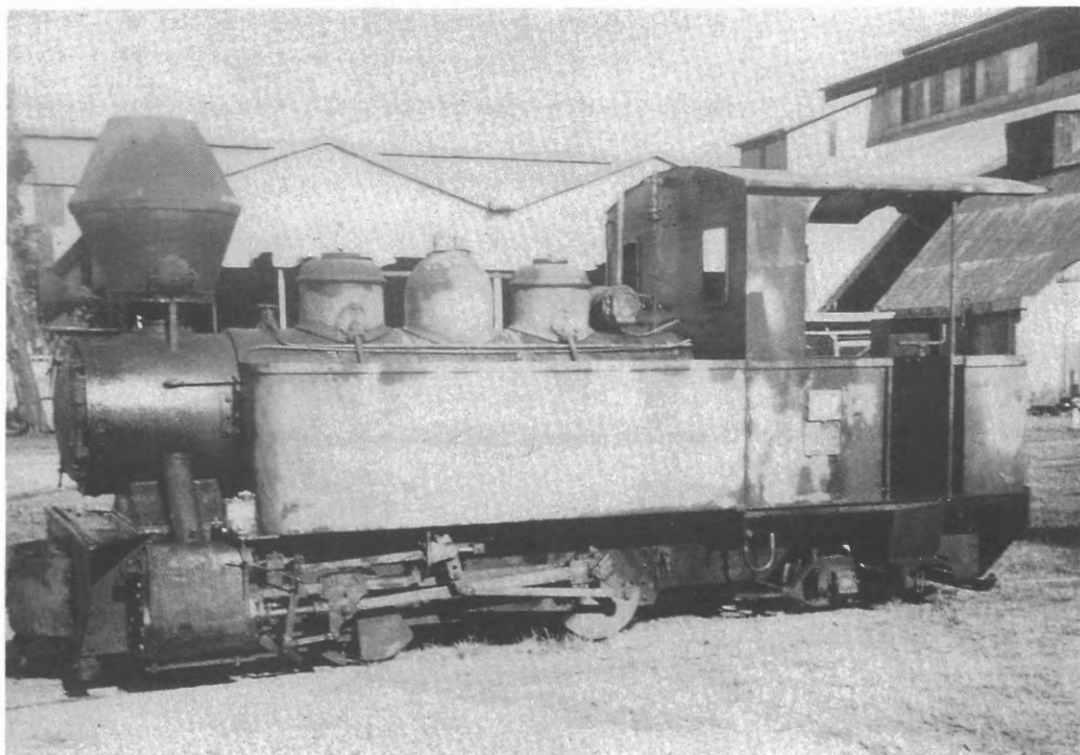
2714/51/1 was ordered in September 1949 by The Australian Sugar Company for their Mourilyan Mill and became the last 0-4-2, and third last steam locomotive, to be built by Perry. The cane loco market must have been a healthy one at this stage, as records show that the boiler subsequently allotted to 2714/51/1 was already being built, purely for stock.

The locomotive was completed in 1951 and, on arrival in North Queensland, became Number 7 on the mill roster. There it acquired a new livery of unlined dark green and a large home-built balloon stack.

Its working career was somewhat less than spectacular for, although a reasonable performer, it failed to achieve the popularity of its Fowler,



Brand new Perry 2714/51/1 at the works in 1951. Note the dual couplings: normal hook and bumper for the mill's cane trucks and the 'link and pin' above for QGR Innisfail Tramway stock.



Mourilyan sugar mill No 7 in the yard ready for a trip south, June 1972. One of only two known photographs, taken during the loco's time at Mourilyan, which shows it outside the confines of the shed!

Photo: Howard Smith Industries Pty Ltd

Hudswell-Clarke and Bundaberg Foundry shed mates. This may have been a result of the generally held theory that the Perry boiler was slightly inadequate. For instance, the equivalent Fowler product possessed a shorter, fatter (and therefore more efficient) boiler with 13% greater heating surface. It has also been suggested that the piston valves fitted to the Perry were marginally undersized and, not having rings, were inclined to leak.

Whatever the reason, No 7 came to be affectionately regarded as the runt of the litter, and was not placed under any great demands. Mourilyan purchased its first mainline diesel loco in 1955, and its second a year later. When the third arrived, in 1959, No 7 was already spending the majority of its time languishing in the shed. At the close of the 1962 season, it was officially placed on standby and, although certified annually for the following three years, was not used again.

Howard Smith Industries Pty Ltd, who had taken over the mill the previous year, offered me the loco for sale in December 1965, describing it as "... in

excellent condition, having had very little use since purchased." Unfortunately, the £750, plus transport, was beyond the resources of a fifteen year old schoolboy.

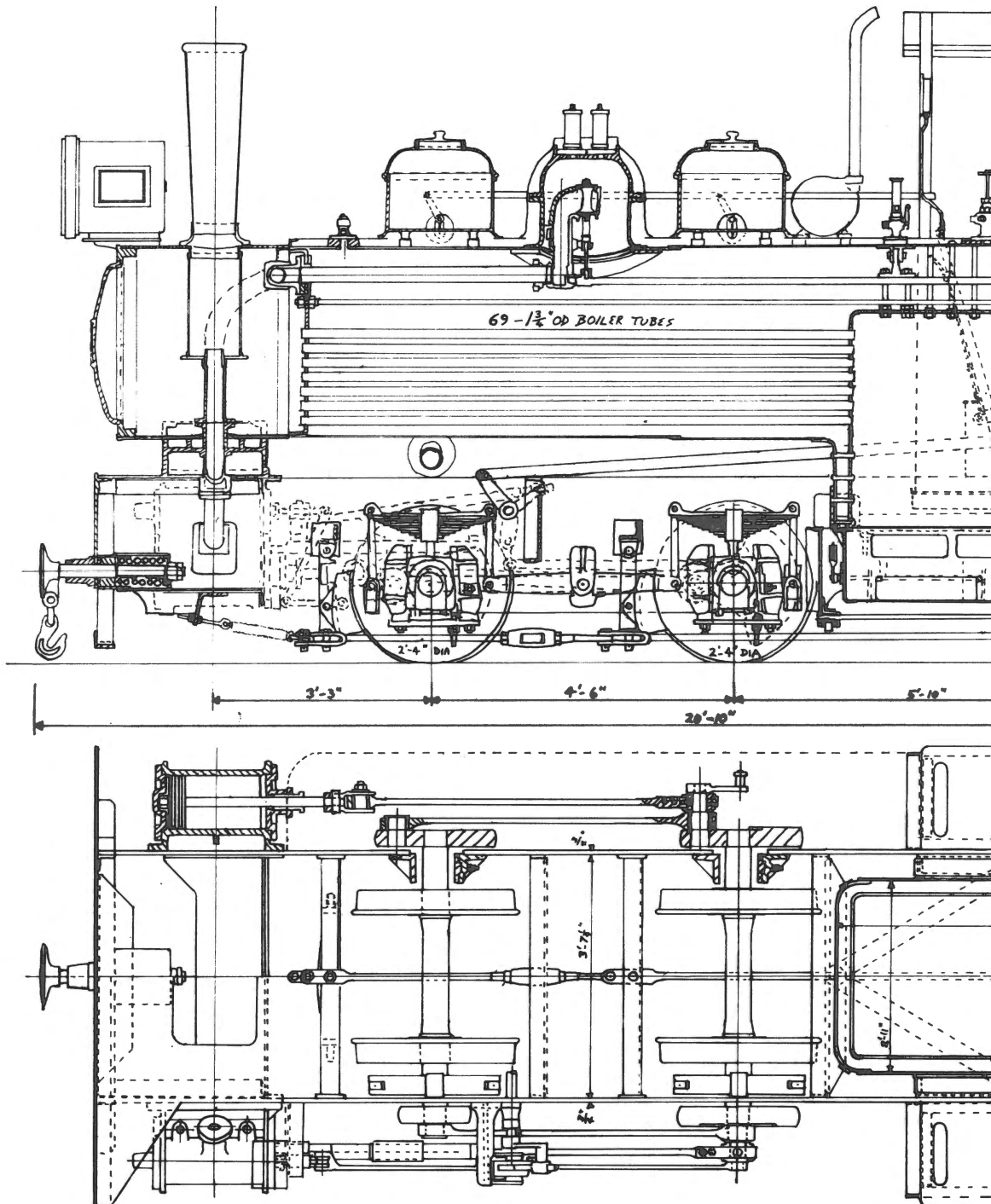
In May 1972, I discovered that No 7 was still available. It was duly purchased, and arrived in Sydney on September 22nd. At the time of writing, No 7 still resides, under a tarpaulin, in the leafy surrounds of a North Shore garden.

