



Durundur **Bulletin** *Railway*

*Australian Narrow Gauge Railway Museum Society,
trading as the Woodford Railway, is located
25 km west of Caboolture in Woodford, Queensland*

Volume 37

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Concrete Sleeper Testing Project: QUT students Daniel Dwyer and Nathan Davey load another concrete sleeper into the QUT test loading frame. See report inside. Greg Stephenson photographer.

Running Days: First and Third Sundays

Trackwork Saturdays: 16 July, 20 August and 17 September 2016

Work Days: Every Saturday; Light Duties on Third Wednesday

Our Safety Goal - No Injuries

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Scheduled Activities

General Meetings: 2016: 19 Feb, 15 Apr, 17 Jun, 19 Aug, 21 Oct, and 16 Dec at 7:30 pm, entry from 7:00 pm; combined with LRRSA at the refurbished BCC Library, 107 Orange Grove Road, Coopers Plains, a 10 minute walk from Coopers Plains Railway Station or a phone call to Dan Sheehan or Bob Gough for transport to the new venue. A bus stop is at the front of the shopping centre and Express buses run services from the stop.

Light Duties Work Day: Normally 3rd Wednesday of the month. Contact Neil Trevorrow m:0402051546 if planning to attend.

Donations and Bequests

Donations to the Society's Museum Fund are tax deductible. Please make cheques payable to the 'Australian Narrow Gauge Railway Museum Society' and mail to the PO Box above or deliver in person. Remember to include a note indicating that it's a donation, plus your name and address so that a receipt can be posted to you. We appreciate your help and support now, but also consider mentioning the Society in your Will. Donations/bequests can be for a particular project or for museum development (restoration or infrastructure). For details, contact the President.

President's Report

Terry Olsson, President

It is with great excitement that I can report that work on the ground has now started on our new loco shed!



View on Wednesday 22 June 2016 from the verandah of the QCWA cottage of the foundation excavation for the locomotive storage shed being undertaken. Greg Stephenson photographer.

On Thursday 16 June Greg Stephenson and myself were there to witness the first loads of fill delivered to build up the base for the shed. Over 450 cubic metres of fill is required overall. While it will end up costing more than originally planned due to the requirements of the site, it will be money well spend and give us a very valuable and useful addition to our railway.

As well as providing a safe and secure undercover storage for our operating locos, it will be a great morale boost to our loco repair/overhaul/restoration teams. It will also allow the Perry loco to be moved so other items can enter the workshop for major work.

Once the actual shed is erected, we will be looking for extra help to construct the necessary tracks. ANGRMS is responsible for setting up the tracks inside the shed so the concrete floor can be poured. Please come along and help us with this important and critical work.

As noted in Greg's report, we recently had some of the second hand concrete sleepers from Ingham tested. These met the original spec so their

age has not affected their suitability for our railway. I would like to thank Greg for taking this initiative.

The leaking stay in the Perry boiler has now been repaired and the boiler lowered back to its original position. Work is now progressing on the ashpan and trailing truck so the loco can be lowered back onto the rails.

Work on Melbourne is progressing well, with working concentrating on the tender so it can be moved once the new loco shed is ready. New castings were received to replace the many broken or cracked ones in the tender bogies and these are being machined.

Congratulations to member Ryan Thomas who has now finished his apprenticeship and will become a fully qualified fitter in next few weeks. Also, congratulations on being accepted as an engineering student studying mechanical engineering

Remember – safety first!

Safety and Training Report

Dave Caruzzo

Safety is a very important part of our operation and ANGRMS remains committed to providing a safe railway.

Safety Alert

A safety alert was recently received regarding an incident in NSW where an unattended tram ran away and collided with another tram on the main running line conveying passengers.

All persons involved in moving/stowing rollingstock on our railway are reminded to make sure the vehicle is securely chocked and hand brake applied where applicable. It is also very important that suitable chocking materials are used – no pieces of ballast or small thin pieces of wood for example.

National Rail Regulator

ANGRMS is presently accredited with the Queensland Government under the Queensland Rail Safety Act.

As of 1 January 2017, all railways accredited in Queensland will transfer to the National Rail Regulator under the national rail safety act.

