



Volume 1

ComRails Volume 1: Overview and Articles Information



The ComRails web site (www.comrails.com) can be downloaded as a series of printable documents in PDF format. This volume is an example of one of the volumes in the Comrails series.

The volumes are:

- Volume 1** Overview and Articles Information
- Volume 2** Carriage Information
- Volume 3** Freight Rollingstock Information
- Volume 4** Locomotive and Railcar Information
- Volume 5** War Time History of the Commonwealth Railways
- Volume 6** Route Information
- Volume 7** Master Rollingstock List
- TIMS1** Australian National Traffic Information Management System (TIMS) - Rollingstock Lists - this is a listing of all the rollingstock whose detailed records can be found in TIMS3 to TIMS6
- TIMS2** Australian National Traffic Information Management System (TIMS) - Route Index - basically a listing of all the track speed restrictions and temporary works
- TIMS3** Australian National Traffic Information Management System (TIMS) - Locomotive Rollingstock Records - this is the full detailed entry of all the locomotive rollingstock.
- TIMS4** Australian National Traffic Information Management System (TIMS) - Railcar Rollingstock Records - this is the full detailed entry of all the railcar rollingstock.
- TIMS5** Australian National Traffic Information Management System (TIMS) - Passenger Rollingstock Records - this is the full detailed entry of all the passenger rollingstock.
- TIMS6** Australian National Traffic Information Management System (TIMS) - Wagon Rollingstock Records - this is the full detailed entry of all the freight wagon rollingstock.



**Commonwealth, Australian National and South Australian
Railways Rollingstock
Volume 1**

Overview and Articles Information

Chris Drymalik

This document is part of the printed version of the Comrails website. The site is where you will find various bits of information about the Commonwealth Railways, Australian National Railways, Great Southern Railways and the South Australian Railways.

The subject material is the South Australian, Commonwealth and Australian National Railways.

Chris Drymalik

The Comrails web site can be found at <http://comrails.com>

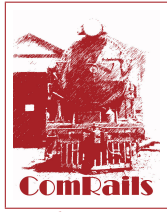
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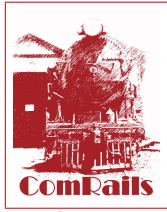
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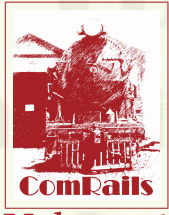
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Volume 1

CHAPTER

1

OVERVIEW OF COMRAILS

General Information

These pages are dedicated to rollingstock information pertaining to the Commonwealth Railways, South Australian Railways and Australian National. In some cases it also contains information about the organisations that took over the operation of this rollingstock when Australian National was sold.

These pages are still in development and will contain additional information in future releases. If you have anything that you might like to add, or correct, please feel free to contact me. My name is Chris Drymalik and my email address is chris.drymalik@gmail.com.

The code used to build the site is available on the ComRails PPWIZARD Source page.

Operating environment

This site was designed to run using a HTML 4.0 capable browser, such as Firefox or Opera. The code used to run this application is written in HTML 4.0 and uses CSS. This means that some of the features used are not supported by all the internet web browsers currently on the market.

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I have attempted to obtain access to the photographic material used by South Australian Railways, Australian National and Commonwealth Railways from the period of 1955 onward (any photo prior to this date is public domain according to a handout from the National Archives of Australia), but have not been able to clearly identify the current copyright holder to obtain permission. As it currently stands I have contacted AusInfo and Great Southern Railway without much luck. AusInfo don't know who is the controlling department for this stuff and Great Southern Railway never gave me an answer. Everyone else I have talked to so far have ***passed the buck*** or told me to ***not worry about it as no one will give a stuff***.

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Known issues

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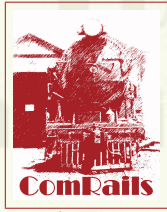
Photo Submission

I'm always on the look out for good rollingstock photographs. Generally I have a preference for side on views and interiors. If you have any that you think would fill in the gaps on the site please e-mail me at chris.drymalik@gmail.com. The photographs should be sized so that the longest dimension is not more than 640. Don't worry about a thumbnail, I'll create that. If you don't know how to make your photo smaller without losing quality send me the large version and I'll resize it before putting it on the site.

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Please remember, these pages are dedicated to rollingstock information pertaining to the Commonwealth Railways, South Australian Railways, Australian National and the organisations that took over the operation of this rollingstock when Australian National was sold. Any photos should be of vehicles operated by those organisations, but it can of course be a recent photo in current livery or a view of a modified interior etc..



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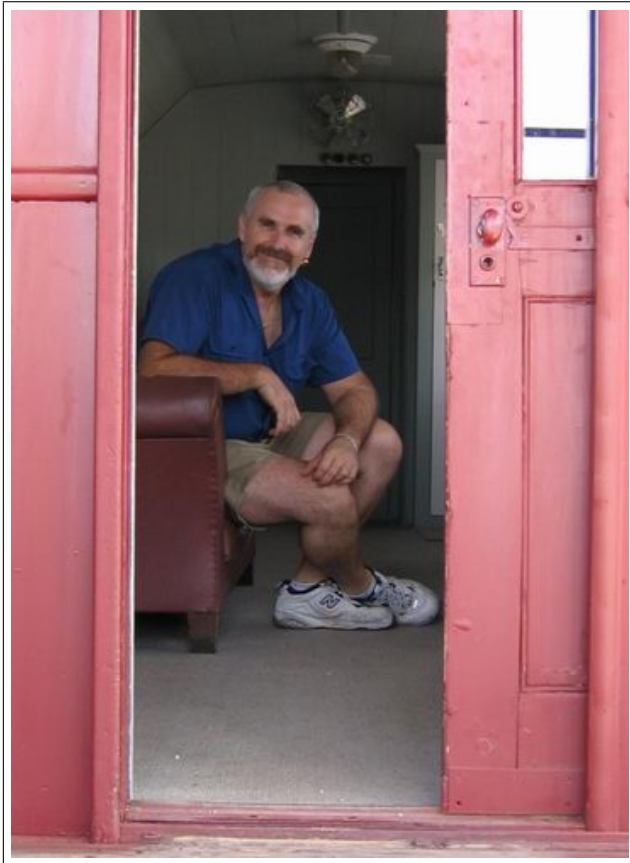
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2.1 Chris Drymalik



Chris Drymalik, 2005, Peterborough

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Some of Chris's other works include:

What ever happened to the Legendary Ghan? The Recorder, Australian Railway Historical Society (South Australian Division), p167, August 1989, Vol.26 No.11.

Mr Webb's Steel Carriages, Australian Railway Historical Society Bulletin, p136, June 1990, Vol.41 No.632.

SAR Passenger Rollingstock Used on the Trans and Ghan Lines, Australian Railway Historical Society Bulletin, p133, June 1989, Vol.40 No.620.

Wooden Lounge Cars on the Trans-Australian Railway, Australian Railway Historical Society Bulletin, p155, July 1989, Vol.40 No.621.

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The Great Ghan Gold Robbery of 1935, Australian Railway Historical Society Bulletin, p67, March 1991, Vol.42 No.641.

A short history of the Tea and Sugar cars, Catchpoint.

Steamranger Rollingstock, Australian Railway Historical Society newsletter, 1988.

Co-author:

Port Dock Station Railway Museum ***Locomotives and Railcars of the Commonwealth Railways***, Gresley Publishing, Welland South Australia; 1996.



Chris Drymalik, taken 2.1.2017

2.2 What ever happened to the Legendary Ghan

Imagine silvery moonlight shining down on a Central Australian landscape, the silence only being broken by the sound of an occasional rabbit scurrying off in the darkness. The ruins of an old water tank next to the shiny rail line are outlined against the star studded sky. In the distance a light appears and the rhythmic chattering of twin NJ class diesels shatters the stillness. As the light and sound grows, so does the realisation that this is the last time the narrow gauge Ghan will ever pass on its way north to Alice Springs, a legend is coming to a close. One by one the giant carriages slowly glide past with only an



Chris Drymalik, taken 9.3.2017

occasional light showing, until only the brakevan lights can be seen disappearing back into the darkness. That is how it was for many of the people who saw the last Ghan pass, now only the ghosts of the old drivers and their engines are all that remains of a magnificent colonial dream; that of a Great Northern railway stretching across Australia linking the Southern States with Darwin. When the last narrow gauge Ghan pulled out of Marree at 1:16am on 25.11.1980, an era of exciting and unpredictable travel came to a close. No more would the passengers change trains in the middle of the night crossing the Marree platform or play russian roulette with the weather, watching for storm clouds or waiting as flood waters receded.

The Southern Section of the Great Northern Railway was begun in 1877 by the South Australian Government and finally came to a halt in 1929 when the Commonwealth Government completed the section from Rumbalara to Alice Springs. The 'Ghan' itself began as a limited mixed which was given the official title of 'The Oodnadatta night train', until the route was extended when it became known as the 'limited mixed' once more.

The legendary train that has passed into Australian folk law really only came into existence on 4 August 1929 when the first passengers arrived at Stuart (yet to be named Alice Springs). It was two and a half hours late. Whether the train was named after the Afghan camel drivers or was a private staff joke at the expense of Commonwealth Railways Commission George Gahan, probably no one will ever know, but one thing is for certain the train that was 'The Ghan' will never be forgotten.

Commissioner Gahan was on that first train back in 1929 and had been personally involved, when as C.R. Chief Engineer the line extension proposals were being formalised and construction of new luxury passenger rollingstock was undertaken. From 1.1.1926 the Commonwealth Railways assumed management and

maintenance of the Great Northern Railway. Tourist trains immediately became the order of the day under the new operators who had constructed at Port Augusta nine situp cars, built along similar lines to the SAR 'Long Toms', one sleeping car, a special service car, a small buffet car and five relay brakevans. The sleeping, buffet and special service cars were all elaborate vehicles modelled on designs perviously used by the C.R. for the Port Augusta to Kalgoorlie standard gauge railway. These three cars were

NSS 34

the Commissioners Special carriage which entered service on 20.4.1929, comprising an observation saloon with curved glass at the trailing end, four sleeping compartments, bathroom, dining saloon, kitchen and a compartment to accommodate the two male attendants. The interior of the car was of Tasmanian oak, which brought the total cost of the car to £7,584.

ND 35

was a 50ft buffet car that had capacity for 18 diners and cost £5,830. When it entered service on 18.7.1929 a small employee compartment sleeping two was provided at one end next to the kitchen. This car was eventually converted to a workers dining car for the Darwin accident train.

NRC 36

began service on 20.7.1929 having cost £7,200. It slept 10 first class and 12 second class passengers as well as a conductor. In 1966 the second class compartments at one end were removed to make way for a kitchen and dining room. It was recoded as an 'NIA' class Officers Inspection car.

All of these cars are now in possession of Pichi Richi Railway, the NSS and NIA cars being on loan from Australian National. Each car has the unusual feature of having horizontally slatted outside louvres based on 'Sudan Government Railway' practice which kept the hot summer sun off the window glass, but managed to obscure most of the windows viewing area.

In extreme contrast to this train, the last narrow gauge Ghan train to leave Marree was made up of a mixture of narrow gauge wagons and standard gauge passenger cars transferred over the years to service on the Central Australia Railway. It seemed that no two pieces of rollingstock were the same, giving a unique appearance that added to the charm that was this train.

Today, apart from a few small isolated section of rail the Ghan track is no more. The rollingstock, whilst scattered, has fared better. That final north bound Ghan consisted of locomotives NJ3 and NJ6, hauling cars NIA 36, NHRD 79, 2 flat wagons, 2 louvred vans, passenger cars SS 44, NDC 94, NARA 72, NARG 46, NARA 71, NARC 53, NAFA 93, NDC 95, NBRF 54, NARC 33, NARG 47, NBRE 134,

NBRE 135, NBRA 60, power cars NGA 81, NG 68 and brakevan NHRD 80. When the south bound Ghan pulled into Marree the following friday it had gained several more flat cars, but was basically unaltered. Cleaning took place and the train was stored in the Marree yard ready for an imaginary next run.

Between 1980 and 1983 the various items of narrow gauge rollingstock remaining on the Central Australia Railway were disposed of by tender, or returned to Port Augusta for use on other Australian National systems.

The fate of each of these last Ghan cars is as follows.

SS 44

the 1920 standard gauge wooden 'Special Service car No.1', know to most as the 'Prince of Wales' car is still in service and was completely refurbished in 1988 and fitted with Air conditioning for use on the Opera in the Outback trains.

NARA 71 and 72

were built in 1944 by the Commonwealth Railways as Standard Gauge twinette sleeping cars of the 'ARA' type. Air Conditioned and modernised in 1953, they were converted to narrow gauge in 1961 and 1965 respectively. NARA 71 was sold to Steamtown Peterborough. NARA 72 was sold to the Ghan Preservation Society Alice Springs.

NDC 94 and 95

originally were both delivered in 1952 for use as dining cars on the Trans Australian, being built by the German Wegmann company. NDC 94 was first transferred to narrow gauge in 1970, being placed on 6 wheel narrow gauge bogies for use on the Central Australia Railway. Currently it is being used on one of the Port Augusta breakdown trains. NDC 95 was first used on the Central Australia Railway in 1969. After the last Ghan, it was returned to Port Augusta on freight bogies and has since not been used in revenue service.

NARG 46

was built by the Commonwealth Railways in 1922 as a wooden second class sleeping car of the 'BR' class. It was converted in 1956 to an Air Conditioned staggered corridor first class roomette sleeping car. Narrow gauge bogies were fitted in 1966. Sold by AN in 1983, it is now on a private property in the Marree township.

NARG 47

was a wooden first class sleeping car of the 'AR' class built by the Commonwealth Railways, entering service 6.7.1922. Like NARG 46 it was converted to a roomette in 1956 and to narrow gauge in 1961. Steamtown Peterborough now use it for members accommodation.

NARC 33

entered service on 28.4.1920 as an 'AR' first class sleeping car, it was Air Conditioned in 1953 and placed on SKF narrow gauge bogies for Ghan service in 1966. The Alice Springs breakdown train now uses this car.

NARC 53

was built as an 'AR' class sleeping car, being first used on the XMAS Trans-Australian on 20.12.1930. It was Air Conditioned in 1953 and converted to narrow gauge in 1961, then sold to the Ghan Preservation Society in 1983.

NAFA 93

was part of the Wegmann trains delivered in 1952 and was converted to narrow gauge in 1964. For a short period between 1975 and 1977 the car was returned to standard gauge before once again being placed into Ghan service. This lounge car was well know for its ornate interior wooden panels depicting German castles. Since being returned to Port Augusta, it has suffered a similar fate to NDC 95, never having been used in revenue service.

NBRF 54

was built in 1930 as a second class sleeping car, it was Air Conditioned in 1954 when a lounge compartment was fitted to one end. First used on the Ghan in 1961, it was returned to standard gauge in 1981 when it was converted to the 'EH' class mobile education car.

NBRE 134 and 135

were built by COMENG in 1964 as second class twin berth staggered corridor steel sleeping cars and converted for Ghan service in 1970. These cars are now used on Australian National's standard gauge passenger trains.

NBRA 60

entered service in 1942 as a second class sleeping car. It was converted to narrow gauge in 1961 becoming a crew accommodation car and has since been sold to the Ghan Preservation Society.

NG 68

power van, built by COMENG in 1966 is now standard gauge power car PGB 377, generally used on refrigerated freight trains.

NGA 81

power van, built by COMENG in 1968 is now standard gauge power car PGC 395. It is used in similar service to PGB 377.

NIA 36

was the only car on the last Ghan that was on the original first train into Alice Springs and has already been mentioned above.

NHRD 79 and 80

are 75ft relay brake vans built by COMENG in 1968, they were converted in 1981 to standard gauge AVDY 361 and 362.

The two locomotives NJ3 and NJ6, both built in 1971, now run on Australian National's Eyre Peninsula system, along with the rest of the 'NJ' class.

The train that was the last narrow gauge Ghan is now only a fond memory best summed up by an entry made in the log book of one of the wooden Ghan sleeping cars disposed of in 1983: *So long old friend.*

2.3 Mr Webb's Steel Carriages

Most people have heard of South Australian Railways Commissioner Webb who during the 1920's built the new Adelaide Railway Station (now the Casino), introduced the large 500 class mountain and 600 class pacific engines and almost sent the State of South Australian broke before his contract was not renewed. Webb also introduced new larger freight stock, heavier bridges, Brill railcars, gauge widening and signalling that took South Australia to the forefront of rail technology. One of his other well remembered introductions was the purchase of three luxury Pullman passenger cars, consisting of one dining and two sleepers, for use on the Adelaide to Melbourne Express. What most people do not realise was that Webb only got approval to purchase these cars after extensive efforts to locate a builder for a similar type of passenger car in Australia had failed. It should be clearly understood by the reader that South Australian politicians of this period were very narrow in outlook and any attempts to purchase imported items tended to meet with very stiff public opposition. Only after many heated debates were the 500 and 600 class locos approved and then only if they were built in England. The Commissioner, being an American tended towards North American ideas, something very foreign to the politicians and Royalist Australian electorate, who seemed at times to put as many obstacles in his path as possible.

As part of a plan to replace all passenger rollingstock with superior carriages of steel construction, the railways issued a tender on 25th of September 1923 for the construction of fifty (50) Main Line Steel Passenger Cars. Tenders quite clearly stated that the above-mentioned fifty cars were to have been constructed in Australia. It appears overseas tenders were to have been accepted, but at the last minute this decision was amended causing all issued copies of the tender to have all reference to overseas construction and assembly crossed out and appropriate alterations made to the wording by hand. At

this time Australian Railway coach builders were still working with wood and some system even still built passenger cars with wooden underframes rather than the more common steel.

The fifty cars were to have consisted of thirty-nine (39) passenger sitting up cars, eight (8) baggage cars, two (2) cafe cars and one (1) dining car all 5ft. 3in. gauge. Sadly Australian industry was not up to the task with only one reply to the tender being received, that of 'Morts Dock and Engineering Company Ltd' of Balmain in Sydney.

Some of the other rail systems had expressed an interest in the outcome of this tender and with its failure, the introduction of steel rollingstock on most Australian rail system was delayed several years. At this time the Commonwealth Railways had been trying to get all steel rollingstock for the Trans-Australian line since 1917 but meet with little success due to political reluctance to purchase overseas and local producers inability to manufacture anything at an acceptable price.

The Railway Commissioner decided not to accept the only tender and subsequently looked elsewhere to supply his need, eventually resulting in the Pullman cars being imported as prototypes with the intention being to build in Australia, at a later date, further rollingstock to this design. The original justification for the Pullman cars stated that Webb believed all SAR wooden rollingstock would be replaced within 10 years by solid, safe steel base carriages as part of a general upgrade of rollingstock.

