



NORTHERN DISTRICTS MODEL ENGINEERING SOCIETY (PERTH) INC.

May—June 2017

MANY REASONS TO CELEBRATE

ACTIVITIES during March and April have given members many reasons to celebrate, with the April public run day being the best on record for public support and revenue.

The celebrations started at the March club run day with model engineering achievements by several members.

Ron Collins' 0-4-0 Wombat II and Phill Gibbons' German-style O&K 0-6-0 (both with haystack chimney spark arrestors) were making their debut under steam at the society's Balcatta track. The "champers" was provided by Les Harris (*centre of photo*), who also had reason to celebrate — the successful 'launch into traffic' of his 5" 2-8-0 tank loco "Southern".

The three owners plan to use their locos on passenger haulage at public run days.



CHEERS! Ron Collins (left) and Phill Gibbons (right) toast their new 7¼" locos at the club run day on March 12. *Photo: Tom Winterbourn*



Left: Phill Gibbons oils up his new O&K 0-6-0 prior to his first run at the March club run day.

Photo: John Shugg

Story of the Wombat II project — see pages 10-11



Ron Collins coasts down the grade on his new Wombat II. *Photo: Keith de Grauw*

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The club run day was the best for many years, with over 50 members and family present, a BBQ lunch for all and about a dozen locos in operation.

Then came the public run day on April 30, attended by an estimated 550-600 people. Shortly after the 10am opening, the queue to enter the grounds

(Continued on page 2)

Plenty of activities to reflect on

THE past two months have been packed with activity, with two sets of school holiday runs, two very well-attended public runs, two new locos, great progress on the garden railway, a new storage line near the station and, of course, the AALS convention at Lake Macquarie (NSW) — see report on pages 8 and 9.

The Tuesday work group continues to maintain its tempo at the club track site, with regular attendances around the 20 mark, while the boiler builder's group maintains its high level of activity at Ron Collins' workshop in Parkerville.

Thanks mainly to the persistence of the Family Briggs, our Facebook page is now up and running again and promoting our society and its activities to the wider world.

None of this could have been achieved without the commitment of so many members.

There are, of course, many smaller but important projects under way, such as the new signalling system, tunnel rooftop redevelopment, steaming-up shed maintenance and on-going electrical upgrades in three or four different areas.

There was, however, a slight hiccup at the April members' meeting when an unusually small number of members attended and without an accurate membership listing, it was decided we probably didn't have a quorum to approve the patio awning extension. In actual fact, we DID have a quorum!

With the 2018 AALS convention being hosted at Bunbury, I made a presentation at the AALS Convention AGM on the Saturday night on our plans thus far for this big and important event. I gave out flyers on the event itself and a local accommodation listing and announced the name of the website (2018aalsconvention.com), although at the time we had only registered the name. We are getting professional help in setting it up so delegates can get all details online and download and submit registration forms.

As you no doubt know, the 2018 convention will be co-hosted by SWMEA at Bunbury and ourselves, with Bunbury providing the facilities and NDMES organising the event. The two contact names are David Edmunds for registrations and myself for general enquiries.

But before the tempo picks up on this event, we have two others to attend to — our involvement with AMRA in early June and Sandgropers in November, which we will host this year.

We will again have a big involvement in AMRA

President's Report



by Tom Winterbourn

on the June long weekend (June 3-5), with the usual train rides and model engineering display and, with the agreement of loco owners, another live steam traction engine display. I will try to make all the necessary arrangements, but will be overseas at the time of the AMRA Expo.

As per last year, Harry Rosser will supervise the transfer of rail and equipment, while vice-president John Shugg will arrange the model engineering display.

Then the next big event will be Sandgropers 2017 on November 11 and 12. As is customary, there will be visitors from throughout WA with night running on the Saturday night — after the professionally catered "sit-down" meal on the patio under the awning. When we last hosted the event in 2015, we catered for over 50 people and a similar number is expected again this year.

In the meantime, enjoy your club facilities and the company of other members.

— Tom Winterbourn, President.



Flashback to November, 2015, with Sandgropers delegates about to eat on the Saturday night (vegetarians first!).

Reasons to celebrate...

(Continued from page 1)

was out into Vasto Place and the queue for rides was well into the picnic grounds for most of the day.

A good roll-up of members helped keep the trains moving, particularly in the station.

Phill's new loco hauled three fully loaded carriages for much of the day. In all, we had five GLT trains and five raised track trains.

Needless to say, the picnic grounds were bursting with activity for the duration of the run.

