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LIGHT RAILWAYS

Australia's Magazine of Industrial & Narrow Gauge Railways

Light Railway Research Society of Australia Inc.

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Imperial to metric conversions:

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

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No 257 October 2017

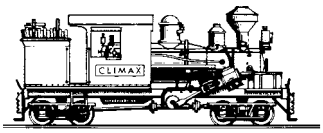
Contents

Editorial

Welcome to another bumper 48 page edition of *Light Railways*. The LRRSA Council has agreed for me to have several such editions each year as a way of publishing as many articles as possible that I have on hand. As I have said before, I have a large amount of excellent material and I am slowly working through it all and getting it into the magazine. In the last couple of months I have received another five articles covering a very wide range of subjects and locations across Australia, and these will be published when space permits. Also, I have been advised of several others that are in preparation.

Another way to publish material (particularly the longer and more comprehensive manuscripts) is to prepare books on various subjects. At the moment there are a lot of such books available from various publishers, covering a wide variety of areas of light railway interest across Australia. With some excellent current books such as *Engaging the Giants*, *Shays and Shale* and the forthcoming and long awaited reprint of *Speed Limit 20*, readers are well served. Also, the LRRSA has a number of books in various stages of preparation and will publish them when ready - more details to follow when they are available. As always, the LRRSA sales department has a comprehensive list of titles covering light railway topics available for purchase – see our website for details. *Richard Warwick*

Front Cover: *J and A Brown No.20 (ex ROD 1984, NB 22042/1918) arrives at the picturesque Caledonia station on the SMR with a goods train from Cessnock in March 1968. These locomotives rarely hauled general goods trains on Australian soil and the two government PV Class explosive vans in this train would not have been out of place on the battlefields of Europe. By this time local passenger services on the SMR had ceased, but the government railways continued to operate a Cessnock - Sydney service six days a week, which stopped here as required. The Aberdare colliery in the background closed in 1960, but the sidings still served a coal preparation plant where No.20 will attach a load of consignment coal destined for domestic consumption. ROD 1984 was one of the engines equipped with steam heating for working Ambulance trains, and the bracket for the steam pipe is still intact on the lower buffer beam, to the right of the draw hook. Photo: Robert Driver*



Light Railway Research Society of Australia Inc. A14384U
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The Light Railway Research Society of Australia Inc. was formed in 1961 and caters for those interested in all facets of industrial, private, tourist and narrow gauge railways in this country and its offshore territories, past and present.

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

Light Railways is the official publication of the Society. Material submitted is subject to editing, and publication is at the discretion of the Editor.

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

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

Manning Wardle 0-4-0ST Stanley, *371 of 1871, at Jaegers Salmon River Mill, on 25 February 1937.* *Photo: RB McMillan*

The later years of the Marrawah Tramway

Part 2 – more lines, locomotives, rail motors and rolling stock

by Jim Stokes

The Salmon River branch line

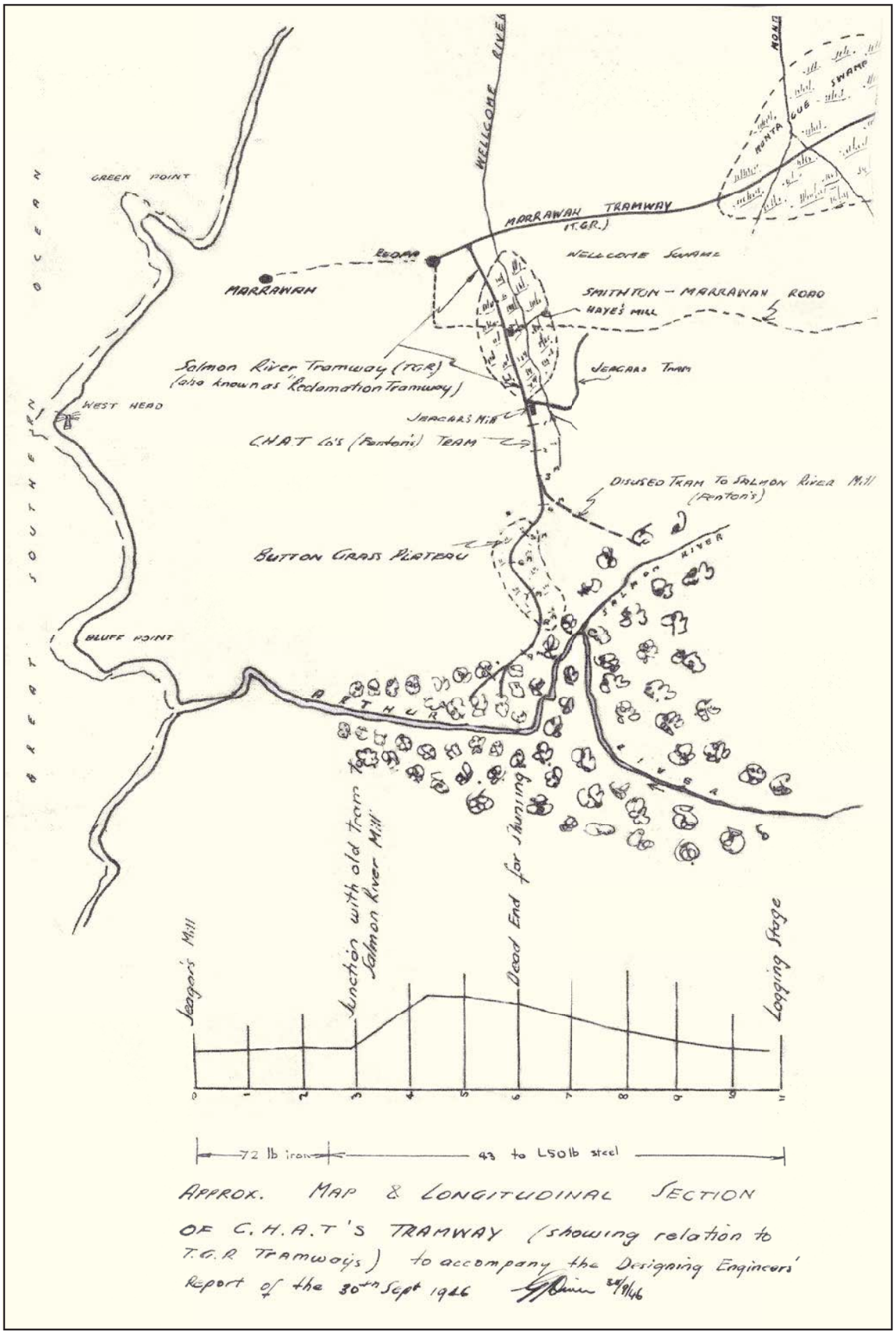
In February 1922 Thomas Strickland[71] began a government project to clear and drain swamps along the Welcome River, which flows northwards to enter Bass Strait near Woolnorth and which the Marrawah Tramway crossed at 22 miles 42 chains.[72] Central to this scheme was the construction of a steel tramway southwards for some 4½ miles from its junction with the Marrawah tram. Individual sawmillers then built several spur lines further to the south and east into an area drained by the Salmon River, which flows into the Arthur River. The branch was initially known as the Welcome Swamp tram, but in later years it was known as the Salmon River tram and its junction with the Marrawah Tramway became Salmon River Junction.

Strickland was given approval to build the line in September 1922 and by January 1923 it had been formed for 2¼ miles and the Marrawah Timber Company had established several dumps of huge blackwood logs awaiting transport. By May 1923 rails had been laid for 1 mile 60 chains, with a ruling grade of 1 in 66 and a minimum curve radius of eight chains. By March 1924 rails had been laid for 2 miles 53 chains, formation completed to 3 miles 14 chains and the route pegged to 4½ miles. In June 1924 1½ miles of rails still needed to be laid to complete the line to the point agreed between the government and the Marrawah Timber Company.[73] In his report for 1924-25 the Engineer-in-Chief said that the line had been built by the Closer Settlement Board but had now been handed over to the PWD to work in conjunction with the Marrawah Tramway. It was 4 miles 47 chains long and built with rough formation, second hand 43 pound rails and sand ballast.

Once the government line was completed Frederick Hay established a mill approximately two miles south of the junction at the point the line crossed the Smithton – Marrawah road. Hay built logging tramways south-eastwards from his mill for about two miles towards Dismal Swamp. Some time later Frank Jaeger built a mill at the end of the government line, from which he had a network of logging branches running in a generally south-easterly direction for about four miles to access the southern end of Dismal Swamp and Bond Tier.

In 1924 William Etchell transferred his mill from Smithton to Salmon River to cut blackwood. Etchell built several miles of wooden tram to link his mill with the end of the government line. In August 1926 two Tasmanian Tigers (thylacines) were caught in a snare on 'Toomeys lease', about two miles from the mill. Etchell's son Hillary was still at Salmon River in January 1928, but in November 1929 Robert Kay was operating the mill. The mill closed at least temporarily in September 1930, but it was reported in July 1932 that a gang had gone to Redpa to reopen it.[74]

E H Fenton took over the Salmon River mill around 1933. On 11 July 1934 Salmon River (Fentons) Pty Ltd signed an agreement with the TGR to purchase enough second hand rails to lay between one and six miles of tram line to service



1946 sketch of the Salmon River line from Tasmanian Archives and Heritage Office. File P2213/Q11

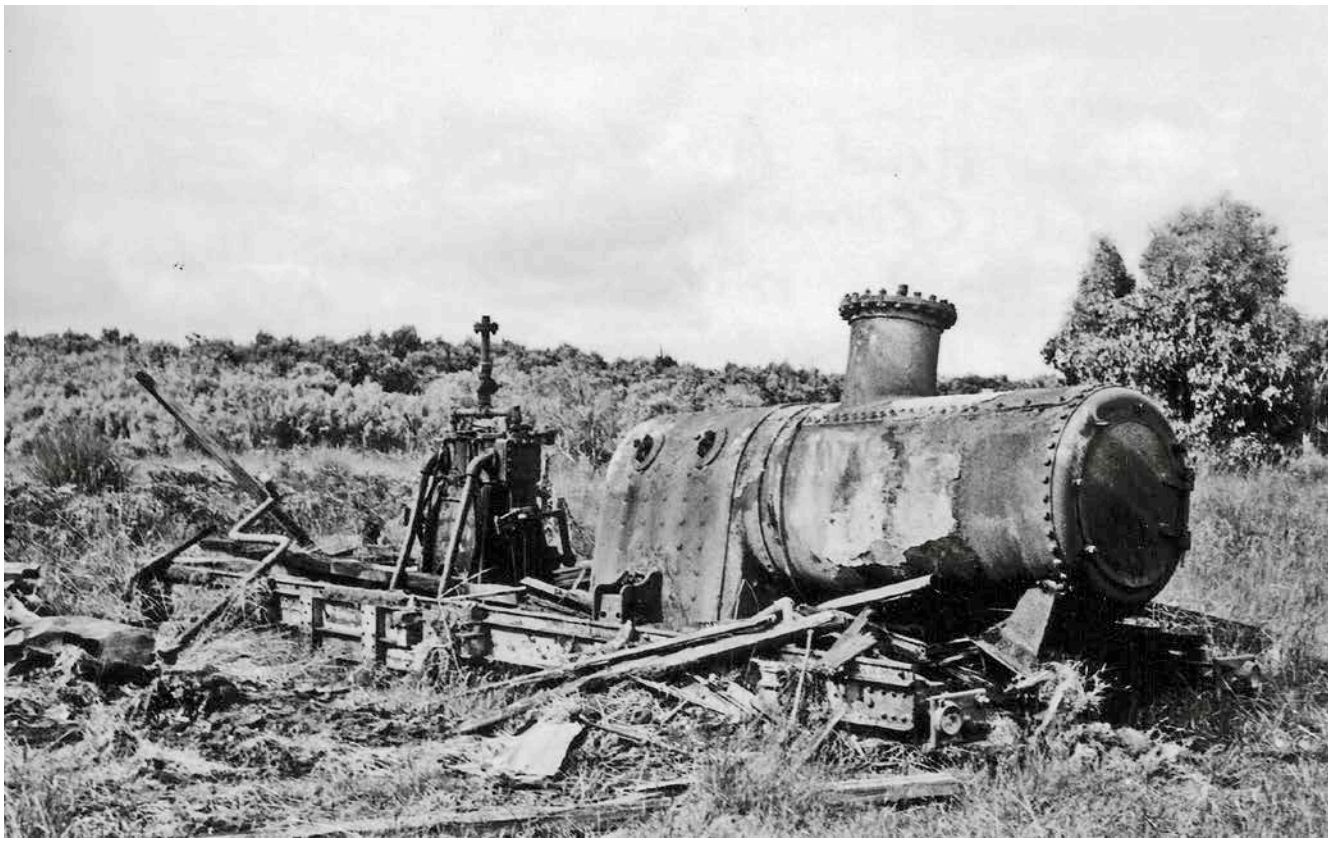
their milling operations in the parish of Lerunna. The *Advocate* of 17 August 1934 (p.6) reported that the six ton boiler for King and Fenton's new mill had 'arrived ' and was awaiting delivery and installation. By November 1934 E H Fenton said that his company had just completed laying 5¼ miles of railway to its mill at Salmon River and that government engines had been over the line once or twice for cut timber. The mill was working full time and one and a half million superficial feet of racked timber was ready for shipment. In December 1934 Fenton was in the process of railing 320,000 superficial feet of seasoned timber to Stanley for shipment to Adelaide.[75]

On 28 August 1935 Fentons agreed to buy up to two more miles of TGR rails to lay a tram south-westwards from Salmon River mill into the Warra state forest. On 26 November 1936 Fentons agreed to purchase a further mile of rails to lay a tram in the parish of Riengeena; Riengeena was the parish to the north of Lerunna and an accompanying map suggests that Fentons had replaced the wooden tram between Jaeger's and Salmon River mills with a new line just to the west of it.[76]

The *Circular Head Chronicle* of 29 July 1936 (p.4) reported a visit to Salmon River by a correspondent writing as 'Scout'. He travelled out from Smithton on the rail motor, having been told that a log train for Jaeger's mill would follow the motor and he could then use a hand trolley to cover the remaining five miles to the Salmon River mill. Unfortunately the log train had in fact preceded the rail motor, so he had to ride a horse from Redpa along a very rough track which more or less followed Fenton's phone line. Fenton's mill settlement included a boarding house, six cottages, several huts and a flower garden. Work at the mill had temporarily ceased so that the employees could lay one mile of iron-railed tram line to a new belt of timber. This line is probably the one running south-westwards from the mill mentioned in the agreement with the TGR of 28 August 1935. 'Scout' also walked for two miles down another tram line from the mill to the Salmon River itself, through an area 'now about cut out'.

'Scout' was impressed by Fenton's tram locomotive converted from a steam wagon, which could haul a load of some 70 tons.[77] In addition to hauling timber the locomotive ran to Jaeger's mill on Thursdays to bring in supplies for Fenton's mill. He was less impressed by having to walk the five miles of tram line to Jaeger's mill to catch the rail motor back to Smithton. Over the first three miles the sleepers were spaced for iron rails, but the last two miles were laid on tightly-packed corduroy slabs as it had originally been intended to work the line with horses. He noted that Fenton's timber lease extended for the whole length of their tram and they also had another lease extending for four miles from Jaeger's mill. Jaeger's iron-railed tram ran through the latter lease to his own 4,000 acre lease and Ron O'Connor used Jaeger's locomotive to bring in logs to Jaeger's mill.

In 1941 the Dunkley and Fenton family timber interests merged with Circular Head Timber and Kiln Co. to form Circular Head Amalgamated Timbers (CHAT). CHAT built a branch tram off Fenton's Salmon River line, diverging about two miles south of Jaeger's mill and running south-westwards for about three miles through Warra state forest almost to the Arthur River. To work the line CHAT acquired two Climax Class A geared locomotives in 1941 from the NSW North Coast. One (built 1913, makers' number unknown) came from William Langley's tramway north of Taree and the other (built circa 1913, makers' number 1265) came from Pines and Hardwoods of Simsville near Stroud. After use of the Salmon River lines ceased in 1949 the two Climax engines were abandoned at Hay's mill site at the Marrawah road level crossing. Some time in the 1950s they were dismantled to provide parts for the construction of a diesel rail tractor by Britton Bros and their remaining metal parts were removed for scrap in 1967.[78]



The remains of the ex-Simsville (NSW) A Class Climax locomotive at the Hays Mill site, on 14 November 1966. Photo: Jim Stokes

Outward freight traffic recorded at Salmon River Junction peaked at 17,060 tons in 1938-39, but then gradually declined. The Salmon River branch was closed by proclamation on 23 May 1946, but this was subsequently revoked. On 11 April 1947 CHAT was given a lease to work the line, but the arrangement did not last very long. Timber bogies owned by the TGR were sold to the timber companies using them, the companies being required to maintain them to TGR standards. Air photos taken on 15 January 1948 suggest that the only privately-built lines then in current or recent use were about three miles of Jaeger's tram eastwards from his mill and the CHAT line southwards from Jaeger's mill to the Warra state forest. The Salmon River line recorded 8,404 tons of outward freight in 1947-48, 3,845 tons in 1948-49 and nothing from 1950 onwards.[79] Jaeger's mill was destroyed by fire on 27 January 1949, the suspected cause being either a cigarette butt or a spark from a locomotive. A road had been completed to the mill a short time before the fire, so that the tram would have been unlikely to have survived for much longer.[80]

The TGR did not call tenders for demolition of the government-owned section of the line until December 1960. It is not clear whether the rails had been left in place for so long in the hope of new pulpwood traffic, or merely because the government had forgotten that it owned them! The tender advertisement described the government-owned section as being approximately five miles long, extending from a point 200 feet south of the south points of the Salmon River Junction wye to the points of Jaeger's Tram. The rails were a mixture of 43 pounds per yard and high and low section 50 pounds per yard.

The end of the old order 1945-1950

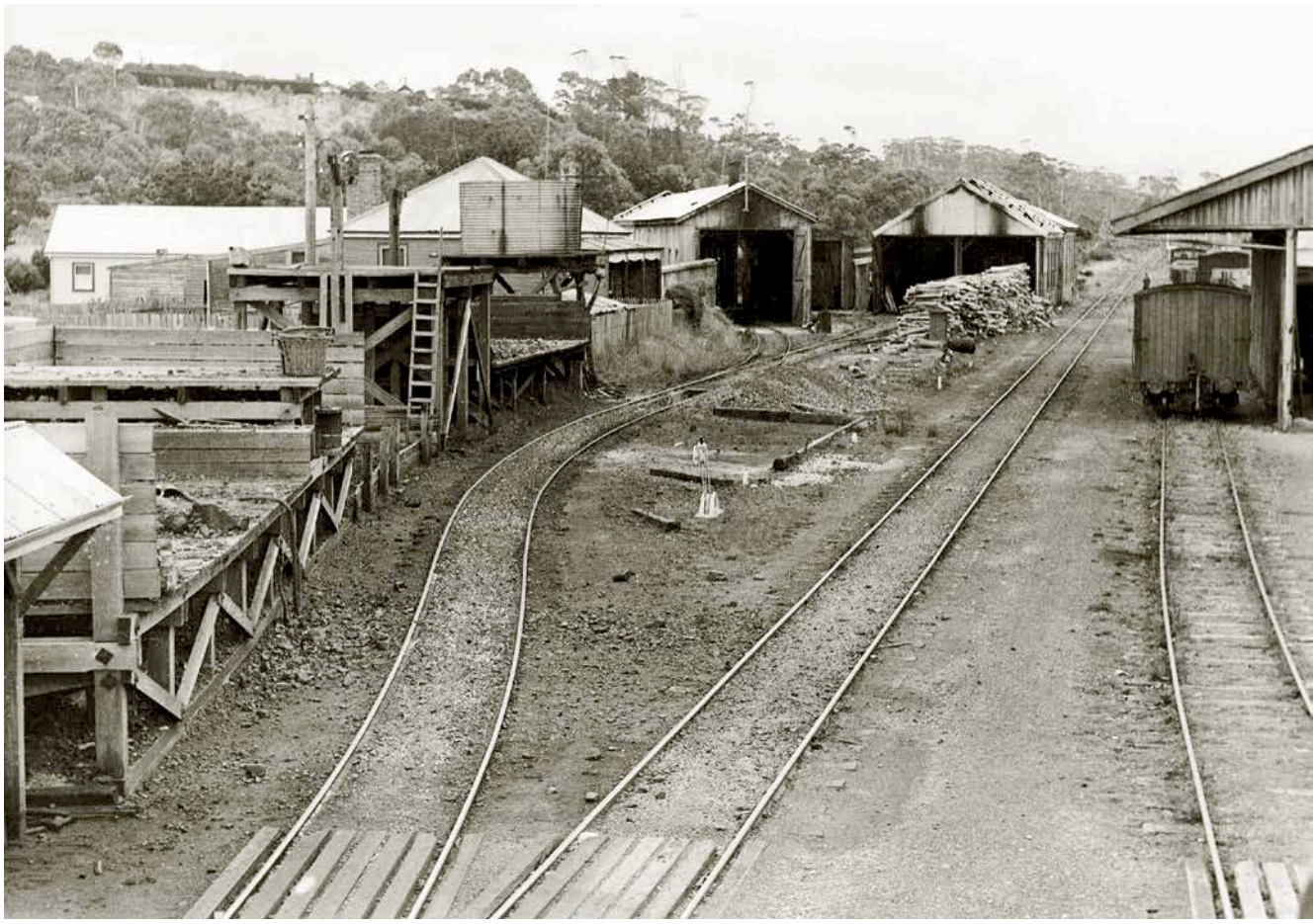
ARHSB for November 1951 (pp.146-7) included an account of a trip from Smithton to Redpa in 1948 behind Beyer Peacock 4-4-0 B5; the fact that the train was run by a small passenger engine in the last year of its working life suggests that there was a shortage of C-class engines. The account is worth repeating because it came almost at the end of traditional operating methods on the tramway:

The train from Smithton was joined at the small platform near the hotel across the Duck River bridge at 7.00 am and was at that stage made up with No 5 of the 'B' class hauling one 'dummy' flat truck and a composite van of normal Tasmanian Railways type. A stop was made at the tramway yard where several timber bogies were attached on the engine. The next stop was Leesville where some passengers alighted and again at the Four-Mile to put out some provisions. The next stop was at the Seven-Mile where the guard indicated that timber bogies with a log had been derailed the previous night and the engine was to be detached to assist in its rerailment, which was done with the help of a gang arriving on a motor trolley from Smithton for the purpose. On completion of this work the engine returned to pick up its train, then proceeded on its journey pushing the rerailed vehicle ahead. Just beyond the Ten-Mile five timber bogies were found on the line where they had been abandoned as an overload the previous day and these were added to the collection ahead and pushed to the Seventeen-Mile siding and left there.

The train then ran non-stop to Salmon River Junction, where it turned along the eastern leg of the triangle to the Salmon River branch till clear of the junction at the southern angle, then propelled along the western leg out onto the main line, thus reversing the engine, and continued in this manner for the remaining half-mile to the terminus at Redpa. While this was happening, Jaeger's tram with 'Six-Wheeler' attached stood on the main line till the Marrawah train ran round the triangle, then propelled clear and proceeded down the Salmon River branch.

Returning from Redpa after a stop from 1.30 to 2.00 pm the train, marshalled with the composite van on engine B5, and the timber vehicles trailing, departed and stopped at Salmon River Junction to pick up timber bogies from Jaeger's at the eastern fork junction. At the Seventeen-Mile the vehicles left on the outward journey were added to the rear. Another timber truck was picked up at the Ten-Mile from Britton's Mill but, as the branch had only wooden rails, a tow-pole was used to move it onto the steel main line. At the Seven-Mile a railway type truck was attached immediately behind the van and the motley collection arrived back at Smithton tramway yard at 4.00 pm.

In 1950, Beyer Peacock 2-6-0 C12 shunts at 19 Mile while working the regular goods with passenger accommodation. Photo: IK Winney



The Smithton loco depot area, circa 1944. *Photo: TGR*

The last decade of the Redpa line: 1951-1961

The early 1950s saw a minor revival in passenger operations. The working timetable of 29 September 1952 included morning and afternoon rail motor trips from Smithton to 17 Mile and return on weekdays, presumably for people working on the Montagu Swamp farmland reclamation project. The Land Settlement Board also ran a fettlers' motor from Redpa to 16 Mile and return and Associated Pulp and Paper Mills (APPM) ran a fettlers' motor from Redpa to 19 Mile and return. Both organisations indemnified the TGR against any disasters that might befall the passengers. Motor drivers were warned to take great care between Redpa and 19 Mile, where visibility was limited by curves and trees. Caution would have been particularly necessary in the mornings, when the two motors left Redpa only five minutes apart. The rail motor service from Smithton to 17 Mile had ceased by the time the working timetable of 6 December 1954 was issued, but the two fettlers' motor operations from Redpa were still listed. They did not appear in the working timetable of 16 September 1957.

Freight traffic gradually declined during the 1950s. The TGR renamed the line 'The Marrawah Branch Line' in 1956, telling staff that it was not considered advisable commercially to refer to it as a tramway![81] However this did nothing to reverse the decline. Freight traffic at Redpa remained fairly static, averaging rather more than 1,000 tons inwards annually, but with very little outward traffic. The cessation of APPM pulpwood traffic from 19 Mile in 1958 virtually ended timber traffic beyond Leesville. 16 Mile continued to handle a small amount of inward freight traffic, mainly superphosphate. 4 Mile recorded occasional small consignments of pulpwood until 1956-57.