Whilst the original cars were never built it is interesting to consider aspects of the original tender in light of latter developments should all these Pullman style heavy weights have been built. The cars targeted to be replaced oddly enough managed to survive as 'Safe' vehicles for passenger purposes until the last was withdrawn in the 1970's. The heavy weight steel passenger cars proposed reached their peak on American rail systems during the late 1920's and it appears that excessive weight problems may have influenced Australian decisions not to proceed any further with this style of vehicle.

The schedule of tenders submitted by Morts had requested a total payment of £423,150 for the cars, made up as follows:

13 first class at £9250 each	£120,250
26 second class at £8900 each	£231,400
8 baggage at £5750 each	£46,000
1 dining at £8500 each	£8,500
2 cafe at £8500 each	£17,000
Total	£423,150

This price was expensive. As a base for comparison the Commonwealth Railways built a wooden first lounge car the same year for a total cost of £5056. This included cathedral glass windows, press metal ceilings, mirrors and ornate wooden panelling designed to match the Special Services car (known commonly as 'The Prince of Wales car') built in 1920. The difference in price was over £3,500 for producing similar purpose vehicles.

The tender allowed the manufacturer to deliver the cars complete in every respect and ready for traffic, free on rails at the Railway Locomotive Works Islington or alternatively they could be completed in sections ready for re-erection at Islington by the Railways. All cars were to be constructed for use on 5ft. 3in. gauge track but were to be readily converted to 4ft. 8½in. gauge with a minimum number of changes. This conversion feature was to be a common requirement of future tenders. Each car was 71ft. long and 10ft. wide being 13ft. 2in. in height. The length and height compared favourably with the 'E' type cars then in use on the Melbourne-Adelaide Express, and a width of 10ft. was the standard for SAR rollingstock of the period, but may have provided problems in Victoria, as the loading gauge allowed only for 9ft. 6in. wide cars. By American standards these were not large cars and lacked the enormous bulk evident in their design prototypes but would have been suitable use on the tight curves and tunnels of the Adelaide Hills lines.

The body sides, superstructure and outer window frames were to be all of steel with a semi-elliptic roof made of steel plate lap jointed. By contrast the interior of the passenger cars were to be constructed of finely polished timbers. First class cars up to and including cornice moulding were to have been finished in polished mahogany suitably panelled with inlaid quartered panelling and metallic fittings of bronze polished and lacquered. Ceilings were white with cross partitions immediately above the seat backs being fitted with a bevelled edge mirrors, and the side openings fitted with mounts and clear glass for the purpose of receiving photographic views.

Second class were too have been of similar finished, but fumed polished oak and metallic fittings of hard brass or gunmetal polished, copper-oxidised and lacquered were substituted. Flat wire luggage racks and portable tables were required in all compartments. All side windows, except lavatory, were of a uniform height and interchangeable, being arranged in two parts, both to raise and fitted with spring roller blinds made of green horse hair in first class, and cloth in second. Upholstery was green buffalo hide for first class and maroon for second class, all seats being buttonless. Compartment doors were to slide and swing doors were to be placed in the corridor dividing smoking and non-smoking.

The most obvious thing that comes to mind when one reads the full tender requirements is that the cars were actually expected to be steel car bodies with the interiors being based on the wooden 'E' cars used on the Adelaide to Melbourne Express ("The Overland"). Inlaid quartered wooden panelling, bevelled mirrors and swing doors in the corridors had all been standard since 1907. This is not surprising as steel cars were popular in America and considered very safe, yet compartment style interiors during this period were relatively rare, so the South Australian Railways decided to stay with a passenger popular interior styling rather than substitute an American style open plan interior. A similar decision was

made in 1907 when the first of the new 'E' type sleeping cars had entered service. The exteriors were based on North American designs, but the interiors owed their styling to contemporary European styling.

The design was very advanced for its era as at this time Elliptical (Turtle back) roofs were only just starting to find favour on American rail systems. The Commonwealth Railways had pioneered this style in South Australia in 1920 when several new sleeping cars built at their Port Augusta Workshops entered service. Initial trials of these cars showed elliptical roofs to be far stronger and required less maintenance than their clerestory counterparts.

One novel feature of the cars was the requirement to fit water tanks into the roof of the car rather than use the newer underfloor brake pressure raised water system. This is unusual in so radical an exterior design change as the Commonwealth Railways had received Australian wide praised 6 years before when they fitted it to the Trans-Australian rollingstock. Possibly an example of how set in their ways the old school in the South Australian Railways were. I can imagine arguments about brakes failing due to the lost air pressure and all sorts of dire things that might happen should the new system be used. In contrast to the water system, all cars excepting the baggage were to be fitted with Stones system of electric heating. A special dynamo, without batteries, is fitted under the car running off the axle producing power for electric radiators. Insulation against sound and heat was also placed in the walls to help assist the heating. A cantilever underframe with Willison type automatic couplers and Westinghouse automatic air brake finished the technical specifications.

The exterior paint scheme would have been something to see, it is described in the tender as follows:

'Two coats of a suitable ground colour for cedar graining, mixed in equal parts of raw linseed oil and turpentine, are now applied, and when the second coat is sufficiently hard, the panels shall be grained imitation cedar to specimen supplied. The mouldings shall receive three (3) coats of standard brown paint, the final coat being a varnish colour. When dry the whole to receive two (2) coats of best flattening varnish, each coat being flattened, followed with one coat of best hard drying carriage varnish.'

It is strange that the railways wanted steel carriages to look like wood. Possibly this was so the cars matched existing rollingstock or alternatively management may have been afraid of additional adverse public opinion as at the time the press was full of arguments both for and against other radical changes introduced by Commissioner Webb.

The dining car was to have been similar in design and construction to the 1st and 2nd class cars with the saloon

and corridor interior finish, carpet and equipment being of a matching style. The saloon provided accommodation for 48 passengers seated at 12 tables arranged in the standard symmetrical layout with two electric bell pushes, one on each side of the window. The pantry was situated between the kitchen and the saloon compartment with the floor being laid with 'Induraleum' fireproof material. A modern gas powered stove was included in the specifications with the layout of the kitchen being left to the contractor. This style of layout was to be eventually introduced to the SAR when the dining car 'Adelaide' arrived several years later except the modern gas stove had regressed becoming a wooden stove.

The cafe cars, a new innovation not previous trailed by the SAR, were to have matched the other cars except for the interior layout which had a central combined kitchen and pantry dividing off the cafe saloon at either end. A counter extended each side of the kitchen being covered with cork lino and protected on the edges by a rolled brass section. Upholstered swivel stools were arranged at suitable intervals for the use of passengers partaking of a light meal. Each cafe car was to have been fitted with a complete soda fountain, cooler, ice cream containers, gas stove, hot closets, water boilers, cup, saucer, plate and glass racks. As in the dining car polished wooden panelling and overhead water tanks featured in the design.

None of the cars unfortunately were ever built and you can only be left wondering what effect these carriages would have had on other railway systems. Imagine a massive 500 class steam loco hauling a string of these cars to Bordertown or Terowie, what a lasting impression it would have made on the locals as well as any interstate or overseas visitors. Some modifications to the original design, suitably upgraded, were incorporated into the 500 and 600 class steel cars built by the SAR at its Islington Works in 1936-37. The South Australian Railways had to wait until after the three Pullman cars were imported, before building their first all steel carriage which became Bulk Mail Van '1D' built in 1932 at the Islington Workshops. Possibly the slowest of all Australian rail systems to introduce steel cars was the Commonwealth Railways who had very advanced ideas, but lacked the funding. They had tried since 1916 to get all steel passenger carriages, yet eventually got their first ones in 1950 when they purchased 'Hopkins' built in 1927 and one of Mr Webb's Pullman cars, 'Macedon' from the Victorian Railways who had now found them to be surplus to requirements. A fitting irony that these two cars which each had started a rail systems entry into the all steel era should jointly start yet another railway systems entry as two years later the Commonwealth Railways purchased the Corten Steel German built Wegmann cars.

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- CR 8941 Commonwealth Railways - Pullman cars - Trans Australian Railway

2.4 SAR passenger rollingstock used on the Trans and Ghan lines

In 1978, the Commonwealth, South Australian and Tasmanian Railways amalgamated to become what is now Australian National (AN). In the years since the amalgamation many items of the South Australian Railways (SAR) passenger rollingstock have been transferred to run on the former Commonwealth Railways (CR) lines. But this is not the first instance of SAR rollingstock finding their way onto CR tracks.

SAR No.	CR No.	Ent.Serv	Writ.Off
119	NAP 1	4.1890	23.10.1933
94	NABP 2	4.1888	23.04.1934
95	NBP 3	4.1888	1954
126	NBP 4	4.1890	1954
98	NHS 1	4.1888	
99	NHS 2	7.1888	

Table 2.1: SAR rollingstock transferred with the Palmerston line

This began initially as a result of the Northern Territory Acceptance Act of 1910, when the CR took over control of the Palmerston and Oodnadatta railways from the South Australian Government. With the take over of the Palmerston to Pine Creek line, the rollingstock then in use was sold to the Commonwealth. It was considered cheaper to do this than to return it to South Australia. The rollingstock included four narrow gauge lavatory cars which were recoded NAP1, NABP2, NBP3, NBP4 and two four wheel combination brake and luggage vans which became NHS class number 1 and 2. All six vehicles were condemned long ago, being either destroyed by fire or the ravages of time.

With the handover of the Oodnadatta Railway, in 1926, very little SAR rollingstock was made available for sale to the Commonwealth. Instead the SAR transferred most of



Former South Australian Railways car BF 343

the items to other regions of their narrow gauge system. The Commonwealth Railways constructed their own rollingstock and only purchased five 44ft. relay vans, (which became NHBR cars 18 to 23), one sleeping car (Wanilla) and the Steam Motor Coach known as the Coffee Pot. The sums requested of the Commonwealth by the SAR was as follows

Stockmans brakevans £7,500

Sleeping car (Wanilla) £1,500

Steam motor (coffee pot) £1,000

This was considered reasonable, being £3,433 less than the original cost of the vehicles and £7,911 less than the price SAR Commissioner W.A. Webb had asked for them in March 1922. All seven vehicles were handed over, in working order, on 1/1/1926 when the Commonwealth took possession of the Oodnadatta line.

Wanilla was a bogie sleeping car built by the Adelaide Locomotive workshops of the SAR and issued to service on the northern system in 1889 as car number 110. It was named Wanilla in 1917 and when sold to the Commonwealth Railways in 1926 was recoded NRP24. It was subsequently used in regular service as an Inspection and general passenger car on the Ghan and Chaser services of the Central Australia Railway (CAR), until written off in 1963.

SAR No.	CR No.	Ent.Serv	Writ.Off
1050	NHBR 19	6.1908	28.10.1963
1090	NHBR 20	6.1908	26.02.1964
1142	NHBR 21	6.1908	1969
5646	NHBR 22	6.1916	
5647	NHBR 23	6.1916	27.05.1969
110	NRP 24	12.1889	13.09.1963

Table 2.2: SAR rollingstock transferred with the Oodnadatta line.

Steam Motor Coach No.1 was officially recoded NJAB1 by the Commonwealth and used on services based out of Quorn. A complete history of the Coffee Pot can be found in the publications of the Pichi Richi Railway who have restored this unique vehicle to working order.

On 12 July 1950, Victorian and South Australian Railways (V&SA) Joint Stock Pullman sleeping car Macedon came under CR control and was coded ARC74. It was reissued in the CR maroon colour scheme with large Commonwealth Railways logo. It was originally purchased for £8,000 with the intent to use it as a spare Trans Australian sleeping car so as to allow other first class sleeping cars to be fitted with air-conditioning. It was intended that ARC74 have air conditioning installed, but because of the urgent need to get the car in service, these plans were abandoned. The only major alteration was to enclose one vestibule and fit it with a shower and toilet. When the standard gauge route to Marree opened in 1957, ARC74 was used on mixed trains as an unbooked sleeping car until being replaced by other surplus rollingstock.



South Australian Railways 750

The remaining V&SA Pullman sleeping car Mt Lofty appears to have been acquired from the SAR in the 1960's along with other rollingstock. It was never used, but instead was put into storage at the Port Augusta Workshops until 1977. In that year both cars were internally stripped for conversion to Marketing vans for Ausrail retailers for the Tea and Sugar. ARC74 (Macedon) was recoded VPB74 and Mt Lofty became VPB328. Later the coding was further changed to become OPB. The cars are still in service operating between Port Augusta and Kalgoorlie on the Tea and Sugar train.

Another major transfer occurred in 1963, when the CR purchased a number of suburban side loading passenger cars condemned by the SAR. They were converted to EC Employees Sleeping Vans for the Trans Australian Railway (classified NEC when on narrow gauge). Because of the varying lengths and styles of cars purchased, the EC lacked a consistent uniform appearance. All but one of these cars have been written off as a result of improvements in track gang accommodation and the use of ATCO style huts on flat cars.

Also in 1963, the CR obtained ex V&SA sitting car 8AE which was converted to the Mobile Theatre Car. This conversion involved the removal of all compartments to provide a large open space for seating and projection

SAR No.	ANR No.	Ent.serv	To CR	Writ. off
288	EC 138	12/1910	7/10/63	5/08/77
270	EC 139	12/1909	7/10/63	8/09/84
283	EC 140	1910	7/10/63	8/09/84
285	EC 141	8/1910	7/10/63	8/09/84
289	EC 142	12/1910	7/10/63	8/09/84
291	EC 143	12/1910	7/10/63	5/08/77
8 AE	W 144	1907	25/09/63	16/10/87
286	EC 145	8/1910	18/05/64	5/08/77
274	EC 146	2/1909	18/05/64	6/12/73
287	EC 152	8/1910	6/08/64	8/09/84
295	EC 153	12/1910	26/06/64	8/09/84
292	EC 154	12/1910	22/07/64	8/09/84
400	EC 155	10/1914	18/05/64	27/05/78
477(909)	EC 164	4/1922	3/06/65	
300(918)	EC 165	9/1911	10/12/65	5/08/77
397(920)	EC 166	10/1914	25/06/65	5/08/77
490	EC 167		30/11/65	5/08/77

Table 2.3: Details of SAR rollingstock converted for employees use.

SAR No.	ANR No	Ent.serv	To ANR	Writ. off
750	BE 346	27/05/42	10/11/77	-
751	BE 358	29/06/42	12/06/80	-
752	BE 351	30/07/42	15/12/79	-
753	BE 352	25/08/42	10/10/80	13/08/83
780	BF 343	23/12/41	26/08/77	-
781	BF 344	23/12/41	2/12/77	11/10/83
782	BF 345	19/03/42	5/08/77	-

Table 2.4: SAR 750 and 780 class mainline country passenger cars.



Mount Lofty car after conversion to Tea and Sugar work as OPB 328

Transfers occurring after the amalgamation included, not only the 750 and 780 class steel cars, but also the SAR AD and BD air-conditioned cars and a number of CD brakevans. Constructed at Islington in 1964-65 for the Port Pirie passenger and East-West Express, the fleet originally consisted of two AD first class, three ABD composite class and four BD second class cars. The ABD cars were later changed to all first class cars and became AD cars. When the Port Pirie line was converted to standard gauge in 1982, the four BD cars became surplus to broad gauge requirements and were transferred. The AD cars eventually followed, the last car, AD2, being converted to standard gauge in May 1987.



Mount Lofty car after conversion to Tea and Sugar OPB 328

screen. Several of the lift up windows at one end were replaced with louvres, as found in iron garages. The other end was covered with galvanised iron sheeting. The car OWA144 was recently sold to the Ghan Preservation Society. Overland car 7AE was also purchased in 1963 but never used, instead being stored in the open at Port Augusta until eventually written off in the late 1970's.

Between 1977 and 1980 four 750 class and three 780 class steel cars were transferred to standard gauge. The 750 class were originally composite first and second class saloon country cars built in 1942. AN have reclassified the cars as BE class non-air conditioned economy class sitting cars. The 780 class were first class saloon country cars, built in 1942, and were reclassified BF (economy sitter) by AN. These cars now travel between Port Augusta and Kalgoorlie on freight trains as well as the Tea and Sugar, moving staff and other locals along the Trans Australian Railway. Two cars were destroyed by fire in 1983, whilst the remaining five are still in service.

SAR No.	ANR No.	Ent.serv	To S.G
AD 1	AG 376	11/1964	11/85
AD 2	AG 375	11/1964	5/87
AD 3	AG 374	4/1965	30/11/84
AD 4	AG 373	4/1965	21/03/84
AD 5	AG 372	4/1965	7/02/84
BD 1	BG 370	11/1964	27/07/82
BD 2	BG 368	11/1964	11/06/82
BD 3	BG 369	12/1964	30/06/82
BD 4	BG 371	1/1965	19/08/82

Table 2.5: D type passenger sitting cars converted to standard gauge

The eleven CD brakevans were issued in 1965 and were followed by three more in 1970 which were built specifically for the standard gauge and classified SCD. The CD/SCD brakevans have now been coded AVCY by AN with three CD and two SCD vans on standard gauge. SCD2 is presently on broad gauge and is reserved for The

Overland.

SAR No.	ANR No.	Ent.serv	To S.G
CD 4	AVCY 389	7/1965	2/10/82
CD 9	AVCY 390	9/1965	On B.G
CD 10	AVCY 391	9/1965	17/06/86
CD 11	AVCY 392	10/1965	2/10/82
SCD 1	AVCY 378	1/1970	
SCD 3	AVCY 379	1/1970	
SCD 2	AVCY 388	1/1970	On B.G

Table 2.6: CD class brakevans converted to standard gauge. Note: SCD2 and CD 9 have had standard gauge numbers reserved for them, but are currently still on broad gauge with their old SAR numbers.

The SAR's 8300 class brakevans (of which a number had been originally built for standard gauge) are now classified AVAY. With the abolition of guard's from most freight services, several of these vans have been converted for Less than Container Load traffic and coded ABLP, with others being in use on breakdown trains coded AZXP.