More March club run day pictures - see page 6.

Garden Railway first phase complete

BY the end of April, the first phase of stage 1 of the garden railway project was all but complete. Only a bit of extra track was required to complete the seven steam-up/storage roads, with the outside circuit complete and in use.

The next phase, following the purchase of more track and points, will be to lay the second circuit to provide contra-running. It is hoped to complete this by the Sandgropers Gathering on November 11 and 12.

Stage 2, as originally approved by members, is a deviation from the existing circuit around and through the trees adjacent to the Men's Shed fence before re-joining the Stage 1 track.

More than a passing interest was shown in our garden railway project at the AALS Convention at Lake Macquarie over Easter, although there was no provision for GR trains at this event.



Charles Coppack with his UK Standard 2-6-4 tank engine, which completed the historic "first circuit" of the Garden Railway's single mainline track on March 14. *Photo: John Shugg.*



GR group member Laurie Morgan with his Merchant Navy Pacific.
Photo: Steve Reeves



GR group member John Shugg surveys the new storage lines, with just a little extra track required at left to finish this phase of the project.
Photo: Tom Winterbourn

Left: Richard Turner gave his kit-built 0-4-0 a good workout on the new garden railway at the April club run day, running it in 20-minute bursts. No problems! *Photo: Tom Winterbourn*

Time will tell!

It was Sunday morning, March 12, when 'J' (not his real name) briskly walked through the clubhouse doorway and, prior to signing in, glanced at the clock hanging from the nail on the wall.

He compared the time the clock showed with his watch (as you do) and promptly reached up to correct the club clock, for it was apparently 30 minutes fast, showing the time as 8.20am.

Quickly winding the hands back to 7.50 am, J then took several steps towards the sign-in bench.

"What are all these people signing in at 8.20 for?" he said in a voice audible to others.

Bill Walker and I each silently proffered our wrist watches in J's direction and both watches indicated 8.22 am. J's watch hadn't moved from 7.50, of course. Then the penny dropped!

After laughter all round, the clock was immediately wound forward again to the correct time.

Time (and tide) waits for no man — unless the watch battery goes kaput! — **John Shugg**

A solution to cinders and sparks?

NOT so much as a technical article this time, but a query for our learned engineers:

I am getting the O&K loco ready for the fun run day and have cleaned the grate and ash pan. I didn't check the tubes or smoke box during its last two runs as I have a spark arrestor type chimney — which I might add was cinder-free on both runs. Also, there was not one spark coming from the chimney. I was very pleased with myself!

Well, I checked inside the smokebox for the first time yesterday and the cinders were right up to the blast nozzle — over 4" high!

The internals of the chimney and smokebox are the same as any other loco; it's just the chimney top that is different. So why is it so? I may have gone 1/8" over in the recommended tube diameter to length ratio, but there is no detriment to the steaming and the smokebox is



Engineering Matters
with boiler inspector
Phill Gibbons

collecting all the rubbish without a mesh-type arrestor in there.

I think this should be looked at by our resident engineers as it may be a simple solution to our cinder problem — just go one size up on correct tube to length ratio. The blast nozzle I'm using is 1/6 of the cylinder bore.

One further note: Shown below are the valves I used on the O&K loco. These are available from Dinki Di — order through SMEX website.



Calendar of Forthcoming Events

General Meeting	Friday	12 May	7:30 pm	NOTE — revised start time!
Club Run Day	Sunday	14 May	9:00 am — 2:00 pm	
Public Run Day	Sunday	28 May	10:00 am — 2:00 pm	
AMRA	Sat-Mon	3 — 5 June	Daily	Claremont Showgrounds
General Meeting	Friday	9 June	7:30 pm	
Club Run Day	Sunday	11 June	9:00 am — 2:00 pm	
Public Run Day	Sunday	25 June	10:00 am — 2:00 pm	

Know your Society

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	Steve Reeves	9354 1395	
	Noel Outram	9525 1234	
Librarian	John Martin	9300 2180	
Birthday Bookings	Paul Costall	9572 1385	
Driver Training	Phill Gibbons	9390 4390	
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Postal Address	NDMES, PO Box 681, Balcatta 6914, Western Australia

Editorial

I have received quite a bit of feedback on the article about the simple spray painting booth. A further suggestion has been to use a “toilet tent” kit, available from camping stores. This is a pack-away frame with a small tent that fits over it, with a zipper door. Modifying one of these might suit those who don’t have the space for a permanent set-up using a rigid frame.

