Locomotive No. 1 - the first steam locomotive in New South Wales

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SUMMARY: Locomotive No. 1 is of great significance in the railway history of New South Wales. It was used in the construction and early operation of the first line from Sydney to Parramatta, built in 1855. It operated for only 22 years before being decommissioned, and has been in the collection of the Powerhouse Museum for over 120 years since 1884. The locomotive was put on external display in Sydney on at least four occasions, for the 50th and 100th anniversaries of Railways in New South Wales in 1905 and 1955, a Railway exhibition in 1917 and the sesquicentenary of New South Wales in 1938. During the 1930s doubts were raised over the authenticity of the locomotive and whether it was in fact Locomotive No. 1 or 2. Now proven beyond doubt, it has pride of place in the Locomotive No. 1 exhibition in the Powerhouse Museum in Sydney.

1. DESIGN AND CONSTRUCTION

The Sydney Railway Company, the private firm formed in 1848 to build a railway from Sydney to Goulburn, was in a position to order the necessary locomotives and rolling stock after the State Government loaned them £100,000 in November, 1852. The English engineer, James Wallace, proposed British locomotives and track while William Cowper (1807-1875), the Company president, thought the cheaper and lighter American ones would have been more suitable for the Colony’s needs.

1.1 Robert Stephenson & Co., the builders

In the end, four 0-4-2 steam locomotives were ordered from Britain’s foremost locomotive builders, Robert Stephenson & Co., at their locomotive engine works, South Street, Newcastle upon Tyne. The Company was formed on the 23 June, 1823, as a partnership between Robert Stephenson (1803-1859), Edward Pease (1767-1858) and Michael Longridge (1785-1858). From the start the Company was the leading locomotive supplier due to its early design successes for the Stockton & Darlington and Liverpool & Manchester railways. By 1840 they had supplied locomotives for railways in Austria, Belgium, France, Germany, Italy and Russia. As well as being manufacturers of locomotives, marine and stationary engines, Robert Stephenson & Co. also made weighing machines, hydraulic presses and paper machines, not to mention bridges. Stephenson’s original factory, shed and offices at 20 South Street, survive today under the care of The Robert Stephenson Trust. This factory was the first purpose-built locomotive works in the world and produced not only the Rocket and the Planet, but the Powerhouse Museum’s Locomotive No. 1 in 1854. It is fitting that drawings of Locomotive No. 1 now hang in the boardroom of the original Stephenson Company office. Locomotive No. 1 is the third oldest Robert Stephenson-built locomotive to survive outside Britain, after John Bull in the Smithsonian Institution and L’Aigle, in the French Railway Museum and the tenth oldest British-built one.

1.2 James McConnell, the designer

James Edward McConnell (1815-83), Locomotive Superintendent of the southern portion of the London & North-Western Railway, based at Wolverton, was appointed the consulting engineer in England for the Sydney Railway Company. He designed the locomotives and supervised their manufacture. By this time the basic principles of locomotive design were well established and McConnell’s choice was almost identical to the 0-4-2 locomotives of his design for his own railway, complete with polished brass steam dome and the distinctive locomotive number on the funnel. Consequently, the Sydney Railway Company did not receive a Stephenson-designed locomotive but a McConnell-designed one, significantly the only order at the Stephenson works to have been built to the design of an outside engineer. As Wallace, the Sydney Railway Company’s engineer, did not specify a livery, the locomotives were given the same as for McConnell’s London & North-Western Railway Company, a boiler of Brunswick green; splashers, footplate steps, buffer beam and side rails of red; boiler bands, mainframe and buffers of black; and line work in white. Locomotive No. 1 is the only example of a McConnell locomotive or
tender to survive anywhere in the world and has been consequently of great interest to English railway societies especially the London & North Western.v

Figure 2. Locomotive No. 1. Drawing by Eddie Garde.