In the 1952 working timetable there was a trip to Redpa (now described as a goods train rather than a tram) on Wednesdays and Fridays and the 1954 timetable also included a train on Mondays. In the 1957 working timetable a train left Smithton at 09.00 on Tuesdays and Fridays, remained at Redpa from 11.00 to 11.30 and got back to Smithton at 14.00. By the time the line closed beyond Leesville in 1961 the train was running only on Fridays.

The last significant change was the introduction of diesel locomotives in 1960. 350 hp Tulloch 0-6-0 diesel-hydraulic unit W2 was trialled on goods working in the Smithton area in 1960 and 1961, after which it was decided that the two W-class units would be more reliable on heavier track and closer to Launceston workshops. After the closure of the Zeehan – Regatta Point line in June 1960 204 hp 0-6-0 diesel-mechanical unit V9 was transferred to Smithton to work both the Trowutta branch and the Marrawah Tramway. V9 had been completed at Launceston workshops in 1959, utilising a spare Drewry motor; it was sold to the Puffing Billy Railway in 1983, but is now back in Tasmania on the West Coast Wilderness Railway. Also in 1960, Smithton was allocated 102 hp 0-4-0 Gardner-engined diesel-mechanical unit U3, one of six members of the class rebuilt at Launceston between 1958 and 1960 from Malcolm Moore units used on hydro-electric construction projects in Victoria. U3 was used for shunting at Smithton and Leesville and C20, the last member of its class to work at Smithton, was transferred to Stanley. However C20 was back at Smithton for occasional local goods work in late 1961 and 1962. In the 12 months from 1 July 1960 to 30 June 1961 steam engines ran 62 miles on the Marrawah Tramway, V9 ran 3,251 miles, U3 ran 663 miles and W2 ran 439 miles. U3's work would probably have been confined to trips to Leesville.

A trip to Redpa in 1961

The Leesville – Redpa section was closed on 30 March 1961.[82] Realising that the closure was imminent I travelled from Smithton to Redpa and return on the goods train on Friday 10 February 1961. Although there was not much freight traffic there were still some interesting operational features, while the encroaching vegetation made the trip something of a wilderness adventure. The train was headed by diesel-mechanical unit V9 and when it left Smithton TGR station it consisted only of four-wheel goods van E198 and clerestory-roofed passenger brake van DDB3. The provision of a 15.15 metre brake van for one passenger and a small amount of van goods seemed rather generous! At Tram Yard we attached four-wheel open wagons C94 and C334 (loaded with sawmill offcuts) behind the engine and 30-ton bogie flat wagons FFF6 and FFF53 behind the brake van. We stopped at Leesville for van goods, but left the mill shunting for the Smithton yard shunter.

I tried to note the remains of sidings and branch lines as we passed them, although this was complicated by not knowing the exact location of some of the spur lines and also by the need to avoid being hit in the face by passing vegetation. Most of the sidings identified in the 1949 TGR General Appendix as crossing points were still in place, although the majority had probably not been used for years. At 3 Mile a remnant of the Mella branch curved away to the south and at 4 Mile there was a facing dead end siding to a shed on the north side of the line. There was another old spur off to the south at a level crossing with a bush road at 5 Mile, which must have been the remains of Lee's Trowutta tramway. At 9¾ Mile there was a phone box on the south side of the line and a spur off to the north-west. I missed the former junctions with Brittons' tramway at 10 Mile and Lees' tramway at 14 Mile.

Beyond 14 Mile the line emerged from forest and scrub to run through the dairy farms of the Montagu Swamp (Togari) reclamation area. At 16 Mile a facing siding descended to a warehouse on the north side of the line, beyond which the main line crossed the Montagu River and passed the remains of a locomotive water tank. Bogie superphosphate wagons CC132 and CCC45 were on the siding. At 17 Mile there was a long loop on the north side of the line, with a phone box at its east end and a loading stage beside the main line at the west end. We then climbed through the forest to cross Bond Tier, stopping fairly soon to detach the two FFF wagons for the track repair gang to load with rails stored beside the line. At 18 Mile there was a circular iron locomotive water tank on a wooden stand on the south side of the line, with the remains of an older tank on the north side of the line a little further on. In earlier days there had also been a coal stage on the north side of the line and a siding on the south side immediately west of the water tank.

19 Mile was located at the top of the climb over Bond Tier and the APPM sidings and spur line were still intact, although out of use. The main line then descended westwards and emerged from the forest into dairy farming country at the approach to Salmon River Junction, where there was a phone box at the east points. The train stopped on the main line and V9 ran round it via the wye, the driver presumably being confident that the rails were still in place somewhere beneath the grass. V9 then propelled the train to Redpa station.

Redpa yard consisted of a single long siding on the north side of the main line, both lines ending on the east side of Comeback Road. From the east, facilities on the north siding consisted of a stockyard, a trailing crossover from the main line, a galvanised iron goods shed with a wood-faced platform and a facing crossover from the siding to the main line. The formation of the Marrawah line diverged north-westwards immediately beyond the goods shed. V9 propelled the incoming train to the west end of the north siding and then

Tulloch/Rolls Royce 0-6-0DH W2, Malcolm Moore/Gardner 0-4-0DM U3 and TGR/Gardnet 0-6-0DM V9 at Smithton on 10 February 1961. *Photo: Jim Stokes*

Timber bogies at Leesville Sawmill, on 7 October 1972. *Photo: Jim Stokes*

made up the return train, which consisted of Grover bogie goods van EGX8 and around six A and C class four-wheel open wagons. We left E198, several open wagons and TGR employees' Camp 86 (mounted on Grover bogie flat wagon KG42) in the sidings. On the return journey to Smithton we arrived at 17 Mile propelling one of the FFF wagons loaded with rails, while motor trolley WC10 was in the loop. I did not record what had happened to the other FFF wagon.

Leesville and Tram Yard 1961-1974

The TGR called tenders for removal of the track (described as consisting of rails of 40 and 43 pounds per yard) and telephone line between 18 Mile and Redpa in April 1961.[83] I have not found a tender advertisement for track removal between Leesville and 18 Mile, but by the mid-1960s the track ended about 300 metres west of the junction with the spur into Leesville sawmill.

Inward traffic to Leesville dropped to a few hundred tons per year after 1945-46, reflecting the end of log deliveries over the tramway. Outward timber traffic from Leesville peaked at around 17,000 tons in the mid-1950s, but it fell to only a few thousand tons per year in the early 1960s and had dwindled to only 1,828 tons in 1970-71. The line was closed between Tram Yard and Leesville on 2 February 1972. By October 1972 TGR-owned track on the main line had been lifted, but most of the privately-owned track in the mill area remained, with some wagons still standing on it.

The closure of Tram Yard was hastened by the poor condition of the Duck River bridge, although outward traffic had in any case fallen to only a few thousand tons a year by the early 1970s. In 1973 rail traffic over the bridge was restricted to U-class diesel-mechanical units hauling a maximum gross vehicle load of 25 tonnes[84] and the line was cut back to the private sidings on the east side of the river in March 1974, bringing use of the last section of the Marrawah Tramway to an end. Australian National Railways ended all train services to Smithton in 1987.

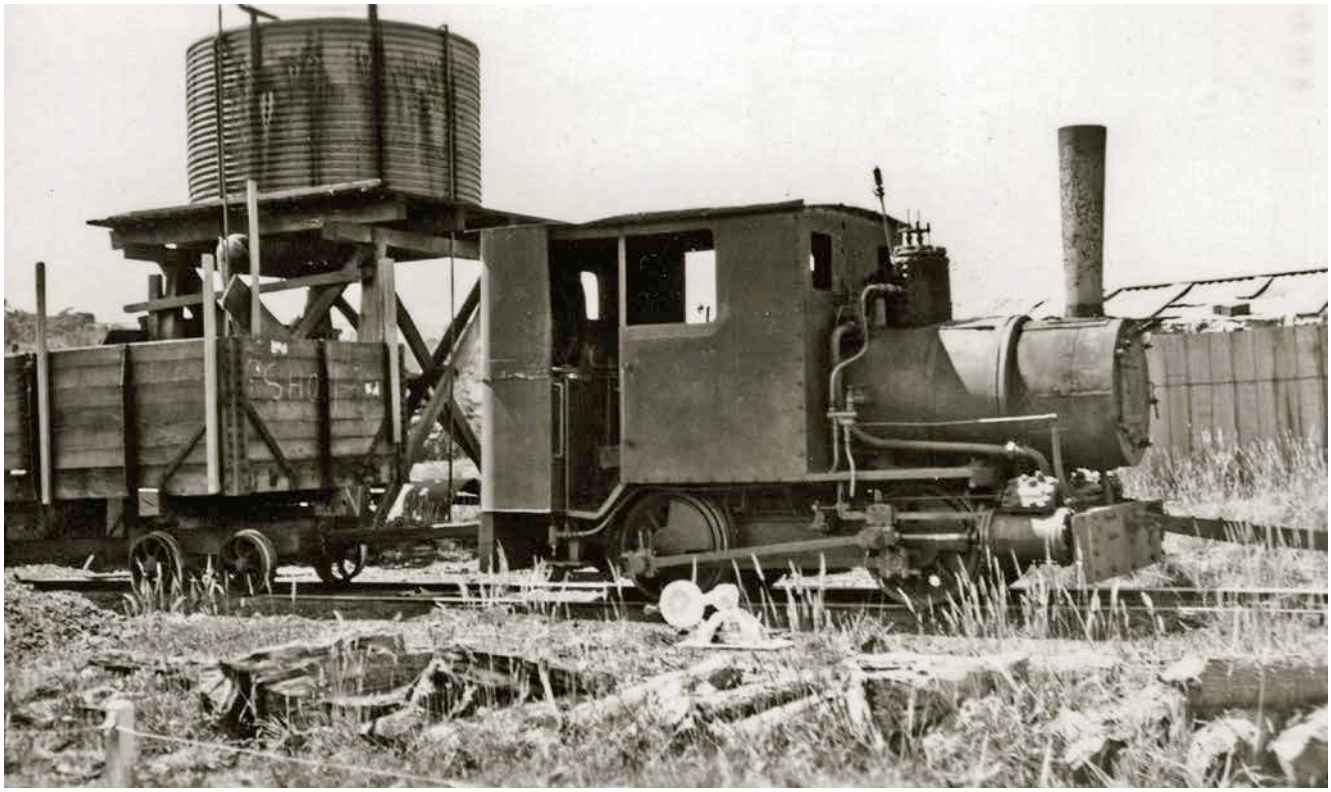
Locomotives, rail motors and rolling stock

LOCOMOTIVES

Spider

Spider was one of five 4 ft 8½ in gauge 0-4-0 steam tram motors built by Baldwin in 1891 for the Bendigo tramways. They carried Bendigo running numbers 1-5 and Baldwin works numbers 12241-5, although not necessarily in the same order. They were sold at some time after the Bendigo tramways were electrified in 1903, but their history over the next few years is uncertain. The locomotive that became *Spider* appeared in the May 1911 catalogue of Melbourne machinery agents Cameron and Sutherland, together with one of its sister engines. However the accompanying photo showed a Bendigo Phoenix motor, not a Baldwin. The catalogue entry for Spider described it as 3 ft 6 in gauge, fitted with new tyres 3½ inches wide and 'overhauled and ready for continuous work'. It is not clear whether *Spider* had been overhauled and regauged by a previous owner or by Cameron and Sutherland.

Spider was purchased by the Marrawah Tramway Company and was inspected in Tasmania in 1911. The Department of Labour and Industry's boiler records noted that the boiler was old and getting thin about the washout plugs. Cameron and Sutherland had some difficulty obtaining payment from its new owner and their representative disabled *Spider* by removing the slide valve covers until payment had been completed. The Launceston *Weekly Courier* of 13 March 1913 published a photo of *Spider* at what became Smithton Tram Yard station, heading the first train of agricultural produce (which appeared to be mainly cheese) to be brought in on the Marrawah Tramway. *Spider* was then still essentially a defrocked steam tram motor in appearance, with a primitive awning on four iron uprights extending from the chimney to the rear of the engine. It is possible that the name *Spider* was inspired by the engine's rather skeletal appearance after its original body was removed.



Baldwin 0-4-0T Spider, *in its rebuilt form, is seen at Smithton on 3 March 1947.* *Photo: George Sweetapple*

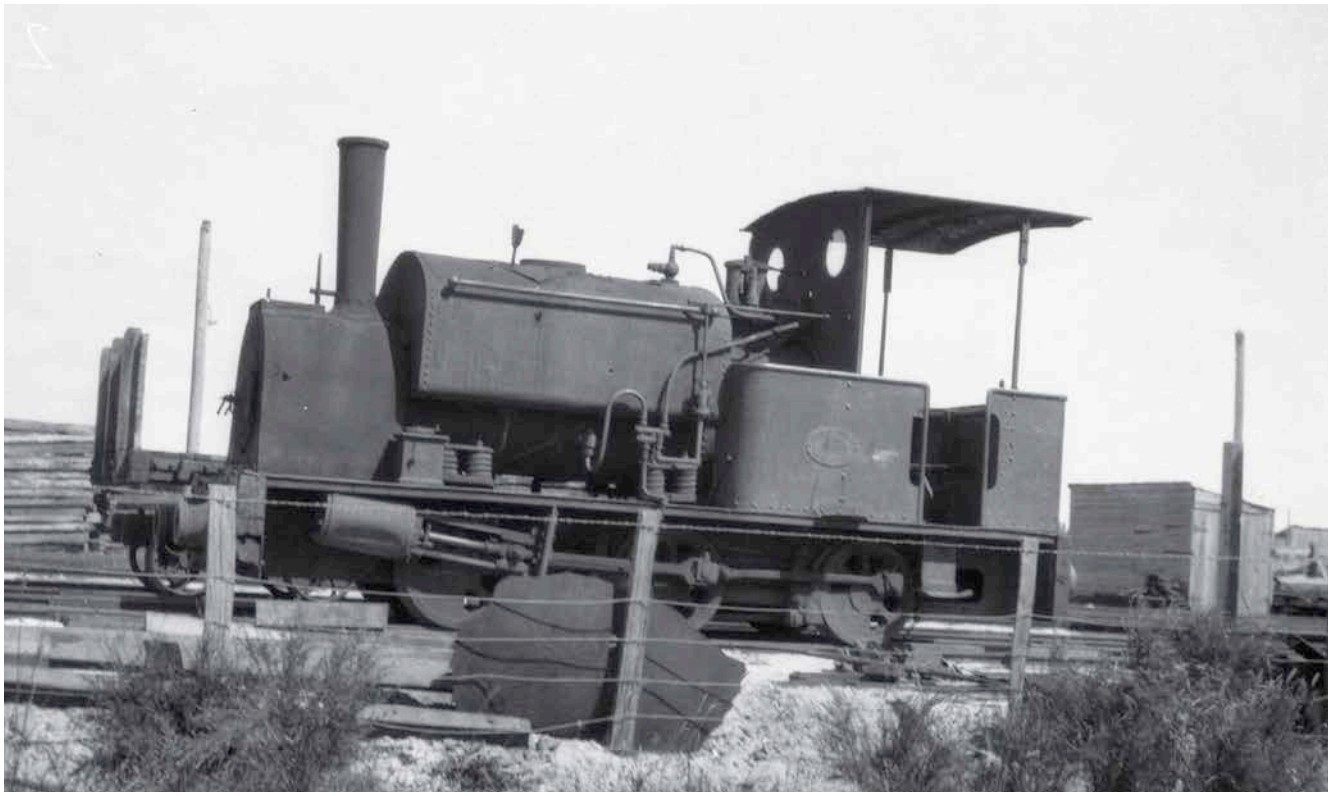
Spider was the Marrawah Tramway's only engine when the Public Works Department took over the line in March 1914. Archibald Ford always referred to *Spider* as 'our No. 1 engine', which he appears to have meant in the qualitative as well as the numerical sense. In January 1917 *Spider* was taken by road to the then end of the TGR Western line at Myalla and railed to the TGR's Launceston workshops for overhaul. Ford told the TGR's Chief Mechanical Engineer, William Deeble, that *Spider* was 'by far the best engine we have'. In the course of the overhaul the original bar frames, which were cracked, were replaced with plate frames. Deeble told Ford in October 1917 that fitting the plate frames had allowed space for wheel flanges of standard thickness; when the engine had been regauged from 4 ft 8½ in to 3 ft 6 in the width of the firebox had not allowed the bar frames to be brought in far enough to retain the full thickness of the flanges and they had been reduced to a quarter of an inch. In April 1923 the Emu Bay Railway was authorised to replace *Spider's* original boiler and this job appears to have been completed about November 1923. During the second half of 1924 the boiler required repairs due to 'bad workmanship' by the EBR, which necessitated the PWD hiring a replacement engine from Lees. It was probably at the 1917 or 1923 overhaul that *Spider* acquired its rather forbidding plate steel cab, which caused it to resemble a combination of a kettle and a First World War armoured car. In 1941 *Spider* was working at a boiler pressure of 160 pounds per square inch, giving a tractive effort of around 4,175 pounds. It completed its last general overhaul on 26 June 1946, retaining the boiler (TGR boiler 164) provided by the EBR in 1923. *Spider* survived to be the last of the four small tank engines at Smithton and it was sold to Britton Brothers for £70 on 4 April 1949 for use on their Christmas Hills tramway.[85] Despite widening of the wheel treads *Spider* found it difficult to handle the bush track and it was replaced by a diesel engine in 1953. The frame and wheels were converted to a log bogie and used until the tram closed in 1965. In September 1963 Jack Shennan noted that *Spider's* boiler, cab, bunker, water tanks, valve gear and headlight were strewn about the yard of Brittons' mill. In 1973 the boiler was placed on display at Marrawah with the cab, frame and wheels of *Six Wheeler*. However the remains were removed to the Marrawah tip around 1980.[86]

Six-Wheeler

Six-Wheeler was one of four 0-6-0 saddle tanks built by Hudswell Clarke of Leeds in 1891 for Western Australian railway construction contractor Edward Keane. As built they had 7 in by 12 in cylinders, 2 ft 0½ in driving wheels and weighed 10 tons one hundredweight. They carried maker's numbers 377-380, the engine that became *Six-Wheeler* being 380. 380 was used on construction of the Midland Railway of WA, but was sold around 1896 to the Perth Metropolitan Water Works Board for use on the duplication of the Victoria reservoir – Bentley pipeline. It was sold to Henrickson and Knutson in September 1901 for construction of the training wall at the east side of the entrance to the Mersey River at Devonport, being employed hauling stone from nearby quarries. At some time after this project was completed the engine was sold to Lees, who presumably gave it the name *Six-Wheeler.*

The PWD hired *Six-Wheeler* from Lees soon after it took over the Marrawah Tramway in May 1914 and on 6 November 1915 purchased the engine for £550. A report by the government machinery inspector dated 17 October 1915 said that the boiler, which was in generally good condition, had been built by Kerr Stuart in 1891 and had been used by Henrickson and Knutson prior to Lees. *Six-Wheeler* was taken out of service in January 1917, taken by road to Myalla and then sent by rail to the TGR's Launceston workshops for a major overhaul, returning to Smithton about the middle of 1917.

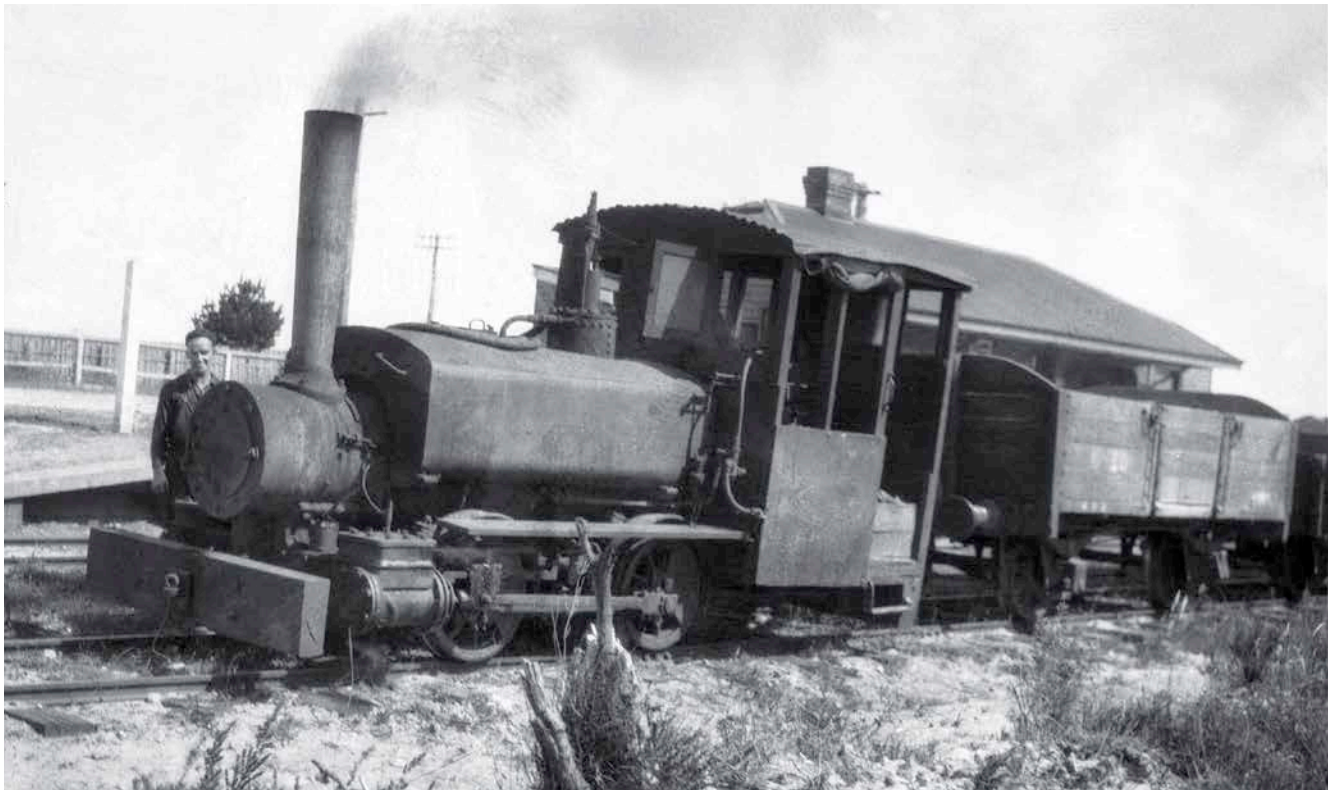
Six-Wheeler was the first of the four Marrawah Tramway engines inherited by the TGR in 1929 to be taken out of service. In its last years the TGR rated its tractive effort at only around 1,727 pounds, which suggests it was working



Hudswell Clarke 0-6-0ST Six-Wheeler *at Smithton. Circa early 1930s.* *Photo: ARHSnsw Railway Resource Centre*

at a reduced boiler pressure. The boiler (TGR boiler 163) was probably still the original 1891 one. *Six-Wheeler* was photographed by Barrie McMillan on 25 February 1937 stored at Smithton in a semi-derelict state. It was removed from the TGR's fleet list during the year ending 30 June 1939 and subsequently sold to Karl Jaeger for use on the Salmon River line. Jaeger replaced the boiler with one built by the EBR in 1936 for his 0-4-0ST *Stanley* (Manning Wardle 371 of 1871). Jaeger later replaced this boiler with a a diesel engine. After the Salmon River line was abandoned in 1949 *Six-Wheeler* was left standing on the north side of the Marrawah road level crossing at the Hay's mill site. As noted above its remains were combined with those of *Spider* in 1973 in an unfortunately unsuccessful preservation venture.[87]

Six-Wheeler, *in its final form as a 0-6-0DM, abandoned at the site of Hays Mill, seen on 30 December 1969.* *Photo: Jim Stokes*



Fantail *lost some of its characteristic Baldwin features after its rebuild and reboilering.*
Photo: ARHSnsw Railway Resource Centre, TGR official photo 1L93 taken at Smithton circa 1945