Another cautionary note is to check whether the paint you use cracks or peels off the plastic shrouding when it dries. This hasn’t been a problem with mine, but it could be with some types of plastic — you certainly don’t want an internal source of dust flakes! Any further feedback and other member’s experiences welcome.

A useful source of model engineering items is **RS Components** — see <http://au.rs-online.com> or search Google for “rs components”.

They have a large range of industrial quality electronic and electro-mechanical items, including fasteners, bearings, clear spray coat and a good range of steel gears, both spur and bevel, in a variety of modules from 0.5 to 2, plus much else that may be of use in model engineering. I am presently using some of their module 2 gears in a windmill I am building, and I have used their bevel gears in my traction engine governor.

Service is excellent — free delivery to your door next day for in stock items purchased on line. **Jim Clark**

Notes from the Boiler Group

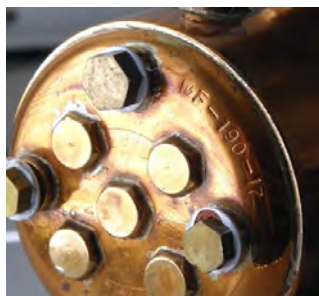
THE Wednesday boiler group continues to be very productive, with many boiler-related projects under way. Richard Turner’s boiler appears to lead the pack of stationary boilers, closely followed by Paul James.

There is an eclectic mix of other boilers also under construction, including a “haystack” type boiler for Bill Walker’s Lion loco, and most recently, the beginnings of a boiler for Ron Collins’ own Crampton loco.

Boiler Group Hint:

Ideally, you should make up a separate copper plate stamped with the boiler number, and silver-solder this to the boiler during construction.

However, if you find that you need to stamp a number into an already-completed



boiler, then do it during the hydro test while the boiler is at full test pressure. The outward pressure will help to counteract the inward denting force while you are punching in the numbers — but go gently, as the copper is fully annealed and very soft by this time.

Thanks to Phill Gibbons for this useful hint.

Richard Turner’s stationary boiler passed its hydro test first go at the beginning of March — with no leaks!



Bill Walker, assisted by Ron Collins and Paul James, at work assembling and brazing the firetubes on the boiler for a “Lion” loco Bill is building.



On 22 March, Steve Briggs, on behalf of the Committee and membership, presented Ron Collins with a letter of appreciation for organising and hosting the Boiler Group days at his own workshop.

March Club run day



VP John Shugg gets ready to "snap" for posterity as Ron Collins' new Wombat coasts round the curve and down towards the tunnel. Can anyone identify the driver from the boots? *Photo: Steve Reeves*



New kids on the block! Paul Costall drives Ron Collins' new Wombat 0-4-0 past the steam-up shed while Phill Gibbons gets ready to back his new O&K 0-6-0 on to the running line and pick up his carriages. *Photo: Tom Winterbourn*



Right: Another shot of Phill Gibbons' magnificent O&K loco in the steaming bays. *Photo: Keith de Graaw*



Above: Laurie Morgan, driving his 5" "Mountaineer", stops in the station to chat to UK visitor David Barlow, from Barrow-in-Furness. *Photo: Steve Reeves*



FIFO electrician Jaco de Lange's trip back to Perth coincided with our monthly club run day – and he made the most of it. Here he drives his superb little green 0-4-2 "Bridget" down the station bypass line. *Photo: Steve Reeves*



Nathan Clements, who also spends his working life on-site at Port Hedland, took advantage of his trip back to Perth to give his ex-John Millman "Nigel Gresley" 2-8-0 an airing. Don't know where Nathan is, but wife and child are ready for their next run! *Photo: Steve Reeves*

March public run day

Despite a brief shower to start the day, the sun came out and a good day was enjoyed by many.

About 20 members attended, with a visitor from the UK. There were six birthday parties plus many regulars.

All photos by Steve Reeves.



Ron takes a turn at driving Phill's new O&K loco on its first passenger hauling day.



Harry's new air braked guards van/wagon with Mark Bowring riding high at the rear.



Keith de Graauw takes a turn driving Blowfly.



Left: The "Fab Team's" latest work of art is this new set of points at the approach to the station. It will allow the storage of a complete train, which can be immediately brought into the station when required.



Above right: NDMES "elder statesman" Ed Brown fulfilled his usual role at the regulator of Ron Collin's 0-4-0 steam loco which is shortly to be "retired" for a well-deserved overhaul, now that Ron has his new Wombat in operation.