Stephenson’s allocated builders’ numbers for the Sydney Railway Company locomotives were 958, 959, 960 and 961. The previous four numbers on the locomotive register were for Melbourne’s Hobson’s Bay Railway order!vi Stephenson had the monopoly on early locomotives used in Australia as his company also supplied those for the Adelaide and Gawler railway in South Australia as well as locomotives for the Tasmanian Railways. vii

2. SHIPMENT AND EARLY OPERATION

The first two Sydney-bound locomotives, including No. 1, left Stephenson’s works on the 17 May, 1854, but did not leave London until over six months later on 21 September, 1854, on board the 916-ton ship, John Fielden. They were partly dismantled into convenient sections, the frame with the cylinders, the wheels, boiler and tender while the other parts were in packing cases. All exposed sections were liberally coated with tallow as protection from the salt during the sea voyage.viii The other two locomotives and some of the carriages were carried on the emigrant ship, Ebba Brahe. Locomotive No. 1 arrived in Sydney on 13 January, 1855, and was unloaded at Campbell’s Wharf, West Circular Quay, over a month later on 28 February, 1855. It was loaded onto a special 6-wheel wagon and hauled by a team of 20 horses owned by Martin Gibbons to a place then known as Slade’s Paddock, now the site of the Railway Workshops near Newtown.ix It was placed on rails and drawn by horses to a temporary engine shed near present Redfern station. William Scott, who had worked with McConnell and travelled out with the engines, supervised their packing, transport and unloading, and prepared the locomotives for service. Scott did not return to England but remained with the New South Railways for the next 33 years until his retirement in 1888.x

Locomotive No. 1 had its first test run on 29 March, 1855, and was quickly put into service hauling open goods wagons of ballast for the line to Ashfield. It undertook all ballast duties on the line as well as hauling six separate passenger trains prior to the official opening on 26 September, 1855. This included the first passenger train to run in New South Wales from Chippendale to Long Cove Viaduct on 28 May, 1855. The train consisted of only a first class carriage and brake van and carried Sir William Denison, the newly-arrived Governor from Hobart, on a tour of the line.

Figure 3. On arrival Locomotive No. 1 was unloaded at West Circular Quay in a similar way to the locomotive shown here in about 1870. Courtesy of the State Rail Authority.

Figure 4. Contrary to popular belief that this shows the opening of the railway on 26 September, 1855, it is now thought to depict the arrival of the Governor at Parramatta on a special run, a month before, on 23 August, 1855. The three first class carriages, in which his party are known to have travelled, are clearly illustrated instead of the first, second and third class carriages used on the opening day. xi The locomotive illustrated would have been No. 1. Mason’s Australia Picture Pleasure Book, 1857. Courtesy of the Mitchell Library.

3. OPENING AND OPERATING THE RAILWAY

At last the great day arrived for the opening of the railway from Sydney to Parramatta. A holiday was declared on Wednesday, 26 September, 1855, and all the critics and cynics of the railway suddenly became enthusiastic. Shops and offices were closed and houses and carriages were decorated, ships in the harbour were gaily dressed with bunting, and flags flew around the newly-completed temporary Sydney station. The weather was wet and gloomy but this did not deter the many thousands of spectators crowding onto every vantage point around the Sydney terminus and engine sheds. The first train of the day, Locomotive No. 4, driven by Samuel Twiss with fireman Peter Wood, left at 9 a.m., with empty seats, but the 11 a.m. service was regarded as the formal opening train. The official train was pulled by Locomotive No. 3 (No. 1 was not in
steam as it had worked hard during the construction and trials) with 2 first class, 4 second class and 5 third class carriages. William Sixsmith was the driver, William Webster the fireman and the guard was Richard Darby.\textsuperscript{xii}

