



March 2002

A WAGR DD Class Locomotive

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Ed Brown with his superbly detailed WAGR DD loco raising steam at the February Run Day.

Photo by Doug Baker

Ed Brown has recently completed this fine WAGR DD class locomotive. He built the loco from measurements and some 200 photos taken from the two remaining locomotives in WA. One is at the Gosnells Markets and the other is at the Bassendean Railway Museum. Amongst many other features, the model has working lights and vacuum brakes.

CALENDAR OF EVENTS

General Meeting	Laurie Strutt Park Elvire St, Waterman	8:00 pm	Friday 8 March
Club Run Day and Public Run Day	Club Track Site Vasto Pl, Balcatta	10:00am—4:00 pm	Sunday 31 March (Easter Weekend)
General Meeting	Laurie Strutt Park Elvire St, Waterman	8:00 pm	Friday 5 April
Club Run Day and Public Run Day	Club Track Site Vasto Pl, Balcatta	10:00am—4:00 pm	Sunday 28 April
General Meeting	Laurie Strutt Park Elvire St, Waterman	8:00 pm	Friday 3 May

Note: There may be additional Birthday Runs or other events scheduled at short notice. Contact Jim Crawford or Andrew Manning for latest details.

February General Meeting

The February General Meeting opened with 20 members and 1 visitor, **Paul Sherman**, who was welcomed to the meeting.

GENERAL BUSINESS — **Ron Date** asked if any of the members have a Civil Engineering contact who could provide advice on the retaining walls in the cuttings. The walls appear to be moving and leaning inwards.

Andrew Manning advised that the Shire were looking for some action from us on the palisade fence. It is anticipated that replacement of the fence will be a major project for the Society during April and May.

BUILDING REPORT — Three rows of blocks left to go on the walls. Widow frames are galvanised and ready to install. Door sheet metal is folded, steel for frames is being cut. (see also Building Report below).

It is expected that the building will be at lock up stage by the end of March.

MODEL ENGINEERING — **Ed Brown** displayed his finely detailed 3½" gauge WAGR DD class loco (see front page and other photos page 4 of this issue). He was applauded for the fine detail achieved.

Dennis Lord brought along a stainless steel grate he had purchased from Blackgates Engineering. Excellent quality, 30 UK pounds and 3 weeks delivery.



Items for a copper boiler for a 7¼" loco as shown by Steve Reeves at the February General Meeting. Firebox wrapper and wood former manufactured by Bob Brown (above), and the tobin bronze brazed firehole ring (right).

Photos by Ian Allison



minutes of meeting by Andrew Manning

Bob Brown presented a lecture on the brazing of a copper boiler fire box and tubes. A really detailed and practical presentation. Bob will make further presentations as the boiler he is building progresses.

Milton Smith displayed the progress on his 'Speedy' tender and discussed some of the problems he has experienced.

Steve Reeves showed the progress on his rather large copper boiler, the rolled barrel and tobin bronze brazing of the fire hole ring.

RAFFLE — No door raffle this time.

Andrew Manning



Steve Reeves checks out Ed Brown's WAGR DD Loco at the February General Meeting
Photo by Ray Shersby

Building Report

by Ron Date

After a little flood, a lot of sweat and copious amounts of coffee, the 'old boys' are on the 19th and last course of blocks. Ponder on the tonnes of blocks and mortar manhandled by these retiree members in all weathers—no sissy boys there!

A great asset has been the electric hoist loaned by Ken Austin, plus rope, block and tackle from Dennis Lord, Lindsay Adams and Ian Allison. Thanks blokes, and to all those of you who have laboured on this purely physical and hard work part of the construction.

Doors are appearing on the site, welded by Doug Baker and Ernie Redford. Materials were supplied at cost through Dick Langford. Designed by Dick, these doors should prove vandal proof, if not bullet proof.

However there is still a lot more to do, but hopefully less physical and a bit more interesting. A big variety of skills are required. What's yours?

