

# Gold Coast Model Railway Club



March-April 2016

## OPEN DAY 17th APRIL 2016

I am writing to remind you of our major fundraising event for this half of the year.

Our open days have always been excellent fund raisers but rely heavily on member participation. If you have locos and rolling stock that you can exhibit please bring them along on Sunday 17th. Please make any adjustments (wheel cleaning etc) prior to Sunday morning.

We will be running all five layouts plus the Black Stump shunting layout so all scales and gauges will be on show.

**THIS IS OUR OPPORTUNITY TO DEMONSTRATE TO THE GENERAL PUBLIC WHAT OUR HOBBY IS ABOUT!!**

This year, in addition, we will have members of the MG Car Club and The Gold Coast Antique Automobile Club showing their magnificent cars between 10am and 11am so be early.

To accommodate the cars we will be reserving the Bycroft car park for the car displays, and using the opposite car park for the visitors.

Please park down the back to leave as much space as possible for our visitors.

We will be setting out a **drop off area** adjacent to the electricity sub station. This is for temporary use only!

As the bulk of visitors will be parking across the driveway from the club rooms there will be an extensive amount of foot traffic across the driveway. Please exercise all caution!

Your attendance at this function will assist considerably with our fund raising efforts.

See You On Sunday !

Dr Gerry Brameld OAM





**Hold The Front Page**

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All photos by the Editor unless otherwise credited.



A group of 1st Generation American diesel power captured at the Harrissville Loco Depot. A reminder that Australia will see it's first Streamliner event at Goulburn Roundhouse come this October when a host of 1st generation Australian built Diesel Streamliners will be on show for a weekend of railfan activities. There will be a link to the event shared on the club Facebook page.



**50 Johnston Street, Southport.**

**The club now has a page on Facebook.**

**You can find our facebook page by typing in**

**Gold Coast Model Railway Club Inc.**

**Remember the Inc....short for Incorporated!**

**And join other club members sharing photos videos and information**

# SIMILARITIES BETWEEN AUSTRALIAN AND OVERSEAS LOCOMOTIVES

THE LOCOMOTIVE IS ONE OF THE MOST POWERFUL SYMBOLS OF THE MODERN INDUSTRIAL ERA. IT REVOLUTIONISED TRANSPORT AND MANUFACTURING TECHNOLOGIES, INTERNATIONAL RELATIONS, COMMERCE, LIVING CONDITIONS AND TRAVEL. ALL AROUND THE WORLD THE BUILDING OF RAILWAYS INAUGURATED THE INDUSTRIAL ERA. IN A COUNTRY LIKE AUSTRALIA, WHERE GREAT DISTANCES BETWEEN SETTLEMENTS MADE COMMUNICATION AND TRADE DIFFICULT, THE RAILWAYS CREATED NEW POSSIBILITIES FOR NATIONAL DEVELOPMENT. FOR THESE POSSIBILITIES TO BE REALISED SPECIAL FACILITIES WERE NEEDED TO ASSEMBLE, MAINTAIN AND REPAIR TRAIN ENGINES AND CARRIAGES. IN TURN, RAILWAY WORKSHOPS INTRODUCED IRON TECHNOLOGY AND HEAVY ENGINEERING PROCESSES.

Specific reference in this article is made to the NSWGR.

Locomotive manufacture has come full circle in a 150 years of the Australian railways. Early steam locomotives were manufactured overseas in England (by Beyer Peacock and Vulcan Foundries) and a few in the United States in the later part of the 19<sup>th</sup> Century. The classes of steam locomotives manufactured overseas were 12, 13, 18, 19, 24, 25, 26, early 30 and 32's.

In the early to mid-part of the 20<sup>th</sup> Century steam locomotives were being built in the Eveleigh Locomotive workshops at Redfern (NSW Government Railways) and Clyde Engineering at Granville. The classes of steam locomotives manufactured by either of the above were late 30, 35, 36, 38, 50, 53, 55 and 57s. Early diesel locomotives were manufactured in Australia under licence in the 1950's and 60's. This included 42, 421, 422 and 49 class locomotives by Clyde Engineering and 44, 45, 48, 70, 442 class locomotives by AE Goodwin, later to become Commonwealth Engineering located at Auburn.

Recently locomotive made by EDI (now Downer) was the 82 class locomotive at Kelso (near Bathurst) in the early 90's. Its sister locomotive the 90 class was manufactured in Canada. The 92, NR class and 93 class type models were all manufactured by UGL at Broadmeadow. Components for the locomotives are made in the United States or subcontracted to Chinese manufacturers. Frames, bodies and cabs were made at the plant and then components assembled.