3.1 William Sixsmith, the first driver
Locomotive No. 1’s first driver was William Sixsmith (1815-1893) who began driving trains in England in the 1830s and later in France and Ireland. It was gold, not railways, that brought him to Australia and the Ovens diggings in north-eastern Victoria. In 1855 when his luck failed, Sixsmith returned to Sydney and landed the top job of driving Locomotive No. 1. Sixsmith became the railways’ most senior driver, skilful, safe and always reliable.\textsuperscript{xiii} He retired in 1885 after 30 years of service at the age of 70, died in 1893 and was buried in Rookwood Cemetery, very close to the railway line where he saw it all begin.\textsuperscript{xiv}

\textbf{Figure 5.} The earliest known photograph of Locomotive No. 1 in Sydney Yard. Traditionally the figure is said to be William Sixsmith, taken on the day the railway opened in 1855. However, the image is from a series of stereoscopic photographs of Sydney taken by William Hertzer no earlier than 1858.\textsuperscript{xv} The uniform is thought to be that of a stationmaster rather than an engine driver.\textsuperscript{xvi} Courtesy of the State Rail Authority.

3.2 Railway accidents
After 1857 Locomotive No. 1 was used mainly for hauling goods and passengers between Sydney, Campbelltown, Richmond and Penrith. It was involved in the first serious railway accident in which passengers were at risk on 10 July, 1858, when the 7.35 a.m. mixed train from Campbelltown derailed near Haslems Creek (Lidcombe) at a speed of 24 mph (39 km/h). Two passengers were killed and three injured. While the cause of the accident was unknown it is thought to have been the result of the driver, Robert Boan, speeding to make up lost time, though no charges were laid, together with the weight of the train on the experimental Barlow rails. In the early years of rail operation in New South Wales safety procedures were simple and relied on the train crews observing the timetable. From 1858 major stations were connected by telegraph and early signalling included semaphore and distance signals. On 6 January, 1868, Locomotive No. 1 was extensively damaged after being involved in its second accident, driving into a goods train at Newtown. Locomotive No. 1 was hauling a mixed train from Campbelltown to Sydney and hit the 8.30 a.m. passenger train from Parramatta to Redfern. This collision was graphically depicted in the \textit{Illustrated Sydney News}. As a result, the locomotive apparently lost its original chimney and dome-shade. About this time Locomotive No. 1 had a major overhaul, with new cylinders, pistons and piston rings. The original boiler of 212 tubes of 1 ¾ inch diameter were replaced with the present one of 236 tubes of 2 inch diameter.\textsuperscript{xvii}

\textbf{Figure 6.} Newtown railway accident of 1868. \textit{Illustrated Sydney News}, 16 January, 1868.

Despite the locomotives in use on the railway being of a standard English goods type they were found to be too heavy for the Barlow rails. In fact they were the heaviest engines used in the first 20 years of railway operation in New South Wales. After the arrival of the new, light, 2-2-2 type engines, the original four locomotives were confined to working goods services to Picton and Penrith from 1869. Locomotive No. 1’s working life of 22 years ended on the 15 March, 1877, after travelling 155,570 miles (250,468 km).\textsuperscript{xviii} The locomotive then lay derelict at ‘Rotten Row’, so-called by railwaymen as the place at the Eveleigh Locomotive Works where old engines were put pending reconstruction or final condemnation.
Railway staff pose next to their locomotives in Sydney Yard in 1875. Locomotive No. 1 stands in the centre near the engine sheds while Locomotive No. 4 is about to leave the new Sydney Station. Photo in Tyrrell Collection, Powerhouse Museum, 85/1286-768.

4. ACQUISITION BY THE POWERHOUSE MUSEUM

The Powerhouse Museum is the successor to the Technological, Industrial and Sanitary Museum of New South Wales. It was established in part of the magnificent Garden Palace building in the Sydney Botanic Gardens after the closure of the Sydney International Exhibition of 1879. Some 10,000 exhibits had been installed including contemporary manufactured goods and ethnological specimens. On 22 September, 1883, just three months before opening to the public, the building burnt to the ground.

