



SteamRanger's Heritage

- an insight into our past

BACKGROUND

This text is an extract from a more lengthy article on the Goolwa to Victor Harbor railway, covering the horsetram era, the introduction of steam and the eventual conversion of the branch line to a tourism oriented heritage railway by the ARHS SA Division (SteamRanger)

The extract covers the history of and operations over the line from 1884 when original Goolwa to Port Elliot tramway was upgraded with the aim of providing a steam hauled railway connection between Adelaide and Victor Harbor

It draws on and expands on the 1954 ARHS Bulletin article by Alan Stempel also available on this website

Some minor editing of the printed text, including addition of subheadings, has been made to improve on-line readability.

Two other extracts from Mr Callaghan's article, dealing with the Goolwa to Port Elliot and Victor Harbor to Granite Island horsetrams are available as downloads elsewhere on this website.

Attached to this extract are a number of illustrations from Mr Callaghan's printed article

The Mount Barker to Victor Harbor Railway

Extracts from the article "The Goolwa to Port Elliot Railway"
W.H. Callaghan

"Australian Railway History – Bulletin of the Australian Railway Historical Society"
May 2004, pages 169 to 176

When preparing plans in 1881 for the Intercolonial Railway to the Victorian border, R C Patterson, assistant to H C Mais, the Chief Engineer, proposed that the Southern Tramway be connected to this line. In July that year a bill was introduced to Parliament to authorise the use of steam locomotives on the tramway, the track being re-sleepered and secondhand 4lb rail used, capable of supporting 13 ton locomotives.

The railway from Adelaide to Strathalbyn was laid with 60lb rail, able to carry the heaviest locomotives then in traffic, the 83 ton 5 cwt 'American' N class 4-6-0s, used on passenger trains. The lighter rails beyond Strathalbyn effectively stopped these locomotives running through to Victor Harbor. The station at Strathalbyn was built between Hie Uam-way station and the town and opened on 15 September 1884.

1884 - Infrastructure improvements between Goolwa and Victor

A new line was laid beside the road from the level crossing on the south of the Currency Creek bridge directly to the western edge of Goolwa, where it joined the existing line to Middleton. This was ideal for goods trains proceeding direct to Victor Harbor but trains calling at Goolwa had to push back into the original station. Likewise, trains for Strathalbyn had to push back out of the station to the junction.

New passenger stations were provided at Goolwa and Port Elliot but otherwise facilities remained as before. The tramway had been brought up to the required standard from Strathalbyn to Currency Creek by July 1884 but the work as far as Goolwa was not completed until 17 December of that year. On the same day a branch line was opened from Sandergrrove to the Port of Milang on the western shore of Lake Alexandrina, named after the princess who later became Queen Victoria. Until completion of the work on the line, passengers were conveyed beyond Goolwa in the new tramcars. Thus steam power finally replaced horse power on 1 April 1885.

To hasten the service on the tramway and to permit the through running of goods wagons the Chief Engineer, H C Mais, purchased two 0-6-0 tank goods motors from Kitson's of Leeds. Numbered 97 and 98 they entered service at Strathalbyn on 1 April and 24 March 1885 respectively. With a total weight of 15 tons 1 cwt and a maximum axle load of 5 tons 8 cwt, they exerted a maximum tractive effort of 6,252 lb. Initially they were confined to the Strathalbyn-Goolwa section.

1885 - Steam Working between Goolwa and Victor commences

Steam working between Goolwa and Victor Harbor commenced on 1 April 1885. This being the Wednesday before the Easter holidays, large crowds were expected to visit the South Coast over the weekend and the two goods motors were rostered to haul the 'tram', as it was described, from Strathalbyn onwards. On one occasion they failed to haul the load and had to be replaced by the locomotive which brought the train from Adelaide, an L class 4-4-0. It transpired that the 'tram' included carriages off the Adelaide train. As the L class had a maximum axle load of 10 tons 16 cwt progress must have been cautious. The train, or 'tram', arrived one and a half hours late.

