A note from Random002:

For years these older Australian railway books have been out of print. Rather than hoard limited quantities in dusty baby-boomer book shelves these books need to be made available to the railway community as a whole. Education and information should be made freely available to those who seek it and if it is not made available from the publisher then alternative measures will always be taken. I have spent considerable time scanning and editing these copies for your enjoyment, so please do us all a favour and share freely with others.

Enjoy.
BYWAYS OF STEAM 2

Mainly on the New South Wales Railways in the 1960s

Eveleigh Press
The driver of 1311 has kindly stopped the up Yass Town to Yass Junction goods at the 198 mile post to enable photos to be taken on 22 December 1961.

Ian Wallace

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As Christmas approaches, a hot late afternoon sun reflects off 3807 as it stamps out of Menangle with No.49 Moss Vale passenger, composed of three FG cars and a SEB set, on 21 December 1967.

R.K. Booth
INTRODUCTION

This second volume of *Byways of Steam* dwells upon a facet of the railway which was beloved of the enthusiast, the rural branch line. In the formative stages of the railway network, branch lines were built for several reasons.

In some cases, a genuine traffic need existed. For example, the first rural branch line, from East Maitland to Morpeth, served a very real purpose in allowing the produce of the Hunter Valley and its hinterland to be transhipped to sea-going vessels for forwarding to the markets of Sydney, before the Great Northern and Great Southern and Western systems were connected in 1889. River siltation and through railway service between Sydney and the north removed its purpose, and the Morpeth branch withered and died in 1953.

In many cases, branches were built with the purpose of opening up undeveloped land to grazing or cultivation. Most of those west of the Great Dividing Range fall into this category, and such branches were the lifeline of the communities they served before the coming of all-weather roads. Services varied from daily to weekly, usually by mixed train from a major junction, although some few supported full passenger services until the fifties and sixties. The Grenfell line, featured in this volume, was one such. It was built to bring the wheat and livestock of the Central Western slopes to the bulk terminals of the seaboard, but it also imported its communities’ daily needs: coal, oil and petrol; machinery, both agricultural and domestic; merchants’ stock in trade; and a hundred-and-one other items.

Other branch lines were the result of political pork-barreling or of risky industrial development. The Matakana to Mount Hope branch, opened in 1919 and closed in 1924, springs to mind, along with the short-lived Booyong to Ballina and Richmond to Kurrajong lines. Such lines never had any hope of paying their working expenses, let alone the interest on the funds used in their construction, so their early closure was made in the interests of the health of the system as a whole. That they were scenically interesting and operationally fascinating was no recompense for red ink.

Regardless of type, the branch line typified a major aspect of the NSWGR’s operations. A motley collection of superannuated loco types was replaced from 1928 by C30T class 4-6-0s, converted hand-me-downs from Sydney’s newly-electrified suburban system. In the 1950s and 1960s, the 30T at the head of long strings of livestock wagons, RU bulk wheat wagons, or S or K trucks piled high with tarpaulined wool bales was the enthusiasts’ image of a branchline train. Passenger accommodation, where provided, varied from a compartment in an LHG, PHG or MHG guard’s van, through a ‘dogbox’ or R-type car to a through composite sleeper off a mainline service, either ACM, ACX or ACS.

Travel in those times was leisurely. This was not because of any slackness on the part of the administration; simply, the services were tailored to meet a multitude of needs. The coming of the motor car, the sealed road and the belief that haste equalled efficiency saw the falling away of the lifeblood of the branch lines, so that today, those which remain are dependent on a single commodity for their continued existence. The concept of the railway as a common carrier, as the dominant provider of transport service in the scattered rural communities of New South Wales, is gone.

*Ian Dunn*
Coal traffic was an integral part of Singleton depot’s activities. Singleton men worked Liddell and Newdell trains of LCH and CCH hoppers, as exemplified by 6026 braking down McDougall’s Hill for the slow crawl across the Hunter River bridge in 1966 and 5273 dropping downhill from Allandale to Farley in 1972.

Ian Dunn (above) and Shane O’Neil (below)
On Monday, 2 August 1965, No. 720 Singleton to Newcastle passenger, hauled by 3517, heads along the four-track section near Metford. The train is worked by a Singleton crew, who will work back to Singleton later that day. The engine worked to Singleton the previous evening with the down service, No. 737, and stayed in Singleton loco overnight.

R.D. Love

THE STEAM LOCOMOTIVE DEPOTS IN NSW.

By Ray Love.

Locomotive Depot No. 14 - Singleton

Preamble.

Until the opening of the Uniform Gauge railway to Brisbane via the N.S.W. North Coast, the main line to Queensland was through the Hunter Valley and New England. Consequently, a number of depots were situated on the main northern line, and Singleton was one of the original depots.

On the 155 mile (248km) section of line between Newcastle and Werris Creek, four locomotive depots were in operation during the steam days. Two depots, Singleton and Muswellbrook, were located in the upper Hunter Valley and were a mere 32 miles (51km) apart. Murrurundi was located in the Pages River valley, another 38 miles (61km) further to the north. The small sub-depot of Merriwa was located at the terminus of the branchline from Muswellbrook.

The history and details of Muswellbrook, Merriwa and Murrurundi depots will be presented in a later essay. Historically speaking, as Singleton and Murrurundi lost importance to the scheme of things on the main line, with the use of bigger and more powerful locomotives, so Muswellbrook gained in importance and work. Now all three depots have closed, as has the small sub-depot of Merriwa. They join in the long list of depots which do not fit into the modern image of railways of the future.

Brief Area History.

On 7 May 1863, the 14 miles 25 chains (23km) section of the line between Branxton and the town of Singleton was opened for traffic. Well-known railway contractors Peto, Brasse and Betts were responsible for the section of the line from Lochinvar to Singleton, a distance of 23 miles (37km).
Singleton, originally called Darlington, was thus linked by rail to Maitland, some 30 miles (48km) to the south. Both towns were located on the banks of the Hunter River, which heads in a south-easterly direction in this region, on its way to the sea. Railway construction pushed further toward the north over the next six years, the 30 mile section (48km) between Singleton and Muswellbrook being opened on the 19 May 1869. A number of contractors were involved in construction of this last mentioned section of line, including Randle & Gibbons, McNamara & Edwards, George Blunt, and Larkin & Wakeford, all being well known in the construction business for the railways of this state. It is worth noting, that at the time of opening of the line, Muswellbrook was spelt Musclebrook, the present spelling being adopted in 1890.

Further railway construction, heading toward the north, continued over the next nine years, West Tamworth being finally reached by the railway in 1878. Newcastle was then finally linked to the upper Hunter Valley and the rich New England area by a continuous single line, 183 miles (293km) long, which incorporated many sections of 1 in 30 and 1 in 40 grades. The line rises from 19 feet (5.8m) above sea level at Maitland, to 2073 feet (632m) above sea level in the Liverpool Range at Ardglen. Bank and pilot engine work was commonplace over this section of the line in steam days, and the depot at Singleton provided locomotives for both main line and bank engine work.

In all, there were nine depots located along the 372 mile (595km) section of the main line between Maitland and the Queensland border: Singleton, Muswellbrook, Murrurundi, Werris Creek, West...
Singleton roundhouse, c.1920. It is a six-stall, sector-style with a most unusual roof design as compared to other roundhouses. Five locomotives occupy the shed roads. Interesting points to note are the neatly stacked coal heaps, the short overrun roads, gas lighting standard and the steel 60' diameter turntable.

Tamworth, Armidale, Glen Innes, Tenterfield and the small depot on the branch line at Murnawa.

With dieselisation, and rationalisation, only one depot remains on this section of the former Great Northern Railway, Werris Creek.

**Locomotive Depot No.14 - Singleton**

**History.**

In 1875, a contract drawing (noted as Drawing No.1), was issued for construction of a two-road engine shed on the Great Northern Railway line at Singleton. The shed was located opposite the goods shed on the down (or western) side of the line, at the Newcastle end of the platform. A turntable was installed about the same time. In 1879, Singleton was noted as "having room for ten engines", and the Commissioners' Annual Report for 1880 noted the loco depot at Singleton as "opened".

In October 1880, £304 was approved for the addition of a loco workshop at the depot.

A pumping plant, recovered from Liverpool, and a 2000 gallon (9kl) water tank with stand recovered from East Maitland, were erected during 1895. Increases in traffic volume on the main northern line (plus the entry into service in 1896 of the large T class 2-8-0 goods engines) made extensions to Singleton depot a necessity, and these were carried out in 1897 and again in 1899. The new shed extensions were noted as "being gas lit".

A report in a local newspaper, indicates that the original shed was blown down about 1901-1902 period. Notwithstanding this information, the shed accommodation existing at Singleton at the turn of the century must have been proving totally inadequate, for in 1902, a drawing was issued for the construction of a six-stall, sector roundhouse, on a site slightly north of the station, on the down side of the line. Of course, the provision of larger and more suitable accommodation for locomotives, may have been made more urgent by the untimely demise of the original shed. (Also, according to local newspaper reports, a replacement shed was built as an interim measure nearer to Singleton railway station, whilst the roundhouse designs and details were finalised.) As well as the roundhouse and associated pits, a store, two small offices, and a low timber coal stage were to be built at the same time, adjacent to the shed.

Provision was also made for the installation of a 30,000 gallon (136kl) water tank and stand, as well as a smaller tank and stand, of 5,000 gallon capacity (22.7kl). Authority for the expenditure of £4720 was approved, and by 1905, the depot and facilities were completed and in service. This was the first roundhouse to be placed in service in New South Wales, and was the forerunner of another 22 roundhouses to be constructed in the State during the next 47 years.

Gas lighting was provided in the depot during 1905, and by 1914, it was noted as being under the control of a Fitter-In-Charge.

Alterations to the depot over the next few years included provision of a dwarf drop-pit in 1916, and the replacement of gas lighting in the shed and associated buildings by electricity in 1926. This had been approved by the Chief Mechanical Engineer in 1925.

A 20,000 gallon (91kl) elevated water tank, lo-
By 1963 most of the main buildings in Singleton depot had been demolished, including the roundhouse. This photograph is taken from the northern extremity of the yard, looking towards the south. Milk sidings are on the extreme left, the main line curves away to the near left, with the depot area and the two remaining buildings on the right. Storage and coal sidings are on the near right.

John Sever Coll.

By 1963, only two buildings remained in the depot area. The building on the right housed the sign-on room and the DLE (later the Driver-in-Charge). The building on the left was the general store and the oil store (nearest doorway). The oil store was used by shed crews on afternoon and back shifts.

John Sever Coll.

This is a view in the opposite direction to the previous photograph. The oil/general store is on the right, with the turntable and water tanks beyond. The well-trimmed lawn and neat gardens under the care of the former driver-in-charge, Bob Ryan, are shown on the left.

John Sever Coll.
The unique elevated water tank installed between the turntable road and the arrival road featured jibs on both sides, making it suitable for use on either of the diverging roads. R.D. Love

cated between the turntable road and the arrival road was in 1927, replacing the original tank of 5000 gallon capacity installed 25 years earlier. In latter years a 5000 gallon tank reoccupied this location. By 1927, a sand furnace had been provided adjacent to the turntable road.

The Staff magazine of August 1929 noted that an improved method of signalling engines out of loco had been brought into use, the Harman steam coal grab then in use had been repaired, as had the roof of the loco shed.

By 1927, a sand furnace had been provided adjacent to the turntable road. The period between 1940 and the early 1950s saw Singleton depot at its maximum use. The provision of a deviation and regrading over McDougall's Hill, between the Hunter River bridge and Nundah, in 1952-3, saw the prime purpose of the the depot, that of servicing the bank engines in use there, decline dramatically.

By the late 1950s, the old roundhouse was rapidly falling into disrepair, and by 1960, it had been demolished. Tenders were called on 10 November 1971 for the purchase, demolition and removal of five cast-iron water tanks and stands for loco water at Singleton, including all watering facilities in loco.

In 1973, the turntable and the rest house (barracks) had been placed out of use. The area known as Singleton Locomotive Depot had closed.

Description.
The original locomotive shed was located opposite the goods shed south of the station, with the location of the original turntable being adjacent to the John Street level crossing. This level crossing has now replaced by a high-level overbridge.

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wooden buffer stops at the end of each road within the shed, but on only one of the outside roads. Wooden buffer stops do not seem to have been used in roundhouses built in subsequent years. The outside roads were also provided with inspection pits, 45'0" (13.7m) long at the time of construction.

The roundhouse as built was set back from the edge of the turntable pit 20'6" (6.25m) and was 66'0" (20.1m) deep. The flooring was of concrete. Roof and wall cladding material appeared to be corrugated iron sheet.

As roundhouse designs go, Singleton was unusual. Apart from being the first to be constructed, the roof shape of this particular example was not repeated again in N.S.W. There were three basic designs of roundhouse roof in use in N.S.W.: the ventilating ridge roof, similar to Taree, Temora and Port Waratah (some variations do exist in these roofs), the saw-tooth roof (Lithgow, Werris Creek) and the modern style of the 1940s, with a symmetrically sloped roof (Parkes and Muswellbrook). Singleton did not fit into any of these styles, or perhaps it is more true to say, that no later designs followed the original shape as constructed at Singleton. It had an asymmetrically sloped roof, the leading slope being about 14°, the rear slope being about 26°. A ventilating ridge was fitted to the peak of these two sloping roofs and smoke chutes were also mounted on the rear slope on each road. The outer wall of the building was fitted with a row of windows intended for improved natural lighting (from the western side) rather than for viewing, as the bottom sill of the window frames was set almost 10 feet (3m) above ground level.

Other structures associated with the new depot included a store, 30'0" x 15'0" (9.0m x 4.5m) and another building of timber construction housing two small offices, one for the depot foreman, and one for the drivers. A low, timber coal stage measuring 200' x 18' wide (61m x 5.5m) was also built, as well as two elevated water tanks.

A two-bedroom barracks for enginemen and guards had been constructed near the goods shed south of the station by the 1920s.

In December 1926, a 75 foot (22.8m) diameter turntable had been ordered for the depot, but was never installed.

Over the next twenty years, only small changes took place in Singleton depot, mainly trackwork or alterations to the access roads. By the 1940s, a shower/bathroom had been constructed adjacent to the original store, and a sand furnace had been built near the turntable. A second coal stage had been built between outside roads leading off the turntable. Some years later, the sand furnace was taken out of service, and all dry sand used in Singleton was brought up from Broadmeadow depot in covered rail trucks. Broadmeadow also supplied
other depots, for example Muswellbrook and Murrurundi, with sand.

In 1955, major flooding covered railway lines all over the state, the Hunter River being one of the main culprits. Flooding in Singleton was severe, and the depot buildings were affected. In addition, the crew barracks near the goods shed was destroyed. As a substitute, a mobile crew rest van (former carriage) was placed on one of the turntable roads in the depot, actually behind the store, for use by crews as required.

By the early 1960s, Singleton depot consisted of a turntable, with two radiating roads (former shed roads), the elevated water tank between the turntable road and the arrival road, a small coal stage, and one or two depot buildings.

With the demise of steam operations in the state in 1973, the area occupied by Singleton locomotive depot became a camp for the local track maintenance crews, a situation which exists today.

Express engines of the 4-4-0 D class featured prominently in Singleton in the early days on passenger and pilot duties. This particular locomotive, D267 (later 1607), was the last D class allocated to Singleton depot, leaving there in 1928. SRA
Locomotives.

Accurate documentation of locomotive working in certain districts prior to the turn of the century was seldom kept or published. It appears that locomotive transfers and allocations were made 'public' via Weekly Notices during 1917. Accordingly, it is difficult to ascertain the locomotives actually working in the Singleton district prior to 1917. However, some idea may be obtained by reference to a past issue of Australasian Railway & Locomotive Historical Society Bulletin (later ARHS Bulletin), dated September 1941, in an article titled "North of Newcastle in the Nineties". "Leaving Newcastle... the next locomotive station was Singleton. Six D class engines including Nos 269, 272 and 278 were stabled at this depot and were used to assist the Mails to Murrurundi..." and "... the Mail was worked by Newcastle engines, usually P class, which ran through to Tamworth... Through goods trains were handled by low-wheeled American-built 2-6-0s of the K294 class, as well as by English Moguls of the B205 class."

The article goes on to note the A93 class (later 19 class) as working Singleton-Newcastle goods trains, as well as being used as push-up engines over McDougall’s Hill to the north of the town.

From 1917, with the issue of allocation details, reasonably accurate records were kept, and from these, it is possible to see the pattern which emerges regarding the engines in use in the area.

In December 1917, twelve years after the opening of the roundhouse, the allocation to Singleton depot stood at eight locomotives.

A113 (1918) D339 (1634) D340 (1635)
B392 (2420) B218 (2514) B228 (2524)
B244 (2540) B328 (2565)

Apart from these allocations, larger mainline locomotives were allocated there also. Between February and June 1917, P11 (3205) was noted as 'being under repairs' at Singleton depot. In June 1917, Singleton's last P class was transferred to Hamilton.

Standard Goods engines also featured in this period. In May 1917, engine T730 (5100) was sent from Eveleigh Works to Singleton, replacing T761 (5117), which was sent back to workshops. In June 1917, T881 (5166) was sent from Hamilton depot to Singleton, replacing T742 (5142), also sent to workshops. The TF class goods engines (2-8-0s) also were involved, with TF977 (5359) and TF1119 (5396) being transferred to and from the depot in the 1917-1919 period.

By January 1920, the allocation stood at four goods engines:

A371 (1955) B215 (2511)
B218 (2514) B315 (2552).

In addition, two or three passenger engines (probably D class 4-4-0s) were at Singleton at the same time.

It was common practice in the 1920 period to document only the engines 'in goods service' at particular depots. It is known that all three varieties of D class (later known as 15 class and 16 class) express passenger 4-4-0s were based at Singleton during the period 1917-1928. A typical transfer is shown in the Weekly Notices of 1920. Engine D339 (1634) was transferred to Singleton from Eveleigh Shops, replacing D281 (1621), which was sent to Eveleigh Shops for overhaul. By 1920, these engines were used as pilots and assistant engines on the mail and express trains, assisting on the long grades north to Murrurundi. Local folklore states that the locomotive involved in the Aberdeen accident of 1926, where five people were killed, D class engine 1617, which was assisting train engine 3504, was a Singleton engine. In 1928, 1607 was...
In the 1930s and early 1940s, the main class of bank engines in use was the 25 class (old B205 class). A few were fitted with extended smokeboxes to reduce the incidence of ashes blocking the lower tubes. Class leader B205 (later 2501) shows this unique feature.

transferred from Singleton to Honesuckle Workshops. This was the last D class in Singleton.
In 1923, the Singleton allocation was:
A371 (1955) B56 (2402)  
B215 (2511) B218 (2514) B322 (2559)
An interesting allocation was noted in the transfers of November 1925.
Engine 5133 was sent from Eveleigh Shops to Singleton with the remarks "... for banking purposes, owing to the Nundah Bridge being burnt." Since Standard Goods engines appear to have left the Singleton allotment about 1919, the reallocation of this particular engine obviously was required to suit the prevailing traffic conditions. By late December 1925, the problem must have been resolved, as 5133 was transferred away from Singleton to Bathurst depot.

Typical allocations for the next ten years are now shown in Table 1. (The new locomotive numbering scheme, brought into use in 1924, will be used, with the listing being dated January of each year).

In some cases, a locomotive was allocated to the depot at a certain date but the displaced engine had not actually left to take up its new allotment elsewhere.

A long-time engineman, Mr. Ted Avard, went to Singleton depot in 1935, and he quoted the allocation in that year as being "three of the 25 class, used for shunting, bank work, and the Muswellbrook to Merriwa mixed, one of the 30 class tank engines, also used on the Merriwa mixed, whilst the 32 class engines residing in the depot on a daily basis were used to pilot (assist) the mails to Murrurundi, or used on bank work".

In June 1938, the allocation of engines to Singleton depot ceased, and all the locomotives were transferred away.

Typical of the re-allocation:
2540 (ex Singleton store) to Eveleigh Shops.
2532 Singleton to Narrabri West.
2546 Singleton to Broadmeadow.

From June 1938, locomotives working out of Singleton depot were actually Broadmeadow engines. Up to four engines were involved at any one time.

Typical examples are shown.

<table>
<thead>
<tr>
<th>Year</th>
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<td>1944</td>
<td>2535, 2540</td>
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<td>1947</td>
<td>2518, 2540, 2543</td>
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<td>1949</td>
<td>2414, 2540</td>
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Table 1

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<th>1935</th>
<th>1938</th>
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<td>3098T*</td>
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<td>2545</td>
<td>2548</td>
<td>2567</td>
<td>2545</td>
<td>2546</td>
</tr>
</tbody>
</table>

* The allocation of a 30T class engine in the early 1930s is interesting. Firstly, 3098 was sent there in 1931, and 3128 in early 1932, which only lasted four weeks, and was then sent to Werris Creek depot. These engines must have been for use on the Merriwa branch, 3098 being transferred away in 1934 to Casino depot. 2540 (ex Singleton store) to Eveleigh Shops.

From June 1938, locomotives working out of Singleton depot were actually Broadmeadow engines. Up to four engines were involved at any one time.

Typical examples are shown.
Engine 2414 transferred away to Enfield at the end of 1949, 2540 remained until April 1951, and was sent to Eveleigh Workshops. This was the last engine to call Singleton depot home, although at the time 2540 was still officially a Broadmeadow engine.

Deviations, regrading and duplication of the line in this area between Maitland and Muswellbrook during the 1940s, meant bigger trains running more frequently. Obviously, the bank engine work over McDougall’s Hill, the jobs which primarily occupied the men and machines from Singleton depot during the previous 30 years, was beyond the capabilities of the little old B class 2-6-0s, and 32 and 35 class 4-6-0 passenger engines took over this work.

These passenger engines were usually Broadmeadow based, resting at Singleton between main line duties.

The loss of locomotives from Singleton depot was also due in part to the increase in coal traffic from the Muswellbrook area. A result of this increase was the necessity to provide a larger depot at Muswellbrook itself, replacing the spartan facilities there. This new depot then assumed responsibility for the engines employed on the Merriwa branch, as well the locomotives in use on the coal traffic.

From the late 1950s until complete dieselisation in 1973, the former locomotive depot at Singleton serviced ‘passing’, or overnight locomotives. The engines off the daily Singleton passenger trains (35 class up until the mid 1960s, a 32 class for the last few years) would be treated to ‘bed and breakfast’, making use of the run-down facilities. Apart from these regular overnight guests, locomotives of passing coal trains would sometimes call in to ‘freshen up’ if required. Standard Goods engines (53 or superheated 50 class), coal-burning 59 class and even 35 class in use on some Liddell coal trains would be included in this group. As well as this, a Standard

Above Right: In August 1965, Broadmeadow engine 5466 is turned on Singleton’s turntable after working in on No.253 empty coal train. A Singleton crew has taken over from the Broadmeadow crew and will continue on to Newdell Coal Sidings.