Fantail

Fantail was one of eight Baldwin class 4-10½ C 0-4-0 saddle tanks delivered to Australia between 1884 and 1891. According to Baldwin's specifications the class had 8 in X 12 in cylinders, 2 ft 4 in driving wheels and a wheelbase of 4 ft 8 in. Commonwealth Railways, whose *Sandfly* was one of the class (Baldwin 7860 of 1886), listed its weight as nine tons, water capacity as 330 gallons and tractive effort as 3,270 pounds at a boiler pressure of 140 pounds per square inch. *Fantail* was working at 140 pounds per square inch in 1941, but the TGR only rated its tractive effort at around 2,833 pounds in its later years. *Fantail* is believed to have been Baldwin 7556 of 1885[88] and to have been consigned to Newell and Co, who then leased it to the Melbourne Harbour Trust for Yarra River widening works. After this there are partially conflicting suggestions as to its movements, including working on the construction of the TGR Strahan – Zeehan line in 1890-91, the Werribee sewerage project, the Sorrento tramway and Australian Seasoned Timber's line at Wandong. Around 1903 it definitely went to Alex Sanderson's timber tram running south from Forrest (Victoria), but had a fairly short working life there.In June 1915 machinery agents Cameron and Sutherland offered the engine to the PWD, noting that it was located at Sanderson and Grant's sawmill at Forrest. It was 'fairly old', but had not been fully used during its life. The dimensions stated included 9 in x 12 in cylinders, 2 ft 3 in driving wheels, 4 ft 8 in wheelbase, and a boiler pressure of 130 pounds per square inch. It weighed seven tons, one hundredweight and one quarter. The PWD agreed to purchase the engine for £550 and it was dispatched to Pelican Point on the ketch *Daisy Knights* on 6 August 1915. It became known on the Marrawah Tramway as *Fantail*, probably because of what Ford called the cab's 'excessive' overhang of seven feet eight inches from the rear driving wheels. By March 1918 *Fantail's* boiler tubes were in a very bad state and it was only being used for shunting. By June 1918 it was 'in very great need of extensive repairs' and in August 1918 Ford was given permission to offer it for sale.The TGR were not prepared to overhaul it and by August 1920 it had been dismantled and Ford was attempting to purchase a boiler for it from Lees. In December 1920 Salisbury's Foundry of Launceston offered to provide a new boiler for £600, plus a further £100 for four new tyres and a general overhaul. Ford said that his preference would be to buy a new engine rather than repair *Fantail*, but because an additional engine was needed immediately he authorised the repairs. *Fantail* was still under repair at Launceston in August 1921 and in February 1922 Salisburys said that much more work was necessary than originally anticipated. By 1937 *Fantail* had lost its safety valve cover and boiler mounted sand box and had a newer saddle tank with vertical sides and a rounded top. It also had a water pump and a corrugated iron roof to the cab. John Buckland noted in May 1945 that it was reported to be on hire to Lees. A TGR report dated 23 July 1946 said that *Fantail's*

The sad remains of Fantail *abandoned at the Hays Mill site on the Salmon River branch, on 14 November 1966. Photo: Jim Stokes*

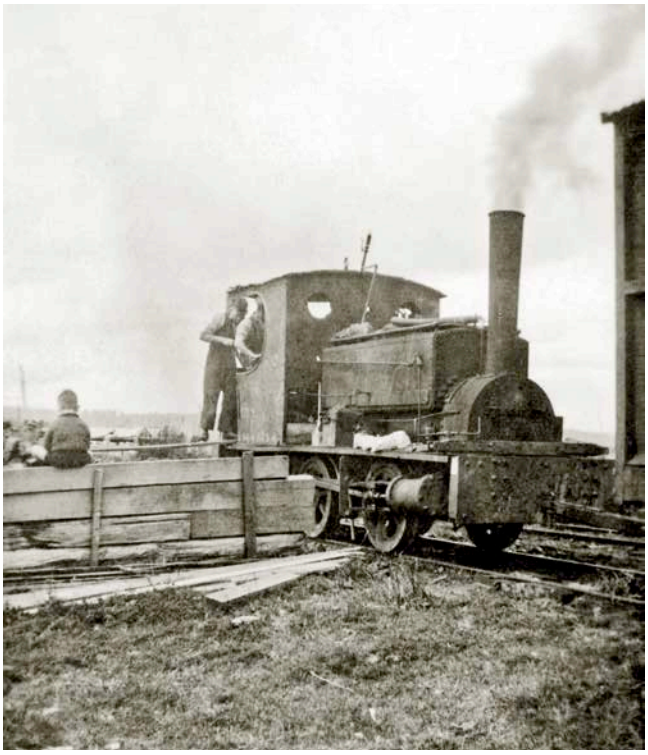
boiler (TGR boiler 166 of 1921) was in fair condition and had 34,000 miles to run before becoming due for overhaul. *Fantail* was sold to Frank Jaeger for 50 pounds and delivered to Leesville on 7 November 1946. Jaeger replaced the boiler and cab with parts of a motor truck, for use on the Salmon River line. *Fantail's* frame and wheels were still at the Hay's Mill site in November 1966, but were scrapped around 1970.[89]

Big Ben

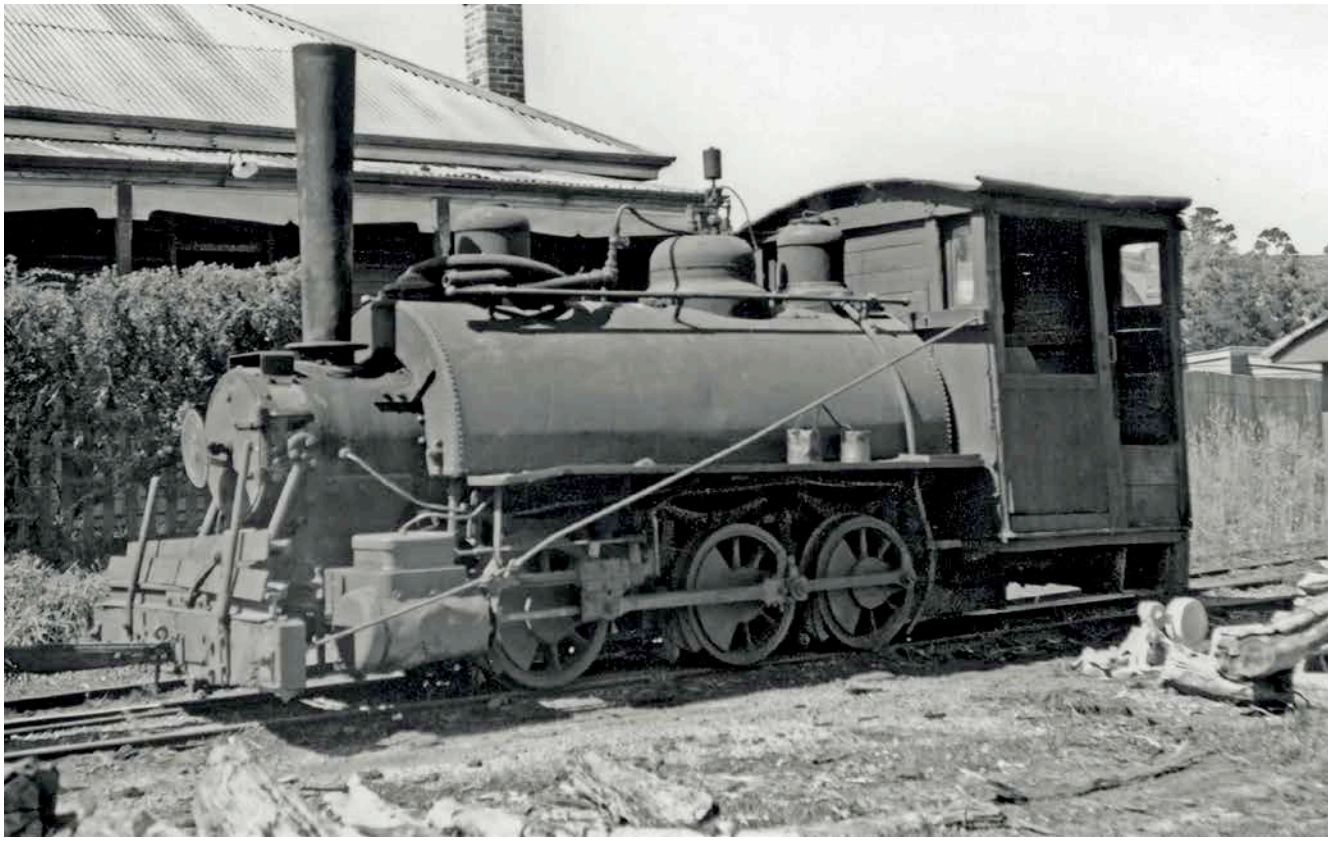
The PWD received specifications for construction of a Baldwin 0-6-0 saddle tank in late 1915 and later called tenders for a new locomotive from Avonside and Baldwin. However the tenders were deferred, presumably because of wartime conditions. Ford eventually received authority to buy a new engine in August 1918 and Baldwins shipped it from New York early in 1920.

The new engine, which acquired the local name of *Big Ben*, was an 0-6-0 saddle tank of Baldwin class 6-12-D and in general appearance was a stretched version of *Fantail*. It had the characteristic Baldwin wooden cab with substantial rear overhang, a balloon stack spark arrestor and sand boxes to the front and rear of the safety valve cover. The driving wheels were of 2 ft 6 in diameter and working weight was 14 tons 15 hundredweight. The cylinders were 9 in by 16 in and the boiler pressure 160 pounds per square inch, giving a tractive effort of 5,529 pounds. The saddle tank could hold 300 gallons and the engine had a pump and hose to take water from creeks along the line. *Big Ben* carried a large circular plate on the smokebox door with the numeral three, *Spider* and *Six-Wheeler* presumably being regarded as numbers 1 and 2.

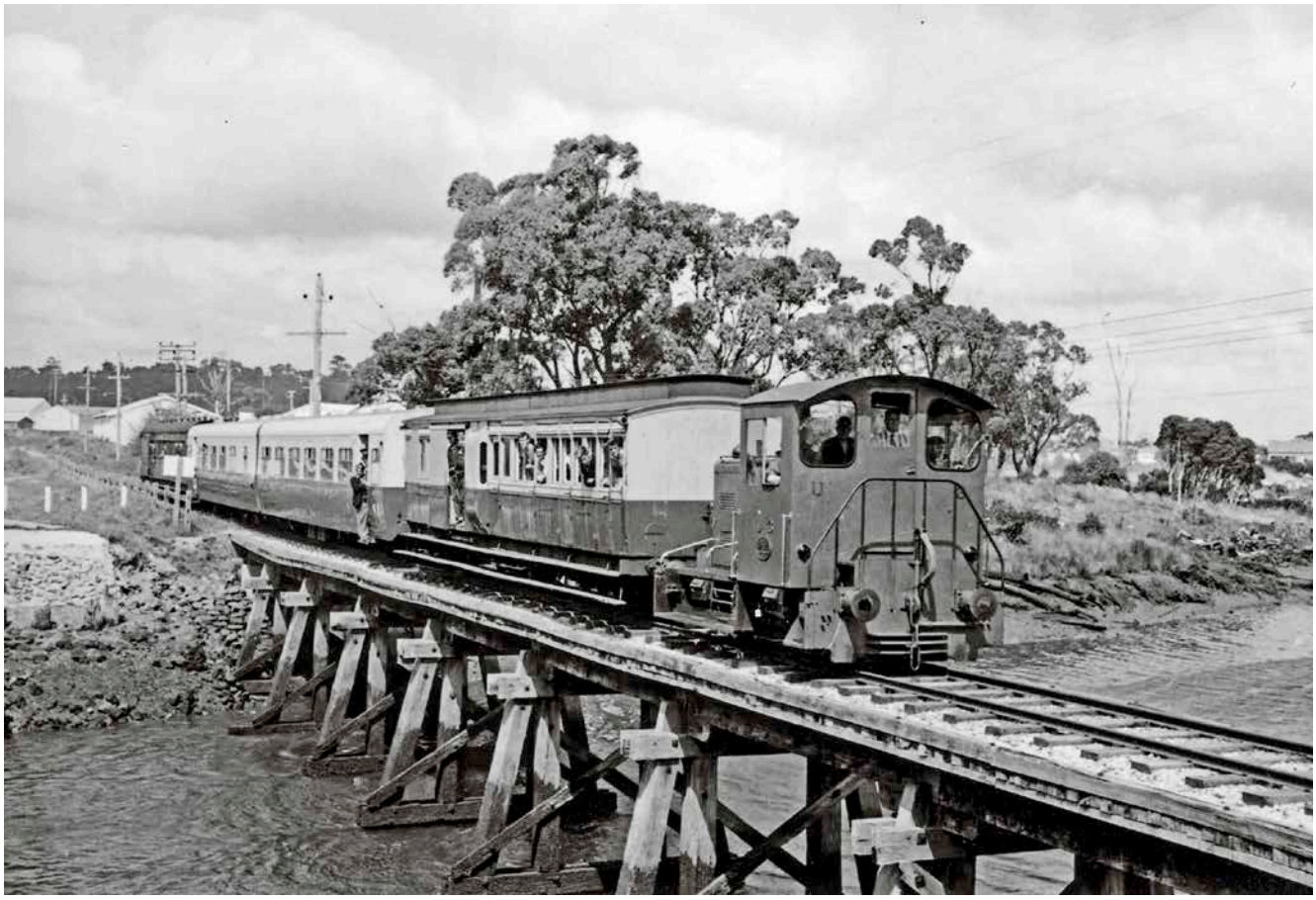
Big Ben completed a general overhaul on 25 March 1946, retaining its original boiler (TGR boiler 165). The overhaul extended its permissible boiler life by 50,000 miles, but in fact it ran only a further 8,073 miles. The end of TGR operation of the Salmon River line meant that small tank engines were no longer required at Smithton and in 1948 *Big Ben* was fitted with side buffers at Launceston and sent to Parattah Jct to work goods trains on the Oatlands branch. Traffic on the branch was very light and ceased altogether in June 1949, after which *Big Ben* was stored at Launceston and then Mowbray and sold to WJ Stevens of Sydney for scrap in October 1951.



Manning Wardle 0-4-0ST Stanley *at Redpa on 24 February 1937. The boiler built by the EBR for this locomotive in 1936 was later used to reboiler* Six-Wheeler. *Photo: WRB Johnson*



Well-worn Baldwin 0-6-0ST Big Ben *at Smithton, on 3 March 1947.* *Photo: George Sweetapple*



On 9 March 1964, 102 hp 0-4-0DM locomotive U3 crosses the Duck River Bridge at Smithton with an AREA Tour Train. Photo: Jim Stokes

RAIL MOTORS

TGR rail motors used on the line until the 1940s would probably have all come from a group of five 1-B-1 rail motors (DP1-DP4 and DP8). They were built by the TGR between 1923 and 1926 with wooden bodies, Drewry frames and Baguley petrol engines. The TGR offered to sell DP1 to the PWD for £2,200 in October 1928, but the PWD did not take up the offer. DP2 was on the line in May 1934. DP3 was built in 1926 with a 60 hp Baguley engine and was sent to Smithton in December 1937 after being fitted with a 68 hp Gardner 4LW diesel engine.[90] It had a driver's compartment at one end and a 25 seat saloon and a luggage compartment at the other end, so that it had to run in reverse if it could not be turned. Thirty seat car DP2, recently re-engined with a Gardner 4LW diesel, was running the Marrawah service in June and September 1938.[91] The workmen's rail motor service between Smithton and 17 Mile in the early 1950s was probably run either by one of the two wooden-bodied bogie cars with Drewry frames and 102 hp Gardner 6LW diesel engines (DP5 and DP7, later Emu Bay Railway M6 and M7) or one of the three four-wheel cars with Waddingtons' aluminium bodies and 102 hp Drewry diesel engines (DP17-DP19).

PASSENGER CARS

Passenger accommodation was a perennial grievance with travellers during the PWD period. On 20 December 1918 a tree fell on the passenger carriage (described as a tarpaulin-covered truck) while the engine was taking water at 9 Mile, killing two passengers and injuring three others. The casualties might have been higher if some of the 22 passengers had not been riding on trucks instead of in the carriage. In December 1921 a deputation to the Minister for Works complained that the only passenger accommodation was 'one little box' in a filthy condition and passengers had to sit on top of cream cans in an open wagon. On 20 March 1922 (p.3) the *Advocate* reported that there were frequent complaints about the carriage (known as the 'dog box'). Ford had asked the TGR for a carriage, but the TGR did not have a vehicle suitable for such a light line and it was too expensive to build one. Ford had therefore had a 'boxed-in' carriage built and would try to provide a compartment carriage with the 'inefficient plant' at his disposal. A traveller on the line on 31 July 1922 said that there were over 40 passengers in the carriage, but that a new one was being built. By November 1922 a new carriage was being built by Beaumont, Friezer and Poole of Smithton, although it was not provided with springs. On a visit to Welcome Swamp by parliamentarians in January 1923 some passengers found it more comfortable to travel seated on chaff bags in a goods wagon than in the 'dog box' passenger car![92]

In January 1924 Ford attended a trial of the Emu Bay Railway's rather unsuccessful Argyle petrol rail motor, which was being converted to a passenger car for the Marrawah Tramway. As built by the EBR in 1919 the car had an Argyle motor supported by a bogie and a wooden body supported by two fixed axles with three cross bench compartments and a luggage compartment at the rear. In the reconstruction the motor and the forward extension of the frame that supported it were removed and the bogie was relocated under the front of the body. It was delivered to Smithton in February 1924.[93] The TGR annual rolling stock returns from 1930 to 1938 listed the car as a BT-class six-wheeler seating 24 passengers and weighing one ton 10 hundredweight. Bob Johnson photographed the Argyle car at Redpa on 24 February 1937, but it was removed from the TGR rolling stock register during the year ending 30 June 1939.

FREIGHT WAGONS

I have never found a complete list of Marrawah Tramway freight stock for the PWD period. The PWD did record the construction of 20 new four-wheeled timber bogies and six ballast trucks in 1915-16, while in 1916-17 another 32 bogies were built and three new tops provided for sheep trucks. Timber bogies and other wagons were coupled to each other and to the engine by long wooden poles. Once the tramway was connected with TGR lines transition arrangements were required and on 24 October 1921 a 'dummy' truck to permit tram engines to haul TGR trucks was landed at Stanley. Trains continued to be made up of a mixture of pole-coupled and side buffer/screw link coupled vehicles until the late 1940s.

The TGR annual report for 1929-30 listed 105 freight vehicles inherited with the tram, all of them nominally of seven ton capacity. There were eight TA-class four-wheel ballast wagons, 12 TD-class bogie open wagons, one TD-class four-wheel covered van, two TF-class four-wheel timber wagons with dual couplings, three TH-class bogie livestock wagons and 77 TT-class four-wheel timber bogies. The TGR built a further 51 timber bogies between 1934 and 1939. The bogie TD wagons were reduced to seven in 1938-39 and the remainder sold to Frank Jaeger in 1947-48. The four-wheel TD was listed as an open wagon from 1934-35 and sold to Hardwoods Australia in 1947-48. The TA ballast wagons disappeared in 1938-39. One of the TE bogie covered wagons disappeared in 1938-39, but the other one lasted until 1957-58. The TH livestock wagons disappeared some time between 1939 and 1946, but the two TF timber trucks lasted until 1957-58. In addition to the exPWD stock TGR four-wheel goods van E186 and timber wagons F5 and F12 were fitted with tramway-type drawgear.

The TGR seemed to have difficulty keeping track of the TT-class timber bogies. The 1938-39 report listed 77 bogies inherited with the tram and 51 bogies built between 1934 and 39. The next report to give rolling stock details was 1945-46, which listed 79 bogies inherited with the tram and 51 bogies built between 1934 and 1939. The 1946-47 report listed 80 bogies, all recorded as built between 1934 and 1939, and the 1947-48 report noted that 260 timber bogies had been sold. TGR rolling stock records indicate that in November 1946, 70 bogies were sold to Circular Head Amalgamated Timbers and 20 bogies and 10 firewood trucks were sold to Jaegers. During the 1947-48 financial year a further 17 bogies were sold to Hardwoods Australia, 19 to Jaegers and 44 to Lees. In January 1970 I listed former tramway wagons abandoned in Smithton Tram Yard. They included timber bogies G7, H11, G20, J24, J26, J27, GH37, H54, H56, GH66, 74JSL, 79J, 99, 118H and several others marked H but without a visible number. There were also four four-wheel wagon frames with centre buffers and side chains, two of them with TGR axle box covers dated either 1916 or 1921.

Acknowledgements

Many researchers have contributed to our knowledge of the Marrawah Tramway and its branch lines. I acknowledge with gratitude information provided or published by Jeff Austin, David Beck, John Browning, John Buckland, David Cooke, Wayne Chynoweth, Ken Flood, Mark and Angela Fry, Adrian Gunzburg, Richard Horne, Norm Houghton, Peter James, Bob Johnson, Bruce Macdonald, Barrie McMillan, Ian McNeil, Ken Milbourne, Jennifer and Tony Parnell, Jim Powe, Ralph Proctor, Lou Rae, Jack Shennan, CC Singleton, Charles Small, George Sweetapple, PK Szajna, Lindsay Whitham and Ken Winney.

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71. Strickland had previously worked for the Kidman cattle empire and also undertaken swamp reclamation work on King Island.
72. *Advocate*, 8 July 1922, p.7.
73. *Advocate*, 13 January 1923, p.3, 19 May 1923, p.6 and 23 June 1924, p.2. Report of Royal Commission on Welcome Swamp Reclamation, 9 March 1924, *Tasmanian Parliamentary Papers*, 1923-24, paper 58.
74. *Advocate*, 18 October 1924, p.13 and 25 November 1929, p.11. *Circular Head Chronicle*, 8 October 1924, p.6, 2 September 1925, p.5, 11 August 1926, p.5, 18 January 1 928, p.2, 24 September 1930, p.3 and 13 July 1932, p.2.
75. *Advocate,* 20 November 1934, p.6. *Circular Head Chronicle*, 12 December 1934, p.3.
76. Miscellaneous papers salvaged by National Archives of Australia from Australian National Railways, Launceston.
77. This was presumably the former Ransome steam lorry known as *Harlot*, which was converted for Fentons rail use by Russell Allport of Hobart (Mark and Angela Fry, Unusual Locomotives of the Tasmanian Forests – Part 1, *Narrow Gauge Down Under* No. 9, Summer/Autumn 2000, pp.28-31). The Frys stated that *Harlot* was not in use until December 1936, but it appears to have entered service in 1935. The *Examiner* of 22 April 1935 (p5) reported that E H Fenton had recently purchased a steam engine capable of hauling 16,000 superficial feet of timber; it had arrived at Salmon River mill on 17 April and was assembled the following day. *Harlot* was involved in a runaway in May 1940 while hauling 11 trucks of logs (*Circular Head Chronicle*, 8 May 1940, p.3). It worked until 1942 and was scrapped at Smithton in 1959.
78. For more information on the Salmon River lines and their locomotives see PK Szajna, A Parnell and K Milbourne, Tracks to Tall Timber, *Tasmanian Rail Hobbyist*, Vol. 2, No. 2, 1996, pp.34-38. B Macdonald, The Climax locomotive, *Light Railways* No. 24, Winter 1968, pp.9-20. and McNeil, Simsville and the Jarrah mill, *Light Railways* No. 113, July 1991, pp.2-40 (including information provided by Wayne Chynoweth). Tony Parnell, Britton Brothers Sawmills and Tramway, *Light Railways* No. 143, October 1998, pp.9-16. Mark and Angela Fry, Among the Last of their Breed, *Narrow Gauge Down Under* No. 37, April 2010, pp.40-49.
79. TGR Weekly Notice 1947/19.
80. *Circular Head Chronicle,* 2 February 1949, p.1 and 7 March 1951, p.4.
81. TGR Weekly Notice 1956/10.
82. TGR Weekly Notice 1961/13. The date was given as 31 March 1961 in the TGR annual report for 1960-61.
83. *Mercury,* 27 April 1961, p.27.
84. *Tasmanian Rail News* 97 (Australian Railway Historical Society, Tasmanian Division), December 1973, p2.
85. A TGR list (circa 1949) of rolling stock to be written off had recommended that *Spider* be sold to S Adams for £150.
86. *ARHSB*, November 1951, p.147. H J W Stokes, Locomotives of the Marrawah Tramway, *Light Railways* No. 41, Spring 1972, pp.4-7. David Beck, Tasmanian Discoveries, *Light Railways* No. 57, Spring 1970, pp.13-14. Ken Milbourne, Bendigo steam tram motors in Tasmania, *Light Railways* No. 110, October 1990, pp.22-23. Tony Parnell, Britton Brothers Sawmills and Tramway, *Light Railways* No. 143, October 1998, pp.9-16. Norm Houghton and John Browning, Cameron and Sutherland sale catalogue, May 1911, *Light Railways* No 143, October 1998, p.6. Jim Stokes, The Marrawah Tramways Baldwin locomotive *Spider*, *Light Railways* No. 237, June 2014, pp.13-14.
87. R N Redman (Hudswell Clarke) to author, 7 November 1962. A Gunzburg, and J Austin, 1997, *Rails through the Bush*, LRRSA, Surrey Hills 1998, pp.215, 216 and 219. Information from Tasmanian Archives and Heritage Office files PWD231/1/158-160. H J W Stokes, Locomotives of the Marrawah Tramway, *Light Railways* No. 41, Spring 1972, pp.4-7. *ARHSB*, November 1951, p.147. Mark and Angela Fry, Among the Last of their Breed, *Narrow Gauge Down Under* No. 37, April 2010, p.45. Ken Milbourne, *Light Railways* No 119, January 1993, p. 3.
88. In 1966 I deciphered the number stamped on one of its wheel centres as 10 C25, but I probably misread the 28 for 25.
89. Information from Tasmanian Archives and Heritage Office files PWD231/1/158-160. John L Buckland, The Saga of Sandfly and the Lost Tribe, *Light Railways* No. 65, July 1979 (whole issue). R F Ellis, The Sandfly Saga – some notes on the Tasmanian locomotives, *Light Railways* No. 78, October 1982, pp.6-11. Norm Houghton, Sandersons locos, Forrest (Vic), *Light Railways* No. 125, July 1994, pp.8-18. *Examiner*, 13 April 1916, p.7.
90. Unpublished manuscript history of Tasmanian railcars by the late David Cooke, 1993.
91. *Tasmanian Rail News* No. 180, January 1993, p.12.
92. *Mercury,* 21 December 1918, p.6, 23 December 1918, p.5 and 1 December 1921, p.8. *Advocate,* 1 August 1922, p.6, 7 November 1922, p.7, 13 January 1923, p.3 and 16 *January 1923, p.*7.
93. *Advocate,* 23 January 1924, p.4 and 1 February 1924, p.4. Lou Rae, *The Emu Bay Railway*, published by the author, Hobart, 1991, pp.157 and 161-2

The wheel turned full circle in the late 1960s when the ROD engines that had followed the East Greta men back to Australia, were used to cover a motive power shortage on the SMR. On 11 November 1967, exactly 49 years after the Armistice, the Hetton Bellbird colliery sidings form a backdrop to the passage of J and A Brown No.13 with a train of empty hoppers bound for Pelton colliery. Note the whimsical inscription "Cobb + Co", a lament of the austere working conditions on these engines compared to the comfortable enclosed cabs of the SMR 10 Class tanks. *Photo: R Driver*

The East Greta Coal Mining Company and the European War

by Robert Driver

This year marks the centenary of the departure in 1917 of a specialist Railway Unit as part of the Australian Imperial Force (AIF), to assist in the operation of railways supporting the British sector on the Western Front. Names and addresses of the railwaymen who left Australian shores for France are recorded on embarkation rolls, but generally there is no military record of their civilian place of employment. While the majority came from the various state railways, there were also numerous members of the Railway Unit with no record of employment in a government railway. Some of the NSW volunteers were in fact employees of the East Greta Coal Mining Co. Ltd., the operator of an extensive private railway system in the NSW Hunter Valley. This article is a brief survey of the formation of the Railway Unit, the conditions that railwaymen faced in Europe, along with what is known of the experiences of the volunteers from the East Greta Co.