Two Rowan double-decker steam-powered rail motors were purchased for passenger services beyond Strathalbyn but within months proved unsatisfactory. Often the load at the rear of the motor where luggage, parcels and mails were stored was sufficient to reduce the load on the motor's driving wheels causing them to lose their adhesion. They were returned to Adelaide and used on the Largs or Grange branch lines.

Thus the mixed, passenger and goods trains to Victor Harbor were the preserve of the G class 2-4-0T for which three more, Nos 99 to 101, were purchased from Beyer Peacock. It would seem from photographic evidence that passengers changed trains at Strathalbyn, as photographs taken at Victor Harbor do not show the large 'Ashbury' 1st class carriage running beyond Strathalbyn. During 1894 the more powerful H class 4-4-0 tender locomotives hauled most trains south of Strathalbyn.

At the end of the 1885-86 financial year there were still 77 goods trucks, seven old passenger trucks, including the three trucks built for the Strathalbyn line and trams 21 and 24 awaiting transport to Islington or to be broken up. At least sixteen trucks had been adapted for locomotive trains which involved slightly raising the buffers and strengthening the drawgear.

1900 – Heavy Steam Locomotives arrive

During 1890, work commenced on replacing the 40lb rail south of Strathalbyn with 60lb rail but as it was done piecemeal, the benefits could not be felt until the work was completed on 25 January 1909. In 1906 Watson's Gap bridge was replaced by a new reinforced concrete 32 feet arch bridge upstream from the original wooden structure. The Alexandra Bridge was superseded by a reinforced concrete 'beam and slab' five span bridge for rail traffic only during 1907.

Henceforth the heaviest locomotives used on the South Australian Railways could run to Victor Harbor where a sign insisted that they did not run onto the causeway. By this time the 'American' N class had been reboilered to conform with the Rx 4-6-0s, the most powerful locomotives then running on the SAR. In the mid 1920s the entire line was again relaid, this time with 80lb rail to support Commissioner Webb's 500 class 'Mountains' and 600 class 'Pacifies'.

The Victor Line now part of the SAR broad gauge system

Once 60lb rail had been laid from Mount Barker Junction on the South Line to Victor Harbor the line became an integral part of the broad gauge railway system. Victor Harbor now became a favourite resort for a weekend away from Adelaide. The five hour trip using the tramway had discouraged people from visiting the south coast but now it was possible to do it in three hours. In the summer season that was the aim of the *Victor Harbor Express* - five lavatory bogies and a brakevan hauled by a rebuilt N class or an Rx for the entire journey. Saturday afternoon travel was unavoidable as Saturday morning was part of the working week.

The train's punctuality was as important as that of the *Melbourne Express*. The train did not call at Goolwa but when Electric Staff safeworking replaced Permissive Block on 1 June 1914 the *Express* slowed to exchange staffs at Goolwa Junction, which with slowing at Finnis and Port Elliot as well as those crossing stations north of Strathalbyn added minutes to its schedule which then exceeded the desired three hours. The *Express* returned to Adelaide on Monday morning to a less exacting schedule.

1915 - The Goolwa Wharf Deviation

To render Goolwa a through station suitable for crossing trains a deviation was laid around the town to serve a new station parallel to the wharf whose tracks were connected to the new siding but were barred to locomotives. In use from 12 January 1915 the new yard was protected by the usual home and distant signals. The old cutting became the access road to the new station and, apart from the wharf, what remained of the old line was removed except the stables and the Superintendent's house.

1913 - 1918 “Caldwell Vale” rail motors

Internal combustion propulsion made its first appearance on the Victor Harbor line when on 15 December 1913 the 'Caldwell Vale' rail motor commenced running the 'Cockle Train' Goolwa-Port Elliot trains. This double-ended car had two 4 cylinder, 70 horsepower underfloor petrol engines plus a single cylinder Gardner four horsepower petrol engine for lighting and ignition.