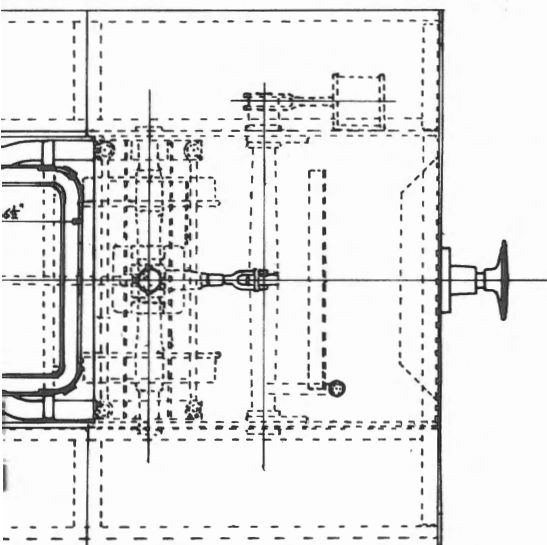
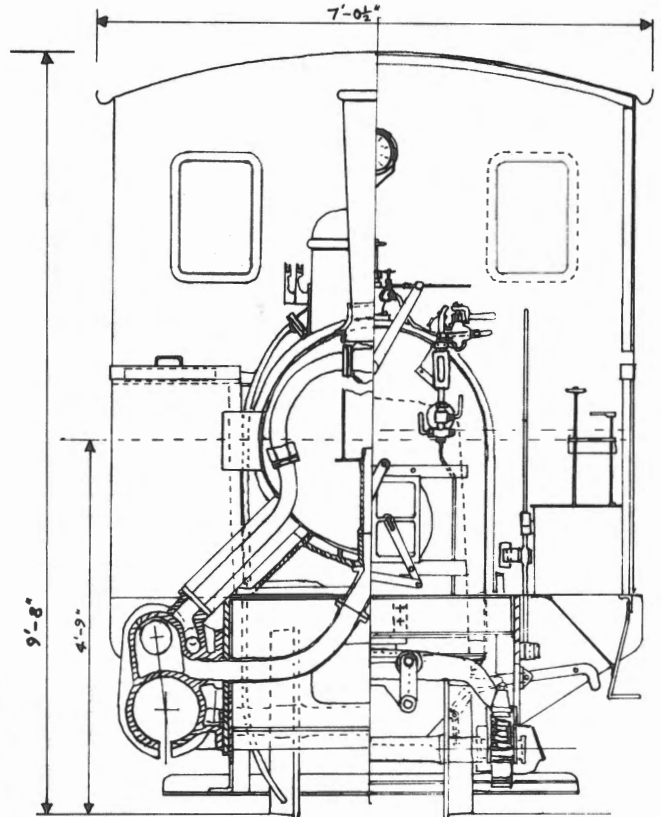
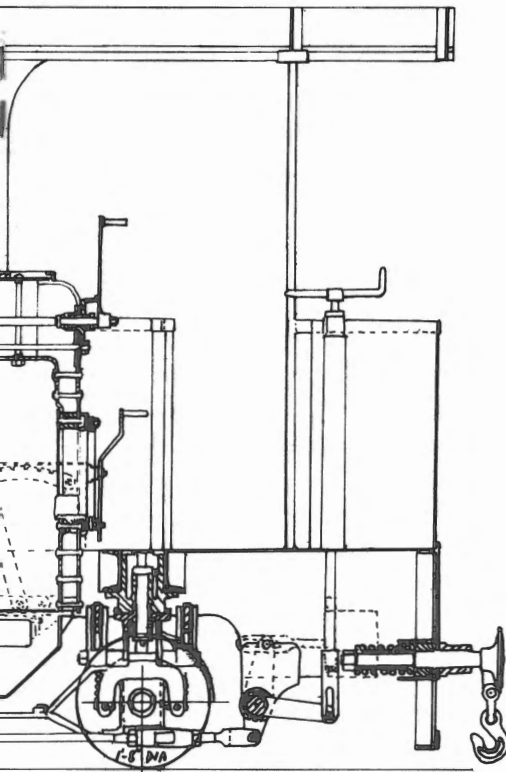
#### Table 1 — Leading Dimensions

Cylinders:	9½ in x 14 in
Wheel Diameters:	
Driving:	28 in
Trailing:	20 in
Boiler Pressure:	180 psi

Centre pages: General arrangement drawing for 0-4-2 cane locomotive. Although undated, the side tank design places it at 1948, or later.

Drawing: courtesy John Langhams,  
Perry Engineering Coy;  
retraced for new scale, BB 5 '86.