Prompted by government reports of vast coal deposits in the Maitland hinterland, the East Greta Coal Mining Co. Ltd was formed in 1891, and went on to become a major driving force in the settlement of the region known as the South Maitland Coalfield. The company's first line of railway, connecting with the Great Northern Railway, was opened in 1893, and extended to the future town of Kurri Kurri in 1901. Other mining interests opened a branch line to Cessnock in 1904, but the task of operating coal, goods and passenger trains over the extended system fell to the East Greta Coal Mining Co. For administrative convenience, the main lines were eventually placed under single ownership with the formation in 1918 of South Maitland Railways Ltd., and for much of last century the SMR was Australia's most intensively operated private railway.

When war was declared on Germany in 1914, the South Maitland coalfield was a significant supplier to the global market but sensing the strategic importance of coal, the Australian government immediately placed a ban on exports to the belligerent countries. This effectively placed a cap on the output from the South Maitland field, which was on a strong upward trend, and for the duration of the conflict coal production from the Greta seams, as they were known, remained steady at around four million tons per annum. The war had other far-reaching effects. On 18 August 1915 the Beyer, Peacock locomotive works was placed under government control as a defence establishment and as a consequence the East Greta Company's order for a fifth 10 Class locomotive placed in 1916 was not delivered until 1920. So desperate was the situation that ten T Class 2-8-0s built for the NSW railways by the North British locomotive works were requisitioned by the British government for war service in Europe, and eventually ended up with the Belgium railways.

The South Maitland Railways Roll of Honor for the Great War is housed in the old SMR office building in Telarah, Maitland and lists 34 employees originally of the East Greta Coal Mining Company who volunteered for service in what was then known as the European War. Like their government railway counterparts, those who enlisted were granted protected leave of absence, enabling them to return to their positions with all the promotions and entitlements that would have accrued if they had stayed. Those who enlisted in the early years fought mostly in the front lines at Gallipoli and

on the Western Front, quite a number serving in the 34th Battalion, dubbed "Maitlands Own", which was formed in 1916 at a camp established at the Maitland showground. As listed here, five of those early volunteers made the supreme sacrifice.

When the conflict on the Western Front degenerated into trench warfare, railways became the key determinant of supply logistics and, reduced to its essence, this was a "Railway War". Control of the French and later the Belgium railways behind the British sector was taken over by the Railway Operating Division of the Royal Engineers (ROD RE), and staff needed to operate the military traffic was recruited from Britain's railways. By 1916 this man power source was approaching exhaustion and at the instigation of the British War Council the Australian government sanctioned the raising of an AIF military unit composed of troops qualified for railway work. In November 1916 newspaper advertisements were placed throughout the country inviting railway employees to volunteer for service abroad. Men were required from all branches of the railway service, but engine crews were in particular demand and to that end it was announced that passed cleaners would be accepted as firemen and passed firemen as drivers. Rates of pay and general conditions were the same as for soldiers on active service, but railwaymen were not required to be passed as medically fit for general service. Volunteers had to be between 19 and 45 years of age, but this was difficult to enforce and an age census conducted in July 1918 would reveal quite a number aged over 50, with one Company boasting a member aged 65. Railwaymen volunteering for overseas service were also offered protected leave of absence. In effect they would be on temporary secondment to the military.

The Australian Railway Unit, which was fully integrated with the British ROD, comprised six Companies and for convenience these are referred to by the names finally adopted in March 1918, viz. the 4th, 5th, and 6th Australian Broad Gauge Railway Operating Companies (ABGROC), and the 1st, 2nd, and 3rd Australian Light Railway Operating Companies (ALROC). In this context, "Broad Gauge" referred to the existing French and Belgium standard gauge railways (plus war time extensions), while "Light Railway" referred to a network of temporary 600 mm gauge feeder lines that relayed traffic to the forward areas. These lines were more vulnerable to enemy action and were often constructed using prefabricated panels to facilitate rapid construction and repair. Ammunition comprised the main loading on the Light Railways but they would also prove useful in bringing up troops from their billets and evacuation of the wounded from both sides. These Australian Railway Companies were mainly raised at home, the exception being the 3rd Australian Light Railway Operating Company, which originated as the operational company for the Anzac Light Railways project. It was raised on the Somme in late 1916, and consisted of railwaymen scouted in the field from regular units.

The employees of the East Greta Coal Mining Company who served in the AIF Railway Unit are listed in the accompanying table. Some insight into what awaited these volunteer railwaymen can be gleaned from the Unit Diary of the 4th ABGROC, (hereafter referred to as the "4th Broad Gauge"), which was mobilised in Melbourne and concentrated at Royal Park on 23 February 1917. It comprised men from all states of the Commonwealth: 121 from Queensland, 10 from Victoria, 27 from Tasmania, 85 from South Australia, two from Western Australia, and 24 from NSW including the two East Greta men listed here. The origins of the other New South Welshmen in this unit remain obscure, and it is possible

The South Maitland Railways Ltd only came into existence at the end of the Great War, perhaps explaining the slight misspelling of the name on the company's Roll of Honor. A more significant error is the omission of Albert Charles Stout from the list of fallen. The story of Joseph O'Loughlin is quite poignant. He was the only employee to serve as an officer in the AIF, and returned to duty as a SMR clerical officer in 1921, only to be killed when he fell beneath a passenger train at the Heddon Racecourse platform on 25 June 1927. Photo: R Driver

that other private organisations were represented as well. The total strength was 269, including 3 officers. The Commanding Officer was Capt. Thomas William Russell, an engineer with the South Australian Railways at Islington, assisted by Lieut. Reginald John Burchell, a railway officer from Western Australia and also a state Member of Parliament, and Lieut. Hardy Eustace, a Locomotive Foreman with the Queensland Railways. Based on their qualifications, these three officers were commissioned within days of their enlistment.

The 4th Broad Gauge was ordered to embark on HMAT *Euripides* on 8 March 1917 but this was cancelled at the last minute upon news that enemy raiders were active in the Indian Ocean. There followed a transfer to the Broadmeadows camp on 23 March, and eventual embarkation at Port Melbourne on 11 May 1917, on HMAT *Shropshire* (A9), one of a convoy of 11 troop ships escorted by the cruiser HMAS *Encounter*. Also in this convoy was HMAT *Ascanius* and HMAT *Boorara*. On board *Ascanius* was the East Greta Company's Fred Wood and his unit the 2nd ALROC, while the *Boorara* would feature in an interesting post script. After embarking further troops at Fremantle the convoy now in charge of HMS *Doris* sailed on 22 May for Mauritius where it was joined by two Japanese cruiser escorts to Durban. There, and at Capetown, troops were shown the local sights. Of course this was done on foot - the military mind never passed up an opportunity for a route march.

It was reported that the Cape Town engine shed was out of bounds, but nevertheless some of the railway troops had inspected a 148 ton locomotive with four coupled wheels. Now sailing a zig zag course from Cape Town, and escorted by the armed merchant (auxiliary) cruiser *Orama*, the next stop was at Freetown, Sierra Leone for coal and water, but troops were not allowed ashore. *Orama* (destined to be sunk by a German submarine several months later) was relieved there by *Mantua*, another armed merchant cruiser. There was considerable excitement two days out from Plymouth when the convoy entered enemy infested waters and *Mantua* was replaced by a screen of seven Royal Navy destroyers and the following day one of them was seen to engage and sink a submarine.

The unit disembarked at Plymouth and marched into the Australian Railway Depot at Bordon, Hampshire on 19 July 1917. After further preparation, including gas warfare training, the unit was marched out on 4 October, destination unspecified, but there would have been few surprises when the troops boarded a train to Southhampton for the short channel crossing to Le Havre. Passing through several staging camps, on 11 October the unit arrived at Audruicq, where a new depot and camp had been established by the British ROD. As noted in the Unit Diary, preparations for working on the French railways began immediately:

> All enginemen and firemen were sent out on the road as third man on engines, as opportunity allowed, to familiarise themselves with the various types of locomotives, signalling and operating systems.

The men of the various Broad Gauge units would be issued with cards specifying the roads on which they were qualified to operate on the Nord (Northern Railways of France) but there are references to pilots being requested when required to work over unfamiliar sections, and it seems there were few limits to their sphere of operations. In July 1918 it was noted that 12 men of the 5th Broad Gauge worked a rake of coupled engines to Marseille for shipment, no destination given.

The letters ROD were occasionally satirised to mean "right out of danger", but of course that was not the case. Rail yards and depots came under frequent bombardment by long range artillery and aerial attack. A hazardous roster was standing on a gun station with a rail mounted Howitzer or naval gun, ready to perform a rapid extraction should an air plane or spotter balloon allow the enemy to register its guns. In those early days of aerial warfare, foul weather was the railwayman's friend, as it kept the enemy grounded.

The encampment of the 4th ABGROC at Audruicq was only temporary and on 1 January 1918 the unit transferred to the intended permanent base at Perrone, on the Somme, about 10 miles behind the front. As the Unit Diary for March 1918 records, the stay there would be short:

> The sudden launching of the Great German offensive on the Sector with its far reaching effects beyond the firing lines necessitated the evacuation of all the stations under intense shell fire and in many cases machine gun fire. I have to record my keen appreciation of the manner in which staff carried out their duties, saving guns, rakes of wagons, removing the Casualty Clearing Stations and leaving nothing of any value to the enemy.

The casualties included one killed and three wounded during evacuation to the relative safety of Audruicq.

After a month at Audruicq, the 4th Broad Gauge was ordered in April 1918 to take over the working of the Dunkerque depot and Triage Docks, including the locomotive depot at nearby Coudekerque. It would remain there for 12 months, well after the Armistice, assisting in demobilisation and the restoration of civilian order. These extracts are from the Unit Diary for January 1919:

> The staff, particularly the main line enginemen have been under very high pressure – which condition of affairs has gradually increased since Armistice – the principal cause being the opening up of evacuated territory, transport of supplies to Allied armies, transport of supplies for Belgian and French civil population combined with heavy troop trains and demobilisation trains. It has been quite common for enginemen to be on the footplate for 40 hours at a stretch without relief and 100 hours per week was a usual turn of duty. To relieve this, "living wagons" were attached to a certain number of engines and two crews allotted – one crew sleeping while the other crew worked alternating 12 hour shifts. Thus the staff have been working, besides to various depots in France such as Abbeyville – Ligny – Doullens etc – as far as Namour, Leige, Tourcoing and Cologne. In fact Cpl Connelly A. No.1551 (from the Toowoomba depot in Queensland) worked a train from Dunkirk direct to Cologne handling a handed over German engine which was temporarily on our strength. It was no uncommon thing for an engine and van to be away for 12 to 17 days at a time.

The severe mid winter conditions were beyond the experience of most Australian railwaymen:

> A severe frost and cold snap seemed likely to cause trouble but fire buckets were in readiness and suitably placed near and around engines saved freezing of injectors and hose bags – and bursting of pipes. Very little trouble was therefore experienced. The big turntable was the principal problem – no less than eleven (11) firebuckets having to be kept going for some days to prevent the circular track from icing over and the centre bearing from freezing. These conditions added to heavy traffic and long hours made things none too easy for all concerned.

In mid April 1919, the Australian railwaymen were relieved of all duties at Dunkerque and on 1 May the Company embarked at Le Havre for England, to await repatriation.

Apart from officers, individual soldiers are rarely mentioned in unit diaries, and what we know of the war service of the East Greta men is mainly limited to their Army Service Records. William Fleming, the East Greta fettler who enlisted in 1915, was one of the Australian railwaymen detached from infantry units for railway work on the Somme in the winter of 1916. In November 1916 a unit called the 1st ANZAC Light Railways was raised in the field with the task of extending and consolidating the light railway network in the Ypres salient, where the battlefield had become a quagmire totally unsuited to road transport. Its work completed, this unit was disbanded in 1917, but the operating company was retained and eventually became the 3rd ALROC. William Fleming remained with that Company and finally returned to Australia in August 1919. As his East Greta service record lacks any entries after 1915, it is unlikely he resumed his former employment.

But for a minor misdemeanour, we would have no idea what duties awaited Charles Rider, the EGCMCo signalman who joined the 5th Broad Gauge and called himself a fireman. He was severely reprimanded by his Commanding Officer on the charge: "On 5.9.18 whilst on active service, failing to attend at place of parade appointed by his superior officer." In civilian speak, he was late signing on, and it is further stated that the departure of "his train" was thereby delayed by 45 minutes, from which it may be inferred that he was indeed serving as a fireman, or perhaps a guard, but not a signalman. It seems this incident was an aberration, because on 7 September 1918 he was promoted to Corporal. Why did Charles Rider and his colleague Fred Wood enlist as firemen, in contradiction to their EGCMCo. service records? Least

SMR No.19 (BP 5910/1915) rolls through Weston with a train from Neath in 1968. In the fireman's seat, giving his mate a spell, is driver Jack Mackel Jnr whose father had served in the 4th Broad Gauge in France during 1917-19. The straight leg of the Down main turn out leads to the Hebburn exchange sidings. Also visible is the trailing connection of the abandoned branch line to Pelaw Main, which crossed the Hebburn branch on the level. The J and A Brown ROD engines were based at Pelaw Main until closure of the depot in 1967. Photo: R Driver

likely perhaps, they may have had locomotive experience before joining the East Greta Co. The strange case of Richard Mullen, another EGCMCo. guard, may be a clue. He enlisted on 17 January 1917, giving his occupation as "guard", but was advised shortly afterwards that he had been recruited in error and that guards and signalmen were not required. This seems to have been a miscommunication, and he was granted a voluntary discharge. Perhaps Rider and Wood took heed of this and decided to disguise their background. Fred Wood also overstated his age by 10 years, perhaps in the hope of achieving a higher rank. He was made a 2nd Corporal on 9 March 1917 prior to embarkation, but further details of his service with the 2nd ALROC are unknown. It appears Messrs. Rider and Wood did not return to duty on the SMR, their service records ending upon enlistment. After completing his service with the 5th Broad Gauge, James Medland resumed his duties as a fireman on SMR on 22 September 1919, and was made an Acting driver on 30 June 1921. The onset of the Great Depression caused the retrenchment of a large tranche of less senior SMR employees, effective 30 September 1931, and Medland was regressed to fireman. He was appointed a Driver on 17 July 1935 and died short of retirement on 9 December 1945.

The Railway Companies had a designated establishment based on graded military rankings, and positions were filled on the basis of civilian rank and experience. Charles Kerr, a EGCMCo. passenger driver with 15 years service, was recruited as a Sergeant and was one of the more senior men in the 4th Broad Gauge. From 28 January 1919 to 9 February 1919 he was appointed temporary Company Sergeant Major, filling in for Alfred Parsons, a station master from Tasmania. John Mackel's service with the 4th Broad Gauge was uneventful and he would later reveal that in a nice piece of camaraderie he and Charles Kerr had been rostered together as a crew. This would have been consistent with the British "buddy" or "pal" policy where men of similar background were kept together in the interests of morale.

Australian troops awaiting repatriation were offered a period of non military employment in England, to assist in their return to civilian life. Although their former positions were guaranteed, some of the railway troops also availed themselves of this opportunity. Charles Kerr spent three months on running shed experience under the general manager of the London and North Western Railway at Euston, something of a bus man's holiday. John Mackel on the other hand had a change of scenery, working for three months at a picture theatre in St Helens. Consequently, Charles Kerr did not return to duty as a passenger driver, on what was now SMR Ltd., until 2 December 1919. On 15 October 1921 he had the misfortune to be in charge of locomotive No.21, an ex government M Class 4-4-2T, working the Kurri Kurri passenger service, when it suffered fusion of the lead safety plug, one of only three such incidents in the history of the SMR. Unusually, he received only a mild reprimand. He resigned the service on 11 June 1942, in the midst of another war and just short of his 63rd birthday. John (Jack) Mackel (Snr) returned to duty as a coal road fireman on 5 January 1920, and retired as a driver at the normal 65 years of age on 21 June 1957.

Conclusion – the ironies of war

The Broad Gauge railway units relied heavily on locomotives borrowed from the English and Belgium railways. New engines were supplied by Canada and America, while the British War Department ordered the construction of a fleet of heavy goods locomotives for service with the ROD.

J and A Brown No.13 (ex ROD 2119, NB 22209/1919) was one of the trio delivered on the SS Boorara *and is seen here marshalling a load of washed coal at the Hexham Coal Preparation Plant in 1968. Time has totally obliterated this scene and the site is now occupied by the ARTC Up Coal relief roads and the Aurizon train maintenance facility.* *Photo: R Driver*

The design chosen was the Great Central Railway's 8k Class 2-8-0, a relatively simple and rugged machine that could be built at minimal cost.[1] The only necessary concession to wartime stringency was the substitution of steel for copper in the fire box. Numbering 521, of which 305 went to France, and built by the Stephenson, North British, Kitson, Nasmyth Wilson, and Great Central works, these locomotives were in effect forerunners of the "Austerity Engines" built for Britain's railways in World War 2. After the war, thirteen of these surplus ROD 2-8-0s were purchased by J and A Brown for the Richmond Vale Railway in the NSW Hunter Valley. The first three locomotives arrived in Sydney on 23 February 1926, aboard none other than the former troopship SS *Boorara*. Equally notable, this was claimed to be the first time that complete locomotives had been carried in the hold of a general cargo vessel. The engines were slightly longer than the hatch, and the loading and unloading at Liverpool and Pyrmont was performed with floating cranes, using a special inclined sling to pass the engines cab first into the hold.

There was a final twist to this story. The SS *Boorara* was in fact a captured German vessel that had been apprehended in of all places, Melbourne. The SS *Pfalz*, a cargo steamer of the Norddeutscher Lloyd line, departed Melbourne's Victoria Dock on 5 August 1914, just as news was received that war had been declared on Germany. Before reaching Port Phillip heads, the vessel received a signal to halt from the Royal Australian Artillery Garrison at Point Nepean Fort, and when this was ignored a warning shot from the fort's battery convinced the captain to return to port. This incident is regarded as the first shot fired by Empire forces in World War 1. The *Pfalz* was requisitioned by the RAN, fitted out as a troopship, and renamed HMAT *Boorara*. It was twice torpedoed and repaired, and after the war was taken over by the Commonwealth Line as a general cargo vessel.

The locomotive allotment at the Dunkerque depot is recorded in the 4th Broad Gauge Unit Diary, and the ROD 2-8-0s are well represented. The last listing is in December 1918 and up to that date none of the engines that came to Australia are mentioned. Of course, many other locomotives including German engines handed over under the Armistice, passed through 4th Broad Gauge territory and a photograph exists of ROD 1984 (Brown's No.20) in April 1919, said to be at Coudekerque, which the 4th Broad Gauge Diary refers to as the "foreign engine depot".

During a flood in 1950, SMR operations were transferred to the Richmond Vale Railway depot at Pelaw Main, home of the ex ROD engines. In a recorded interview, a SMR employee from those days recalled the following conversation:

> There was an engine in the Pelaw Main station and I was talking to Jack Mackel Senior and he said to me, you see that engine over there. He said, I drove that during the First World War. He was in the AIF and he said, it wasn't that type of engine I drove, but that very engine. He drove it at Dunkirk in the First World War.

The exact significance of that statement will likely never be known.

Note

1. See also LR 209, p3.

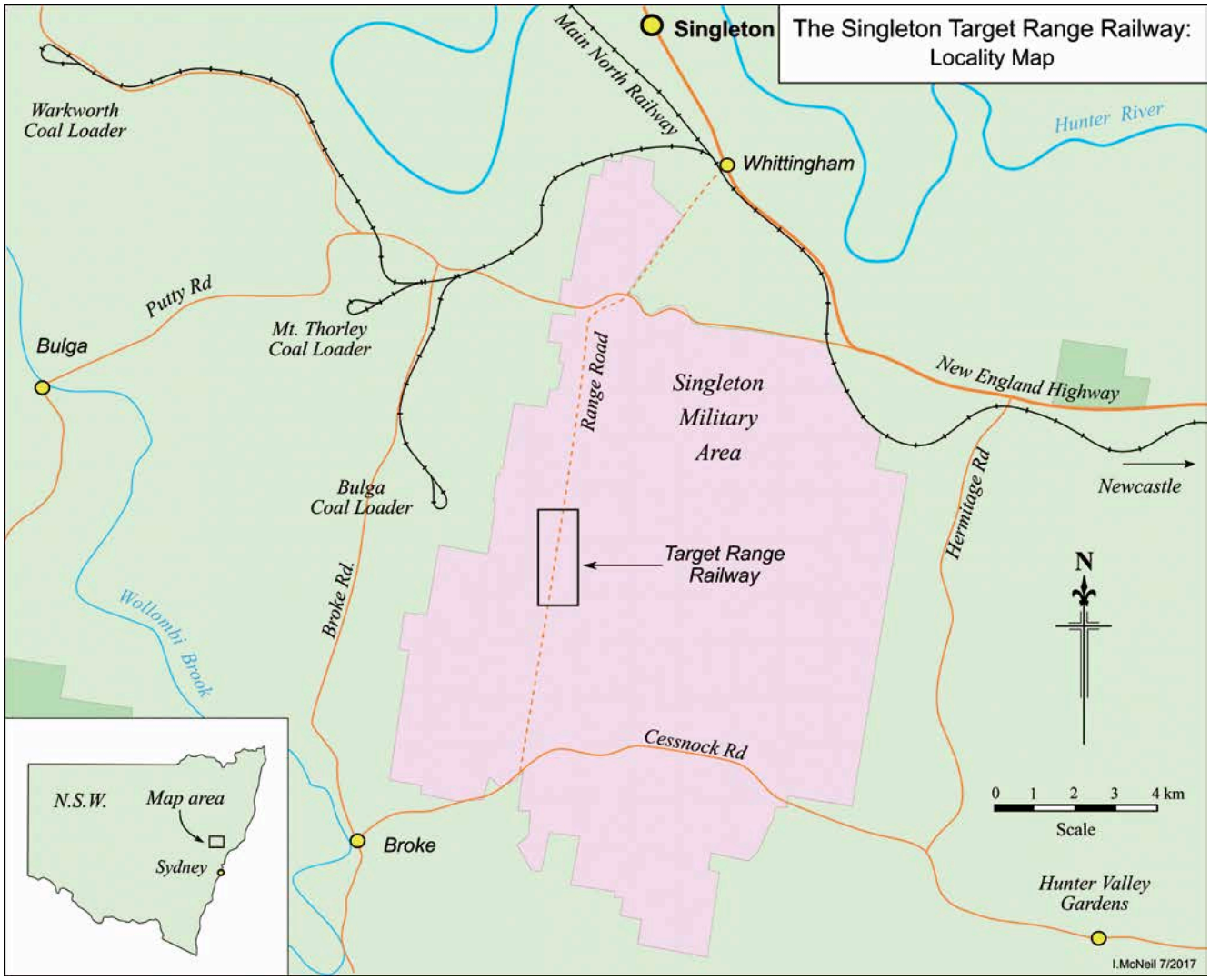
Acknowledgements

This article draws on material held by the Australian War Memorial, the National Archives of Australia, and the Cultural Collections of the University of Newcastle, NSW. Special thanks are due to Trevor Edmonds and John MacNamara whose personal notes on the work of Australian railwaymen and engineers on the Western Front have helped to place some of this story in a clearer context.