Ron Date

Midland Workshops Open Day

by Steve Reeves

I recently visited the Midland Workshops Open Day as I have never seen inside them before. When I was a teenager I use to visit the CME's Office to purchase drawings and photographs of WAGR steam locomotives. I would take my newly completed "Tich" with me which opened a lot of doors, but I never went into the workshops themselves. I also witnessed the steam test of DD 592 here as well a few years later.

Today unfortunately it is a shadow of its former self. At least 90% of the machinery has gone. The people looking after it, while doing a good job, never worked there and do not really understand just what they are looking after. As a result I followed other visitors around as many of them are ex-employees and they were explaining to family and friends which shop did what and how it was done. Despite this it proved to be a very interesting visit taking about 3 hours to get around.

The first shop visited is now the main carriage restoration shop and there is some very fine work being done here. For example I met Dick Langford and his wife in one of the WAGR wooden-bodied buffet coaches. The workmanship going into this is superb. The coach is sitting on stilts with the partly restored bogies on another road next to it. The outside of the coach bristles with new paintwork complete with the WAGR emblem bolted on. Inside, the dining area has been redone with new teak and jarrah woodwork. This has been stained and polished to first class standards. In the ceiling hang elegant gold plated fans and lights typical of the 1940s and 50s. This coach will be the envy of any yet seen, certainly on par with anything seen in England or Europe.

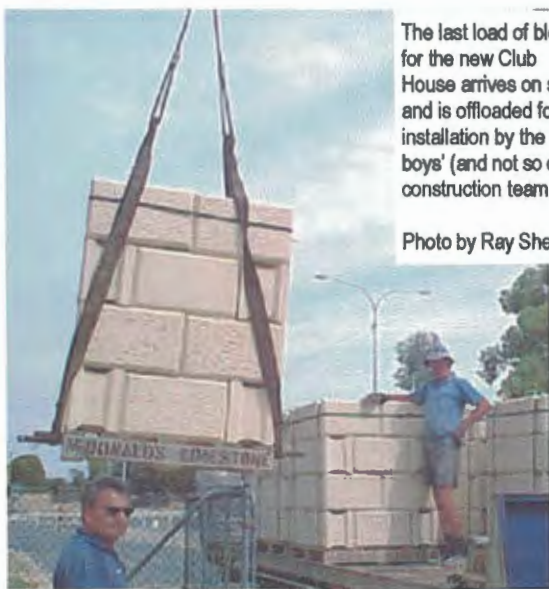
On the next road stands an XB class 2-DO-2 Diesel electric locomotive that needs some TLC. At the public viewing end the headlight and marker lights were operating. Nothing special here unless you know how the lights were being powered. At the other end of the locomotive sat an AC to DC converter. The lights work at 48v DC and were being fed from the main supply. One way of converting to the 48v DC is to use an AC motor coupled to a DC generator. This unit was sitting on a pallet quietly turning over. This is 1950/60s vintage as the casings are large for the horsepower developed.

Down the far end of the shop is the steam engine area. Sitting on a flat wagon is a Midland Railways "B" class 4-4-0 tender engine. She had been sitting out in the weather for many years and is clearly suffering from this. Whoever takes on the task of restoring her has a big job ahead of them. Yet although some of the cab fittings are missing, she is complete and could steam again. Still in her red livery she would make a nice 5" gauge model.

Behind her is the WAGR "H" class. This little dinky 0-6-0T has been stripped down for full restoration to working order. Like the buffet coach some very fine work is going into her. For example, the original sandboxes have rusted out, so brand new ones have been made and fitted. The rolling chassis has been cleaned, repaired and repainted. The cylinders are back on and the inside motion work assembled. I noticed the coupling rods in a vice next to the engine.

The boiler has had its inners removed. The outer steel shell is in good condition and can be re-used. The inner firebox is made of copper and apart from the firehole door ring, could also be re-used. This boiler was beautifully made and is a good testament to the craftsmen who made it so many years ago. It will be really good to see this engine going again.

Steve Reeves



The last load of blocks for the new Club House arrives on site and is offloaded for installation by the 'old boys' (and not so old) construction team.

Photo by Ray Shersby

Reminders...

Subscriptions — There are still a few members who have not paid their annual subscription. If this applies to you, please let us know your intentions.