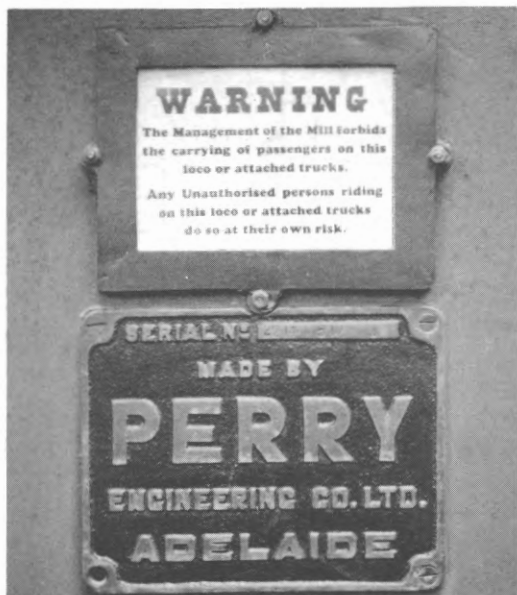




TRACTION EFFORT AT 75% OF BOILER PRESSURE 6,100 LBS  
WORKING PRESSURE 180 LBS/IN<sup>2</sup>  
HEATING SURFACE TUBES 264 SQ. FT. FIRE BOX 34 SQ. FT.  
GRATE AREA 7.25 SQ. FT.  
FUEL CAPACITY 27 CU. FT.  
WATER 450 GALS.

FO	DATE	NO. OFF	NOTES
PERRY ENGINEERING CO. LTD.			
ADELAIDE			
0-4-2 TYPE STEAM LOCOMOTIVE			
2'0" GAUGE			
GENERAL ARRANGEMENT			
SCALE		DRG 3675	





Builder's plate and mill notice on 2714/51/1. Cab rides were clearly not encouraged at Mourilyan!

#### Heating Surfaces:

Tubes:	264 sq ft
Firebox:	34 sq ft
Total:	298 sq ft

Grate Area: 7.25 sq ft

Water Capacity: 450 gallons

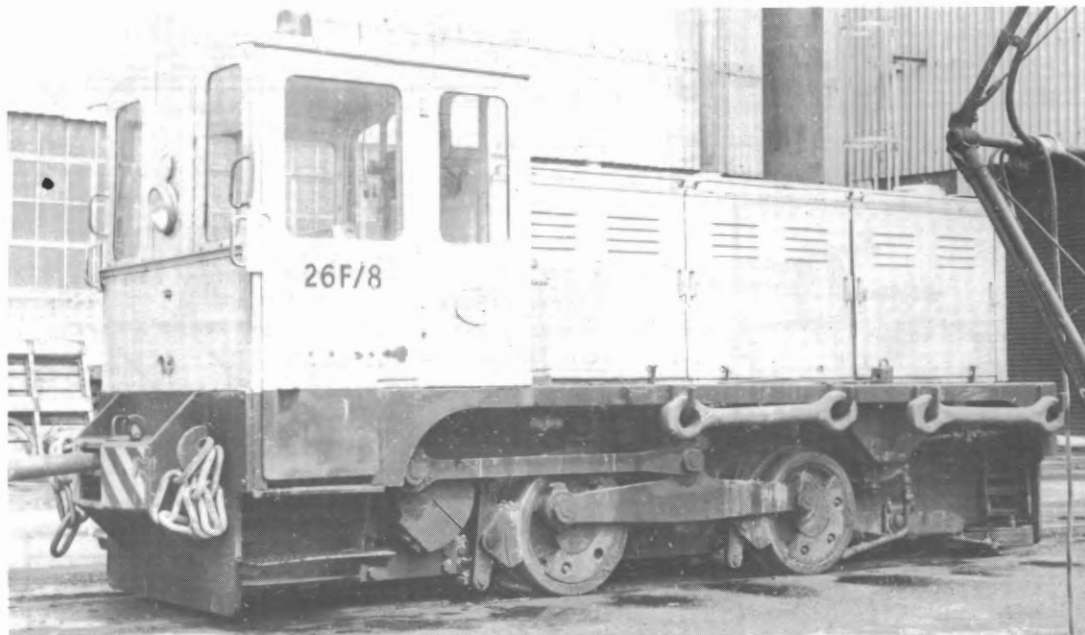
Fuel Capacity: 27 cubic feet

Tractive Effort (at 75% of B.P.): 6,100 lbs

#### List of Sources

1. *Locomotives of Private Railways of Queensland*. John Armstrong, series of inserts in ARHS Bulletin, 1964.
2. *Locomotives of Australia*, Leon Oberg, Reed.
3. *The Narrow Gauge*, issue No 94 NGRS, UK.
4. *The Narrow Gauge*, issue No 70 NGRS, UK.
5. *Australian Sugar Yearbook*, 1975.
6. *Australian Sugar Industry Locomotives*, ANGRMS, 1978.

Correspondence and/or conversations with: John Langhams, Ron Bloyd, Norm Corbell of Perry Engineering Co, George Bond, Ken Rogers, Gerry Verhoeven, Ron Fluck, Bruce MacDonald; former Mourilyan Drivers Len Heaton, Andrew ?; former Manager Otto Assman; Howard Smith Industries Pty Ltd; various employees of Millaquin and Qunaba Mills.



Our feature articles on the SECV Yallourn and Morwell railways (*LR* 82, 84) did not include a photograph of diesel locomotive No 8, the Central Workshops shunter. Here the Malcolm Moore 0-4-ODM (B/No 36/1943) rests between duties at Yallourn on 4 November, 1975.

Photo: JL Buckland

# NOTES ON SOUTH AUSTRALIA JETTY TRAMWAYS

by F. John Reed

In *LR.64*, April 1979 D. Edstell and K. McCarthy described jetty tramways in South Australia. These additional notes are based on observations made in May 1985.

**Wallaroo**, Wallaroo Bay, Yorke Peninsula, Spencer Gulf.

One jetty now serves this port. It is the longer jetty referred to on page 9 of *LR.64*. There is a conveyor belt from the wheat/barley silos to the jetty head and a broad gauge (1600mm) railway line.

The coal jetty was known locally as Price's Jetty and it was demolished in 1974. This jetty was a Wallaroo landmark for 94 years and was served by a narrow gauge line (1067mm). A rail truck from this jetty is preserved in the National Trust Museum, Jetty Road, Wallaroo.

## References

1. *Light Railways*, No. 64, April 1979.
2. *A Concise History of Wallaroo*, Second Edition 1980.
3. *Yorke Peninsula: A Welcome Break*, by DJ Woolman, Department of Tourism, Government Printer, Adelaide.

**Moonta Bay**, Yorke Peninsula, Spencer Gulf

For a short distance to the north east of the present day jetty at this location ran the tram route which connected Moonta Bay to the copper town of Moonta. This area was known as the *Old Landing*

and was the spot where the ships used to lighter goods ashore before the first jetty was built in 1872. No trace of this tramway remains. The present Moonta Bay jetty has no tram lines and is used for recreational purposes.

## References

1. Moonta: Guide Book to Australia's Little Cornwell. Produced by the National Trust South Australia (Moonta Branch), Moonta Lions Club and The Corporation of Moonta.