R.D. Love

Right: After coupling up to the empty coal train, 5466 works No.253 across the Hunter River Bridge, en route to the coal mines. This section across the bridge was single line. The crew will hand over the staff to the signalman at Hunter River Signal Box, just out of the photo to the right, as the train re-enters the double track section.

R.D. Love
Goods engine was used as the shunter at the Liddell/Newdell coal mines during the late 1960s, and this engine also was looked after in Singleton depot as the need arose.

Steam gradually disappeared from all these duties at the end of the 1960s, the sole exception being the Singleton passenger train, Nos 737/720. The usual motive power on this train for quite some time was engine 3246, and it continued to be serviced overnight in the depot area. On 24 July 1971 engine 3246 was displaced from this train also.

Details of the last days of steam on the Singleton passenger train can be found in Ron Preston’s book Standards in Steam - 32 Class.

The days of steam locomotives in Singleton depot were over, almost 100 years after they began.

Crews.

By the 1880s, Singleton depot joined Hamilton depot in the south and Murrurundi depot in the north as an essential link in providing facilities for the passage of trains, both passenger and goods, along the Great Northern Railway line, northward from Newcastle. As such, many enginemen and depot staff were employed there to assist in these duties, as well as providing crews for the bank engines in continual use north of the town.

Whether Singleton men were used on through main line goods and passenger trains toward Murrurundi or toward Newcastle in that period is debatable. Newcastle to Singleton, a distance of 47 miles (75km), would only have taken approximately three hours, even with an A class or a B class engine, Singleton to Murrurundi, a distance of 71 miles (114km) would have occupied about five hours. It is possible that the the same crew worked through from Newcastle to Murrurundi without change, however the locomotive would certainly have required service (coaling and cleaning of the fire, etc.)

One report indicates that around World War I, about 60 men were employed in Singleton depot, but in late 1917 through running of engines between Newcastle and Werris Creek was brought in, and the number of men in Singleton was reduced to ‘about 30’.

From the 1930s until the early 1940s, about 40 men were employed there. This number was made up of 9 drivers, 10 firemen, 6 acting firemen, 2 cleaners, a fuelman, a fitter and his mate, and a call boy. On the administrative side, there were a roster clerk and a chargeman on day shift. The depot was under the control of a District Locomotive Engineer. These numbers were approximate only, and varied from time to time. During some periods, the fitter’s position was occupied by a Steam Shed Inspector (S.S.I.), at other times it was a ‘working’ District Locomotive Engineer (D.L.E.). A working D.L.E. was expected to get his hands dirty with repair and maintenance work, whereas the D.L.E. in a large depot spent all his time on administrative duties. On still other occasions, the senior position in the depot was Chargeman, and yet at other times the depot was under the control of a senior driver, termed Driver-in-Charge.

During the 1930s and early 1940s, a boiler washout man was employed. No boilermakers were on the strength of the depot, all boiler repairs were carried out at Broadmeadow, or if necessary, a boilermaker was brought up from Broadmeadow to effect repairs. Similarly, any heavy mechanical repairs which could not be handled by the working D.L.E., were forwarded to Broadmeadow for completion.

By the late 1940s and early 1950s, the staff situation had changed again, due to changes in the main line running etc.

The number of men in the depot had reduced to about 25 in total, made up of 6 drivers, 6 firemen, 6 acting firemen, 2 cleaners, a fuelman, a fitter and his mate, a chargeman on the day shift, a roster clerk and a call-boy, also on day shift.

By the early 1960s, only 12 men were working out of Singleton depot. During the next 20 years, these numbers were allowed to decline as the work was carried out by other depots, and the men retired and were
Mr R.E. (Bob) Ryan was Driver-in-Charge in Singleton for nine years. He retired in 1963, after 47 years’ service.

By the early 1980s, three enginemen remained in Singleton. Firstly, Lachlan Usher transferred to Broadmeadow Depot. In 1984, appointed Singleton driver Geoff Harris retired, after spending more than 39 years at Singleton. Not long after, the last Singleton engineman, John Bates, transferred to Broadmeadow, effectively bringing an end to Singleton Locomotive Depot.

Driver-in-Charge.

A number of people develop an association with a depot, and in Singleton’s case, a local identity started in Singleton, and finished his days there.

Between the years of 1954 and 1963, Singleton depot was under the supervision of Mr. R.E. Ryan, his official title being ‘Driver-In-Charge’.

Bob Ryan commenced his railway service as a call boy at Singleton Locomotive Depot in 1916, at the age of 15 years.

In February, 1925 he received his “Certificate Of Competency ” under the hand of Chief Mechanical Engineer (C.M.E.) E.E.Lucy, and then progressed through all grades, finally becoming the state’s No.1 driver on the seniority list. He served at many depots throughout the State before being appointed Driver-In-Charge at Singleton in 1954, 38 years after joining the department, and back at his original place of employment. Bob Ryan was proud of his position as Driver-In-Charge at Singleton, and ensured that the lawns and hedges around the depot were kept neat and well trimmed. One of his ‘trademarks’ was a suit; he always wore a suit when on duty, even when driving steam locomotives. In 1964, he received an Imperial Service Medal for 47 years service to the department, having retired in 1963.

Working.

As with most locomotive depots, the work performed and handled by the men and machines varied over the years, governed by the issue of successive timetables, the transfer of specific work to other nearby depots, and other sundry reasons. This also applied in the case of Singleton, and so it is deemed necessary to divide this section on train
The 1890s.

As stated earlier, accurate and thorough records of railway working nearly 100 years ago are not extensive. Notes and observations were made on an infrequent basis by both railwaymen and interested observers of the day and it is sometimes necessary to turn to these for assistance in order to obtain the true picture.

An interesting observation is found in ARHS Bulletin of September 1941, for the northern line in the period of the 1890s.

To quote selected parts:

"Six D class engines were stabled at Singleton depot . . . used to assist Mails to Murrurundi . . ."

"A regular D class turn was on No.48 passenger to Newcastle . . ."

"The Mail was worked by Newcastle engines . . . P class which ran through to Tamworth . . . when the Mail was overload, the train was assisted by a D class . . ."

From these notes, it is also seen that through goods trains were handled by K class 2-6-0s or by B class 2-6-0s. In addition, some local goods to Newcastle were handled by A class engines. This type was also used as push-up engines over McDougall's Hill out of Singleton.

At this time a number of collieries were working in the area, in the Weekly Notice of November 1892, a conditional coal train, 'to run when required', departed Singleton as train No.231 at 7.15am, arrived at Rix's Creek Colliery at 7.35am, then left for Singleton as No.220 at 8.20am, arriving there at 8.40am.

An indication of the extent of bank work performed by the depot in the 1890s, can be gleaned by reference to Weekly Notices of the period. Bank engine work of up stock trains was specifically mentioned in Weekly Notices for the year of 1893. At the time in question, Nundah was the first crossing loop on the Muswellbrook side of Singleton, but was located approximately one mile (a little over 1km) up the 1 in 60 climb to the top of McDougall's hill.

This 1 in 60 grade was the steepest climb confronting up trains travelling from Murrurundi to Newcastle, and limited the through loads which could be hauled by the locomotives. The railways were anxious to take advantage of the hauling capacity of their newly introduced O class 4-6-0s (later 23 class) on stock trains. A load of 50 trucks of sheep or cattle, including the brakevan, could be hauled by one of these engines between Murrurundi and Singleton, provided an assistant engine was used up the 1 in 60 grade through Nundah.

On arrival at the foot of the 1 in 60 grade, the driver of the O class engine brought the train to a stand and sent the fireman to walk forward to Nundah signal box with the train tablet. At Nundah, the fireman handed the tablet to the driver of the bank engine (a Singleton engine and crew), and piloted the engine back to the waiting stock train. After the bank engine was coupled on to the front, the stock train proceeded double-headed to Singleton. The bank engine was running tender-first during this period, and the maximum permitted speed was 18 mph (29km/h).

This smokebox-to-smokebox working was later banned, and the tender-first bank engine had to be placed behind the train engine, whenever this assistance was required. This practice may also have been a prime reason for the rapid removal of the long American cowcatchers from the O class.

In 1899, Nundah crossing loop was relocated to the bottom of the bank, thereby eliminating the walk forward by the fireman to pilot the assistant engine onto his train.

Another example of bank-engine working in operation during this early period is shown with the issue of Weekly Notice No.19 in 1895, containing Special Instructions for the working of goods trains north of Singleton. Main line engines of the A93 (later 19 class) and B205 (later 25 class) class engines were involved, and permitted double loads to be conveyed between Singleton and Murrurundi in the down direction. The instructions covered the use of the Singleton bank engine, pushing in the rear from Singleton to Nundah (over McDougall's Hill), at which point the banker transferred to the front of the train and travelled to Toowong (later renamed Antiene). At Toowong, the assistant engine again transferred to the rear of the train and assisted to the old mileage 73.20 over 1 in 40/50 grades, to just near the present Grass Tree.

Special instructions regarding this operation were included, to provide for the station master (SM) at Singleton to advise all stations concerned of the need for the Singleton bank engine to assist as stated to Toowong, and to be aware of the return of the banker from Toowong to Singleton. The SM Singleton was also required to inform the SM Murrurundi of the particular through goods train (conveying the double load) and that it would also require assistance from Wingen to Murrurundi. The SM Murrurundi would then arrange for the provision of a bank-engine to push from Wingen to Murrurundi.

Further instructions were later issued to permit double loads to be assisted by the Singleton engine in the lead from Singleton to Toowong or Muswellbrook, but certain conditions regarding the Westinghouse brake applied at the time. Also included in these instructions was a suitable provision for occasions when the Singleton bank engine could not return in time to assist a following train due to time constraints. In this case, the assistant engine continued on to Muswellbrook with the first train, took water and returned to Toowong, from where it pushed the following train up the grade, as was normal. Consequently, another bank engine would have been required from Singleton over McDougall's Hill. So it can be seen from this case...
In April 1960 the first sleeping-car enthusiast tour train to run in the state pauses at Singleton for water. The small dock siding is to the left of the photo, and part of the yard and elevated water tanks to the right.

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that the Singleton bankers could quite often be used in two locations simultaneously, McDougall's Hill and Toowong.

It is quite evident that the smaller engines of the day working between Newcastle and Murrurundi (where the locomotives were changed) required coal en route. In August 1908, delegates of the Engine Drivers and Firemen's Association met with the Commissioners to air a number of complaints and grievances. Included was a request that "... when coal is required on engines running between Newcastle and Murrurundi, permission be given to take it at Singleton, where proper coaling facilities existed, instead of Wingen, where the men had to shovel it on themselves ..." The Commissioners "... promised to look into the proposal ...".

Picnic and excursion trains were popular in the period around the turn of the century. On Saturday, 16 November 1912, the Greta Colliery employees picnic was held at Paterson on the North Coast. A Special train was rostered, with six second class American cars, timed to run empty from Singleton to Greta, there to pick up the employees and their families. To quote the Special Train Notice: "Loco Singleton to supply a P Class engine to work the Special Train between Singleton and Paterson". On arrival at Maitland, the P class engine was to turn on the 50' (15.2m) turntable there (16 minutes allowed) and then work on to Paterson. As a light engine it then returned tender-first to Maitland from Paterson, turned and watered, then later in the day, ran back tender-first to Paterson. The morning's procedure was then repeated, with the engine turning at Maitland, whilst working the return run of the picnic train. The passengers were returned to Greta, the empty train continuing on to Singleton.

In 1913, Rosedale Colliery, located on the old single line near Nundah, had its annual picnic at Toronto on Lake Macquarie. The Special Train Notice for Pay-Saturday, 4 October, called for a special passenger train to depart Nundah at 7.35am and arrive at Toronto 10.37am, later to return that afternoon to Nundah. "Load to be four second-class American cars and a bogie brakevan - Loco Singleton to supply a D class locomotive to work the Special Train".

The D class had worked from Singleton to Nundah, up over McDougall's Hill tender-first, with the cars, arriving at 7.18am. The reverse took place that evening, with the engine and cars finally arriving back in Singleton after a long day. It is worth noting that the engine off the special worked tender-first from Toronto to Hamilton loco during the day for
In the NSWGR depot numbering system, Singleton became No.14 and brass shed plates were fitted to the cabs of Singleton-based engines.

The 1940s.

By the late 1930s, Singleton depot was principally a bank engine depot, with the 25 class 2-6-0s being the most common form of power. These engines were used as both rear-end bankers, and assisting trains in the lead over McDougall's Hill.

When required for rear-end banking of up goods trains from the Nundah side of McDougall's Hill, the engines pushed tender-first to the top of the hill, near Padulla. When the mails required pilot engine assistance, the Broadmeadow-based 32 class which had worked up on the local passenger trains was used. Often, these engines were required to work through from Singleton to Murrurundi if the load warranted the assistance. The 32 class engines which arrived in Singleton off the two down passenger trains in the evening were used to assist the No.17 Brisbane Express (via Wallangarra) and the down mails (No.7 Moree Mail and No.13 Glen Innes Mail), and due to the short time available between changing crews, stowing their respective carriage sets, and attaching to the down main line train, preparation time was negligible. Often, the crew on the assistant engine would be shovelling down en route to Murrurundi in order to keep the coal within reach on the long uphill journey, especially if the engines had not been fully coaled before leaving Broadmeadow earlier in the afternoon.

During this period, Singleton also had a small hand in main line work. All appointed Singleton drivers had a weekly roster: Newcastle passenger working, then shunter, then work No.73 goods to Muswellbrook, return on No.80 goods.

All acting drivers at Singleton during this time were qualified to work passenger trains, and assist mail and express trains in the second engine position. This never applied in practice however, as the Broadmeadow or Werris Creek enginemen in control of the train engine on arrival at Singleton did not change positions from their larger locomotive (normally a 35 class) to the pilot engine, so the Singleton crew on the assistant locomotive led the way north to Murrurundi. In addition, all appointed Singleton drivers were eligible to work main line passenger and express trains if required. It was also during this time that, in periods of heavy traffic and shortage of enginemen, Singleton men worked from Muswellbrook to Murrurundi.

In the early days, Singleton depot also supplied both engines and men to work the Merriwa branch, on stock and goods trains. The Merriwa working by Singleton men had ceased by early 1942, but the engines continued to be serviced in Singleton. Both the 25 class and the 30 class tank engine were used on the branch at the time on stock, wheat and goods trains and would return to Singleton depot for service and washout. The 25 class were the last engines to be washed out in Singleton depot, and they were later transferred to Muswellbrook for branch working. The Merriwa line 30 class tank engine came down from Muswellbrook to Singleton late in the week, and the boiler was washed out in Singleton depot. The engine was then returned to Muswellbrook attached to No.73 down goods on Monday morning. Water was taken at Ravensworth and it was not advisable to leave there without a full boiler and full tanks, as it was quite a regular thing to run out of water between the top of the last hill and Muswellbrook. To quote a long time Singleton engineman (then a fireman) "One feature of this working I didn't like was that the fireman off the 30 class had to coal the engine himself on arrival at Muswellbrook, in order for the engine to work to Merriwa. The engine was cut off No.73 goods, backed up to an old wooden D truck in the dead end near the signal box and we had to shovel out of this truck up into the bunker of the engine, and without a long handled shovel, either! The first time I was told I had to do this, I refused, but both my driver and the chargeman at Muswellbrook, Sid Musgrave, soon convinced me it was part of my duties. All this, as well as cleaning the fire, taking water, and looking after the boiler until we were relieved by another crew. This working remained a very sore point with me, and I was glad when it was phased out . . ." (Muswellbrook depot later took responsibility for the Merriwa line engine). "One thing this working taught you was to be as sparing with the coal as possible between Singleton and Muswellbrook, because every bit you used, you replaced yourself on arrival in Muswellbrook."

During World War II, Standard Goods engines from Broadmeadow were serviced in Singleton whilst being used on troop and military trains from the nearby army camps to Maitland, and then on up the North Coast. Both saturated and superheated 50 class were also in use on the main line about this time, at work on the local passenger trains during holiday times and came into Singleton to have their small tenders topped up by the fuelman there.

Prior to the 1940s, a steam coal grab, affectionately known as 'Spitfire', was used in this operation. A longer than usual outside road, constructed adjacent to the roundhouse, allowed locomotives fitted with small tenders (off through goods trains), to stand and be coaled by the steam grab. The steam grab went further afield in later years and all coal-
Baldwin-built 5913 eases No. 44 up wheat across the Hunter River Bridge at Singleton in August 1965. Severe speed restrictions were in force for a number of years on the old single-line structure and it was completely replaced by a double-track bridge a few years later.

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ing was then done by hand, and this long road was then used to put the Singleton loco coal trucks in a suitable position for the hand coaling of tenders. This long road was inclined and slightly elevated above the surrounding roads, and held one or two S trucks of loco coal. To get the trucks up the elevated road was an interesting exercise. The 60’ (18.3m) turntable was not long enough to accommodate a locomotive and a truck, neither was there a road on the opposite side of the turntable, so it was necessary to haul the truck of coal on to the turntable, uncouple the engine and run clear, bar the truck to the end of the turntable, attach a tailrope between the axle guard and the tender drawhook, and drive the engine forward over the adjacent de-ash road, thus pulling the truck up the incline. Locomotive tenders could then be coaled out of the truck by shovel, but at a slightly higher level. When the trucked coal ran out, locomotives were hand-coaled off the low stage adjacent to the ash-pit.

During the Maitland floods of the early 1950s, a 36 class engine came into the depot for servicing. It had been working trains between Werris Creek and Farley and return, not being able to to proceed to Newcastle because of the floods. The engine worked back from Farley to Singleton tender-first, came into the depot, was turned (engine and tender split and turned separately), and then coaled. This coaling operation involved an exhausting throw with a long-handed shovel from the low stage, up over the side of the tender, a lot of work for the two shed men on duty. The engine then worked tender-first back to Farley, and then worked engine first on the return to Werris Creek.

The Singleton fuelman also shovelled down the tenders of No. 10 passenger train on the main line if required (usually a 32 class in those days) as well as coaling the Merriwa line engine during its stay in the depot. Only one fuelman was in use at the depot, usually on the day shift. At night, all coaling, de-ashing, cleaning up of the resultant ash etc., was carried out by the shed-fireman and his mate, as well as reliefs for crews, preparations, shovel-forwards, and all the calling of the engine crews. Plenty of work to keep one occupied!

The 1950s.

With the departure of the 25 class 2-6-0s from Singleton, 32 and 35 class 4-6-0 express passenger engines took over the local work performed by Singleton depot. This included the bank work over McDougall’s Hill. These engines were allocated to Broadmeadow, being used whilst staying over at Singleton between passenger runs to Newcastle. All engines being used as bankers faced north, and assisted both passenger and goods trains this way. In the down direction, goods trains were pushed in the rear to Padulla, where the banker dropped off the rear of the train and returned light to Singleton. If an up train needed assistance up the other side of McDougall’s Hill, the banker would go attached to the front of the down goods to Nundah, where it
would detach, or would follow the goods train light engine down to Nundah, depending on traffic requirements. Down passenger trains were assisted in the lead to Padulla, where the assistant engine was detached, but if another train (up goods) required assistance from Nundah toward Singleton, the pilot engine on the passenger train would continue on to Nundah and detach there.

It is the assistance of up goods trains from the Nundah side of McDougall's Hill which makes Singleton depot unique. The bank engines working from the north side of the hill were facing north (as there was no means of turning these engines at Nundah), and therefore all banking from that side of the hill toward Singleton was done by the engines working tender-first! In most cases, the engine pushed on the rear of the up train (goods), and dropped off the guard's van between the up distant signal and the up home signal at Padulla, leaving the train to continue on its way. The bank engine would then either return to Nundah to assist another up train, or continue on to Singleton when the previous train had cleared the section. On some occasions however, the assistant engine was required back in Singleton in a hurry to assist another down train, and, if a 32 or a 35 class engine, could be attached to the up train, but because the the banker was tender-first, it had to placed 'in the shafts', behind the train engine (i.e. tender-to-tender) for the run down the hill to Singleton.

Funnel-to-funnel working was not permitted, and in addition, if the bank engine happened to be a 25 class, load and drawgear limitations created too many problems for this tender-to-tender working on the return to Singleton. A long-time Singleton driver recalled, "I was firing for Abe Faulkner on the midday banker with a 25 class and we went in behind No.80 goods at Nundah. Just in front of the brakevan was a small wooden truck weighing about 6 or 7 tons. The regulations stated that any vehicle under 8 tons was to be marshalled just ahead of the van and no bank engine was to be used. This most knowledgeable guard came to the engine and informed Abe that we would have to go on the front. 'Funnel-to-funnel working not allowed,' replies my mate. 'Go in the shafts!' says the guard. Abe then asked him if he would do all the shunting involved in reducing the load of the train to that of the 25 class, as well as informing Control that the excess tonnage would be occupying the loop until someone else could pick it up. After much consideration the guard said, 'OK, go on the rear, but don't push too hard.' We didn't push too hard, and the blokes on the front had to do a little bit extra with their engine.'

Tender-first banking is most unusual in N.S.W. Some tender-first, rear-end assistance was found on an irregular basis in some locations (out of Dubbo with down goods trains over Bourke Hill comes to mind, but was not an everyday occurrence). At Singleton, this was the normal working with goods trains for many years.

The through down mail and express trains were, in most cases, also assisted over McDougall's Hill out of Singleton, usually to Padulla, or to Murrurundi, depending on the load (up to 315 tons, no assist; 316 tons to 365 tons, assist to Padulla; above 365 tons, assist to Murrurundi). The assistant engine was mostly a 32 class, but could also be a 35 class. Most of the mails were assisted to Murrurundi as was No.23 down Northern Tablelands Express, since it was running to an accelerated table. This working is interesting in itself. The assistant engine, on arrival at Murrurundi, would detach from the train (in fact, being replaced by a Murrurundi engine for the run up the Liverpool Range), run to loco, turn, shovel forward and return light toward Singleton. One driver recalled, "Sometimes the engine was required to pick up a load of coal out of Muswellbrook, and work through from there, or alternatively, bank an up goods from Nundah, much to the disgust of the crew involved as they had just completed a long, hard uphill grind to Murrurundi in the first place. On occasions, they were only required to push to Padulla, but often they attached to the front of the train engine at Padulla, for the quick return to Singleton. Quick was the operative word, and the crew on the train engine would be quite uneasy at the speed down McDougall's, as the Singleton crew raced for home and a rest..."

During Christmas and other holiday times, Standard Goods engines were used as the bankers over McDougall's Hill, due in part to a shortage of passenger-type engines, but the long distance assist jobs, mails and expresses, always managed to get a 32 or a 35 class engine.

### The 1960s

By the 1960s, the work had greatly decreased and involved two passenger trains daily to Newcastle in the morning, returning in the afternoon to Singleton. In addition, Singleton men were used in conjunction with Broadmeadow crews to work a couple of regular goods trains to Broadmeadow on the main line, or to Muswellbrook. Coal train working was part of the work also, both to the Newcastle area and to and from the mines in the Liddell/Newdell area. One particular job involved the relieving of a Broadmeadow crew on a down empty coal train at the station (usually a Standard Goods engine), take the engine into loco, turn, water and then work tender-first to the Newdell Collieries. After shunting, and making up their train, the Singleton crew would work back to Singleton on the loaded coal train, there to be relieved by the Broadmeadow crew, who worked back to Newcastle.