There will be some small changes but the bulk of our SMS should not be affected. While the transfer will occur on 1 January, there will be a transition period to change our SMS, etc.

Some Civil Notes

Greg Stephenson, Track Day Coordinator

Concrete Sleeper Testing Project

In my normal working life as a Civil Engineer, I deal with a number of Universities in Southern Queensland. Through these contacts, Daniel Dwyer and Nathan Davey, two engineering students from the Queensland University of Technology (QUT), undertook their final year thesis on *Remaining Strength In Aged Prestressed Concrete Railway Sleepers*. We delivered 15 prestressed concrete sleepers from those that we had recovered from Ingham in 2012 to QUT's Banyo Pilot Plant Precinct for testing in this project. Daniel and Nathan undertook non-destructive concrete strength testing on 12 of the sleepers, and, of those, test loaded 6 to ultimate failure.

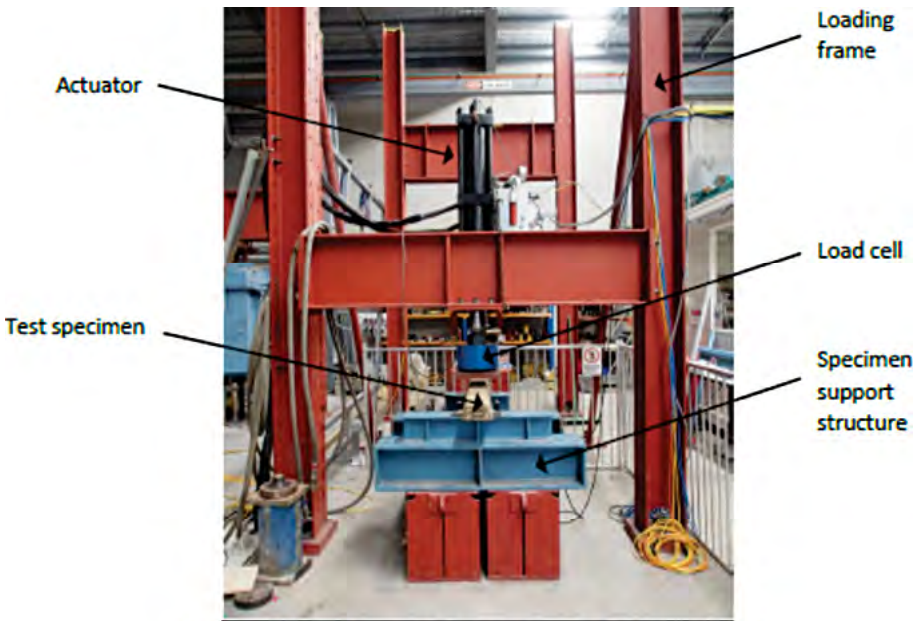


Figure 5: The test setup for the static bending test (Dwyer, 2016)

The original CSR drawing C 58400/5 of the 1960's included a proof bending test to ensure the sleepers met the required strength levels. The requirement specified was that there would be no cracks clearly visible to the naked eye at a test load of 7,300 pounds (3.25tonnes). The six sleepers tested all satisfied this requirement and were loaded to ultimate failure. The cracking load ranged from 5.2 tonnes to 7.2 tonnes.

This report concluded that the sleepers were still in very good condition even after 50 years of service life and they should be capable of continued service at the original design loads of 6 ton axle loads and train speeds below 20km/hr. These are the operating conditions of the Woodford Railway. As well as being a very practical learning project for Daniel and Nathan, it also gives us a high level of confidence in re-using the sleepers previously recovered from Victoria Sugar Mill in Ingham.

Our gratitude is extended to School of Civil Engineering & Built Environment, Queensland University of Technology for undertaking this project and Daniel Dwyer and Nathan Davey for their excellent work to complete the testing and analysis. The supervision of Prof. Manicka Dhanasekar, Head of Civil Engineering Department and Frank De Bruyne, Technical Manager of Banyo Pilot Plant Precinct made this successful project possible.

Track Maintenance

Whilst the focus in recent months has been on the point work for the future locomotive shed, other maintenance has not been neglected. Whilst working on the points for the future locomotive shed, the opportunity was taken to renew the long point throw-over lever timbers with steel sleepers on the main line points to the passing loop. Similar work is also required on the points in the workshop area.