**Port Hughes**, Yorke Peninsula, Spencer Gulf

Located 4km west from Moonta, a 1067mm gauge jetty tramway was noted in May, 1985. At the Spencer Gulf end, some 85 metres of track have been lifted. There were once two tracks at this end of the jetty.

At the land end of the jetty, two tracks were noted still in situ. These tracks were approximately 80 metres in length and terminated at the entrance to the Port Hughes Caravan Park. This park occupies the site of the former goods shed. A wagon (all metal) was noted on the tramway track. Details of the jetty are as follows:

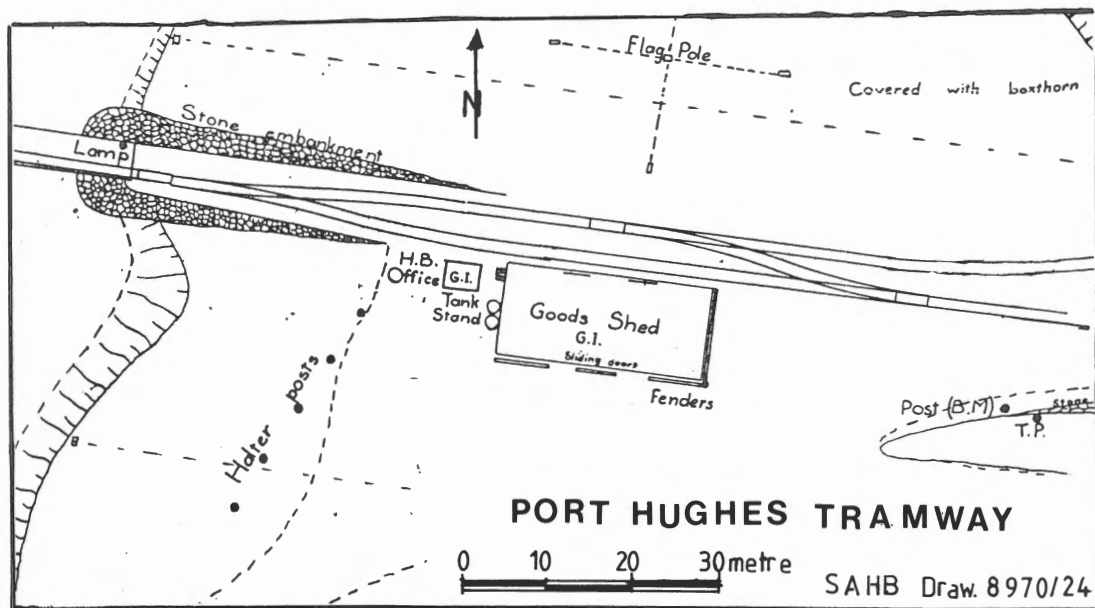
Port Hughes surveyed in 1863.

Jetty built 1911-12.

Overall length from shore to jetty end, 416 metres.

Main jetty for vessel mooring purposes, 80 metres.

There were two tramway tracks on this section with





The jetty at Port Hughes with steel wagon in the foreground.

Photo: FJ Reed

switch levers located 40 metres from the jetty end.

The goods shed was leased to the Corporation of the Town of Moonta from 1 April, 1958.

#### References

1. Sheet 1 and 2, Plans of Port Hughes, drawn by the South Australian Harbours Board.
2. Personal communication, Harbourmaster, Department of Marine & Harbours, Wallaroo, SA, 5556.

## EARLY AUSTRALIAN ELECTRIC LOCOMOTIVES PART II: TASMANIA GOLD MINE, BEACONSFIELD

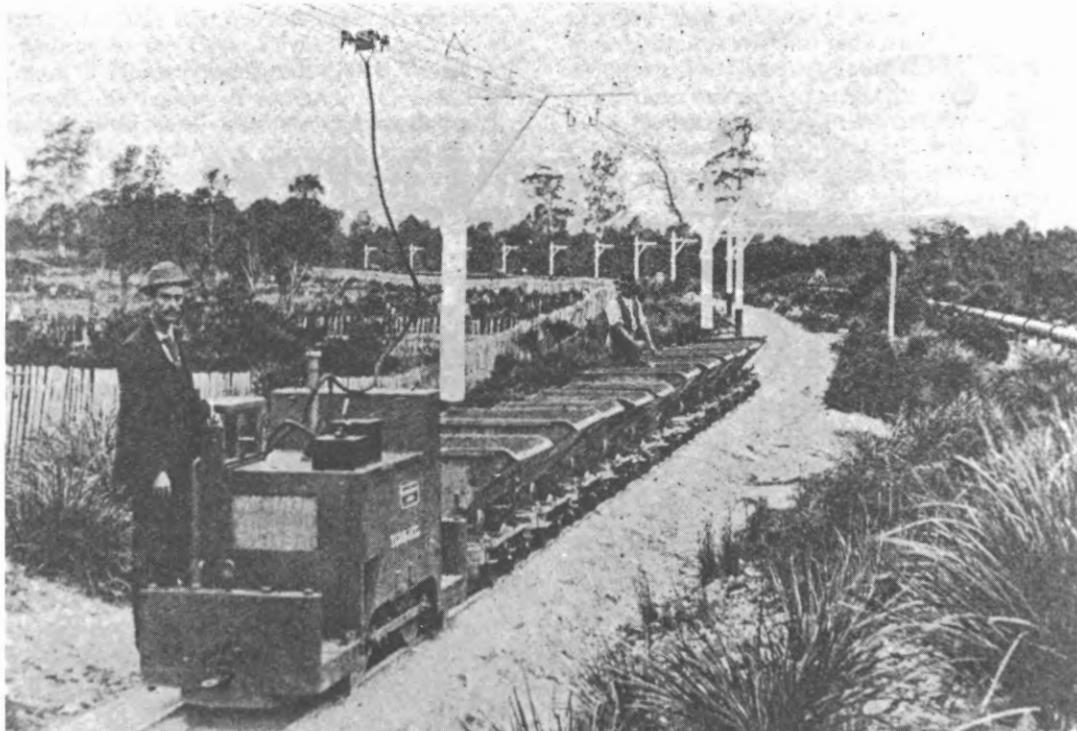
by John L Buckland

In response to the editor's invitation (LR 92), I offer the following notes on the first electric railway to operate in Australia.

It has been widely accepted that the first electric train to run in Australia was on the Victorian Railways on October 6, 1918, when a train ran from Newmarket sub-station to Flemington Racecourse, preparatory to the official opening of Melbourne's suburban electrification on May 28, 1919. This was certainly the inauguration of the first Government-owned electrified railway, but the first electric railway to operate in Australia was almost certainly the 3ft gauge line linking the Tasmania Gold Mine at Beaconsfield, Tasmania with the battery at Middle Arm. The line was built in 1878 as a horse tramway and electrified in 1897, together with the mine<sup>1</sup>.