Working Bees — are held at the track site on Saturday and Tuesday mornings. Not only is help required on the building, but also for the usual track and grounds maintenance. A few hours of your time on one or other of these days would be most appreciated.



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Run Day Report

The February Public Run Day was not too good financially but it was a HOT day. Ed Brown's beautiful WA Tank Loco made it's first appearance at the track (see photos front page and below) but unfortunately it's injectors wouldn't work properly and we shall have to stay disappointed and in suspense until next time to see this super-detailed and well made machine do it's stuff.

by Ron Date

Speedy wouldn't go, but Sweat Pea and Blowfly did their usual reliable performances. With stirrups on the tender, my C32 was a lot more comfortable and ran all day non-stop. At the end of the day with Jim Crawford driving, it managed almost seven circuits on one firing before it ran out of steam.

New member Brian Lawrie made his debut as Duty Officer and did very well. Thanks Brian for a job well done.

Traffic jams at the end of the day could cause some friction, so please don't block the driveway - get in, get loaded and offski is the way to go. Also please don't use the steaming bay by the track nearest the track itself for cooling off and blowing down etc. I'm guilty there, so let's consider everyone so those who wish to buzz off can do so without fuss.

Please note also that the road up to the BMX gate is common property and it is not to be used as a parking space.

Ron Date



Above: Discussing model engineering, steam locomotives, or the meaning of life? In the steaming bays, February Public Run Day, with Ed Brown's new DD loco in the foreground.

Below: A view inside the cab of the DD. Yes, this is the model, and not the full size one! Photos by Ian Allison



ME Fasteners

Here is a further selection of those useful bolts available in all Model Engineering sizes, thanks to Jim Crawford.



For lazy Model Engineers (use with hammer only)



Pre-stripped thread for easy over-torquing



For tapered holes



Left-hand thread (right-hand version also available)



For bolts holes drilled and tapped to different sizes



Serrated head for tightening with multi-grips or pliers

A Visit to New Zealand – Part 1

by Dick Langford

Noelene and I have just returned from a fabulous four week holiday, in January 2002, travelling around New Zealand. We found many things of interest, both model and full size, to model engineers during our travels in this fascinating country.

New Zealand's roads and railways reflect the nature of the country: deep gorges, many mountains, wild rivers and the like, so their bridges are often fascinating. We used many of them, by car and train. One bridge we found at Seddon is a steel truss type that provides a rail crossing on top of the trusses with a single lane road crossing inside the trusses. World War II Bailey bridges are still in use on major roads - again in most cases these provide only a single lane for road traffic. To avoid mid-bridge brawls, signs indicate which traffic direction has priority. The fundamental road law that "might is right" probably has some weight too. As we drove around the islands in a little Peugeot 205 gti cabriolet, we didn't put this law to the test!

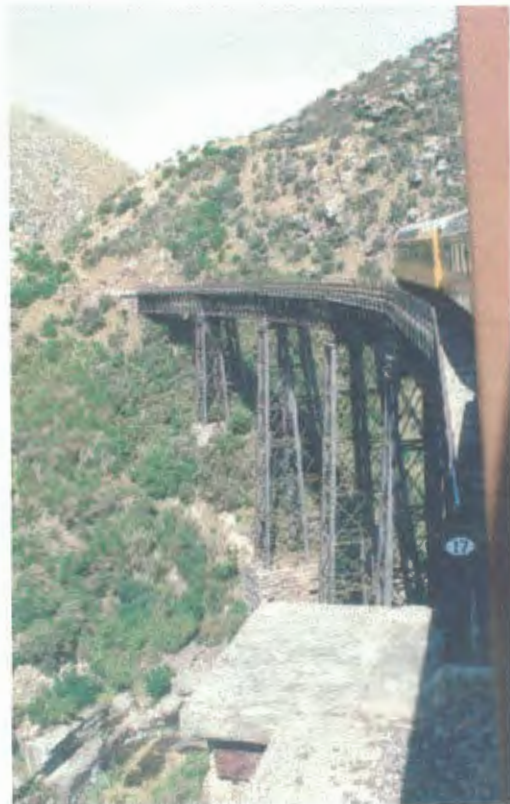


Seddon Bridge with rail crossing above and road below.