Undaunted, the Curator, Joseph Maiden, assembled another collection of objects in a nearby building unaffected by the fire, called the Agricultural Hall, in the Outer Domain. Even before the Museum had opened its doors in its second home, the Committee of Management, comprising the chairman, Sir Alfred Stephens, Professor Liversidge, Professor of Chemistry at the University of Sydney, and Mr Robert Hunt, Master of the Royal Mint, made their approach to the Railways on 7 June, 1883, for Locomotive No. 1. Finally, on 8 May 1884, their representations were rewarded and Mr C.A. Goodchap, Commissioner for Railways, Public Works Department, had the locomotive, which had been made complete and painted, presented to the Museum.

The locomotive was the heaviest and largest object in the Museum’s collection at the time. The 100-year old saga of accommodation crises in the display and storage of the Museum’s large objects had begun! The floor of the Agricultural Hall was not strong enough to support the weight of the locomotive. After delivery, it initially stood outside the building and Maiden urgently appealed to the Under Secretary for the Department of Public Instruction to have a shed erected over it as soon as possible. A corrugated iron structure was built attached to the Museum, and a fascinating photograph of the locomotive crowded in with various other objects and graphics survives from this time.

Locomotive No. 1 in the Agricultural Hall in about 1884. Photo Powerhouse Museum Photo Library.

It is important to point out that the acquisition of the locomotive was mainly for its technological rather than historical significance. A description of the labels and graphics surrounding the locomotive at the time noted “huge diagrams showing the construction of ‘modern’ locomotives, and in close proximity are placed other engineering diagrams and examples of heavy machinery”. Indeed, the Museum was at the vanguard of new museum development around the world, as while natural history museums, like the Australian Museum had a very long history, technological museums to teach the practical ways of the technological world were a comparatively recent invention.

4.1 On display out and about

In 1893 the Museum moved into new purpose-built accommodation in Harris Street, Ultimo. A few years later the locomotive was moved to a special engine house, built at a cost of £2,000, constructed at the rear of the Museum where it was to stay for some 90 years. However, the locomotive was not inaccessible but was conveniently designed with a removable door, window and wall. Despite its acquisition being mainly for technological reasons, the locomotive’s historical significance was acknowledged and it was removed, at considerable expense, on at least four occasions for special displays in Sydney. The first was in 1905 for the 50th anniversary of railways in New South Wales. It was hauled by a team of horses to Eveleigh where the engine spent three days in the paint shop prior to making a trip by rail, pulled by the S-class tank engine No. 644, to Canterbury on the Belmore line, with six carriages. Locomotive No. 1’s “train” was displayed in the produce shed adjacent to the Railway Institute at Sydney Station.
Figure 9. Workmen with Locomotive No. 1 during removal from its engine house in 1905 for the 50th anniversary of railways in New South Wales. Photo courtesy of the State Rail Authority.

Figure 10. Locomotive No. 1 in 1905 photographed at Canterbury with six carriages. Photo by W. Osborne, Leichhardt, courtesy of the State Rail Authority.

The second time the engine went out was in 1917 for the Industrial and Model Exhibition at the Sydney Railway Goods Shed, an exhibition organised by the Railway Institute. It appears that the Railways regretted giving the locomotive to the Museum as each time it was loaned out the curator and director had to insist on its return!

In 1930 there were plans to have Locomotive No. 1 recommissioned to be the first locomotive to cross the Sydney Harbour Bridge for its opening in 1932, but this did not eventuate. The celebration of the sesquicentenary of European settlement in New South Wales in 1938 saw Locomotive No. 1 placed on a special plinth in Martin Place. Problems of objects on open public display were encountered even then, as some of the original brass work was stolen from the cab at that time.

Locomotive No.1 went out again in 1955 for the Centenary of Railways in New South Wales. It was displayed near the garden area in front of Sydney Terminal Station.