A small box-like 4-wheel electric locomotive collected current from overhead cables by means of a 'skid' which straddled the supply cables suspended from the lineside masts for the 1.5 miles from the mine to the battery. The line ran under Beaconsfield's Douglas Street through a short tunnel, across Weld Street and through mullock heaps to the crusher at Middle Arm<sup>2</sup>.

The locomotive and electrification equipment were supplied by Siemens Bros & Coy of London, the installation being featured in an advertisement of 1899<sup>3</sup>. The accompanying illustration, reproduced here, shows the locomotive hauling a train of four-wheel side-tipping wagons, with the operator standing in an unprotected driving position on an end-platform.

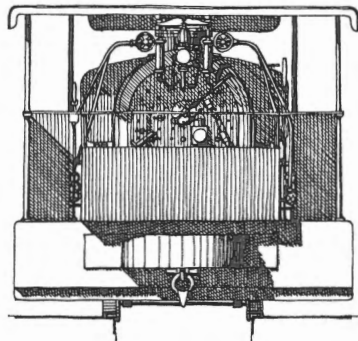
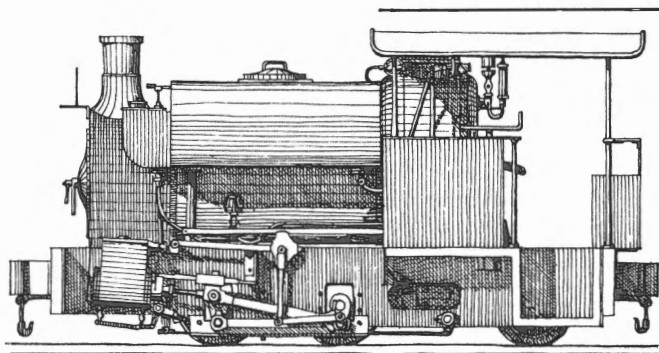


Siemens 0-4-0 electric locomotive hauling an ore train on the Tasmania Mine railway, Beaconsfield, circa 1897.  
Photo: Tasmanian Mines Department

The Tasmania Gold Mine closed in March 1914, so presumably the electric tramway also ceased operations at this date.

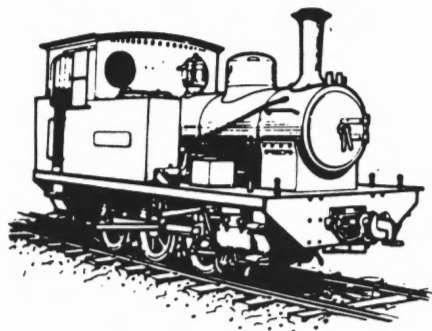
### References

1. Smith, C. *Town with a History - Beaconsfield, Tasmania*, Beaconsfield Museum Committee, 1978, p 43.
2. *Ibid*, p 58.
3. *Australian Mining Standard*, 11 June, 1899, p IX.



R.T. HORNE OCT. 1986

MT. PLEASANT COLLIERY N.S.W.  
2' 10" GAUGE LOCO BUILT BY JOHN FOWLER, 5341 OF 1887



## BOOK REVIEWS

**STEAM IN THE FORESTS**, by MRH Southcombe. Perth: Hesperian Press, 1986. 134pp. \$15 rec. retail.

Morrie Southcombe is a timber man from a timber family and he has set out to set down his reminiscences of timber industry life within a covering of factual history.

Much of the historic information is fairly basic and, for example, provides only a summary of company histories: very brief in some cases. A table of Millars locomotives is a handy reference and it should be noted that, being a Millars man, this company features more strongly than others. Accounts, such as the Wokalup railway disaster of 1920 and the first steam locomotive in WA, *Ballaarat*, appear in other publications and there tends to be repetition within the text of the book as well as re-publishing of such well known stories. The book is well illustrated, some photographs being well known and others being published for the first time.

What makes this book well worth buying, however, is its readability and its presentation of detailed accounts of how the timber industry worked — from selecting trees to fall to the railing out of milled timber. Accounts of a lifestyle now almost extinct add more value to this work.

The title refers to "the role of the steam-engine in developing the timber industry in this state" and while this reviewer feels the book falls a little short of this aim, at \$15 for a hard cover title it is a must for those interested in what timber milling was all about. Steam in the forests is no longer seen or heard but Morrie Southcombe's book helps relive that era.

**DW**

**ROCKY BLUFF TO DENMARK** by P.L. Charrett, RH Seccombe, G Verhoever and CW Jessup. Edited by FE Stamford. Melbourne, 1986 (*Light Railways Research Society of Australia*), 66 pages, numerous photographs and maps. Soft bound.

This beautifully presented publication contains a selection of reprints of four outstanding articles from past issues of *Light Railways*, and marks the twenty-fifth anniversary of LRRSA. In subject matter they span the continent of Australia, from northern Queensland to southwest Western Australia. Additional photographs, maps redrawn by Geoff Thorpe, and a thoughtful foreword by Norm Wadson help set this book above the original articles.

The first article by Peter Charrett describes the role of the several light railway systems used in the construction of the Hume Reservoir on the Murray River near Albury. It is a precise but very readable account of several generations of light railways serving the various stages of construction in this huge joint undertaking by Victoria and NSW during the 1920s and 30s. In addition to steam shovels and cranes running on their own tracks, the two government construction departments managed to use three gauges of light line (all steam operated) plus state railway gauges.

Roger Seccombe takes the reader to opposite ends of the scale in magnitude, longevity and success of light railway operations: the Elphinstone Timber Tramway, which operated from the VR station at Elphinstone in Central Victoria. This venture aimed to tap stands of red gum timber at the same time as clearing land for grazing. Bad planning, management mishaps, and inferior timber of limited quantity, all compounded to bring the demise of this



venture in 1928, after just four years of operation.

Moving to the Great Dividing Range behind Cairns in North Queensland, Gerry Verhoeven presents the results of research and extensive trekking along the 40 or so miles of formation of 2ft gauge lines which once connected tin mines at Stannary Hills, Rocky Bluff and Irvinebank with the government railway at Boonmoo. These lines, opened in 1902-07, were operated by seven steam locomotives and carried public traffic as well as ore. Detailed accounts are given of construction of the original lines and the mining activities they served, locomotives rolling stock and traffic, and the findings of several explorations during the late 1960s, long after closure.

The book concludes with the late Bill Jessup's history of the Millar brothers' timber milling and tramway operations in the Karri and Jarrah forests around Denmark and Torbay in Western Australia. Operating with skilful manipulation of the land grant scheme, the Millars built 3ft 6in gauge lines on behalf of the government from Albany to Torbay in 1890, and on to Denmark in 1895. Jessup has provided a scholarly, very readable and thoroughly referenced account of Millars' activities through to WAGR takeover in 1907.

While the styles of each contribution vary as much as the subject matter, they are brought together in a cohesive manner, aided by the uniformity of a complete re-typeset. The book is printed on good quality paper, and well illustrated with informative maps and photographs. It is highly recommended.

