

ANNIVERSARY WEEKEND RUNNING

Those attending this Sunday's running would you please enter the Kiwi North grounds via GATE 1 and proceed to the usual parking area that the club uses.

The No 1 gate is the second gate on the right as you go up Maunu Road out of town.

If you arrive after 9.45 am on the Sunday morning the No 1 gate will probably be closed **BUT NOT LOCKED**. You will have to open this **BUT PLEASE** make sure that you close it again.

The usual parking area for club members and guests will be available.

**PLEASE PARK IN A TIDY MANNER
AND NOT ALL OVER THE PLACE
LIKE BROWN'S COWS.**

The safest tranquiliser with no side effects is laughter.

CLUB NOTICES

Committee Meeting — Wednesday, February 14 @ 2 pm

3rd Sunday Running — February 18, 10 am - 3 pm

Mid-week Workdays — Mostly Every Wednesday.

Extra Running Days This Month:

NOTHING ADVISED

THESE WORK IN WITH
MUSEUM "LIVE" DAYS AND
OTHER EVENTS WHEN HELD

QUIZ — What is it?

See Page 3.



The Missing Couplings!!

Where do all the kidney links go to? Or more to the point how do they get to where we find some of them?

Over the years at least two dozen have disappeared and also where does that kidney link go when you are looking to take on an extra trolley to cope with the crowds?

In theory a driver should be able to back straight on to a spare trolley without having to spend ages hunting around for a kidney link. We have two three-car train consists already made up and ready to go, and these “live” in the basement under the clubrooms. In the green shed over past the steam-up bay there are several consists (trolleys only) that are for use by visitors and our own members that don’t have their own.

The rear of each trolley and/or engine should have a kidney link permanently fastened to the yoke of the coupling of that engine/wagon. So therefore when you connect up to an extra trolley or complete a consist there should be **NO** kidney link on the end of that item.

If there is, then someone has been playing silly buggers and that link should be removed — **NOT** the one on the rear of your train. The coupling on the end of wagon facing you should only have a clevis pin and a retaining clip to stop the pin from dropping out.

If you have to remove a kidney link ... please don’t put it in your pocket and forget all about it ... put it on one of the shelves in the green shed.

A few of the kidney links are stepped to allow for some variation of trolley height.

The brake hose on the trolley pictured has been blanked off as an end-of-train trolley. There should be a spigot on the headstock for this purpose. Also there are a few trollies that are not braked and there is a small sign fastened on the headstock to indicate this.



VIEWS EXPRESSED IN THIS MAGAZINE ARE NOT NECESSARILY THOSE OF THE WHANGAREI MODEL ENGINEERING CLUB

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ANSWER TO QUIZ ON PAGE 2:

H.M.S. Royal Oak

A sacrifice never forgotten: Battleship wreck torpedoed by German U-Boat during one of the blackest days of the Second World War is remembered in poignant mission ahead of Remembrance Day

- **HMS Royal Oak was fired on three times by Germans in the early hours of October 14, 1939, in Orkney, Scotland.**
- **1200 crew members were asleep below deck. Just 325 sailors survived the attack, which sunk the ship in 13 minutes.**
- **A team of Navy officers have recovered the original flag and replaced it to honour to memories of the sailors.**



H.M.S. Royal Oak. Picture was taken not long before the start of WW2.

Alone in the darkness, in icy waters on the sea bed, her rusting hulk symbolises the sacrifice so many made for freedom.

This is the ghostly image of HMS Royal Oak, torpedoed by a German U-Boat during one of the blackest days of the Second World War.

The magnificent battleship's guns lie twisted in the deep, her once-proud tower broken and buried by the sands of the last seven decades.

Every year Royal Navy divers carry a new standard 80ft below the surface of Scapa Flow in the Orkneys, where the warship sunk in 1939, and attach it to the upturned hull.

It is an annual ritual performed to underline an eternal promise - that those who gave their lives would never be forgotten.

Six weeks into the war, 833 sailors were killed when the ship went down in minutes after being attacked at anchor.

Most were killed by fire, many as they slept in their hammocks. Of those who escaped, few survived the freezing cold sea.

More than 100 of the ship's 1234 compliment were 'boy sailors', the war's biggest loss of these brave teenage seamen, assigned to the British fleet before they became ordinary seamen at 18.

In a sombre ceremony, ten divers from the Royal Navy Northern Diving Group, based at Faslane, raised the flag in the eerie underwater silence before attaching it to an upper prop-shaft and saluting the memory of the fallen.

Normally, the white ensign is flown at all times when Royal Navy ships are underway.

Here, it could hardly flutter in the same way as the one on a nearby shore memorial does - but at least the current allowed it to stay unfurled with some dignity.