SAR No.	ANR No.	Ent.serv	Recorded
8349	AVAY 397	02/63	AZXP
8364	AVAY 380	11/64	AZXP
8365	AVAY 381	01/64	ABLP
8367	AVAY 382	09/68	
8369	AVAY 383	11/68	AZXP
8370	AVAY 384	11/68	AZXP
8372	AVAY 385	09/68	AZXP
8373	AVAY 386	11/68	ABLP
8385	AVAY 398	10/71	
8389	AVAY 401	11/71	ABLP
8390	AVAY 402	10/71	
8391	AVAY 403	09/71	
8392	AVAY 404	12/71	
8393	AVAY 387	12/71	
8394	AVAY 396	12/71	

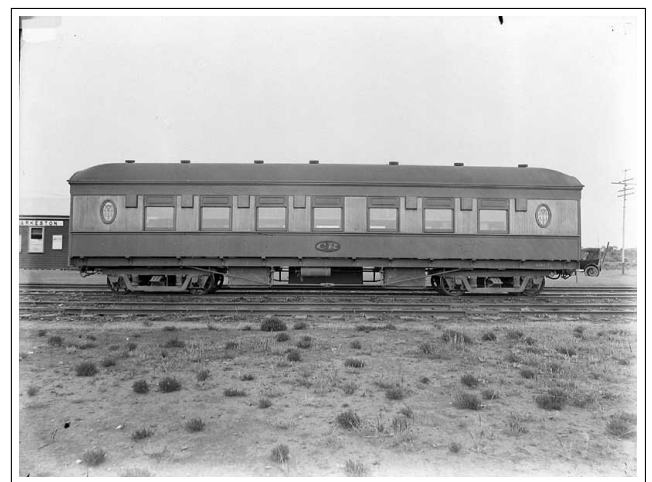
Table 2.7: 8300 class brakevans used on standard gauge

References

1. Commonwealth Railways and Australian National rollingstock record cards, diagrams and plans.
2. Commonwealth Railways general correspondence files.
3. Commonwealth Parliamentary Papers, Commonwealth Railways annual reports to parliament with appendices, 1916-1940.
4. J.Y.Harvey, The Never-never line, Hyland House, Melbourne, 1987.

2.5 Wooden lounge cars on the Trans-Australian Railway

The Commonwealth Railways commenced construction of the Port Augusta to Kalgoorlie Railway in 1912. It was proposed from onset to make this a world class railway. Initially seven wooden sitting cars were purchased from Clyde Engineering Company of New South Wales. The Commissioner proposed that these cars only be used on construction trains as all steel passenger rollingstock was to be obtained for the through express. Plans were drawn up in 1915, but unfortunately due to political pressures and a world steel shortage caused by the war in Europe, construction was postponed. Alternate plans were formulated for Australian built wooden cars, with each train accommodating sleeping, dining and parlor-buffet cars.



AF 49 photographed at Parkeston, Western Australia in the late 1920s

The parlor-buffet cars as proposed consisted of two compartments with loose lounge chairs and a buffet from which light refreshments could be purchased. It was initially intended that these cars should be built from the body shells of two surplus Clyde built sitting up cars, but was abandoned when it was determined that four (4) lounge cars were to be constructed in place of the proposed parlor-buffet cars.

Lounge accommodation was now provided by the building, at Port Augusta Workshops, of four (4) clerestory roofed wooden bodies which were placed on surplus flat car underframes formerly used on construction trains. Each car was 51 feet 2 inches (15.56 metres) in length and 10 feet (3.05 metres) wide with no end platforms as had been found on all earlier purchased rollingstock. A novel feature of these cars was the lack of any side doors. Passengers could only leave the train by passing through the connecting doors into another carriage.

The cars were coded 'AF' and given road numbers 24 through 27. Prior to the completion of 'AF 27', the



Interior view of AF class lounge car taken in 1917



Interior view of AF class lounge car circa 1920 (*Chris Drymalik Collection*)

Commissioner decided the Governor General would need a special car for use during the inaugural train run on 20.10.1917, this resulted in 'AF 27' temporarily being fitted out with compartments, dining room, toilets and support staff accommodation. Each lounge car cost £3530/9/5 (\$7060) and was fitted with plush lounge chairs, writing desk, mirrored panels and hand coloured scenic photographs. Two compartments were provided in each car, one for women, the other for men, being divided by a wooden central partition. Shortly after entering service, these compartments were reclassified as smoking and non-smoking, rather than along traditional sexist lines.

During July 1917, another attempt was made to convince the Commissioner to purchase an all steel parlor-buffet and also a dining car from the Pullman Company of U.S.A. The Chief Mechanical Engineer intended to use these cars as prototypes for additional vehicles that would be constructed in Australia, thus overcoming the political view that it was unpatriotic to purchase all the required vehicles from overseas. The additional vehicles proposed would replace the light wooden vehicles constructed earlier as a temporary expedient when it had become obvious that steel rollingstock could not have been obtained without delaying the opening of the railway. Some of the arguments he used against the existing rollingstock included

'The type of construction, that is, steel underframes and wooden bodies has been discarded in the United States of America and Canada for a number of years and is not considered suitable for high speed service. Should an accident occur such cars are more liable to collapse than the steel bodies now used on the best trains.

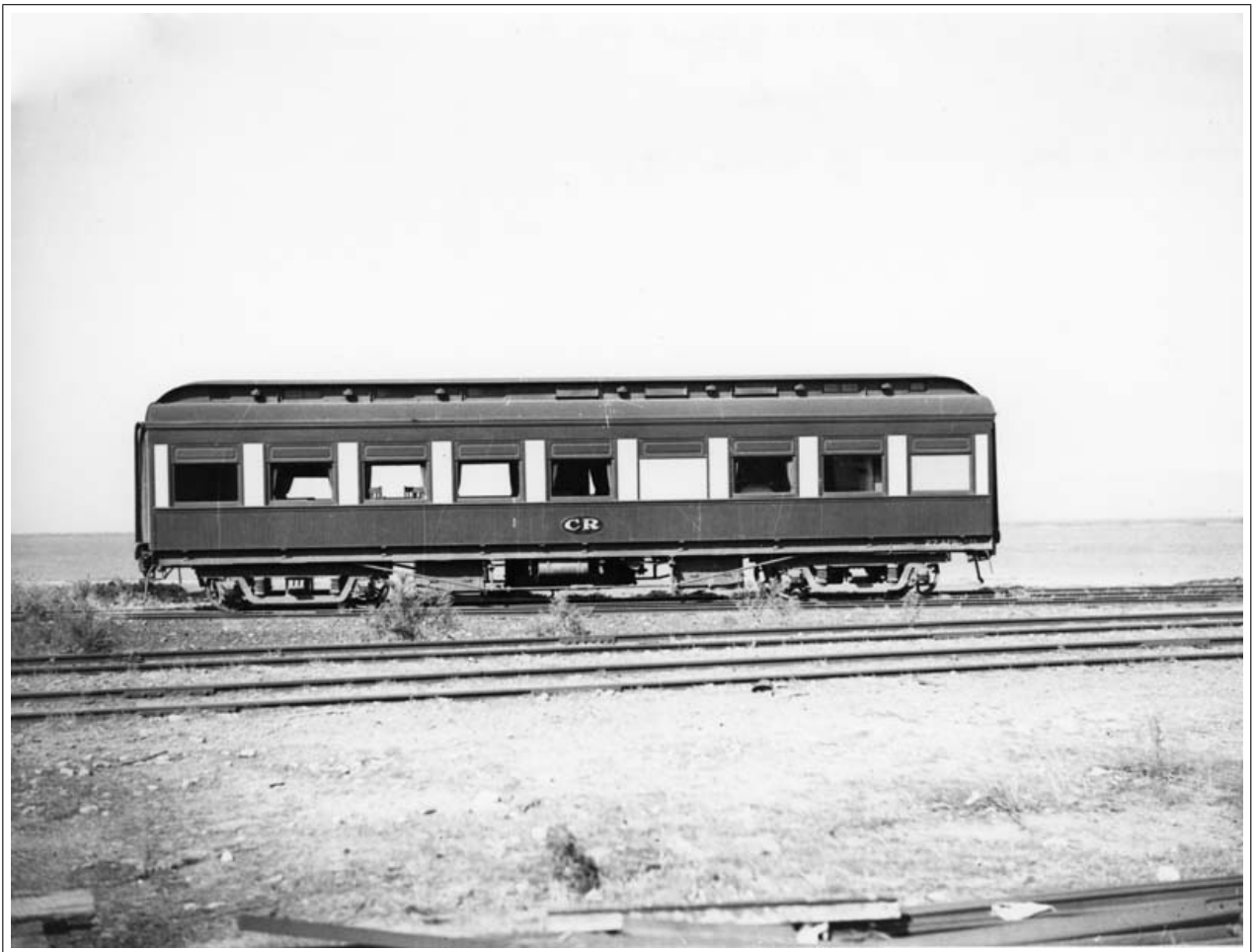
The construction of the body is of such a character that they will be comparatively noisy, are partly insulated, poorly ventilated, and probably will be very dusty and drafty.

Owing to the extemporised type of car now being obtained, satisfactory vestibule connections cannot be adopted, and this factor, with special attention to dust proofing, is an essential in up to date cars.'

A consequence of this report was improved wooden passenger car designs incorporating longer car bodies, roomier compartments, showers, vestibules with concertinas and turtle back (elliptical) roofs.

Complaints from passengers about ventilation and heat problems, resulted in all opening windows of lounge cars being fitted with outside louvres in 1919. Instructions issued to porters advised them that the louvres should only be lowered on the sun side of the carriage, so as to not obscure the scenic views.

After a visit by the Commissioner in 1920, two (2) pianos



Special car AFR 27 photographed at Port Augusta, circa 1930 (*Chris Drymalik Collection*)

were hired for use in lounge cars. The first was installed on 7.4.1920. The few passengers who were upset by this innovation wrote letters to national newspapers. The *Argus* of 5th May 1920 had the following to say

‘The Commonwealth Railway Department has added a new terror to the trials of modern travel by installing pianos in the lounge cars of the Great Western Railway. In a hotel one can escape; on a steamer there is always refuge; but for the victim of the musical enthusiast in a railway train there can be no hope. The pianos are being installed for three months just to ascertain how they stand it, but there is not a word of trying to find out how the passengers will stand it. It is just the thin end of the trombone, and is the forerunner of the jazz band with a lady conductor, who will doubtless be annoyed is she is address as the misconductor, and don’t blame her either.’

But, by far the bulk of passengers were only too happy to praise the piano and condemn other railways for not providing similar diversions. The two pianos were purchased three months later.

By this time three carriage consists were in use on through express trains, preventing the removal of a lounge car for routine maintenance. Approval was granted on 15/1/1923 for construction of a new lounge

car using the improved carriage styling that had previously been trialed on new sleeping cars and the special service car ‘SS 44’. Entering service on 14.12.1923 at a cost of £5056/16/3 (\$10112), the car was of a similar basic design to earlier cars but paraded more luxurious fittings. ‘AF 49’ as the car was designated was fitted with two compartments divided by a wooden partition. Enhancements included an ornate bevelled glass door, matching light fittings, oval cathedral glass windows at either end, turtle back roof, exterior louvres, polished wooden interior and a pressed metal ceiling by Wunderlich. The leather lounge chairs were considered so comfortable that in 1925 the Victorian Railways (VR) borrowed two using them as prototypes for new chairs to be included in a refurbishment of VR parlor cars.

Stones air-conditioning was installed in ‘AF 49’ in February 1936, making it the first car on the Commonwealth Railways to be so fitted. It provided to be so popular that all other lounge and dining cars were fitted between 1937 and 1939 as funds could be made available. It had cost £2895 to air-condition ‘AF 49’.

Governor General’s car ‘AF 27’ was temporarily returned to a lounge car in 1941, becoming permanent in 1946. It lacked air-conditioning, being only used as a replacement car when other lounge cars were being



Interior of non-smoking compartment of AF 49 taken in February 1936 following air conditioning



Interior of smoking compartment of AF 49 taken in February 1936 following air conditioning

serviced or repaired. Ultimately placed in storage in the car barn in the early 1960's, it eventually became an office used by the carriage cleaners until being transferred to Peterborough Workshops in August 1988 for refurbishing.

So far all the lounge cars discussed have been for the use of first class passengers, second class passengers were provided for by the conversion of four (4) of the original sitting up cars purchased from Clyde in 1915. The conversion to 'BRPF' in 1917 involved fitting four (4) person sleeping compartments at one end and open plan fixed position seating at the other to form a smoking saloon. Cars converted became 'BRPF' numbers 1, 2, 4 and 5. The lounge compartments of these cars were never very popular and were all gradually replaced when the German Wegmann cars arrived in 1953, ultimately ending up as various types of service vehicles including a breakdown train sleeper and the Tea and Sugar's

community service car.

As part of the post war reconstruction the Commonwealth Railways purchased two modern air-conditioned trains from the Wegmann Company of Germany. Included in each consist was a first class lounge car, a combination second class sleeper-lounge car and a combination first class sleeper-observation lounge car. The new cars were considered world class, using only the finest materials. The body of each car was of steel with wooden interiors featuring extensive marquetry and fittings of brass.

Purchasing a modern all steel train forced the Commonwealth Railways to upgrade most of its wooden rollingstock. In 1954 a single second class sleeping car had one end converted to an air-conditioned second class lounge modelled on the new Wegmann rollingstock. Fixed seating was placed either side of a

centre walkway. The car, originally coded 'BR 54' was recoded 'BRFA 54', becoming 'NBRF 54' when converted to narrow gauge Ghan service in 1961. This vehicle was converted to the Mobile Education car in 1982 and is coded 'EH 54'. The sleeping and lounge compartments were replaced by teaching and storage facilities.

Tourist trains were introduced on the TAR in 1960 and as a result, 'AF 24' was fitted with a cocktail bar, refrigerator and wireless until withdrawn in 1968 and placed in storage. 'AF 25' and 'AF 26' were refurbished in 1961 and when, later the same year, improved services were provided on the Ghan, 'AF 25' was outshopped on narrow gauge bogies for service on the Central Australia Railway. It was a regular sight on the Ghan until returned to Standard Gauge in 1974 when fitted out with shelving for use as a mobile showroom on the 'Tea and Sugar'.

The Railway Institute Model Railway Club obtained use of 'AF 26' in 1970, having it placed behind the Institute building in the Port Augusta Yard. 'AF 24', 'AF 25' and 'AF 49' were sold to Steamtown Peterborough in 1979, when they were all stored in the Port Augusta car barn, along with 'AF 27'. 'AF 49' is now in Steamtown service on narrow gauge and the other two await restoration.

Number	Entered service Write off	Notes
AF 24	20.10.1917 3.03.1979	To Steamtown
AF 25	24.11.1917 3.03.1979	To Steamtown
AF 26	31.10.1917	To Railway Institute
AF 27	20.10.1917	Governor General's car
AF 49	14.12.1923 26.05.1979	To Steamtown
BRPF 1	18.08.1915	To Camp Sleeper (XE)
BRPF 2	18.08.1915 15.11.1986	To Camp Sleeper (EE)
BRPF 4	2.10.1915 20.10.1969	
BRPF 5	2.10.1915 3.1988	To Welfare car (OW)
BRFA 54	20.12.1930	To Education car (EH)

Table 2.8: Commonwealth Railways Lounge Cars.

References

1. Commonwealth Railways and Australian National rollingstock record cards, diagrams and plans.
2. Commonwealth Railways general correspondence files.
3. Commonwealth Railways general appendix, 1st May 1924, 1st August 1932, 1st March 1950.
4. Steamtown Peterborough Railways Preservation Society, Steve McNicol, 1980.

5. Commonwealth Parliamentary Papers, Commonwealth Railways annual reports to parliament with appendices, 1916-1940.

6. Commonwealth Railways Trans-Australian Railway Time Table, Description of route and general information, 15th April 1919.

2.6 Commonwealth Railways Special Car No.1

In 1988 Australia celebrated its bicentenary, and as part of the celebrations the Australian Government requested all Government Departments and Authorities to assist with events. In South Australia the Electricity Trust (ETSA) and Australian National (AN) joined forces to assist with the sponsoring of what was to become the 'Opera in the Outback'. Situated at picturesque Beltana, a former narrow gauge station on the old Alice Springs line and now part of the standard gauge Leigh Creek Coal fields railway, the 'Opera in the Outback' became one of the most successful events held during the bicentennial year.

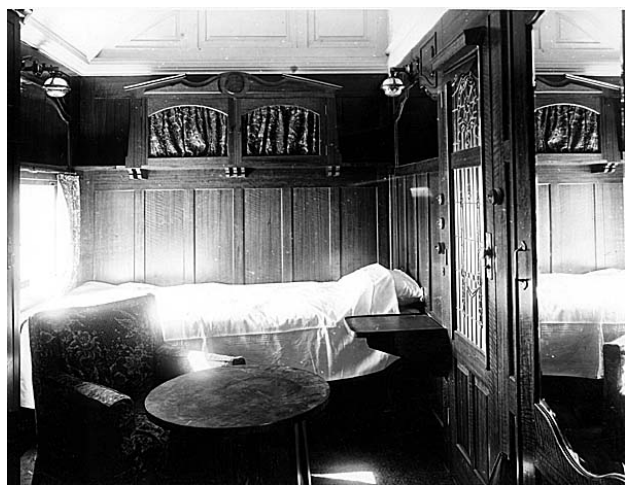
One of the major roles taken by Australian National was to get many of the spectators and performers to the Opera site. Beltana is very isolated being serviced by only a single surface road and the rail line. Australian National cancelled all interstate standard gauge trains and made up 5 special long trains to carry passengers to Beltana for the weekend.

When Australian National marshalled all these trains in the Keswick yard, in preparation for the Opera departure, many people were surprised to see Rollingstock that appeared to be 'new', due to it not normally being seen in Adelaide. One item of rollingstock that stood out amongst the others, mainly due to its enormous size and unusual livery, cream and brown with a mustard yellow roof amongst all the silver of the stainless steel, was former Commonwealth Railways Special Service Car Number 1, road number 'SS44'. This finely crafted vehicle was built in 1920 at the Commonwealth Railways Port Augusta Workshops.

The Commonwealth Railways line between Port Augusta and Kalgoorlie had opened in 1917 and as the opening day approached it became evident to authorities that they were lacking in a vehicle that could be used by such eminent personages as the Governor General or visiting Royalty. Early in 1917 car 'AF27', which had been designed as a lounge car, was prior to completion converted to a special service car for use on opening day. The workshops worked frantically to get car finished in time, fitting it with two bedrooms, dining room and staff quarters which whilst elaborate never really adequately meet the railways requirements. The car was too short, being only 50 foot, was cramped and lacked kitchen facilities comparing unfavourably with similar vehicles in use on the state railways.



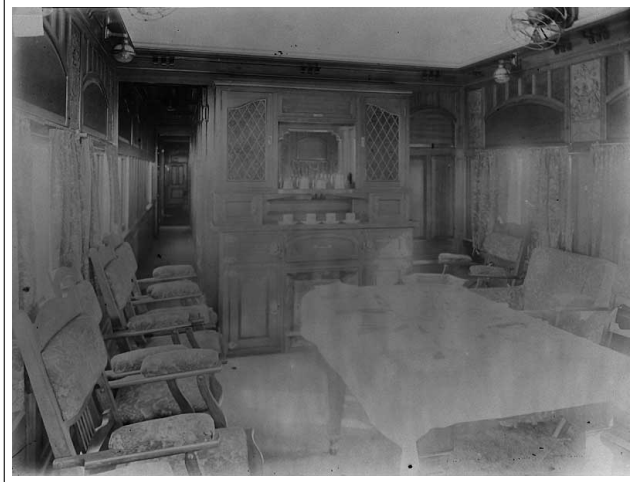
SS 44 at Port Augusta - May 1925 (*Chris Drymalik Collection*)



SS 44 bedroom, circa 1920

At the time of the conversion the Commissioners office in Melbourne had plans drawn up for the construction of a new purpose built vehicle to replace the temporary one. The Port Augusta drawing office produced plans for an additional special service car which was too meet with approval and construction commenced in 1918, but was prolonged due to lack of funds.