JCR

### BRITANNIA CREEK: WOOD DISTILLING IN THE Warburton DISTRICT, by AP

Winzenreid. APW Productions, Melbourne, 1986, 130pp; RRP \$17.95 soft cover, \$22.95 hard cover.

Near Warburton Australia's first and only wood distillation plant was constructed by the diversified chemical and fertilizer manufacturers, Cumming Smith & Company Pty Limited.

The site chosen at Britannia Creek was being worked by sawmiller W Richards, who was bought out in 1906. In erecting their works, Cumming Smith relaid much of Richards' tramways, extending them and introducing a steam locomotive (identified here for the first time as Bagnall B/No 682/1885).

Wood distillation used what would have normally

been the waste products of timber production and turned them into charcoal and a number of industrial chemicals. The Cumming Smith venture was never more than marginally profitable and closed in 1924, though following the destruction of the works by a bushfire, the tramways and mills operated under different ownership for a further decade.

The strength of the book lies in the author's recording of the operation during the years of the Cumming Smith ownership. Descriptions of the plant and tramways, their operation and the products of the distillation process, together with the chapters on Cumming Smith & Coy, both before and after their involvement in Britannia Creek, give an excellent understanding of just what was involved in the unique venture.

Lacking, however, is an analysis of why the venture failed to fulfill the expectations of its owners. Its ultimate failure is explained, but it would have been interesting to see consideration of the poor profitability from the earliest years when markets for the products were still good. If the difference in valuation of retort wood in the bush (6s) and at the works (14s 6d) quoted on p.83 reflects transport costs, the role of the tramways in the ultimate failure may warrant investigation. Certainly the cost of raw material for the process appears expensive.

In respect to referencing, two points warrant mention, although otherwise referencing has been done to a very high standard. First, it is necessary in any major work that adequate information be given on oral sources. In *LR 67*, Ralph Alger showed that this can be done in a tabular form which is both readable and interesting. The reader of *Britannia Creek* does need to know more of Mac Cumming, the most important oral source, than his escapades at an unknown date in sliding down sawdust heaps, particularly of his later career in the years after the works closure as managing director of Cumming Smith & Coy.

There are only a few examples of the second area of criticism. References should define the source sufficiently to allow checking and, most importantly, subsequent evaluation against new information. The reference 'FCV files' fails this by any standard. Without confirmation, how can any subsequent researcher, even after going through the organisation's files, know they have seen the source quoted?

Overall, the author has combined some very interesting pictures, the book being profusely illustrated, with easily read text which does break new ground on this operation. Recommended.

CLW

**VICTORIAN TRAMWAY REGISTER: 1986 Edition.** APW Research Report, 4th Edition, July 1986. 67pp. RRP \$7.00 (postage \$1.50).

The APW *Victorian Tramway Register* has been reissued with new information, updates and corrections and now contains 417 entries, the majority of them timber tramways. It is intended as a starting reference for researchers into Victoria's local history and industrial past.

An assessment of the register's achievement against this aim requires consideration of the role of such a register, particularly how it might be utilised by researchers. Selection of the information to be presented and format are critical. The register presents the tramway name, location, gauge, date opened, date closed, a locomotive list where applicable, and notes, covering brief comments on the purpose of the line, cross references etc. This is a useful start and the detail of information provided is generally adequate for such a register, although this reviewer would like more information on the type of industry the line served and the size of the operation. In many cases researchers will be seeking information on tramways associated with a particular industry, but it would be difficult to make such a selection from the limited information provided for many entries. More importantly, the lack of referencing is a major shortcoming. Having used the register to identify tramways which fall within a particular field of interest, where does the researcher go from there? A list of references is vital if the register is to serve a useful purpose.

Collection of the information necessary to prepare an accurate and up-to-date register of this nature is a formidable task. The fourth edition makes no claims to completeness and a large number of entries continue to have blanks with respect to basic information. This is to be expected, given the difficulty of locating information on the many obscure tramways which operated for short periods, but it is surprising to note the detail of information which has been published in *Light Railways* which has not yet been incorporated into the register. For example, tramways at Starvation Creek (Ezard's), Geelong (Sparrowvale levee bank, sewer tram, Grammar School, Phosphate Cooperative, King's Wharf, Birmid casting plant, construction tramways etc), Laverton (explosives tram), and Nayook

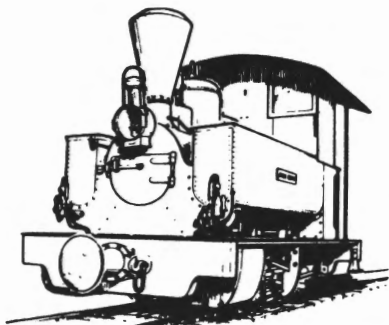
West (Slocomb & Walker and JD Walker), described in recent issues, are not included; the locomotive used on the Elphinstone Timber Tramway was identified in *LR* 85; the Australian Seasoned Timber Coy loco identity was corrected in *LR* 78 and 83; and a full list of SECV Yallourn locomotives, including the builders of Nos 21-34, is given in *LR* 84. Moreover, a number of other errors were noted, such as the identification of the locomotive *Westward Ho* as a Fowler under the Britannia Creek entry — it is described as Bagnall 682/1885 on pages 15, 32 and 46 — and the description of the second Goodwood tramway loco as a Krauss.

One difficulty facing the compiler of such a register is whether to identify tramways by location or owner. Both are used in this case and cross referencing has been used to assist the user. However, the cross referencing does not appear to be consistent and some duplication of entries has occurred — eg Crossover and Gunn's, Great Victoria Colliery and Queensferry, and the entries for O'Shea & Bennett. The problem would be lessened if there was a single entry for each tramway supported by a detailed index covering all names in common usage for each line.

Layout and presentation are also important in a publication of this nature, even though a low-cost product is required. This reviewer finds the register unsatisfactory on three counts: text spacing, economy of presentation and illustration. In a number of cases the tramway name appears on the bottom line of the page with the information on the following page which this reviewer finds particularly annoying. Second, printing is on one side of the page only; a wasteful use of paper, especially given the cost of postage these days. Finally, the use of illustrations adds to the appeal of a publication, but the use of line drawings would be far more satisfactory than the disastrous attempt to include photographs — only one of the three photographs in the reviewer's copy could be described as a recognisable scene.

The *Victorian Tramway Register* has the potential to become a valuable reference source to researchers into the local and industrial history of that state. It is to be hoped that the criticisms outlined above will be viewed as constructive suggestions for improvements to the next edition.

**RFM**



## LETTERS

**TASMA HARDWOOD COY, LR.27, 48 and 91.** It is no surprise that Mr Goodwin confirmed the gauge of the line at Lobster Creek as 3ft 6in. It has already been shown in the pages of *Light Railways* 62, 78 and 83 that the locomotive there was Andrew Barclay 211/1879, a 3ft 6in gauge 0-4-0 ST.OC. I enclose a photograph of it in very derelict condition, taken circa 1961 by Bruce Macdonald. Bruce believed that the semi-circular saddle tank, being most atypical of AB products,

was a replacement. However, surviving drawings of the locomotive in the Glasgow University Archives show that this style of saddle tank was fitted from new.

