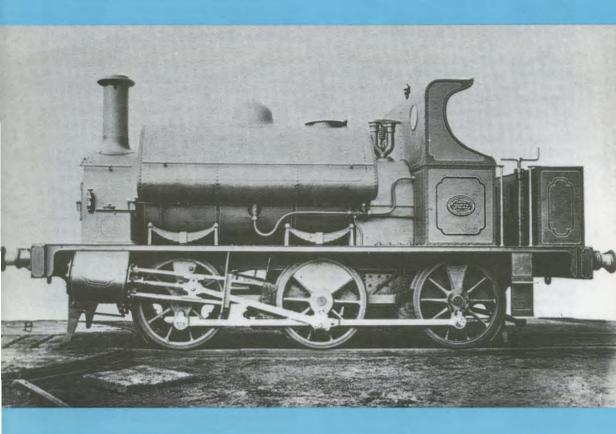
# LIGHT RAILWAYS Number 126

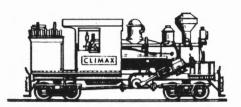
October 1994

## Western Australia Woodlines Gwalia Loco Notes East Otway Reminiscences

ISSN 0 727 8101



The Light Railway Research Society of Australia Inc.



Light Railway Research Society of Australia Inc.

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Light Railways Editor: Norm Houghton, PO Box 1128, Geelong 3220. Phone (052) 21 7007 or (Home) (052) 29 4805. Articles, photographs and letters welcome.

**Cover Photo:** Builder photo of Fanny, VF796/1876, 0-6-0 ST.OC. Sutton Heath Colliery. See letters p. 21

Photo: R. T. Horne Collection.

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## EDITORIAL

Australia is one of the most urbanised societies in the world and this is reflected in the Society's membership profile. Most members live in urban areas far from the tramways they show interest in. And what place could be further from home base than Gwalia in Western Australia? This mining township once had an extensive 20 in gauge railway on its mine woodline. Fortunately two residents with an interest in history put pen to paper and provided the fascinating article in this issue. Sadly, progress has moved on and a gigantic open cut mine has swallowed the old Sons of Gwalia mine site.

And on the other side of the continent Society member Reg Wilson has dredged through his memory bank and recounted his experiences in working at several timber sites in Victoria's cold, wet and inhospitable Otway Ranges.

The technical detail provided cannot be matched by any latter day researcher and highlights the desirability of first hand participants scribbling a few notes on their working lives.

The editor has been mapping these sites in recent time and has found relics of the machinery that Reg worked on so the connection between the generations can be a fruitful exercise.

**Norm Houghton** 

## WESTERN AUSTRALIA WOODLINES by Don and Donna Reid and Les Hunter

In most mines timber is an essential construction material but in Western Australia the local timbers in the goldfields played an even more vital role as the source of fuel for power generation. There was no coal or peat readily available nor were there tall forests but most mines were established in an ocean of mulga scrub and this wood became the major fuel source.

This article is not a history of every woodline in Western Australia but looks at the Gwalia woodline, north of Kalgoorlie and life on the Lakewood woodline, south of Coolgardie. Dan and Donna Reid lived at Gwalia during the 1970s and were instrumental in establishing the Gwalia Historical Museum as well as recording some of the local history from former miners. Les Hunter was working as a journalist in 1953 when he made a trip on the Lakewood line and put down his impression of the conditions there.

## SONS OF GWALIA MINE

In 1894 Tommy Tobias, a Coolgardie storekeeper, visited Wales, his birthplace, and organised a Welshfinanced syndicate including a number of influential Welsh Nationalists to finance a prospecting party in the then booming Western Australian goldfields. The syndicate was called 'The Sons of Gwalia', Gwalia being the Welsh name for Wales.

Tobias returned in early 1896 and financed three prospectors, F. White, J. Glendinning and J. Carlson, who headed north from Coolgardie for 280 km to Malcolm. From there they headed west to the Leonora area, and in late May 1896, pegged the first lease on the Sons of Gwalia orebody. The lease was named after the syndicate.

Several months after the initial find, Tobias was approached by another Welshman, G.W. Hall, who wished to purchase the prospect and did so on 6 January 1897. Hall began active development and installed an old 10-head battery from Coolgardie. A.W. Castles was manager. Hall's company, the London and Westralian Mines and Finance Agency Ltd was interested in several mines and prospects, but was not averse to selling properties to other companies, if the price was right.

Early in 1897, Herbert C. Hoover, a young mining engineer in the employ of Bewick, Moreing and Co, the largest firm of consultants and managers in the W.A. mining industry, carried out an inspection trip through the Northeastern Goldfields and on the 11 September 1897 sent a detailed cable to the firm's head office in London describing the mine, as then developed, as a most valuable property and recommending its purchase.

Negotiations began with Hall's company, and in early 1898, the Sons of Gwalia Ltd was floated in London, under the management of Bewick, Moreing and Co. Actual control was assumed on 1 May 1898 with H.C. Hoover as the company's first manager.

Before the takeover, Hoover had been active in designing a new treatment plant and surface layout for the mine. The amount of ore developed meant that a much larger plant could be justified. A new main shaft was needed, central to the orebodies.

The site for this was selected, and a new headframe erected, which still stands today. Power to run the machinery was required, and a steam powerhouse using local timber for fuel was installed. The large amount of timber used led to the installation of a narrow gauge, loco hauled woodline. Staff housing and offices were required, and building of a row of houses began up the hill to the north of the mine. The old battery continued to function, producing about 1000 oz per month from as many tons.

Hoover left in mid-November 1898, having received an appointment to a senior position in China with Bewick Moreing. When he left, the general layout of the mine was established.

The mine operated steadily from its inception, with 50 head of stamps crushing about 8,000 to 10,000 tons of ore a month. It eventually became the largest gold produced in W.A. outside the Golden Mile with a total production, from 1897 to 1964, of 7,139,821 tons for 2,637,143 ozs of gold.

On 19 January 1921 an accidental fire destroyed the powerhouse and most of the treatment plant. Luckily the winder headframe and outside plant were saved. During the rebuilding, the large pile of tailings accumulated since the start of operations was re-cyanided and this ensured some income.

Finances were becoming strained in the early 1930s, due to rising costs, but the increase in the gold price at that time heralded a second period of prosperity. The orebody had also been falling away in grade and tons below the 16 level, but deeper development showed a second series of shoots extending from the 18 to the 30 level. This, coinciding with the price rise, made the mine very profitable during the Depression.



Things became harder during the Second World War, with lack of manpower, supplies and spares, and increasing costs. Ore became more costly to mine from the deep levels, the grade began to decline and the old machinery more costly to run. The mine had its own foundry and made much of its machinery replacements for equipment which was becoming obsolete. The last dividend was paid in 1951, bringing the total to \$4,150,000.

In the late 1950s State Government loans helped the company to survive. Some new plant was installed, some accommodation upgraded for single men and a lot of money spent on development, looking for new ore reserves, without much success. Inflation in the early 1950s and a pegged international gold price made goldmining a marginal industry and although government help prolonged the operation the Sons of Gwalia eventually ran out of payable ore. A week before Christmas, 1963, the mine closed and an exodus from Gwalia began. A 67 year old mine and town died.