4.2 The great rail controversy- was it Locomotive No. 1 or No. 2?

The famous controversy as to whether the Museum was given Locomotive No. 1 or 2 was first raised on 14 May 1930 when an item appeared in the Sydney Morning Herald on the subject of ‘Our First Locomotive’. George A. Gilder, an officer in the Locomotive Accountant’s Office, wrote numerous letters to the Herald claiming that No. 1 was actually either No. 2 or made up from parts of Nos 1 to 4. In February 1939, Mr A.V. Green, a member of the Australian Railway Historical Society, inspected No. 1 to ascertain the builder’s number. Unfortunately, the bright work on the valve gear was covered with thick paint and access to the underside of the locomotive was not possible. The only number he found was 959 stamped into two expansion links, the maker’s number for number 2. **xxx**
The former curator, Richard Baker, then emerged from retirement to defend the honour of the locomotive he had tended for more than 30 years. “I always regarded it as the Rocket of Australia” and the fact that parts from other engines were used to replace those worn out did not disprove its authenticity. xxv

Most of the argument was fuelled by the Public Works Department’s Annual Report of 1877 from the Locomotive Branch of the Great Southern, Western and Richmond Railways which unaccountably said that locomotive Nos 1, 3, and 4 were all “worn out, broken up and written off [the] register” while No. 2 was still kept in constant use, “shunting only in Sydney yard, and may last some time yet”. xxvi Locomotive No. 2 stayed in service for another two years until 1879.

The only way to really substantiate and finally prove the locomotive’s provenance was by both examining the material and documentary evidence. The material evidence was revealed during the late 1970s when Locomotive No. 1 was chosen to have pride of place in the development of a new home for the Museum after the New South Wales Government agreed to convert the former Ultimo Power Station and Tram Depot into the Powerhouse Museum in 1977. An extensive restoration and conservation program saw the locomotive totally stripped down, cleaned and polished. All parts were cleaned of grease and paint which revealed that most of them bore Locomotive No. 1’s builder’s number 958, while parts of Locomotive Nos 2, 3, and 4 were also in evidence. xxvi It was of course common practice to replace badly worn parts of an engine with similar parts from other engines. Although there was pressure to do so, no attempt was made by the Museum to return Locomotive No. 1 to working condition. This would have caused loss to the priceless and irreplaceable original fabric.

**Figure 13.** Moving Locomotive No. 1 from the Museum with cranes and low loaders in 1955. Courtesy of the New South Wales Department of Railways.

Whilst the material evidence has been known for over 20 years, the documentary evidence has never been uncovered until now. The Museum’s original 1883/4 correspondence for the request, refurbishment and hand over of the locomotive to the Museum has always been missing, believed lost. Earlier this year the author was advised by Sydney railway historian, Don Hagarty, that Locomotive No. 1 had been removed from the Museum not 3 but 4 times: the fourth time being in 1917 for display by the Railway Institute. A search of the Museum’s Archives for 1917 revealed not only the correspondence dealing with this loan but the original 1883/4 acquisition correspondence relating to Locomotive No. 1, which had been placed with it. These papers included a list of the items missing from the locomotive at the time of the Museum’s 1883 request, including leading splashers, a connecting rod, and an injector. It was noted that the leading springs and a pair of trailing wheels could be taken from Locomotive No. 2. Furthermore, an annotation made on 28 July, 1883, by William Scott, the engineer who originally assembled Locomotive No. 1 in 1855 for the Sydney Railway Company, advised “The No. 2 engine referred to is not running. It is one of those condemned. The trailing wheels can be taken from it and placed under No. 1 … I will have the required motion put in hand at once”. xxvii