The car with seating for 60 passengers was expected to travel at 45 miles per hour on level track but it was allowed more time between stations than the regular steam train. It was withdrawn in 1918 as its performance was considered unsatisfactory. On public holidays it was replaced by a steam train.

1922 – The Webb era – “Brill” Railcars Introduced

The arrival of Commissioner Webb from the USA in November 1922 brought a new approach to the provision of rail services. He moved Middleton station to the western outskirts of the town, not for the benefit of passengers but for the convenience of the livestock traffic. A daily service of mixed trains was replaced by freight trains running at a frequency designed for carrying profitable loads and petrol passenger motors catering for passengers, parcels, perishables and mails.

Initially Brill Model 55 rail motors were provided, hauling, if necessary, a brakevan for the latter traffics. From 1 December 1924 such a 'tin hare' ran each morning from Adelaide to Victor Harbor and another followed from Adelaide but ran to Milang, hauling one or two freight wagons over the near flat terrain from Strathalbyn to Milang. These 68 horsepower cars accommodated 38 passengers in an open saloon with low backed seats. This gives an indication of the number of passengers carried per day outside the holiday season. For a general overhaul a Model 55 rail motor would haul the two cars coupled together to Islington Works and return.

Commissioner Webb introduced Train Order safeworking on the Mount Barker-Victor Harbor line on 21 November 1926. The driver's authority to proceed came not from an electric staff but from a train order dictated over the telephone by a controller in Adelaide to station staff or the train's guard. The order instructed the driver how far he was to proceed, what trains he would meet and where the guard was to report the train's progress. At attended stations signals with rounded arms instructed the train crew whether or not they were required to collect a new order.

The performance of the *Express* and freight services benefited from this form of traffic management. The larger 180 horsepower, 6 cylinder Model 75 cars, accommodating 61 passengers, took over the Victor Harbor service. The Milang line then terminated at Strathalbyn, a connecting mixed train serving the Milang branch. In the 1930s this was hauled by a Model 75 rail motor which was stabled at Strathalbyn for this purpose. When running the *Victor Harbor Express* the time was reduced to 2 hours 42 minutes. By 1929 these 'Barwell Bull' rail motors had taken over all country passenger services except those running interstate.

“Heavy Power” steam locomotives introduced

Steam trains were used when loadings exceeded the capacity of a railcar and its trailer.

On the Victor Harbor line these were hauled by Webb's new 'heavy power'. These first appeared in October 1926, a 600 class Pacific on a passenger train and a 700 class Mikado on a freight. Even a 500 class Mountain, 4-8-2, later 4-8-4, hauled trains to Victor Harbor, both passenger and freight. Until the mid 1930s all locomotive hauled trains were formed of side loading non-corridor 'dog-box' carriages, usually bogie vehicles of six compartments. The 'lavatory bogies' used on the Adelaide trains seated seven passengers in First Class compartments and nine in the Second Class, one seat being removed from each compartment for the door into the lavatory.

The external livery of these mansard roof carriages was a mahogany weathering to a brownish red. American end loading cars used on the Glenelg lines which were closed in 1929 had their suburban seating replaced with back to back seats of similar profile to those in the 'dog-boxes' with dwarf partitions separating the seating bays. In 1935 one bay in these cars was replaced by a lavatory reducing the number of seats from 64 to 59.

1936 – “The Centenary Limited”

The following year South Australia celebrated the centenary of its proclamation and to celebrate the event these cars had their livery changed from the standard red to hawthorn green and pale cream to form the *Centenary Limited*, a train which ran special excursions to various destinations in the State.

For its journeys to Victor Harbor it was hauled by Pacific 605 repainted in Hawthorn Green... Otherwise it was hauled by the new light Pacific 620 “*Sir Winston Dugan*” Some suburban middle and end loading cars had their central vestibule replaced by lavatories and were repainted in *Centenary* livery. Sixty four passengers could be accommodated in these cars. Holiday trains were often formed by trains of these cars, sometimes interspersed with the similar suburban cars so that all passengers had access to a lavatory if prepared to cross from a suburban car to a *Centenary* car.