During the 1960s, the construction of the cooling pond for the Liddell power station caused the main northern line to be deviated between Ravensworth and Antiene, with the result that the Liddell/Newdell coal mines were located on a branch line (formerly the main line) which virtually terminated at the power station itself. Consequently, a shunt engine was employed at the mine area, usually a Standard Goods engine or a coal-burning 59 class engine, complete with bogie water tank (as there were no columns at the mine), and these shunt jobs..."
At the end of 1965, there were still eighteen of the 35 class engines in service, and one of their regular runs was the Singleton passenger. In November 1965, 3532 heads north through Sandgate with No. 737 afternoon passenger to Singleton. On arrival, the cars will be shunted and stabled for the night. Next morning, with a fresh Singleton crew, the engine will return to Newcastle with the up service. R.D. Love

also became part of Singleton's working.

The usual locomotives on the coal traffic at the time, 50, 53, 59 and 60 class engines, were all worked by the Singleton men, and of course, the 32 or 35 class on the Singleton to Newcastle passenger train.

General Notes.

In the depot numbering system introduced by Chief Mechanical Engineer E.E. Lucy, Singleton depot was No. 14 and brass depot allocation plates were known to have been carried by Singleton engines. It is not certain whether cast-iron Singleton depot plates existed, as the depot had lost its allocation of engines by the late 1930s, and no cast-iron plates had been noted. With the loss of its own allocation of locomotives, Singleton became a sub-depot of Broadmeadow, a situation which remained in force until its complete demise.

As pointed out previously, the most unusual aspect of operations at Singleton, was the regular use of bank-engines working tender-first. When the deviation around McDougall's Hill was partly completed, assisting of northbound trains ceased, but southbound trains continued to be pushed from Nundah. For that short period until the completion of the deviation, the bankers faced south. As with most locations of an industrial nature, incidents occur, and reference to the depot diagram of 1947 reveals a long road shown as the storage siding. In the 1930s, the road was not set correctly for a train to depart from the yard en route to the north, with the result the train went straight ahead into the storage siding, and finished up in the creek. The resultant damage is unreported.

The original crew barracks in Singleton had been constructed in the 1920s, near the goods shed. It consisted of two bedrooms, three beds in each, and a kitchen and a dining room. Broadmeadow crews used the barracks in the 1940s but overall it saw little regular use. Muswellbrook men also used the barracks occasionally, but as one Muswellbrook engineman related, in his three years at that depot, he only used the Singleton barracks on two occasions. In 1955, the barracks were washed away in the floods which devastated the area, and a former passenger carriage was placed on one of the depot roads and fitted out to become the crew barracks.

The extended use of the 25 class as bank engines working out of Singleton is interesting. A long-time Singleton driver reported, "The only engines we were specialists at were the 25 class, the bankers in use for goods trains. If for some reason these engines had to go to Broadmeadow for attention, Singleton men were supposed to work them, as crews from Broadmeadow were known to 'singe' the odd boiler on occasions, and the department issued instructions naming Singleton crews as the men to work trains to and from Broadmeadow with 25 class engines. We had three of the 25 class engines in my time, 2518, 2535 and 2540. When one was taken away, we got 2543. They were all saturated engines with straight
bars (i.e. the fire grate could not be rocked to shake out the ash), and 2540 had an extended smokebox, which didn't make it steam any better, but gave us more ashes to clean out. They had electric lights, but no hot water service hoses, so with any tender-first running, which was after every 'push', many buckets of cold water had to be thrown over the coal to keep the dust down.

"The driver stood on the right side of the cab, and the fireman on the left, so if you couldn't use a shovel both ways, you came in for quite a bit of adverse comment and the threat of having the monkey wrench shoved up your bum, so it generally paid off to try and fire from the left side instead of the right side as on other engines."

As with all depots, some amusing incidents happen from time to time.

A Singleton crew was waiting in the yard one night to push up one of the numerous down goods which ran in those far off days. It was the practice to wait near the platform, and the assistant station master (ASM) would show the Singleton-Padulla staff to the leading crew, then give it to the bank crew, who would then go around to the rear of the train and prepare for the push. When all was ready, crib finished, shunting completed, etc. the banker would whistle "long-short-long", the leading engine would acknowledge, and away they would go.

On this night, when the goods train stopped on the down main line, it happened that a sheeted bogie truck stopped right near the bank engine, and the crew were looking at a truck almost fully loaded with cartons of bottled beer. Somehow, the sheets had become undone, and various helpful railwaymen along the track had assisted in reducing the load of this particular truck (all in the interests of train working, of course). The fireman said to the driver, "Look at that lot mate, all that beer, shouldn't we lighten the load a little?" The driver replied, "No, leave it alone, the ASM is watching, (this particular ASM was a stickler for the rules), and it's bastards like him that get dishonest men on the job the sack!"

The same fireman was firing for that same driver one day, assisting No.23 down Northern Tablelands Express from Singleton to Murrurundi. "When approaching Nundah, I told him the distant signal was
By December 1968, the Newcastle-Singleton passenger trains were worked by either of the two Broadmeadow-based 32 class engines, 3237 and 3328. A few days before Christmas 1968, 3328 brings No. 720 up Singleton passenger through East Maitland. Engine 3246 worked the last steam-hauled Singleton passenger on 24 July 1971, the last passenger train in Australia rostered for a steam locomotive.

R.D. Love

against him. He proceeded to tell me in no uncertain terms that he wasn’t blind and didn’t need me to call the signals that were on his side of the cab, etc. The usual practice was for No. 10 up passenger from Tamworth to go into the loop and wait to cross No. 23, which would go through on the main line. This day, No. 10 was on the main line, and the loop was set for us, explaining the distant at caution. Bear in mind that the running time for No. 23 from Singleton to Nundah was approximately nine minutes, so if you dragged a little going up McDougall’s Hill, you really let them fall down the other side, in order to be on time at Nundah. The driver braked fairly hard but we were still travelling too fast when we went into the loop. How we ever stayed upright, I will never know, but we changed the staff and headed north. At Muswellbrook, the conductor on the train, Bluey Turnbull, came up to the engine, and said, ‘Congratulations driver, you spilt a lot of dinners into a lot of laps at Nundah...’ Apparently, dinners and diners finished up on the floor during the Nundah episode. I laughed, which did nothing to improve the driver’s temper, so he went a little harder to make my job a little more difficult in order to get square. Common practice in those days.”

Double line working was introduced over McDougall’s Hill in early 1953, Singleton driver Jack Bizant and fireman John Bates being the crew on the last ‘push’ from Nundah to the summit. The following day, double line working came into use and bank engine operation ceased.

By the 1980s, 600 class two-car diesel trains were in use on the Muswellbrook/Singleton/Newcastle passenger services and the two or three remaining Singleton enginemen worked these runs. These were the last jobs performed by the men from Singleton depot.

Singleton Depot - Epilogue.

Singleton depot, one of the ‘old’ depots in the state of NSW, has faded from the scene, both from a locomotive and crew viewpoint. It is more than 20 years since the depot structures were removed and it is difficult to find evidence of their existence. Track gang structures occupy the site adjacent to the Putty Road bridge. The depot has joined the long list of closures of similar institutions.
In 1986, Werris Creek driver Bruce Griffey retired from the State Rail Authority of NSW. Here he is “in the seat” of a 48 class toward the end of a long and interesting career as an engineman.

John Currey

Above Right: The school train leaves West Tamworth on its return run to Werris Creek, with 1235 in the lead. Fireman Joe Tillott seems to have everything under control on the old C class. The train includes two “dogboxes” and the FK and CK cars, long associated with this train. When rear bank engines were required on down goods trains on the grades to Warrigundi, one of Werris Creek’s old C class, like 1235, did the pushing.

Late R.R. Clark
LIFE OF AN ENGINEMAN

Bruce Griffey

Part 2 - The 1950s.

I received my Locomotive Engine Driver’s Certificate in January 1948, and transferred from Muswellbrook back to Werris Creek in 1949. By the middle of 1950, I was on the road full time as an acting driver. My endeavour to be appointed a full-time driver was seriously interrupted in September 1950. Whilst competing in a 32 mile (51km) bike race in Newcastle, I was involved in a fall which put me off work for three months. I was transferred to Lewisham Hospital in Sydney, where I spent the next two months. Although I returned to Werris Creek in time for Christmas 1950, I was unable to return to work for a further five weeks until February 1951, when I became a full time driver, although I was still officially classified as an acting driver. Unfortunately, with my shoulder still weak from the accident, I found it difficult to fire a locomotive. This situation that was often remarked on by certain firemen, as it was quite normal in those days for the driver to give the fireman a blow (or rest) from firing, and I could not do this. Shortly after, I was appointed driver at Werris Creek and was qualified to drive passenger trains. Work at the Creek was varied, with many miles of main and branch lines in the north-west of the state which were worked by the men and locomotives from this large depot. Included in the variety of steam motive power were 12, 30T, 32, 35, 36, 50, 53, 55 class engines, and for a period in the early 1950s, the oil-burning 59s and the 60 class Garratts. The 27 class from Narrabri West were rarer visitors, coming into the Creek for major repairs.

Footplate life too was always varied, and amusing situations cropped up from time to time. Fireman Bill Hall and I were working No.7 down North West Mail with a 32 class engine one night from Werris Creek to Narrabri. At Breeza, a Holden car was parked at the station when we arrived, and as we departed, the car followed alongside the train to Watermark, the next staff station. The car stopped whilst we changed the staff, and then followed us along to Curlewis. It was obvious the occupants of the car were keeping a watch on the train. In the early 1950s, the road between Breeza...
Prior to construction of the new roundhouse at Werris Creek in 1917, the original depot consisted of two separate engine sheds (one of which was transferred from Gunnedah), a turntable, water tanks, etc., and was located not far from the Newcastle end of the platform. These views show the north end of the old depot, the main line through to Newcastle being on the far left, adjacent to the signals.

SRA

and Curlewis was dirt, and on the bend just prior to Curlewis, the road was always washed out by a watercourse which often flowed across the surface. We decided to let the P class have its head down there to see the car in action. We could hear the suspension of the Holden bottoming, and it was swerving all over the road trying to regain some control. The train was delayed at the Curlewis home signal whilst another train came into the loop from the Gunnedah end, and the car stopped at the level crossing waiting for us. We waved him across in front of us, but he only went over the crossing and stopped again to wait. From Curlewis, he followed us again to Gunnedah, where he pulled into the station just after our arrival. The Gunnedah station master later told us the occupants of the car were railway detectives keeping an eye on the guard of our train.

Bank engine working was in operation in steam days between Werris Creek and Warrigundi platform, the first station on the main north line toward Tamworth. The grade was 5 miles (8km) of 1 in 40/50, but the banking duties were spasmodic and engines and crew were not regularly rostered for the jobs. Usually the shed crew, with either a 12 or 30 class tender engine as the motive power, performed these bank jobs as required. Normally, the train would come out from Werris Creek yard and into the station. The bank engine would be placed on the rear of the train, against the brake van buffers but not coupled on. The driver of the train engine would leave the brakes on and, when ready to proceed, the guard would signal the bank engine driver, who would then release his brakes and open the
An Armidale-bound goods train gets under way from Werris Creek station, with 3528 and 3521 in charge. The train has left the yard and pulled up outside the station master’s office to pick up the staff for the Werris Creek-Currabubula section.

Mick Farrell

regulator, applying force to the rear of the train. The bank engine driver would then whistle one long, one short, one long, to tell the driver on the train engine all was ready to proceed. The train engine driver on the front would release his brakes and allow the bank engine to get the train moving before opening the regulator on his own engine. There was a short, slight downhill run to start with and it was necessary for the banker to stay with the train over this downhill section. The bank engine would push to Warrigundi platform, where the driver of the banker would apply his engine brakes and come to a stand as he watched the train proceed on its way. He would then return tender-first to Werris Creek. One driver, Bill Boehme, would always get caught flatfooted. He would blow the whistle first, indicating he was ready to proceed, before releasing his brakes and opening the regulator. The train would then depart, leaving him behind. He would then take off after it, but would not catch up for nearly two kilometres, when the train slowed on the steep part of the grade. He was so far behind the train one day, that the lady gatekeeper at the level crossing on the Werris Creek - Tamworth road was shutting the gates across the line behind the train when she realised the bank engine was still coming, and she had to re-open them again in rather a hurry.

In the 1940s and 1950s, the main roads and highways crossed the railway line in numerous places at level crossings where there was a gatehouse, mostly occupied by a fettler, whose wife attended the gates. For example, the straight section about a kilometre south of Wingen had two crossings for the New England highway. Most of these old crossings, including these two particular highway crossings, have long gone, completely replaced by road deviations and overbridges. The warning system for the approach of a train was the dependence on the driver’s blowing his whistle long and hard on the approach to the gates. Sometimes, the gatekeeper’s house was connected via the circuit phone to the nearest signal box, providing more adequate warning. The residents of these gatehouses often relied on the train crews to supply the essential fuel, coal, for their stoves. The crews knew which gatekeepers needed the fuel, and would pile as much coal as possible in the corner of the tender, and, on the approach to the gates, would roll and shovel the coal as quickly as possible over the side, to be picked up by the fettler and his wife. At other times, a note would appear attached to the sling on the electric staff requesting coal at a certain
gatehouse, and it would be delivered as required. Train working in those far-off steam days was usually to a schedule, but many things happened in the course of a trip which caused trains to run early or late, and the gatekeepers had to be ever-vigilant, and be ready for the whistle of an approaching train. One disconcerting incident occurred at the Tamworth Power House crossing late one afternoon. We were coming home from Armidale on a late-running No.38 goods and, after blowing the whistle, we noticed the gates were still across the line, so an emergency application of the brakes had to be made. The lady gatekeeper came running out, stark naked, trying to pull her gown on and open the gates at the same time! She said she was in the bath at the time and no trains were supposed to be around.

Some incidents are amusing in hindsight, but could have had more serious consequences at the time. One night, I was going tender-first to Gunnedah with empty RU four-wheel wheat hoppers to pick up a load of wheat. Our guard was Ivan Jex and a second guard, Alan Hermon, was travelling passenger on our train to relieve another guard at Gunnedah. Between Curlewis and Gunnedah, the 'air went', indicating that either the guard had opened the emergency air tap in the van, or an air hose had broken along the train, and we came to a stand. We looked back along the train and could see the guard waving us back with his white light. After about 50 metres, he gave us a red light to stop. The next indication was a green light, meaning 'right-away' to proceed. On arriving at Gunnedah, I went back to the guard's van to find out what happened. It appeared the lights on the brake van had gone out, so Ivan Jex climbed down onto the step of the van whilst we were going along to check the belt on the generator. A fettler's lineside water tank knocked him off onto the ground. Fortunately, Alan Hermon saw what had happened, 'pulled the tail' (opened the emergency air tap in the brakevan) and stopped the train. He then waved us back, picked Ivan up and then signalled us on the engine to continue. If the two guards had not been present, Ivan Jex would have been left behind on the side of the line. We would have arrived in Gunnedah without the guard and with no indication of where he was or what had happened. Of course, the results could have been a lot more serious.

For the next five years, I worked all manner of trains out of Werris Creek depot, working passenger trains to Broadmeadow, Armidale and Narrabri West, and goods trains to Muswellbrook, Armidale, Binnaway, and also to Narrabri West. It was a regular thing between Danglemah and Woolbrook on the long 1 in 40/50 grades north of Tamworth, for the driver on No.65 down goods to slow his train when he passed the fettlers, allowing them to put their push trike on the rails behind the van, catch up to the train and throw a rope over the brakevan's rear drawhook and get pulled up the hill. The top of the grade was the big cutting just before Woolbrook, and normally the driver would ease up on his engine, to allow the fettlers to release their rope, so that trike and riders could coast down the hill into Woolbrook. Of course, there was always the driver who would accelerate the train as the cutting approached, to intimate to the fettlers that he was not going to allow them to unhook from the rear of the brakevan. However, they always managed to unhook their rope as previously arranged.

On another occasion, a slow moving train became an advantage. Between Limbri and Walcha Road, again on the main northern line beyond Tamworth, there were many rabbits, and one Saturday afternoon, my fireman Sandy Holloway took his gun with him on the engine. We were working No.63 goods from Werris Creek to Armidale with engine 3501, our load being a complete train of empty sheep vans. We were to come home passenger on No. 18 up Brisbane Express on the Sunday morning, so his

Right: In 1954, the original 75' turntable was replaced by a new 105' (32m) model, so that the 60 class Beyer-Garratts could be turned in the depot. These engines were used, for a relatively short period, on wheat trains to and from Narrabri. Broadmeadow's 70-ton Craven crane, 1073, assists with the installation.

Darcy Kermond

Left: A P class in near-original condition is coaled at the Werris Creek coal stage some time before the 1920s. Ash trucks are standing on the depressed ash road in the foreground. Note the oil lamp fixed to the coal stage above the rear of the tender.

SRA
The original four-stall roundhouse at Werris Creek, constructed in 1917. P and T class engines are under repairs outside the shed. The boiler house is on the left, the original 75' (22.8m) turntable in the foreground. Eleven stalls were later added to the roundhouse.
idea was to get a few rabbits on the way up to Armidale. He would shoot one from the engine, drop off on to the ground whilst I kept the train moving, pick up the rabbit, and then climb into the brakevan. He would then clamber on to the roof of the brakevan, walk along the roofs of the sheep vans, and drop back onto the engine. He repeated this performance several times, and by the time we got to Armidale, he could hardly walk from the tired leg muscles. However, the result of his efforts made him forget the pain.

When climbing the grades between Tamworth

Above: Woolbrook is located a few kilometres from the summit of the long climb from Kootingal to Wollun, with loco servicing facilities being provided. Because of the cold New England nights, bagging was placed around the water columns to prevent the columns freezing up. 3524 and 3617 start away from Woolbrook with a tour train in 1966.

R.D. Love

Left: The disused 40,000 gallon tank and pumphouse at Yannergee in 1990. In steam days, all locomotives stopped here for water.

R.A. Gallagher
What might have been! The 60 class Beyer-Garratts were only used on passenger trains in cases of emergency substitutions, although this usage was far from rare. Regular rostering on passenger trains would have been interesting: "so much power on the hills". 6034 attacks the 1 in 40s of the main south line near Gunning with a tour train in 1963.

R.D. Love

and Armidale, the Moonbi Ranges, all steam-hauled trains in the down direction stopped at Woolbrook to take water, as did many up trains too. Trains had just completed a 25 mile (40km) long haul on rising 1 in 40/50 grades, and Woolbrook represented a breather. Woolbrook was an electric staff station, possessed a crossing loop, platform, ash pits and the essential water tanks and columns, all nestled in a particularly pleasant rural scene. One of the greatest inconveniences in winter time was to arrive at Woolbrook in the middle of the night, only to find the water columns frozen up and not be able to get water. If traffic was heavy, there was usually no problem as the continual use of the columns was sufficient to keep the water flowing, but if traffic was light or there had been some delays during the night, it was certain there would be a problem with the water columns at Woolbrook. To overcome this, a fire would be lit at the base of the column, in the hope of melting the ice. Often, this took an hour or so, but it did work. Eventually, bagging was placed around these, and many other columns in the New England ranges, to prevent them from freezing up.

I was coming home from Armidale with a double-header one day, with driver Stan Marney on the other engine. We were placed in the loop at Wollun

The watering facility at Yannergee consisted of an elevated water tank on a timber stand, a pump house with still-immaculate Tangye steam pump, and two water columns. Although out of use in 1990, all are still in existence, and owned by the local retired ganger, Peter West.

R.A. Gallagher
...for several hours, to allow a heavy program of down trains to cross. The length of the adjacent single-line sections also played a part in the delay to our train at Wollun, preventing rapid loop-hopping. It was six hours since we had left Armidale, and the tenders were getting very low on water. Panic set in, as we doubted our ability to reach Woolbrook and the water columns. Finally, we were allowed to leave Wollun, but at Walcha Road, the injector 'blew-off', indicating that our tender was out of water. Fortunately, the boiler was full, a small stay of execution. The only sources of water at Walcha Road were the rainwater tanks on the platform, there being no town water supply. Using buckets, we tried to fill the tender out of the rainwater tanks, but found we could not keep up enough water for the boiler, let alone get some into the tender to reach Woolbrook.

We finished up knocking the fires out and the train, together with engines, had to be stowed at Walcha Road. They were then picked up later and hauled dead to Werris Creek for examination, which is normal procedure when boilers get so low on water.

Once I was working No.65 down goods to Armidale with double-headed steam engines. On the back engine, the driver was Jack McCluand. His engine was steaming very freely and they were having a great trip. By comparison, we were working our hearts out with a 'dull' steamer and going up between Woolbrook and Walcha Road, we looked up to see Jack McCluand sitting on the lid of our tender tank throwing lumps of coal down his funnel and watching the draught blow them up into the air. Very funny! One of the worst things to have on the road is what were frequently termed 'dull steamers'. A dull steamer was a locomotive which would not make steam, no matter what was done to coax the best out of it. It could be caused by a multitude of reasons, including a tender-full of rubbish coal, leaking or dirty tubes, partially blocked spark arrester, defective brick arch in the firebox, or having the centreline of the blast-pipe in the smokebox not aligned with the centre of the funnel. All crews experienced dull steamers at some time or another.

Many times, one became qualified for certain things by experience alone.

One evening, I was working No.12 Glen Innes Mail from Werris Creek to Broadmeadow with Fireman Bob McDonald. At Murrurundi, while checking my engine as the bank engine was being detached, I found a hot tender axlebox on our 35 class. Control authorised us to put it off at Murrurundi and attach the bank engine in its place, a old TF (53 class). It only had enough coal to reach Muswellbrook and Control had to ring ahead for another engine to work on from there. On arrival at Muswellbrook, the fresh engine brought out was an AD60 class Garratt. Neither Bob nor myself had been on one at that time but, as they had nothing else, nor a qualified crew, we had no alternative but to take it. Going up past loco, we had trouble getting the automatic stoker working and the fire was going out and steam dropping back. All of a sudden, everything sorted itself out and, with so much power up the hills, we only lost ten minutes on the run to Broadmeadow. From this experience, I would say we're 'qualified for 60 class'!