### THE WOODLINE

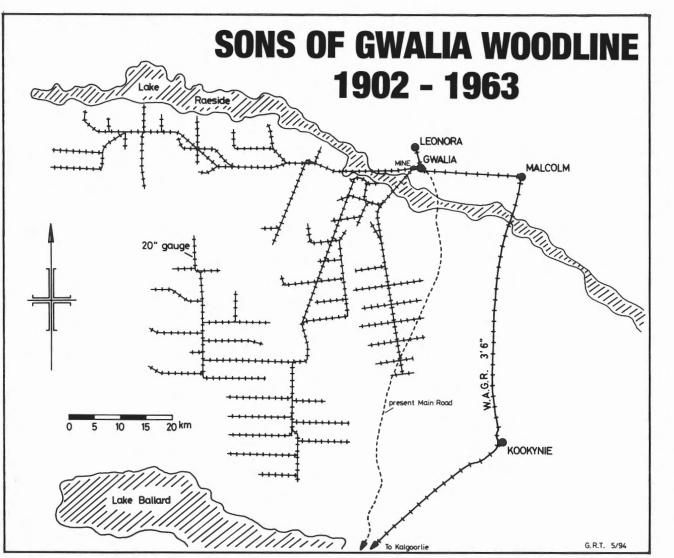
From the time of the first plant installation, local mulga was used to fuel the mine. The first plant erected by Hall was powered by steam and the new plant designed under Hoover's management was also steam-driven. At a later stage, with the increase in demand for electricity and compressed air, gas producers using the mulga timber were installed to fuel producer gas engines which drove the generators and compressors. After the 1921 mine fire, the new powerhouse continued to be fuelled by a producer gas and this continued until the mine closed. At all times the winder was driven by steam.

The consumption of wood was considerable, reaching 30,000 tonnes per year and this amount required a major organization to collect and deliver it to the mine. This is where the Woodline came into being.

At first, private contractors supplied the timber to the mine using camels and donkeys for haulage, but Hoover had begun planning a more satisfactory system using a narrow gauge, light railway. By 1903 a 20 inch (510 mm) gauge railway line ran south-west from the mine, under the Kalgoorlie-Leonora railway line, across Lake Raeside and then turned south. The lake, like most in this area, is a low-lying depression choked with saltbush and samphire and rarely carries any water. Branch lines were put out at right angles to the main line three km apart to which the timber cutters delivered the 6 foot (1500 mm) 'sticks' hauling the timber by horse and cart to stacks by the side of the line. The steam locomotives hauling the timber were themselves fired by mulga, cut into 18 inch (460 mm) lengths. The full train consisted of three or four water tanks in front of the engine, the engine itself, a loco fuel truck, called the wood truck, then up to 30 timber trucks carrying 3.75 tonnes of mulga, followed by a little van which hauled groceries and supplies for the cutters.

Fires from sparks were frequent in the timber trucks, and one of the guard's duties was to walk back along the load and damp down any smouldering logs. Derailments were also common and every engine carried an assortment of jacks, blocks, chains and tools to lift the trucks back on the line. The roadbed was simple, the very light rails being dogged onto rough mulga sleepers and laid on a small embankment. Only the main lines were reasonably graded and constructed, at times with steel sleepers as they carried loads for a considerable period, whereas the branch lines only had a limited life.

Over the life of the mine there were three main lines in all and numerous side spurs totalling in excess of 600 km of track (but not all operating at once). The first main line of 40 km worked until



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1912 when the timber in its area was cut out and it was pulled up and re-laid west along the south side of Lake Raeside for some 70 km. This sufficed to supply the mine until the early 1940s when it was again relocated, heading south-west and west of the first line. By the time the mine closed the woodline was 75 m in length and only a few km north of Lake Ballard. Moving lines was easy. A complete section of two rails and their joining sleepers was bodily lifted by the rail gang and placed onto rail trucks to be hauled to its new location.

The three main locomotives used on the line for most of its life were Koppel, built in 1910, Fowler built in 1916 and Midland or Ken, built at the midland Railway workshops in 1934. The last two engines functioned till the time the mine closed, and Ken still remains in Gwalia, restored to its original colours. Two earlier engines, Leonora and Gwalia were the original locomotives on the line and spent their final years as shunting engines around the mine.

Life on the line was fairly rugged. Accommodation for the timber cutters consisted of small, portable huts which fitted on the timber trucks for ease of moving camp, with walls of whitewashed hessian or filter cloth, roofed with curved galvanised iron. When a new camp was established, each hut soon had its attendant bough sheds and chicken run. Water was carted in the train tanks and off loaded into tanks at the camp. Supplies were sent out by the Gwalia stores.

The cutters used to buy axes by the case, and all the old camp sites are littered with Kelly axeheads. In latter years chainsaws replaced the axes and gave greater production from fewer men.

Most of the cutters were of Italian or Slav descent. Some had their families with them on the job and at times there were sufficient children for the Education Department to supply a teacher.

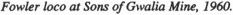
The woodline was often used for spring picnics from Gwalia. Bags of chaff made sitting on the woodtrucks bearable and several hundred would pile on for a day out along the line. The train was not noted for its speed and a whole day was needed to get the crowd out to the picnic spot and back again.

The timber was stacked in great rows around the mine and elaborate fire fighting precautions were required to protect the stacks. Some of the families living near the line around the block had an unofficial arrangement with the mine - they could take a little firewood off the parked trucks, if they kept an eye out for smouldering timber and put the fires out. Many a person from Gwalia has thrown buckets of water on the train during his childhood. Fire along the line was a danger, too. Three small bridges about 25 km south have all their timber parts covered with old corrugated and patterned iron to protect them from sparks. Obviously, some old Gwalia homes provided the iron sheets.

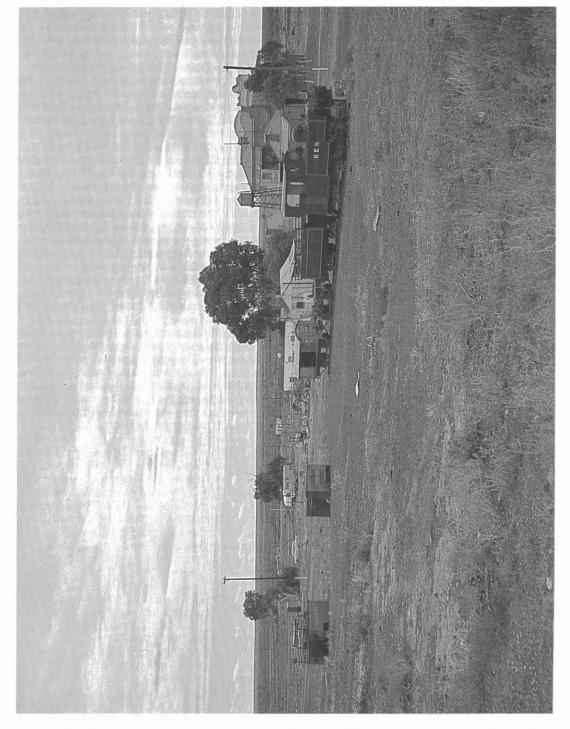
Payment to the timber cutters for the timber was by weight. Every truck passed over the weighbridge

Photo: E. Woodland.