Lake Macquarie AALS Convention a big success

PERFECT weather, a large number of delegates from all states and a great atmosphere and camaraderie characterised the 61st AALS convention at Lake Macquarie, NSW, over the 2017 Easter weekend from April 13-17.

There were three NDMES members at the convention including myself, plus Noel and Damien Outram, with Damien winning the DNC Systems Technology award for best kit-build loco.

The variety of model engineering ranged from a “flying bogie” to a gas turbine engine, with frequent demonstrations on the latter throughout the weekend. The “bare bones” concept worked really well for Lake Macquarie, but couldn’t be replicated at Bunbury because of SWMEA’s open track and facilities. Convention delegates paid just \$25 for the weekend, whereas at the 2016 convention at Cobden (Vic), it was \$25 a day.

Some Sydney day-trippers did try to slip into the convention without paying, but convention secretary Robert Ogden conducted a blitz on the Saturday, challenging those without convention badges and collecting \$1500 in unpaid registrations! This will be a similar problem next year given Bunbury’s “open” grounds.

There was no grand parade or official opening this year – and nobody seemed to miss them!

Sadly, a feature of these conventions is the growing list of AALS members who are no longer with us and this year’s list of departed members was larger than usual. But regeneration is occurring, with many young enthusiasts present.

Report and pictures: Tom Winterbourn.



A meeting of old US 4-4-0 Virginias. With the red loco are Bill Belton and his son Grant from Victoria. The loco was built in the 1970s when Bill and I were good mates before I moved to WA. Grant used to be my guard when I drove my 5” Springbok (now owned by Steve Briggs) at the original Tullamarine Live Steam Society track near the airport.



A highlight of the weekend was this line-up of six Black 5s (well actually five black and one green!). It took a while to get them all on adjoining roads, but got there in the end. The “green” Black 5 used to belong to David Naeser!



A beautiful blue NSW C36 pulling a rake of freight wagons. This was one of three or four good examples of the 4-6-0 in 5” gauge.



Left: One for Bill Walker: A 5” gauge model of the 0-4-2 early British loco Lion, which ran like clockwork (and lightning!) on the raised track.



Right: This little loco, believe it or not, was voted the most popular loco at the convention by delegates.

Lake Macquarie AALS Convention 2017 (cont...)



Paul Sherman from SA, a frequent visitor to Balcatta and a former CMR member, driving Koojeda, built by SWMEA member Alan Pitt.



Dave Kirkland from Fairfield (NSW) with his 5" NSW 46 class electric loco (battery powered) and an excellent rake of eight NSWGR carriages.



Noel Outram (NDMES) in typical pose driving his 5" battery-powered Bo-Bo diesel.



An excellent 5" gauge tramcar mounted on two axles under the enclosed central section.



Left: SA Society of Model and Experimental Engineers member Danielle Hall with her kit-built Gauge 1 garden railway loco. And yes, she has indicated she will be coming to Bunbury and Balcatta next Easter.



Right: A lovely Foden steam lorry to finish our photo coverage with.

The Wombat II project

The original inspiration behind the Wombat design came from “Bala”, a 5” gauge 0-4-0T (see photo at right). This loco is now owned by Chris Smith.

From this, Bob Brown developed the first Wombat shown in the photo below. It is a slightly bigger engine with a saddle tank and Hackworth valve gear.



The design was further developed by Bob into the more familiar design as shown in the next photo below. This is “Swampy” in 7¼” gauge, built by Paul Sherman with a lot of help from Phill Gibbons. This loco ran at Castledare for many years and has also attended many AALS Conventions.



Someone at a convention saw Swampy and Bob was commissioned to build a 5” gauge version.

So he scaled down the dimensions to suit and produced the engine shown in the photo (right), being driven by Nathan Clements.



The late Bob Brown with the (then) newly completed 0-4-0T engine “Bala” in the early 1980s — the forerunner of many future Wombats.

The next photo (right) shows a more modern 7¼” version of the Bob Brown Wombat design, built by Lindsay Lockhart, which runs regularly at Bunbury.

It is these two later versions that are being written up by Steve Reeves and Ron Collins to appear as a future construction article in the Australian Model Engineer magazine.

Steve began the project four years ago, using Bob's original hand drawings, which he cleaned up and converted to metric dimensions.

Australian Model Engineer requires the drawings in CAD format, a skill Steve does not yet have. As he was having difficulty finding someone who had those skills, Ron kindly volunteered to help out.

Since then things have really taken off with Ron building the 7¼” version to prove the drawings.

Steve has so far written up the tender and once he has done the same for the loco, they will publish the full construction series.