Crews working goods trains from Werris Creek in the steam era went to Armidale, Narrabri, Binnafoo and Muswellbrook. Fireman Ray Caldwell and myself were working No.137 from Muswellbrook to Werris Creek with Guard Dick Burke.
Half way up the bank between Wingen and Murulla were some loaded orange trees. No.137 was a short heavy coal train, and if you got a good, free-steaming engine, it was very easy to run to time, so as we were sailing up the hill reasonably well, we stopped and filled everything we had with oranges. On arrival at Murulla, the home signal was at stop. There was no response to the whistle so I walked in to the box to find the signalman, Kevin Ham, asleep. As No.17 Brisbane Express was following us, I kidded him we were No.17 and he pulled the main line signal off and got the staff for the next section to Blandford without thinking and gave it to me. I then told him we were No.137 coal and he said we had to go into the loop and allow No.17 to run through. While in the loop, the guard came up for some oranges. In the meantime, we had tried them ourselves. You could not get sourer oranges, so after No.17 went and Kevin brought the staff up for the Blandford section, we gave him some oranges to keep him awake. We finally gave them all away to unsuspecting signalmen all along the way back to the Creek, which probably kept all of them awake that night.

The ‘chiefs’ always have the knack of spoiling good clean fun. It seems one of the main rules to abide by in the railway service, was ‘there shall be no frivolity’, but we still managed to have a little bit, irrespective of the rule. Take, for instance, the little episode I had with Sid Ellis as my fireman. We went double-headed light-engines to Narrabri. Herbie Johnson and Blue Hayes were on the front engine, we were behind them, and they continually put the hot-water hose back over us all the

"Boys will be boys." And they cannot resist playing in the water. Like Bruce Griffey and his fireman at Emerald Hill, the crew on 5401 prepare to give their Junee mates on train engine 5369 an early shower at Marrar, on the Junee-Narrandera line, in 1960.

I.A. Wallace

The water is on the way! Engine 5401 had assisted 5369 from Junee to Marrar, where it detached and left 5369 to continue alone, but not without an engine bucketful of water as a farewell gift.

B.J. Tulloch
way out. Of course, the water had cooled down by the time it reached us, but we were repeatedly being soaked by them. Sid and I returned from Narrabri at 1.00pm on a freight train, and Herbie and Blue were rostered to come back on No.8, the Mail. We were put into the loop at Emerald Hill, and another goods train was put into the back road, in order to allow No.8 Mail to run through both the up trains. We decided to even the score with the water episode earlier in the day. Sid got the fire bucket off the station and got up on the back of our tender and crouched down, while I got in front of the smokebox with the full engine bucket. As the P class on the Mail drew close and came alongside us, Sid let go with his bucketful and I could see Herbie, the driver, through the porthole window of his engine with a great smile on his face. I wondered why he had not moved away. Then, I let go with my bucket, and Locomotive Inspector Fred Barnier, who was sitting on the tender stanchion seat of the P class, copped both full buckets of water. When I looked for Sid, he was disappearing, up near the wheat silo about 200 metres away. Whatever for, I do not know. Together with the other crews, we were having a good laugh on the station when the phone rang. Guard Wally Sharpe answered it, to be greeted with “Inspector Barnier here at Gunnedah. Will you give me the names of the crew on that train in the loop?” About four weeks later I was about to go engine and van to Gunnedah and, while waiting at Werris Creek station, I could see Inspector Barnier. He was not sure if it was me or not, so he approached Ross Armstrong, our guard, and checked my name. When he came up to me, he said, “You were in that water throwing business at Emerald Hill the other day.” I admitted being involved, so he said, “I don’t mind a bit of fun, but I should like to have seen your crossing lights on.” I should like to have heard what he said on the day it happened! An explanation of “crossing lights” would probably be helpful at this point. When a train enters a loop or refuge in order to permit another train to overtake or pass by in the opposite direction, regulations require the crew on the engine to change the leading marker lights, normally showing white forward, to show one red light and one white light, whilst the guard of the same train should change the rear tail lights, normally showing red toward the rear, to show one red and one white light also. In both cases, the light nearest the other running line, where the other
On an early summer’s morning in 1961, Werris Creek yard shunter 5351 and four-wheel shunters’ match truck L314X reverse up the long headshunt past loco. R.D. Love

train would pass, should show white. This was to indicate to the other train that the stationary train was safely inside the siding, and well clear of the points.

Mention of the incident above involving a mail train recalls another amusing story. I was working No. 8 up North West Mail one night from Werris Creek to Broadmeadow with a 36 class engine, fireman Keith Riley as my mate. When we arrived at Broadmeadow, he went to pack up his tucker-box which had been riding in the usual spot on the side of the tender. A terrible expression came over his face, and he could hardly speak. With a bit of coaxing, he finally told me that his tucker-box had gone. The tenders on the 36 class engines were not fitted with compartments for tucker-boxes and it was quite normal to tie them on to the side of the tender, from which they never fell off. Keith told me the last time he had seen the tucker-box was at Maitland, so when we went over to loco at Broadmeadow, we informed the sign-off clerk and went into barracks. Of course, he was without all the food and necessities required when one is 150 miles from home, and away for nearly two days. That afternoon, word came from loco that the fettlers had found the box near Thornton. It was badly out of shape, and most of the contents were wrecked. Needless to say, we never put our boxes on the side of a 36 class tender again, although everyone else continued to do so.

Sometimes, with steam engines, there is not enough water, as in the case above; other times there is too much water to deal with. One night, we were heading to Binnaway from Werris Creek, and as we were climbing the long 1 in 100 grades into Yannergee, it started to rain heavily. We were taking water at the column on the Werris Creek end of the loop, when a torrent of water came down the hill on our left, and over the line. After filling the tender of the P class, we pulled forward to the staff hut, and changed the staff. I got on the phone to Control, and told him of the water flowing over the line, and got permission to contact the local ganger, Peter West. We pulled up opposite Peter’s house near the down home signal at the Binnaway end, and I got Peter out to check the track. We then proceeded to Premer, another 8 miles (12km) further on, where Control told us to stow the train in the silo road, take the engine and van, and head back to Werris Creek, as the line was washed out at Ulinda, some 35 miles (56km) further on. On arriving back at Yannergee, we were met by Peter, who asked, “Where do you think you’re going....?” “Home!” we replied. “Not when you see the track you have recently come over,” he said. After some persuasion, he advised us to take extreme care, as there were some sleepers washed out along the way. So, carefully we proceeded, tender-first, with no headlight, back toward Werris Creek. The guard on that night, Joe Rutkay, insisted on riding on the engine. “If one gets washed away, we all go together.” It was a week before any more trains ran on the line, as a result of the washaways. Peter West went to Yannergee as a fettler on 3 August 1940, intending to stay there about six months. He still resides there, fifty years later. Peter’s wife, Hazel, always boiled the billy for any train which pulled up at Yannergee in those days, such was the friendly nature of people in the isolated communities.
A close-up of part of the Yass Town station building. All photographs by the author, taken on Friday 22 December 1961 (unless noted otherwise).

Right: With the 198 mile post in the background, 1311 hurries back to Yass Town with a number of bulky parcels in the LHG van brought to Yass Junction by the early morning mail trains. No one seemed to want to close the sliding doors on the van on this hot December morning.

In early morning shadow, 1311 simmers beside the small coal stage at Yass Town “loco”. The ash pit and ash truck can be seen. The engine driver is emerging from the two-road engine shed to top up the fire in 1311 and commence the day’s running between Yass Town and the main southern line at Yass Junction.
A MORNING AT YASS

Ian Wallace

Yass has long been an important town on the Hume Highway between Sydney and Melbourne. At present hundreds of trucks and numerous buses pass daily through Yass along this busy highway, so much so that a Yass by-pass has been planned. However, it has not always been thus. Up until the 1950s, a significant volume of goods and passenger traffic into and from Yass moved by rail. The gradual decline in traffic, leading to the ultimate closure of the railway service to Yass was due to the increased efficiency, economy and convenience of road transport.

Perceived difficulties in routing the main southern railway line through the town of Yass during the line’s original construction in the 1870s, led to a decision to route the main line almost three miles to the north-west of the town of Yass and to link the town to the main line by means of a tramway, a line of light construction. “The Story of the Yass Town Branch Line”, by N.J. Pollard, provides an account of the historical development of this small branch line. The first train from Sydney reached Yass railway station (now Yass Junction) on 3 July 1876. According to the Working Timetable for the Southern Division from 20 November 1960, Yass Junction station is 197 miles 48 chains (318.0km) by rail from Sydney (via Granville). The ceremony to commemorate turning the first sod on the Yass Tramway took place on 28 June 1890. The construction of the substantial bridge over the Yass River delayed the opening of the tramway until 20 April 1892. The terminus was named Yass Town and the branch line was 2 miles 69 chains long (4.6km).

Passenger services on the Yass Town branch ceased on 10 May 1958, being replaced by a private bus service which, itself, was discontinued on 17 May 1967. Goods traffic continued, however, still mainly in the capable hands of the elderly 13 class 4-4-2 side tank locomotives. In fact, the 13 class provided almost the sole motive power on this line between May 1910 and the mid 1960s when replaced by 0-4-0 diesel shunting tractor X202. For most of this time, two 13 class engines were allocated to Harden depot for Yass working. One engine would work the branch line for a period, based at a small “loco” at Yass Town terminus, and would then be exchanged with the other 13 class while the first engine returned to Harden for servicing. During the late 1950s, the two engines concerned were 1301 and 1316. It was 1316 which provided the last passenger service in May 1958. 1316 was withdrawn from service in February 1959 and placed in storage at Enfield. 1301 soldiered on, however, and was joined by 1311 and later by 1307. The closure of Harden depot in 1960 saw the 13s
transferred to Goulburn depot. Movements of the 13 class between Harden (later Goulburn) and Yass were as light engines.

This article describes a typical morning’s operation on the Yass branch late in December 1961. At that time, passenger services on the branch had been terminated for some three-and-a-half years and Harden depot had closed. The future of the line, or at least steam motive power on the line, appeared somewhat uncertain. The main southern line south of Goulburn was due to be dieselised in early 1962.

On the evening of Thursday, 21 December 1961, a friend, Geoff Percival, and I commenced an overnight trip to Yass to explore the Yass Tramway and to record steam motive power on the goods services between Yass Junction and the terminus at Yass Town. We departed Sydney Central station two minutes late at 10.32pm aboard the down Albury Mail, hauled by Pacific 3807 with load comprising TFX, MCE, EAM, LFX, MHO, 5/200 tons (203t). We chose this train, the last of the evening mail trains, as it would get us to Yass Junction more or less in daylight. We did not want to arrive there in total darkness. Earlier in the evening we watched 3814 depart Central at 9.50pm with the seven-car South West Mail. On this particular evening, due to increased holiday loading, the normal through South West Mail (No.23) was running in two divisions, a South West Mail (No.23) at the usual departure time of 9.50pm and an Albury Mail (No.7) at 10.30pm, running to the normal Sunday evening timetable.

We made our way smartly to Liverpool where we were permitted a cab ride in 3807. This had been arranged earlier at Central station and it turned out to be a marvellous experience. From the cab of the 38 we could get a good view of oncoming (up) trains, albeit in darkness. We passed a 60 class on an up goods at Ingleburn. At Campbelltown, we noted three 30 class 4-6-4 tank locomotives as well as a 30T class 4-6-0 outside the iron shed at “loco”. It was unusual to see a 30T there. Between Campbelltown and Picton 3807 really had the train moving along and we clocked a maximum speed of 65mph (105km/h). However, we were delayed by signal checks before Picton, due probably to a down goods hauled by a 36 class which we overtook at Picton.

Departure from Picton was 18 minutes late, due mainly to the earlier signal checks, but we looked forward to the performance of the 38 up the hill between Picton and Moss Vale. We were not disappointed. Rarely have I seen a fireman work as hard as our fireman did on the grades between Picton and Mittagong. It made me wonder how hard the fireman would need to work with a full load of 460 tons (467t) which was commonplace for a 38 class in earlier days on the Melbourne expresses. We helped with the firing whenever he needed a break, but this fireman was very particular in how he wanted the fire laid. I can still recall in my mind the sharp authoritative bark of 3807’s exhaust as we climbed out of Picton, the hiss of compressed air coupled with the noise of the butterfly firebox doors opening and closing, the sound of coal being shovelled, the occasional ring of the fireman’s shovel as it touched the firehole edges, the metallic noise of the running gear and the occasional shouted messages between driver and fireman. Added to this was the smell of hot oil, warm steam and coal smoke, the bright glow of the fire in the firebox, the sight of dull red smoke trailing back over the train in the darkness and the warmth of the cab - all ingredients for wonderful memories. Even though it was summer, the cool night air in the southern highlands was noticeable as I sat in the fireman’s seat from time to time.

After a stirring trip, we arrived at Moss Vale two minutes early, gaining twenty minutes on the timetable between Picton and Moss Vale due to the relatively light load and the attempt by the crew to make up time. At Moss Vale we noticed 3812, which had worked in on No.59 passenger from Sydney earlier in the evening and which would stand pilot overnight at Moss Vale prior to working No.50 fast passenger back to Sydney early on the Friday morning. After a ten minute stop at Moss Vale to service 3807, we were off again into the coolish early morning air. Near Marulan, we passed a 36 class on the up Cooma Mail and, shortly after, a 38 on the up Temora Mail.

At Goulburn we passed 3802 on the up Albury Mail. Soon after Goulburn we passed another 38 on the up South West Mail. It was always interesting to observe the early morning procession of mail trains into Sydney. Occasionally one saw unusual engine working and, often, an unusual arrangement of passenger cars, sleeping cars, mail vans and sometimes express bogie goods vehicles such as MLV, MBC, or TRC. On this particular morning several of these trains were running to special

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**Diagram:**

N.S.W.G.R.
MAIN SOUTHERN LINE
Locality Map

![Map of the South Eastern Line in New South Wales](Not for resale)
Yass Town station early in the morning of Friday, 22 December 1961, looking towards Dutton Street. On the extreme left of picture an S truck laden with empty 44 gallon drums stands alongside the goods shed, while the LHG guards van stands alongside another goods shed. The small passenger platform, constructed of timber, is located at centre left of photo.

On the first trip of the day to Yass Junction, 1311 and LHG van pause briefly in Dutton Street. The guard watches proceedings from his van.
holiday timetables. After a really great cab ride, we left the engine at Goulburn in an attempt to get some rest before we reached Yass Junction, as we knew we had a full day ahead of us. We had to keep awake so that we would not miss the stop. The fifteen minute stop at Goulburn enabled 3807 to be serviced and the crews to be changed. The incoming crew at Goulburn would work through to Junee. Under normal circumstances, 3807 would be coaled at Demondrille before working on to Junee. At Junee the 38 would probably be replaced by a 36 class for the journey to Albury. Sometimes, the 38 worked through to Albury.

It was well and truly Friday, 22 December when we arrived at Yass Junction around 4.30am, and just getting light. I tried for a photo of 3807, still with its marker lights and cab lights on, but it was too dark to record anything but the lights and the plume of smoke issuing from 3807's funnel with the blower on, silhouetted against the dawn sky. Following a ten minute stop at Yass Junction for 3807 to be serviced, the Albury Mail proceeded on its long journey. After surveying the now silent scene, we set off for Yass Town where we hoped to find a 13 class. We had no alternative other than walking to Yass Town. Most of this was along the line, including walking over the impressive steel girder bridge which took the line across the Yass River.

It was a bright, sunny but slightly overcast morning by the time we reached Yass Town terminus and noticed 1311 simmering away outside the small two-road engine shed, alongside the coal stage. I must admit I was a little disappointed to see 1311 instead of 1301. This was because I had associated 1311 with Enfield depot and with working the Picton-Mittagong loop line, whereas 1301 was associated in my mind with Harden depot and Yass Town working. Still, it was great to see that the line was still being worked by a 13 class. Any 13 was far better than a diesel! Built by Beyer, Peacock & Co. of Manchester, 1311 first entered service in February 1879 as a 4-4-0 tender engine, No.37N, allotted to the northern region of the state. It became No.415 of the C79 class under the 1890 numbering system (Z12 class in 1924). It was converted to a 4-4-2 tank locomotive in July 1899 and became 1311 under the 1924 numbering system. Only 16 of the 20 engines so converted survived in the New South Wales Government Railways to be renumbered as the Z13 class in 1924.

We looked around for the old, diminutive four-wheel HG brake van that had been used for decades on goods and mixed services on the Yass Town branch, but were unable to find it. This, too, was a disappointment as the HG van provided an appropriate touch of antiquity to the Yass Tramway. In its place was the opposite extreme in terms of length, an LHG brake van. Passenger accommodation was provided within the LHG, if required. It had been normal practice for decades on the Yass Tramway to operate mixed and passenger trains with a two-man crew, hence the use of the term 'tramway'. This comprised the guard in the brake van and the driver, who did his own firing, on the engine. However, on the morning we were at Yass there were two enginemens in the 13 class. I am not sure whether this was normal practice at the time or whether the "fireman" was receiving training. Certainly, a three-man crew on such small trains would hardly be economic.

There was little activity at the Yass Town terminus until the driver of 1311 emerged from the small engine shed, climbed into 1311's cab and placed a few shovels full of coal into the firebox. Once sufficient steam had been raised, 1311 ran from loco and coupled onto the LHG which was standing near the small platform in preparation for a trip to Yass Junction. It was normal practice for the engine to run bunker-first to Yass Junction and funnel-first to the terminus. The Working Timetable specified fifteen minutes travel time between Yass Town and Yass Junction (in each direction). Departure times on the up journey were 7.00am and 10.30am while down trips were scheduled to depart Yass Junction at 7.45am and 11.15am. Trains on the branch line were scheduled
A view of the line across the Yass River bridge, as 1311 takes the LHG van to Yass Junction on the first trip of the day. The guard is still observing proceedings.

Below: A signal check at the approach to Yass Junction station sees 1311 and van between the signal and the road crossing at left of photo. The main southern railway line towards Harden can be seen on the embankment at right of photo.
A busy moment at Yass Junction, as 1311 and LHG van stand at the small platform at the rear of the down main platform. The van is being loaded with parcels and minor goods items brought to Yass Junction by the overnight mail trains. In the right background, 6005 is on the up main line with an up goods train while behind it, on the up refuge, is a diesel-hauled goods. At the right of photo is the run-around used mainly by the engine on the Yass branch.

for weekdays only (Monday to Saturday). The driver was amiable but was not willing to allow us a cab ride, claiming the 13’s cab was too cramped for 4 people. He was right, it was! However, he was prepared to stop along the line to enable us to take photos, an offer we appreciated. We rode in the LHG with the guard. After permitting us a photo stop as we entered Dutton Street in Yass, the driver set off for Yass Junction, departing at 7.05am.

The small train rumbled along the rather uneven straight stretch of track in the centre of Dutton Street, and then rounded the curve to the right at the end of this street as the line passed onto a trestle for the approach to the large steel girder bridge spanning the Yass River. The line then ran behind residential and commercial development as it paralleled the Hume Highway, making its way past the petroleum depots of Mobil, Shell and BP at North Yass, each of which had its own siding. There was a very rudimentary timber platform and waiting room at North Yass near the highway. The line crossed over the Hume Highway at Oakhill Crossing, North Yass, in very basic circumstances with minimal warning signs. This crossing had been the scene of many serious accidents. Our driver slowed almost to a stop before crossing the highway, with much whistle blowing taking place beforehand.

After crossing the highway, the line passed over fairly open rural countryside. The driver opened the regulator on 1311 and we proceeded along at a fair pace until we approached the 198 mile post, where the driver stopped to allow us to take photos. Shortly after restarting, we were checked by the up home signal, just beyond the level crossing over the road connecting Yass Junction station with the Hume Highway. This signal check just outside Yass Junction station enabled us to take several more photos. When we arrived at Yass Junction at 7.25am we noticed 6005 standing on the up main line just beyond the station with an up goods train. 6005 took water at Yass Junction’s dual water columns, positioned between the up main and up refuge lines, before it resumed its journey to Goulburn. Shortly after, a diesel-hauled goods on the up refuge drew alongside 6005’s goods.

On its arrival at the small platform erected specially for the Yass Tramway, opposite the down platform at Yass Junction, 1311 had uncoupled from the LHG and run around it (via the run-around road) to couple to the other end of the van for the return journey to Yass Town. A water tank and column were erected adjacent to the run-around but 1311 did not need water at this time. During the stay at Yass Junction, some parcels and minor goods items brought there by the early morning mail trains were loaded into the LHG van. We wanted a photo of 1311, on a train, in a bushland setting if possible, so we made our way quickly out onto the
Standing on the up main line on the Goulburn side of Yass Junction station, Beyer-Garratt 6005 on an up goods has just taken water at the dual water columns. The vehicles on the left of photo are standing on the exchange sidings for the Yass Town branch.

This up goods, photographed near Yass Junction, is returning some of the goods from Yass Town to the main line. 1311's load is S, S, MBC, LHG.
branch line to near mile post 198, before 1311 came trundling along with the LHG, still with the sliding doors open, revealing many bulky parcels inside. This was shortly after 7.50am.

Later, from our position near mile post 198 we noticed in the distance an up goods on the main line hauled by a non-streamlined 38 leading a 36. We thought we would not see this goods train again as we were unaware, at that stage, that it was No.48 pick-up goods which was due to shunt at Yass Junction for some time to pick up goods loading from Yass Town. Shortly after, around 9.30am, and still near mile post 198, we photographed 1311 returning with an up goods composed of two S trucks, the leading one loaded with empty 44 gallon drums, an MBC and the LHG.

When we returned to Yass Junction, 5342 was standing at the water columns at the Albury end of the station at the head of a down goods. It was pleasing to see a Standard Goods engine on main line traffic and especially 5342, one of the former Junee-based TFs fitted with specially balanced driving wheels. Along with four other 53 class engines, 5342 was transferred from Junee to Enfield in June 1961 and replaced by five 36 class engines. 5342's train at Yass Junction was composed partly of empty RU and BWH bulk wheat wagons being returned to the wheat fields. After taking water at Yass Junction, 5342 proceeded on its journey south. We noticed that No.48 goods was still standing at the Goulburn end of the yards near the goods siding. It looked as though it was not going anywhere in a hurry, so we again proceeded out onto the branch line to photograph the next Yass Town goods which was being composed by 1311.

Soon, around 10.15am, we witnessed 1311 rounding the curve near Yass Junction heading back to Yass Town with a more impressive train composed of three tarpaulin-covered S trucks, two laden bogie fuel tanks, another S and the LHG. This load must have been deposited very quickly at Yass Town or stowed in one of the sidings at North Yass because very soon after, around 10.50am, 1311 and van returned to Yass Junction at a very brisk pace. We followed the little train into Yass Junction, this time determined to photograph the double-headed No.48 goods.

We soon saw that the engines were 3824 and 3642 and that they were shunting the goods siding, picking up goods traffic from Yass Town. No.48 pick-up goods ran daily, Mondays to Saturdays, between Harden and Goulburn. The Working Timetable specified that this train was to pick up all up goods loading from the Yass Town branch. On closer examination, we noticed that 3642, in steam and occasionally with its safety valves lifting, was working on the right hand side only. The left hand connecting rod and components of the Walschaerts valve gear on this side had been removed. The end was off the left cylinder and the piston rod was wired to the slides. I wondered about the circumstances of this strange working. I have not seen its like before or since. Certainly, on rare occasions the three-cylinder 57 class engines had their middle cylinder closed down and operated on two cylinders with reduced tractive effort until repairs could be effected, but I am not aware of a two-cylinder locomotive operating on only one side.