All materials including timber, furnishings and glass were purchased by the Melbourne office and forwarded to Port Augusta, generally by boat. Only the best quality



SS 44 dining saloon, circa 1920

materials were used including steel ceilings by Wunderlich, ornate light fittings and Cathedral glass panels in each of the doors as well as a large quantity of seasoned timber.

The Commissioner proudly gave the following glowing description of the new carriage in his 1920 report follows

The car is 76ft. 7in. in length, with a width over all of 10ft. 6in., and is arranged so as to accommodate ten persons. There are four two-berth compartments similar in all respects

to the compartments in the standard first class sleeping car. There are also two single berth compartments separated by a folding partition, which, when folded, converts the two compartments to one large room and can be used as a private sitting room or bed room as may be necessary. The beds are of folding type, and when not in use they are folded against the compartment partitions. The rest of the car forms a saloon fitted for a lounge or dining room; from the saloon there is an entrance to an observation platform. Hot and cold water service is provided in each compartment. In addition there is a bathroom with hot and cold plunge and shower baths.

A kitchen is also provided, making the car self contained, and avoiding the necessity of providing a dining car when not attached to the ordinary passenger trains.

The special service car is built of Australian timbers throughout, lighted by electricity, and is provided with 'electric radiators and fans'.

Nothing was spared for this vehicle as shortly before construction was complete it was realised that the visit of the 'Prince of Wales' would see the cars first official use. This allowed additional funds to be found allowing more elaborate internal fittings and furnishing to be used. Well known wood carver Robert Prenzel was commissioned to adorn the walls of the dining saloon with elaborate wood carvings featuring the Australian, British and State coats of arms.

The travelling public was to highly praise the vehicle which featured large sleeping berths separated by a folding screen that could be used to make one double compartment, full length cathedral glass in the doors, enormous windows by Australian standards and very high roofs that give a spacious feel to the car. The bathroom featured a real bath not just the shower alcove used in other Commonwealth Railways carriages. The very large loading gauge of the Commonwealth Railways when compared to the other Australian rail systems, allowed them to build rollingstock that was very spacious. The Special Service car is 14ft. 2in. (4.318m) high and 10ft.6in. (3.2m) wide, and when you see this carriage coupled with one of the more modern, yet smaller and longer, stainless steel COMENG built cars, you can clearly see the effect of the additional width and height.

Car 'SS44', as it is officially known, had a chequered history. It entered service on 23.4.1920 when the Commissioner took it for a shakedown trip. The Commissioner in his report praised the tradesmen for the excellent job they did on the car, something not normally done as the Commissioners visits usually found fault in everything not praise for how well things had been done. It first official in service trip was on 3.7.1920 when HRH the Prince of Wales travelled from Kalgoorlie

to Port Augusta. During the trip the open observation deck was to prove valuable as it allowed the Price to be seen by the large crowds that turned out. Despite the official name of the carriage being 'SS44' and later 'Special Service Car No.1', the new car became known as 'The Prince of Wales car' and with the extra fittings required for the Royal visit, had cost a total of £10,154 (\$20,308), at a time when the average yearly wage paid to employees was about £250.

Over the next few years Commissioner Norris Bell arranged to purchase additional furniture and made some minor modifications which were to be later described as follows by the South Australian Railways Head car draughtsman F.James, in a special report written in 1934 at the request of the new Commissioner G.A.Gahan.

My first impression apart from the colour scheme which is obviously wrong, was the drab and uninviting appearance of the bedrooms. The furnishings seem to crowd one, the wardrobe capacity being sufficient to hang at least fifteen suites it is entirely out of proportion and dominates the compartment. It would not have been so hopeless if an attempt had been made to build the furniture to match the design of the compartment. In fact all I can say about the furniture is that it jars on one's sense of good taste. There is no attempt to tone in with the surroundings, it entirely out of proportion, and has not added any additional comfort to the car.....

It is hard to know what to do with the bedrooms to make them attractive and restful.

Commissioner Gahan sent the wrote the following in reply

'I thought you would be rather shocked on seeing the alterations. It certainly was not me; it was done during my absence abroad, and nobody can understand Mr. Bell's attitude - particularly as we know him as a man of good taste.'

As a direct result, the car was again refurbished in preparation for a Royal. The car was returned to its original layout and style, all the rosewood furniture was sold and the soft furnishings changed to shades of green and rose as was originally intended.

Prince Henry departed Kalgoorlie on 9.10.1934 at 1:45pm and arrived Port Augusta on 11.10.1934 at 9:00am with the Royal train consisting of the following vehicles, Engine, water gin, brakevan HR28, AR sleeper, Dining car, Lounge AF25, 3xAR sleepers, Special Car No.2 (AF27), Lounge AF49, Special Car No.1 Trailing.

As World War Two approached funds which had always been scarce became almost impossible to obtain and the

car remained substantially unaltered. After the close of the war it became evident that the Commonwealth Railways were not in very good shape and an extensive upgrading program, which included rollingstock purchases, was implemented. The purchase of the luxury all-steel German Wegmann stock, Budd railcars and a program of refurbishing and air-conditioning of existing wooden carriages ensued. Part of this post war reconstruction involved the Commissioner making the following recommendations for alterations to SS44 following his Christmas inspection of 1953.

1. Air-conditioning unit to be provided as opportunity offers.
2. Lighting to be improved and ceiling modernised.
3. Observation end to be enclosed (torpedo end) with provision for rear door.

It doesn't take much imagination to identify where the ideas for improvement came from, only the year before the new Wegmann 'Lounge' cars had arrived featuring, air-conditioning, modern lighting and styling and a torpedo observation end. Luckily due to a lack of funds, the work was delayed and then cancelled in 1956, leaving the car unaltered, but again resurfaced in 1960 when the observation end was closed in and the car repainted red and silver. At this time, the truss rods were removed and replaced with welded angle truss rods permanently fixed in place.



SS 44 at Keswick on 25.9.1988 (*Chris Drymalik*)

Whilst on loan to the South Australian Railways, for an inspection of the new Standard Gauge line from Broken Hill to Pirie, the car's air brakes failed at Broken Hill and it rolled out of the station, down a steep incline, onto the siding of the North Broken Hill mine eventually coming to a halt after smashing into a loaded ore wagon causing serious injury to two occupants of the car and extensive damage to the saloon end. The saloon end was subsequently rebuilt, chairs replaced, soft furnishings renewed and the car modified to make it 'bogie exchangeable'.

When the carriage was taken over by Australian National the future of all wooden vehicles were in doubt. Australian National had no need for this type of vehicle as they were considered a maintenance problem and rationalization of passenger services had provided a surplus of rollingstock. In the late 1970's, early 1980's, Australian National disposed of most remaining wooden vehicles retaining only a few specialised wooden carriages.

Sadly, over time 'SS44' was vandalised and neglected until ultimately a decision as to its future need to be made. Many people, including workshop staff, expected the car to be written off and if lucky be purchased by a museum, instead funds were made available to refurbish it for use on the upcoming 'Opera in the Outback'. This work, which took place early in 1988, has returned the car to its former glory. Bringing back the days when the Commonwealth Railways 'Trans-Australian' was on the of the great luxury rail journeys of the world.



SS 44 dining saloon carved panels (*Chris Drymalik*)

All work on the car was performed at Australian Nationals Port Augusta workshops. During the refurbishment the car was returned to its original interior styling except for some minor alterations made so that air-conditioning could be provided. Exterior livery became the 1930's Commonwealth Railways chocolate and cream with mustard yellow roof and CR centre panel logo.

Subsequent to the refurbishment, 'SS44' first run was on the 'Opera in the Outback' as part of the VIP train. Since then it has been returned to Port Augusta for some minor repairs and to protect it from the weather and possible vandalism being available for special charter on Australian National's standard gauge services.

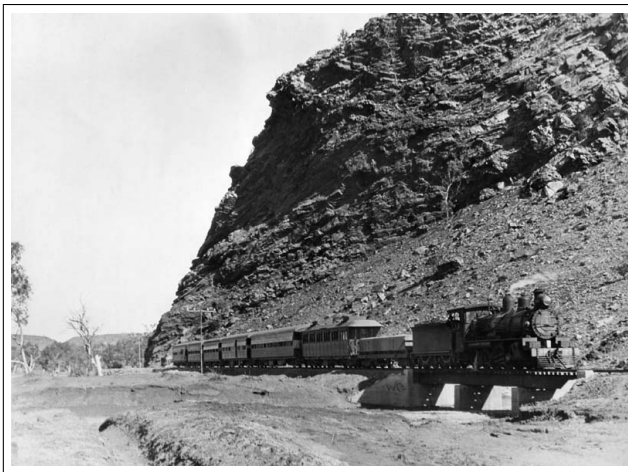
2.7 The Great Ghan Gold Robbery of 1935

Many stories about railways have featured robbery and theft. Western movies regularly had trains robbed and Britain had its great train robbery, yet here in Australia rarely is the topic ever mentioned. Could it be that we

haven't had train robberies, or is it that they were not the stuff of great novels or film scripts and so just got forgotten? Research has led me to the story that follows and suggests that in fact many such robberies have occurred, some of which could be, from the thief's point of view, be considered very successful.

The Great Northern line of the Commonwealth Railways (CR) or Central Australia Railway (CAR) had several thefts over the years. In July 1928, before the Oodnadatta to Alice Springs line had been completed, a large sum, totalling £3,100 (\$6,200) in money and bank notes, was stolen from the brakevan of a train at 61-mile camp north of Oodnadatta. Six hundred men were at that time employed on the construction project and by using an Aboriginal tracker the authorities were able to arrest and convict two men. All the money was recovered, some of which had been buried in a rabbit burrow, the rest being hung in oatmeal bags from trees.

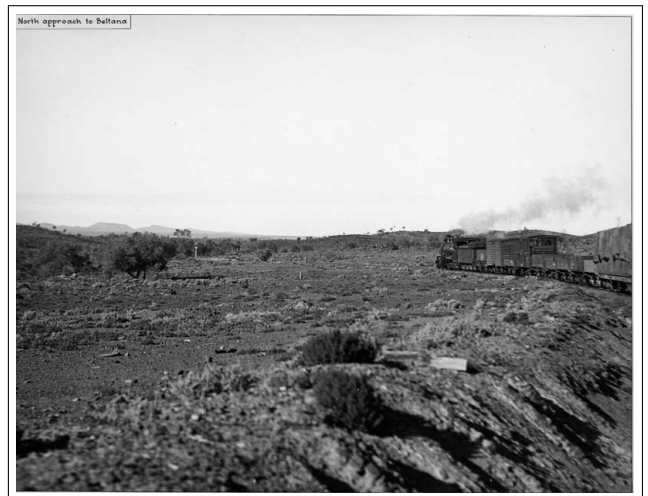
Another incident involved interference with the mail on a train at Hammond (Peterborough to Quorn section) in 1934. The stolen goods were subsequently found buried in three different places along the track. But the main story I wish to tell here occurred the following year when the recovery of money and conviction of felons was not so successful.



Ghan in Heavitree Gap Alice Springs (*Chris Drymalik Collection*)

The narrow gauge Ghan was one of those legendary trains that seems to be mentioned anytime a conversation turns to 'Australian Rail Adventures'. A lot of history, legend, tall stories and facts of dubious origin abound. Some stories even wander from one location to another, reappearing in various forms at various times, with a wide variety of characters interacting in unusual circumstances to generally produce a comical result. Tales of washaways, delays, wrecked bridges, slow trains and the ups and downs of the Pedirka sandhills abound, yet strangely enough the loss of 34lb of gold in 1935 seems to have been forgotten rather than immortalised in contemporary folklaw. Perhaps no one liked to talk

about it because of the embarrassment, or it may have just not have seemed worth remembering at the time. The Great Ghan Gold Robbery occurred sometime between 8am on Tuesday 28 May and Thursday 30th May 1935 on the lonely stretch of railway linking Alice Springs with Quorn. A registered mail bag containing a parcel of gold ingots, weighting 34lb (15.4Kg) and valued at £4,000, disappeared from a safe in the brakevan of the 'Express'. The 'Express' was short for 'Northern Express' which was the official name used for the Limited Mixed service that was locally known as 'The Ghan'. At the time of the robbery the train was returning to Port Augusta from Alice Springs with the gold locked in the train safe, in the brakevan (Commonwealth Railway brakevans were never referred to as 'guard vans'). On arrival at Quorn the gold was found to be missing.



North approach to beltana (*Chris Drymalik Collection*)

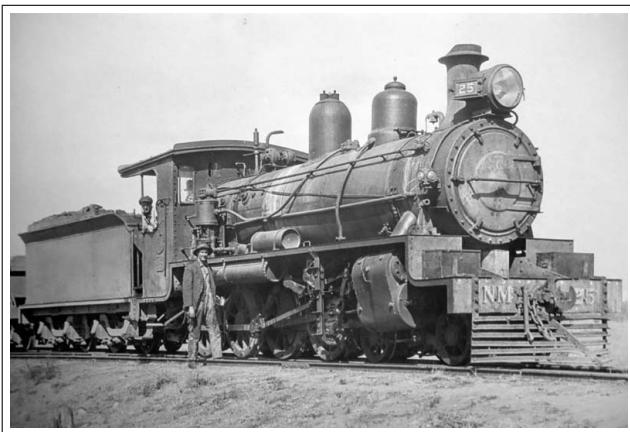
Immediately the newspapers started speculating. Who could have done it? How was it done? Where? When? How did the thieves get away unnoticed? Showing their usual flair for making up a good story, the papers reported the incident extensively. Sensationalism and instant experts on any subject were the order of the day. Some reporters even managed to locate a photograph of Marree station to dazzle their reader about this mysterious remote location.

The major portion of the gold consignment was from the Tennant Creek Granites, Tanami and Winneke mines and had been delivered to Alice Springs by Motor Car the previous Sunday. An escort of two armed miners had accompanied it. The gold, in a consignment of unmarked registered mail, had been handed to the guard by the Alice Springs Stationmaster 10 minutes before the 'Express' departed. Despite a consignment note that said nothing other than general registered mail, the guard guessed that the package may have been important, due to its weight, and so carefully placed the package in the safe along with the rest of the registered mail. Upon locking the safe, in the presence of the Stationmaster, he place the key in the pocket of his tunic, were it was

alleged to have stayed until the train reached Quorn. Sending gold by unmarked registered mail had up until this time been standard practice despite the railway Commissioner expressing some concern to the Post Master General's Office about the prospect of theft. The Post Office was not greatly concerned, replying that as their liability was limited £50 (\$100) in the event of any register parcel going missing, it was the consigners concern. Naturally nothing was done to improve the situation.

Most train services between Alice Springs and Quorn were operated by two crews, who worked in relay fashion, with guards swapping shift at Rumbalara, Pedirka, Warrina, Beresford, Marree and Parachilna. When not on duty each member of crew would retire to his sleeping quarters located in a composite relay brakevan. A feature of the working of this particular train was that at no stage was the key passed between guards, it stayed in one guards possession, even when off duty, until being passed to the Stationmaster at Quorn. This unofficial practice seems to have been adopted to save time on paper work as the safe would not normally need to be opened whilst in transit. During the journey nothing unusual happened, everything seemed to have gone normally until arrival at Quorn. For a service that was notorious for its washaways, derailments and work practices, it is hard to imagine what might have been considered unusual. Sometimes, unjustly, the Commonwealth Railways earned the public's scorn and were cruelly referred to as the 'Comical Railways'.

The safe was open in the presence of the Guard by the Booking Clerk Quorn, who found the door a little stiff and the gold missing. It's not hard to imagine the reaction when the Stationmaster dispatched the following message, by telegram, to CR Commissioner Mr. Gahan in the Melbourne Head Office.



NM 25 at Ewaninga (*Chris Drymalik Collection*)

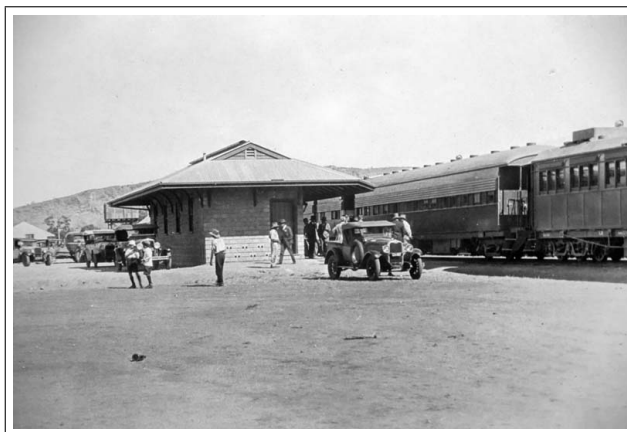
'Mailbag containing bullion reported to be considerable value stated placed in Brakevan Alice Springs No.4 Tuesday, not in safe when

opened by booking clerk in presence of Guard immediately on arrival at Quorn this morning.'

Two detectives were dispatched by motor car from Adelaide that day. On arrival at Quorn they would fingerprint the safe, interview witnesses and travel along the line by section car looking for any sign of the missing consignment. Assistance was provided by the railways wherever possible. Staff and section cars were made available.

The papers loved the episode and highlighted it with headlines like 'Gold Stolen - Safe in train Rifled', 'Mail Train Mystery - Parcel taken from Safe', '£4,000 Gold Robbery from Train - Missing between Alice Springs and Quorn - Baffling Case'. Stories abounded, as speculation ran rife. The 'Adelaide Advertiser' had the following to say on 31.5.1935.

'The type of safe used on the train is very old. It is not large, and has an ordinary old style lock. There is no combination, and it is thought it would be an easy matter for anyone of make a duplicate key. It was stated tonight that in competent hands the safe could easily be opened with a piece of wire. Articles of considerable value are carried on the train both ways.'



Ghan at Alice Springs (*Chris Drymalik Collection*)

The view is held here that the work is that of someone with an inside knowledge of the railways. The safe was in perfect order when the train reached Quorn except that the door was a little stiff.

The safe is thought to have been robbed while the train was at a siding and when the guard was assisting in shunting. The other guard would then be off duty resting.