1940’s

Petrol rationing during the Second World War caused upsurge in passenger traffic on the railways, with many services reverting to steam haulage. By this time the welded steel side corridor 500 and 600 class, and the centre aisle 700 class cars, issued in *Centenary* livery, were available and appeared with the occasional Joint Stock AE cars on the prestigious Victor Harbor trains as numbers travelling required.

After the War, 23 composite lavatory bogie cars were rebuilt as centre aisle cars with a vestibule at one end and the lavatories at the other and were issued in green and cream livery. Seating 48 passengers, these 900 class cars were not as comfortable as the *Centenary* cars, so were not used very often. In 1940 six Model 75 motor cars and six trailers were given 'improved' interiors, nicknamed 'Milk Bars' and similar to the 700 class, their deep cushions softening the lurches of these rough riding cars. Discerning travellers recognised them externally by their large picture windows, one for each bay of seats. Such luxury reduced seating capacity from 57 to 34. As with the passenger cars, any heating came from acetate foot-warmers.

1951 - Improved Brill railcars

From 1951 nineteen of the '75' Brill rail motors were fitted with Gardner 198 horsepower, vertical 4-cycle diesel engines and fitted with remote control equipment to run as motor-trailer-motor sets to replace steam suburban services until sufficient of the new *Redhen* diesel suburban units were available for such duties. Unlike the *Redhens* the '75' sets could not run in multiple. Two of the improved interior motor cars were so treated, although they were not necessarily used in three-car sets to Victor Harbor.

The remaining motors were given Cummins diesel engines and with luck a passenger for Victor Harbor would find his train formed of these cars with an 'improved' interior. Should there not be enough 75s to run the service, they would be replaced by a *Centenary* car or possibly a steel car and brakevan hauled by a 620 class light Pacific or a streamlined 520 class 4-8-4.

1953 - 900 and 930 class diesel electrics to Victor Harbor

The first diesel locomotives to run on the Victor Harbor line, English Electric 901 and 905, hauled a 17 car special on 8 March 1953. The train carried almost 1500 bowlers in a train made up of pairs of 800 class steel suburban cars separated by a *Centenary* car for lavatory accommodation with the air-conditioned Cafeteria Car at the centre.

The next diesel hauled train was a special train to Goolwa on 8 May 1954 to celebrate the centenary of the Goolwa-Port Elliot railway. No 905 bedecked with bunting and 907 brought five steel cars, brake-van and the Commissioner's car, *Murray*, to the riverside station where S class steam loco number 131 waited with another special for Victor Harbor.

The leading vehicle was a bogie flat car on which was mounted a replica of the line's first passenger truck. Behind this were four non-lavatory 'dog-boxes' including Car 1 (second series) plus the brakevan. S131 was decked in yellow with royal blue splashers and cab side sheets, the carriages being suburban red.

On 3 January 1987 diesel No 907 hauled the 6.15pm Adelaide-Victor Harbor train, two *Centenary* cars, a 900 class car and the inevitable brakevan - the first use of a diesel on a regular service. On the 30 December that year 930 class Alco 931 hauled the first diesel powered goods train on the line.

1956 "Bluebird" Railcars

Air-conditioned comfort came with the 'Bluebird' railcars when motor 251 and trailer 101 formed the 1.00pm Express Passenger Motor from Adelaide on 3 March 1956. These cars, with underfloor engines, had driving stations at each end and were only used when not required for longer distance country services.