Driving between Dunedin and Christchurch we met three fairly new Foden milk tankers heading in the other direction. No, they were not steam powered, they were diesels. Each rig was a twin steer four axle truck with a four axle trailer (two axles in a front bogie and two rear axles). This was the most common heavy haulage road transport arrangement we saw. I was thinking about what Foden steam trucks had developed into, when along came another trio of identical Fodens also towing trailers, then more and more. We passed over thirty identical rigs, all heading out to farms to collect milk. At 35,000 litres for each truck-trailer combination that's over one million litres of milk to be collected that evening! How many cows contributed?

A trip on the Taieri Gorge Railway is an amazing experience. This line was started in 1879 to link Dunedin with the new goldfields and farms in the centre

of the South Island. Ten tunnels, the longest 437 metres, and many very delicate looking wrought iron viaducts and bridges carry this railway through the Taieri River Gorge. On these viaducts, you look out of the train and there appears to be nothing between you and the wild river below. The Wingatui viaduct on this line is 197 metres long and 47 metres above the stream it crosses. This is the largest wrought iron structure in the southern hemisphere, and one of the largest in the world. All the coaches used on the railway have end platforms where you can photograph the scenery.



Crossing one of the many impressive viaducts on the Taieri Gorge Railway.

Dunedin railway station is another interesting feature. This imposing building has recently been restored and is magnificent. The floor of the main entry area is mosaic tiles depicting railway wagons, locomotives and other railway scenes. The building itself is a large bluestone structure. At the nearby museum some locomotives, including an 0-4-4-0 Fairlie, are on display.

On the west coast of the South Island we found some more amazing bridges. At Greymouth, the railway crosses the Grey River on a large 265 metre long "S" shaped timber truss bridge.



'S' shaped timber truss bridge across the Grey River.

A bit further south, near Hokitika, the railway shares a river crossing with the road on a narrow single lane bridge. No flashing lights or anything; the train just cuts into the road traffic to cross the bridge!



Train and traffic sharing the same bridge near Hokitika.

Also at Greymouth, we found "Shantytown" a gold mining era township tourist park which includes a short railway where trains are steam powered. I had a footplate ride on a Climax locomotive here: this was a novel experience, the locomotive rumbled along with lots of noise and vibration at quite slow speed (below).



Near Queenstown, we rode on the "Kingston Flyer" a steam powered vintage train that operates on 14 km of the railway that once linked Dunedin, via Gore, to the

southern end of Lake Wakatipu at Kingston. This railway track is still as it was when first laid in 1878. The rails have not been replaced and are 24 foot lengths weighing 53 pounds per yard. The coaches are all pre 1925 and have been well restored. One coach was a British corridor style but the non-compartment side of the coach was just steel pipe and wire mesh. AB class Pacific locomotives now handle the train. These were built in New Zealand between 1925 and 1927.

We had seen some strange lineside cranes with large air cylinders at a couple of stations and wondered how they worked. At Kingston the mystery was solved. The crane was powered from the locomotive air brake compressor with an air hose fitted to the locomotive buffer beam train pipe connection.

At Kingston, the train used to meet steamships that sailed up Lake Wakatipu to Queenstown, a 40 kilometre journey. These ships were owned and operated by the New Zealand railways. The first were paddle steamers, and the last was a twin screw steamer which still operates on the lake, taking tourists for sight seeing trips. This ship, the TSS "Earnslaw" is magnificent; Noelene and I enjoyed a cruise on it. Two 500 horsepower triple expansion steam engines power the vessel. Steam is generated by two locomotive type boilers that are coal fired and manually stoked.



TSS Earnslaw on Lake Wakatipu near Queenstown.

The engine room is open and passengers can walk in on a grid above the engines to watch the action. She was built in 1912 in Dunedin and railed in pieces to the lake where she was assembled. The two paddle steamers were scuttled in the lake; one has recently been located and plans are in hand to raise it and restore it. An engine from one of these paddle steamers is still used in Queenstown to pull the "Earnslaw" up onto a slip for survey.

Dick Langford

All photos by Dick Langford. Continued in next issue.