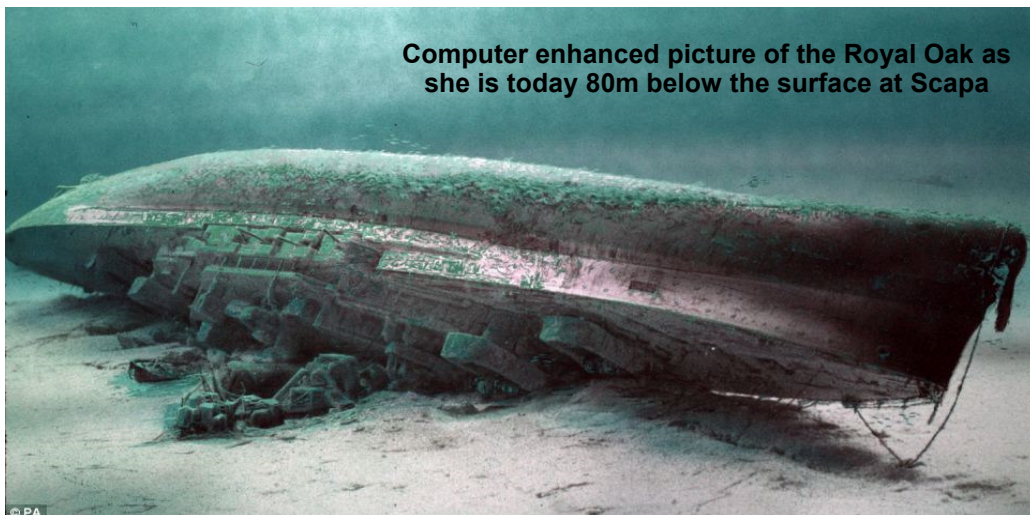
This was still a war grave, after all, and hundreds of ordinary men and boys, who once served beneath this flag's wartime forebear, lay inside.

The ship's previous ensign was recovered and will be presented to the Royal Oak Association.

The brass letters that formed Royal Oak's name were removed as a keepsake by a recreational diver in the 1970s.

After being returned twenty years later, they were displayed in the Scapa Flow visitor centre in Lyness.

A memorial at St Magnus' Cathedral in nearby Kirkwall displays a plaque dedicated to those who lost their lives and a book of names.



Computer enhanced picture of the Royal Oak as she is today 80m below the surface at Scapa

With all the discussion lately about the burning of coal v. char, and our subsequent change to Welsh coal, here is an article that appeared many years ago giving some insight into the various Welsh coals and their uses.

With just a few short-term exceptions, British steam locomotives burned coal, but from the different varieties of coal that could be obtained, only a few types were suitable for locomotives and many companies designed their engines for a specific type of coal.

Coal consists of many constituents. Typical Welsh coal used by the Great Western Railway contained elements such as:

Carbon 75%	Ash 10%	Oxygen 8%
Hydrogen 5%	Nitrogen 1%	Sulphur ½%

The heat produced comes from its carbon and hydrogen content and coals with a high proportion of these elements, known as high-calorific coals, were always preferred. A high sulphur content is detrimental, however, especially when it is combined with moisture content within the coal as it will form acids in the smokebox char and in the residual ash in the firebox. These acids then attack the metal surfaces of those areas.

If the firebox is at a temperature lower than its normal working temperature to sustain steam, clinker will form on the firebars. Clinker is a hard deposit that occurs when ash and sulphur fuse together and removal usually meant chipping off with a long poker. The best locomotive coal has a low ash and sulphur content particularly since ash tends to block the boiler tubes and it can pit and score the tube surfaces as it is swept through the tubes to the smokebox.

Bituminous coals, which includes house coal, were widely used for locomotives, but only those types that were hard and with a low ash content, especially that used by the Great Western Railway, was semi-bituminous and had a high carbon content that burned with a shorter flame. In general, a smoky exhaust displays inefficient combustion. Although many photographers crave this pyrotechnic effect, it is purely a sign of waste. To achieve complete combustion, a high firebox

temperature together with a good airflow is required by using the dampers, fire hole door and maintaining an even fire bed thickness. Heaping copious quantities of coal into the firebox at long intervals produces black smoke and wastes consumption – the better method was to fire “little and often”. Coal has a tendency to form a hot mass over the fire known as a cake. This tendency is an inherent property in the coal that cannot be removed, although it can be reduced by the use of non-caking coals. If its chemical composition is satisfactory, coal that has caked needed only a little work by the fireman to break up the crust.

In addition to the composition of the coal, the size of the coal also mattered. Small size pieces of coal increase the total surface area of coal in the firebox and therefore produce excellent steaming rates. Poor quality coal, especially that supplied after 1939, contained a high proportion of coal dust and slack. Most coal dust is drawn, unburned, straight up the chimney while the slack tended to block the flow of gases through the boiler tubes. One good use of coal dust was in the form of briquettes made from compressed coal dust held together with a bituminous binder.

Coal that was handled in mechanical coaling plants tended to break into small pieces, and for that reason hard coals were preferred by most railways. Due to the Great Western Railway's insistence of Welsh coal that was of a high calorific value with low volatility, it stayed with hand/tub coaling to reduce degradation even though it was a dirty and time-consuming method.