**Figure 14.** Locomotive No. 1 in parts during restoration work in the late 1970s. Photo by Powerhouse Museum.

5. **DISPLAY IN THE POWERHOUSE MUSEUM**
Locomotive No. 1 made its final journey in September 1987 when the State Rail Authority’s Emergency Unit moved the locomotive to its present position in the Powerhouse Museum prior to opening the following year. It took nine hours to undertake the delicate operation involving the police closing off Harris Street, low loaders, cranes, and hover-like air skates to slide the
locomotive on a transport track through a series of tight spaces into the exhibition area. Finally, the locomotive’s transport track butted up to the permanent display track of Barlow rail. It was jacked up at one end and simply coasted into place in front of its tender and three carriages. The train is displayed sitting on a full length of the original Barlow rail laid between Sydney and Parramatta in 1855. During the 1980s State Rail Authority staff scoured New South Wales for surviving pieces of the rail which had been reused for building and structural members in railway workshops and depots as far afield as Narrabri in north-west New South Wales. Enough lengths were located to be welded together to be placed under the entire train. In 2005, the locomotive and its three carriages were cleaned in situ by a team of Museum conservators and curators and the associated Locomotive No. 1 exhibition totally refurbished in celebration of 150 years of railways in New South Wales.

Figure 15. Moving Locomotive No. 1 into the Powerhouse Museum in 1987 on “air skates” was a difficult and time-consuming operation. Photo by Greg Piper, Powerhouse Museum.

5.1 The Tender
Also on display with Locomotive No. 1 is its original tender. After it was decommissioned in 1877 its tender was fitted with new bunkers and hoppers and used with Locomotive No. 78 (later renumbered 1004). After this locomotive was retired, the tender was set aside for the Museum in 1938 to display with Locomotive No. 1 at the centenary of Railways in 1955. It was officially presented to the Museum by the New South Wales Department of Railways in 1965.

Figure 16. Locomotive No. 1 on display with first, second and third class carriages of the day in the Powerhouse Museum. Photo by Powerhouse Museum.

6. THE CARRIAGES
The first railway passenger carriages in England and America were like road coach bodies built onto a four-wheel underframe. Until the early 1840s passengers could still ride on the outside box seats of the coaches as they had done on the road. By the 1850s British carriages became standardised into compartment carriages on four wheels like the ones on display with Locomotive No. 1 in the exhibition at the Museum.

The Sydney Railway Company expected to build an American-style railway but when the English engineer, James Wallace, arrived he persuaded the Company to build British-style carriages even though American carriages were cheaper, lighter and better suited to Australian conditions and economy. American bogie carriages, introduced in 1831, could cope with poorer track construction and maintenance and were more comfortable. Despite this, expensive and traditional British rolling stock was chosen. The first American carriage did not arrive until 1877.

6.1 Joseph Wright & Sons, the builders
The original order was for carriages similar to the English Great Northern Railway. The carriages were made by Joseph Wright & Sons of Saltley near
Birmingham, England. The Wright Company began building road coaches and changed to railway carriages. By the 1850s they were supplying overseas railways, not only Australia, but Bulgaria, Chile, Denmark, India, Norway, Paraguay, Spain and Sweden. The English convention of three classes of passenger carriage was adopted. The order comprised 8 first class, 12 second class and 12 third class carriages. Although six-wheel carriages were asked for, 22ft (6.7 m) long 4-wheel carriages arrived in Sydney.xxix

As well as passenger carriages, Joseph Wright & Sons provided 10 covered wagons, 36 open goods trucks, 6 brake vans, 2 carriage trucks, 1 horse box, 1 cattle truck and 1 sheep truck. Carriage trucks conveyed the horse-drawn carriages of wealthy Sydney citizens while their horses travelled in horse boxes. Brake vans not only provided brakes for the train but basic accommodation for the guard with some space for luggage, dogs and the occasional corpse.

6.2 First class carriage
First class carriages were built of teak and were richly fitted out in the most fashionable style of the day with thickly padded seats, carpets and windows with shutters. A tropical roof helped keep the carriage cool and footboards ran the full length of the carriages. It was divided into three compartments each 7 ft long (2.1 m) and sitting eight passengers, accommodating 24 passengers in all. Lighting was spartan because it was felt there would be little call for travel after dark! Expensive Colza oil lamps, fuelled from rape seed (canola), were used, with each lamp only generating 4 candle power.xxx Despite the apparent luxury, passengers would still have had an uncomfortable ride by today’s standards from the harsh springing. The first class carriage on display with Locomotive No. 1 in the Museum had a 110-year working life. It was one of the last surviving carriages of the 240 built by Joseph Wright & Sons in the 1850s and 60s for the New South Wales Railways. It was originally built as a third class carriage for the Great Northern Railway, the second railway in New South Wales, built from Newcastle to Maitland which opened in 1857.