All photos and text on this page courtesy of Steve Reeves.



The Wombat II project (cont...)

Working with Steve Reeves, Ron Collins has taken on the task of producing a complete set of CAD drawings for building the Wombat II loco in either 7¼" or 5" gauge. The drawing set runs to 70 sheets for the loco and 22 sheets for the tender and they are to professional standards and fully detailed.

Ron also decided to build a prototype of the loco in 7¼" gauge to prove the drawings as he went along. His loco is now complete after about a year of work and had its first successful steaming at the club run day on 11 March (see page 1). By all accounts, it runs as well as it looks!

The Wombat II design is aimed at the "average" model engineer with basic to reasonable workshop facilities who wants to build a good-looking but not too complicated loco — a reliable steamer that is easy and fun to drive and is also capable of some serious passenger hauling.

All the flat components for the engine and tender can be laser cut, including the holes, and they can be supplied as a complete component pack. This will give the builder a substantial head start on the build and the laser cut holes will ensure that things will line up properly as the build progresses.

Ron has used button head screws extensively instead of rivets, which further simplifies construction of the tender, tanks and bodywork.



The boiler is copper and the one shown above was built during the "boiler group" days at Ron's workshop. It is a straightforward design with a large firebox for good steaming. Many of the fittings, including the regulator, are adapted from commercial items where possible. The dome cover was 3D printed in plastic, then painted. (It could also be fabricated).

There is considerable scope for individual builders to customise their own version of the Wombat with fittings, details and livery to suit themselves.

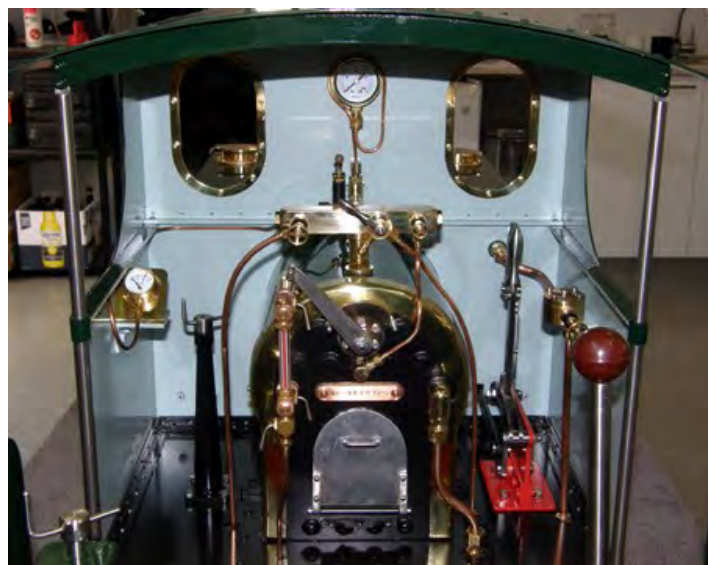
All photos Jim Clark



Ron Collins in his workshop during construction of the 7¼" Wombat II prototype.



Ron's Wombat II nearly completed.... Note the 3D printed dome!



The neat and readily accessible cab controls — it's easy to drive.

A new dimension for club run days

THE April club run day marked a new chapter in the club's history, with the new garden railway featuring prominently in its activities.

All the hard work developing the garden railway over many months is now paying dividends. At least four locos graced the tracks with some period carriages and wagons adding to the atmosphere.

There was also plenty of action on the bigger tracks, with 3½", 5" and 7¼" locos in action, including Phill Gibbons' new O&K loco, which he shared with his family members who were visiting from Derby.

The day also featured a BBQ lunch, with "chef" Doug Pitney performing his last act at the club before returning to Canada the following Friday.

Some of the action is pictured here:

All photos Tom Winterbourn



The sun and tree shadows didn't make it easy to get a general pic of action on the garden railway. But it was a good first club run day.



Left: Stu Martyn had a good run with "Speedy Gonzales" after a few early frustrations!



Clive Jarman with 'Acton Brunell Hall' on the raised track.



Left: Ron Cassotti gets some guidance on firing up the club steam loco from junior member Mark Bowring.

Right: Mark Bowring had a ball driving Steve Reeve's "Majestic".

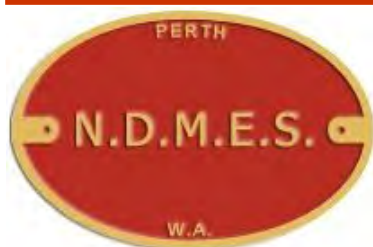


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