**O&K LOCOMOTIVES IN THE PACIFIC, LR.91, 92.** The photograph supplied by Ron Grant and shown on page 20 of LR.91 undoubtedly shows O&K 5714/1912 [Ed. see LR.93, p.19], of the Societe Tiebaghi in New Caledonia. She was used on the line from Paagoumene on the coast, to



Derelict Andrew Barclay 211/1879 at the Lobster Creek mill site in 1961. Photo: B Macdonald

Pohlig, whence a flying fox made connection with the mine at Tiebaghi. The O&K records show her as ordered by the Soc. le Chrome and, indeed, the Soc. Tiebaghi was a subsidiary of that company. Soc. le Chrome was taken over by the Chrome Co Ltd of London, which in turn became the International Nickel Corporation.

**Richard Horne**  
**South Croydon, UK**

## PHOTO SECTION: SUGAR TRAMWAYS,

**LR.92** It should be noted that the statement "many . . . sugar mills have been forced to close" is incorrect in reference to the current Australian sugar industry crisis. Only one mill has closed in recent years, and that as part of an ongoing company rationalisation not directly connected with the current difficulties.

For the interest of members, the following major mills in Australia have closed since the opening of the last new mill, Tully, in 1925:

Childers (Colonial Sugar Refining Co Ltd), 1932.

Mount Bauple (Mount Bauple Co-operative Sugar Milling Association Ltd), 1950.

Gin Gin (Bundaberg Sugar Co Ltd), 1974.

Qunaba (Bundaberg Sugar Co Ltd), 1985.

It will be noted that each of these mills was situated in southern Queensland. Each operated on a tramway system. There were also four other tiny farm-based mills in the Beenleigh district of southern Queensland which closed between 1924 and 1943.

The name of Macknade Mill on the Herbert River was mis-spelled as Macnade on page 17. It will be noted that the Macknade locos carry a reminder of the correct spelling as can be seen on the photo where on the loco's cab side is painted "MKD 4 CSR".

Your informant seems to have been mistaken in supplying information for the captions used with the photographs originating from the Sugar Research Institute on pages 20-21. The train incorporating a radio controlled slave locomotive is pictured at Bingera Mill where the system has been in use since 1975. This "locotrol" system was developed and perfected in co-operation with Sugar Research. The leading loco is EM Baldwin B-B DH *Oakwood* (5800-1-5-75) and the radio control transceiver unit can be seen mounted above the front headlights. The slave loco is one of two equipped for the

purpose, EM Baldwin B-B DH *Givelda* (5800-2-6-75) or *Delan* (5800-3-7-75). Trains such as the one pictured operate on the tramway between Wallaville (the site of the closed Gin Gin Mill) and Bingera, a distance of around 25 km. It is highly improbable that the test wagon for a proposed 4-wheel 20 tonne capacity cane bin was pictured on the Marian Mill tramway. The loco hauling the train is North Eton Mill's EM Baldwin B-B DH D8 (9815-1-10-81).

**John Browning**  
**Mackay, Qld.**

(Ed. The statement on mill closures, referred to above; applies to the international scene.)

I am writing to correct two of the captions in the photo section of *Light Railways* No. 92.

The photograph at the bottom of page 20 is stated to have been taken of a locotrol train on the Farleigh mill tramway. At the time this photo was taken (1975-77), Bingera mill was the only one dabbling in locotrol, which has since proved successful there. According to the ANGRMS *Stack Talk* of June 1979, Farleigh was only considering locotrol in 1979, so the photo must be of a Bingera train. The locomotives would be two of *OAKWOOD*, *GIVELDA* or *DELAN*.

The top photo on page 21 is stated to be on the Marian mill tramway. Maybe that is so, but the locomotive is from the North Eaton mill. The number D8 can be made out on the cab side. Marian has no locos of this number, but North Eaton does. It is a Baldwin B-B diesel hydraulic.

**CJ Hart**

**Lucinda, Qld.**

## BAGNALL O-4-OT No 1801/1906, LR.80.

My attention has been drawn to the article "The Geelong Sewer Tram" in the April 1983 issue of *Light Railways*. There Bagnall No. 1801 is mentioned as being of 2ft 6in gauge.

This locomotive is in the possession of the State Government department for whom I work and is in the process of restoration. She is definitely of 2ft gauge (610 mm). I am aware that Bagnall's own list has the locomotive as 2ft 6in gauge and there is evidence that she may have been regauged at some early stage.

Do any of your members have information as to this mystery?

**Colin Bamford**  
**Hope Valley, SA**

## WEST MELBOURNE GAS WORKS TRAMWAY, LR.90 and 93.

With regard to JL Buckland and C Small's thoughts concerning changes to the North Wharf layout, I believe that this remained unchanged throughout its active life. Comparing a series of photographs taken by John Lindt very early in the life of the tramway with Metro Gas Company photos taken on 4 July 1932 and 12 August 1933, no change in the layout is visible: it remained complete with turntable. The trucks were worked with hydraulic capstans which show in some photographs.

Mr Small's comments that the loco may have pulled the trucks to the wharf and then around them to push, is unlikely because, although his drawing on page 21 (*LR.93*) shows a crossover at position 5, the above photo shows it as a turnout to the east end empty siding. I have a MGC drawing, dated 1937, which shows this layout.

I believe that the locos probably always worked funnel end facing the works and coupled to the works end of the truck, pulling full trucks away from, and pushing empty trucks out to the wharf. All photographs I have seen show this arrangement.

It may be of interest that the Melbourne Gas Coy (forerunner of the Metropolitan Gas Coy formed in 1878) originally had a dock in the works, running at right angles to the river across the road. When this dock was resumed for the making of the North Wharf Road, the company was granted preferential rights to a wharf and to build a tramway to it. When negotiations were being carried out in 1886 for this tramway, the rights were claimed and the company obtained a 300 ft space @ £1 per foot per year rent. Clearance of a viaduct over road level was to be 15 ft and supports to be 33 ft apart.

During its lifetime the tramway layout within the works changed a number of times. I have endeavoured to show the various changes in the enclosed diagrams, although I have had trouble with some dates as information was misplaced with a note book during a house move.

The plan in *LR.90* (p.16) perpetuates a diagram in the *ARHS Bulletin* in 1944, which was incorrect. The wharf layout was quite different [Ed. see *LR.93*], while I believe that the track shown from the west end of the retort houses to join the tracks in the coal store did not exist. I have never seen any photo-

graphs or drawings which showed this track, nor have I talked to anyone who worked at the works who remembered it. I might add here that I was employed at the site for 17 years and missed few opportunities to discuss the tramway.