After third class accommodation was dispensed with in 1863 the carriage was rebuilt as a second class vehicle and rebuilt again in 1909 as workmen’s van W363. Amazingly, it was discovered still in use at Casino in northern New South Wales by the Railway’s archivist, John Forsyth, as late as 1968. The van was rebuilt for the Museum by railway apprentices as a first class carriage and presented in 1976 to complete Locomotive No. 1’s train of second and third class carriages. Although first class carriages were originally divided into three similar compartments it was decided to rebuild this one as a “saloon” style instead with perimeter seating.

6.3 Second class carriage
The second class carriages were similar to the first class but the four compartments were narrower, seats shorter and upholstery harder. They were capable of carrying 40 seated passengers in four compartments each seating ten people. Each compartment had a door each side with a glazed drop window, and brass door and grab handles. Inside, partitions with a cut-out section provided shared night-time illumination between two compartments.
The Museum owes the survival of its historic second class carriage again to John Forsyth, who discovered it derelict at Newcastle in 1961 after being used as a workmen’s van. At this time it was still fitted with a bed, Metters stove, and shelving for personal effects and tools. It is thought that this carriage is the original car No. 6 of the first 12 second class carriages operated on the 1855 line between Sydney and Parramatta. It was converted into a workman’s van and given the number 38 in November 1890, then in about 1914 it was renumbered again to W730. The carriage was rebuilt by apprentices at the Clyde Railway Workshops between 1965 and 1967. It was officially presented to the Museum by the Railways in 1967.

6.4 Third class carriage
The third class carriages were very basic. Instead of windows there were large openings which extended almost to the full length of the two compartments and passengers were exposed to soot and smoke. The seats were hard benches arranged to accommodate the maximum number of passengers in the minimum of space. Each compartment accommodated 18 on the benches and another 10 against the partition and end walls comprising a total of 56 seated passengers. The lack of headroom inside the carriage was an issue as the interior height was only 5 ft 6 in (1.7 m). Half-height stable-type entrance doors were provided in the centre of each compartment. Despite these discomforts, it was a vast improvement on the road vehicles such as mail coaches, open carriages and wagons at the time.

The importance of the third class carriage on display has only recently been appreciated. Contrary to popular opinion in railway circles that it is a replica, it is now believed to probably be No. 2 of the original 12 third class carriages built by the Wright firm for the first railway in New South Wales. It was converted to workmen’s sleeping van WSV6 in July 1890 and restored for the Museum by railway apprentices in 1947. This was undertaken by two fifth (final) year apprentice carriage builders at the Eveleigh Carriage Works, Mr Gordon Kirk and Mr Arthur Harveston.

It had long been considered that the third class carriage had been almost completely reconstructed, however the Museum received information from Mr Kirk in 2003, that the body was in effect substantially original. Mr Kirk recalled that once the sheathing, added during its conversion to a workmen’s van, was removed it was in relatively original condition including the curved bows on the window frames. Repair work to the body included returning the external surfaces as closely as possible to their varnished teak appearance. The carriage was presented to the Museum by the Department of Railways in 1952 though not formally acquired into the Museum’s collection 1965. The carriage was on open display for six months with Locomotive No. 1 outside Central Station in 1955 for the Centenary of Railways in New South Wales. Unfortunately, it suffered both from exposure to the weather and incorrect signage which described it as being a “replica” rather than a restored carriage. The carriage was repainted with its present finish by the Railways in 1980 prior to display for the 125th anniversary of railways in New South Wales. The recent careful cleaning and inspection of the underside of the carriage during conservation work by the Museum...
revealed that it still retains far more original fabric than either the first or second class carriages on display.