During the time we spent at or near Yass Junction we witnessed, but were unable to photograph, 3653 on an up goods train and relatively new diesel 4840 on No.9 express mixed. The latter was a surprise, as it was normally a 36 roster. Maybe trials were being made with the 48 class.
1311 conveys a more substantial consist of loaded vehicles to Yass Town, seen here between Yass Junction and North Yass. This down goods train was easily handled at brisk pace by the small engine.

Left: A view of Yass Junction station looking towards Goulburn. 5342 on a down goods to Cootamundra is standing beside the water columns on the down main line. In the right background, 1311 is on the run-around beside the water tanks.

3824 and 3642 at the head of No. 48 pick-up goods standing on the goods siding at Yass Junction. In the background are servicing facilities for up trains. Note the dual water columns, the completely covered water tower and the small ash trolley used to convey loco ash from the ash pit on the up refuge to a disposal area nearby via a narrow gauge rail track. Part of No. 48’s load has been left on the up refuge waiting the return of the locomotives and goods vehicles from Yass Town.
A close up view of the incomplete Walschaerts valve gear on the left hand side of 3642 whilst it was working No.48 goods with 3824 leading. It can be seen that the left hand connecting rod and other vital components have been removed as 3642 stands on the goods siding with its cab and tender still within the goods shed.

This photograph is relevant to the Yass Town branch insofar as it illustrates a means of disposing of locomotive ash similar to that employed at Yass Junction. It is a view of the Sydney (eastern) end of Tarana station in 1959. In the distance, 5429 can be seen departing Tarana on an up goods train passing by the parachute water tank. In the foreground can be seen the two-foot gauge rail network and trolley used to convey the considerable amount of loco ash from the frequently used ash pit on the up main line. Similar methods of ash disposal were employed elsewhere in New South Wales in steam days.
The location is the Harden end of Goulburn yards and station as 5377 and 5617 proceed to Goulburn loco, having uncoupled from a down goods train. The yard shunter at extreme left of photo is 5214.

3615 stands at the head of No.34 up Goulburn day train at Goulburn station prior to departure for Sydney.
At about 11.44am we boarded the rail motor service, No.34, which ran between Harden and Goulburn connecting with No.34 Goulburn day train. No.48 goods appeared to have completed its shunting at Yass Junction and was ready to resume its journey to Goulburn. As we left, 1311 was still at Yass Junction, probably waiting for more goods traffic to come from further north. I am unaware of the further extent of 1311’s working that day. Although the Working Timetable for the Yass Town branch provided for two return goods services each weekday, it is likely that variations and additions were made. En route to Goulburn, we passed No.15 down Riverina Express, hauled by a 38, near Fish River and arrived at Goulburn at about 1.25pm.

We photographed the up Goulburn day train (No.34) standing at Goulburn station with 3615 leading and with a greater than normal load comprising MHO, the four-car NCR set and two additional twelve-wheel carriages. This was scheduled to depart for Sydney at 2.25pm. Goulburn yards were being shunted by 5112 (saturated), 5214 and 5401. Shortly after, as we walked down towards Goulburn loco, we were passed by 5377 and 5617 coupled together, proceeding to loco after uncoupling from a down goods train. We regretted having missed their arrival. 5377 was another of the former Junee TFs fitted with specially balanced driving wheels. It was a safe bet that we would see at least one of the remaining members of the 55 class at Goulburn in those days, as they were still quite active in main southern line working.

At Goulburn loco were 1049, 1076, 1301, 3204, 3268, 3326, 3382, 3653, 3825, 5190, 5205, 5609, 5711, 6005 and 6015, as well as several 48 class diesels which were gradually infiltrating the steam ranks. Stored were 2408, 2419, 2540, 5116, 5257, 5447, 5554, 5704, 5718 and 5723. Of particular interest to us was 1301, the alternative Yass Town engine. At that stage of course, 1301 had not earned the fame it achieved later as a vintage train engine in green livery. However, it still made a fine sight standing in the roundhouse facing towards the turntable. Still fitted to both front and rear buffer beams were the electric light sockets and cables, connected to 1301’s turbo generator which were part of the
A view across the turntable at Goulburn roundhouse. From left are 3268, 3382, 5205, 5711, 3204, 5609 and 4822. Reflecting the train working in and out of Goulburn, there are engines from Enfield, Junee and Cowra depots as well as engines based at Goulburn. At the time the photo was taken, 5711 was not in service but was housed at Goulburn depot.

In mid afternoon, 3824 and 3642 arrive at Goulburn with No.48 pick-up goods from Harden conveying some loading from Yass Town. This train terminated at Goulburn, and is seen here passing Goulburn loco, to the west of Goulburn station.
power supply to the old CCA passenger car that was formerly used on the Yass Tramway. At the time of our visit, 1301 was 84 years old, the oldest working engine in the NSWGR. Stabled near 1301 in the roundhouse was 0-6-0 side tank locomotive 1076, formerly 1804, which was used mainly as loco shunter, moving out-of-steam engines around the depot. The other member of the 10 class stationed at Goulburn depot was the 30 ton accident crane 1049. Fortunately, it received little use. 5711 had made its last official run on 23 September 1961 and was retained at Goulburn depot, in storage, but in reasonable condition protected from the elements. Within the depot on the day were engines from Eveleigh, Goulburn, Enfield, Junee and Cowra depots, reflecting the type of working in and out of Goulburn. At the time, Goulburn depot had the following allotment: 2/10, 2/13, 4/32, 5/50, 3/53, 4/55, as well as 10 of the new intruders, the 48 class. Soon after, 1307 was transferred from Taree depot to Goulburn, giving Goulburn three 13 class for Yass working.

While at Goulburn depot it was always a treat to take a closer look at the stored B class engines 2408, 2419 and 2540 and contemplate their working on the branch lines in the, then, not so distant past. As we were inspecting the stored engines near the coal stage, we noticed 3824 and 3642 making a slow arrival at Goulburn with No.48 goods. It proceeded on to Goulburn yards. At about the same time, saturated engine 5190 joined its Standard Goods brethren shunting Goulburn yards. This was its normal role at Goulburn and had been so for many years.

We made our way back to Goulburn station but just missed the arrival at 3.05pm (one minute early) of No.13 Goulburn/Harden passenger service from Sydney. However, we were able to see and photograph 3664, apparently fresh from workshops, suitably decorated with streamers and carrying a “Goodbye and Good Luck Perce, 1912-1957” nameboard. It was detached at Goulburn and a TFX, a timber-bodied twelve-wheel, second class sitting car, was added to the consist which 3821 alone conveyed to Sydney. We joined this express at Goulburn and had a good, fast but uneventful trip back to Sydney.

Epilogue

Having witnessed their working, one cannot help but retain an admiration and affection for the little engines that plied the outback pioneer branch lines and the light lines closer to Sydney. Such is the feeling I have for the 13 class engines that I observed at Yass and Goulburn in 1961. It is well known that 1301 has been preserved and now resides at the Rail Transport Museum at Thirlmere. After a distinguished career spanning some 84 years, 1311 was withdrawn from service in December 1963. It was condemned on 27 April 1964 and scrapped on 1 May 1964, after running 1,458,893 “official” miles (2,347,855km). The Yass Town line closed on 14 November 1988. Regular goods services, typically a shunting trip off a pick-up goods once a week to the oil sidings, ceased early in 1988. The ACT Division of the ARHS ran a last train on the branch on 29 October 1988 using newly restored 1210, in green livery, as motive power. It is hoped that this brief account of my experiences of steam working on the Yass Town branch will complement several other accounts, cited in the Acknowledgements under “Recommended Reading”, and contribute to the historical record of this fascinating branch line.
An essential component of the steam railway was the tank supplying water to engines. Most water tanks on the NSW Railways were the square type, but in the 1890s a number of circular wrought-iron tanks, mounted on a brick tower, were constructed for extensions of the railway network. Several of these circular tanks still exist, although this example at Meranburn is now out of use. The stand pipe in the foreground replaced the original 9” water column after steam had been withdrawn from service.

R.K. Booth.
The circular water tanks were constructed over a period of eight years only, but three designs were developed during this short time. The first design had a lipped wrought-iron tank and an ornamental brick tower, as the tank at Brocklesby illustrates. Quite a number of the circular tanks were built close to the railway boundary fence, rather than directly beside the line, as was common for square tanks. The water column which was served by the tank is an original installation.

P. Neve.

CIRCULAR WATER TANKS
by R.K. Booth

During the steam era it was the steam engines which captured most of the attention of railway historians and photographers. Many of the ancillary items necessary for the running of the steam railway were taken for granted or scarcely noticed. Once regular steam disappeared, enthusiasts turned their attention to aspects of the railway other than engines. Not surprisingly, carriages, wagons, signals, bridges and architecture were substituted as topics to pursue.

Engine water tanks were essential to the steam railway and it is only recently that their history and design have commenced to be recorded in detail. One of the important considerations in planning an extension of the railway was the location of reliable sources of good quality water. A part of the cost of constructing a new line was the building of dams, water supply lines, tanks, water columns and drains. Thereafter, the Locomotive Water Supply Section of the railways' Mechanical Branch had the responsibility of maintaining these facilities.

The majority of engine water tanks on the NSW Railways were the square iron type usually mounted on a stand. Earlier stands were constructed from local hardwood since iron had to be imported. Once steel was manufactured locally, stands made of that material became standard. However, for a short period from 1892 to 1899, circular wrought iron tanks mounted on a brick stand or pylon were built. All were associated with extensions of the railway system undertaken during the time span mentioned. Most of these circular tanks have now disappeared and their incidental inclusion in photographs is rare because, unlike their square counterparts, circular tanks were usually located at a distance laterally from the
tracks.

Despite their short period of construction, three variations of circular water tanks were used. **Lipped wrought iron tank**, brick stand embellished with pilasters, semi-circular arched windows and doorway, capacity 20,000 gallons. Tanks of this type were located at:

- Lismore and Byron Bay on the Lismore extension;
- Meranburn, Parkes and Forbes on the Molong-Forbes extension;
- Possum Power (later Springdale) on the Cootamundra-Temora extension;
- Boppy Mountain and Cobar on the Nyngan-Cobar extension;
- Brocklesby and Corowa on the Culcairn-Corowa extension;

**Plain wrought iron tank**, plain brick stand with a shallow arch over the window and doorway, capacity 20,000 gallons. Tanks of this type were located at:

- Murwillumbah on the Byron Bay-Murwillumbah extension;
- Yagobie on the Moree-Gravesend extension;
- Carlachy and Condobolin on the Parkes-Condobolin extension;
- Warren on the Nevertire-Warren extension;
- Finley on the Berrigan-Finley extension.

These tanks were constructed in the 1894-1899 period.

All of these tanks were constructed in the 1892-1893 period, coinciding with the opening of the extensions to the railway network.
A number of the circular iron tanks were built as a part of engine depots supplying water to ashpits and hydrants, as well as water columns. One example was at Forbes, shown here in 1960. 3384 has its fire banked in readiness for taking the regular mixed train to Stockinbingal and Cootamundra. R.D. Love.

period, coinciding with the opening of the extensions to the railway network.

Plain wrought iron tank, plain brick stand with a shallow arch over the window and doorway, capacity 10,000 gallons. Tanks of this type were located at:
- Woolabra (later Bellata)
- Moree.

These tanks were constructed in 1897, coinciding with the opening of the Narrabri-Moree extension.

Incidentally, the Illawarra line was extended from North Kiama (now Bombo) to Nowra in 1893 but circular water tanks were not provided. Initially, the tanks already at Dapto and Minnamurra were sufficient for loco purposes. Nowra had to manage with nine 400 gallon tanks as its water supply at the opening of the line. It was not until 1910 that Kiama and Nowra were provided with substantial water supplies using square tanks.

The first type of circular water tank consisted of three wrought iron rings with a lipped extension at the top for reinforcing. All the iron components were riveted together. Overall, the iron part of the tank measured 10'8½" high and 20'9" in diameter. The rings used thicker gauge iron progressing from the top. The iron used in the top ring and the lip was 3¼" thick, the middle ring ½" thick and the bottom ring, plus the lower 8" reinforcing ring, 5½" each. Material 5½" thick was used for the tank floor.

The lip at the top was 12" high and extended 6" out from the tank side. The top 2" of the lip was beaded. The angled connections for the lip were
Right: The Temora branch was opened on 1 September 1893 and the only water facilities provided initially for engines were at Springdale. This tank was first called by the remarkable name of Possum Power Tank. Springdale later became a crossing loop dividing the Stockinbingal-Temora section. It could be opened or closed as a safeworking station to meet seasonal fluctuations in traffic. When closed, the distant signals could be operated by levers separate from the signal box, so that trains stopped for water would be protected under ordinary train staff and ticket safeworking. R.K. Booth
made using 2" x 2" x ¼" L plates, suitably curved.

The wall of the tank was constructed so that the top and bottom rings overlapped the middle ring on the outside. A single ring required seven plates. The top ring was 3' high. The middle ring was 3'6" high but, because of the overlap of the top and bottom rings, only 3'2½" was exposed. The bottom panel measured 3'6" high, including the 8" reinforcing piece. Thus, really only 2'10" of the bottom ring was exposed.

All these dimensional details have been taken from drawings held by the SRA Archives. However, the length of the individual plates comprising the rings is not indicated on the drawings. From measurements made by the author on the tank at Meranburn, the length of the plates worked out to be 9'8", although 1" either way is possible depending on the overlap between the plates comprising the rings.

The riveted method of construction meant that three plates actually joined at numerous points on the tank wall. Some hammering down (peening) of plate at such joints was necessary to close gaps.

The tank floor consisted of eighteen, triangular-shaped sheets, gently angled down towards the centre where the outlet pipe and its grating were located.

The circular brick tower supporting the tank stood 21'6" above the ground and had an internal diameter of 20'0". An exception was the tower at old Milsons Point where a reduced height of 12'9" was used, since the tank stood on a sandstone ledge 28' higher than rail level.

For the greater part of its height, the wall thickness was 9", equal to the length of a single brick. However, the walls were increased in thickness towards the footing and approaching the top by the addition of extra rings of bricks. The brickwork was reinforced with external pilasters located at 45" intervals. The thickness of the pilasters was 4½", namely that of a single brick, while the width of a pilaster was 1½" (i.e. equal to two bricks long).

The arrangement of bricks in a wall is known as the bond. Bricks set lengthways are called stretchers and bricks set endways are called headers. The brick towers either had English bond, with alternate courses of headers and stretchers, (e.g. Springdale, Brocklesby), or Flemish bond, with courses of alternate headers and stretchers, (e.g. Meranburn, Forbes).

Access to the interior of the brick tower, where the outlet pipe and sluice valve were located, was through a doorway fitted with a semi-circular brick arch comprising three courses of axed headers. Three windows were set at 90° intervals from the doorway. These, too, had a semi-circular arch made this time from two courses of axed headers. The arched portions of both the doorway and the windows were fitted with a wooden slatted louvre. The door itself was of wooden framed and panelled construction, while each window had four rectangular
Swivel Jib
Most of the circular tanks had water columns separate from the tank structure, with two exceptions, namely the tanks at Carlachy and Yagobie. The diagram shows the swivel jib arrangement used on the brick towers for supplying water directly to engines.

The diagram shows the original method of indicating the height of water inside the tank of the second series. The pulley was bolted on top of the 9" annular plate fixed inside the top of the tank wall to preserve circularity.

Water Height Indicator
The diagram shows the original method of indicating the height of water inside the tank of the second series. The pulley was bolted on top of the 9" annular plate fixed inside the top of the tank wall to preserve circularity.

36" x 9"
Ironbark Float

14lb. Weight

Tank Wall

Glass plates set in a wooden frame.

The 4" water supply pipe ran externally up the tank wall, filling the tank from the top. The positions of the supply pipe and external ladder varied from tank to tank to suit local need. The outlet pipe descended from the centre of the tank floor and the bend at the bottom of the pipe was a specially strengthened casting bolted to a heavy concrete foundation. A cylindrical grating which protruded 7" above the tank floor was bolted on top of the outlet pipe. The grating had holes in the side and top. However, there was no separate provision for flushing sludge from the bottom of the tank. Water delivery to water columns (and hydrants and ash pits where necessary) was controlled by a Tangye’s 9" improved sluice valve bolted directly to the horizontal end of the bend.

As stated earlier, this type of circular tank was constructed only during 1892 and 1893. Not surprisingly, a simplified version was soon designed. All the iron panels of the tank wall now had the same height and thickness, there being only a fractional difference in the length of the plates of the centre ring, compared to those in the overlapping top and bottom rings. The strengthening lip with all of its cutting, forming and drilling was eliminated. The embellishments on the brick tower were not repeated and only one window, located opposite the doorway, was provided.

Three rings of wrought iron were retained for the walls of the water tank, using a common thickness of 3/16" throughout. Plates in the top and bottom rings all measured 7'11 3/8" long by 3'6" wide, these being bare measurements excluding overlap. The plates in the centre ring were the same except that they were 1/8" shorter in length. A single ring re-
The 20,000 gallon storage capacity of the circular tank at Meranburn represented good planning in 1893, since all up goods trains stopped here to take water and clean the fires after the long climb from Cookamidgera to Bumberry, east of Parkes. 5484 and 6015 have paused at Meranburn for this purpose on 8 August 1964 while hauling the ore concentrate train originating from Broken Hill. The platform building is the original one built in 1893. Note the unattended platform disc and lamp which intending patrons used to stop passenger and mail trains.

J.S. Glastonbury.

The service on the Temora Branch is as under (the table shown on page 5 of Weekly Notice No. 48 being cancelled):—

**TRAIN ALTERATIONS.**

**South.**

**TEMORA BRANCH.**

Since Tuesday, December 12.

<table>
<thead>
<tr>
<th>Down.</th>
<th>Tue., Thur. &amp; Sat. only</th>
<th>Up.</th>
<th>Tue., Thur. &amp; Sat. only</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 Mixed Mail.</td>
<td>2 Goods.</td>
<td>4 Mixed Mail.</td>
</tr>
<tr>
<td>Stations.</td>
<td>a.m.</td>
<td>p.m.</td>
<td>a.m.</td>
</tr>
<tr>
<td>Cootamundra ... Dep.</td>
<td>7 30</td>
<td>1 45</td>
<td>Temora ... Dep.</td>
</tr>
<tr>
<td>Bauloora ... Arr.</td>
<td>7 46</td>
<td>...</td>
<td>Combaning ... Arr.</td>
</tr>
<tr>
<td>Do. ... Dep.</td>
<td>7a51</td>
<td>...</td>
<td>Do. ... Dep.</td>
</tr>
<tr>
<td>Yeo Yeo ... Arr.</td>
<td>8 3</td>
<td>...</td>
<td>Possum Power Tk. Arr.</td>
</tr>
<tr>
<td>Do. ... Dep.</td>
<td>8a8</td>
<td>...</td>
<td>Do. ... Dep.</td>
</tr>
<tr>
<td>Stockinbingal ... Arr.</td>
<td>8 20</td>
<td>C</td>
<td>Gundidindyal ... Arr.</td>
</tr>
<tr>
<td>Do. ... Dep.</td>
<td>8 30</td>
<td>...</td>
<td>Do. ... Dep.</td>
</tr>
<tr>
<td>Gundidindyal ... Arr.</td>
<td>8 45</td>
<td>...</td>
<td>Stockinbingal ... Arr.</td>
</tr>
<tr>
<td>Do. ... Dep.</td>
<td>8a50</td>
<td>...</td>
<td>Do. ... Dep.</td>
</tr>
<tr>
<td>Possum Power Tank ... Arr.</td>
<td>9 5</td>
<td>...</td>
<td>Yeo Yeo ... Arr.</td>
</tr>
<tr>
<td>Do. ... Dep.</td>
<td>9 12</td>
<td>...</td>
<td>Do. ... Dep.</td>
</tr>
<tr>
<td>Combaning ... Arr.</td>
<td>9 20</td>
<td>...</td>
<td>Bauloora ... Arr.</td>
</tr>
<tr>
<td>Do. ... Dep.</td>
<td>9a25</td>
<td>...</td>
<td>Do. ... Dep.</td>
</tr>
<tr>
<td>Temora ... Arr.</td>
<td>9 50</td>
<td>3 45</td>
<td>Cootamundra ... Arr.</td>
</tr>
</tbody>
</table>

No. 1 connects with No. 39 Down Mail, and No. 4 with No. 8 Up Mail.

Possum Power Tank was a timetabled stop for 1893 mixed mail trains.
This recent photograph of the Meranburn tank shows the doorway opening with its semi-circular arch in the brickwork, although the door is missing and the timber work vandalised. The positions of the ladder and filler pipe varied from tank to tank to suit local need.

R.K. Booth.

The thickness of the walls of the brick towers was 9", equal to the length of a single brick. The bricks were mortared therefore into either English or Flemish bond to give structural strength. The Meranburn brickwork shown here used Flemish bond. The window opening has a semi-circular arch consisting of two rows of axed bricks. Cement weathering was applied to the top surface brickwork where it was stepped out.

P.C. Booth.
Local contractors were used to manufacture and erect the circular tanks, separate contracts being issued for the iron work and the brick tower. The tank at Meranburn was built by Cooke & Webb, Engineers, of Redfern in 1893, the fact preserved for posterity on cast iron plates riveted to the tank side. Note the riveted construction and the way in which the plates overlapped. At certain points on the tank wall three plates met, requiring hammering or peening to close the joint. This can be seen in the top left hand part of the photograph.

P.C. Booth.

The Lismore to Tweed line, as this initially isolated line was first called, had circular tanks built at Lismore, Byron Bay and Murwillumbah. The first two places had the original series tanks, but Murwillumbah received the simpler plain-type tank. The photograph at Murwillumbah appears to have been taken not long after the line's opening in 1894. Beyond the 40' turntable can be seen an American suburban carriage, a C class (later 12 class) engine fitted with a large oil headlamp, a 20,000 gallon circular water tank and the engine shed.

SRA.
Left: Condobolin still has its 20,000 gallon circular tank, first used in March 1898 when the line was extended westward from Bogan Gate. This tank belonged to the second series, whose plainer style indicated a simpler design and construction. Three rings of wrought iron still make up the tank sides which used common thickness material throughout. A simpler doorway entrance and only one window opening were provided in the brick tower. R. Jones.
Circular water tanks of the second series were built at Carlachy and Condobolin when the line was extended westwards during the late 1890s. This 1965 scene is at Carlachy, where a square tank dating from 1945 stands beside the original circular tank. The small galvanised iron building with the chimney is the pump house for raising water from the earthen storage dam on the right. The circular tank at Carlachy was one of two built directly beside the line, having a swivel jib mounted on the side of the brick wall. A piece of protruding iron, now supporting a ladder, originally gave upper support to the jib, which has been removed. The wooden buffer preventing the jib from striking the wall can be discerned just below.