East Greta Coal Mining Co. employees serving in AIF Railway Companies						
Name	Date & Place of Birth	Date joined East Greta Co.	Occupation at enlistment	Enlistment date	Railway Coy.	Remarks
William Cookson FLEMING	15.2.1880 Candell England	15.1.15	Fettler	12.8.15	3rd ALROC	Originally 3rd Bn, detached to 1st ANZAC Light Railways on the Somme, Dec.1916
Charles Edward KERR	25.6.1879 Maitland NSW	25.7.02	Driver (passenger)	15.1.17	4th ABGROC	
James Henry MEDLAND	4.8.1888 Cornwall England	4.12.13	Fireman	15.1.17	5th ABGROC	
Charles Frederick RIDER	6.7.1889 Maitland NSW	18.11.13	Signalman *	16.1.17	5th ABGROC	* Enlisted as "fireman"
Fred WOOD	9.1.1887 Staffordshire England	30.10.11	Ticket examiner*	18.1.17	2nd ALROC	* Enlisted as "fireman". Overstated age by 10 years
John (Jack) Aloysius MACKEL	21.6.1892 Sydney NSW	8.7.12	Fireman	20.1.17	4th ABGROC	

The Fallen - The East Greta Coal Mining Co. 1914-18							
Name	Date and Place of Birth	Date joined East Greta Co.	Occupation at enlistment	Enlistment date	Military Unit	Date of Death	Cause of Death
Samuel Dougan BLAND	? Pinchbeck, England	?	Labourer	8.1.16	34th Battalion	1.10.17	Died of wounds sustained in Battle of Polygon Wood on 1.10.17
Colin Kenneth BLEAZARD	17.5.1893 Samoan Islands	15.3.15	Porter	5.6.15	13th Battalion	9.2.17	Died of wounds sustained near Gueudecourt, France on 4.2.17
John Henry JOHNSTON	20.9.1899 Maitland	25.1.16	Engine cleaner	21.8.16	34th Battalion	3.3.18	Killed in action near Warneton, Belgium
Albert Charles STOUT	28.2.1896 Maitland	27.12.11	Fireman	27.11.15	35th Battalion	28.8.18	Killed in action in Fargny Wood, France
William WILLIAMS	22.6.1884 Northumberland, England	23.8.09	Driver	31.7.15	1st Pioneer Battalion	17.8.16	Killed in action during the Battle of Pozieres

After attaching coal traffic at Aberdare washery, the train featured on the front cover is now approaching East Greta which was the original terminus of the railway from 1893-1901. Although composed of government vehicles this is actually a non air train, as the Brown's RODs had their Westinghouse equipment removed in favour of an independent steam brake. The working life of this 50 year old locomotive would end a few weeks later. *Photo: R Driver*



Singleton Target Range light railways

by Jim Longworth

In the December 2007 issue of *Light Railways*, Phil Rickard asked whether any one knew about any target range light railways. One such light railway once operated deep inside the Singleton military firing range, between Whittingham to the north and Broke to the south in the Hunter Valley in NSW.

John Shoebridge had visited the site in about 1970 and Grant Fleming went there during December 1995. I became aware of the light railways through noting them marked on the Singleton, 1:63,360, 1955 edition, military map. Various light railway researchers knew of the system, but knew little about it.

Singleton Target Range

The Singleton Army camp was established by the Australian Army in 1942. After resuming several local farms, it eventually covered about 500 square kilometres. Infantry personnel, artillerymen, and armoured tank crews destined for service in World War Two were all trained at the camp. Subsequently the camp has trained school cadets, Vietnam conscripts, and regular service personnel. Training was largely through holding combat exercises and target range practices.

The NSW Department of Main Roads (DMR) built access roads and internal roads around the camp as part of its contribution to the war effort. In addition, during 1942 the DMR established a firing range for armoured fighting vehicles, including constructing target tracks, shelters, and access roads.[1]

The target range was constructed primarily to train crews of the locally made Matilda medium tanks, in preparation for overseas service. The range incorporated a system of moving targets and rail mounting was considered to be the most suitable technology. Commencing operation during 1942, the target range was in operation until about 1948 when it was abandoned.

A subsequent Army Commander thought demolishing the remaining reinforced concrete bunkers would be good training for Army demolition staff.

Description of light railways

The track consisted of three rails, with the centre electrified rail being of slightly lighter weight than the outer running rails. The running rails were heavy, by light railway standards, at about 80 lb/yd or heavier. Large steel plates, much like point slide-plates, were attached to the heavier rail.

During John's c.1970 inspection, four trolleys were noted, but the Range Officer would not allow photography. The trolleys were 4-wheeled, with pointed ends at both ends of their squat bodies. Electric motors provided power to the axle/s via a loop of roller-chain. Of light angle iron

construction, they presumably carried a target to shoot at atop a pole. The range is littered with shot-up car bodies; but it is not thought that the target was a car body.

The light railway system consisted of four independent tracks. Tracks were laid out in two pairs forming roughly a V shape in plan view, with the point of the V facing north. The tracks came close together but did not actually connect at the point of the V. From a ground-level position the western-most tracks appeared to join up forming a mainline, but this is not supported by analysis of remnant earthworks showing up on Google Earth.

At the northern point of each V were solid concrete bunkers, each located on the western side of the tracks. Both bunkers were independently connected to the electricity network by overhead power lines and similarly to the local communications network by overhead telegraph/telephone lines. Both bunkers were located in cuttings with their open sides facing eastward towards the light railway tracks. Both bunkers were backed into the walls of the cuttings and solidly backfilled with earth mounding. Presumably ordinance was shot from the west towards the east. Firing towards the centre of the range ensured all ordinances, exploded or not, were focused towards the centre of the range away from the boundaries.

Rails stacked near second bunker, with the Broke Road in background looking east, December 1995. *Photo: G Fleming*

Outside each bunker was a short length of straight track, parallel to the westernmost track, on which the target trolleys were stored/maintained. A chain operated gantry crane spanned the three parallel tracks.

The lines ran almost entirely along the top of built-up embankments, varying in height from 2m to 5m. Brick or concrete culverts conveyed surface water through the embankments that cross watercourses. Apart from short cuttings at the bunkers, cuttings along the lines are few and shallow. A row of short concrete posts runs along the eastern side, at the toe of the embankment, for the full length of the lines. The posts are triangular in section, with 150 mm long sides, spaced on roughly 3 metre centres, and are generally not tall enough to poke above track level. Presumably they were once part of the electric power or control system.

Motor generator sets in the bunkers supplied DC power via the centre rail. Control of the targets movements was by tramway type controllers also located inside the bunkers. Absence of a reversing handle suggested that reversing may have been by a trip located beside the terminus of each track.

During the 1970s most of the track was ripped up and sold. Rail is believed to have been sold to RW Millars for use in collieries, and the sleepers sold locally. In 1995 Grant noted the southernmost bunker had been demolished and all the railway track lifted.

A new electronic target railway was considered and it was to include pressure sensors that would determine how closely the projectiles had passed by the targets. The new system would also indicate both the range and location of the target. Monitors would display the target motion, which would all be controllable. However, the electronic ability of the Army's modern weapon systems at the time did not come to fruition or was bypassed by even more modern systems and the proposed Singleton target railway was never built.

First branch after crossing the Broke Road looking south, December 1995. *Photo: G Fleming*

Acknowledgement

The assistance of Captain Terry Dineen c.1970; and Major Ian Rhodes during 1995 is acknowledged and appreciated.

Note:

The range surrounding the lines contains unexploded ordinance so access to amateur light railway enthusiasts will NOT be given!

References

1. *The Road Makers: a history of main roads in New South Wales*, 1976.

Garratt action in the Otways

Photographs by Ray Graf

In the early 1960s, the late Ray Graf (1944-2010) made several visits to the Victorian Railways' 2ft 6in-gauge branch line in the Otway Ranges, in south-western Victoria.

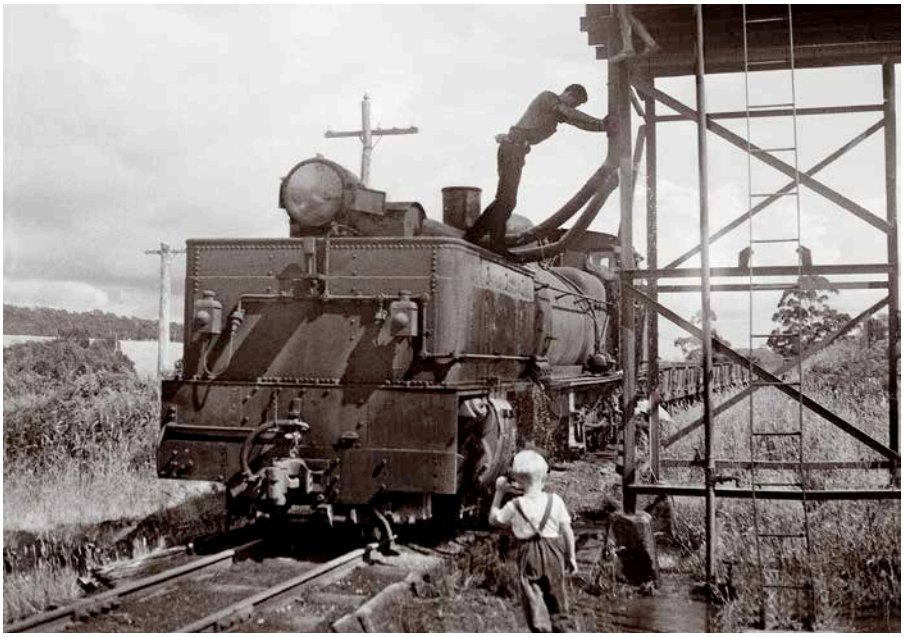
These are a selection of photos found amongst his large collection. In his early years Ray was still learning about photography and we trust readers will bear that in mind.

My thanks to Mike McCarthy for scanning the negatives. *Phil Rickard*

Above and Left:
G42 at Colac, on the ash trestle, being prepared for a special train, 31 March 1962. That 22.6sq ft of grate area produced large quantities of ash from the State Coal Mine's offerings!
The Victorian Railways' two G-class Garratts were among the most powerful locomotives on the '30-inch gauge' anywhere in the World though the ultimate honour surely belonged to the 750mm-gauge Ferrocarril Industrial Rio Turbio's 2-10-2s as rebuilt by L D Porta. Unfortunately the VR's Garratts were built without inner carrying wheels – the lack thereof leading to excessive wear on the inner driving wheels. Surely if any further had been built they would have been of 2-6-2+2-6-2 wheel arrangement, but such was not to be.

Right: *Watering facilities at Gellibrand, the lowest point on the line, were originally adjacent to the Gellibrand River, about a quarter-mile north from the station. Whilst this stop was handy for those who wanted a 'watering stop' – at the nearby hotel, it was an unnecessary halt as far as most passengers were concerned. In 1911, with increased train running due to the opening of the Crowes' line, tanks were installed at Gellibrand station, one at each end of the station. In the early 1950s the Down-end tank was replaced by a new steel tank on a steel stand, as seen in our sunny mid-morning photo as G42, at the head of a rake of empty NQ trucks, heading south, on the weekly goods. The Up-end tank was corrugated iron on timber stand, until closure. Exact date not known – c1961.*

Right: *The thirsty Garratt pauses at Dinmont tank, nine-miles distant and over a thousand feet higher than Gellibrand. The train has negotiated some 97 curves and had relief at just Banool and Wimba where a two-mile stretch provided some respite for the hard-worked fireman. The relationship between small boys (and big ones!) and trains is well known; here, the 'small boy brigade' has appeared to watch the watering ritual. The lad in the foreground would now be about sixty years old! The steel tank is still there. In 1903 the first timber tramway to meet the new railway was from John Kincaid's mill to the west. Until 1912 the station was called Weeaproinah before that name was re-assigned to a new station on the Crowes extension.*



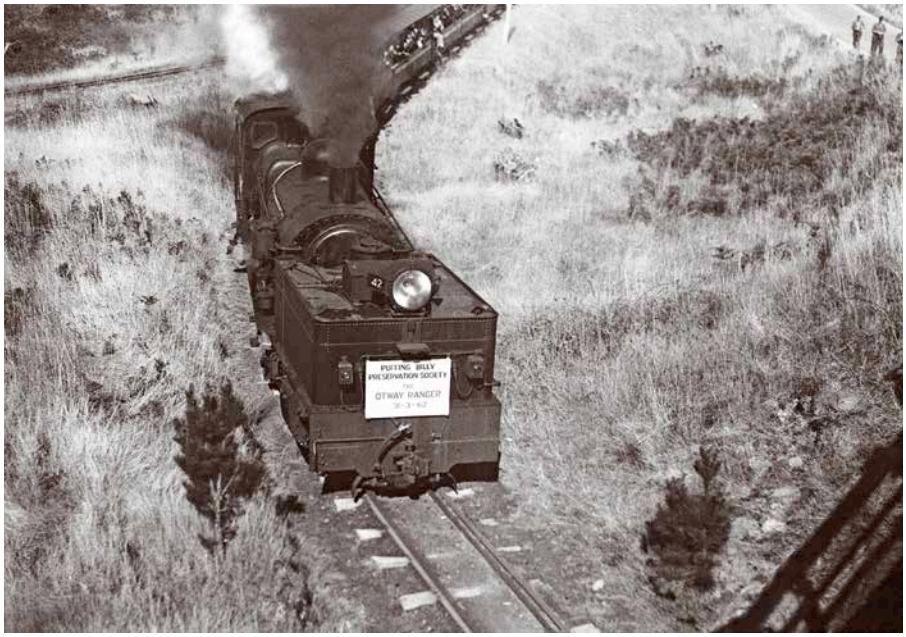
Left: *Beech Forest station, viewed from the balloon loop points. Lying at an elevation of 1747 feet, Beech Forest was the district centre for the communities along the ridge of land that stretched away to the south-west. The railway opened from Colac to Beech Forest, a distance of almost 30 miles, in 1902. Following agitation from settlers further to the west, it was extended by 14¼ miles, opening in 1911. That final station, the most southerly on the Australian mainland, was sited opposite the selection of Cornelius Crowe, and was (correctly) named in the Beech Forest and Crowe's Railway Construction Act of 1908. However, the VR abhorred apostrophes in station names and it duly opened as Crowes.*

Right: *In the last years of the railway, the main commodities carried were potatoes and pulpwood logs. Empty NQ open trucks headed south into the Otways and came back with loads of spuds and logs. Beech Forest and Weeaproinah were the principal loading points. Here we see the train from Weeaproinah has arrived at Beech Forest and G42 is adding trucks from that place. The whole train will then run a round the balloon loop to get it into No.1 road and ready for the run back to Colac. The thirty miles will take about three hours. At Colac, every pulpwood log had to be manually transferred to broad-gauge trucks to continue its journey to the Maryvale paper mill. One wonders if the VR ever considered transporter wagons, like one sees in Europe?*

Right: *From 1959, the recently-formed Puffing Billy Preservation Society, whilst working to re-open the Belgrave to Menzies Creek section of the Gembrook railway, also arranged several special trains to ride the 'Beechie'. Here we see Colac on a warm Saturday morning, 31 March 1962. Passengers, fresh from their journey from Melbourne behind R711, are boarding the train of eight NBH carriages and two NC vans. The Otway Ranger will travel to Weeaproinah (the end of line at that time) and return. Ray had travelled on a similar excursion on 21 November 1959, also run by the PBPS, to Beech Forest.*

Left: *When the Upper Ferntree Gully to Belgrave line was closed for gauge conversion in 1958, the NBH excursion carriages, unique to that line, were transferred to Newport work shops. In 1959 when the operation of special narrow-gauge passenger trains in the Otways commenced, eight of the carriages were transferred to Colac for further use. Here we see the G42 at the head of the* Otway Ranger *departing Gellibrand on the Down trip to Weeaproinah. Ahead lies Beech Forest, twelve miles away, and exactly 1500 feet higher up the main Otway Range – Gellibrand's elevation being 247 feet, Beech Forest's 1747 feet. This 12-mile stretch was the most arduous of any on the Victorian Railways' narrow-gauge lines.*

Right: *Heading southwards out of Gellibrand is a short section of straight track. Initially on a 1:569 grade, it quickly changes to a 1:30 and then enters a ten-chain curve. As G42 come pounding upgrade, Ray snapped this photo of the Otway Ranger. One in 30 will be the ruling grade all the way to Beech Forest, with but a few short respites. The railway initially follows the valley of Charley's Creek East to a saddle near Dinmont where it crosses into the upper reaches of Little Lardner's Creek, which valley it follows to Beech Forest. In early May the NBH excursion carriages will be moved back to Belgrave for Puffing Billy's reopening. This will necessitate NQ goods trucks being used for passengers on the last train in just 91 days' time.*



Left: *The excursion train has run around the loop at Beech Forest and is now heading for Weeaproinah on the 'branch' (the 'mainline' to Colac can be seen in the top left corner). The train is about to go under the (Old) Colac Road bridge and commence a half-mile of about one in 35 grade to reach the highest point on the line, 1826 feet elevation, near Buchanan. Much of the country has been cleared for potato growing for which it was found to be particularly suited. The line roughly follows 'the Ridge', an elevated area gradually decreasing in height, in a south-westerly direction.*

Right: *After departing Beech Forest (on the Crowes extension) there was a good half-mile of approx 1:35 before reaching Buchanan, a halt of no great importance – it might have been named Beech Forest West as it catered for several businesses and residents on the western side of the town who did not relocate after 1902 to be near the main station. Opened in 1913, Buchanan was graced by a station sign in a clearing and nothing else. In our photo we see G42 showing fine style as it lifts the Otway Ranger through cleared 'potato country' along 'the Ridge', heading for Buchanan and the highest point on the line. Note the ancient tree stags on the distant horizon, a silent reminder of the forest that used to clothe these hills. At one time or another, least 23 stations and sidings along the line had timber tramways running to them from forest sawmills. For details of these, please refer to "The Beechy", by Norman Houghton (LRRSA, 1992).*

Left: *Somewhere in the forest between Weeaproinah and Beech Forest, on the return trip, the train has halted for a photo stop. This would be the only section along which the locomotive needed to run bunker first, something for which a Garratt is admirably suited. (In a number of countries it was standard practice to run Garratts bunker first. The visibility was better and the smoke nuisance was avoided.) A number of years of declining maintenance has seen the undergrowth rapidly head for the sleepers – it will soon enshroud the permanent way, before dismantling is started in two years time. (see Light Railways No.254 'Colac – Weeaproinah railway dismantling' for a selection of Ray Graf's photos taken in August 1965, near Gellibrand.)*

Industrial Railway NEWS

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Special thanks to contributors to the *Sugar Cane Trains/Navvy Pics 2ft* Facebook page.

QUEENSLAND

BUNDABERG SUGAR LTD, Bingera Mill
(see LR 256 p.28)
610 mm gauge
During the slack season this year, EM Baldwin B-B DH *Miara* (8988.1 6.80 of 1980) was professionally repainted by Diamond Dustless Mobile Blasting. This firm also repainted the cab of Millaquin Mill's EM Baldwin B-B DH *Calavos* (4983.1 7.73 of 1973) which had been repaired at Bingera Mill. EM Baldwin B-B DH *Givelda* (5800.2 6.75 of 1975) was fitted with a new Caterpillar C15 motor this year in place of the Detroit Diesel V12 motor. Com-Eng 0-6-0DH *Burnett* (AH2967 of 1963) was seen stabled in the compound at Wallaville on 1 July.
Luke Horniblow 7/17; Mitch Zunker 7/17; Diamond Dustless Mobile Blasting 7/17; Scott Jesser 7/17; Geoff Driver 8/17

BUNDABERG SUGAR LTD, Millaquin Mill
(see LR 254 p.30)
610 mm gauge
EM Baldwin B-B DH *Calavos* (4983.1 7.73 of 1973) returned to service for the start of the crushing with its cab repaired and repainted although there was no time to repaint the rest of the loco. EM Baldwin B-B DH *Barolin* (6456.1 11.75 of 1975) was involved in a minor collision with a truck at Bargara Road in Bundaberg on 27 July. Several bins were derailed, probably as a result of the loco braking hard to avoid hitting the truck. *NewsMail* 27/7/2017; Geoff Driver 8/17

BUNDABERG SUGAR LTD, Moreton Mill, Nambour
(see LR 188 p.19)
610 mm gauge
Relics of this closed mill's rail system seen in early July included 4 ton bin 1066 in use as a shed on a farm and another 4 ton bin stored at the former Howard Street yard in Nambour. The latter had been converted to a bar for use at Nambour's Tram Festival.
Brad Peadon 7/17

LOCOMOTIVE AND ROLLINGSTOCK MANUFACTURERS

ONTRAK ENGINEERING PTY LTD, Maraylya, N.S.W.
(see LR 221 p.22)
OnTrak may have a hire locomotive according to its exhibit at the Asia-Pacific International Mining Exhibition in Sydney in late August.
OnTrak Engineering 8/17

CENTRAL QUEEENSLAND UNIVERSITY, Bundaberg campus
1067 mm gauge
CQ University has obtained English Electric Australia Co-Co DE 1603 (A.064 of 1963) and three QR National M class passenger carriages for use in simulated accident scenarios for Certificate IV Bachelor of Accident Forensics and Masters of Safety Science students. Two short parallel lengths of track with a connecting crossover have been laid on site to accommodate these items. 1603 was expected to arrive in mid August following repainting in Queensland Railways blue and white livery at Ipswich Railway Workshops. The carriages are MBS 1481, MBC 1448 and MCS 1535.
Joe Thompson 7/17, 8/17; Luke New 8/17

Top: *Millaquin Mill EM Baldwin B-B DH locomotives* Vulcan *(5317.1 11.73 of 1973) and* Fairydale *(10048.1 6.82 of 1982) standby while their crews have a pow-wow at a siding along the Lovers Walk Road line on 7 July. Photo: Alf Atkin* ***Above:*** *On 8 July, Millaquin Mill EM Baldwin B-B DH* Vulcan *(5317.1 11.73 of 1973) is about to cross Elliot Heads Road after servicing the nearby siding. Photo: Alf Atkin*

Top: *Bingera Mill EM Baldwin B-B DH* Oakwood *(5800.1 5.75 of 1975) branches off the main line and heads to Angel siding on 3 July. Photo: Luke Horniblow* ***Centre:*** *Farleigh Mill EM Baldwin B-B DH* Inverness *(10123.1 5.82 of 1982) waits for a cross at Howells Loop on 9 August. Photo: Mitch Zunker* ***Above:*** *Mossman Mill Com-Eng 0-6-0DH multi-unit locos* Cook *(AL3372 of 1964) and* Ivy *(AL4181 of 1965) alongside the Captain Cook Highway south of Mossman on 24 July. Photo: John Kramer*

ISIS CENTRAL SUGAR MILL CO LTD
(see LR 256 p.28)
610 mm gauge
Clearing the ex QR rail corridor from Cordalba to Booyal for the new line has been ongoing.
Carl Millington 8/17; Cory Buckholz 8/17

MACKAY SUGAR LTD, Mackay mills
(see LR 256 p.28)
610 mm gauge
As of early August, the derailment rate has been one of the lowest for a number of years and this has been attributed to dry conditions and the retention of experienced crews. Clyde 0-6-0DH *Devereaux* (67-568 of 1967) was seen on 14 July with its nameplates replaced by stickers. This had occurred in the period 2010 to 2016 owing to theft of the nameplates and Clyde plate. It had carried its name spelled as *Devereux* on the stolen plates. The name is now spelled as carried on the original brass plates until sometime after 1988. Clyde 0-6-0DH 12 *Nellie* (58-188 of 1958) and Com-Eng 0-6-0DH 25 *Eton* (FB3170 of 1963) have also had their nameplates stolen at some time.
By 1 July, work had commenced on a new line connecting the Racecourse Mill locoshed to the Palms line using the route of the former QR Mackay Valley railway west of the mill. The ex QR trackage is being converted to 2 ft gauge on concrete sleepers. This is being done as the level crossing over the Peak Downs Highway at the mill has to be removed owing to works associated with the new Mackay bypass road and this will isolate the locoshed from the mill yard. Locos will have a rather circuitous route to the shed via the new line until the shed is moved to the southern side of the highway at some time in the future. Also owing to the new bypass road, a section of the Peri line has to be deviated from following Stockroute Road to an alignment further north. On 16 July, the last bin of a rake trailed by Mackay Sugar bogie brakewagon B VAN 1 (built in 1996) broke a coupler, causing it and the brakewagon to derail and hit a power pole about one kilometre east of Pleystowe.