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Sons of Gwalia loco 'Ken' and water tanks from Fowler and Koppel on display at Gwalia, 1977.

west of the government line. Also at this point, the 30-truck trains were broken up into smaller rakes to be pulled up the steep final grade to the mine. The three engines were also known by the number of trucks they could pull up this grade - *Ken* was a 6/8 truck engine, *Koppel* a 3/4, and *Fowler* a 5/6. The guard might have had to sprinkle sand on the rails there to help the engines deliver maximum pulling power.

The old lines are becoming overgrown by mulga now except where used as station tracks. Remains of old camps, rotted mulga sleepers, dogspikes, bottles and occasional rusted rails are all that remain of a once busy enterprise.

## THE LAKEWOOD WOODLINE (1953)

South of Kalgoorlie to the east of Lakes Cowan and Lefroy, runs a railway owned by the Lakewood Firewood Company. Until 1953 along this line there travelled twice a day rakes of trucks hauled by Gclass locomotives, little giants capable of hauling 250 tonnes if need be.

Four or five hundred tonnes of wood per day, year in, year out, is a lot of timber and I never ceased to wonder that this region, with its reputation for heat and aridity, could supply it all. But fifty years it had been, from the time that W. Hedges founded the company. From Bulong to Kurrawang, from Golden Ridge to Buldania, and out to Widgiemooltha the country was cut over and re-cut. Salmon and white gum, dundas and gimlet, morall, ti-tree and snapand-rattle had been sawn and chopped and carted to provide the mines with fuel and timber.

Travel out on a rake of empties and you would pass through kilometre after kilometre of cut-out bush, some of it twenty or thirty years old, so that there was a fair amount of slender re-growth. As you neared the head of the line, however, the trees lengthened and thickened and you found yourself passing through respectable forest, until at last the engine chuffed slowly into the main camp.

Here, in lines of whitewashed hessian camps, lived navvies, loaders, horse-drivers, engine-wood cutters, storemen, saddler, blacksmith, bosses and locomen in fact, the people who were mainly concerned with shifting the wood. To see the wood-cutter at work you had to go out further still to camps that lay between five and 20 km from the main camp.

There were two or three or four of these camps, depending on the number of axe-men employed. By the time the rake reached them, most of the cutters were in their blocks, for they went out ready to start work at seven o'clock. That meant that they got up at six o'clock to brew their coffee-soup. This was a bowl of milky coffee with egg beaten in, a thick slice of toast floating on top and grated cheese added. It was practically the standard breakfast, for most of the workers were Slavs or Italians with only a sprinkling of Britishers (and, during the last few years, some Central and Northern Europeans).

They were not allowed to start before 7 am because the union was rigid in its observation of the forty hour week and they had to stop work at four o'clock. In between these times they cut, on average, between three and four tonnes of wood per day, sawed it into five-foot (1520 mm) lengths and stacked it roughly, ready for the driver. The record amount for one man for one day was ten tonnes.

Most men used the saw and kept the axe only for trimming and scarfing, but I knew some who preferred the axe entirely, except for very thick logs, those up to 610 mm in diameter. It was an inspiring sight to see a good axeman at work, chopping his way throughout the morning with the regularity and precision of a machine, stopping only for an occasional smoke, a drink of tea or a mouthful of wine. At 11.30 they knocked off for a crib of bread (without butter), cheese and uncooked ham, with perhaps half a bottle of claret.

Periodically horse-drivers with drays came to the block and the axemen then stopped to give a hand to load the dray. The wood was carted to the front of the block, where it was stacked close to the line. Each block was a mile deep (1.6 km) and a chain wide (20.11 metres), so that by the time all the wood was taken out there was a solid line of timber flanking the rails, waiting for the loaders.

These worked in pairs, one on the ground, one in the railway- truck, and the daily chore for each pair was five waggons, between fifty and sixty tonnes of wood. Solid fellows they were, muscular and deep chested. They had to be for they had the toughest job on the line - and the best paid. Twice a day the rakes of wood were hauled by loco into the main camp, and thence to Lakewood and Boulder.

Naturally, the locos were wood-burners. This engine wood was got by cutters who lived in the main camp. These were old men who found the work of cutting five foot (1520 mm) logs too arduous, or married men with children for the main camp school (a converted railway carriage). Engine wood was all cut by saw and many used a frame to make the work easier. It was cut into two foot (610 mm) lengths and placed by the cutter neatly in stacks four feet (1200 mm) high and four feet (1200 mm) wide for ease of measurement.

The main camp remained on one location from one to two years but the cutter's camps were moved every two or three months. Built of hessian with roof of galvanised iron on a light frame of bush timber,

#### LIGHT RAILWAYS

the huts were easily moved. During the 'shift' they were manhandled by the navvy-gangs, normally employed as fettlers to keep the line in order. They were loaded onto waggons and tied down with wire.

'Shift day' was a lively occasion which usually lasted three or four days - one for packing, one for travelling and one to unpack. The workers treated it in festival spirit and the noise was usually terrific.

A five-day week was worked and Saturday was given over to washing and mending the dungarees and 'Jacky Howe' flannels and to sharpening the tools. This was done with expert care, for this was the cutter's bread and butter. He knew well that unless his axe had the right edge and thickness and shoulder, unless his saw was sharpened and gulleted, his work would be twice as hard.

Gardening also provided for his leisure as well as for his sustenance. There was always lettuce to sow, chilli to plant or tomatoes or endives or chicory. The peasant life of his ancestors was relived by him in the much smaller plot that he kept at the back of his camp or even in a couple of drums in which he grew a few herbs - sage, basil and rosemary.

There was the 'Mein Kamp' drapers to visit; or the police station in order to notify change of address, to fill in alien registration, to apply for naturalization, to license a dog or a rifle or to get the policeman to write a letter.

Sunday, however, was always a day of leisure. Then the cutter visited his fellow-townsmen. The bonds of common nationality were strong, but stronger still were those between people from the same town. He could rely on his friends, whether they were both from Sondrio or Reggio, from Belgrade or Makaska, when he was in trouble, in need of money, of consolation or of company. So, on Sundays they often gathered together for a beer or two and a meal, possibly prepared by one of them. It might be a fowl, basted with mushrooms in butter, or baccala (stock fish) cooked in oil, or, if he were a Slav, kosalic, young kid flavoured with the juice of garlic anointed with lard and roasted on a spit.

Dinner over, the afternoon passed with a game of cards or perhaps the cutter wandered down to the 'bocci' ground to watch the game there. Similar to bowls in principle, 'bocci' was played on a section of bare-swept ground, hardened by watering and edged with sleepers to define the boundaries. Often the wooden bowls were carved from local timbers. There were always a dozen or so players gathered around the 'bocci' ground on a Sunday afternoon.

Or perhaps he just sat and swapped yarns with his mates, telling lies about the tonnes of wood cut, the kilometres of rails laid and the number of trucks loaded. As evening drew on the camp simmered into quietness. One by one the lights were dimmed, fires kicked out and shanty doors shut tight.

Kalgoorlie & Boulder Firewood Co., ex WAGR A Class No 54, 1914.