The theory was advanced tonight that a thief might even have taken the key (a bulky one with a brass tag) from the tunic of the guard on duty, as often before shunting, the guard removes his tunic and hangs it in the van.'

The Police Investigation had only just begun, yet the Advertiser had most of the basic facts of the case worked out, and the crime almost solved, except for the minor detail of who actually did it. Subsequent official reports suggest that the safe could not have been picked, and that a duplicate, not the guards key was used. A follow up story even mentioned a mysterious man who was being hunted by police, despite the lack of official reports ever having mentioned him.

'Port Augusta May 31, Police investigating the £4,000 gold robbery from the Alice Springs-Quorn passenger train were not able to advance much further in their investigations today. However, it was reported tonight that they were searching for a man who came here by train from Quorn tonight.'



The Limited (original name for Ghan service) in Heavitree Gap, Alice Springs (*Chris Drymalik Collection*)

Reporting got so out of hand that Commissioner Gahan felt compelled to set the story straight. He issued a statement that the makers certificate for the safe claimed that the lock could not be picked, and it seemed evident that a duplicate key had been used. Coverage continued with the Courier Mail having the following to say on 1.6.1935

'According to information received by the Commonwealth Commissioner of Railways (Mr G.A.Gahan) the theft of a parcel of gold, valued at between £3000 and £4000, from the Commonwealth train between Alice Springs and Quorn (South Australia) was not due to the key of the safe having left the possession of the guard, but to the use of a duplicate key.

Mr Gahan revealed to-day that in another carriage on the same train from which the gold was looted there was a railway pay roll of £2500 left untouched. This money was in a safe guarded by an armed pay clerk.'

While the papers continued the investigation, the detectives got on with the real work and interviewed many people, but were unable to come to any conclusion as to where and when the mail bags were stolen. Most probable location for the theft was thought to be Oodnadatta, Abminga or Edwards Creek, each of which were passed through in darkness when the guard was occupied for 30 minutes, 70 minutes and 38 minutes respectively. Nothing more conclusive was discovered by the initial investigation so a reward of £250 (\$500) was posted by the insurer. This was later raised to £500 (\$1000), but never collected, eventually being withdrawn after it became obvious that no one was going to come forward and claim it. As for the missing gold, it was never recovered and to this day the people who know what really happened are not telling. The bad guys got away, with the authorities none the wiser to how or who.

In true railway fashion, someone had to be found to accept some of the blame, even though legally the railways could not be held responsible. They had never officially been notified of the gold consignment. Obvious choice for scape-goats were the two guards. As some petty offenses against working instructions had occurred during the journey, and probability every journey before, the CR took disciplinary action. The first guard was fined 10 shillings for

'carelessness in respect of one value package of mail placed in the brakevan of safe No.4 Mixed at Alice Springs in your presence on the 28th May 1935 for conveyance therein to Quorn in as much as on the 28th and 29th May 1935:-

1)When being relieved of the duties of guard of No.4 Mixed train you failed to hand over the key of the brakevan safe to the Guard who relieved you, and to obtain his receipt for it, in accordance with Clause 110, page 224 of the General Appendix'



Puttapa Gap (*Chris Drymalik Collection*)

The second guard was fined 15 shillings for similar offenses. The additional amount was due to him leaving

two Y wagons consigned to Port Augusta and Port Adelaide at Oodnadatta by mistake on an earlier trip.

The Northern Express that contained the gold shipment movements provides an interesting insight into train operations on the Central Australia Railway. The train consisted of an NM engine hauling freight wagons, with two sleeping cars, one sit-up car, dining car and brakevan. It is hard to imagine the train paying its way as at no time did the train have more than 7 fare paying situp passengers. Employees on staff passes peaked at 16 giving a grand maximum total of 19 situp passengers on the train between Marree and Quorn, plus a small number of passengers in the sleeping cars. The quietest part of the journey was between Alice Springs and Pedirka when only seven situp passengers, paying and staff passes, were on board the train. If this is the best they could do it suggests that perhaps Community Service Obligations (CSO) are not only restricted to the modern operations of Australian National as on train staff totalled 10, consisting of two sleeping car porters, two dining car staff, and two relay crews of guard, driver and fireman.

The next time you swap train stories with someone tell them about 'The Great Ghan Gold Robbery' and perhaps dream of finding the gold buried somewhere along the line. Nobody can say your wrong, because anyone who really knows what happened is not telling.

References

- CR 6251/4 - Theft of Gold from Train between Quorn and Alice Springs May 1935.
- The Advertiser (Adelaide), various issues May-June 1935.
- Commonwealth Railways General Appendix to the Book of General Rules and to the Working Time Table, 1924, 1932.

2.8 A short history of the Tea and Sugar cars

The Tea and Sugar is well known to most people as the train that services the remote employees on Australian Nationals Trans Australia line. It began life very early this century during the construction phase of the Trans Australia Railway (TAR) which links Port Augusta to Kalgoorlie. The original survey party recommended that a line of 1,063 miles in length be built to the then new Australian Standard of 4ft. 8½ in., with a ruling grade of 1 in 80, and a minimum curvature of 20 chains radius for a total estimated cost of £4,000,000. The leading cost items were permanent way and water supply. Once construction had begun it became apparent that apart from shortages caused by World War I, keeping the workers supplied with materials and food was destined to be one of the biggest organisational headaches for the line builders. Initially an ad-hoc service using a brake

van to transport goods was implemented with the exact inauguration of the Tea and Sugar as a regular service being a bit of a mystery. Certainly by 1915 it had been formally recognised with the provision of dedicated vehicles for use as a travelling supply van, butcher shop and a fruit and vegetable van.

Whilst construction was taking place two sets of vehicles were provided, one for the Kalgoorlie construction crews and the other based at Port Augusta. The two pair of supply and butchers vans initially began life in 1913 as 'B' class four wheel ballast wagons built under contract by Grey Brothers for use on the construction. Sometime about 1915 the ballast wagon bodies were removed and the underframes fitted with newly constructed bodies. The general stores/supply vans were a simple wooden van body, but the butchers cars were far more interesting. Part of a sheep wagon and a wooden van were combined to create a hybrid vehicle that was used to transport live sheep that were killed enroute when and as required. This arrangement had been forced on the Commonwealth Railways as no suitable method of refrigeration was available to keep killed meat fresh for long periods. All the vehicles once converted were classified as 'VS' 4 wheeled enclosed vans, having the road numbers 123, 126, 248 and 426 despite their unusual modifications. The fruit and veg van is a bit of mystery, as very little information on it survives, but I suspect it was just a standard enclosed 4 wheel 'VS' van.

Early in 1918 authorization was granted to construct a replacement travelling Butchers shop. The contractors, Fullerton Brothers, had repeatedly complained about the existing accommodation and lack of facilities. Enclosed van V258 and sheep wagon S308 each donated half their respective bodies to the other creating two new hybrid vehicles which were coded SA258 and SA308 at a cost of £142 and £101 each respectively. Despite the original complaints, that had forced the new vehicles to be constructed, the replacement vans facilities were still so spartan that Fullerton Brothers made the following request to the Railway Commissioner on behalf of their employees on 15.11.1919.

'I consider that a stove should be placed in the van on the eastern side. At the present time there are no means by which the butcher, the man in the fruit and vegetable van, and the man in the provision and bread van, can cook their meals on the train. They have to jump out and light a fire, whenever the train stops and boil the billy alongside the line. In some cases the train goes before the billy is boiled. The Commissioner originally approved of a stove being placed in this van; but it was not put in...'

As a result of this submission better facilities and accommodation were provided in 1922 at a cost of £634, with the hirer (Fullerton Bros) being forced to pay the

Commonwealth a new rate, set at £1 per week, to use the van.

The two original 'VS' stores vans were replaced on 8.11.1920 by purpose built vehicles VP351 and VP352. Whilst the new vans provided improved accommodation, electric light was lacking and was not fitted to the provisions and meat supply vans until 1924. Prior to this lighting had been provided by kerosene lamps.

After the initial vehicle building program, following completion of the line, nothing much happened to the rollingstock used on the Tea and Sugar until 1944 when two new bodies were built for use as mobile Butchers cars. Van FA640 entered service on 20.11.1944, being constructed on a 45' flat wagon that originally had been built in 1916. The other van FA658 entered service on 18.12.1944 and had been built on the underframe of a 'G' class open wagon. Apart from new refrigeration units fitted in 1963 both vans remained basically unaltered, apart from minor overhauls, until being written off on 11.9.1982. They were stored at Port Augusta and Stirling North for six years until FA640 was delivered to Port Dock Station Museum on 2.8.1988 and FA658 was tendered for disposal. Unfortunately prior to being obtained by the Museum FA640 was badly vandalised and many fittings stolen. It is currently stored under cover awaiting full restoration.

In 1955 the two existing provision stored vans were replaced by two purposed built brand new all steel framed vehicles. Entering service on 18.10.1955, VPA1339 provided a far superior service and facilities to that of the then existing vans. The other provisions stores van VPA1340 entered service on 14.12.1955 having cost the Commonwealth Railway £28,889 to construct. When the first van entered service it was painted with 'PROVISION C.R. STORE' on the side. The Commissioner ordered that the van immediately be withdrawn and the lettering changed so that the 'CR' appeared above the words 'PROVISION STORE'. The other van VPA1340 entered service correctly painted.

Both vans were recoded from 'VPA' to 'OPA' on 30.11.1984 and officially written off on 3.5.1986 with VPA1340 being transported to Port Dock Station Museum on 2.8.1988. Both vans had become surplus due to Pullman sleeping cars 'Macedon' and 'Mount Lofty' being converted to new provisions store cars VPB74 and VPB328 respectively. The 'Macedon' and 'Mount Lofty' cars had originally been imported from America in 1928 for use as sleeping cars on the Adelaide to Melbourne Express (later named 'The Overland'). 'Macedon' was sold to the Commonwealth by the Victorian Railways and entered service as twinette sleeping car ARC74 for use on the TAR on 21.7.1950. Initially painted chocolate and cream, it was repainted maroon and silver in 1964 and stayed that way until being withdrawn in 1973. 'Mount Lofty' was purchased from the South Australian Railways on 25.8.1964 along with several surplus wooden cars. It was never used by the Commonwealth, instead being stored

until earmarked for conversion in 1973. 'Mount Lofty' re-entered service on 1.6.1979 as VPB328, the interior having been completely stripped and fitted with shelves, a staff sleeping compartment and full air conditioning. The exterior was repainted grey and almost all windows sealed over. 'Macedon' was converted similarly and re-entered service on 29.10.1979 as VPB74. Both vehicles were recoded from 'VPB' to 'OPB' in 1984 and can still be seen in regular service each week on the Tea and Sugar.

Apart from the vehicles I have mentioned above, the Tea and Sugar train regularly used old wooden Trans-Australian passenger cars for the transportation of employees. In later years these vehicles were replaced with several ex SAR steel cars and NSW cars specially obtained for the service.

What is the future of the remaining vehicles? With the reduction in the number of staffed sites on the TAR and a rationalisation of work gangs it is possible that the Retail Stores vans will be removed sometime in the next few years. If, on the other hand, it is decided to retain the service, it is possible that the two 'OPB' cars will, in the longer term, be replaced by surplus stainless steel rollingstock.

References

- NAA B300 - CR 5409 - Meat Supply Vans - TAR
- NAA B300 - CR 2425 - Vans Travelling Stores (2) for Retail Business Pt2
- Commonwealth Railways General Appendix to the Book of General Rules and to the Working Time Table, 1924, 1932.

2.9 Steamranger Rollingstock

Note: This article was written in 1988. Some of the rollingstock mentioned has since passed into the ownership of other organisations.

Steel passenger carriages

During the 30's, the South Australian Railway's began an extensive program of upgrading passenger accommodation. Part of this program involved the construction of 'all steel' first and second class passenger carriages. The first of these new carriages entered in service 1936, painted in the new SAR colours of green and gold and classified as 500 and 600 class 'main line corridor passenger cars'. Built completely at the Islington workshops, each car measured 21.875m (71ft.9in.) long and 2.890m (9ft.6in.) wide, with a height of 4.025m (13ft.2in.) above the rail.

The 4 x first class cars were numbered 500-503 and had seating accommodation for 42 passengers in 7 compartments. The 8 x second class cars were numbered 600-608 and accommodated 64 passengers in 8

compartments. Toilets and vestibules were located at each end, with all compartments leading off a full length side corridor. The interior of each car was fitted out with polished timber panelling, chrome fittings. First class compartments additionally being fitted with mirrors and arm rests between each seat. Each compartment had a single external window and twin wooden sliding doors fitted with large etched glass panels. All windows were originally designed to drop down into the body of the car, but later, due to maintenance problems, these were replaced by half drop windows.

Steamranger has cars 503 (entered service 12/1937), 602 (3/1937 - which has been rebuilt as Tavern car 'Bowmans') and 606 (10/1937).

Following excellent public reaction to the new 500 and 600 class cars, the South Australian Railways commenced construction of a modified design, which became the 700, 750 and 780 class. These cars externally were of similar appearance, except for modified window spacings and being only 19.120m (62ft.9in.) in length. The interior design called for a centre aisle with an open plan of passenger seating. Toilets were located in the centre of the carriage, dividing it into a smoking and non-smoking compartment.

The 700 class (700-715) were issued to service as second class cars seating 56 passengers, arranged in groups of 4 (twin seats facing each other). As with the earlier cars, the interiors were panelled in fine timbers with chrome fittings. During the late 1940's, several of the 700 class cars were upgraded for first class service, being fitted with carpet and higher quality seating.

The 750 and 780 class were identical to the 700 class except that the 750 class were composite first/second class cars accommodating 46 passengers (22 first, 24 second), and the 780 class were all first class seating 38 passengers. The first class compartments had 2 seats facing each other to one side of the aisle and 4 in two pairs on the other. The advantage of this arrangement was, a first class passenger travelling alone, did not have to sit along side someone they did not know. At the ends of each compartment, a single seat was provided either side of the doorway, facing a twin seat one side and a single the other. The second class seating arrangement was identical to the 700 class. The 750 class were numbered 750-753 and 780 class 780-783.

Steamranger has the following cars 701 (entered service 7/1940), 704 (10/1940), 706 (12/1940), 710 (6/1941), 712 (8/1941), 715 (10/1941) and 783 (3/1942).

Car 783 was converted to a 'Departmental car' in 1973. This involved fitting the vehicle out with a kitchen and sleeping compartments for up to 8 people. During refitting a 3-phase power generator was fitted under the car which was used to supply power to the 'Commissioners Train' when in railway service. Once modified, the car was painted red and coded 'DC 783'.

Sleeping carriages

Steamranger has four sleeping cars, either in service or in various states of restoration. The first of these cars is 'DC 783', which has already been mentioned in Part 1, being converted in 1971 from a first class steel mainline passenger car originally built in 1942. The other three sleeping cars are all ex 'Overland', (originally Adelaide to Melbourne express), Victorian and South Australian Railways Joint Stock, built between 1907 and 1923.

These cars are 22.8m (75ft.) long wooden cars mount on a steel underframe with 6 wheel bogies. The cars that entered service in 1907 were initially named after stopping points along the train route, these being, 'Melbourne', 'Ballarat', 'Wolsely' and 'Adelaide'. These names were changed to identify rivers, in the two states, around 1910 becoming 'Lodden', 'Glenelg', 'Finniss' and 'Torrens'. In 1911, 'Onkaparinga' and 'Barwon' were built, to be followed by 'Baderloo', 'Dargo', 'Pekina' and 'Tambo' in 1919. In 1923, the last four cars entered service, named 'Angas', 'Coliban', 'Acheron' and 'Inman'.

Externally the cars have clerestory roofs, vertically boarded sides, paired wooden windows and side doors at either end, being based on North American designs. As built this stock was lavishly decorated with elaborate gilt lettering, scroll work and decorative bevel edged mirrors above each window, removed or painted over in later years. Painted VR red-brown with 'VICTORIAN AND SOUTH AUSTRALIAN RAILWAYS' centrally on the letterboard above each window, each carriage carried its name centrally beneath the windows. The exterior was finished with polished door knobs, hand rails and coloured leadlight above a clear glass panel in each door.

Internal layout comprised nine compartment, each with two fold up lateral sleeping berths, a folding wash basin, clothing cupboard etc. A small smoking saloon at one end of the car, in which two more berths could be made if needed, was known as the Gentlemen's lounge. This area was provided with four loose, leather covered, cane arm chairs and a fixed transverse seat for three. The fixed seat is converted into two additional berths by curtaining it off from the rest of the smoking saloon. Toilets and conductor's compartments are located at each end of the carriage.

Finished in Art-Nouveau style, the carved panelling, pressed metal ceilings, frosted glass and lamp pendants are all ornately decorated. Displayed on compartment walls and entry vestibule are photographs of scenic South Australia and Victoria.

Steamranger has the following cars

Finniss

Built at the Victorian Railways Newport workshops in October 1907, it was originally named 'Wolsley', but changed to 'Finniss' in 1910. Lighting was provided by large ornate brass gas lights, which were later converted to electricity. In 1953 the SAR rebuilt the carriage for use

on its night service to Mt Gambier. This refurbishing included replacing all wooden windows with steel half drop ones, exterior metal cladding, revarnishing, new upholstery and chrome plating of all the brass fittings.

'Finniss' was withdrawn from service in August 1976 after the fire in sleeping car 'Angas'. Written off between September and October 1978, it was purchased by ARHS SA Div and is still regularly used on trips.

Angas

Built at the Victorian Railways Newport workshops, 'Angas' was the last wooden Joint Stock sleeping car, entering service in September 1923. It was rebuilt similar to 'Finniss' in 1953 and used on the Mt Gambier trains. Whilst on that service, in August 1976, a fire started in the smoking lounge, and destroyed that end of the carriage. Withdrawn and later written off between September and October 1978, it was purchased by ARHS SA Div. Currently 'Angas' is undergoing extensive restoration at 'Steamrangers' Dry Creek depot. As the smoking lounge was completely destroyed by fire, plans have been drawn up to rebuild 'Angas' as sleeping compartments with an observation lounge leading to an open end deck.

Tambo

Built at the Victorian Railways Newport workshops in 1919, to the same design as earlier cars, 'Tambo' was in the first series of 'Overland' cars to be built with electric light fittings rather than the large gas lights of earlier cars. In later years, 'Tambo' with 'Dargo' was used on the Mt Gambier trains, but neither was refurbished, receiving only routine maintenance and regular revarnishing. Condemned in 1975, 'Tambo' was to be used by 'Pichi Richi Railway', but after several years stored at 'Peterborough', it was obtained by 'Steamranger' in 1980. Currently it is awaiting restoration at Steamranger's Depot Dry Creek.