Rerailing took place the next day with the pole having to be replaced causing power disruptions to 41 customers in the area.
Daily Mercury 18/7/2017, 4/8/2017; Arthur Shale 7/17; Steven Jesser 7/17; Scott Jesser 7/17; Sean Yasserie 7/17; Mitch Zunker 7/17, 8/17; Luke Horniblow 7/17; John Browning 8/17

MACKAY SUGAR LTD, Mossman Mill
(see LR 255 p.26)
610 mm gauge
Locos seen in use during July included Com-Eng 0-6-0DH multi-unit locos *Cook* (AL3372 of 1964) and *Ivy* (AL4181 of 1965) and EM Baldwin B-B DH *Daintree* (7303.1 7.77 of 1977). A cane train derailment at Killaloe, south of Mossman, resulted in the spreading of some debris over the Captain Cook Highway on 19 August.
John Kramer 7/17; RACQ Live 20/8/2017

MSF SUGAR LTD, Mulgrave Mill
(see LR 256 p.28)
610 mm gauge
Clyde 0-6-0DH 18 *Barron* (64-379 of 1964) was being test run late in July following rebuilding which has included being fitted with a Mercedes Benz motor and Allison transmission. It has received a new Mulgrave style cab and hood with the cab being lower than normal to fit under the QR bridge at Redlynch. As well, the frame has been extended. It was on display with a 6 tonne bin of cane in Norman Park, Gordonvale on 19 August as part of the festivities associated with the annual Pyramid Race. Clyde 0-6-0DH 19 *Redlynch* (65-435 of 1965) is undergoing a similar rebuilding to 18 *Barron*. Com-Eng 0-6-0DH 12 Riverstone (AD1452 of 1961) was involved in the shooting of a cane train safety advertisement near Gordonvale in July. A car hit a cane train at Maitland Road near Gordonvale on 13 August. Out of use locos Com-Eng 0-6-0DM 2 (A1001 of 1955), EM Baldwin 4wDM 10 (6/881.1 6.64 of 1964), Mulgrave Mill 4wDM 'Pie Cart' (built in 1962) and MR Simplex 4wDM (10450 of 1954) have been passed on to the Atherton-Herberton Historic Railway at Herberton and were expected to be moved there during September.
Joseph Dietz 7/17; Antony Roth 7/17; Facebook-Pyramid Views 8/17; John Charleton 7/17,8/17; Facebook - Cairns & FNQ traffic incidents updates 8/17

MSF SUGAR LTD, South Johnstone Mill
(see LR 256 p.29)
610 mm gauge
EM Baldwin B-B DH 26 (7244.1 8.77 of 1977) returned to service early in August after being fitted with a new Mercedes Benz motor and Allison transmission. On 20 July, a man crashed a vehicle into a cane train on South Johnstone Road, Boogan causing minor damage to the train. On 31 July, EM Baldwin B-B DH 32 *Liverpool* (10385.1 8.82 of 1982) collided with a B-double attempting to do a U turn in the Currajah Park picnic area car park at the bottom end of the Nerada line near Wangan. The loco sustained considerable damage and was out of service until mid August. It was replaced on the run up the

Top: *Mulgrave Mill Walkers B-B DH locos* Gordonvale *(595 of 1968 rebuilt Bundaberg Foundry 1995) with* Mulgrave *(612 of 1969 rebuilt Bundaberg Foundry 1995) in the background at the eastern entry to the mill yard on 27 July. Photo: John Kramer* ***Centre:*** *South Johnstone Mill 32* Liverpool *(10385.1 8.82 of 1982) shunting in a siding at the top of Pin Gin Hill on the Nerada line on 19 August..* ***Above:*** *South Johnstone Mill 32* Liverpool *approaching South Johnstone township with a rake of fulls from the Nerada line on 19 August. Photo: James Chuang*

Top: *The Lucinda bulk sugar terminal's Com-Eng 0-6-0DH (G1023 of 1958) places a rake of empty sugar boxes destined for Macknade Mill in the marshalling yard on 7 August. Photo: Luke Horniblow* ***Centre:*** *Standing in for the regular loco, EM Baldwin B-B DH 19 (7070.3 4.77 of 1977) heads off to Lucinda with Victoria Mill's bulk sugar train on 10 July. Photo: Tony Bennett* ***Above:*** *Victoria Mill's regular motive power on the sugar train is Walkers B-B DH* Clem H McComiskie *(605 of 1969 rebuilt Walkers 1991 rebuilt Solari 2004) and here it is seen running past Macknade Mill's Clyde 0-6-0DH 12 (65-434 of 1965) at Spinas siding along the 4 Mile Road on 12 August. Photo: James Chuang.*

Nerada line by EM Baldwin B-B DH 24 (5477.1 8.74 of 1974) paired with 32's brakewagon, probably South Johnstone bogie unit 6 (built in 1990). On 2 August, a South Johnstone Mill loco pulled a rake of sixty-six 6 tonne bins away from Bradken's factory at Boogan. As of that date, one hundred and fifty bins of the batch had been delivered. A further two hundred and fifty are to be delivered during August and September.
myPolice Far North 7/17; *Innisfail Advocate* 31/7/2017, 2/8/2017; Carl D'Urso 7/17; Luke Horniblow 7/17; Jason Sou 8/17; Bradken 8/17; James Chuang 8/17

SUGAR TERMINALS LTD, Lucinda
(see LR 256 p.29)
610 mm gauge
Com-Eng 0-6-0DH (G1023 of 1958) has been running successfully in service following refurbishment by L&W Repairs of Ingham. Not previously mentioned in these reports is the new lift up engine compartment doors. These have no ventilation slats and are painted orange which matches the hood top.
Luke Horniblow 7/17, 8/17; Tony Bennett 7/17; James Chuang 8/17

TULLY SUGAR LTD
(see LR 256 p.30)
610 mm gauge
As of early August, the ex Mulgrave Mill NQEA bogie brakewagon (built in 1995) had not been placed in service. Six of the mill's Walkers B-B DH locomotives including *Tully-4* (622 of 1969 rebuilt Walkers 1996), *Tully-6* (653 of 1970 rebuilt Walkers 1993) and *Tully-7* (657 of 1970 rebuilt Tulk Goninan 1994) were placed on display beside the mill fence while the mill was shut down for the Tully Show on 27 July.
Dale Thomas 7/17

WILMAR SUGAR (HERBERT) PTY LTD, Herbert River Mills
(see LR 256 p.30)
610 mm gauge
Clyde 0-6-0DH *Centenary* (64-381 of 1964) had returned to its empty yard duties at Victoria Mill by 27 June. At Victoria Mill, EM Baldwin B-B DH 19 (7070.3 4.77 of 1977) and sugar loco Walkers B-B DH *Clem H McComiskie* (605 of 1969 rebuilt Walkers 1991 rebuilt Solari 2004) swapped duties from 10 July to approximately 22 July owing to breakdowns with two of the Walkers B-B DH locos on cane. On 17 July, Macknade Mill's Clyde 0-6-0DH 16 (DHI.1 of 1954) returned to service after a protracted final drive rebuild. Victoria Mill's Clyde 0-6-0DH *Lucinda* (65-436 of 1965) was on loan to Macknade Mill from 28 June to 2 or 3 July, 17 July to 26 July and 21 or 22 August to 26 August. Macknade Mill's EM Baldwin B-B DH *Darwin* (6171.1 9.75 of 1975) and Clyde 4 wheeled brakewagon *BVAN 4* (CQ3426 of 1975) were on loan to Victoria Mill from 17 July and had returned by 20 July. Macknade's EM Baldwin B-B DH 20 (7070.4 4.77 of 1977) and EM Baldwin 6 wheeled brakewagon *BVAN 1* (7065.3 6.77 of 1977) were on loan to Victoria from around 20 July to 26 July. On 5 August,

Victoria Mill's Hudswell Clarke 0-6-0 *Homebush* (1067 of 1914) hauled passenger trains on the Nyanza line as part of the festivities associated with the annual Italian Festival. The Suzuki Sierra hi-rail inspection vehicle was on loan to Plane Creek Mill by 28 June and had returned by 24 August. Assembly of this year's batch of three hundred 11 tonne bins at the Macknade Mill truckshop was completed early in August. An unknown number of the last assembled were fitted with Bradken design Willison couplers owing to the unavailability of the unrestricted Willison couplers normally used on these bins. A batch of one hundred and seventy-five 11 tonne bins is to be built for the 2018 season.
Luke Axiak 6/17; Editor 6/17, 7/17, 8/17; Wilmar *Sweet* July 2017

WILMAR SUGAR PTY LTD, Inkerman Mill, Home Hill
(see LR 247 p.24)
610 mm gauge
Locos seen in use during July included Com-Eng 0-6-0DH *Keebah* (C2231 of 1958), EM Baldwin 0-6-0DH *Carstairs* (6/2715.1 9.68 of 1968) and EM Baldwin B-B DH locomotives *Iyah* (6558.1 6.76 of 1976) and *Bojack* (7280.1 9.77 of 1977). The hulk of Com-Eng 0-6-0DH *Alma* (FE56110 of 1975) still languishes in the mill yard. EM Baldwin B-B DH *Iona* (4498.1 7.72 of 1972) suffered some gearbox troubles in July. Inkerman was 100% 6 tonne bins from 1999 and the remains of an old, probably 3 tonne, bin was seen during July. The 1067 mm gauge Hunslet 0-6-0T *Inkerman No.1* (1119 of 1913) which was used here until circa 1970 and was on display at the mill for some years, is said to be destined for the Burdekin Machinery Preservationists at the Brandon Heritage Precinct.
Brian Bouchardt 7/17; Tony Bennett 7/17; John Marano 7/17

WILMAR SUGAR (INVICTA) PTY LTD, Invicta Mill, Giru
(see LR 253 p.27)
610 mm gauge
Ninety-five new bins were built at the Kalamia Mill workshop for Invicta this year. All locos at this mill are one man operation from this year using RSU remote control gear and Invicta is the first mill to achieve this. Walkers B-B DH *Piralko* (677 of 1971 rebuilt Bundaberg Foundry 1995) was fitted with a new Mercedes Benz OM502 V8 motor rated at 600 hp and a new high efficiency Renk-Maag/Allison transmission combination with lock-up, during the slack season. The new transmission replaces the original low efficiency Voith transmission and means that a lower horse power motor can be used resulting in fuel efficiencies. The Renk-Maag transmission has been designed and built in Switzerland specifically for Australian Walkers sugar industry bogie locos. Haughton Sugar originally 6 wheeled brakewagon *Clare* was seen stored in the mill yard on 13 July. This unit which was converted from 0-6-0DH Com-Eng locomotive *Clare* (AH4080 of 1964) in 1982 is out of use. During the slack season, it is used as a stop block at the end

Top: *Victoria Mill's Hudswell Clarke 0-6-0* Homebush *(1067 of 1914) along the Nyanza line on 5 August. Photo: Neville Conder* ***Centre:*** *Inkerman Mill EM Baldwin 0-6-0DH* Carstairs *(6/2715.1 9.68 of 1968) seen along Kirknie Road during July. Photo: Brian Bouchardt* ***Above:*** *Seen stored in the mill yard on 13 July is Invicta Mill's out of use, cannibalised and now 4 wheeled Haughton Sugar brakewagon* Clare *which was converted from Com-Eng 0-6-0DH locomotive* Clare *(AH4080 of 1964) in 1982. Photo: Brian Bouchardt*

Top: *Inkerman Mill EM Baldwin B-B DH locomotives* Bojack *(7280.1 9.77 of 1977) and* Iyah *(6558.1 6.76 of 1976) pose in the mill yard on 7 July. Photo: Tony Bennett* ***Centre:*** *The remains of Pioneer Mill's Barclay 0-4-0ST* Mary Ann *(268 of 1883) at the Brandon Heritage Precinct during July. The left hand wheelset is from one of the mill's Hunslet 0-4-2T locos. Photo: Brian Bouchardt* ***Above:*** *Pioneer Mill Walkers 0-6-0DH* Aramac *(583 of 1968) at work during July. Photo: Brian Bouchardt*

of the mill yard to prevent movements over the nearby Haughton River bridge owing to removed spans. It is now missing its middle wheelset and rods with all the vital gear above deck removed. Brian Bouchardt 7/17; Raymond Goggi 7/17; Luke Horniblow 7/17; Wilmar *Sweet* July 2017

WILMAR SUGAR (KALAMIA) PTY LTD, Kalamia Mill

(see LR 256 p.30)

610 mm gauge

Locos seen in use during July included Com-Eng 0-6-0DH *Airdmillan* (AH3068 of 1963), EM Baldwin B-B DH locomotives *Selkirk* (6750.1 8.76 of 1976) and Norham (5383.1 7.74 of 1974) and Westfalia B-B DH *Strathalbyn* (13863.1 8.91 of 1991). Brian Bouchardt 7/17; Tony Bennett 7/17

WILMAR SUGAR PTY LTD, Pioneer Mill, Brandon

(see LR 255 p.28)

1067 mm gauge

Eighty new bins were built at the Kalamia Mill workshop for Pioneer this year. Locos seen in use during July included Clyde 0-6-0DH *Pioneer* (63-287 of 1963) and Walkers 0-6-0DH *Aramac* (583 of 1968). The *Aramac* has been fitted with an Allison transmission this year. A truck and a cane train collided at Brandon on 20 August. Two more relics from this mill had appeared at the Brandon Heritage Precinct by July, these being a whole stalk cane truck and the rear section of frame from Barclay 0-4-0ST *Mary Ann* (268 of 1883). It was in use as a mill roller transporter for some time and is carried on a pony wheelset from one of the mill's Hunslet 0-4-2T locomotives and a wheelset of indeterminate origin. Brian Bouchardt 7/17; Luke Corica 8/17; Wilmar *Sweet* July 2017; *Townsville Bulletin* 20/8/2017

WILMAR SUGAR (PLANE CREEK) PTY LTD, Plane Creek Mill, Sarina

(see LR 256 p.30)

610 mm gauge

One hundred and ten new bins were built at the mill workshop last year. Victoria Mill's Suzuki

Sierra hi-rail vehicle was on loan for track inspections by 28 June and had returned by 24 August.
Luke Axiak 6/17; Editor 8/17; Wilmar *Sweet* July 2017

WILMAR SUGAR (PROSERPINE) PTY LTD, Proserpine Mill
(see LR 256 p.30)
610 mm gauge
Walkers B-B DH locomotives 12 (673 of 1971 rebuilt Bundaberg Foundry 1998) and 14 (701 of 1972 rebuilt Bundaberg Foundry 1998) have been converted to RSU remote control operation this year and are the first locos thus fitted here. During the slack season, some of the locos had touch up painting including changing the headstock stripes to Wilmar standard red and white replacing the yellow and black stripes. Cyclone damage to the network has been repaired including damage to many level crossing flashing light units and some cane bins.
Wilmar *Sweet* July 2017; Tom Badger 7/17

NEW SOUTH WALES

SOUTH MAITLAND RAILWAYS PTY LTD, East Greta Junction
(see LR 253 p.29)
1435 mm gauge
SMR locomotives from two eras were seen together for the first time on 27 July when the recently acquired shunting locomotive, Orenstein & Koppel 4wDH 32 (26263 of 1963), was used to move preserved Beyer Peacock 2-8-2T locomotives 18 (5909 of 1915) and 10 (5520 of 1911) from their storage shed to the temporarily vacant former SMR workshop for the purpose of mechanical inspection.
Robert Driver 7/17

WOOLONGONG COAL LIMITED
1067 mm gauge
This firm owns and operates the Russell Vale and Wongawilli Collieries in the Southern Coalfields Region of New South Wales. Hexham 4wDH DL7 (HE685 10271-11-87 of 1987) was given a major overhaul and upgrade by OnTrak Engineering in 2016 and was delivered to one of Woolongong Coal's collieries in August. It had been at OnTrak for about three years after being obtained by Woolongong Coal from Cook Colliery in Queeensland.
OnTrak Engineering 8/16; Steve Lewry 7/17; John Browning 7/17

SOUTH AUSTRALIA

GENESEE & WYOMING AUSTRALIA, Whyalla
(see LR 256 p.31)
1067 mm gauge
Seen stored at Whyalla Steelworks on 24 May were Goodwin Co-Co DE 904 (83721 of 1959), Clyde Bo-Bo DE 1303 (56-122 of 1956 rebuilt MKA 93-BHP-005 of 1995) and Clyde Co-Co DE 1907 (72-764 of 1972).
Scott Mitchell 5/1

OVERSEAS

FIJI SUGAR CORPORATION
(see LR 256 p.31)
610 mm gauge
Lautoka Mill EM Baldwin 0-6-0DH locomotives 16 (6/1257.1 7.65 of 1965) and 20 (3406.1 7.70 of 1970) were seen at work on 3 July. Since last year, 20 has been repainted in the usual mill livery of yellow uppers with gray lowers but has retained the red and white headstock stripes from its Bundaberg Sugar days. FSC plans to invest $50 million in the upgrade of 760 kilometres of rail network. Fiji is negotiating with the Indian government for help with the rail system. Forty-one mechanical cane harvesters were expected to be in Fiji by the end of July. Six cane bins are being trialled by Lautoka Mill for hauling the chopped cane from mechanical harvesters. The Yako Naidovi Cane Growers Cooperative Limited in Nadi claims to need three hundred of these bins. At this stage, it is planned to purchase two hundred.
A man was found dead along a tramline near Labasa Town on the morning of 7 July. He had been drunk and was asleep on the line when Labasa Mill Clyde 0-6-0DH 11 (64-319 of 1964) struck him at approximately 4.45 am. The loco was traveling from the mill to Vunimoli sector with a rake of empty trucks.
Tourist Train operator Farer Train Fiji changed its name to Train Farer Fiji in August. It claims to have another locomotive coming with an illustration showing an authentic looking American type 4-2-4. It is difficult to discern whether it is a genuine steam loco or an internal combustion look a like. Eco Trax Fiji was taking bookings for its velocipede rides during July and August. It operates Mondays to Saturdays with journey durations of approximately 3 hours. Its base is at Cuvu.
Josh Rossato 7/17; *The Fiji Times* Online 12/7/2017, 1/8/2017; *Fiji Sun* online 8/7/2017, 10/7/2017, 28/7/2017; Fiji Broadcasting Corporation 8/7/2017; Facebook – Train Farer Fiji 8/17; Eco Trax Fiji 7/17, 8/17

On 27 July, South Maitland Railways Orenstein & Koppel 4wDH shunter 32 (26263 of 1963) was used to move preserved Beyer Peacock 2-8-2T locos 18 (5909 of 1915) and 10 (5520 of 1911) from their storage shed to the temporarily vacant former SMR workshop at East Greta Junction. Photo: Robert Driver

Reprinted from the *Bendigo Advertiser*, Tuesday 18 August 1908, page 6 http://nla.gov.au/nla.news-article90538165

A Dreadful Alternative
and a hairbreadth escape
Ballarat family's perilous adventure

Particulars of an exciting adventure by members of the well-known Ballarat musical family, the MacCallums, now on tour in North Queensland, are to hand. The narrative (states the *Courier* [Ballarat]) is supplied by Mr Leslie MacCallum, who gives a graphic account of the dreadful situation in which his sister and two brothers and himself were placed. He writes from Cairns as follows: –

"We had a very exciting experience and a hair-breadth escape from what appeared almost death on 29th July. We were visiting a large sugar-mill at a town called Macknade – the centre of a large and prosperous sugar district.

There are two ways of reaching the town, the most popular route being a pull across the Herbert River in a ferry, and then a two-mile walk along a rough bush track; the other route, less frequently used, is by way of a three-mile drive along the river bank, then a walk across the river on a tram-line used for conveying cane trucks to and from the mill. Two of our party chose the former route, and Emily, Archie, Harold and I chose the latter.

We left the hotel at 5.30 pm and after an enjoyable drive we arrived at the tram-line just as darkness settled upon us. The line is constructed with a steep incline on each side, and the trucks are drawn to the top of the incline by horses and then set free; the great speed with which they go down the one side takes them across the river and right to the top of the incline on the other side. The trucks are then emptied and send back in the same manner. All this work was being done by Malays*, and we could scarcely understand one word of their lingo.

We asked if there was any danger to walking across this bridge (it is called a bridge, but it is only a 12-inch plank between the rails of the line). The Malay replied, "You go; trucks long way off !" We were inclined to be nervous, and hesitated. When asked how to act should the trucks come while we were on the bridge, the Malay said, "You go now. No trucks come if you make noise." Just at that moment a coloured man came across from the opposite side, so we decided to experience what proved to be the most exciting task of our lives.

The Herbert, like all North Queensland rivers, is infested with alligators [sic], and the thought of these creatures and the fear of slipping off the narrow plank caused many a shudder. We penetrated further into the darkness, and the further we left the light on the bank behind us, so our excitement drew. The "plash, plash" of an alligator playing in the water below did not tend to strengthen our nerves. Emily became quite giddy and wanted to turn back.

We had then negotiated nearly half the distance, which is about a quarter of a mile from one bank to the other, so to turn back was out of the question. We rested for a moment, then linked hands and continued the journey.

We were alarmed to hear the noise of trucks in the distance. I held out that it was only the machinery in the mill, but that theory was quickly dissipated, for the noise grew louder and louder. We pushed on and on, and we heaved a sigh of relief, for the noise had ceased – the trucks had stopped! But, alas, it was only for a moment. We shrieked; but to our utter dismay the trucks were set free at the top of the slope, and at tremendous speed they descended towards us.

We realised our awful peril and there seemed only two things to do. Either jump into the river, and very likely have to fight for our lives with hungry alligators, or remain on the line and be almost certainly dashed to pieces by the oncoming trucks, which were not a hundred yards from us.

I decided in my mind that the river would be the better chance, and I was just about to make the jump and drag the others with me when Archie, who was in the lead, excitedly yelled, "There's a platform!" His exclamation put new life into us. A few yards in front of us we discerned through the darkness, the rails of the platform and the thought flashed through our minds, "Can we reach it?"

The trucks seemed almost upon us. Archie gained the platform and dragged Emily with him. I came next and Harold followed immediately. We huddled together, and before we realised our safety about a dozen trucks swept past us with a murderous rattle, a noise we never can forget.

We did not change our position for some minutes and the only words we uttered were, "Thank God, we're safe!" There was still a distance of about a hundred yards between us and the bank, which we reached with fast-beating hearts.

We discovered that when we first began to call out, the horse had been detached from the trucks, and the Malay in charge mistook our cries for the signal from the other side to let the trucks go. I am sending a photo card of some large alligators which were quite recently shot in the vicinity of the mill."

The above image, labelled "Sugar tramway bridge over the Herbert River in North Queensland", matches the geography of our story but seems to be only half the length of that described. None-the-less, it would be quite terrifying to negotiate in darkness. Photograph by (Sir) John Robert Kemp, probably in the 1920s during his time as head of the Queensland Main Roads Board. Courtesy: Oxley Library, State Library of Queensland Image 8080-0001-0007

* Probably in error for South Sea islanders

Henry & Sons No.1 mill, 8 km south of Forrest, in Victoria's Otway Ranges. Built in 1904, the mill was burned down in 1927. This badly tinted photograph is looking south, with the Barwon River in the lower foreground and seems to belong to the later years of the mill. It exemplifies the isolation of many bush sawmills. *Photo courtesy State Library of Victoria H2012.90/42*

Reprinted from the Special Number of the *Weekly Times,* Melbourne, Saturday 30 December 1911, page 44.

Original at http://nla.gov.au/nla.news-page24230327 This is a part extract.

The Timber Getters

by Louis Esson

The saw-mill stands on the hillside, in the heart of the forest, in the midst of magnificent scenery. It is a sylvan spot for such strenuous toil, where tree ferns and myrtles rise from lovely gullies, and a creek falls in merry cascades over the polished stones, and multitudes of birds sing in the sunshine of the joy of life.

The trees are so majestic that one wonders at times if what man creates is as valuable as what he destroys. Far off, along the tram line, where trucks pass to and fro, laden with logs from the forest and sawn timber from the mill, one sees smoke curling among the trees, and hears the wild incessant shriek of the circular.

At the mill, in strange contrast to the quietude of the bush, all is noise and hustle, a scene in the eternal conflict between man and nature. There are a dozen sheds and outhouses at the mill, including stables, stores, even a blacksmith's shop. Men, with their pipes alight, are busy at all kinds of work, rolling the great logs, putting in wedges, "stilling" the saw, stacking timber, wheeling barrows.

A white horse puts his nose over the stable door and calmly surveys the scene. The blacksmith is heating a horseshoe on the anvil.

The work goes on without cessation. The engine snorts; the big saw shrieks; and the huge log is split into "flitches". The benchman, a brown, earnest-looking man, moves backwards and forwards with rhythmic precision; the rip saw whirrs, and lengths of timber are quickly piled up.

The mill is the forum of the district. All life centres round it. A few scattered selectors have taken up land, but without success. The roads are boggy, the market is distant, and it is impossible to get rid of the produce. One rarely meets a cow or a pig. Smoke sometimes rises from a lonely hut ; it is the abode of some old pensioner; but a traveller may walk many long miles without seeing a house or a cultivation paddock.

It is the forest primeval, sacred to splitters and carters. There are miles of tram-line, and year by year it runs further into the bush. Within a mile or two of the mill, the bush giants have been already felled. Now the axemen penetrate further into the forest.

From dawn to dusk the axes ring, and the crosscut quivers; the mountain ash crashes. The mill is insatiable in its demands.

When a tree is felled, it is cut into logs and hauled to the mill. Along the forest tracks there is no traffic except the bullock teams hauling heavy loads through mud holes, across the creeks, and round steep cuttings. Depots along the road stack huge piles of timber.

"Gee-up, Scarlett; Move on, Andy!"

The bullocks sweat and pant; the teamster expostulates. He is tall and tanned, and flourishes his whip with elaborative art.

"Nice day", he says.

"Warm work?"

"Yairs."

"They're blowing a bit."

"Bit fat, yit", he explains. "The fat them bullocks put on in the Winter is a caution, but we work it orf in the Summer""

"Gee on, Scarlet!" And the teamster strides slowly down the track.

At the mill there are no bullocks. Horses do all the work.

"Good-day; how do ye do?" A bright-eyed old man with white beard comes along. He gives directions to everybody. He appears to be the manager of the mill. He lights his pipe and talks.

"We need more horses. Can't get through the work. Three or four good horses would soon pay for themselves. I seen the start of this mill. I'm 71 now. I was a boy at the diggings. I've made me money and spent it. I can't complain: I've had me fun – what more can a man have? But I'm getting spun out now".

"You're looking well".

"I look all right, but the cramps worry me. I ain't the man I was, not by half. But I ain't beat. I can go up to the springboard now and fell a tree as good as a young 'un. That's not bad for my years, eh?"

The veteran is a cheerful pensioner. He lives in a hut by the creek, and spends all his time at the mill, taking more than a paternal interest in it.

All the boys like the old man, who was a great swell in his day. He rode a 50-guinea nag and sported a gold-mounted riding whip. He does a little splitting at times, and picks up a few extra shillings. He has lived his life, and is satisfied.

An other type is the benchman. He is called "Sunshine" by his mates, for sunshine or rain, they say, he is always at his post. After some months, or weeks, many men want a change, but "Sunshine" has never missed a day.