## **GWALIA LOCO NOTES**

Name as	Туре	Maker	B/n	Year	Cylinders	Notes
LEONORA	0-4-0T	Kerr, Stuart	750	1901	6 x 10	1
GWALIA	0-4-2T	Kerr, Stuart	801	1902	7 x 12	2
KOPPEL	0-6-2T	Orenstein & Koppel	5081	1911	210 x 300	3
FOWLER	0-6-0	John Fowler	14636	1916	8.5 x 12	4
KEN	0-6-2TT	WAGR Midland	-	1934	9.25 x 12	5

## by John Browning & David Whiteford

## Notes

- 1. Loco details from Jux (1992). This loco is reported to have ceased operating in 1915 and to have been sold or scrapped at an unknown date (Small 1965).
- 2. Loco details as above. This loco is reported to have been sold to J.E. Hall, Fremantle, in May 1940 (Small 1965).
- 3. Loco details from Fricke et al (1978). The loco is described as having been despatched for Strelitz Bros, Fremantle, but a replacement boiler for it (6483 of 1913) was later sent to Strelitz Bros. for Sons of Gwalia (Fricke et al 1978). The original boiler is reported to have been repaired by WAGR in 1926, and refitted. The loco ceased operating in 1955 and became derelict, with its remains cut up in 1965. No name is given for this loco (Small, 1965).
- 4. Loco details from Jux (1985). The loco was despatched for Bewick Moreing & Co. It was supplied new with tender 14637. A new boiler (18598) was supplied via Bewick Moreing in 1929 (Jux, 1985). However, Small (1965) describes this loco as an 0-6-2TT, and one might speculate whether this is a mistake or whether it was in fact rebuilt, particularly as Small surely visited Gwalia. Small also indicates that it was known as FOWLER, operated up to the time of abandonment (October 1964), and was cut up in 1965. The tender is shown preserved at Leonora with MIDLAND on the front cover of LR50 (see below).
- 5. Loco details from Small (1965). He records this as known as MIDLAND, stored from October 1964, and preserved at Leonora 1965.

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ARHS Bulletin, Oct 1964 pp 197 - 198.

- ARHS Bulletin supplement, Nov 1963 p 7.
- ARHS Bulletin supplement, Aug 1965 p. 9.
- Fricke, K.; Bude, R. & Murray, M. (1978). O & K Steam Locomotives Works List 1892 - 1945, Arley Hall Publications, Bristol UK

Jux, Frank (1985). John Fowler & Co Locomotive Works List, Frank Jux, Richmond UK.

Jux, Frank (1992). Kerr Stuart & Co Ltd Locomotive Works List, Frank Jux, Richmond UK.

- LR 28, p 19
- LR 50, pp 11-13
- LR 76 pp 96 97
- Small, C.S. (1965). Industrial Locomotives of Western Australia (?) Privately circulated (partial copy only).

In its issue of 22 May 1934, the Railway and Tramway Magazine of the W.A. Railway and Tramway Institute ran an article on the construction of the loco known as 'Ken'. The text is as follows:-

This small locomotive recently completed at the Midland Junction Workshops, will work in the 'wood line' of the Sons of Gwalia Gold Mine. Power for the mine is generated in a self-contained plant with gas engines as prime movers. The gas for these engines is manufactured in large gas-producers from wood drawn from the surrounding country. As the mine has been in operation for many years, wood supplies near at hand have become exhausted and the present source of supply is over 40 miles from the mine. In normal railway working, a distance of 40 miles seems very ordinary, but when the gauge is only twenty inches, such a distance makes the railway remarkable. Obviously expensive road formation and ballasting could not be justified on a line of this character. The 20 lb rails are laid on sleepers, most of which are half-round, being cut from the local mulga. Half- round sleepers have been known on railways intended to carry much greater loads. Three steam locomotives are at present in use and the most powerful of these hauls a load of 120 tons. The new engine is still more powerful and is, considering its size, a remarkable production.

The entire machine was designed and built at Midland Junction, even the materials, excepting only the plates, being entirely Western Australian. All iron and brass castings were made in the Railway Workshops and the steel castings at Messrs

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Hadfields, Bassendean. Boiler plates were, perforce, imported but the frame plates were made in Australia by the Broken Hill Proprietary Company. A special design of trailing truck was necessary to enable the relatively long wheelbase of 11 ft to operate satisfactorily over curves of 80 ft radius. Accessibility is always important, but is of even greater moment where space is so restricted. Every detail has been carefully planned with this in view. Locomotive men will be interested in the outside regulator and steam pipes, accessible valve gear, and the special construction of the steam chests. Following the standard practice of our own railways, the coupling and connecting rods are fitted for grease lubrication. A standard two-feed hydrostatic lubricator supplies the cylinders. Compensated brake gear operates on the coupled wheels. Independent bearing springs are fitted to the trailing truck, but the coupled wheel springs are compensated. Owing to the very narrow gauge, the frames a re placed outside the wheels, giving outside axleboxes. The crankpins, instead of being fitted in the wheels as on larger engines, are carried in cranks placed on the ends of the axles.

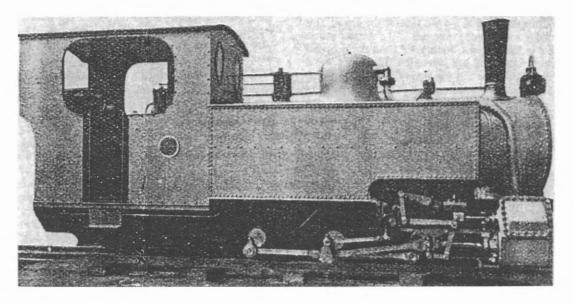
Side cleaning doors in the ashpan are reached through large openings cut in the frames. The top feed clackbox is similar to that fitted on our largest engines and was designed specially for this engine. There is every reason for confidence that this simple and sturdy locomotive will reflect credit on all concerned in its design and construction. Leading particulars of the engine are as follows:-

## 0-6-2 tank engine

Gauge of rails,
Rails, 20 lbs per yard.
Minimum curve,
Working pressure, 200 lbs per square inch
Cylinders, 9.5 inch diameter x 12 in stroke
Coupled wheels,
Bogie wheels,1 ft 8 in diameter
Tractive effort at 80 per cent W.P 7220 lbs
Rigid wheelbase,
Total wheelbase, 11 ft
Rail to C.L. of boiler,
Rail to top of chimney,
Total length over buffer beams
Maximum width over platforms, 6 ft 11 in

## Heating Surface

76 tubes, 1.75 in outside diameter 289 sq feet
Firebox
Total
Grate area
Approximate total weight in working order, 14 tons



## EAST OTWAY MEMORIES

## by Reg Wilson

My working life in the East Otways timber industry began in 1934 when I got a job at Jim Grant's mill at Barramunga. Grant had taken over Alex Sanderson's Barwon mill after Sanderson was accidentally killed in 1907. The mill in the Barwon Valley closed during 1923 and Grant then bought a new lot of equipment to run his next four mills at Barramunga. Grant rarely put in an appearance and left the day to day running to his manager, Bob Robertson.

The mill I started at was on the top of the spur between Barramunga Creek and Olangolah Creek and had a tramway incline over the creek valley to Barramunga. This mill gathered logs from nearly right around it, even from over the Colac pipe line by type of flying fox to bridge high over the pipes. The mill was driven by a very old ex-mine Roby engine with a 14 ft (4.27 mm) flywheel and two ten inch (254 mm) cylinders under the smoke box. The rip bench belt came off the flywheel and the whole thing was a very slow running affair.