The circular brick towers for this second type of tank measured 21'0" in diameter and stood 20'8" above the ground level. The thickness of the wall was again 9", equal to the length of one brick. In section, the iron tank wall coincided with the centre of the brick wall to produce even loading. This, of course, was done with the first series tanks also. Some brick towers, such as those at Murwillumbah and Yagobie, had an additional external ring of bricks extending 2'6" above the natural surface and this extended the width to 21'4½". Since the two tanks mentioned were the first and last of this second series to be built, it is not clear why this extra ring of bricks was needed, unless there was some perceived local need for strengthening.

The access doorway measured 7'0" by 3'6". The door of the Murwillumbah tank was a wooden framed and panelled type in the style of the first series tanks, but all other tanks in the second series used a simpler brace and ledge door with vertical tongue and grooved boards on the outside. A wooden slatted louvre was fixed above the top of the door. The doorway opening in the brickwork had a shallow arch at the top.

Directly opposite was the only window, again

quired eight plates. The top and bottom rings overlapped the middle ring. Overall, the iron part of the tank measured 10'2¾" high and 20'3" wide, making it slightly smaller than the original type.

Strengthening at the top was still necessary to preserve roundness of the tank. Instead of a lip, a 9" annular plate was fixed to the inside of the top. The plate was angled slightly above the horizontal.

The floor of the tank was constructed in a similar manner to the first type. However, sixteen segments made out of ¼" iron were used. The top of the outlet pipe was fitted with a grating, referred to as a strainer in the drawing, 1" high, having openings on the top only. A 4" scour pipe was also attached alongside the strainer but its top was flush with the lowermost part of the tank floor. This arrangement allowed any sludge accumulating in the bottom of the tank to be drained off separately. The scour pipe was fitted with a plug tap for this operation. The water supply for the tanks was taken variously from rivers, creeks and wells, while, in some instances, earthen storage dams were constructed to ensure sufficient water during summer. It was inevitable that some sediment would be carried over to the tank.

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Directly opposite was the only window, again
The upper and lower diagrams show sectional and plan views of the arrangement of pipes inside the brick tower of the second series tanks.

Pipe Arrangements

The upper and lower diagrams show sectional and plan views of the arrangement of pipes inside the brick tower of the second series tanks.

10,000 Gallon Circular Tank

Drawing based on Bellata and Moree.

ENGLISH BOND

FLEMISH BOND

Brick Bonding Styles

R.K.B.

topped with a shallow arch in the brickwork. Unlike the previous design, there was no louvre provided above the window. Again, the Murwillumbah tank proved to be unique in having a much larger window opening in the brickwork, 70" by 3'10", and this contained a timber framed window with eight glass panels arranged in two vertical rows of four panes each. The remaining brick towers had the window opening reduced to take a 4' x 3' hinged wooden shutter with no glass. The shutter was of the simpler brace and ledge type, having vertical tongue and grooved boards on the outside.

A variation of the second type of tank had a swivel jib (known as a water crane on the original drawings) attached to the brick wall. Only two examples were known to exist and these were located at Carlachy and Yagobie. These two tanks were unique also in that they were the only circular
The guard rides the fireman's step of 3028 as the Warren goods shunts in the terminal yard. Warren's circular water tank is just visible at the right, along with loco's minimal offices.

E.H. Oliver

type built right beside the line, there being 19'9" between the centre lines of the tank and the track. The delivery pipe from the bottom of these two tanks was much shorter, requiring the support for the bend to be raised considerably inside the brick tower. A special wooden buffer protruded from the brick wall so that the jib did not strike the wall when it was swung back after filling the tender of an engine. The sluice valve was now external to the tank and was operated by the fireman from the tender top when taking water.

The third type of circular tank was really a reduced version of the second series, in keeping with its smaller storage capacity of 10,000 gallons. The iron part of the tank consisted of two rings of plates, both of $3\frac{1}{16}$ wrought iron. The plates of the top ring measured $8'5\frac{11}{16}$" by $4'0$" bare, and those of the bottom ring measured $8'5\frac{1}{2}$" by $4'0$" bare. The difference in length of $3\frac{1}{16}$" is accounted for by the fact that the top ring overlapped the bottom ring where they joined. A single ring required five plates. Overall, the iron tank itself measured just under $8'0$" high at $7'10\frac{3}{8}$", and $16'2\frac{3}{8}$" in diameter.

The floor of the third type of tank was made of $\frac{1}{4}$" plate and consisted of twelve triangular segments riveted together and meeting a $3'0$" diameter flat centre piece to which the grating and delivery pipe were bolted. No scour pipe was provided, even though the only two tanks of this type, at Bellata and Moree, were supplied with water taken directly from an artesian bore.

The brick tower supporting this third type of tank had the same general appearance as the second series tank. Indeed, it had the same height of $21'6$" but was narrower at $17'0$" in diameter to support the smaller tank. The door and shutter arrangements were the same as the second series tank.

The Narrabri to Moree extension was the first branchline in NSW constructed using the simplified and cheaper "pioneer" line standards. Traffic was only expected to be light, requiring small engines to haul trains. Smaller capacity tanks, therefore, fitted in with the economy principles of the Moree line construction.

Most of the circular tanks remained in service right to the end of steam operation. The need for a water tank at old Milsons Point was removed following the deviation of the North Shore line to pass over the Sydney Harbour Bridge as an electrified railway in 1932. It is assumed that this tank was dismantled soon after. The 10,000 gallon tank at Moree is not remembered by more recent observers. The Moree engine depot which the tank serviced was first located just north-east of the station but was moved...
south in 1901 close to where the Inverell line diverges. The depot was subsequently expanded when the branch lines to Mungindi and Boggabilla were opened. Latterly, square tanks providing a greater storage capacity were used and it is doubtful if the original 10,000 gallon round tank was a part of this scheme.

The tank and water column at Finley are not mentioned in the 1933 Southern Local Appendix, suggesting that there was little need of these facilities after the line was extended to Tocumwal in 1914.

A number of circular tanks were augmented by an additional square tank where additional capacity was required. This was done at Bellata and Carlachy.

Finally, a mystery. A circular iron tank was proposed for Moura (later Mandagery) at 258m 73ch. (417km) between Bumberry and Cookamidgera, east of Parkes. A water services plan initialled and dated by the draughtsmen in 1895, but not signed by Henry Deane, the Engineer in Chief, exists in SRA Archives. This plan clearly indicates a circular tank to be provided but gives no other details of the tank itself. The unsigned drawing suggests that a tank was proposed for Mandagery but was not proceeded with, at least not immediately. The next water services drawing for Mandagery tank is dated 1936 and this clearly indicates a 20,000 gallon circular steel tank at Mandagery. Allowing for the misnaming of the material, it appears that a circular iron tank was built at Mandagery, presumably in the pattern of the second series described above. The author was unable to locate the tank when photographing steam in the area in 1964, so it seems to have been an early candidate for removal. The author would appreciate any information on Mandagery tank, and any other of the circular wrought iron tanks for that matter, so that the record can be as complete as possible.

### NSW Circular Water Tank Location Details and Further Comments

<table>
<thead>
<tr>
<th>Tank</th>
<th>Location</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bellata</td>
<td>Moree side of platform, down side of line.</td>
<td>Supplied from artesian bore. Plans signed 12/1895. 10,000 gallons.</td>
</tr>
<tr>
<td>Boppy Mountain</td>
<td>Adjacent to platform</td>
<td>Up side of line.</td>
</tr>
<tr>
<td>Byron Bay</td>
<td>In loco</td>
<td>Down side of line. Still exists. Jib added later.</td>
</tr>
<tr>
<td>Carlachy</td>
<td>Down side of line.</td>
<td>Near Bogan Gate on Broken Hill line. Known as Gunningbland Creek tank on original plans. Water source Gunningbland Creek. Large earthen storage dam. Contract 1897.</td>
</tr>
<tr>
<td>Cobar</td>
<td>In loco, beside engine shed on up side of line.</td>
<td>Tower used as barracks accommodation for engine crews.</td>
</tr>
<tr>
<td>Condobolin</td>
<td>Sydney side of platform, up side of line.</td>
<td>Still exists. Plans signed 2.1897.</td>
</tr>
<tr>
<td>Corowa</td>
<td>In loco.</td>
<td>Water pumped from Murray River.</td>
</tr>
<tr>
<td>Forbes</td>
<td>In loco.</td>
<td>Parkes end of station, up side of line.</td>
</tr>
<tr>
<td>Lismore</td>
<td>Casino end of yard</td>
<td>Up side of line.</td>
</tr>
<tr>
<td>Meranburn</td>
<td>Western end of platform</td>
<td>Up side of line.</td>
</tr>
<tr>
<td>Milsons Point</td>
<td>Up side of line on top of sandstone ridge</td>
<td>Hornsby end of original station.</td>
</tr>
<tr>
<td>Moree</td>
<td>In old loco north-east of platform where Way &amp; Works compound is located today.</td>
<td>Supplied from artesian bore. Plans signed 12.1895. 10,000 gallons.</td>
</tr>
<tr>
<td>Murwillumbah</td>
<td>In loco.</td>
<td>Up side of line. Still exists.</td>
</tr>
<tr>
<td>Parkes</td>
<td>Sydney end of platform</td>
<td>Up side of line near silo.</td>
</tr>
<tr>
<td>Springdale</td>
<td>Opposite platform</td>
<td>Up side of line.</td>
</tr>
<tr>
<td>Warren</td>
<td>In loco.</td>
<td>Sydney side of platform</td>
</tr>
<tr>
<td>Yagobie</td>
<td>Moree side of platform</td>
<td>Down side of line.</td>
</tr>
</tbody>
</table>
The third series of circular tanks was the 10,000 gallon variation of the second type, still preserving the latter's plainer style. Only two of this type were built and these were located at Bellata and Moree. Both of these tanks were supplied from artesian bores. This scene was photographed at Bellata in 1959 and shows 3091 on No. 7 North West Mail which took water here for the final thirty-mile run to Moree. The original circular tank can be seen behind the square tank which is a later addition to augment water supplies.

R.D. Love

Right: Murwillumbah's 20,000 gallon tank, although now disused, still provides shelter for various local workmen.
Ian Dunn

Below: Byron Bay's disused 20,000 gallon tank taken in 1973. The remains of the 8" jib which serviced loco is clearly visible.
R.A. Gallagher
Dwarfed by the tall concrete wheat silos (built in 1930; capacity 30,000 bushels /800 tonnes), saturated 3047 lifts No.5 goods with passenger accommodation away from Gidginbung, in August 1964.  

Right: At the head of No.5 goods saturated 3014 takes water from Barmedman’s tank, before drawing forward some 200m to the platform on 27 February 1965.

Photographs of revenue steam working on the Burcher branch are extremely rare! Superheated 3036 approaching Clear Ridge on one Monday in August 1964, at the head of No.85 goods - which consists of the obligatory bogie WT and a surprisingly long string of S and K trucks. The 33m. 73ch. (55km) West Wyalong-Burcher line was opened on 16 December 1929. It is believed that the last steam-hauled train ran in April 1968.
WEST WYALONG WANDERINGS

by Graham Pegg

To us Sydney-based rail enthusiasts, the continued use of steam locomotives on branchline trains in the Temora area, as the 1960s progressed, was something of a mystery. We were only too aware that load tables and sectional running times had been established for many of the southern and south-western branchlines by (then) brand-new 48 class Goodwin-Alco diesel units during the latter part of 1961.

In a well-publicised timetable shuffle, many of these lines were dieselised on 11 February 1962. Lines which succumbed to the "infernal combustion" machine included: Junee-Narrandera-Tocumwal; Yanco-Hay; Leeton-Griffith-Hillston-Roto; Wagga Wagga-Tumbarumba; Uranquinty-Kywong; The Rock-Oaklands; Henty-Rand; Culcairn-Holbrook; Culcairn-Corowa.

In the same press releases, an ominous paragraph threatened the identical fate for other lines "when more diesel locomotives are received from the contractors". With 48 class deliveries averaging two or three a month during the latter part of 1961, the future did not seem very secure for the lines specified: Cootamundra-Tumut-Batlow; Stockinbingal-Parkes; Cootamundra-Temora-Griffith; and the Lake Cargelligo, Naradhan, Burcher and Rankin's Springs branches.

Indeed, the first official diesel-hauled train to Tumut and Batlow ran on 31 March 1962. When issued in April 1962 (to coincide with the introduction of regular passenger services on the new standard-gauge line from Albury to Melbourne), the Working Timetable clearly showed that every train west of Temora (except the Griffith passenger) was to be diesel-hauled and, in point of fact, the Temora to Lake Cargelligo trains saw little, if any, steam haulage after this date. However, a variety of factors meant that Temora retained its unofficial title of "steam's last outpost in the south-west" until the late 1960s.

Much play had also been made by the diesel lobby of the fact that, on the branches between Junee and Albury, one 48 class could replace all the 30T class steamers. In actual practice, however, two diesels were required.

The Temora area was somewhat different: one 48 class could replace one 30T strictly on a one-for-one basis. Owing to the lengths of the various branches (each train originated at Temora), the engine, irrespective of whether it was steam or diesel, would have to stay at the terminus overnight and the crew go to barracks. In the early 1960s, the NSW Railways just could not afford to be so generous with their brand new branchline diesel fleet.

That, and a combination of other factors (including poorly maintained light track and bumper wheat crops elsewhere in the State), meant that several 30Ts were retained for working the lines to Wyalong Central, Rankin's Springs, Naradhan, Burcher and Griffith.
Indeed, the next edition of the Working Timetable in 1964 showed that one in every three trains working out of Temora was tabled for steam power. Experience would prove that this figure was rather pessimistic, especially in the wheat season.

Early in 1965, David and Arthur were planning a weekend visit to the area and kindly invited me along.

Thus, very early on Saturday morning, 27 February, the three of us headed southwards out of Sydney, along the Hume Highway, bound for the granaries in the hot south-west of the state. By coincidence, we had chosen the weekend of the running of the last steam-hauled Goulburn day trains, Nos 13 and 14 South, so no other enthusiasts were sighted the entire weekend - they were busy playing kamikazes on the Short South.

After a refuelling stop at Goulburn, we shared the driving of David’s Mini Minor to Downing, where we turned off the highway and headed down the less-busy road beside the railway line as far as Wallendbeen, where it joined the Olympic Way.

We arrived at an almost deserted Cootamundra engine depot shortly after sunrise. The only steam locos on shed were 3292, with a “Temora No.32” depot plate affixed to its cab-side and 5262, fitted with a turret tender. Both engines were photographed, then we left, turning to the north-west, and drove through Meemar and Don Bradman’s home town of Yeo Yeo.

Temora was our next stop and, as we were too late to catch the 8.25am departure of No.91 Griffith...
NOTE: Lines not covered in text are shown for information only.
passenger train, which was almost always steam-hauled and conveyed at least one through carriage off No.5 Temora Mail (which was due in at 8.04am), we parked the car and headed for the loco depot. As we walked past the tall concrete wheat silo complex (total capacity 550,000 bushels/14 950t, built between 1919 and 1924), we heard the noisy clatter of the flour mill's single-cylinder oil engine (mentioned in Ian Wallace's article in the initial issue of Byways of Steam). “No need for alarm clocks in this town”, we joked! Gulgong also featured a noisy engine in its flour mill.

We were fortunate enough to catch 3088 being coaled by the elevated three-ton electric crane, then we pursued the 4-6-0 as it chuffed off to the shed’s 60' Sellers cast iron turntable for turning, prior to being stabled. The only other loco visible was 3055, fitted with a former P class bogie tender; its smokebox presented an unusual sight as the electric headlight had been removed for repairs.

A glance at the informative chargeman’s board showed that, contrary to our expectations (and the Working Timetable), No.5 Wyalong Central-bound goods with passenger accommodation was steam-powered, so we dived into the car and accelerated out of town, heading for Barmedman. No.5 was tabled to depart Temora at 8.40am, conveying passengers off the Mail; it ran to quite a leisurely timetable, unlike the Griffith passenger, which we had chased on a prior occasion and had clocked at speeds approaching 60mph (100km/h)!

Sure enough, we overhauled the late-running
3088 being recoaled by Temora’s three-ton, elevated, electric crane on 27 February 1965. G. Pegg

Left: A panoramic view of Temora loco depot, taken on 27 February 1965. Visible are two locos, 3055 and 3088, mentioned in the text, and, from left to right, the elevated coal crane, elevated sand tower in front of the original six-stall roundhouse, the cast concrete coal stage, and elevated water tanks. Arthur Stathakis

3088 being turned on Temora’s 60’ (18.3m) diameter, Sellers’ cast-iron turntable, prior to its being stabled in the roundhouse on 27 February 1965. Arthur Stathakis
Included for its wealth of detail, this shot depicts 3047 on No.6 Temora-bound goods passing Barmedman's massive silo complex (constructed in 1922; total capacity 300,000 bushels / 8,150 tonnes) in August 1964. As well as the wheat handling facility, note the 4-wheel CW livestock vehicles, and the empty U truck on the siding.

Bob Clarke

Above Right: Wheat is obviously more important than passenger traffic at Yiddah, as 3047 leads No.6 goods, comprising quite a healthy load, past the silos (built in 1922; capacity 200,000 bushels / 5,450 tonnes) and rudimentary platform, in August 1964.

Bob Clarke

Centre Right: On 27 February 1965, superheated 3036 approaches Calleen on No.90 goods with passenger accommodation from Naradhan, which features the vivid yellow and silver Travelling Health Car, LBK84, near the end of the train. The 37m. 38ch. (60km) Ungarie-Naradhan branch was opened on 11 February 1929.

G. Pegg

Left: A much more profitable load is being moved by 3088, as train No.82, across the paddocks near Alleena, on 16 January 1965. Note the re-railing jacks on the loco's buffer beam.

R.D. Love

Right: With the sun's furnace-like glare reflecting off the gravel platform, 3014 eases its train to a stand at Wyalong Central on 27 February 1965.

Arthur Stathakis
3056 is seen with a very short No.83 goods approaching Bellarwi, on 3 August 1964; the WT immediately behind the locomotive is for filling the fettlers' lineside water tanks. 

Bob Clarke

train as it halted at Barmedman's water tank for a leisurely drink. Barmedman is a scant 22½ miles (36km) from Temora, so exactly why the 4-6-0 required water is an unsolved mystery. Saturated 3014 was doing the honours and its substantial train consisted of LLV, BSV, BSV, three loaded S trucks, K truck, bogie oil tanker, three loaded K trucks, three covered S trucks, CR composite carriage and an EHO van. The CR was very crowded and, of course, some of the more inebriated travellers gave us advice on the finer points of railway photography.

After a lengthy stop for water, the train eased up the 200-odd metres to the actual platform, where several patient passengers detrained. The Barmedman station sign, with its “Change Here for Rankin’s Springs Branch” suffix was scarcely visible above the large pile of stainless steel eighteen-gallon beer kegs; these containers seemed to be a permanent fixture on many country junction stations.

Eventually the goods got under way and we easily managed two lineside photos before the next station, Yiddah, loomed over the horizon. Its large (200,000 bushels/5450t, built in 1922) concrete silos provided an impressive backdrop to our departure-type photos of No.5.

After a brief halt at Wyalong South’s small platform, the train proceeded on to Wyalong Central, casually shunting its two BSVs into the stock siding whilst en route. Just as at Barmedman, the long-suffering passengers in the CR had to wait until “departmental requirements” were finished before they were able to disembark onto the shady platform, with its “Change here for Burcher Line” sign. The train’s arrival was well after 11.00am, more than 30 minutes late. By this time the temperature was around 101°F (39°C).

Sheltering in the shade of the concrete wheat silo complex (built in 1922, 350,000 bushels/9500t) opposite the station, was a CPH railmotor waiting until that evening to work back to Temora, providing the connection with No.6 up Temora Mail. The railmotor was tabled to depart, as train No.26, at 7.10pm, arriving in Temora at 8.36pm, in plenty of time for the Mail’s 9.14pm departure. This railmotor would then stable in Temora yards until the following Monday, when it would form No.34, departing at 11.08am and arriving in Cootamundra at 12.16pm for a connection with No.16 Riverina Express, departing at 12.22pm to arrive in Sydney that evening at 7.07pm.

Our original plan of motorcading the up Naradhan train (No.90 goods with passenger accommodation) back to Wyalong Central had been thrown into disarray by the late running of No.5, as Wyalong Central’s station master told us that No.90 often ran early. He also confirmed our fears that No.88 goods from Lake Cargelligo was, as usual, diesel-powered.

To digress slightly, this was often a problem - driving hundreds of miles through the night to chase a specific train, only to discover that, for anumber of logical (or illogical) reasons, it had been cancelled completely, terminated or delayed. One Friday night I drove the 285 miles (460km) to Tamworth via the hair-raising Putty Road, to chase the down

3014 is doing the honours at the head of No.84 goods as it approaches Euratha, in August 1964. Wheat growing only become economically viable in the area centred on Wyalong with the opening of the various railway branches in the 1920s. 

Bob Clarke
Saturday passenger train to Barraba (due out at 7.05am). On arrival at West Tamworth yards, I was somewhat chagrined to learn that, because of a major shunting mishap, damaging several sets of points, the Barraba train would not be departing until the following Monday; a bus would be substituted for the return Saturday service. To compound this misfortune, the usually busy (and then predominantly steam-powered) Murrurundi-Werris Creek section was also very quiet, as a severe derailment of a wheat train near Muswellbrook meant that all goods trains were curtailed and would not commence running over the spectacular Liverpool Range through Ardglen until after dark.

After fuelling the Mini (it only had a 5½ gallon (25 litre) fuel tank), we consulted our sketchy maps and set off in the direction of Ungarie, hoping to intercept the Naradhan train out on the branch proper. However, we had just reached Girral when a smoke haze amongst the trees heralded the appearance of No.90: 3036 and bogie WT on a long string of assorted bogie and four-wheel vehicles: K, S, BCW, two KF four-wheel flat wagons, two K, S, four BWHs, two S, two K, two more S trucks and a rare sight, the bright yellow Travelling Health Car (LBK84), and guard’s van.

Rapidly we turned the car, and photographed the train as it neared Calleen; this weekly goods with passenger accommodation provided the only regularly-scheduled rail service on the line, out on Friday, starting from Temora, returning on Saturday. Naturally, during the wheat season extra trains would run to clear the many silos.

No.90 was chased back to Wyalong Central, where we learned that No.82 Rankin’s Springs goods was also running and steam-hauled. So, bidding 3036 a temporary farewell, we drove the 16 miles (26km) back to Barmedman, then turned off the main road and headed for Wargin, the first station on the branch. Sure enough, we soon sighted 3056 on the goods, which consisted of a K truck containing a water tank for refilling the fettlers’ lineside tanks, a covered BD gondola wagon, five S trucks, two bogie WT water gins, another S and a PHG brake van.

We motorcaded No.82 back to Barmedman and exposed considerable amounts of film as the train traversed the junction, picturesquely framed by the several signals. Then, after a short stay, 3056 was on the move again, Temora-bound.