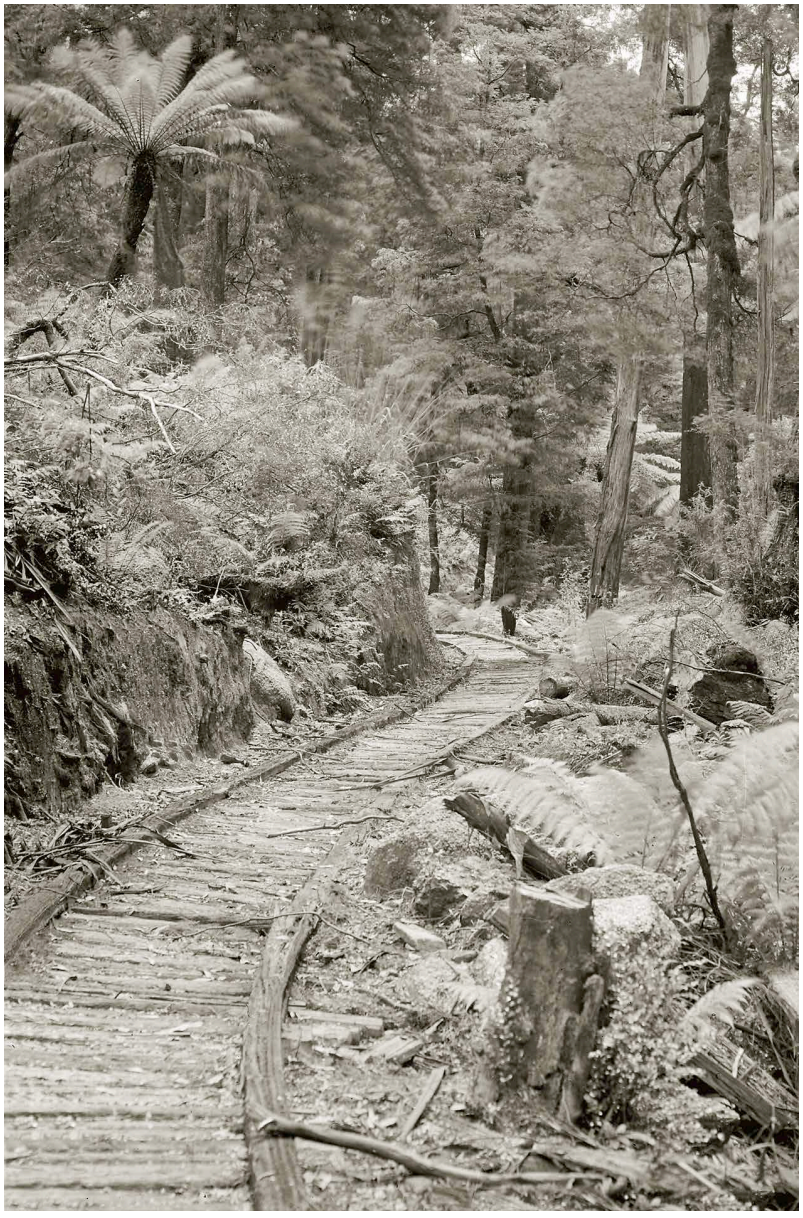
"He is the punctualest man I ever seen", said the veteran.

"Sunshine" is an expert benchman, a position that requires skill and experience, for it is he who keeps the saw "still" and regulates its heat, and he draws his well-earned 14/- a day, and in his less adventurous manner is also satisfied.

The whole population, twenty men and boys, turn up at the mill. The work is exciting – there are no dull moments. Log after log is offered in sacrifice to the devouring saw, truck after truck is laden with timber. Victoria is rich in timber resources, but so far the timbers are used only for utilitarian purposes, for fencing and building material, and firewood. In the bush there are many beautiful trees, at present all neglected, except the blackwood, that one day will assuredly be put to more decorative uses.

The whistle calls. The men spell, and light their pipes, and swop yarns.

Away from the mill, some distance down the tram-track, the shriek of the circular begins to mingle with the song of birds and the murmur of the creek. At the bend of the track the mill disappears. The bush is quiet again. No smoke rises through the trees. The sky is blue. Eucalyptus scents make the air keen and pungent. And the forest exults in its freshness and freedom.



". . . At the bend of the track the mill disappears – the bush is quiet again". Rose Postcard P.10327 Tram Track, Powelltown
Photo: State Library of Victoria ref H32492/6954

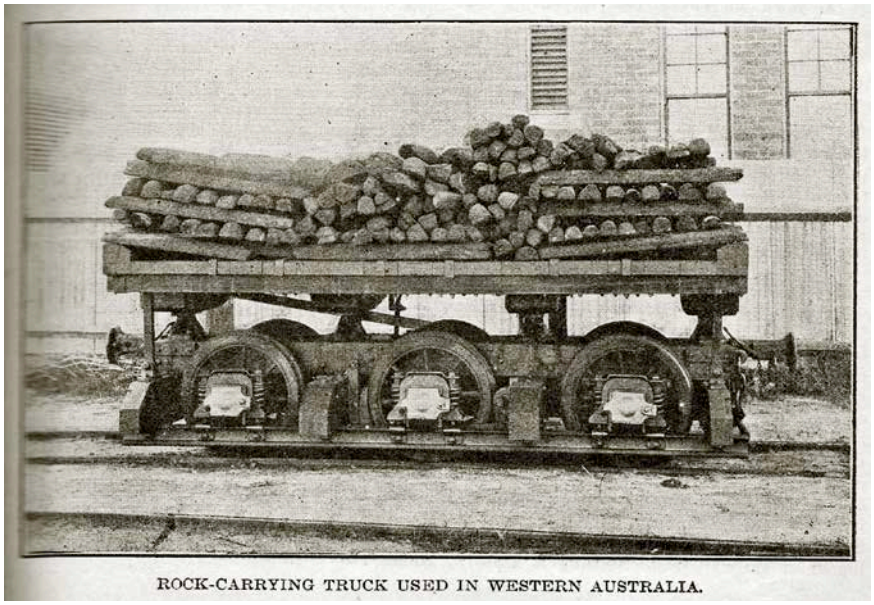
LETTERS

An interesting rail wagon

Attached is a scan from page 77 of the March 1920 edition of *The Australian Forestry Journal*. It describes a prototype rock carrying truck (rail wagon) built and being tested for works at the Henderson Naval Base in Western Australia. I have no knowledge of the base.

The wagon appears to have been built for a substantial rail line and the gauge appears to be narrow. This photo might be a lead for someone into a light railway at that location (if not already known) and might be useful for publication in *Light Railways*. Unfortunately the printing of the Journal was not up to modern day standards but I have scanned it as is and the uncompressed format result is attached to this email.

Ian Barnes
Batemans Bay, NSW



ROCK-CARRYING TRUCK USED IN WESTERN AUSTRALIA.

Editor's note:
The locomotive at Fyansford in the photograph on the bottom of page 25 in LR 256 came from Henderson Naval Base, and the frame of the wagon in the picture looks very much like the frames on the Fyansford quarry trucks.This makes me think Fyansford got its first quarry trucks from Henderson Naval Base, and then copied the design.

Life memberships

At the August 2017 Annual General Meeting members voted in favour of awarding life memberships to two stalwart members of the Society who have each contributed in a major way to the success the LRRSA has enjoyed to date. They are Bill Hanks and Phil Rickard.

Phil (left) and Bill, with their Life Membership Awards.

Bill Hanks

Bill was awarded his Life Membership primarily for his record 26 years service as President of the Society. During this time the LRRSA has enjoyed remarkable success in book publication, membership and magazine production. Bill's focus on providing an administrative environment which has promoted research, writing and publishing has been an important factor in this success. Furthermore, his efforts to unite and strengthen the Society through meetings with groups of members in every state has helped build the credibility of the Society as a preferred Australian-wide publisher of light railway history.

Bill has also undertaken the role of managing the Society's sales stocks and despatch for the past 12 years. This is a critical part of the LRRSA's efforts at revenue raising, without which the Society could not provide the publishing output and the stable, membership fees that members enjoy.

The motion to award Bill life membership was carried unanimously and, on behalf of all members we offer Bill our thanks and congratulations.

Phil Rickard

Phil was awarded his Life Membership by a unanimous vote at the AGM. Apart from a very brief break, Phil has been on Council since 1989, occupying the position of committeeman for eight years and then Secretary for over 20 years. He has been a very significant and intelligent contributor to Council discussions and decisions over that time, as well as undertaking the sometimes thankless task of Secretary's administration, with reliability and efficiency.

Phil has proven to be a very capable and assiduous researcher contributing several major articles to *Light Railways*
but also donating the results of his efforts to the projects of others. He has also been an excellent reviewer of manuscripts as part of the LRRSA publishing activities.

He has been a regular contributor to *Light Railways* in the form of letters, field reports and research notes, much of which predated his role on the Council.

On behalf of all members we thank Phil and offer our congratulations.

The LRRSA J L N Southern Research Award 2016

Each year the LRRSA recognises the efforts of researchers, writers and contributors for the publication of high quality articles on light railway subjects. The J L N Southern Award is made annually for the best article covering research of light railways for the previous calendar year.

The Judging Panel this year comprised Norman Houghton (formerly Editor of *Light Railways*, and author of many railway history books), Dr Ruth Kerr OAM (an eminent historian based in Queensland), and Roderick Smith (a former President and Treasurer of the LRRSA).

Here is their report:

The judging panel examined all the articles in all issues of *Light Railways* for 2016 and came up with a possible 13 assessable candidates.

These candidates met all of the criteria for assessment.

A first-round evaluation shortened the candidates to six finalists.

A further intensive and exhaustive matching of each entry to the selection criteria whittled the possible winner's circle to three and from this another round of assessment drew a final winner from a close field.

The standards exhibited by authors seem to rise with each passing year. Research method and thoroughness stands out. The use made of the research is compelling in its application. The hallmark of the finalists this year was their presentation of very readable and well-structured narratives that were much broader than technical descriptions. Some articles wrung out an excellent social and economic context from limited materials.

Perhaps the overall highlight has been the standard in map and plan making. The clear and readable diagrams and maps, many in colour, are a delight to look at and help to explain the text.

The use of tables and charts is a pleasing addition to give a more illuminating context and many entries had such tables.

The variable input seems to be in photographs and illustrative materials which differ enormously in definition, scope and informational value. These are a product of the sources, some of which are less than optimal, so there is probably little an author can do to improve this aspect, and some entries compared poorly with their neighbours on these grounds. The weighting for illustrative materials is minor but it is assessable under the criteria and does have a small impact on the final result.

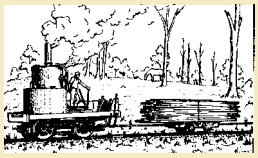
In summary, the six short listers provided original research that buttressed a narrative detailing something new and with a full technical, economic, pictorial and social floor to it all. The groundwork was fully present in the six short listers, including references, and topped with readable styles.

Overall, an excellent group of finalists, from which the winner emerges as **Mason and Moore at Nine Mile Creek** by Mike McCarthy [LR 247, February 2016]

Judging Panel:
Norman Houghton (Chair)
Ruth Kerr, Rod Smith
21 June 2017

At the LRRSA's Annual General Meeting in August the Society President, Bill Hanks, ceremoniously opened a sealed envelope from the Judging Panel. It contained another sealed envelope which in turn contained the judges report. The winner – Mike McCarthy was then congratulated on his win. The winning article described the timber industry and its tramways in the Port Welshpool area of South Gippsland, Victoria. It covered a previously little-known history in a very readable manner, including the social and economic conditions in which the ventures operated. This work embodies the whole spirit and philosophy of the LRRSA.

Nominations of non-LR material (all LR articles are automatically included) for the 2017 calendar year are invited and may be forwarded to the Hon Secretary, Light Railway Research Society of Australia Inc., PO Box 21, Surrey Hills Vic. 3127



LRRSA NEWS

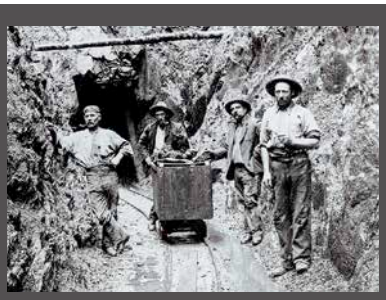
MEETINGS

ADELAIDE: "Light railways in Czechoslovakia"
Our topic for this meeting will be the light railways of Czechoslovakia, presented by Gerry Ohmer. News of any other light railways will be welcome from any member. Intending participants would be well advised to contact Les Howard on 8278 3082 or by email at lfhoward@tpg.com.au , since accommodation is limited.
Location:
1 Kindergarten Drive, Hawthorndene.
Date: Thursday 5 October 2017 at 7.30 pm

BRISBANE: "Bundaberg Gardens railways"
Bob Gough will show a DVD of the May public holiday long weekend in Bundaberg of the Botanical Gardens railway and the 3 ft 6 in gauge private track of a WW2 Jeep on metal wheels. Bob will also show a Section Car ride on private property in Bundaberg.
Location: BCC Library, 107 Orange Grove Road, Coopers Plains.
Date: Friday 20 October 2017 at 7:30pm

MELBOURNE: "Indian mountain railway"
Richard Schurmann explored the Nilgiri Mountain Railway in India last year, and found much of interest (engineering and operational) that he will share with those at the meeting.
Location: Ashburton Uniting Church Hall, Ashburn Grove, Ashburton.
Date: Thursday 14 October 2017 at 8:00pm

SYDNEY: "Skitube railway at Kosciusko"
The year 2017 marks 30 years of operation of the Skitube in the Kosciusko National Park, NSW. Passenger operations began in July 1987, transporting skiers from Bullocks Terminal to Perisher, then at a later date onwards to Blue Cow terminal. There are two tunnels and a viaduct along the way and because of the abnormal gradient, 12.5 per cent, an electrified rack railway was used.
David Jehan will give an overview of this dedicated railway system, highlighting the engineering successes of its construction and operation.
Location: Woodstock Community Centre, Church St, Burwood. Free Council car park behind building (entry via Fitzroy St) or close-by street parking. Only 10 minutes easy walk from Burwood railway station.
Date: Wednesday, 25 October 2017 at 7:30pm



Field Reports

Please send any contributions, large or small, to fieldreports@lrrsa.org.au or to P.O. Box 21, Surrey Hills, Vic 3127.

Harper's Mill, Mount Disappointment, Victoria.
Gauge 1067mm

This field report forms part of the LRRSA post-2009 bushfire survey. Harper's mill site is on the east side of Harpers Creek, 530 metres south-west of the intersection of Engine Camp Road and Upper Sunday Road in the Mount Disappointment State Forest. (MGA 335716 / 5857951).

Before 1909 John Andrew Harper had been part of a sawmilling partnership at Macedon and, after this date, operated a mill on Dry Creek near Wandong. From 1918 he was in partnership with McCashney Brothers in a sawmill near Trentham, and in that year also relocated his own sawmill from a site on Bruces Creek to today's Harper Creek (formerly Devil's Elbow Creek). Logs for this mill (mainly Mountain Ash) were obtained using horse-powered tramways from the valleys of Hazel and Harpers Creek. Sawn timber was despatched by tramway which, in part, reused tramway routes constructed by the Australian Seasoned Timber Company during the late 19th century; including the locally famous 'White Elephant' bridge. In 1928, due to the depletion of the surrounding timber, operations were relocated to a new site near the junction of Greenshields and Sunday Creeks, although it appears some plant was not relocated as several items (including a 16nhp Marshall portable engine) were recorded as still being at the old site in 1930.i

A site survey on 4 November 2009 indicated that, despite several bushfires since the mill closed, there are still in situ remains of timbers from the mill structure and the ironwork used to fasten them together. Both the sawdust disposal trench and remnants of the sawdust heap survive. The relative isolation of this site has resulted in the survival of discarded ironwork that would, at more accessible sites, have been removed for recycling or stolen. These include brake levers and a number of worn-out tram wheels. At the north end of the site is a level area with terraced sections on the slope above.

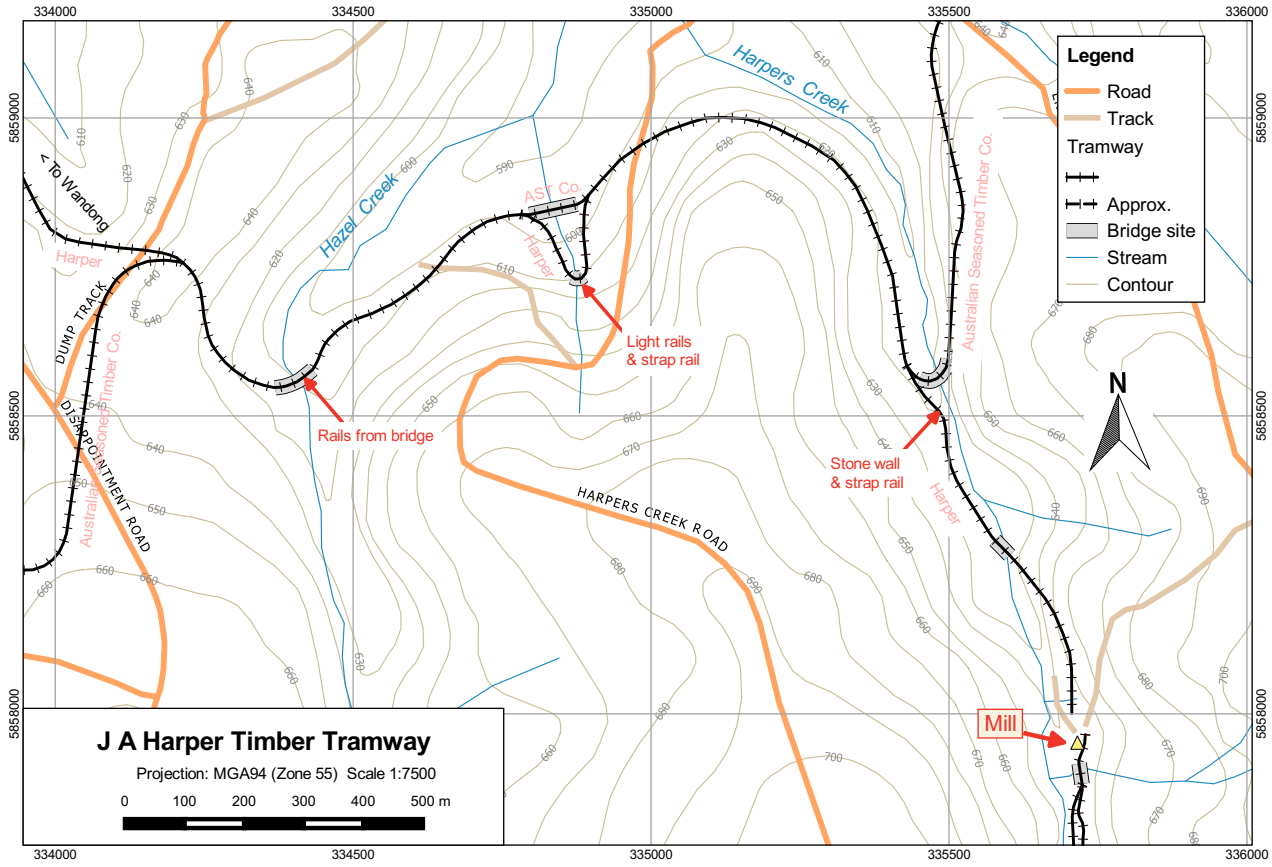
Site survey indicates that the log tramways were constructed mainly with wooden rails and there are few remnants other than nails, although dog spikes found in some places indicated that steel rail was used in some difficult locations. Few remains of bridges were located: the lack any iron fastenings suggest these may have been crudely constructed. Approximately 50 metres of strap rail remains more or less in position at MGA 0335877 / 5857451. This rail has been nailed to wooden rails, but the rail still contains spike holes, in addition to nail holes, suggesting reuse from the earlier Australian Seasoned Timber Company tramways. On the outlet tramway, the remaining iron and steel rails show that these were used on an otherwise wooden-rail tramway on tight curves, and at places of particular derailment risk such as the Hazel Creek bridge.

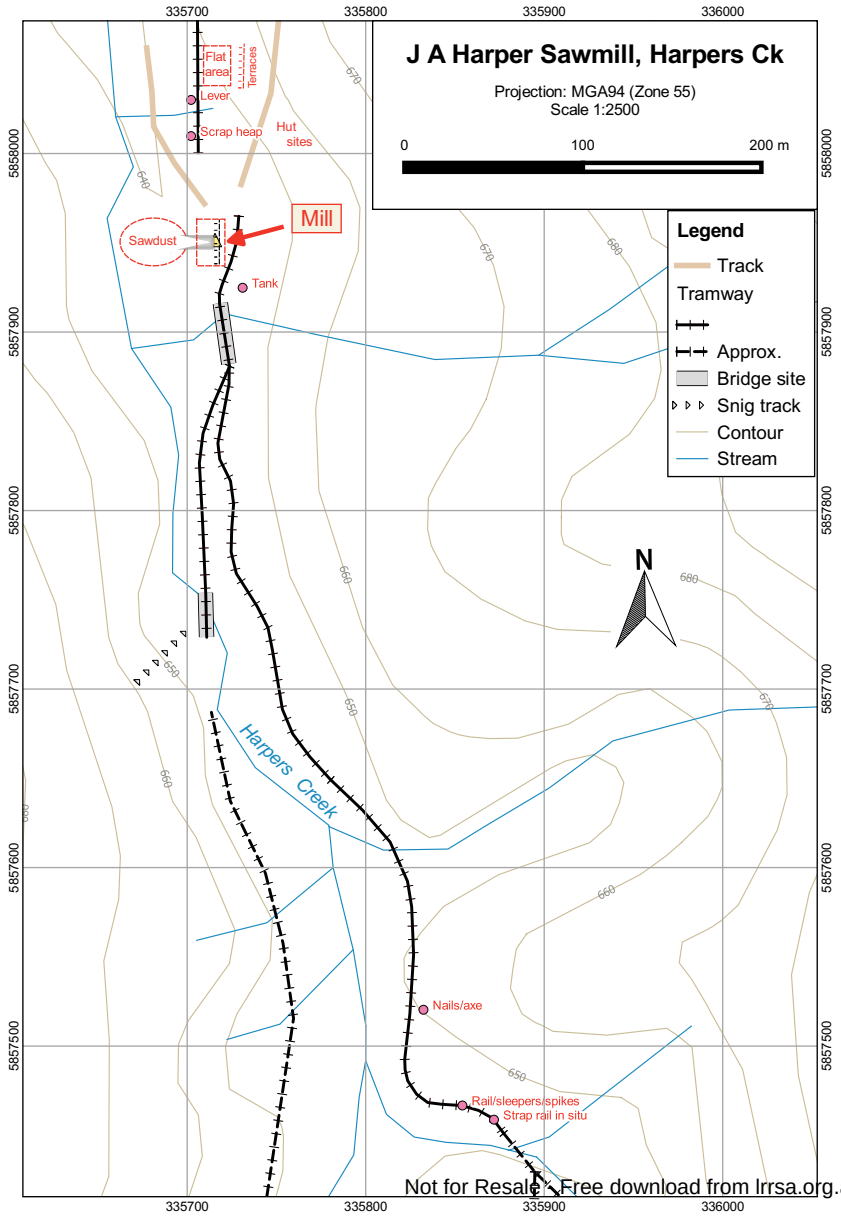
Phil Rickard and Colin Harvey, 11/2009

References:

1. Forest Commission Victoria correspondence files, PROV, VPRS 11563/P1, unit 44, file 28/646; unit 180, file 38/3700, and unit 196, file 40/9. See also J. A. Harper probate file, PROV, VPRS 20/PO, unit 2080, file 234/132; notes by the late Ralph Harper (brother of J. A. Harper); and Forest Commission Victoria licence record cards (no longer extant).

Remnant timbers and ironwork across the sawdust trench at Harper's mill. Photo: Colin Harvey





Right: *Exposed strap rail on Harper's tramway. Photo: Colin Harvey*
Below: *Discarded ironwork, including tram wheels, at Harper's mill. Photo: Colin Harvey*

Heritage & Tourist NEWS

News items should be sent to heritagetourist@lrrsa.org.au Digital photographs for possible inclusion should be sent direct to Richard Warwick at editor@lrrsa.org.au including the name of the location, the name of the photographer and the date of the photograph.