The mill was placed over the ridge to get a graded fall on a water supply from a spring in the head of a gully. My first job was wheeling sawdust and then I moved to the docking bench. I occasionally filled in as the engine driver and when I had passed my driver's ticket exam I went into winch driving. The winch I drove was the one near the mill that worked the south side of the incline as well as being used for log hauling along the face of the slope. This winch was steamed from one of the vertical boilers out of the Victorian Railways Rowan car locos that Alex Sanderson had converted. The boiler was a water tube type and was a very good steamer. The winch was a loose eccentric type that had a block of wood to keep the eccentric one way as there was only one drum as a winder. It was called 'Loosey'.

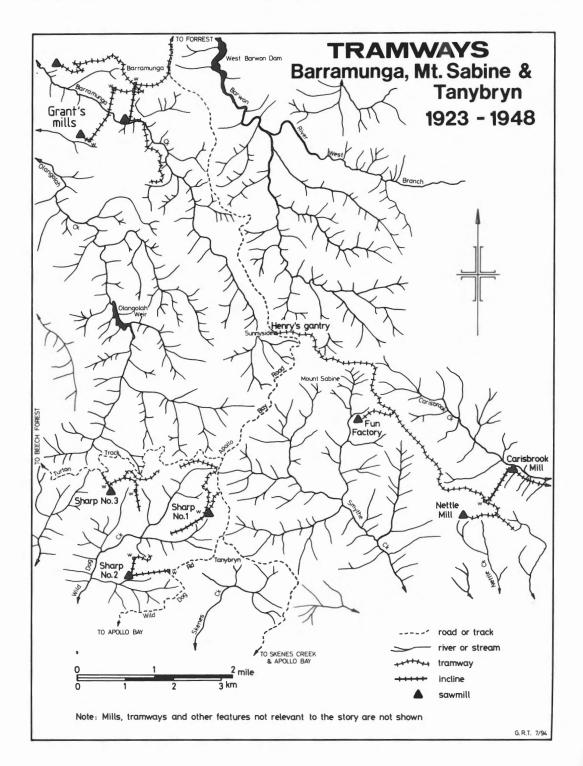
The photo of Henry's winch in Sawdust & Steam on p 62 looks like 'Loosey' and I was told that Grant had bought this winch, but not the boiler or rope drums, from Henry. I am sure the picture shows the same valve cover, regulator and lubricator that I was familiar with. Grant fitted the winch with another gear wheel and a narrower drum with higher sides and a screw-on type brake. These brakes were large, steel thread bolts with handles on the rear ends to force shaped wooden blocks onto the side of the rope drum. The gear wheel fitted by Grant was a poor match to the pinion on the shaft and gave a lot of trouble. The boiler was showing its age and I remember one day when Thompson, the boiler inspector, came to check the mill and walked past my boiler without stopping for a look and belting on his inspection stamp. When I later mentioned this to the mill driver he said the inspector was probably frightened his stamp might go right through the metal.

Towards knock-off time some of the mill crew would come up to my winch and pull the end of the rope (1% in, 28 mm) back to the mill and through a snatch block to set 'Loosey' off to bring the load up to winding line, where it was chocked and the block taken off the bight of the rope and a man stood at each end of the brake handles on the winch drum to lower the load to the creek. The men who didn't camp at the mill followed down and uncoupled the rope to be able to connect up the rope from the other winder. Two jerks on the whistle string set this one off. We rode on this load up to the top. It was safe enough as the rope went right around the middle of the load and back onto itself with a big shackle. On the Barramunga side when the trucks were being lowered a bad accident happened in 1934. The three men on the front trucks reckoned the winch driver was in a hurry until they realised they were running free because a link had fractured in the coupling. Bob Robertson and Harry Jackson were able to roll off sideways but George Newcombe didn't have a hope because of the speed by then and was decapitated when the truck plunged through a bridge half way down. The others were badly injured. A light wire rope joining each bogie to its mate and right on back to the end of the main rope fixed this problem from thereon.

## SHARP'S MILL

In late 1936 I left Grant's mill at Barramunga and went to Sharp's No 1 mill at Tanybryn to drive the Garratt on that mill. It was quite a lift to drive a beautiful engine like the 40 hp Garratt after working on the old Roby slow speed engine at Grants. The Garratt with 160 lb of steam was quite capable of driving the twin breaking down saws, rip bench docker and everything else, and it would not lose revolutions.

When I went there a link chain was being installed to carry the sawdust to the new brick saw dust burner. This chain was carried in a wooden trough mounted out over the existing saw dust heap. This chain gave a tremendous amount of trouble with choking and jamming until the belt came off.



A new idea came up to fit a %in (15 mm) wire rope running through wide sheared pulleys with pieces of wire rope strands inserted crossways. This worked perfectly and gave no further trouble.

Just after I started at Sharp's the manager, McPhee, (no connection to a local man of that name) disappeared overnight with the horse driver leaving us all without our fortnight's pay, 14 pounds, which we never got. Day & O'Neill took over the mill so I continued to work for them. I was a spare driver, repairman etc. After the Harman steam winch had pulled as far as it could reach out of the log yard a tram line was branched off at the stables and passed at a lower level than the access tram line to the road and going in a northerly direction it almost touched the Apollo Bay road a and swung westerly and touched Turtons track just before it reached the winch site, about 1.5 km from the mill.

The Harman winch was put here and pulled logs from a westerly to south west direction. Charlie Drier and I camped in a hut at this winch. I had a small turbine direct coupled to a generator which the steam left over in the boiler drove for lights.

While there I had the misfortune to jam the top of a finger in the door of the underfired boiler. I passed out with my neck across a steam pipe. Fortunately the log trucky was unloading wood and pulled me off. It didn't help me much on the throat! One evening three of the five horses fell off a bridge on this line. Everybody worked to save them and when darkness came I went up to the siding and carried a car battery and spotlight and directed a light from on the bridge. The three horses hanging in the harness had to be destroyed on the spot.

When this log site was cut out a new log line was put in west to south-west out of the mill log yard as an incline for about 900 metres. That was when Sharp's sent to the mill a Leyland 40 hp truck engine that was built into a winch with a single drum to work this incline. The engine had a short shaft out of the end of the gearbox chain drive to a counter shaft with a small gear driving to the large one on the end of the drum shaft. Being a magneto ignition no provision was made for signals i.e. winch signals. I built up a lever and spring arrangement that when the wire that followed the tram line from tree to tree was pulled sharply it caused the lever to bounce and hit a bowl base off a cream separator as a bell. This Leyland winch was fed logs by the Harman steam winch mounted at the bottom of the incline.

I also forged a pawl to follow the teeth on the cog on the end of the Leyland drum. This gave a holding effect so a gear change could be made on the way up instead of crawling all the way. One day I was riding up this line sitting on the two logs chained to the rail trucks when the flange broke off a wheel as the trucks crossed the bridge near the mill and it left the line and took me with it over a 5 to 6 metre drop. Somewhere on the way down I got a crushed foot.