A while later, 3036 on No.90 chuffed into view and we noticed that its loading had been substantially increased at West Wyalong by the addition of BWH, S, K, bogie flat wagon and a bogie oil tanker. These wagons could have been from No.88 goods ex-Lake Cargelligo, because provision was made in the working timetable to amalgamate both trains at West Wyalong for the run into Temora.

After photographing No.90’s passage, we were settling down for an anticipated long wait until the arrival of No.6 (the return of the goods we had chased out from Temora that morning), when a cloud of smoke curling lazily into the scorching sky heralded the train’s approach. This was our intro-
Saturated 3056 clanks over Barmedman's junction points on 27 February 1965, as it brings in No.82 goods off the 71m. 50ch. (115km) Rankin's Springs branch, opened on 8 January 1923.

G. Pegg

duction to the local interpretation of the intervals between trains in the staff-and-ticket safeworking area.

No.6's impressive load consisted of seven loaded S trucks, a bogie flat wagon, another S, five loaded BWHs, three bogie refrigerated vans, MHO brakevan and CR carriage. It was hauled by our friend from the morning, 3014. This time the composite carriage was almost empty, we noted as the train rattled past.

We declined to pursue any of these trains back to Temora, for several reasons: the sun angle was less than ideal, the background was very mundane, and the stifling heat combined with our drowsiness (we had been on the go for some fifteen hours by this stage) to induce a general feeling of inertia.

A chat with the Barmedman assistant station master (ASM) revealed that there would be no steam working west of Cootamundra until early Monday morning, so we decided to return to Sydney via Cowra and the Central-West, to check the action, if any, there.

After an exhausting 59 mile (95km) drive along very dusty roads through Bribbaree, we turned onto the Mid-Western Highway at Grenfell and more rapid motoring had us quickly cover the remaining 32 miles (51km) to Cowra, where we arrived right on dusk, and headed for the loco depot.

We made ourselves known in the District Locomotive Engineer's office and obtained permission to have a quick look around in the rapidly fading light. Locos in steam included 3122 and 3016 and we watched as Bathurst engine 5384 and another TF were turned on the 75' (22.8m) diameter turntable, then coaled, watered and oiled by their crews prior to whistling out to work No.364 Blayney-bound goods, due to depart at 6.30am.

After our quick inspection, we were sharing reminiscences over a cuppa with the friendly staff in the office, when one of the employees stunned us with the casual remark, "We'll have a couple of locos going out to Grenfell tomorrow on a wheat special!" All our thoughts of returning to Sydney vanished, as we excitedly planned a side-trip along the Grenfell line on the morrow. Double-heading on the actual branch was extremely rare, or so we believed, and on the Sabbath, without precedent! As far as we were aware, when big loads of wheat were waiting to be shifted from Grenfell, a single loco would work the up train to Koorawatha, where an assistant engine would be attached for the steeper grades back to Cowra.

Feeling a little extravagant, as well as somewhat cramped after spending nineteen hours in the Mini, we elected to stay at one of Cowra's cheaper hotels, close to the railway line, and, after booking in, sauntered down to the station to watch No.30 mixed depart at 7.10pm behind an anonymous P class, for its connection with No.46 up Coonamble Mail at Blayney. In the loop, the two TFs we had seen in loco were patiently waiting for the mixed to clear the 12 mile (19km) section to Woodstock before they followed with No.364, due out at 7.55pm.

After enjoying a truly magnificent meal in Cowra's famous Railway Refreshment Room, we strolled down the main street of the town, mainly to fill in time and allow the food to digest, then returned to the hotel to plan the next day's adventures.

Obviously an early start was called for, as we wanted to photograph the down empty wheat train on its way to Grenfell. These vehicles had to be loaded and brought back to Cowra in the afternoon. We had observed on the loco depot roster board that the time for the engines to whistle out of loco was 6.30am.

After the luxury of hot showers, we turned in early, reveling in the comfort of clean crisp sheets and one huge room per person (those Minis were cramped!), but we were a little disconcerted when the management declined our request to open the hotel dining room at 5.45am!

Incidentally, in all my years of active train photography, this overnight stay at Cowra was the only time I ever stayed in a hotel, tours excluded; because of a lack of funds, unattended railway stations were the usual accommodation!
Shortly after sunrise we were on our way. Leaving a very sleepy Cowra behind, we headed down the Olympic Way to the junction station of Koorawatha, then turned onto the back roads that followed the branch for most of its length. To our disappointment, we only caught up with 3122 and its train of empty rollingstock just before the terminus, but managed to photograph its entry into Grenfell.

The train's arrival caused a certain degree of consternation among the three casual employees in the yard; it seemed that no-one had bothered to inform the Grenfell wheat terminal manager of the train's running. After all, it was Sunday!

3122 had brought more than enough empties to lift 650 tons (656t), the maximum load for double 30Ts back to Cowra, but the lack of loading staff was obviously going to limit the number of wagons which would form the return trip.

We then discovered that the massive influx of grain from the surrounding area had so taxed the NSWGR's capabilities to transport it, that the concrete silos (built between 1926 and 1961, total capacity 320,000 bushels/8700t) were full to bursting point, and seven huge dumps of wheat had been established in paddocks adjacent to the railway yard. These dumps consisted of heaps of grain, bulldozed into piles some 200' (60m) long by approximately 15' (5m) high, and were completely exposed to the elements (rain, birds or rodents). Each dump, we were informed, contained more than 1200 tons (45,000 bushels/1212t) of wheat.
After photographing the later arrival of 3016, which had travelled out from Cowra light engine, we adjourned to the town itself in search of refreshment and were dismayed to find no open cafes or milk bars. However, we were fortunate enough to spot a cafe proprietor returning to his live-in establishment after buying the Sunday newspapers and Arthur talked him into opening the cafe and providing breakfast for us. A sumptuous four-course country meal duly appeared - even David's ravenous appetite was sated! - and we willingly paid the fairly steep 7/6 (75c) price. We were also lucky enough to chance upon an open chemist shop and bought more film to replenish our depleted supplies. We then refuelled the car and returned to the station yards.

Here we found that the Grain Elevators Board employees had not had any success in recalling more loading staff so, in 100°F heat, we pitched in and helped them, as best we could, load as many as possible of the empty wheat trucks from the bulging silos. In the meantime, the locos' crews turned and watered the 30Ts and then disappeared in the direction of the cafe we had just patronised. All Cowra-based 30Ts had six-wheel tenders, of varying ages and pedigrees, for turning on the 50' (15.2m) diameter turntables at Grenfell, Eugowra and Canowindra.

The GEB lads used a tractor and tow-rope to shunt the wagons away from the brimming silos' loading chutes and down the silo siding. To be frank, we were helping out not just to be neighbourly but, the more tonnage behind the locomotives, the better from both a photographic and tape-recording viewpoint. One of our party even accepted an invitation to climb to the top of the silos to obtain an all-around panoramic view of Grenfell station, the yards and town.

Early in the afternoon, the engine crews returned to their locos and prepared to marshal those trucks we had managed to fill: three BCHs, BWH, and five RUs. Combined with an empty four-wheel LV louvre van, used as a match-wagon, MHG van and the six-wheel water tank No.L596, now preserved at the Rail Transport Museum at Thirlmere, this gave a load of 470 tons (475t), well under the capacity for two 4-6-0s up the ruling grade, which was the 1 in 48 into Wattamondara.

The crews could delay the special's departure no

Forty-one tons of wheat cascade through the loading hatches of a BWH from Grenfell's concrete silo's chutes. The tractor was used to shunt the wagons along the silo siding, to join those already loaded, which can be seen behind the two Grain Elevators Board employees on 28 February 1965. G. Pegg

In above-century heat, superheated 4-6-0s 3016 and 3122 lift their wheat special across the sun-flayed paddocks approaching Greenethorpe on 28 February 1965. The 32m. 23ch. (52km) Grenfell branch was opened to traffic on 7 May 1901.

G. Pegg
A trailing shot of the “business end” of the Grenfell wheat special, showing the match wagon LV, the six-wheel water gin L596, 3122 and 3016.

G. Pegg

Below: The wheat special climbs the short, but steep, 1 in 48 bank approaching Wattamondara station on 28 February 1965.

Arthur Stathakis

longer for, although the branch was exclusively theirs, they had to be back in Cowra and signed off by a certain time, or stop the train wherever they happened to be and wire for relief. The wheat extra duly whistled out of Grenfell yards in mid-afternoon and we set off to motorcade the double-header.

David drove the Mini down the dirt roads which closely paralleled the pioneer branch, and we obtained photographs near Mogongong, Brundah and Greenethorpe stations, where, at the latter, the train halted for quite a while for do-it-yourself safeworking purposes. We were a little disappointed that the train’s progress was less-than-spectacular: obviously the crews were not about to over-exert themselves on such a hot day.

The afternoon sun-angle, especially in summer time, meant that along much of the Grenfell line our photographs were less than ideal. When in the
Cowra region, we usually chased the down Grenfell regular morning train, drove across country and motorcaded the up Eugowra mixed back to Cowra in the afternoon.

However, the loco crews had to really work to lift their train the 4½ miles (7km) to Uppingham, all of it uphill, and mostly on a 1 in 100 grade, with some gentle, photogenic curves which we put to good use.

Despite the 100+F heat, the wheat special provided a picturesque sight as it attacked the 1 in 100 grade; columns of black smoke from both 4-6-0s climbing into the burnished blue sky, and showers of hot cinders descending onto the parched, grey-brown grass. How we lamented the absence of that extra 150 tons of wheat behind the engines. What a show they would have made then!

Once it had crested the summit, the train quickly rattled the remaining miles down the grades through Warrangong to the junction station of Koorawatha, where both locos watered, and we sought refuge from the sun under a clump of withered, lineside trees. Whilst they were engaged in attending to their engines' needs, as well as the safeworking details, the crews telephoned through to Cowra for relief and were instructed to bring the train as far as Wattamondara, where they would be replaced by fresh enginemen.

And so off to Wattamondara we went, and an excellent photo of the wheat special was obtained as it climbed the short-but-steep 1 in 48 bank into the station. The crews tied up the train at the platform and began to scrub up, using water from the locos' boilers, and we gratefully collapsed in the shade of the goods shed's awning - the temperature was still well above the century mark.

Eventually a taxi arrived with the new crews and transported the now much cleaner expired-hours men back to Cowra to sign off. The train followed at a somewhat more sedate pace and we took two more shots of it, the last photo on the very outskirts of Cowra itself. The wheat trucks would not be forwarded on from Cowra until well after dark, so again we refuelled the car, and ourselves, and began the long journey back to Sydney.

Naturally, we chose the roads close to the rail tracks wherever possible, but it was not until we were approaching Newbridge, right on sunset, that a train was sighted. Bathurst engine 5476 was blasting upgrade on a Lithgow-bound mixed goods: two loaded S trucks, BWH, three RUs, two BWHs, another loaded S, two loaded Ks, two more loaded S trucks, K, LV, two bogie refrigerator vans and an MHG.

We caught this train once more as it rounded the scenic, sweeping curve near Gresham, then we wearily crammed into the Mini and resumed the long hot slog home.

And so concluded a very interesting weekend. The highlight turned out to be something completely unexpected, the double 30Ts on the Grenfell line, rather than the steam working centred on Temora. The Naradhan train and the Griffith passenger would have to wait for another day!
Superheated 3009, with six-wheel P class tender, pulls away from the stop outside Cowra depot, where the shed crew, which has prepared the engine and taken it down to the station, changes over with the crew for the trip to Grenfell. Loading consists almost entirely of S trucks, with a single MLV ahead of the ACS composite sleeper and EHO guard’s van on 28 March 1964.

R.D. Love

A BRANCHLINE REMEMBERED

Ron Preston

For those of us who were fortunate enough to experience the operations of the New South Wales Government Railways at their best, no greater pleasure was to be enjoyed than to travel on a rural branchline and savour its workings and day-to-day operations.

The Cowra district provided some ideal territory to explore. Not only was Cowra on the interesting cross-country link which allowed traffic from the west and south mainlines to interchange, it also had two fascinating branchlines which were as much a delight to the eye as they were a wonder to explore.

We usually came via the main west on the legendary Cowra Mail, No.61, which ran from Sydney each Tuesday, Thursday, Friday and Sunday. Departure from Sydney was at 9.30pm.

The Friday composition for this train was set down as:

- MLV - louvre van, to be detached at Bathurst
- EHO - guard’s van
- ACM - composite sitting/sleeping car
- CR - composite sitting car
- EAM - sleeper
- MBX - first class sitting (for Cowra)
- FS - second class sitting (for Cowra)
- Two LFX - side loading sitting cars, to be detached at Bathurst.

Friday evenings saw a large number of country folk, who worked or studied in the city, returning to their homes for the weekend, hence the additional two LFX cars which were not rostered on the Tuesday and Thursday runs. The load for the Friday train was 308 tons and bookings could be made in all cars bar the ‘dog boxes’. We made the trip in August 1955 and, at this time, it was usual for a 36 class 4-6-0 to work the train. A fast run was neces-
3009 again, two years later on Anzac Day 1966, crossing the approach trestle to the Lachlan River bridge at Cowra. On this occasion, the water gin is a square tank on a K truck underframe, and the Mansard-roofed EHO is marshalled ahead of the ACS.

R.D. Love

Koorawatha's 3000 gallon tank, with jibs projecting from two sides so that trains could water on either the main line or the loop. James McInerney

sary to bring the train to Penrith in one minute over one hour, with stops to pick up at Strathfield and Parramatta. Then on into the foothills of the Great Dividing Range.

At Valley Heights, a 50 or 53 class bank engine would be attached in the lead for the climb up the steep Blue Mountains and, from 11.18pm to 12.20am, any thought of sleep was out of the question as the two engines laboured to conquer the grades. The cold, clear night air provided the perfect medium for sound transfer, even if the risk of frostbite to the ears was exacerbated as we leaned from a convenient window to savour the sound. At Katoomba the assistant engine departed and, after a pause, the 36 set of into the west.

At Mt. Victoria, twelve minutes were allowed for refreshments and, despite the hour, 12.43am, we would dash down the platform to be one of the first into the RRR, the much maligned Railway Refreshment Room.

Coffee and toast was the standard fare for supper. No time for decisions - those who pondered caused delay and were either verbally abused or elbowed out of the way. While the toast had, of
necessity, to be pre-cooked and then liberally drowned in melting butter, the coffee was acclaimed by all. Rich, creamy, hot and of delectable flavour, it was consumed by the urn-full. Somehow, the modern drinks don’t taste the same and the recipe now ranks with the Gold of the Incas as one of the lost treasures of the world.

Now that the inner man had been fed, we might consider sleep. But, no, what about Lithgow Coal Stage, due at 1.26am? Here were the antique facilities at which our ten-wheeler was reconditioned and refueled while actually standing on the mainline and while still attached to its train.

On through the chilly night we steamed, per-chance waking for the shunting at Bathurst where the two LFX and MLV were detached and a fresh 32 class would emerge from the loco depot and attach to the now 220 ton train in place of the 36. Shunting here could involve a 26 class 2-6-2 saddle tank, a 24 class 2-6-0 or even a 19 class 0-6-0, all of which were on the roster. A local shunter presided over the proceedings.

At Blayney, where the temperature could be at its lowest, the train turned from the mainline and headed onto the single track cross-country line. While there were somewhat adverse 1 in 40 grades to be overcome, the majority of the 46 mile run to Cowra was downhill and the old 4-6-0 had an easy run through the early morning. As mail trains were designed to serve the communities in passenger, mail and parcel traffic, No.61 was ‘tabled to stop at all major stations and to make ‘a’ or request stops at the minor platforms, such as Garland, Lucan, Nargong, Waugoola and Holmwood.

If all had gone to schedule, the mail would grind to a stand at Cowra’s magnificent station at 6.34am, the early morning light brightening the day and promising warmth to dispel the chill of the cars whose footwarmers had long since ceased to fulfill their intended purpose. The 32 class took the FS and MBX from the train and stowed them in a remote corner of the yard.

We now had the choice of two branchlines and services which could take us to Eugowra or Grenfell. The former branch made its junction at Cowra and, being of lesser passenger potential, had a single CPH ‘forty-two foot’ railmotor as its train. Lest things become too crowded in the car, a four-wheel GT trailer was conveyed to provide for the parcels and mails.

Grenfell was of stronger stuff and was our first choice. For the landed gentry of the district and for their ladies, one of the most elegant trains to grace rural branchlines in the 1950s now stood at the platform. In tribute to its status, it was now identified as No.3 Grenfell Passenger.

At the head was one of Cowra’s saturated SOT class 4-6-0 engines, 3073, fitted with a six-wheel tender to ensure its compatibility with the fifty foot diameter turntable at the terminus. Next, on this Saturday morning train, the EAM sleeping car, the CR composite sitter, ACM composite sitter with sleeping berths for six and the EHO van - all remnants of the aforementioned mail. Not one side loading car was included in the consist and, together with two cars with sleeping accommodation, this was surely a sign that great import was placed on wooing the local populace to the service. Or was the district subject to fluctuation in its political persuasions?

At 7.20am, the little 30T set off, across the bridge spanning the Lachlan and, at a relatively urgent pace, along the long tree-lined tangents.

Wattamondara was the important intermediate stop in the journey to the Grenfell Line. Here we crossed the passenger train, No. 6, which provided...
a connection from the south. It would have steamed into the platform, deposited the electric train staff and any passengers, then reversed the way it had come until clear of the points leading to the crossing loop line. The guard, having obtained the necessary key from the signal box, would unlock the ground frame and throw the points so that the 32 class, the usual power for the train, could bring the cars into the loop. Once all was locked up, the key would be returned and the signals set to allow No.3 to roll in.

After any passengers and parcels were extracted, the 30T with the Grenfell passenger would charge on into the morning, leaving its larger colleague to work its way back onto the mainline and on to Cowra.

Koorawatha was the junction station for Grenfell and no expense had been spared here in providing facilities for the exchange of all forms of traffic. An island platform allowed two trains access to the station at the one time. Each platform road had a parallel crossing loop and water facilities ensured that no engine would go thirsty. An unusual feature of the yard was a water tank with jibs on opposite sides. It served the mainline and branch roads and the track centres and jib lengths had been designed so that two engines could take water as they stood on the parallel tracks.

After collecting any passengers who had waited some 45 minutes since the arrival of the aforementioned No.6 passenger, the Grenfell train turned onto the light rails of the branch. If all was well, the time was around 7.59am.

The sounds of progress now changed as the wheels clattered along the light rails, which were of short length. Ballast, that material which holds the sleepers in place and which drains the roadbed, was a luxury denied branchlines such as Grenfell and ashes salvaged from locomotive fireboxes had been used as the next best thing.

The combination of this infrastructure produced a pleasant, distinctive sound which fell gently on the ear. From the front of the train, an occasional whiff of coal smoke was an aroma to be savoured while, outside the window, a vista of green fields and tree-dotted rolling hills gladdened the eye.

Soon the grade steepened to 1 in 75 and the 30T now had to earn its keep. In ascending the line of hills, the builders had simply followed the sides of the various undulations, using 12 chain radius curves to maintain a steady inclination.

From Uppingham, the line fell at 1 in 100, the curves easing in radius and frequency as we headed into the valley of Tyagong Creek, some bush being traversed in the upper areas of the ridge. Greenethorpe was the main intermediate station on the branch and was a staff and crossing station.

Our passenger train paused adjacent to the platform with its peppercorn trees shading the skillion roof timber building. A few passengers left the train and were met by friends and relatives. The station master exchanged greetings with the crew and attended to the safeworking arrangements.

For No.3, this involved showing the driver the train staff and issuing a ‘ticket’ which allowed him
to proceed to Grenfell. This was 'staff and ticket' working at its practical best, for a goods train was to follow us and was, even as we waited, heading towards Koorawatha from Cowra.

So equipped, we set off over undulating hills for which gentle grades and easy curves had been used. The country had been cleared for wheat and stock farming and open fields led the eye into widening valleys backed by distant hills.

Like the earlier intermediate stations, Brundah had a 100' long platform to cater for any passengers and also had a loading bank in the parallel goods siding. This end of the line was more suited to wheat growing and large silos had been built at Brundah and Wirega.

Most of the lesser stations had a small skillion roof shelter shed on the timber faced platforms to cater for travellers. Many had peppercorn trees to offer shade from the heat of the day. As the years passed, so had many of the passengers who now found motor transport a more convenient alternative. So, too, the school children who, the Working Timetable provided, could join and be set down at nominated level crossings remote from the regular stations as they used the weekday train to travel to and from their seat of learning.

Finally, at 9.30am, we rolled into Grenfell and drew to a stand at the fine timber station building, whose construction had been embellished with a stained glass window above the rear entry. The branch had been opened on 7 May 1901 and the window was a lasting memento of the builder, the Public Works Department and the year, 1900, in which the station was built.

Once the passengers, parcels and mail were unloaded, 3073 propelled the cars until the van was clear of the points leading to a loop siding. The guard uncoupled the EHO and waved the train forward and, when again past the points, held both arms aloft as the signal to stop. Point levers clattered as he threw the points and then gave a wave to the crew. Back came the cars, the wheels rumbling onto the loop. When well down this track, the brakes were applied and the guard again dived in to uncouple the loco. Back to the mainline, the 4-6-0 then steamed back to pick up the van. Another to and fro movement saw the van pushed back onto the other cars and the evening train was now correctly marshalled for its return journey. On our visit, the loop was conveniently clear and the cars were left there-in.

Our 30T now steamed past the station and cautiously picked its way across a road and into 'loco', two sidings set in splendid isolation, provided to service engines. On one was a 50' diameter turntable on which the little 4-6-0 was rotated. From the overhead water tank, the tender was filled, and the fire was cleaned using the shallow pit for access to the ashpan. A coal stage had been installed as a back-up for engines which may have used more fuel.

The flour mill at the western end of Grenfell yard, beyond 'loco' and across the Mid-Western Highway.

James McInerney
A Cowra resident of the 'sixties, 3016, simmers quietly amid the peppercorns at Grenfell, awaiting its return to Cowra with the up mixed on 3 August 1964. The only goods loading on this winter's day is an S truck piled high with wool bales and, unusually, not sheeted against inclement weather. The water tank can be seen in 'loco' behind the guard's van.

R.D. Love

The countryside on the Grenfell branch is typified by this scene of 3008 with the down mixed on 11 January 1966. The load is two S, two BSV, five S, CR composite car and high-roofed EHO.