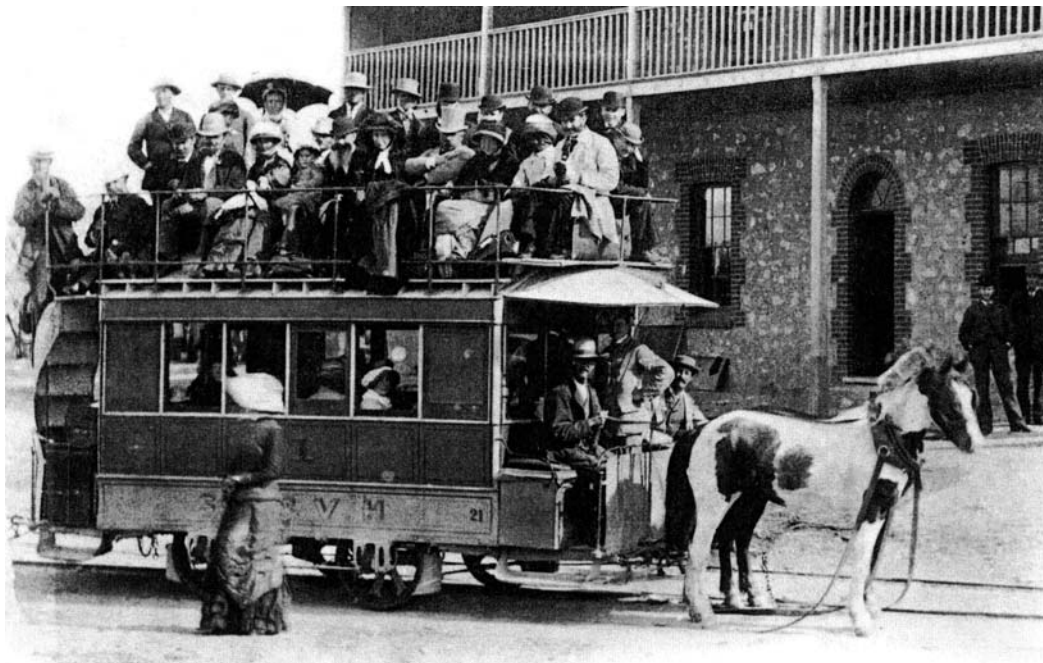
The last Model 75 motor, 46 'Milk Bar' motor and 216 trailer, ran as the 5.45pm to Victor Harbor on 12 October 1971 returning next morning. Henceforth the regular service was provided by Bluebirds and, when these were not available, by an 830 class ALCO diesel hauling a steel car or an air-conditioned AD car built for the East-West Express to Port Pirie, a far cry from the passenger trucks air-conditioned by nature 100 years earlier.

Website Editor's Note

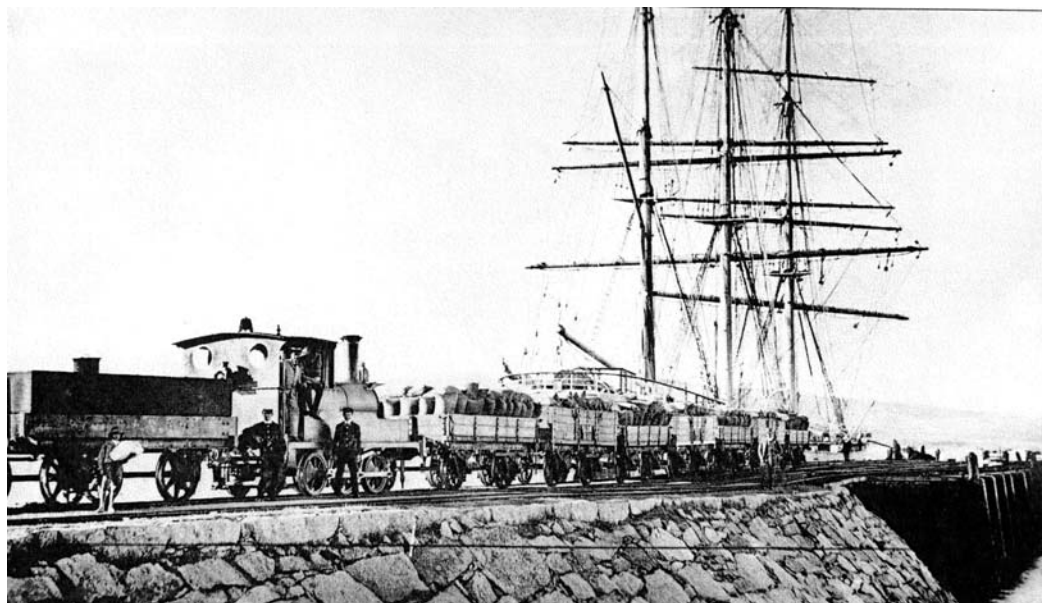
Four attached photos (below) are taken from Mr Callaghan's printed article