The kerosene pump down in the creek was a real nuisance and between doing a lot of mending and always having a cranky engine, pump watch life was not easy. During the Christmas holiday I retubed the Garratt by myself. These holidays were then only a little over a fortnight. The Garratt engine was later abandoned at the No 3 mill at Turtons to be stripped down to a shell; also the Leyland was wrecked there. The No 2 mill was also being run by Day & O'Neill. The motor winch on the incline to the No 2 mill was the same design but powered by a Dennis truck engine. I made a similar knocker to my earlier effort in place of the existing clapper arrangement on the wall that you could hardly hear. Alongside this winch was a gantry to transfer by endless chain the load of timber to the road truck.

The No 2 mill had a compound engine fed by a underfired boiler with a hopper over the fire bars end and the sawdust was blown overhead from the benches to this hopper to be fed direct to the boiler. On some days this boiler worked beautifully and to keep the safety valve down you had to run the Worthington pump at the creek and also feed live steam into the second cylinder up to the governor control, which actually only controlled steam to the high pressure side of the engine. This engine had rope drive to the countershaft. There should have been six ropes but one was broken so five did the job. The ropes had stretched and were rubbing on the ground and cut a deeper hole as they slackened.

When Day & O'Neill gave up the contract on Sharp 1 and 2 mills there were ones like Scotty Sanderson, George Chamberlain and Chas Drier all took the contract at different times until the milling areas were cut out.

When Sharp's shifted the mill to Turtons I think five migrants were engaged. One, a Latvian, told me later that the huts were so cold and drafty they preferred to live in Beech Forest and walk to the mill each day!

## **HENRY'S MILL**

Henry's rail tractor job on the Sunnyside to Carisbrook Creek line became vacant in 1938 so I left Sharp's to take this on. Henry's first tractor driver was Fred Pearce and his helper was George Simmons. I was then boarding in Forrest and used to drive out every morning on a motor bike if it was not raining or in my car if the weather was wet.

Henry had an interest in a firm run by Don Slattery of Donaldson Foundries who turned out a rail tractor





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similar to the NZ Trails and Henry acquired one of these Donaldsons. The tractor consisted of wheels very like the Trails, 7 in wide and 2<sup>1</sup>/<sub>2</sub> in (1780 x 635 mm) flanges, set into a framework of wide plates bolted at the corners to angle iron. This type of construction was a bad design as the frame was not rigid enough and used to twist and occasionally cause the wheels to derail at points. The whole thing had to be closely watched until the frame squared up again. The Sewell built Trails that Henry bought secondhand later on from Grant and Hayden Bros had cast frames and gave no trouble. A Fordson engine was mounted on the frame with quite a lot of overhang and had a power shaft extended out the rear. This drove a set of open gears that could be shifted by means of a lever along a splined shaft to engage either two or three sets of cogs to give forward or reverse.

Under this set up another shaft drove longways to a set of gears carrying the two pinions that drove the crown wheels on each axle. The shaft between the front of the tractor and the power bogie had a fork at each end that, by using a grooved ball, enabled it to engage another fork on a 7 to 8 ft (approx 2.2 metre) shaft. The shaft also had a similar universal arrangements on the other end that also drove gears to power the four wheels under a power bogie. After we had jacked up the front of the load and pulled the four wheeled bogie out and shunted it the power bogie was attached to the tractor by a length of channel iron and hinged and pinned at both ends to correspond to the universal. This bogie carried 3/6 of the front load to give more traction. We still had to use sand on a wet day particularly on the inside rail of the curves. This tractor, as with Grant's and Hayden's Trails, had eight powered wheels, four under the engine and four under the bogie. Wheel brakes had not been fitted and the driver had to depend on a clutch brake. Eventually a hand brake was taken off the loco Tom Cue and fitted.

I had a helper named Mick Taylor and it meant a early start to get the tractor going and shunt the empty trucks at the transfer gantry on the Apollo Bay road below Mt Sabine. At the gantry was a tool cupboard and supplies of kerosene and petrol. The cupboard could easily have been forced but at no time was any fuel or tools stolen.

The empty trucks were pushed ahead so they could be watched and didn't leave the rails. The tractor ran radiator forward on the way to the mill because the forward-reverse set up gave a higher speed that way, about 8 mph (13 km). Actually this arrangement gave at all times 3 forward and 1 reverse gear. Triangles were built at each end of the line but were not used as this tractor was never turned around. It ran with the radiator first to push the empty trucks ahead of the power bogie, and ran gearbox first to come out with the load. The driver stood over the gearbox. We had to pick up two loads at the winch site above the Carisbrook mill 9.5 km from the gantry and bring them out. Then we had to go again to the Nettle Mill a further 1.5 km to pick up three bogie loads and bring them out. Many a time in the winter we were well in the dark before we finished. On Friday nights Henry's men on their motor scooters would catch up to us so we stopped as soon as possible so they could lift the scooters off the line and be pushed around us. These scooters were four flanged wheels on a steel frame and mostly an Indian Twin 7 hp Scout engine, all very lightly built. This particular motor bike engine was favoured because the engine and gear box were a single unit so all that was needed for the drive was a chain to the rear axle. Usually four men shared each scooter and when one man went to another mill there was a share to be bought by the next employee.

Henry's tramline went through several farming properties in Sunnyside and for this the agreement was to cart their produce such as groceries, post letters, deliver mail, cart potatoes on the loads - anything that was wanted. On one trip we ran out of kerosene and had to borrow what was left of the kerosene we had delivered the day before. The motor blew white smoke out of the exhaust pipe from there to the gantry as it didn't like lighting kero in place of power kero.

Regarding derailment, we were always able to stop before the wheels had even got inches away. We carried a Trewhella jack and an axe for such emergencies. By the use of short pieces of timber known as toms or props we mostly were not held up long. The loaded trucks seldom came off except at points and usually dropped in between the rails.

Going into the mill the only brake that could be used was the transmission brake activated by a fully depressed clutch. When we picked up the loads we then used brake ropes and pulleys on the loaded trucks. The helper had control of the rear loads and the driver had the ropes only to the load nearest to him. Bell shaped brake blocks did not seem popular in this part of the Otways, maybe because they got wrecked during derailments. Mostly the blocks were the ones that pulled onto the wheels at each end of the truck bogies. Grant's trucks that Henry bought were built by Ted Casper and had the pull-on ones.

The damp fog and misty rain made the engine very difficult to start. There was only a crank handle as an electric starter was not fitted - magneto only. The crown and pinion was kept lubricated with Marfak No 10, a Vacuum product so sticky it could only be



Above: Remains of the Garratt boiler at Sharp No 3 mill, 1993. The boiler has been moved from the mill site and rests in the old log yard.

Below: Bits and pieces from one of Henry's Trail tractors at the Carisbrook mill, May 1994. Both Photos: N. Houghton.



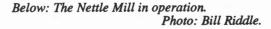
taken off the fingers with petrol. All the shafts and gears external on the tractor were greased with the Marfak or a grease gun on the bearings. When the radiator leaked too much a cure was to stir a puddle on the side of the bitumen road and pour in a bit of the water.

The Donaldson tractor gave a lot of trouble just after I started there and when Grant's mill was burnt out in a bushfire in 1939 Henry bought Grant's Trail. This Trail was only 21 hp and it could not bring the three bogie loads out of the Nettle Creek, so over the weekend we changed the engine off the Donaldson to it, a 4¼ in (108 mm) piston engine of 32 hp. The Donaldson with the 21 hp engine was then used on the Nettle log line. The Fordson engines on these Trails were of the old type with the clutch running in oil, 16 plates in each, and would not disengage until the motor had heated the oil. To start off when cold one had to position the gear stick in the right direction and a good thump with your foot set you off. Holding the clutch down for the first 10 to 15 minutes would finally disengage it for the rest of the day.