Wooden passenger carriages (Suburban and Centenary)

The South Australian Railways purchased the Glenelg railway line in December 1899 and identified a need for more rollingstock for holidays, racedays etc. This led to the approval for the building of new cars similar to a number of old cars taken over with the Glenelg line. Ten cars (260-267) entered service December 1908 with two baggage car (268-269) in January 1909.

More cars were required for suburban lines. Originally to have been the same as 260-269, but altered because of wider platforms on suburban lines. Length was also increased to include a centre vestibule. Building began in 1910 with numbers allotted in the range 314-363. The first 4 cars entered service 31/5/1912. 15 more Glenelg cars (364-378) were constructed during 1913-14 at 'A Pengelly and Coy' on underframes supplied by Islington. 80 more suburban cars were constructed between 1914

and 1924. With Islington producing both bodies and underframes for 260-269 and 314-363.

Glenelg cars 260-267 and 364-374 originally were painted brown, with a gold lettered 'SAR' centrally above the windows, and the car number done in a 'floral' alphabet. These cars also featured end windows and Ratten cane seating for 76 passengers. Baggage cars 268-269 and 375-378 were done similar, except capacity was reduced to 56 passengers.

Suburban cars had 'SAR' and Car number centrally below windows on the exterior of each compartment in a 'floral' alphabet. For each compartment above the windows was 'FIRST' and 'SECOND'.

The cars remained basically unaltered throughout the 1920's, except in July 1927, 13 Glenelg cars were fitted with lavatories (baggage cars 269 and 378 unaltered).

On 1/6/1929, W.A. Webb reclassified all suburban cars as one class, with lettering in silver block, applied to the cars a reduced the number of times. The cars now only had 'Smoking', 'Non-smoking' and car numbers on end panels.

Car 373 (Glenelg) was placed outside the CME's office on 22/3/1935 for inspection by the Railways Commissioner. It had been fitted out with an 'improved interior', including moquette cloth seating. The Railway Commissioner gave approval for a further 12 cars to be altered. The second car completed was 367 in May. As the year progressed, approval was given to increase the number of cars to 23. Once again 269 and 378 were left unaltered.

During 1935, the Governor of SA suggested running a special train for SA's Centenary (1936). It was decided to use several improved Glenelg cars. These cars were repainted from Regal Red to the State Centenary colours of Hawthorn Green and Cream. The colour scheme included Gold Block lettering '1836 CENTENARY 1936' on the letterboard and the SA state badge 'The Piping Shrike' centrally below the windows. Baggage car 268 was fitted out as a buffet car. The 'Centenary Limited' as the train was called, first operated on 7/3/1936 to Victor Harbor. Baggage car 377 was included in April 1936, increasing passenger capacity and replacing 2 x 60ft. brakevans (276 and 306) which were originally used on the train. The Centenary colour scheme became popular with the public and eventually the remaining Glenelg cars, except 269 and 378, were painted Green and Cream.

In 1937-38, the SAR fitted 19 Suburban End and Centre loader, and 5 Suburban End loading Baggage cars with the semi partitioned seating. No lavatories were fitted and the cars remained Red. They became known in railway circles as 'Blue Day Cars' (269 and 378 also fitted). During 1939-40, a handbrake was fitted to the centre vestibule of selected Suburban and Blue Day cars.

The railways received complaints about the lack of lavatory cars on long distance country trains, so in

1947-48, the 19 Blue Day cars were fitted with lavatories and washrooms in the centre vestibules and the colour scheme was altered from Red to Green and Cream. 269 and 378 also fitted and colours altered. They became part of the country car fleet. Those cars which had handbrakes fitted to the centre vestibule, had the brake gear removed to the end platform.

During the 1950's the SAR fitted select numbers of cars, of all types, with flush exterior panelling. 11 Suburban Baggage cars were also fitted with Perambulator Compartment for pushers.

In 1961, 13 of the Suburban End loading Baggages were converted for railcar operation. This involved altering the brakes and fitting cold cathode fluorescent lighting, for use as trailer cars between a pair of 'Red Hen' power cars. These cars were numbered 820-832 and retained the Red colour scheme.

During the late 1960's several Blue Days car interiors were painted white, and mass condemning of all cars began.

A total of 103 Suburban Centre and End loading carriages were built, plus 27 Suburban End loading Baggage cars. 19 of these cars were converted to the 'Blue Day' configuration. Of the Glenelg cars, 19 End loaders were built and 6 Baggage cars, all of which were given 'Improved Interiors'.

Glenelg Centenary Cars		
263	(50)	12/1908
267	(52)	12/1908
364	(53)	11/1912 F
366	(54)	11/1912
374	(56)	8/1913
Suburban End/Centre Loaders		
432	(70)	1/1918
434	(71)	6/1918 V
446	(72)	6/1919
484	(73)	6/1923 F
Blue Day cars		
317	(60)	5/1912 HF
326	(61)	12/1912 H
338	(62)	8/1912 HW 7
345	(63)	9/1913 W
433	(65)	2/1918 W
462	(66)	2/1923 H
Suburban (Perambulator)		
412	(81)	6/1915
426	(82)	7/1917
428	(83)	10/1917
Suburban Railcar Trailer		
824		12/1912
W=Painted interior, F =Flush panelling, H=Handbrake - end platform, V=Handbrake - centre vestibule		

Steamranger cars

The fields in the following table are original SAR number, Steamranger number, date entered service, and feature codes.

Victorian carriages

Steamranger has three carriages obtained from VLINE in 1985, they are '16BE', '18BE' and '24BE'. These carriages represent the type of wooden rollingstock used on the 'Overland', being of identical design, except for minor interior fitting modifications. These cars were built between 1907 and 1910 for the Victorian Railways and classified as 'Second class side corridor compartment cars'. Originally coded as 'BVE', the 'V' was dropped in 1914 as part of a major reclassification.

The design was of a wooden side corridor coach, with vestibule end, clerestory roof, borne on 6 wheel bogies and a steel underframe with paired truss rods. As built this stock was lavishly decorated with elaborate gilt lettering, scroll work and decorative bevel edged mirrors above each window. Painted VR red-brown with 'VICTORIAN RAILWAYS' centrally on the letterboard above each window. 'SECOND CLASS' flanked the doors at each end with the coach classification centrally beneath the windows. The exterior was finished with polished door knobs and hand rails. Originally the cars were lit by Pintsch gas, and latter converted to electrical, retaining the original fittings.

Originally the 'BE' class consisted of 33 members, but this was later expanded by the conversion of first class cars to second class. The cars are 22.48m (73ft.8in.) long, 2.9m (9ft.6in.) wide and 4.19m (13ft.8in.) in height. They hold 72 passengers in nine compartments, arranged as two ladies compartments at one end, five central non smoking and two smoking compartments at the other end. Each group of compartments was separated by a swing door in the corridor.

31 cars were built at Newport for VR service (1-4 and 11-39 between 1906-1910), 10 Joint Stock at Islington (5-10 between 1906-1907 and 40-43 in 1922).

'16BE', '18BE' and '24BE' were all removed from VLINE's rollingstock register on 6/2/1985. '18BE' was damaged by fire at the 'Dudley St' car sidings on 13/12/1952, repaired and returned to service.

Brakevans

Steamranger has the following collection of brakevans in service.

GB40 'GB40' is a composite brakevan with second class accommodation for 20 passengers. It entered service 29/5/1919, with road number '4074', as one of 62 similar brakevans for use on goods trains. It was later reclassified 'GB40' by Steamranger. Passenger compartments are located either end of the vehicle, with two bench seats in each compartment. Luggage racks are provided above

each seat. Entry into compartments is by an outward opening side loading door, with no access to the goods area located between the passenger compartments. The goods area is divided evenly by a central guards compartment fitted with an observation lookout. The brakevan was never fitted with a toilet or washroom.

4420 Composite brakevan and passenger car '4420', was built at the South Australian Railway's Islington Workshops and entered service October 1955. It was one of 22 similar broad gauge brakevans built during 1954-55 and numbered in the range 4400 to 4421. A wooden body was built on a steel underframe, providing accommodation for 10 passengers, a guard, baggage and toilet facilities. Passengers are seated in two longitudinal seats and have access to an end platform, fitted with full handrails similar to that used in narrow gauge cars. The opposite end of the vehicle is the goods compartment, fitted with a guards seat and lookout.

AVAY 5, 7 and 10 The 'AVAY' brakevans are steel goods brakevans built by the South Australian Railways as '8300' type brakevans, numbered from 8300 to 8394. The first brakevan (8300) entered service in February 1947 and the last (8394) entered service December 1971.

The first order of 14 brakevan was built in 1947, being all steel with wooden doors. Two goods compartments are located either side of central guards compartment, fitted with seat, desk, toilet and observation viewing ports. To one side of the guards compartment is a small passenger compartment. AVAY 5, 7 and 10 all entered service during June 1947.

In 1961 the SAR commenced building the remainder of the class numbered 8314 to 8394. The design was modified slightly, producing a narrower vehicle that could run in Victoria. The brakevans lack end communication doors, preventing their use on passenger trains. Brakevans 8364 to 8374 and 8393 to 8394 were built for standard gauge, with the rest being issued on broad gauge.

Ballast Train

Steamranger has a former SAR ballast train, obtained from the State Transport Authority (STA) of South Australia consisting of the following rollingstock.

Z 2694 Ballast hopper class Z wagon, 4 wheel, 15 ton, entered service 18/7/1911.

Z 3199 Ballast hopper class Z wagon, 4 wheel, 15 ton, entered service 19/5/1915.

Z 3209 Ballast hopper class Z wagon, 4 wheel, 15 ton, entered service 29/6/1915.

Z 3211 Ballast hopper class Z wagon, 4 wheel, 15 ton, entered service 29/6/1915.

Z 3239 Ballast hopper class Z wagon, 4 wheel, 15 ton, entered service 18/10/1915.

Z 4121 Ballast Plough class Z wagon, 4 wheel, entered service 25/7/1921. Converted from a Z class hopper to plough 7/1959.

Note Z 3236. Ballast hopper class Z wagon, 4 wheel, 15 ton, entered service 15/9/1915, which was originally part of this train is at the Port Dock museum.

Camp Train Equipment

Steamranger has the following camp train equipment for use on the Victor Harbor Tourist Railway.

Permanent way ablution cars Each of the PWA cars were converted from a suburban end and centre loader. One end of the car was removed and fitted with a lowerable water tower, the other was fitted with four showers, wash basins and a wood fired water heater.

PWA 3 Entered service 21/8/1923 as 1st class end and centre loader '486', built by Holden Motor Body Co. Converted to 'PWA' February 1969.

PWA 9 Entered service 27/2/1923 as 2nd class end and centre loader '472', built by Holden Motor Body Co. Converted to 'PWA' August 1970.

Permanent way kitchen car (PWK 9) 'PWK 9' was built at Islington and entered service 31/3/1914 as 1st class suburban end and centre loader '357'. Improved seating was fitted in May 1937 and in December 1947 the centre walkway was converted into a lavatory area. Conversion to a Kitchen car was completed in April 1970. It is fitted with a large dining area in one compartment, the other contains a large wood stove, fridge and food preparation area, with a small sleeping compartment provided at one end for the use of the cook. The lavatory compartment was removed and replaced by a walkway.

Employees sleeping vans. Steamranger has two different class of Employees sleeping vans. The first type were built by placing new bodies on underframes recovered from condemned suburban cars. Each car has beds, wardrobes, shower, heater and kitchen located at one end and a versatile workshop and storage area at the other.

ESV 8137 Built on the underframe of end and centre loader '340' and issued to service 11/1963.

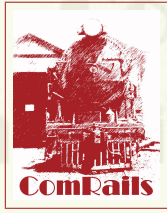
ESV 8144 Built on the underframe of end and centre loader '342' and issued to service 1/1964.

ESV 8168 Built on the underframe of end loader baggage '423' and issued to service 5/1968.

The remaining sleeping vans are fitted out internally similar to the above except they have no workshop and are built on a smaller 4 wheel underframe.

ESV 8210 Built 9/1938.

ESV 8218 Built 12/1948.



Volume1

APPENDIX

A Abbreviations and Glossary of Terms

35

B References and Bibliography

47

ABBREVIATIONS AND GLOSSARY OF TERMS

A

AAR wheel arrangement The AAR wheel arrangement system is a method of classifying locomotive wheel arrangements that was developed by the Association of American Railroads. It is similar to the European UIC classification, and it is widely used in North America to describe diesel and electric locomotives. It is not used for steam locomotives; instead, the Whyte notation is used. This system counts axles instead of wheels. Letters refer to powered axles, and numbers to unpowered axles. 'A' refers to one powered axle, 'B' to two powered axles in a row, 'C' to three powered axles in a row, and 'D' to four powered axles in a row. '1' refers to one idler axle, and '2' to two idler axles in a row. A dash ('-') separates trucks, or wheel assemblies. A plus sign ('+') refers to articulation.

Examples are: A1A-A1A, B-1, B-A1A, D-D, 2-D+D-2.

Air Brake This is the most common type of train brake. It was used on both the South Australian and Commonwealth Railways.

Air Suspension The bogie of a vehicle is fitted with rubber air cushions or bags. Compressed air is fed into the bags under the control of a valve to ensure the correct pressure is maintained.

A.L.A.R.C See Australian Locomotive and Railway Carriage Company.

Alice, The Inaugrated on 21st November 1983, The Alice was promoted as an all first class journey between Sydney and Alice Springs. No economy seating was provided on the train. Poor patronage lead to the service being terminated on 2 November 1987

A.N. See Australian National.

A.N.R.C. See Australian National Railway Commission.

A.R.H.S. (SteamRanger) Australian Railway Historical Society. In South Australia they operate train services under the name SteamRanger.

A.R.T.C. See Australian Rail Track Corporation.

Articulated Vehicle Two adjacent railway vehicles are mounted on one bogie. It has the benefit of reducing the number of bogies required for a train and hence the weight and maintenance requirements.

A.S.R. See Australia Southern Railway.

AustralAsia Railway Corporation The AustralAsia Railway Corporation is a statutory body established under the AustralAsia Railway Corporation Act 1996 and supported by South Australia through complementary legislation. The Corporation was established in 1997 by the Northern Territory and South Australian Governments to manage the awarding of a Build, Own, Operate and Transfer back (BOOT) concession and to enter into contractual arrangements with the successful consortium for the construction of the rail line from Alice Springs to Darwin.

Australian Locomotive & Railway Carriage Company (Murraylander) The Australian Loco & Railway Carriage Company was formed in 1999 by Steve Moritz, Bob Buttrims and Bruce Roberts to take over the operational assests of the *Murraylander*. A joint veture company was formed on a 50/50 basis by Aust Locomotive & Railway Carriage Co. and the Victorian Railway Co (trading as West Coast Railway) to operate the *Murraylander* and various other charters. They are also a rollingstock provider specialising in the hire of power vans, crew cars and passenger carriages for use on the standard gauge systems.

Australian National (A.N.) This was the operating business name of the 'Australian National Railway Commission', which was owned by the Commonwealth of Australia.

Australian National Railway Commission (A.N.R.C.)

This railway organisation was owned by the Commonwealth of Australia. Its operations extended from Kalgoorlie to Alice Springs and to the boarders with Victoria and New South Wales, as well as all railways in the state of Tasmania. It was formed in 1975 from the former Commonwealth, South Australian (non-suburban) and Tasmanian

railways. It traded under the name ***Australian National***.

Australian National Railways took over the operation of the country passenger and goods services in South Australia as from 1st March 1978. In 1997 the freight business was sold to Australia Southern Railroad and the passenger business to Great Southern Railroad.

Asia Pacific Transport Consortium In 2000, the AustralAsia Rail Corporation awarded the contract to build and operate the Adelaide to Darwin railway line as a Build, Own, Operate and Transfer back project to the Asia Pacific Transport Consortium, which consists of: Kellogg Brown & Root, John Holland Group, Carillion, Macmahon Holdings & Australian Railroad Group. The Asia Pacific Transport Consortium contracted FreightLink to implement the project and to operate the railway. The Asia Pacific Transport Consortium leases some assets on the Darwin - Alice Springs section from the AustralAsia Rail Corporation, and subleases of the Alice Springs - Taroona, South Australia railway from the Australian Government through the AustralAsia Rail Corporation.

Australian Rail Track Corporation (A.R.T.C.) The interstate rail corridors operated by ***Australian National*** were transferred to the Australian Rail Track Corporation as part of the 1997 sale. The Australian Rail Track Corporation, which is owned by the Commonwealth of Australia, commenced full operation on 1 July 1998.

Since formation it has negotiated various agreements gaining it access to the main rail corridors from Perth to Brisbane.

Australia Southern Railroad (A.S.R.) The freight business of ***Australian National*** was sold to the Australia Southern Railroad, a consortium consisting of Genesee and Wyoming Inc, and Clyde Engineering and Transfield, on 28 August 1997. They took over operation from 8 November 1997.

Axle The circular shaft connecting two wheels.

Axlebox The axlebox attaches the axle end to the bogie frame. The axle rotates within the axlebox allowing the wheel to turn.

Axle Load The weight that is applied by one axle, on a carriage or engine, to the track. Generally axle load refers to the maximum weight permitted on a single axle.

B

Ballast The material most commonly used to form the road bed of a railway track. It usually consists of crushed rock.

Bogie A bogie is the name given to the structure that holds 4 or 6 wheels in pairs under one end a railway vehicles. It rotates on a pivot that allows it to turn and follow curves in the track.

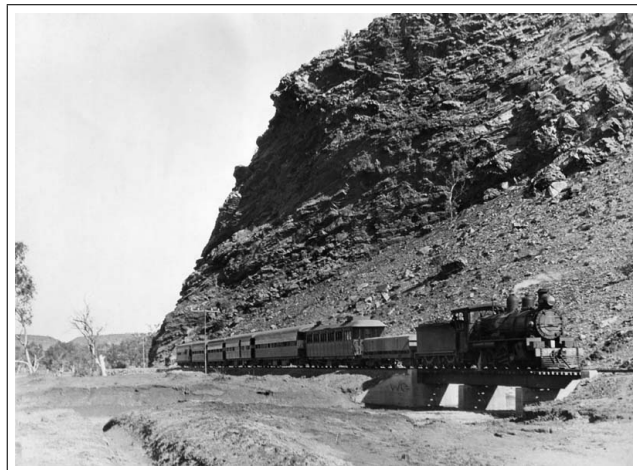
Broad Gauge A broad gauge railway has track 5 foot 3 inches (1600mm) spacing between rails.

C

C.A.R. See Central Australia Railway.

Caboose A term used in the United States to describe a brake van.

Central Australia Railway (C.A.R.) The Central Australia Railway extended from Port Augusta through Quorn and Marree to Alice Springs (originally called Stuart until the name changed on 26th January 1932). It was narrow gauge. The railway was originally built to Oodnadatta by the South Australian Railways and transferred to Commonwealth ownership on 1st January 1911. The South Australian Railways continued to operated the line until operation was taken over by the Commonwealth Railways from 1926.