Figure 23. Third class carriage on display with Locomotive No. 1 in 1955. Courtesy of the New South Wales Department of Railways.

7. CONCLUSIONS
This paper should now put to rest the longstanding myths and misconceptions about the history and provenance of Locomotive No. 1 and its early carriages. The Museum is now satisfied that it has the actual railway locomotive and rolling stock it had always claimed to have had, despite significant doubts raised by a number of people over 50 years.

8. ACKNOWLEDGMENTS
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7. APPENDICES


ii The Locomotive Engine Works, Information Leaflet No. 1 – Robert Stephenson, and 20 South Street, 2001, Robert Stephenson Trust Ltd.

iii Information supplied by Dr Michael Bailey, Robert Stephenson Trust Ltd.


vi The Melbourne and Hobson's Bay Railway Company operated Australia's first scheduled steam train service from Flinders Street Station to Sandridge (Port Melbourne) on 12 September, 1854, hauled by a small locally-built engine as their Stephenson-built locomotives were delayed.


ix Information supplied by New South Wales Railways, Sydney, 20 June, 1884, Powerhouse Museum Archives.

x Information supplied by Mrs M.E. Bassingthwaigte (nee Scott), great grand-daughter of William Scott, in correspondence, 9 March, 1985, Object file 7945, Powerhouse Museum.

xi Observations made by Don Hagarty in conversation with the author.


xiv Rookwood, Old Church of England Cemetery, Section GG, Grave Nos 1328 to 1329.


xvi Observations made by Don Hagarty in conversation with the author.

xvii Correspondence with H.K. King, Acting Secretary for the Railways, 18 May, 1966, Object file 7945, Powerhouse Museum.

xviii This figure does not include the mileage while working for the contractor building the line where it was said to have been in operation both day and night for 18 months.

xix Minute Paper, Government Railways, Loco Engineers, 83/4346, Powerhouse Museum Archives.

xx Correspondence with George Miller, Acting Under Secretary, Department of Public Instruction, 9 May, 1884, Object file 7945, Powerhouse Museum.

xxi Correspondence with C.A. Goodchap, Commissioner for Railways, Department of Public Works, September, 1884, No. 564/84, Object file 7945, Powerhouse Museum.

xxiv Correspondence with H.K. King, Acting Secretary for Railways, 18 May, 1966, Object file 7945, Powerhouse Museum.
xxviii Minute Paper, Government Railways, Loco Engineers, 83/4346, Powerhouse Museum Archives.
xxxii Cooke, David, et al, 1999, *Coaching Stock of the New South Wales Railways Volume 1*, Eveleigh Press, p.11. This reference continues to note that W730 was set aside for the Museum in 1942 to be rebuilt and, “a shop order for this work to be carried out on a casual basis was issued in 1943 and closed in 1948”. There is confusion here as the order actually refers to workman’s sleeping van (WSV6), originally the third class carriage No. 2 of 1855 (not the second class carriage No. 6 of 1855), restored at Eveleigh in 1947.
xxxiii Correspondence with Mr Gordon Kirk, 27 August, 2003, Object file B1614, Powerhouse Museum.

10. APPENDIX

**Specifications for Locomotive No. 1 and tender**

Builder: Robert Stephenson & Co.
Designer: James Edward McConnell
Class: 1
Number in Class: 4
Boiler pressure: 120 psi (827 kPa)
Cylinders: 2
  - bore: 16 inches (406 mm)
  - stroke: 24 inches (610 mm)
Tractive effort: 8900 lbf (39 600 N)
Valve gear: Stephenson, slide type
Overall length: 42 ft 11 in. (13 080 mm)
Wheelbase: 32 ft 8 in. (9960 mm)
Weight:
  - engine & tender: 46 tons (47.2 tonnes)
Tender capacity:
  - coal: 4 tons (4.1 tonnes)
  - water: 2000 gallons (9092 litres)