I stayed on the job until 1943 when I enlisted, with my patriotic motivation coming from seeing the military convoys passing by from time to time.

Above: A piece of heavy rail on the branch line to the Fun Factory mill, October 1993. Photo: N. Houghton.

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#### LIGHT RAILWAYS

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## LETTERS

## Dear Sir,

## ANTHROPOMORPHISM (LR 123)

I write to register my protest at what I regard as an annoying fault that appeared in LR 123. It is not an horrendous fault but is one that I think should be acknowledged and nipped in the bud before it becomes ingrained and adversely affects the image of our Society as a serious research body.

I refer to the anthropomorphic terms used in some of the photograph captions in the article on the restoration of Fairymead No 1.

The subject we study is not of world-shattering importance but we do research it seriously even if we have fun whilst doing so. It behoves us, then, if we want to be taken seriously by our historical/research peers, to see that our major publication reflects that seriousness. To this end, I believe we should leave the childish attribution of human characteristics and activities inanimate objects to Thomas and his friends and to some of our more entertainment oriented bodies. Locomotives, traction engines and material objects do not 'relax' by the shed (p 7), 'contemplate(s) its future (p 8). They do not 'look on' (p 14) nor do they 'catch up with an old friend' (p 15).

Am I the odd one out? No doubt you will tell me so if that is the case but I don't think I am. Why, I've even watched Thomas (with grandchildren, how can you dodge it?) and come through without harm, but talking, thinking, contemplating, looking-on locomotives in a serious journal is too much.

There wasn't much of it but a little is enough, and enough is enough.

Chas Bevan. Melbourne, V.

Dear Sir,

## TASMANIAN QUERIES MT BISCHOFF

Lou Rae's A History of Railways and Tramways on Tasmania's West Coast tells (on p 179) of how in 1943 the Minerals Production Division of the Commonwealth Department of Supply and Shipping took over the Mt Bischoff mine for tin production. The 3 ft gauge tramway was refurbished and 'a six ton 30 hp international petrol locomotive' was brought in to haul ore from the mine to the mill. A photograph shows what appears to be a Malcolm Moore four-wheeled locomotive, carrying a maker's plate which could no doubt be read from the original print. The mine is said to have closed in August 1947. Could any reader provide more details of the locomotive?

## Wee Georgie Wood

We all know that a Fowler 0-4-0WT named WEE GEORGIE WOOD is preserved at Tullah, but what is its identity? Two similar Fowlers were delivered to the line 16203 of 1924 and 17732 of 1928, and they were known as WEE GEORGIE WOOD and WEE MARY WOOD. It is recorded that after 1946, parts from these two were combined to make one working loco, which continued in use until closure in 1964. Can any reader confirm which main frame is generally regarded as being the essential component when identification is to be established? I understand that the other main frame is now at Lune River.

John Browning Mackay, Q.

Dear Sir,

**GOODWOOD LOCOMOTIVES (LR 124)** 

Mike McCarthy is certain to be congratulated for his account of the Goodwood Timber and Tramway Company. The story of the locomotives is an intriguing one with the clues provided not necessarily leading to definitive identification, as Mike points out.

There does not seem to be any photograph of the Krauss *Amie* to accompany Mike's article, which is a pity as there is mention of such a photograph in Bruce Macdonald and Charles Small's article which appeared in the ARHS Bulletin in 1970. There seems little reason to doubt their identification of the loco as Krauss 5947, which was a 7½ ton 0-4-0WT. However, the building date of 1908 makes it not quite 'brand new' upon delivery in April 1910. This loco was despatched to the order of Lohmann & Co, Melbourne.<sup>1</sup> Maybe it came from a cancelled order.

The identification of *Mona* as a 10 tonne 0-6-0WT Krauss, either 6415 or 6416 is also not open to much challenge. These two locomotives were identical and I enclose a photograph of the other 'twin', believed to have been taken in 1925 at the MacGregor Tramway near Cloncurry in Queensland. This ended up at Kalamia Mill, and its remains are to be found in Plantation Creek nearby where it was used for pumping. These two locomotives were despatched to the order of Diercks & Co, Melbourne in 1910, which fits with the delivery of one of them as new to Port Albert early in 1911.<sup>1</sup> The identification of the Orenstein & Koppel 0-4-0WT *Lila* (not 0-6-0WT as stated on p 23) is a little more open. Mike suggests one of 4755 & 4756 of August 1911, despatched to the order of the Australian Metal Co Ltd, Melbourne. These were 30 hp wood burning locos, which according to Orenstein & Koppel data dating from about 1910 would have had cylinders 165 mm x 300 mm (6<sup>1</sup>/<sub>2</sub> x 12<sup>°</sup>), a 1000 mm (3'3") wheelbase, and would have weighed 7.2 tonnes in working order.<sup>2</sup>

The cylinder dimensions of *Lila* quoted in the article (8<sup> $\frac{1}{4}$ </sup> x 12<sup> $\frac{1}{1}$ </sup>) indicate a 50 hp locomotive and this is supported by the Orenstein & Koppel 50 hp wheel base of 1200 mm (3<sup> $\frac{1}{1}$ </sup>), approximating to the 4<sup> $\frac{1}{1}$ </sup> quoted for Lila.<sup>2</sup> The identification of Lila as a 50 hp type is supported by its size as shown in the photographs, and the need for a powerful locomotive on the gradients encountered on the 1913 extension of the northern logging line is obvious. A discussion of other dimensions will follow.

There is just one 50 hp Orenstein & Koppel unaccounted for from the list of those despatched to Australia. This is 0-4- 0WT 3961 of January 1910, which Orenstein & Koppel records show as 600 mm gauge (rather than the 610 mm) gauge more usually found in Australia), and it was designed as a coal burner rather than a wood burner. It was despatched to the order of Strelitz Bros, West Australian agents who imported six other Orenstein & Koppel locomotives between 1900 and 1911.<sup>2</sup>

When we examine the dimensions quoted by Orenstein & Koppel for their coal burning 0-4-0WT, we find a weight in working order of 8.7 tonnes compared to the quoted weight of 8<sup> $\mu$ </sup> tons for *Lila*, and the tractive effort and heating surfaces both appear to approximate with those given for *Lila*, according to my calculations. However, it should be pointed out that the driving wheel diameter of 20<sup> $\mu$ </sup>" (521 mm) quoted for *Lila* is much smaller than the 580 mm given by Orenstein & Koppel for both 30 hp and 50 hp types.<sup>2</sup>

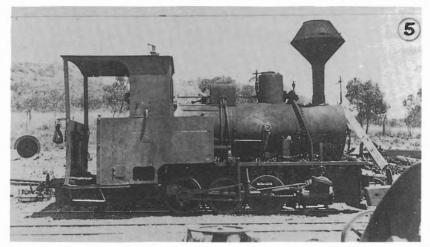
I believe it is fairly likely that Lila was Orenstein & Koppel 3961, which arrived at Port Albert some 33 months after it left the Orenstein & Koppel works in Berlin. What was it doing in the intervening time? I would suggest that the circumstantial evidence strongly points to it having been ordered for some other buyer in Western Australia, possibly for service at or near a port where coal supplies could be obtained, or possibly in the Collie coal industry. (There were several other 600 mm gauge Orenstein & Koppel locomotives delivered to Western Australia and to other states incidentally.) Maybe the order was cancelled, and the locomotive resold. Certainly, it may be more than the men and their families which originated in Western Australia, and the West Australian ownership of the company could easily explain the acquisition of such a locomotive from a West Australian agent.