The Ghan in Heavitree Gap, circa 1930 (*Chris Drymalik Collection*)



The Ghan with original cars

In 1926 construction began on the Oodnadatta to Alice Springs section of the line, a distance of approximately 292 miles. The line opened to rail traffic on 2nd August 1929, with the first passenger train arriving shortly after 2pm on 6 August. It had been scheduled to arrive at 9:30am.

The old Central Australia Railway was replaced by the Tarcoola to Alice Springs Railway in 1980.

C.L.T.B. See Commonwealth of Australia Land Transport Board.

COMENG Commonwealth Engineering Pty Ltd, Granville, N.S.W,

Commonwealth of Australia Land Transport Board (C.L.T.B.) The Commonwealth of Australia Land Transport Board was formed during World War II to control the movement of Transport in Australia. It was responsible for providing various rollingstock items to the Commonwealth railways on loan to facilitate the war effort.

Commonwealth Railways (C.R.) The 'Commonwealth Railways' were owned the Commonwealth of Australia. They were set up initially to operate the railway from Port Augusta to Kalgoorlie (Trans-Australian Railway), but eventually took over the operation of the line to Alice Springs (Central Australia Railway) and Darwin (North Australia Railway) lines as well. They were amalgamated with the 'South Australian Railway' in 1975 to form 'Australian National'.

C.R. See Commonwealth Railways.

D

Driving Trailer An unpowered passenger vehicle with a driver's cab, at one or both ends, used to remotely control a power car or locomotive.

Dynamic Braking A train braking system that use the traction motors of the locomotive as generators to retard the train speed.

F

FreightLink FreightLink is a railway freight operator the Adelaide-Darwin railway. In May 2008 the Consortium of banks and infrastructure companies behind Freightlink decided to sell the railway and its operating company. During November 2008 the company was placed into voluntary administration.

G

Ghan, The *The Ghan* train commenced operation for the Commonwealth Railways when they took over the narrow gauge Central Australia Railway from the

South Australian Railways in 1926. It ran between Port Augusta and Oodnadatta initially, being extended to Alice Springs in 1929.

When the new standard gauge Marree line opened in 1957 the journey was broken into two. A standard gauge run from Port Pirie to Marree, with the rest of the journey remaining on narrow gauge.

Following completion of the standard gauge Tarcoola to Alice Springs line in 1980, the train was rerouted becoming an all standard gauge journey from Port Pirie using only modern rollingstock in the regular consists. This modern train was initially called the *New Ghan* on all marketing material, but eventually the *New* was dropped. In the late 1980s as part of a major refurbishment of the rollingstock the train was re-marketed as *The Legendary Ghan*.

The last narrow gauge north bound *Ghan* left Marree on 24th November 1980, returning south on 26th November 1980.

Ghan Preservation Society, MacDonnell Siding, Alice Springs

The Ghan Preservation Society of based at MacDonnell Siding, just outside Alice Springs. They are in possession of the line from MacDonnell Siding to Ewaninga Siding, 23km south of Alice Springs. They operate some original 1960s *Ghan* rollingstock and have several NSU class diesels.

G.S.R. See Great Southern Railway.

Great Southern Railway (G.S.R.) The passenger business of *Australian National* was sold to the Great Southern consortium on 28th August 1997. They took over operation from 1st November 1997. A large number of the remaining passenger vehicles were sold as part of the passenger business. They later shortened their name to *great Southern Rail*.

On their website in 2006 Great Southern Railway described their history as follows:

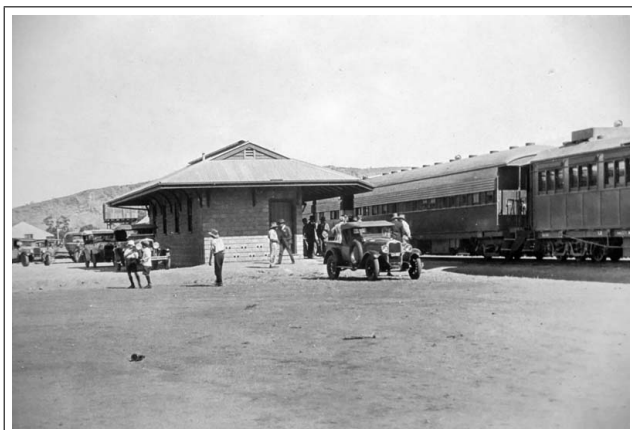
In late 1997, Great Southern Railway was the successful bidder for the Passenger Rail business of Australian National. This made Great Southern Railway the first government owned transcontinental passenger business to be privatised in Australia. Great Southern Railway originally consisted of a consortium of Australian and International financiers, operators and service providers. These partners all contributed solid financial backing. In October 1999, Serco Asia Pacific bought out the other partners, placing the company in a strong position for future growth.

In March 2015 Serco sold GSR to private equity firm Allegro Funds.

In June 2019 the 'Great Southern Rail' brand was replaced with individual journey brands of 'The



C 67 Port Augusta, circa 1936



Ghan at Alice Springs, circa 1930 (*Chris Drymalik Collection*)



The Ghan outside Heavitree Gap, circa 1930 (*Chris Drymalik Collection*)

Ghan, 'Indian Pacific', 'The Overland' and 'Great Southern', with the business name being changed to 'Journey Beyond Rail Expeditions'

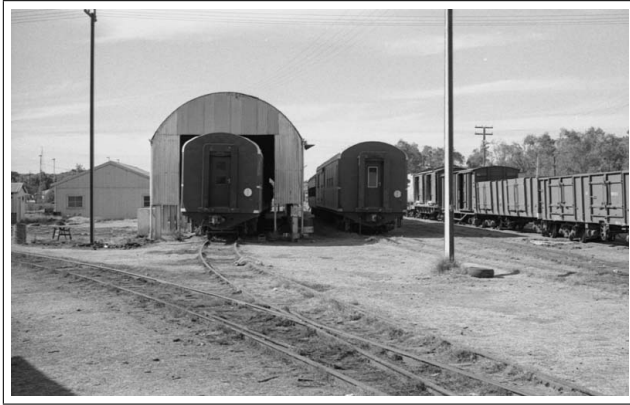
I

Indian Pacific The Indian Pacific had its inaugural run on 23rd February 1970 when the first through passenger service operated between Sydney and Perth. The standard gauge connection had actually been completed by 12th January 1970. The carriages were owned by the Commonwealth, but were considered Joint Stock for maintenance costings.

Passengers for Adelaide initially had to change



The narrow gauge Ghan at Alice Springs, circa 1960s



28.8.1976 - Alice Springs - general view of brake vans and wagons in yard (*Murray Billett*)



2.04.2004, Keswick - Indian Pacific Logo Board (*Phil Leonard*)

trains at Port Pirie until the service was re-rerouted. The first Indian Pacific into Keswick Passenger terminal was on 17th August 1986.



21.03.2004, Keswick - Ghan Logo board (*Phil Leonard*)

Intercapital Daylight The Intercapital Daylight service ran daily between Melbourne and Sydney on the standard gauge line.

Intermodal Intermodal is the term used to describe freight traffic involving transfer of containers to and from road and rail vehicles. Sometimes referred to as container traffic.

Iron Triangle Limited, The The Iron Triangle Limited service ran by Australian National between Adelaide, Port Pirie, Port Augusta and Whyalla on standard gauge using Budd Railcars. The service began on 2nd April 1986 as a special run, with regular working from 21st April 1986. It finished 31st December 1990.

J

Journey Beyond Rail Expeditions From June 2019, 'Journey Beyond Rail Expeditions' became the operators of 'The Ghan', 'Indian Pacific', 'The Overland' and 'Great Southern'. They had previously been called 'Great Southern Railway'.

K

Keswick Rail Terminal The Keswick Rail Terminal was built by Australian National in the suburb of Keswick, Adelaide, South Australia as its main passenger terminal. It was officially opened on 15th June 1984.

L



Indian Pacific car logo

Loading Gauge Maximum dimensions to which a vehicle can be built or loaded without risk of striking a lineside structure.

L.C.L. Less than Container Load. LCL traffic was the term used to describe any traffic, such as parcels, that was less than a full container in size.

M

MainTrax N.T. MainTrax N.T. are the firm who operate the *Old Ghan* from MacDonnell Siding to Ewaingana under contract from The Ghan Preservation Society.

Match Wagon A vehicle equipped with different types of couplers at each end and placed between vehicles where the couplers are of different types. The most common use of this type of vehicle was with mobile crane wagons.

Motor car A passenger vehicle in a multiple unit train which is provided with traction power equipment.

Motorrail Motorail is a rail transport service where passengers can take their automobile along with them on their journey. Passengers are carried in normal passenger cars or in sleeping cars on longer journeys, while the cars are loaded into car carriers, or flatcars.

Mile End Railway Museum The Mile End Railway Museum was founded in 1963 and moved to Port Adelaide in 1988 to become the Port Dock Station Railway Museum.

Murraylander See Australian Loco & Railway Carriage Company.

N

North Australia Railway (N.A.R.) - Palmerston to Pine Creek Railway The North Australia Railway extended from Darwin to Birdum. It was built as a narrow gauge railway. Originally it had been built as the Palmerston division of the South Australian Railways, but was transferred to Commonwealth Government control in 1911. It extended to Emungalan on the Katherine River in May 1917 and eventually to Birdum whilst Commonwealth Railway control.

Initially, after handover to the Commonwealth Government on 1st January 1911, the line was run by the Northern Territory Administrator until 30th June 1918 when it was handed to the Commonwealth Railways. Records of the period suggest that the Commonwealth Railways had a big influence on the line prior to the official transfer of control as they provided the Administrator with assistance in the purchase of rollingstock and other items. The last train ran on this line on 30th June 1976.

N.A.R. See North Australia Railway.

Narrow Gauge A narrow Gauge railway has track with 3 foot 6 inch (1067mm) spacing between rails.

National Rail Corporation (N.R.) The National Rail Corporation took over the interstate freight business of Australian National. It was jointly owned by the Commonwealth, Victorian and New South Wales Governments.

National Railway Museum Port Adelaide The National Railway Museum Port Adelaide was founded in 1963 as the Mile End Railway Museum. They move to the Port Adelaide site in 1988 and were known as Port Dock Station Railway Museum. On 21st October 2001 it was renamed the *National Railway Museum Port Adelaide*

N.R. See National Rail Corporation.

New South Wales Government Railways (N.S.W.G.R.)

The New South Wales Government Railways operated all the railways in the state of New South Wales. At various time they were reorganised and had minor changes made to their name. They have operated under names such as 'New South Wales Railways', 'Freight Corp', and the 'New South Wales Public Transport Commission'.

New South Wales Public Transport Commission (N.S.W.P.T.C.)
See New South Wales Government Railways.

Northern Rivers Railway. The Northern Rivers Railway operate on the line between Murwillumbah and Casino in New South Wales. Commencing in 1999, they operated a passenger service called the *Ritz Rail* train between Murwillumbah and Byron Bay. Operated Under the name 'Ritz Rail'

O

Overland, The The original service called *The Overland* was the nightly train that ran between Adelaide and Melbourne. It was jointly owned by the Victorian and South Australian railways, until 1976 when Australian National took over the South Australian part of the operation. Australian National became the single operator of *The Overland* in 1994.

This service was taken over by Great Southern Railways following the sale of Australian National. In 1999 the remaining in service cars were repainted in a new colour scheme and logo graphics.

A completely new look for *the Overland* was launched in May 2007. This included a new colour scheme, refurbished car and the removal of all sleeping cars as it was now an exclusively daylight only service several times per week.

What is believed to be the last service of 'The Overland' arrived in Adelaide on the 24 March 2020.

P

Pichi Richi Railway (P.R.R.) Pichi Richi Railway Preservation Society is based at Quorn, South



Darwin station with train



Adelaide River Troop Train October 1942



Overland logo on side of Tawarri 9.2.1999 (Chris Drymalik)

Australia. They operate narrow gauge trains over the three lines that radiate out from the Quorn station.

Port Dock Station Railway Museum The Port Dock Station Railway Museum was founded in 1963 as the Mile End Railway Museum. They move to the Port Adelaide site in 1988.

On 21st October 2001 it was renamed the *National Railway Museum Port Adelaide*

Q

QGR Queensland Government Railways - See Queensland Railways.

Q.R. See Queensland Railways.

Queensland Railways (Q.R.) The Queensland Railways were operated by the State of Queensland.

R

Railcar Self-powered vehicle capable of operating as a single unit and often passenger carrying.

References Abbreviations At various points references are cited by placing a code inside of square brackets '[]'. The various codes can be on the References and Bibliography page.

S

S.A.R. See South Australian Railways.

Semi Permanent Coupling Coupling between vehicles provided for normally fixed formation consists. This form of coupling is usually only disconnected in a workshop.

Shunt To marshal vehicles in a given order to form a train consist.

Spirit of Progress Victorian Railways train that ran between Melbourne and Albury to connect with the New South Wales train for Sydney. It commenced operation in November 1937. After the completion of the standard gauge line from Albury to Melbourne, in 1962, it ran nightly between Melbourne and Sydney.

In the 1986, the train was combined with **Southern Aurora** to become the north bound **Sydney Express** and the southbound **Melbourne Express**. The service was withdrawn in the 1990s.

Standard Gauge A standard gauge railway has track with 4 foot 8½ inches (1435mm) between rails.

SteamRanger See Australian Railway Historical Society.

South Australian Railways. The railways in the state of South Australia were operated by the state government. In 1975 the 'South Australian Railways' were sold the Commonwealth of Australia, who combined them with the Commonwealth Railways to form Australian National.

SAR&CR Joint Stock South Australian and Commonwealth Railways Joint Stock operated on the East-West service between Port Augusta and Terowie via Quorn between 1917 and 1936. All the vehicles were owned by the South Australian Railways with only the costs being shared. Following cessation of this service, many of the cars were rebuilt.

Southern Aurora The Southern Aurora operated nightly between Sydney and Melbourne in both directions and commenced running on 16th April 1962 shortly after the new standard gauge connection opened between Melbourne and Sydney. It was jointly owned by the New South Wales and Victorian railways and used cars similar in design to stainless steel cars built by Comeng for the Commonwealth Railways.

In 1986 the train was combined with **Spirit of Progress** to become the north bound **Sydney Express**; and the southbound **Melbourne Express**. The service was withdrawn in November 1993 when it was replaced by an XPT railcar service.

Southern Spirit The Southern Spirit is a special passenger train operated by Great Southern Railway. Each journey incorporates a series of wayside stops and off train excursions to various tourist destinations.

It first run was called **The Grand Tour** and ran from Uluru (Ayers Rock) to Brisbane, via Alice Springs, Adelaide, Melbourne and Sydney over 14 days from 9 January 2010 to 22 January 2010. The train was hauled by NR84 and NR85 (at separate times) and included carriages FAM2389, HGM296, ER909, BRG974, BRG168, BRG175, AFC307, DF934, BRG972, BRG171, ARM990, HM957 and HGM903.

South Spur Rail Services South Spur Rail Services are a Western Australia based private operator who have a number of contracts for hauling ballast, rail and sleeper trains. They operated a Restaurant Train service called **Spirit of the West**, using Australian Railway Historical Society coaches and a specially painted K class diesel locomotive, as an offshoot company called the Midland Railway Company.

Spirit of the West see South Spur Rail Services.

State Rail Authority of New South Wales (SRA) The State Rail Authority was the government authority responsible for the operation and maintenance of railways in the Australian state of New South Wales between 1980 and 2003. The State Rail Authority (SRA) was established in 1980 after the separation of the Public Transport Commission into the SRA, responsible for trains, and the Urban Transport Authority (UTA), responsible for buses and ferries.

State Transport Authority of South Australia. The State Transport Authority of South Australia was formed as a result of the sale of the South Australian Railways to the Commonwealth in 1975. It took over the operation of the suburban rail system in Adelaide. It changed its name to Trans-Adelaide in July 1994.

It is a Government organisation answerable to the South Australian Minister of Transport.

Steamtown Peterborough Railway Preservation Society Inc.

Steamtown was based at Peterborough in the mid-north of South Australia. The society was formed in 1977 and ran its first public train in 1981. **Steamtown** had a number of working locomotives (both steam and diesel) obtained from Western Australia and several former Commonwealth Railways diesel locomotives. Most of the passenger rollingstock they operated was originally used on the Commonwealth Railways Trans-Australian Railway.

The train operated on the narrow gauge line between Peterborough and Eureka. In October 2003 the society was disbanded and all assets passed to the local council who intended using the core part of the collection as a static museum based in the Peterborough Roundhouse precinct.

Sydney/Melbourne Express The Sydney/Melbourne Express was an intercapital passenger train service that operated between the Australian cities of

Melbourne and Sydney between 1986 and 1993. It was operated jointly by V/Line and the State Rail Authority of New South Wales the name depended on the direction of travel.

The Sydney/Melbourne Express was formed from the merger of the Spirit of Progress and Southern Aurora to cut operating costs of the intercapital rail service with the first train operating on September 2, 1986. The last Melbourne Express ran on the night of Saturday November 20, 1993 ex Sydney, with the last Sydney Express running ex Melbourne on Sunday 21 November, 1993.

T

Tea and Sugar The *Tea and Sugar* train was a service that operated between Port Augusta, South Australia and Parkeston, Western Australia. The train provided the basic needs of the railway staff living in the remote regions through which the train operated. It commenced operation in 1915 during construction of the line and eventually endup with a number of specialised vehicles, including at butcher car, retail store car, community service car, and pay car.

The last west bound *Tea and Sugar* train departed Port Augusta on Wednesday 28th August 1996, whilst the last east bound departed Parkeston on Friday 30th August 1996. The service was withdrawn because of the decline in the number of rail workers living living in the remote regions the train serviced.

Track Gauge The distance between the inner faces of the rail of a railway track. In Australia the main gauges are broad, narrow and standard.

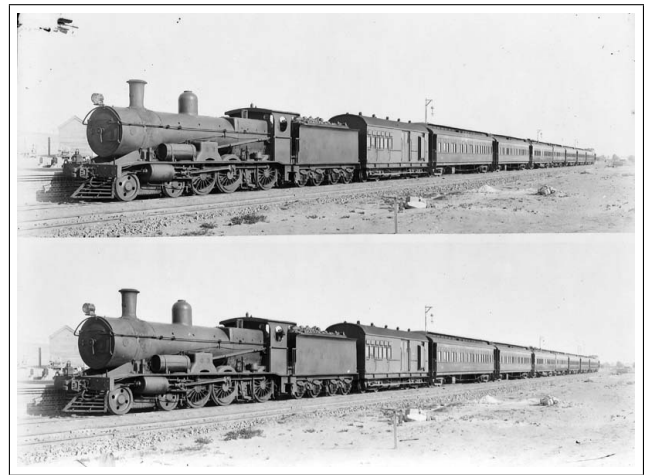
Trailer Car A passenger vehicle in a multiple unit train which has no traction power equipment.