Chris Sim
than the usual and which might need a top-up for a
trouble-free run home.
Once all the servicing niceties had been observed,
the 30T returned and ran to the far end of the yard.
A quick operation of the necessary points allowed it
to return again to its cars and, after the fire was
banked, the crew returned to the barracks as departure
time was not until 4.11pm. As the stock siding
was empty the train was stabled there, thus leaving
the loop clear for the following goods train to use.
While the passenger train had been transacting
the aforementioned business, the thrice-weekly
regular goods train, No.53, had been steadily
making its way towards Grenfell.
It was 'tabled to depart Koorawatha at 9.20am
and was allowed 53 minutes to reach Greenethorpe,
some ten minutes being added to the running time
to allow for shunting either or both of the inter-
mediate sidings. Evidently a high expectation of
business for these was not held.
Greenethorpe was a different proposition and
some 22 minutes were allowed to shunt the various
sidings here. It was unusual to add vehicles on the
outward run and most movements involved uncou-
pling loads for the sidings and, after running for-
ward, pushing them into the place nominated by the
station master. Only on rare occasions was a truck
picked up for movement further down the line.
Local industries included wheat, for which a silo
was provided, and sheep and cattle. Stock races
allowed ease of access to vehicles for the four-footed
customers. A large open shed was in the yard for
storage of fodder and bagged wheat.
Another product of the ovine was wool and a
loading bank was a feature of the yard, so that the
bales of fine fleece could be more easily loaded into
trucks.
For the unloading of farm machinery, which was
a frequent load for incoming trucks, a five ton crane
was installed. Doubtless, over the years, a wide
variety of implements and materials was hoisted
from open and flat trucks by the locals whose arms
grew stronger as they wound the handles of the
manual mechanism.
A goods shed measuring 35' by 16' had been
constructed in the goods siding, so that produce and
goods could be stored under cover until transport
arrangements could be finalised. As Greenethorpe
was famous for its potato crop, and some farmers
had only small motor lorries, a series of trips would
be made delivering sacks of spuds to be stored in the
shed until a rail truck load was ready for sending
out to the markets.
Once the trucks had been placed, the 30T
recoupled to its train and again headed off for the
terminus. When required, it would drop off vehicles
at Brundah, Mogongong, Wirega or Quondong but,
as only twelve minutes were added onto the
timetable, the sages reasoned that only one or two
sidings would be served each trip.
Arrival at Grenfell as set at 11.37am and, on the
day we came, 3051 arrived with a long line of BWH
wheat hoppers and sheep wagons. It also conveyed
two S trucks of merchandise and a four-wheel water

A resident of Cowra in earlier days was 1407, member of a small class of 12 class lookalikes, rebuilt around
the turn of the century from G class 2-4-0s of great antiquity. The first day of August 1940 finds 1407 at the
head of a CR on the up passenger, ready to leave Grenfell.

Late C. C. Singleton
gin to boost the supply in the six-wheel tender. The penultimate vehicle was an MLV bogie louvre van for 'out-of' parcels and goods. An LHG type guard's van brought up the rear.

On arrival, the guard's van was left on the main line and the trucks propelled into the various sidings. Usually, these were of sufficient length that the empties were simply added to any loaded wagons, the points being conveniently placed for such movements.

Engines such as 3051 had hook draw gear on the front buffer beam and at the rear of the tender. However, many of the vehicles had automatic couplers and the two systems were incompatible. Many S trucks had transition links on top of the auto coupling and also came with buffers, thus giving them the advantage of mating with either system of coupler. Consequently, an S truck or two was always included in the train as a 'match truck'. On this train, the four-wheel water gin was similarly fitted and, after an exciting 'flying shunt' involving a tow rope, it was coupled to the front of 3051 to act as the match vehicle. 3051 now set about retrieving trucks from their respective tracks and adding them to the Cowra end of the LHG.

From the goods siding came S and K trucks of wool which had been loaded at the loading bank, while the MLV was retained adjacent to the LHG. A ten-ton crane was another feature of the goods siding, as was the large 60' by 16' goods shed. Another large open shed was provided for the storage of fodder. These sheds saw use after the wheat harvest when the stubble was baled for stock feed and the locals made use of the storage space. Then, on the other hand, in times of drought, bales would be brought in for relief of local stock and the shed became a storage and distribution point. A siding to a flour mill ran from the yard, across a main road and into the mill building. No traffic emanated from there that day.

Once the train, to be known as No.52, was made up in the loop siding, 3051 propelled its water gin across the road and into the short extension beyond the turntable. Once the engine had been turned, the gin was in the correct position to couple again to the tender and have the linking hose restored. Both vehicles were filled from the overhead water tank. With the fire cleaned, the 30T returned to the head of its train. Now there was time for food. Departure was timed for 1.15pm, just 98 minutes since arrival, so the shunting had been carried out as smartly as possible to maximise the meal time and to enjoy a yarn with the station master and the other crew.

The goods train had brought the staff from Greenethorpe as its authority to run through the section but, as the passenger was to follow, it had to return on the ticket. As the train would shunt at Wirega, it was necessary to carry a key to unlock the points there. The same key head was also on the staff for the section but, being 'on the ticket', a loose key was obtained by the guard for the purpose. A kind guard agreed we could ride in the van. The crew were not so co-operative and claimed their cab was too small for extras.

At the allotted time, we set off. A 1 in 100 grade limited the load for 3051 to 475 tons and, as this grade appeared at several points along the line, this was the usual maximum load. We climbed to Quondong, the strident exhaust of the 4-6-0 reaching us in the van. Once at the summit, we rolled down to Wirega, there to pause so that a truck of wool could be retrieved from the goods siding.

At Greenethorpe, 29 minutes were allowed for shunting and 3051 lost no time in uncoupling and heading for the stock and goods sidings. From the former, the 30T collected a GSV of sheep then, from the latter, added two trucks of wool and an empty LV louvre van. The train was made once again and

Two of Cowra's water gins: L596, the six-wheeler, is one of a large group built last century, of which this is the only surviving example, and L663, a much more modern vehicle, with a welded-steel semi-circular tank on a standard S truck underframe.

R.K. Booth
Cowra's unique pair of superheated 25 class is represented by 2531 awaiting the call to duty with its younger colleague, 3092, a saturated member of its class, on 31 August 1958 in Cowra's immaculately maintained depot.

F.C. Saxon

the crew, after checking and oiling around, headed for the shade of the peppercorns for a quick cuppa. Here, as compensation for the refusal of a cab ride, the crew agreed to a photo stop and this was taken on the flat country near Warrangong after the 1 in 100 climb to Uppingham had been negotiated.

Again, the crew of 3051 were issued with a 'ticket' for the section which was to end at Koorawatha at 4.02pm.

Not long after, 3073, which had reversed its cars into the platform back at Grenfell, would take the train staff and set out, at the maximum allowed speed of 30mph, and head for Cowra. Departure of No.4 passenger from Grenfell was at 4.11pm and, in the gloom of the evening, arrival at the junction at 5.43pm.

Here we said goodbye to the two trains, the goods having combined with Cowra-bound freight No.24,

3018, saturated and with a rebuilt 16 class tender, and 3288, stand at Cowra with ACM composite sleeper, EHO, a Mansard-roofed LFX and an elliptical-roofed LFX.

Ron Preston Collection
headed by a 55 class 2-8-0 and, double-headed, set off for Cowra soon after 5pm.

At 5.49pm, we left for Harden in No.11 passenger with a 32 class in charge. As we left from the mainline side of Koorawatha, 3073 was leaving from the branchline side, Cowra bound. So ended our Grenfell line visit, an event to savour, to remember but, alas, not to be repeated, the last passenger train having made the journey in August 1974.

There was one other Grenfell line service enshrined in the Working Timetable which the foregoing saga does not describe.

Goods traffic on branchlines such as Grenfell could vary widely in tonnage from day to day as the wheat, wool and stock seasons reached their peaks and then died away. To cater for such variations, a third train was listed but, as it only ran when needed, was classified as 'conditional'.

When the loading was heavy, No.51 goods would leave Cowra at 9.00am and arrive at Koorawatha at 10.00am. Here it would carry out any local shunting before setting off along the branch.

Some 60 minutes were allowed for running time, compared to 43 for the other goods train. The reason was simple. As No.51 was intended to run only as far as Greenethorpe, and there were no means of turning the engine at either Koorawatha or Greenethorpe, the entire outward journey had to be made tender first.

On such days, the regular goods would concentrate on serving the terminus and the stations at the far end of the line, so leaving the traffic closer in for the conditional train.

From 11.41am to 1.10pm, the 30T class, or maybe a 24 or 25 class 2-6-0, would shunt the various sidings then remarshal the resultant loads against the brake van before the crew took 'crib', the allowed meal break.

Now, funnel first and with the necessary water gin suitably coupled to the tender, the small engine would head up the hill to Uppingham as No.50 goods.

Stops would be made at this siding and Warrangong to attach any loads offering, an allowance of 13 minutes being included in the timetable.

Arrival at the junction was set down for 2.25pm, well clear of the regular goods train which was bringing in the loading from the Grenfell end of the line.

Cowra had two superheated 25 class, 2531 and 2534, on its allotment and these engines, together with the 30T's and various 24 and other 25 class, were the mainstay of the Cowra area branchline traffic in the 1950s.

Like all mortal flesh, they have passed from this life. Of even greater concern is that so much of the traffic they so gallantly hauled has also passed from the railways and, today, the Grenfell line sees very spasmodic use when wheat trains are run to lift the harvest. Improvements such as ballast have been lavished on the track and it is hard to understand the logic of turning away business while maintaining the line for this once only traffic. The operators will claim that other types of loading would not be viable and will produce costings and statistics to suit.

Still, you can prove anything with figures.

Above Right: An up wheat special from Grenfell stands at Wattamondara, with superheated 3063, on Australia Day 1963. The load consists entirely of RU and CU wagons, but the bufferless RUs need the interposition of a vehicle such as the S to couple to the screw-coupled water tank, L596.

Dennis O'Brien

Right: 3058 needs the accompaniment of small, four-wheeled, welded water tank, L663, as it heads for Grenfell.

R.D. Love
Top Right: It’s 7:45am on Monday, 9 February 1970 and W904 and S550 ‘Hardie’ leave a steam trail in the cool morning air as they hurry 335 goods southwards near Newlands, on the heavily graded Bunbury to Bridgetown line. Within a few hours, the temperature will soar to over 35 °C and any form of visible exhaust will have disappeared from these engines burning the poor quality Collie coal, renowned for its lack of black smoke. The W class 4-8-2s, built by Beyer, Peacock and Co. Ltd, and introduced from 1951 onwards, had a specially designed boiler incorporating an exceptionally long combustion chamber in the firebox, to gain the best steaming efficiency with Collie coal.

The line from Donnybrook to Bridgetown was a test for the W and S class Mountain locos which monopolised this section, as two major ridges needed to be surmounted, one at Mullalyup and the other at Hester. To lift the heavy northbound loads of timber and produce, nearly all trains leaving Bridgetown were double-headed. This involved up to seven trains daily, with the leading engine detaching and servicing at Donnybrook and then returning attached to the next southbound goods.

During the early months of 1970, a number of additional W class locos were attached to Bridgetown shed to commence ballast train duties prior to the introduction of diesels. This working involved the use of usually two W class engines coupled tender to tender with two water gins in between, but, as if this was not unusual enough, at Balingup, halfway between Bridgetown and Donnybrook, a third W was often added at the rear of the train, along with its own water gin, and the entire consist would then climb the steep grade northward to Mullalyup.
Photographing steam locomotives in my home state of New South Wales was, by the late 1960s, becoming a mundane experience, with most steam activity being confined to the Hunter Valley and only minor activity outside that area. With my first annual holidays looming and rumours of many lines in south-west Western Australia being steam operated, I decided to pay a visit in late January and February 1970. Together with a fellow enthusiast, I set off by train for Perth where we bought a car for the purpose of chasing and photographing these steam-hauled trains. We were not disappointed, for there we found two operating divisions of the then WAGR with virtually full steam services. From Perth down to Bunbury and then radiating over the south-west tip of the state was a steam-operated system using locomotives, some only 15 years' old, to haul the mainly timber and coal traffic, while to the east of the Darling Range on the Great Southern Railway and its branches were Pacific and Mountain type locomotives engaged in hauling vast amounts of wheat.

My first visit whetted my appetite and a return trip was planned for the summer of 1971, but by then the dieselisation process had spread to the West and the Great Southern Railway had virtually succumbed to the new diesels. Much of the south west was also feeling the effect of the new motive power, with the mainline from Bunbury to Perth only seeing steam locos on washout or transfer but, south of Bridgetown in the heart of the timber country, the W class still held sway and my favourite depot at Collie was still to hear the sound of a diesel electric locomotive. I left the West in February of that year and only a few months later regular steam working was gone forever.

The reduction of steam between my two visits was quite dramatic. The ten powerful S class Moun-
Wednesday, 2 February 1970 was the day the Commissioner for Railways was due to inspect the facilities at Wagin so, when my companion and myself arrived and began inquiring as to the train workings for the day, we were politely asked to make ourselves scarce for a while and come back after the official train had departed. Later that morning, we watched from a viewpoint on the overhead bridge at the station as the Commissioner's train came into view. It was called No.5 goods and had three passenger cars attached to the rear of the general goods loading and it was hauled by green Pacific Pmr725. After lunch, the official train departed and V1220 moved No.11 goods up the yard to the triple-arm departure signal to await line clear to the south. These V class locos were only fifteen years old that summer, the first being delivered from Robert Stephenson and Hawthorn Ltd in 1955.

trains were, in 1970, equally divided between Collie and Bunbury sheds, with the Collie engines working the heavier coal and wheat trains over the Narrogin-Collie-Brunswick Junction route, while the smaller tendered engines at Bunbury worked on the line to Bridgetown. By 1971, the Bunbury engines were essentially finished, with a tri-weekly pick-up to Donnybrook being the only regular roster, while at Collie the coal runs remained S class hauled. An additional run in 1971 for the Collie engines was working Nos 54/55 Wagin goods, albeit at a much reduced speed.

Meanwhile, the reduction in use of the V class Mikados was far more substantial. In 1970 they could be found on the Perth-Northam-Albany mainline, with additional engines working express freights on the Perth-Bunbury mainline and the majority of trains between Collie and Brunswick Junction. By 1971 the Great Southern Railway had lost its V class, with most services in the South-West retaining their use. The greatest reduction in their sphere of operations was on the numerous branches radiating from the major centres on the Great Southern Railway, which were dieselised during 1970. The W class are unique in that, of a sixty strong class, nearly one-quarter are preserved, either statically or in working condition.

The W class was probably the least affected by the dieselisation process during 1970, with most services in the South-West retaining their use. The Pm and Pmr class Pacifies were already being withdrawn in large numbers during the summer of 1970 as Ab and Ra class diesels were being delivered, and by 1971 only three engines saw any activity. The two Pms were shedded, one each at Narrogin and Collie, both being standby engines. Pmr730, based at Bunbury, was used almost daily on the Busselton goods - a far cry from the previous year when both classes could be found working the slower general freights on the Great Southern Railway and the Perth-Bunbury mainline. A pool of these Pacifies also provided valuable horsepower at Collie shed in 1970, assisting many heavy wheat trains on the Narrogin to Brunswick Junction line.
During February 1970, Narrogin shed, together with most other sheds on the Great Southern Railway, was suffering a severe locomotive shortage due to the large volume of wheat needing to be moved to the seaboard terminals. On the afternoon of 12 February, S543 ‘Brockman’ was not doing much at Narrogin shed after having arrived from Collie earlier in the day. Its next rostered train was the following morning on No.104 goods back to Collie but, as some additional loading had been marshalled up in the yard, it was decided to put the loco to use on an extra goods to Wagin. This decision afforded the extremely rare sight of an S class working a train on the Great Southern mainline. The photo shows the Mountain class engine heading south near Highbury.

Waiting for wagons to be loaded is a time-honoured tradition on any railway and S543 ‘Brockman’ is no exception as the crew wait patiently at Western Colliery on the eastern outskirts of Collie on 15 February 1971. Western and Muja Collieries provided the bulk of locally consumed coal and between them they kept Collie shed very busy, especially when the wheat harvest was in full swing. Western Colliery was usually serviced by three trains each weekday and all were worked in the later years of steam by S class, of which Collie had five on allocation. By 1971, Bunbury powerhouse had a direct rail link from the Perth mainline and two coal trains each day were required from Collie’s mines. These trains were worked from the mine to Collie yard by S class and then they would be replaced by V class 2-8-2s for the run down the escarpment to the coast.
Above: Green Pacific Pmr720 leaves a distinct trail of smoke as it hurries No.36 goods away from Tambellup on the Great Southern Railway, having just crossed sister engine Pmr715 on No.41 southbound goods on 10 February 1970. The later summer months yielded quite a number of Pacifics on the slower freights as Ra class diesels handled the wheat and V class 2-8-2s the fast freights, but the older Pm class locos were already being withdrawn in large numbers and stored at Narrogin. The line south from Wagin was of a roller-coaster nature and the Pacifics could put up a good turn of speed on the long downgrades.

Above Right: Double-heading involving steam locomotives on the Great Southern Railway by the end of the 1970 summer was rapidly becoming a thing of the past as the Ab and Ra class diesel-electric locos commenced hauling the heavy wheat trains. It was therefore somewhat of a surprise when the Narrogin shed master advised us that a W class would assist a V on a morning southbound superphosphate train to Wagin and then return on a load of empties. Saturday, 14 February dawned fine and clear but No.11 goods to Wagin was running some hours late and would run through the middle of the day when photography would be poor. Fortunately, the return train, No.14 goods, was on time and, as the highway was adjacent to the line, we provided the crew with some amusement as we obtained our photos. The photo shows No.14 goods arriving at a near-deserted Narrogin yard, and not long after arrival Ab1532 would replace the steamers and head north, while Fs365 pottered around shunting a few wagons.

Right: All is quiet at Donnybrook yard as the crew of S549 'Greenmount' patiently awaits the arrival of 332 goods from Bridgetown. Although the load is well within the capabilities of the S class, the assisting engine on 332 will be turned and watered before returning as lead engine on 335 southbound goods to Bridgetown, as it will be required for further banking duties later in the day. At 6.30am on 4 February 1970, W945 and W902 wheel 332 into the yard and one hour later 335 heads south with W945 leading the S class. So busy was this line that 335 crossed two other northbound freights before Bridgetown was reached. The line from Bunbury to Bridgetown played host to five of the ten semi-cowled S class 4-8-2s, built by Midland Workshops between 1943 and 1947 and named after Western Australian mountains. The remaining five S class were based at Collie for use on the cross-country line to Narrogin and local coal trains. These particular locos had tenders with a larger water capacity for use on the more arid lines where water was not so readily available as in the south-west. By the summer of 1971, the S class had suffered its first withdrawal, with S544 'Hallowell' being stored at Collie in late January.
Above: The water bottle hanging on the side of Metropolitan Vickers 2-Do-2 diesel-electric X1030 'Mooroon' will be well used by the crew before Bridgetown is reached, as the afternoon temperature nudges 37 °C. However, the diesel crew are no doubt feeling quite smug as their colleagues on W904 swelter as No.345 goods struggles around the tight curves known locally as “Cape Horn”, just to the south of Balingup, halfway between Donnybrook and Bridgetown on 19 February 1971. This particular spot was dreaded by steam crews in wet weather as the combination of sharp curves and slippery rails brought many a train to a stand. South from Bridgetown, the line into the forests was still being upgraded and ballasted to enable diesels to be introduced and all trains were worked by W class engines sub-shedded at that depot. As the locos required servicing and washout every two to three weeks, Nos 345 and 346 goods every Friday afternoon were worked between Bridgetown and Bunbury by an X class diesel piloting a W class. The two trains would cross at Kirup and the crews exchange and return to their home depots.

Above Right: Doing what it was designed for, V1202 races No.16 fast goods through Pingelly on its way to York from Narrogin. We had followed this train during the afternoon of 12 February 1970 from Narrogin and its fast pace provided a real challenge to the clapped-out FC Holden which we had purchased in Perth for the express purpose of train chasing. Both the W class 4-8-2s and V class 2-8-2s introduced in the 1950s had the round top boiler with the specially-designed extended firebox to burn more effectively the poor quality, sulphurous, sub-bituminous Collie coal.

Right: Bunbury shed was the largest steam depot on the south-west mainline and its function was to provide locomotives for the myriad of branches and cross-country lines radiating south into the timber and dairying country of Western Australia’s far south-west. The busiest of these was that from Bunbury to Bridgetown, but at Boyanup, just south of Bunbury, lay the junction for the line to Busselton and, from there, the line to Nannup. Nearly all these branchlines were entrusted to the numerous W class but the daily Busselton goods was unique in 1971 in that it provided the last workings for a Pnr class Pacific. Pnr730 was regularly rostered on No.37 goods but, when washout or repairs were required, then a W class would be substituted. This was the case on 2 February 1971 when we followed No.37 goods from Bunbury to the coastal terminus. The train is seen here, with W943 in charge, taking water at the junction at Boyanup. The signals indicate a clear road onto the branch, while the left-hand signals are for the mainline to Bridgetown and Manjimup.
Above: Modern green-liveried locos were the trademark of Western Australian steam, so the sight of a black 4-8-0 Fs class was something worthy of attention. During both of my visits, a common sight in many yards was an Fs class on shunting duties, although I never saw one venture onto a mainline train working. The fact that such an elderly engine as Fs460 could be seen at Collie was somewhat incongruous, as Collie shed was the most modern in Western Australia, covering many acres, with ample room for expansion that never eventuated. The depot featured a most unusual ashpit where the contents of the firebox were emptied directly into a pool of water to quench the coals. An overhead grab would clear the residue into wagons on an adjacent track as the pool became full. Fs460 is shown on one of two available tracks over the pit on 15 February 1971. To the left can be seen the vertical coaling tower which was refilled using buckets on a continuous chain to raise the coal from a storage pit to the overhead bin.

Above Right: For Pm710, its days are numbered. In 1971 this 1949 North British Locomotive Co. built Pacific was one of only two left in service. Pm701 was based at Narrogin and was used on an “as required” basis, while 710 at Collie was a standby engine. The modern Pm and Pmr class Pacifies were introduced to replace the older 1920s built P and Pr classes on the passenger and express freights and although the first engines delivered did not have roller bearings fitted, the last half of the order did, and these were classified Pmr. In this view taken of Pm710 on the Collie turntable on 15 February 1971 the marshalling yard can be seen in the background while recently withdrawn S550 ‘Hardie’ has joined another fifty or so engines stored in other sections of the depot.

Right: Late on Saturday afternoon, 6 February 1971, V1209 heads No. 179 goods upgrade away from Beela on the tortuous Brunswick Junction to Collie line. Up to eight trains each way per day, including Saturdays, traversed this line and most post-WWII classes of locomotive could be seen, often double-heading, although the vast majority of trains were hauled by WAGR’s most powerful engines, the V class 2-8-2s. The 24 V class, built by Robert Stephenson and Hawthorn Ltd in 1955, and with a tractive effort rated at over 33,000 lbs, were in my opinion the most impressive of all WAGR locos. Their heavier axle loadings limited their range to the Perth to Bunbury mainline, the GSR and the Bunbury to Collie line. After the opening of the standard gauge through the Avon Valley, one steam roster was run each weekday to Northam and it was always allocated a V class. By 1971 they were largely unemployed, being used from Collie down to the coast and on Nos. 103/104 goods between that depot and Narrogin. Once a week a V would work each way from Perth to Bunbury for maintenance, but all these rosters only kept about six engines active.
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Singleton Locomotive Depot

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Bob Booth
Circular Water Tanks

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Recommended Reading


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