#### **References:**

- Macdonald, B.T. & Small, C.S. (1970) Krauss Locomotives in Australia. Australian Railway Historical Society Bulletin No 391.
- Fricke, K., R. & Murray, M. (1978) O&K Steam Locomotives Works List 1892 - 1945. Arley Hall Publications, Bristol, UK.

## John Browning, Mackay, Q.

Krauss 6415 or 6416 on the MacGregor tramway 1925. Note the unflanged centre wheel. Photo: J. Browning Collection ex ANU Archives of Business & Labour.



#### OCTOBER 1994

Dear Sir,

## LOCO 'PEGGY'

A recent opportunity to examine the Vulcan Foundry & Co Ltd records held by the Merseyside Maritime Museum in Liverpool has enabled me to conclusively establish the identity of the Vulcan Foundry - built 0-6-0ST.IC locomotive that at various stages o f its career was known as 'Peggy' at Corrimal Colliery and No 28 in the NSW Public Works Department roster.

In his book 'Colliery Railways of the Illawarra District of NSW (Central Section)' (Traction Publications 1968) the late Giff Eardley said that this locomotive had been built 'possibly about 1876, and the maker's number has been given as 794 ...'. This information was repeated in the later Ken McCarthy's 'Gazetteer of Industrial Steam Locomotives of the Illawarra District of NSW' (ARHS, NSW Division 1983). However, Giff went on to say 'A photograph taken at Rookwood shows a full length extension to the cab roof ... (and) a number 801 painted on the lower fender plate of the cab ... of which one can only say 'most interesting'. Both books show what purports to be the builder's photograph and it is this which I believe has led to the confusion.

The locomotive was, in fact, VF 801 of 1877, built to the order of W. Briscoe & Co, London, for Australia. It was one of 3 such locomotives built by VF, the other two being:

VF 796 ex works 1876, Sutton Heath Colliery, 'Fanny'

Below: Loco 'Peggy' at Craven.

VF 799 ex works 1877, T. Nelson & Co, Contractor, Carlisle

A works photograph was only taken of the class leader, 796, and it is this photograph which appeared in the two books mentioned above. I assume that some 40 or more years ago an Australian enthusiasts wrote to VF asking for a photograph of the NSW locomotive and was sent the print of 796 without it being made clear that this was of the same type but not the actual locomotive and, further, that they misread the number on the workplate. VF 794 (and its partner 795) were 7'0" gauge 0-4-0STs for the Azores Railway.

Full details of VF 801's history can be found in Ken McCarthy's book from its initial use by contractors building NSWGR lines, through sale to the Southern Coal Co for use at Unanderra and Corrimal, ownership by the NSWPWD and finally working out its days with the Craven Timber Co, near Gloucester in NSW (still carrying its PWD number). Although the Gazetteer suggests only possible use with the Craven Timber Co, the accompanying photograph from Bruce Macdonald's collection show it running there. The other two photographs show the builder's view of 796 and 801 lettered 'Farewell to Rookwood' with '801' emblazoned on the cabside. Note that when in use with the Craven Timber Co, the saddletank was reversed.

Richard Horne South Croydon, Surrey U.K.

Photo: K. Magor Collection ex Bruce McDonald.



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Above: Vulcan Foundry 801 at Potts Hill Reservoir 1890? Photo: Bruce MacDonald Collection.

Dear Sir,

22

## WOOL TRAMWAY

On a recent trip by rail from Charleville to Cunnamulla in Queensland I noted the dis-used remains of an elevated tramway at Quilberry, 50 km south of Charleville. The tram ran from the woolshed on the railway boundary to the railway siding, a distance of about 20 metres.

Yours faithfully, Ted Stokes, Geraldton WA

## Dear Sir,

## KANDOS LIMESTONE QUARRY (LR 91 & 93)

In addition to the references given in LR 93, the circular railway is described in an article in the local paper, the 'Lithgow Mercury' of 18 July 1923, and in the American civil engineering journal, the Excavating Engineer' of August 1924.

Yours faithfully, Jim Longworth Sydney N.S.W. Dear Sir,

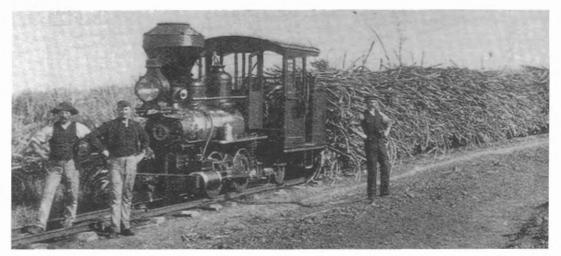
## FYANSFORD LOCOS LR 120

Further to my article in LR 120 I have found reference to the Australian Cement Co owning a Purcell loco. The loco is described in a plant schedule (undated but circa 1938) as 'Oil, 3 ft 6 in, Purcell, 2 tons, 25 h.p. Vanguard engine, in service 1924, out of service 1930'.

The same source has a table listing the company's side-tipping rail trucks as below:-

size	17 yd	10 yd	5 yd	4 yd	3 yd	2 yd
make	Malcolm	ACL	ACL	Western		ACL
	Moore			Moore		Scott
Const	steel	timber	st & tim	st & tim	steel	steel
No.	20	15	20	17	6	30
Gauge	3'6"	3'6"	3'6"	3'6"	3'6"	2'6"
In Serv	1927-9	1925	1925			1922
Out serv				1926	1926	1931
Disposal		some scrapped		awaiting		awaiting
•				sale		sale

Yours faithfully, John McNeil, Geelong Victoria.



Dear Sir,

## FAIRYMEAD NUMBER 1 (LR 123)

Historical research certainly contains its share of surprises. The upper photo caption on page 4 of LR 123 has now been rendered obsolete by David Burke's astonishing discovery of this much earlier view of number 1.

Found recently in an old 'Sydney Mail', dated October 20 1894, it shows the loco in close to original condition, giving us our best clue so far as to how it may have appeared when new.

Fairymead No 1, 1894. Photo: courtesy Davie Burke ex 'Sydney Mail'.

Having had many eminent historians on the case since the 1970s, I had to come to the conclusion that just about all material still in existence must have surfaced. Now, I find myself wondering 'what's still out there?'

Bruce Belbin Sydney NSW

Dear Sir,

## **GWALIA TRAMWAY**

I recently came across this picture in the Mitchell Library entitled 'On the way to the woodline of Gwalia' January 1921.

The gauge on the contraption seems to be a lot wider than 20 inches, as on the woodline, and is possibly on the street tramway that ran between Gwalia and Leonora. Can any reader shed further light?

Jim Longworth, Cheltenham, NSW 23

LIGHT RAILWAYS



Sons of Gwalia head frame in current re-erected position at Gwalia, 1991 Photo: David Whiteford.