My diagram for the period 1934-44 still shows the wharf, which would not have been used after the last collier unloaded in December 1933. The viaduct from the works boundary, including the wharf area, was removed in the early 1950s.

Mr Buckland stated (*LR.90*, p.14) that the locomotives *John Benn* and *Carbon* were identical, but the Decauville 1894 catalogue shows No 43 as a 6-tonne locomotive and No 90 as a 5-tonne unit. This could only be substantiated by measurements at this stage. The list also shows different gauges: 75 cm for No 43 and 76.1 cm for No 90. The locomotive *Carbon* was supplied in March 1890 with 4 miles of single track. This would have been close to the time the South Melbourne Gas Works tramway was built and I am of the opinion that *Carbon* was intended for use on this tramway and only came to West Melbourne because permission could not be obtained to operate at Port Melbourne. Proof of this would be difficult to obtain at this stage, but why else would a loco be purchased of a different gauge? Also supplied with the order apparently was one 4-seat wagon, type 6q, which probably would be of more use at South Melbourne.

Regarding the 500 mm gauge tramway, I am afraid the illustration from the Decauville catalogue (*LR.90*, p.15) conveys little to me. I feel that the tramway was probably used to transport coke from the retorts. Beneath the Woodall Duckham retorts Nos 1-4, were the remains of a narrow gauge tramway with signs of turntables in the central passageway. This was used before the conveyor system was developed. I have never learned if other coke tramways were used in earlier retorts, but Decauville supplied 62 coke wagons in March 1890.

**WL Wilson  
Sunbury, Vic.**

**Back Cover:** Maps of Metropolitan Gasworks tramway, West Melbourne prepared by WL Wilson.

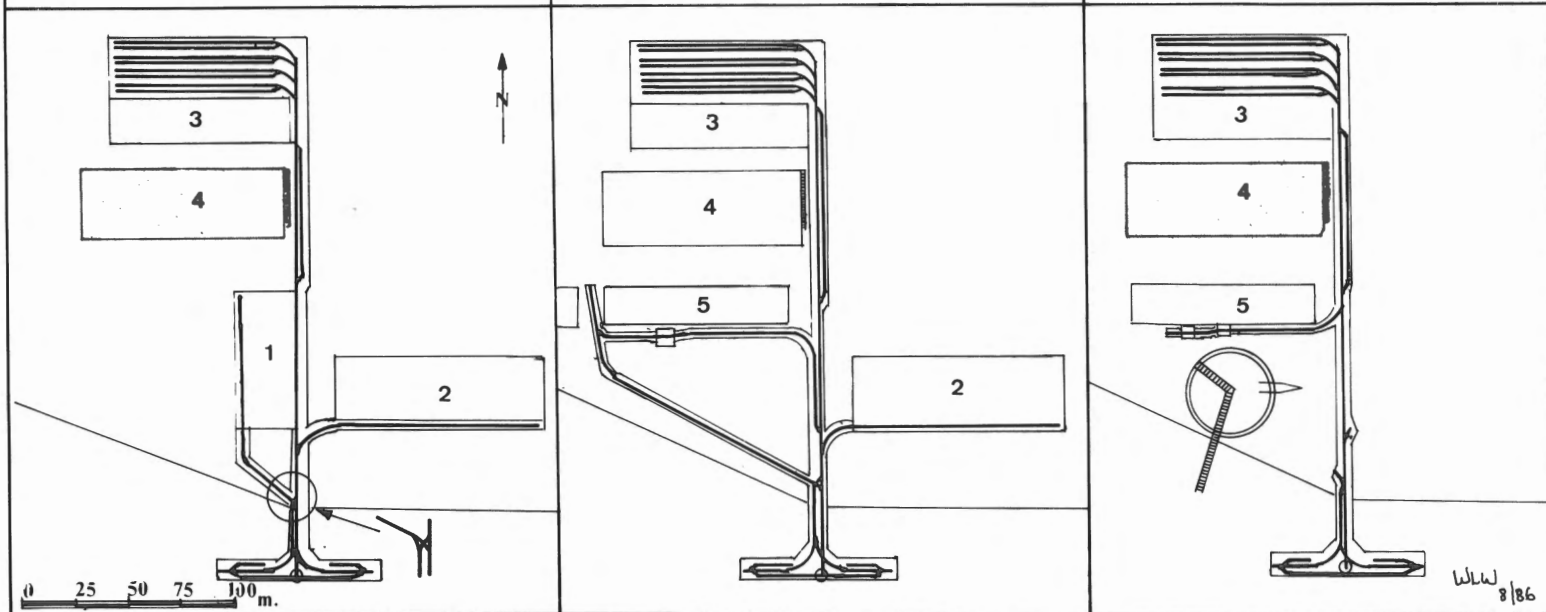


# METRO. GASWORKS TRAMWAY

1890-1915

1917-33

1934-44



## Key to Retort Houses

1. *Retort house*, probably horizontal, is shown on isometric drawing of site dated 3 July 1872. It was dismantled in 1915 to clear the site for building of Woodall Duckham retorts.
2. *Slope House*, inclined retorts which are also shown on the 1872 isometric drawing and appear to be depicted in drawing of original works, which opened in 1856. This retort house closed down circa 1928 and was removed during 1930s to make way for new purifiers. It may have been used as a coal store for some of this time.
3. *Machine House*, horizontal retorts with mechanical charging and discharging. Not shown in early photographs, so probably constructed in late 1890s or early 1900s. Production ceased in the late twenties or thirties and the area was used as a coal store until partially dismantled to make way for new plant c.1944.

The tramway viaduct from the rear of this retort house to the rear of 1 was of entirely different construction to the original, being placed on fabricated supports with bracing, compared with heavy girders on circular pillars for the original structure. This section was extensively used as a pipe bridge until the early 1960s.

4. *Dessau Retorts*, vertical retorts constructed at a similar time to 3, probably the middle 1890s. When constructed, this building was reported to be the largest area under a single span roof in the Southern Hemisphere. John Keating (*The Lament Flame*) mentions the MG Coy had over capacity during the 1890s depression, and drawings exist for the alteration of this retort dated c.1904.

Coal was discharged through the rail tracks into a hopper and lifted to the top of the retort house, via an elevator and conveyors.

When production ceased about 1928, the building was stripped and used as a coal store; coal being taken from here to the woodall Duckham retorts by a rubber belt. The store was equipped with an electric crane to handle the coal. Coal continued to be stored here long after the tramway ceased to operate; the building finally being dismantled in the early 1960s, to make way for new plant.

5. *Woodall Duckham*, continuous vertical retorts, 6 in number. No 1 was built c.1915 and five were completed by 1930. Although the plan shows crusher midway along the south side, the original crusher (pre 1920) may have been constructed at the east end near the viaduct according to verbal recollections. These retorts were dismantled in the early 1960s to make way for the Onia Giegi oil-gas plant.