Present day components are made world-wide with contracts manufacturing overseas in India and China for either parts or the entire locomotive.

Both steam and diesel locomotives that were based on overseas designs all had changes made to suit Australian structure gauges, speed and haulage requirements

An example of how an overseas design was modified for Australian conditions and requirements is the 18 class locomotive made by Vulcan Foundry and its similar design basis on the Stroudley Terrier locomotive.

## ***18 class Locomotive modelled on Stroudley Terrier?***

The 18 class locomotive was built by Vulcan Foundry in Newton Le-Williams, England.

The English Stroudley terriers were built by the owner, London Brighton South Coast Railway at their Brighton Workshops.

The Vulcan Foundry was originally opened in 1832 as **Charles Tayleur and Company** to produce girders for bridges, switches and crossings, and other ironwork following the opening of the Liverpool and Manchester Railway, because of the distance from the locomotive works in Newcastle-upon-Tyne.

In 1832, Robert Stephenson became a partner for a few years. The company had become **The Vulcan Foundry Company** in 1847 and acquired limited liability in 1864. Beginning 1898 year, the name changed again to **The Vulcan Foundry Limited**, dropping the word 'company.'



In 1957 the business became part of the **English Electric** group. The factory passed through various hands as **English Electric** was bought by **GEC**, which in turn became **GEC Alstom** then **Alstom**, and finally as part of **MAN B&W Diesel** in 2000. At the end of 2002 the works closed. It was then an industrial estate (appropriately called "Vulcan Industrial Estate"). The site is just north of Winwick Junction where the line to Newton Le Willows branches off to the west from the West Coast Main Line. All the (ex) factory buildings on the site were totally demolished in October 2007.



### English Stroudley Terrier locomotive

An order was placed by the NSWGR in February 1882, with the Vulcan Foundry for six 2-4-0T locomotives to the specification of the then Acting Locomotive Engineer, Mr Scott. During Mr Scott's subsequent absence in England on official business, Thomas Middleton, Locomotive Engineer, had the specifications altered to 0-6-0T wheel arrangement, together with other variations to the original order. Middleton claimed that the revised design would enable the locomotives to run at 30–33 mph (48–53 km/h) in suburban service. Commissioner Goodchap approved the changes and despite the protests on Scott's return, the variations were made. The six locomotives were delivered in 1884.

In 1907 the 18 class locomotives were fitted with new domed boilers, replacing the domeless versions originally fitted. This increased their weight by 3 tons which improved their adhesion factor. Power reversing gear was fitted in 1922, making them the first class in New South Wales to be so fitted. It was a hydraulic type and was excellent when shunting at Sydney station, however this was only short lived and Johnson bar lever reversing gear was fitted shortly after.



### 18 class locomotive at Thirlmere.

Both the 18 class and the Terrier locomotives were of a similar external design, while the internal mechanical specifications varied, especially with weight, boiler pressure and resultant tractive effort. However, while the specifications were different, the essential design or type remained the same. Specific external changes from the English to the Australian locomotive are as follows:

Additional step at the front of the locomotive

Addition of steam driven air compressor for the braking system

Brake shoe hangers rails in board the wheels

The frame is shortened at the rear for a small coal bunker and sand boxes are proportionally relocated closer to the rear wheels

The buffers are centred on the buffer beam, not half a buffer above

Whistle and pressure relief valves are Australian type fitted to other class locomotives

Larger diameter chimney

Slightly wider water tanks

## Comparative specifications

Specifications	Stroudley Terrier Locomotive	18 Class Locomotive
Builder	Brighton Works	Vulcan Foundry
Build Date	1872- 1880	1882
Total Produced	50 A1 (17 rebuilt to A1X)	6
Configuration	0-6-0T	0-6-0T
Gauge	1435mm (Standard gauge)	1435mm (Standard gauge)
Driver	1.219m	1.219m
Wheelbase	3.66m	4.19m
Length	7.94m	8.61m
Weight	A1 -30.8 short tons A1X -31 short tons	38 tons
Water Capacity	2,300l	3,900l
Boiler Pressure	1.0MPa	0.97MPa
Fire grate Area	3.1m <sup>2</sup>	1.2m <sup>2</sup>
Heating Surface		82m <sup>2</sup>
Cylinders	2	2
Cylinder Size	A1- 305mm x 508mm A1X- 360mm x 508mm	381mm x 559mm
Tractive Effort	A1- 34.0 KN A1X- 34.0KN to 47.57KN	54.6KN

The critical performance comparison is tractive effort. The 18 class has a third more tractive effort (mostly due to its greater mass) than the Stroudley Terrier that made it more suitable for yard shunting.