Trans-Adelaide See State Transport Authority of South Australia.

Trans-Australian Passenger Train The Trans-Australian Passenger train ran between Port Augusta and Kalgoorlie. It began in 1917 and was eventually cancelled in 1991 following poor patronage and a severe cut back in the frequency of the service.

Initially it was all sleeping class with only irregular way side situp passenger accomodation being provided. In the 1960s regular situp was provided, but this was eventually withdrawn. Situp was again introduced in 1981 when it was added to the Trans-Australian and Indian Pacific services.

In 1983 the Trans-Australian was reduced from 4 to 3 services and the economy class sleeping cars were replaced by additional first class cars. Later the same year another Trans-Australian service was removed so that The Alice train could be inaugurated.



Trans-Australian, circa 1917 (*Chris Drymalik Collection*)



Trans-Australian with GM 1 and wooden cars, circa 1951

The Trans-Australian was cut to a single weekly service on 9th February 1991, leaving Adelaide each Wednesday, but this was short lived as this service was cancelled later that year.



First Express at 408 miles, 1917

Trans-Australian Railway (T.A.R.) This railway extends from Port Pirie to Kalgoorlie. The first sod for the Port Augusta to Kalgoorlie section was turned on 14 September 1912 with the line being completed on 17th October 1917. An extension to Port Pirie was opened on 23 July 1937 when the

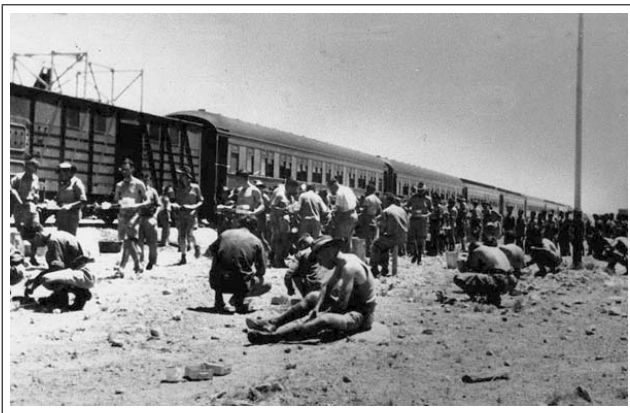
South Australian Railways extended the line from Red Hill. It is standard gauge.



Ghan logo on car side

Tarcoola to Alice Springs Railway (T.A.S.) Tarcoola to Alice Springs Railway. Work commenced 12th April 1975 on a replacement for the narrow gauge track from Marree to Alice Springs. The new route, via Tarcoola, was opened in 1980. It is standard gauge.

TIMS Australian Nationals Traffic Information Management System (TIMS), was closely linked to a system for tracking wagons known as the 'Wagon Maintenance System (WMS)'.



A troop train on Port Augusta Wharf

Troop Train During World War II special trains were run that carried only military troops. These were generically referred to as 'Troop Trains'.

Due to a shortage on rollingstock on the North Australia Railway and Trans-Australian Railway a number of cattle vans were converted to carry troops as part of this operation.

U

UIC classification of locomotive axle arrangements

The UIC classification of locomotive axle

arrangements is a system for describing the wheel arrangement of locomotives, multiple units and trams. It is provided by the International Union of Railways. The United States use a simplified form (AAR wheel arrangement) for modern locomotives. It is a more versatile system than Whyte notation for classifying steam locomotives by wheel arrangement.

The UIC notation counts pairs of wheels (called "wheelsets" or informally "axles").

Upper-case letters Designate a number of consecutive driving axles, starting at A for a single axle. C thus indicates three consecutive pairs of driving wheels.

Numbers Designate consecutive non-driving axles, starting with 1 for a single axle.

Lower-case 'o' On many electric and diesel-electric locomotives, axles are individually driven by electric traction motors - this is indicated by suffixing the driving wheel letter with a lower-case 'o'.

Prime sign ' ' Indicates that the axles are mounted on a bogie.

Plus sign + Indicates that the locomotive or multiple unit consists of permanently coupled and mechanically separated individual vehicles.

Brackets Can be used to group letters and numbers describing the same bogie. For example, (A1A) indicates a three axle bogie with the outer two axles driven. When brackets are used a prime is not needed to indicate a bogie. Mallet locomotives can be indicated by bracketing the front power unit - for example, the Union Pacific Big Boy - denoted 4-8-8-4 in Whyte notation, is designated (2' D)D2' in UIC notation.

Garratt-type locomotives are indicated by bracketing or placing plus signs between all individual units.

Other Suffixes The designation can also have additional suffixes, denoting other features of the locomotive:

h Superheated Steam

n Saturated Steam

v: Compound

Turb Turbine

number number of cylinders

t Tank locomotive

G Freight train purpose . Also used to indicate shunting locomotives

P: Passenger train purpose

S Fast train purpose

V

VicRail See Victorian Railways.

Victorian Railways (V.R.) – VicRail, V/Line The railways in the state of Victoria were called the 'Victorian Railways'. They were owned by the state of Victoria, Australia and were eventually split into a number of operational units which traded under various names such as VicRail, 'V/LINE' and 'The Met'.

Vineland The Vineland was an overnight passenger train operated by the Victorian Railways between Melbourne and Mildura, Victoria, Australia. The Vineland first ran on 9 August 1972 and offered sleeping, sitting and motorail facilities. It ceased operation on 12 September 1993.

V/Line See Victorian Railways.

V.R. See Victorian Railways.

W

W.A.G.R. See Western Australia Government Railways.

Wegmann 'Waggonfabrik Wegmann' of Kassel Germany built a number of carriages during the 1950s for the Trans-Australian Service.

Western Australia Government Railways (W.A.G.R.)
The Western Australia Government Railways were owned by the state of Western Australia. They operated services on both narrow and standard gauge.

Westwaggon Bogies Many Commonwealth Railways cars were fitted with 'Westwaggon' bogies. These had been purchased from the 'Wegmann' Company in 1951 at a cost of £174,062 for 64 bogies. The purpose of these bogies was to improve the riding quality of existing wooden cars and bring them up to the standard of the new all-steel rollingstock purchased from the 'Wegmann' Company the same year. Despite buying 64 bogies, a shortage developed as some were used under additional steel passenger cars purchased in the late 1950s. As speeds increased the bogies were unable to cope with the poor track condition. This led to new bogies being purchased and the Westwaggon bogies becoming surplus. Having been made to be readily gauge convertible (Standard to Narrow), and because of their good riding quality at low speeds, were possible all wooden cars used on the narrow gauge Ghan were fitted with these bogies. By the time most wooden cars were being withdrawn in 1980 many of the cars had been fitted.

WMS Australian Nationals Wagon Monitoring System (WMS), it was closely linked to a system for train

movements known as the 'Traffic Information Management System (TIMS)'.

Whyte notation for locomotive axle arrangements

Whyte notation is a way of classifying steam locomotives by wheel arrangement. The Whyte system counts the number of leading wheels, then the number of driving wheels, and finally the number of trailing wheels, groups of numbers being separated by dashes. Thus, a locomotive with two leading axles (and thus four wheels) in front, then three driving axles (six wheels) and followed by one trailing axle (two wheels) is classified as a 4-6-2. Articulated locomotives such as Garratts, have a '+' between the arrangements of each engine (e.g. 4-6-2+2-6-4). Simpler articulated types where there are no unpowered axles between powered axles, have extra groups of numbers in the middle. Thus a Big Boy is a 4-8-8-4; there are two leading axles, one group of four driving axles, another group of four driving axles, and then two trailing axles.

Various suffixes are sometimes used, but they are not universal. Some of the more common ones are:

T indicates a tank locomotive. In British practice, this is sometimes extended to indicate the type of tank locomotive: T means side tank, PT pannier tank, ST saddle tank, WT well tank. T+T means a tank locomotive that has a tender for additional coal or water capacity.

R In Europe suffix R means rack (0-6-0RT) or it could mean reversible (0-6-0TR).

F indicates a fireless locomotive (0-4-0F). Note that this locomotive has no tender.

ca compressed air (i.e., running on compressed air from a tank instead of steam).

ng narrow-gauge locomotives (i.e., less than 56.5 in / 1435 mm)

In Britain, a small diesel or petrol locomotive is classified in the same way as steam locomotives, e.g. 0-4-0, 0-6-0, followed by D for diesel, P petrol, and another letter describing the transmission: E for electric, H hydraulic, M mechanical. Thus 0-6-0DE denotes a six-wheel diesel locomotive with electric transmission.

Where the axles are coupled by chains or shafts (rather than side-rods), or are individually driven, the terms 4w, 6w or 8w are generally used. Thus 4wPE indicates a four-wheel petrol locomotive with electric transmission. For large diesel locomotives the standard UIC classification is used.



Volume 1



Some of the sources used to verify the information contained in these pages are:

ah Correspondence with Alan Hegler.

ARHS-bul Australian Railway Historical Society; *Bulletin*; various editions

ausrollingstock Yahoo group 'ausrollingstock' at groups.yahoo.com/group/ausrollingstock/.

- Australian Railway Historical Society (Victorian Division); *Newsrail*; monthly periodical; various editions.
- Australian Railway Historical Society (South Australian Division); *Recorder*; monthly periodical.
- Baggage, Jack and Barrington, Rodney; *The History of Pichi Richi Railway*; Pichi Richi Railway Preservation Society Inc; 1984.
- Banger, Chris and Medlin, Peter; *Ninety years of The E Cars - Part 2*; Newsrail; September 1996.
- Beckhaus, John; *Commonwealth Railways Passenger Cars*; Modelling the Railways of SA Convention.
- Beckhaus, John; *CR Passenger fleet*; Unpublished Draft.
- Beckhaus, John; *SAR Broad Gauge Passenger fleet*; Unpublished Draft.
- Beckhaus, John; *SAR Narrow Gauge Passenger fleet*; Unpublished Draft.
- Beckhaus, John; *SAR Railcar fleet*; Unpublished Draft.

blc Details extracted from Barry Lewis Collection records at National Railway Museum.

- Mack, David; *Little Coastal Railways of the Adelaide plains*, Hyde Park Press; 1986.

cc Correspondence with Chris Carpenter.

CP_mm.yyyy Catchpoint Magazine edition mm.yyyy (month.year). Catchpoint is produced by the Port Dock Station Railway Museum.

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cr_nnnn Commonwealth Railways Central Office File *nnnn*. - most of these are stored at the National Archives of Australia series B300.

cr_plan Commonwealth Railways Rollingstock Plan.

db Correspondence with Dylan Badenoch.

dc Correspondence with Doug Colquhoun.

dc Correspondence with Doug Johnson.

dp Parsons D.B; *3'6" Gauge Passenger Rolling Stock of South Australian Railways*; Australian Railway Historical Society Bulletin; 1958.

sf Correspondence with David Stosser.

- Fitzgerald, Anthony; *Australian National's GM Class*; Australian Model Railway Magazine, April 1997.

facebook-sare Facebooks group - South Australian Railway Enthusiasts.

GA General Appendix.

gh Correspondence with Geoff Hann. .

jb Correspondence with John Beckhaus.

jbo Correspondence with John Bollans.

jg Correspondence with John Green.

jh_nnl Jim Harvey *The Never-Never Line, The story of the North Australia Railway*.

gp Correspondence with Gerald Petrie.

GSR Great Southern Railway Literature and Press Releases.

hw Correspondence with Hugh Williams.

kb Correspondence with Kym Bird, also included reference to historic articles

- The 300-400 Class Railcars and 829-860 Class Trailer Cars of the South Australian Railways, Australian Railway Historical Society Bulletin; p219-238, October 1985, Vol.26 No.576; p243-261, November 1985, Vol.26 No.577; p279-283 December 1985, Vol.26 No.578.

- The Fageol Railcars of the S.A.R, Australian Railway Historical Society Bulletin; p219-238, October 1985, Vol.37 No.588.
 - Brill Railcars of the South Australian Railways, Australian Railway Historical Society Bulletin; p213-236, October 1991, Vol.32 No.528; p237-260, November 1991, Vol.32 No.529; p272-282 December 1991, Vol.32 No.530; p1-8, January 1992, Vol.33 No.531.
- md** Michael Dix correspondence.
- mr** Correspondence with Matthew Reid of Edmonton, Alberta, Canada.
- MN** Monthly Notice - The Commonwealth Railways issues published notices on a monthly basis to staff.
- MERM** Mile End Railway Museum
- NAA** National Archives of Australia - normally will be followed by a series reference number.
- newsrail** Newsrail Magazine edition mm.yyyy (month.year).
- NRM** National Railway Museum correspondence.
- pf** Correspondence with Paul Quinn.
- ph** Correspondence with Peter Hinksman.
- pk** Correspondence with Peter Knife, or referenced in his book 'Peninsula Pioneer'
- pl** Correspondence with Phil Leonard.
- pm** Correspondence with Peter Medlin.
- pmi** Correspondence with Peter Michalak.
- pq** Correspondence with Paul Quinn.
- pr** Correspondence with Philippa Rogers.
- PTT** Public Time Table.
- railsa** RailSA Australia Forums - formerly at 'www.railsa.org'
- rpf** Railpage Australia Forums at www.railpage.com.au.
- RRC** South Australian, Commonwealth and Australian National Railways ***Rollingstock Record Cards***. These were large cardboard cards, one per vehicle, maintained by the workshops that showed all major alterations and repairs done to that vehicle. They are generally a lot more accurate than the computerised 'TIMS' records. See the 'TIMS' reference for more details.
- SAR** South Australian Railways record or docket reference.
- South Australian Railways; ***Annual report to Parliament***; South Australian Parliamentary Paper No.47.
 - South Australian Railways; ***Rollingstock Record Cards***; Port Dock Museum Collection.
 - South Australian Railways Institute; ***South Australian Railways Institute Magazine***; periodical; various editions.
- sf** Correspondence with Steve Ford.
- sh** Correspondence with Stuart Hicks.
- sm** Correspondence with Steven Moritz.
- SN** Special Notice.
- st** Correspondence with Simon Thompson.
- Smith, Roderick ***Named Carriages***; Rail news Victoria; March 1998
- th** Correspondence with Trevor Horman.
- TIMS/WMS** Information extracted from ***Australian Nationals Computerised Traffic Information Management System (TIMS)*** The records that have been extracted from TIMS, and the Computerised Wagon Monitoring System (WMS), are not always very accurate. Frequently significant alterations did not make it into the system. An example is the upgrade of 'Ghan' cars. These cars only show the date of the work order for modifications being issued in 1988 with very little information about when the actual work took place. For some cars this was not until 18 months later. Port Augusta still maintained paper based manual rollingstock record cards of changes long after they supposedly moved over to 'TIMS', so generally 'TIMS' shows the date the work was approved/proposed rather than when it was actually carried out.
- Vline-news** State Transport Authority of Victoria; ***VLINE News***, journal.
- wh** Correspondence with Wayne Hoskin.
- WN** Weekly Notice.
- WTT** Working Time Table.
- Commonwealth Railways Files - Central Office**
- Listed below are the title of the Commonwealth Railways Central Office files consulted to create this information.
- These files are stored at Australian Archives Adelaide Office - series B300.

File No	File Active Date	File Title
47pt1-5	1912-1926	'Q' class locomotives.
101pt1-2	1911-28	Diesel locomotives.
107Pt1-4	1912-15	'G' class locomotives.
307	1911-27	Cranes general.
486	1912-1920	Shovel, 'Marion' steam, Port Augusta.
576		Rollingstock - locomotives general
631pt1-2	1913-16	8 No. 'G' class locomotives - Bladwin Co.
1033pt1-2	1913-50	Baldwin locomotives.
1513	1914-23	Temporary passenger cars
1729	1916	Rollingstock for through express (street railway carriages)
2248pt1	1914-29	Particulars of rollingstock (general) TAR
2425	1923-82	Vans - travelling stores - two for retail business
3581		Design of proposed Express Passenger Engines.
4089pt2	1920-51	Dining cars for through express
5373pt1-4	1918-62	Special service car
5389pt1-2	1922-41	Lounge cars TAR
5409		Travelling Butchers vans - TAR
5472	1918-54	3 'YB' vans, brakevans
5500pt2-4	1917-54	Dining car, sleeping car etc TAR Proposed with a view to improvement
5638		Question of providing extra Dining car (can't find 17.1.89)
5740	1916-18	History of B44 no N.G. N9.
5909	1919-42	"HR" vans
6205pt1	1913-30	Classification of rollingstock
6251/4	1935-36	Theft of gold from train between Quorn and Alice Springs May 1935
6251/5	6.1935	Attempted robbery of Mail TAR
6312pt10	1956-60	Rollingstock for through express
6312pt2	1916-23	Rollingstock for through express
6312pt3	1924-28	Rollingstock for through express
6312pt4	1928-29	Rollingstock for through express
6312pt8	1946-51	Rollingstock for through express
6312pt9	1951-56	Rollingstock for through express
6423pt1	1917-33	Special car No.2
6423pt2	1941-65	Special car No.2
6431pt1	1913-24	Photographs of rollingstock
6431pt2	1927-65	Photographs of rollingstock
6440pt1	1914-25	Rollingstock capital value of stock, Pt Augusta-Oodnadatta railway
6440pt3	1960-67	Rollingstock CAR
6447p1-6	1913-45	NM class locomotives CAR.
6459	1923-44	Passenger cars CAR
6462	1913-52	Sleeping cars 3'6" gauge CAR
6717	1926-42	Special car - CAR
6762		Locos Oodnadatta - Alice Springs
6826	1926-28	Three 2nd class 50ft passenger cars NBPA
6879		Dining car
6880	1926-59	Hospital car - CAR
6896pt2		Particulars of rollingstock TAR
6897		Rollingstock General - Northern Territory.
6897		Rollingstock statements - NAR
6900/17	1920	Inspections - Commissioners inspection of line & trial trip with special service car
6900/58	8.1929	Commissioners visit of inspection CAR
6938pt2	1929-79	Dining cars - CAR
7633	1932-59	Air conditioning of carriages
7782p1-4	1934-	New Psgr loco Pt (C class)
8191	1939-70	Passenger cars NAR

8391		Particular of present state of locos and rollingstock April 1943 for CLTB
8488	1944-61	Historical Articles relative to Commonwealth Railways.
8713pt1	1946-57	Locomotive experiments with Gas Turbine
8807pt1	11.1948	Testimonials to Mr G.A.Gahan
8941	1949-65	Pullman cars - TAR
9168pt1-2	1953	Inaugural run of new train TAR

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