Other photos are included in the printed article They are not included on this download in order to limit the download time on slow links

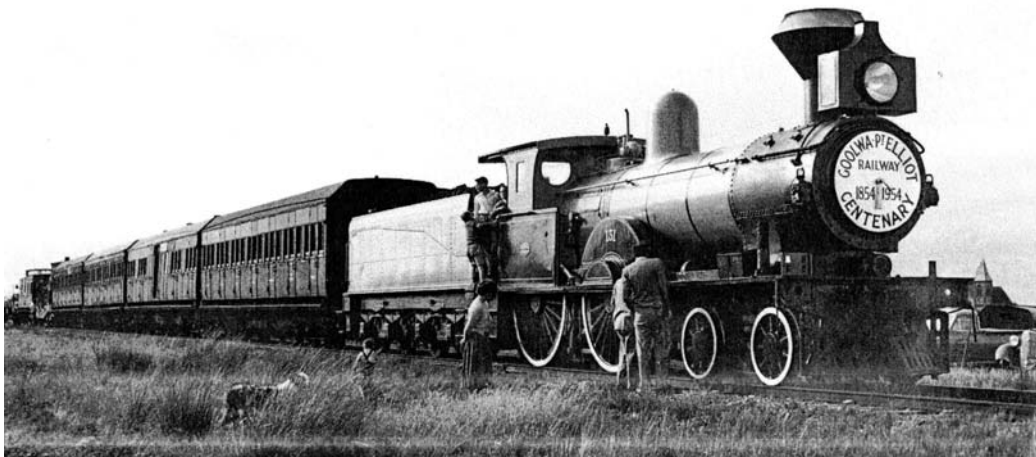
- Horse tram No 3 on Granite Island (1986)
- Victorian Loco R761 at Chiton Rocks (1987)
- Port Elliot Station (1866)
- Steam loco N53 on main south line viaduct (1895)
- Victor Harbor Station (1986)
- Steam loco 721 and Nos 5 & 6 double decker horse trams at Victor (1952)
- Brill rail motor 58 at Victor Harbor station (1951)
- Commiossioners Special with DE907 at Strathalbyn (1954)
- Steam Loco 505 and horse tram P187 horse tram in Victor yard (1946)
- DE942 (last loco hauled train from North Terrace) at Watsons Gap (1984)
- Rx 207 and 224 between Gollwa and Middleton (1984)
- Horse tram 6 on Granite Island causeway (1951)



Tram 21 at Port Elliot station on the morning car to Strathalbyn in 1880
 The load required two horses abreast
 Late L.S. Kingsborough collection



A Goods Motor, either 97 or 98 at Victor Harbor circa 1908
 Late E.R. Bowes



S Class 131 resplendent in yellow and royal blue at the head of the Centenary special on 18 May 1954.
At Goolwa Showgrounds on the 1915 deviation
L.J. Williams; W.H. Callaghan collection



The afternoon train pulls into Goolwa in the summer of 1910
The Rx loco will push its train back to Goolwa Junction before proceeding to Adelaide.
The tracks to the wharf continue past the Post Office on the right
Late L. S. Kingsborough collection