## H0/OO Modelling options

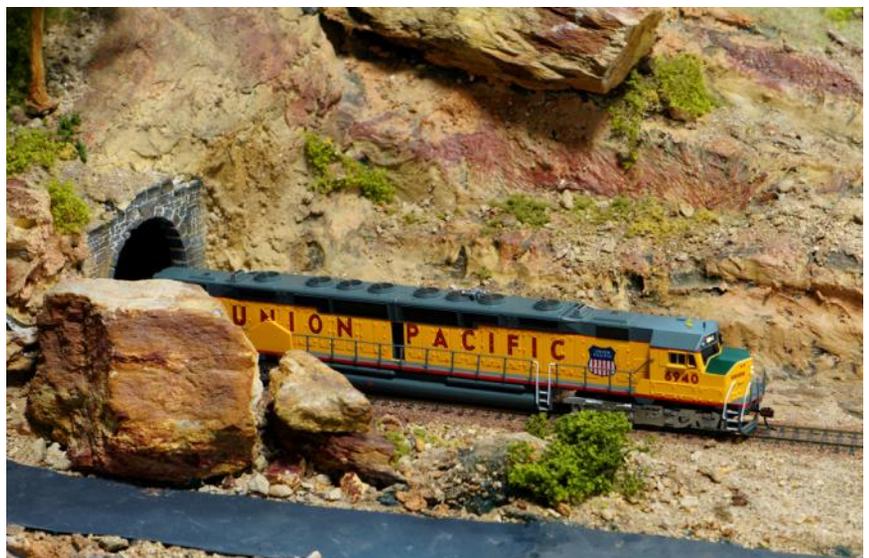
Modelling an 18 class is possible by purchasing a white metal kit for approx. \$400. A cheaper alternative, maybe with not all the correct detail, is to change a Dapol Terrier model with some simple body works. The changes are as follows: Add additional front step (used front step from old Hornby Pannier tank body) Cut and then reposition both brake rods inside the wheels Cut the back of the model at the bunker and reposition the buffer beam to this point Cut and lower the buffers Add steam air compressor from Ozzy assorted detailing parts

Cut the chimney and replace (need to source from 18 class metal kit supplier) Cut and replace the whistle with a 38 class Ozzy Train parts Add the numbers from decals and add brass numbers to the water saddle tanks. Buffers are painted red. The model can be painted black or maybe retain the caramel paint scheme of the Brighton and South Coast Railway for nostalgia.

The 18 class could have had a glorious paint scheme if it was not out performed by larger locomotives that were soon bought by NSWGR as passenger services were expanding rapidly at that time. While the purists may say that the model is not accurate (and a OO scale model NOT HO), it is a simple and inexpensive way to have an



The beginning of the new track arrangements for the Jamestown Station area to allow prototypical mainline running and more sidings for storage and future shunting....watch that space! Oh yes, and a DDA40X.



# KAREBARE PRESENTS APRIL 2016 HOW TO MAKE A TREE THE SIMON WAY

## Tree Armatures

Items needed: Copper wire, gap filler, cutters, paint and a little imagination.

As I make my trees in G scale, the wire I use is somewhat larger in size than for other scales. Seven strand power cable is ideal.

Cut six or seven lengths of wire the height of your tree and strip the insulation off them, leaving the strands together.

Bundle the lengths together and bind with a single strand of wire until you reach the point of the first branch, move one of the groups out then keep repeating the process until the basic shape is finished.

Separate the strands to mimic smaller branches and then trim to size

Now for the messy bit, apply gap filler (you can use brown) and smooth over the wire and then set aside to dry.

Once it has dried, you can paint it.

The foliage is created by using teased out fibre with ground cover sprinkled on and fixed with hair spray or spay adhesive.

Most of my trees seem to turn out like gum trees, I think it is just what I have been used to looking at.

Give it a try, you will be surprised at what you can do.

NO CLINIC IN MAY DUE TO AMRA Brisbane EXHIBITION.



This model of a Drewry BR04 Shunter was one of the entries in last years BRMA Annual Convention modelling competition. Based on the well known Airfix/Dapol kit, this is a fine example of some inventive modelling.