QUEENSLAND

FRIENDS OF ARCHER PARK STATION AND STEAM TRAM MUSEUM INC., Rockhampton
1067 mm gauge
The Family Fun Day held on 25 June was a huge success with 485 people through the doors on the day. The School Holiday Activities started the next day and around 400 visitors came to the station during the holiday break. There was a new set up for the program and the entry price was reduced to $5.50 per person. The Section Car was operated each Monday/Tuesday and Thursday and the Tram on both Wednesdays.
Jobs Queensland are making their presence felt at the Museum with around 30 workers doing much work, like putting in 150 sleepers along the Denison Street tram track. An excavator was also used to remove ballast and sleepers. The group will return in mid-August. The Station is looking much better for all the extra care it has received from the visits of Jobs Queensland.
The Purrey Steam Tram is working well with only a few oil leaks detected around the con rods and steam pump; these will have to be repacked with gland packing eventually. The roof of the tram still has still to have the rust treated and some rust cut out on the side
Tram Tracks Volume 11 Number 4, August 2017

BURDEKIN MITSUBISHI RAILMOTOR, Brandon, Burdekin Shire
610 mm gauge
The Burdekin Machinery Preservationists' workshop in Brandon, has constructed a 610 mm gauge four-wheel railmotor, converted from a Mitsubishi panelvan by Paul Griffiths of the Historic Commercial Vehicle Club of Australia. The conversion work was fairly substantial, particularly getting the rear axle to the correct width while still retaining the disc brakes. It is not known where the railmotor will be used.
Roderick Smith 7/7/2017

LOCOMOTIVE *Pioneer*, Brandon
1067 mm gauge
Pioneer Mill's original locomotive, *Pioneer*, (0-4-2T Hunslet, 624 of 1896) was scheduled to be given a new lease on life in 2016 to coincide with its 120th birthday. In 2016 the 10-ton Hunslet Loco was relocated to Burdekin Machinery Preservationists' workshop in Brandon, where it was to be restored. The current state of the locomotive is unknown.
It will not be the first time the group's Vice President, Jim Phillips, has worked on *Pioneer*. He completed his apprenticeship as a fitter and turner at Pioneer Mill in the 1950s and worked on the loco when it was still in operation, pushing trucks of whole-stick cane up to the factory's weighbridge. After being retired from duties, *Pioneer* was donated to the community and displayed at the Endeavour Foundation Park in Ayr.
"It was then removed from the park in the late 1970s, and taken to John Tait's Steam Gallery at Rossiter's Hill," Mr Phillips said. "In the early 2000s, John Tait relocated his Steam Gallery to the Brandon Heritage Precinct."
Rather than see the loco thrown away, Mr Phillips said he would keep it at his property at Brandon where it has spent the past 15 years. Mr Phillips said he was pleased *Pioneer* would be cosmetically restored and on display for members of the public to view. Although the loco's steel sheeting and boiler are heavily corroded, Mr Phillips said the remaining structure was in surprisingly good condition. One side still bears its original *Pioneer* nameplate.

Bundaberg Fowler 0-4-2T No 3 at the Bundaberg Botanical Gardens railway, on 5 July 2017. *Photo: Alf Atkin*

"The boiler is too damaged to be operational again but the rest should come up well," he said. Burdekin Machinery Preservationists has applied for a grant to cover the costs of the restoration, which will get under way once the group has finished work on current projects.
Bought in 1896, *Pioneer* was later assisted by the arrival of *Dixie* (1909) and *Kilrie* (1915), both 10 ton Hunslet locos like *Pioneer*. *Pioneer's* diesel namesake was purchased in 1963.
Alf Shand, Burdekin Machinery Preservationists via Roderick Smith, 5/7/2107

THE MAROOCHY RIVER TRAMWAY BRIDGE, Nambour

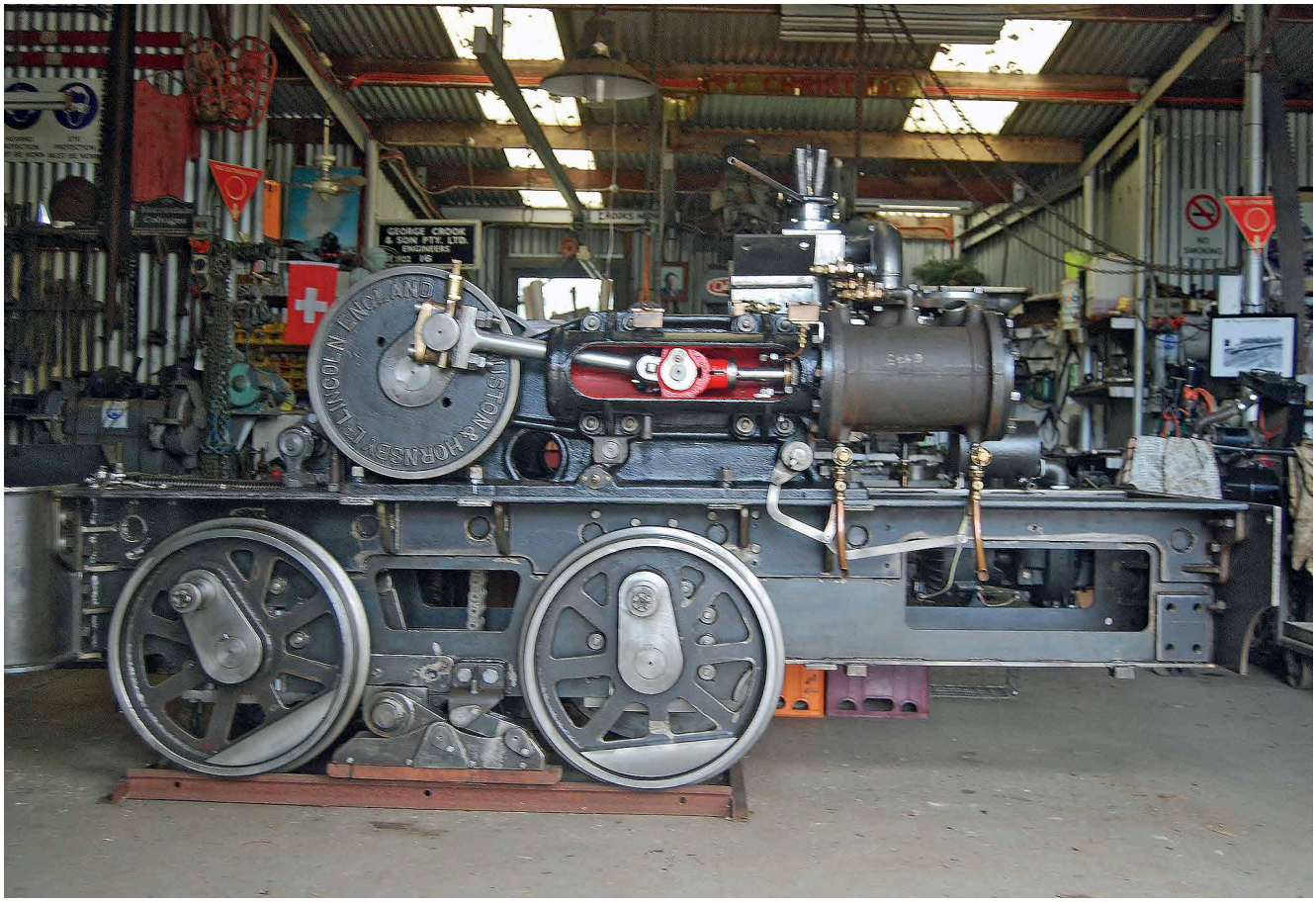
610 mm gauge

The tramway lift bridge over Maroochy River is a heritage-listed railway bridge at Store Road, Nambour, Queensland. It was built in 1921 and was added to the Queensland Heritage Register on 7 February, 2005.
Andrew Palser, on LocoShed, reports that it was used by Moreton Central Sugar Mill to get produce across the river and that it also carried passengers from Yandina to Coolum. Despite its current heritage listing, it is in bad shape and at risk of collapsing, especially in any future flood. The problem is that it has had no maintenance, and would be very costly to restore. Some have offered to relocate all, or parts of it to a land based site. This was rejected by the Council as the heritage listing applies to its original location.
Nambour museum is currently interested in expanding to an adjacent empty plot, providing a perfect place for it. All this takes time, which the bridge may not have and perhaps a careful dismantling and temporary storage is needed. There was an earlier and slightly smaller version crossing Petrie Creek of which any remnants are hard to find, and it would be disappointing to lose the second one.
For those interested, action is needed urgently. Andrew suggests that he is prepared to start a Facebook Page dedicated to getting something moving and that all suggestions are most welcome. He is wary of bringing it to the local Council's attention, as they are pro development, and would probably like to destroy it as a safety hazard. Something needs to be done quickly but the problem is how to proceed? If anyone with an engineering background or contacts could get a rough costing estimate of repairs, or safe removal with the objective of reconstruction in another location, it would be helpful.
Andrew Palser, LocoShed 27/7/2017

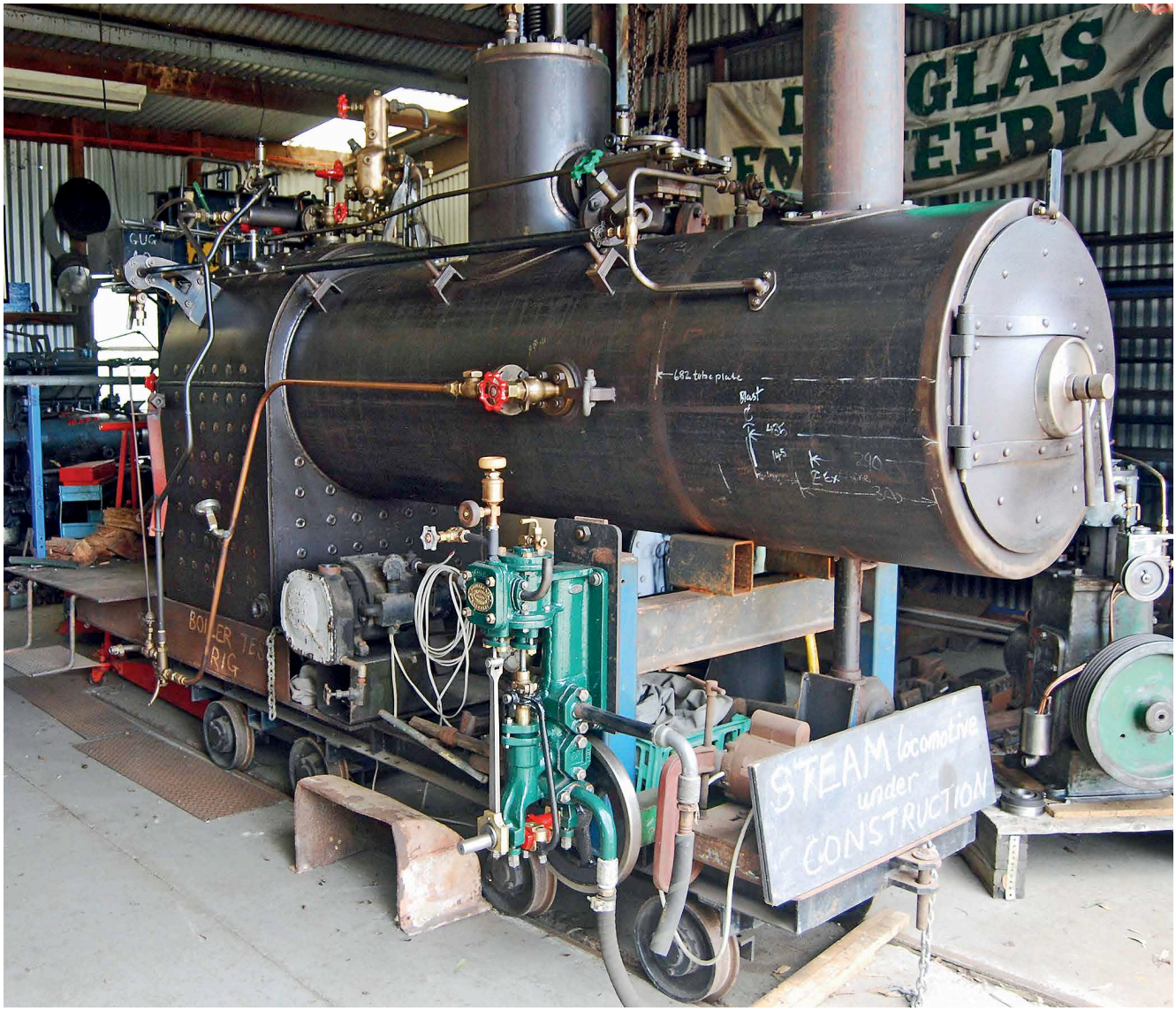
DURUNDUR RAILWAY, Woodford

610 mm gauge

The Railway has recently submitted a request to vary its accreditation to allow it to progress further with the track extension at the Peterson Road end. While any railway work in this area is still a long way off, it is important that a future corridor is preserved.
The concreter poured the final section of the floor of the new shed after Easter. There has been a concentrated effort on the external trackwork to link up to the shed. Rails have been cut and drilled and track panels fabricated to connect up the three tracks in the shed. Lifting and ballast packing has commenced and will be an on-going project for several weeks. The sets of points for the bypass road beside the shed are in-place but need to be connected and jacked to level before ballasting.
After nearly 18 months' work, "re-timbering" points with steel sleepers and assembling panels of concrete sleepered track, the time finally arrived to test the fruits of all this labour. After ensuring that all flangeways were clear of ballast and point blades were correctly seated against their stock rails, a final check was made before *Gemco* was driven from the mainline along No. 3 Road into the shed. *Netherdale* was then driven into No. 2 Road and finally both locomotives were placed in No. 1 Road. With the trial satisfactorily completed the locomotives were removed to their normal stabling locations. Whilst working on the connection from the mainline to the future locomotive storage shed, the opportunity was taken to correct some defects on the mainline points. Tight gauge had previously been identified through the frog leading to the shed and one timber sleeper had been marked for replacement. The area was topped up with new ballast and the sleepers packed.
Durundur Railway Bulletin, Volume 38 number 347, September/October 2017



Kerrisdale Mounain Railway: A side view of the frames and engine unit. The rear axle is driven by dual roller-chains with power transmitted to the leading axle by side rods. Note the track-shoe brake between the wheelsets. *Photo: Peter Evans*



Kerrisdale Mounain Railway: The boiler unit for the new locomotive. The green Pearn banjo-crank donkey pump in the foreground is for a separate project. Photo: Peter Evans

VICTORIA

KERRISDALE MOUNTAIN RAILWAY, Kerrisdale

610 mm gauge

Work continues on the amazing new-build 0-4-0WTG locomotive being constructed by Andrew Forbes at the workshops of the Kerrisdale Mountain Railway in north-east Victoria. The engine unit (from a Ruston steam shovel) has been re-aligned to correct multiple manufacturing errors and is now mounted in the frames. The boiler has been tested in steam and issued with a certificate by inspector Chris Gibbs.

This railway is well worth a visit not only for the steep grades and magnificent views but also for an excellent museum of stationary steam engines.

Peter Evans 08/2017

PUFFING BILLY RAILWAY, Belgrave

762 mm gauge

The Shire of Cardinia is currently surveying land at Emerald Lake Park, preparatory to discussions related to additional land being made available to the ETRB for construction of the Discovery Centre.

Contracts for the construction of twelve new carriages of the NBH type have now been signed and work is underway. The first prototype should be completed later this year. Contracts have now been approved for the steelwork and the casting of couplers.

DLM [Dampflokomotiv und Maschinenfabrik – Steam Locomotive and Machinery Factory] in Winterthur, Switzerland, has commenced design work for the conversion of locomotive 14A to oil firing. This project is well underway and if all goes to plan the conversion may be completed during this coming summer period.

Work continues on NGG16 129, and the locomotive is expected to enter service in 2018.

The Society's Publications Group is still working on its latest project, *Speed Limit 20 Plus*, which is a revised edition of the long since out of print Ted Downs' classic book, *Speed Limit 20*. Pre-publication orders are now being taken for the new book and the Publications Group aim to have the book available before the end of the year.

Readers are reminded of the Puffing Billy Railway's workshops blog web page which gives interesting information on locomotive and rolling stock maintenance: http://puffingbilly.com.au/en/pb-news/blog/

Monthly News, August 2017

WALHALLA GOLDFIELDS RAILWAY, Walhalla

762 mm gauge

To provide adequate storage for the current rolling stock as well as the two new rail motors and the DH locos, the railway is re-activating the 2006 proposal to extend the carriage shed at Walhalla. Prior to commencement of the shed extension, it was necessary to carry out some embankment remediation due to erosion by Stringer's Creek when it is in flood. A local contractor has restored the bank and raked away loose rock from the embankment above the shed in preparation for the extension. An application for renewal of 2006 Permits to extend the shed has been submitted.

The stripped bogie frames on the two DH locomotives have now been measured and drawing and weld specifications are being

prepared in preparation for quotations from local engineering firms for the modification to 762 mm gauge. In addition there will be a requirement for some minor works to be carried out on the loco underframes to create clearance on curves, and for the fitting of the three-quarter sized coupling equipment.

For the railmotors, the ADRA Group has provided concept drawings based on the agreed technical specifications. The 3D concept drawings include the Deutz diesel engines and ex-Z2 class Melbourne tram bogies. These bogies will now be placed under cover to be stripped in readiness for gauge conversion from standard gauge to 762 mm gauge.

Dogspikes and Diesel, July 2017

WINCHELSEA BRIDGE, Winchelsea

1610 mm gauge

A bridge from Winchelsea on the Port Fairy line (11 metres long, three metres wide and weighing 20 tons) is for sale. The seller advises that it would be ''great for a creek crossing or irrigation channel'' and that the buyer would ''be the talk of the town once the missus gets over it'', giving some indication to the thinking in the area.

Victorian Railways Public Group Discussion, Jack Nicholson and Michael Patrick Carter 8/7/2017

TASMANIA

WEST COAST WILDERNESS RAILWAY, Queenstown

1067 mm gauge

The railway has recently released a new timetable for 2017-18 that offers a variety of trips from Queenstown and Strahan.

The railway museum at Queenstown station has been fully refurbished to better reflect the history of the railway. Using a combination of original authentic artifacts and informative displays, the museum recognises those who have played a part in the railway's story, from its original construction in the 1890s as a means of getting the minerals from the mines of Queenstown to the port of Strahan, to its renewal in more recent times as a tourist attraction.

A rare sight greeted visitors and passengers at Queenstown recently when all three steam locomotives still used on the railway were lined up in steam. It is not unusual for two locomotives to be at the station at once, however having all three locomotives in town together is a rare occurrence, brought about on this occasion by the need to send No. 3 and No. 1 out double-headed to Dubbil Barril to test some work that was being done on No. 3 by the maintenance crew.

During the early years of the twentieth century in Queenstown's heyday when it boasted a much greater population than today, the Mount Lyell Picnic at Strahan was the major annual social event. The 1911 picnic train drew a crowd of 1,450. Picnickers travelled the 35 kilometres from Queenstown to Strahan aboard the Mount Lyell Railway, with up to three trains running at 45 minute intervals. The trains also collected residents from the stops along the route at Lynchford, Rinadeena, Dubbil Barril, Lower Landing, Teepookana and Lowanna.

Today, the WCWR works with the community to maintain this tradition. First reinstated in 2005, the annual event is now held on Australia Day and involves community members boarding the train in Queenstown for the journey to Strahan where a large picnic is held. The old trains used to go to Strahan West for the picnic at West Beach but the new line does not reach there and picnickers are bused from Regatta Point to the beach.

The Railway also offers footplate experience trains where participants work on the locomotive footplate taking the timetabled passenger train from Queenstown to Dubbil Barril and back.

Travel Trade News from the West Coast Wilderness Railway, 25/7/2017

Display of mining equipment at the Moonta Mines Railway. *Photo: Chris Wurr*

Locomotive and carriages at the station - Moonta Mines Railway. *Photo: Chris Wurr*

SOUTH AUSTRALIA

MOONTA MINES RAILWAY, Moonta

610 mm gauge

The Moonta Mines Railway has 2679 metres (measured on Google Earth) of track (exclusive of sidings) with two large balloon loops at each end and a triangle. It is 610 mm gauge and is hauled by a petrol-powered four-wheel loco, which is supposedly ex the Adelaide Zoo. It appears to have had side rods at some stage in its life, but has none now. There is a newspaper cutting on display at the station there, giving a very brief account of the loco. It is one of those "Whatever happened to the little train that used to run at the Adelaide Zoo?" type report. The reply was that it ended up at the MMR but there was no detail in it regarding a rebuild.

Checking back what the various LR reports have said over the years (LR228, 177, 144, etc.), the loco is said to be a 4wDM. In LR228 John Browning advised that it allegedly had a Deutz air-cooled 37 HP engine. In LRN 115, Bob McKillop advised that just the frame of an ex-Adelaide Zoo loco was used, but the full story may never be known. Whatever the truth, it is currently named *The Paddy Ryan Express* and is well worth a visit as is the Moonta mines area, especially for anyone with an interest in industrial archaeology.

The tour goes for nearly an hour and is much, much more than just a novelty ride. It runs through the copper mining areas, the mullock heaps and under the slimes dump in a tunnel, under the SAR Moonta 5 ft 3 in gauge branch line and loops around in front of the Moonta SAR station/tourist information building, crossing the original line which survives. There is a running commentary of the sights and a stop to look at the copper processing vats. Here there are amazing photographs of workers in the platform heeled and soled wooden shoes that they had to wear to avoid the acid baths destroying their feet. There were no Health and Safety officers then. At the starting point is a free outdoor display of copper mining machinery including rail-borne material. There is also a horse-drawn tramcar on display through a viewing window.

Chris and Phil Rickard 31/7/2017

UNITED KINGDOM

HUNSLET 1215

After months of trial fits, corrective work, and multiple discoveries of yet more problems, the restoration team can see the end of the process. A quick re-cap shows the work to date.

The frames were slightly bent. That was sorted out, but there was some wastage of metal so this was filled in or cut out and replaced. It was a major riveting job to get this fixed which was done using a large hydraulic riveter.

The old boiler didn't meet current requirements so the loco had to have a new boiler, which (in original design) fouled the frame stretchers. The new design rectified this.

When the motion was cleaned the team discovered that it had been cut and re-welded together, and some bearings at the ends had been "modified", in one case to a huge lump of metal that would have damaged any track it ran on with the hammer effect.

The tanks were welded as opposed to being riveted, which would have been an improvement had it not been for the fact that they did not fit the cab (and never had done). Virtually everything had to be modified back to the original.

Today the tanks, the boiler and the cab are in place for a final fitting and whilst they are there, the team is going to make and install all of the pipe work and fittings. Some of the items will be fitted permanently, others will have to come off again but at least they know they will fit when they go back on.

When the team is happy with it all, it will have one final strip-down, everything off, then the boiler will be tested, the ashpan fitted and final assembly started. With the boiler on, cladding on, tanks on, cab on and the final fitting of all the pipes and gauges etc, complete, the final coats of paint will be applied. As in WW1 it will be matt black all over. Then the team will light the fire, and with any luck it should run under its own steam for the first time in years.

Killamarsh Chronicle, No. 39, August 2017

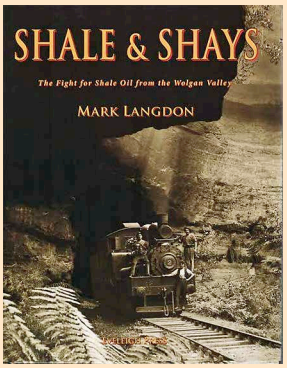
Books from LRRSA Sales ...

Shale & Shays

The Fight for Shale Oil from the Wolgan Valley

By Mark Langdon

Published by Eveleigh Press.
300 pages, 279 x 215 mm, hard cover, many photographs.

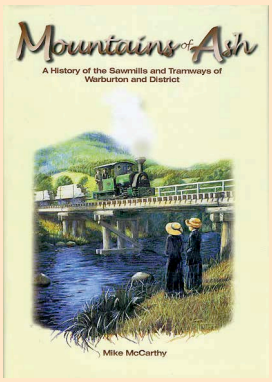


A new history of the famous standard-gauge Wolgan Valley Railway, New South Wales. With five chain curves and 1 in 25 grades in spectacular scenery, it used four three-truck Shay locomotives. Includes some original hand-coloured photographs, detailed maps, and rolling stock diagrams.

Price $78.00 plus postage
($70.20 to LRRSA members)

Mountains of Ash

A History of the Sawmills & Tramways of Warburton and District



By Mike McCarthy

Published by the LRRSA.

Hard cover, 312 pages, A4 size

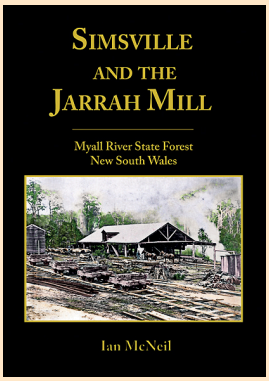
Describes a complex network of over 320km of tramways serving 66 sawmills in a mountainous area.

Over 280 photographs, 50 maps and diagrams, references, bibliography, and index.

Price $59.95 plus postage
(**$44.96 to LRRSA members)**
Weight: 1,650 gm

Simsville and the Jarrah Mill

Myall River State Forest, New South Wales



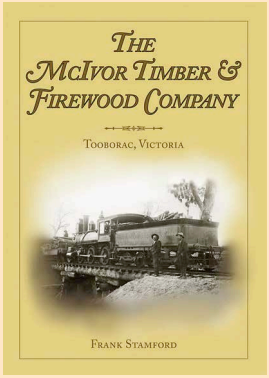
By Ian McNeil
Published by the LRRSA
Soft cover, 96 pages, A4 size
55 photographs, 12 maps and diagrams, references, and index.

The history of a 3ft 6in gauge tramway and sawmiling operations at the village of Simsville, near Stroud. The tramway used three Climax geared locomotives.

Price $29.00 plus postage
(**$21.75 to LRRSA members)**
Weight: 490 gm

The McIvor Timber & Firewood Company

Tooborac, Victoria



By Frank Stamford
Published by the LRRSA
Soft cover, 104 pages, A4 size
104 photographs, 23 maps and diagrams, references, and index.

The history of a 5ft 3in gauge tramway from Tooborac to Mitchell's Creek, Puckapunyal, Moormbool West and Cherrington.

Price $30.00 plus postage
(**$22.50 to LRRSA members)**
Weight: 490 gm

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