Future track days will concentrate around Ch 200m to Ch 300m and Ch 450m to Ch 550m where there are higher concentrations of poor condition sleepers. It is proposed to continue these renewals with the monthly track work parties generally being held on the Saturday before the second running day of the month and are planned for 16 July, 20 August and 17 September 2016. Depending on available people, we can undertake some form of track activities on most Saturdays.

As well as more members for the track gang, we are still keen to hear from any of our drivers that would like to assist and diversify their driving experience on Saturdays.

Future Locomotive Storage Shed

As highlighted in the previous DRB, when a crane was on site, we retrieved a fourth set of points stored at the start of the compound. These points turned out to be in very poor condition and their overhaul has resulted in virtually a complete replacement of all components. When the tracks to the locomotive storage shed are reinstated, these points will provide for a future connection to the adjoining property.

Now that the earthworks and shed construction are underway, we can plan to lift these four sets of points to the correct levels to align with the shed floor and place and pack the ballast. The next stage will be to re-install the tracks

into the shed and the track that will be located beside the shed. This work will be undertaken using the ex-Ingham concrete sleepers.

Peterson Road

This work has been temporarily mothballed whilst the track work associated with the new running shed is undertaken. However, vegetation control continues in this area.

Operations, Sales And Marketing

Terry Olsson, Operations, Sales and Marketing

Public Running Days

The AMRA show in May and the Toowoomba show in early June are now behind us. While sales were down on previous years, these shows were still well worth attending. I would like to thank everyone who assisted on the actual weekends plus in the preparation/post show work. Your help was much appreciated.

Unfortunately the weather has been against us recently when it comes to running days, which has meant passenger numbers are well down. The weather has highlighted the need to get our ex-RM trailer enclosed passenger carriage repaired and back on track. Volunteers are urgently needed to assist with this project.

The roster for the second half of 2016 has now been released and I would like to thank Neil for undertaking this important and time consuming task. If you are on the Operations team and have not received a copy of the roster please let myself or Neil know.

We are still short of helpers on the operations team so if you are not on the present roster please consider joining or rejoining the team. Any driver, fireman or guard who have dropped off the roster because they have let their Cat 2 medical lapse should consider doing their medical before the end of the year. Things are changing towards the end of the year which will more than likely result in a significant increase in the cost.

Date Claimers

Monday 20 June 2016: The bus charter for this day has been cancelled.

Strathpine Model Show 6 and 7 August 2016: Please mark this on in your diary as we will need extra help because it clashes with a running day at Woodford. We will also need help on the Friday to set up.

Saturdays 3, 10 and 24 September 2016: We have special runs on these days so assistance is required.

Saturday 17 September 2016: The bi-annual Modelling Railways of Queensland convention will be held at Tarragindi on this day. ANGRMS has been invited to have a small sales stand at the convention and some helpers are required.

Monthly Statistics

	May 2016	June 2016
Paying Passengers	80	38
Guards Sheet	108	53

New Sales Items

Wagons, Vans & Trucks Southern and Western Railway as at 1st December 1879. This second volume of these drawing of early Queensland Government Railways rollingstock by Jim Fainges has now been released. \$18.00 plus postage if required.



ANGRMS sales stand at the Bundaberg Train Show in March 2016 with a selection of book and DVDs. Minimal lighting made the photography difficult but that is Shane Yore and his Mother staffing the stand, Lynn Zelmer photograoher.



QUT students Daniel Dwyer inspects tested concrete sleepers to understand the mode of failure and performance whilst Nathan Davey looks on. Greg Stephenson photographer.



Melbourne's repainted tender, 5 September 2010. Brian Webber photographer.



Above: Another load of decomposed granite (“deco”) fill arrives as the bobcat is used to remove the grass from the area to be filled. Thursday, 16th June, 2016. Below: A levelling frame was used on the bobcat to spread and shape the fill. Thursday, 16th June, 2016. Greg Stephenson photographer.





Due to the depth of the fill, reinforced concrete piers are required under the columns of the shed. Reinforcing steel is being placed in the footings prior to pouring concrete on the following day. Wednesday 22nd June 2016. Greg Stephenson photographer.



Above and Below: Operating day service early March 2016. Kiwi visitor David Parsons photographer.