The maps on the left show the huge coalfields that existed in and around Wales and Scotland in the 19th Century. Most of these mines have now gone and coal is being imported into the UK from Europe and even India and Indonesia.

Author Unknown



This picture taken in 1927 shows the extent of coal haulage by rail. Note the very large lumps of coal in the wagons.

The Christmas Luncheon

The club held its Christmas Luncheon on Thursday, December 7th at "The Deck" at McLeod Bay. Weather was beautifully fine and a full tide made the bay just a picture to look at. There were 15 people present. The longest distance travelled were two members and their wives who live in Ruakaka just about opposite where "The Deck" is but unfortunately on different sides of Whangarei Harbour, so that makes quite a long trip via Whangarei itself. "The Deck" lived up to its reputation on the fish and chips side of things and this was the most favoured dish of the day. The cabinet food was also quite nice.

Do you know that awesome feeling when you get into bed, fall right asleep, stay asleep all night and wake up feeling refreshed and ready to take on the day? Yeah, me neither!

Wednesday Workday



Not a great deal has been going on over the school holidays save the running of the trains every Wednesday for about four hours to cater for the public.

A couple of these days have given us some good loadings while at least two days were hardly worth opening but some other work was accomplished in the maintenance department with some major work done on one of the trollies.

Work on the hydraulic system of our new(ish) model BR diesel has nearly been completed and the thing goes like a cut cat, but given its power and speed drivers will have to watch out that they don't end up in the ditch.

Speed signs around the track are being replaced because the sun has faded a lot of them and I suspect that some of the great unwashed have taken others.

Two weeks ago a double-sided watering tower was installed at the station where the present coaling takes place. This will also allow for the hose to be hung up properly ready for the next customer.

Did you know that one make of the brass snap-on hose couplings will not take the common green female coupling. We have just found it out. One major supplier of these fittings in Whangarei was unaware of the problem too. It would appear that it's a case of "Tuff Titty" and that we shouldn't buy Warehouse fittings. I don't know about you ... but I thought they were all standard.

Other Club's Events:

Palmerston North Model Engineering Club: "Locomotion 2018", March 3rd and 4th, 2018.

The “New” Locomotive

As previously mentioned John Wright's generous gift of his 7¼" scale model of a BR Class 35 diesel-electric locomotive has yet to enter service on our tracks.

But here are some details of it:-

John built it from scratch to fit a certain size road trailer he had.

This trailer was a little short on length so the loco was built to fit and this gave it a short, stubby look.

John decided that it didn't really look right so he obtained another trailer and lengthened the engine by about 25%. And this alteration made it look quite handsome.

The power-plant is a 3-cylinder petrol 1960 Daihatsu auto engine rated at about 10.3 horsepower.

As per the original it also has hydraulic transmission.

There is only one thing missing and that is the lovely 2-tone air horns that adorned most of the non-steam locomotives of British Rail.



The loco being given an initial look-over upon arrival at Maunu.



A picture of the real McKoy

ORIGINAL BR CLASSIFICATION HYMEK CLASS 35

Road Numbers: D7000 - D7100.

Built by Beyer Peacock (Manchester) 1961– 1965.

Wheel Arrangement: B - B.

Operational Weight: 74 tons.

Maximum Speed: 90 m.p.h.

Engine: Maybach MD870.

Horsepower: 1740.

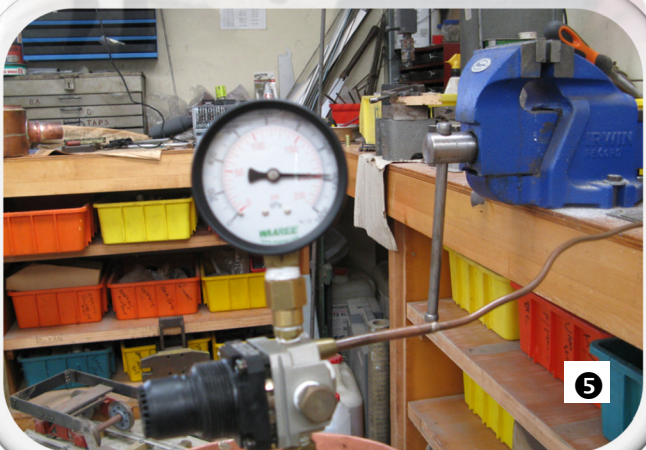
Tractive Effort: 46,600lbs.

Transmission: Mekydro K 184V.



John is also the owner of a beautifully finished Swiss Railways “crocodile”.

General Pics from Around the Site



PHOTOS ABOVE:

- 1 Relaying track and drainage behind the mountain.
2. The dog don't look too happy 'cause there's a gate in his way.
3. Rankin getting his loco ready for running.
4. The signal storage shed.
5. Newly calibrated pressure test gauge for our boiler test-bed
6. Work going on re-aligning track to tunnel entrance.
7. Under the clubhouse. Two tracks on left with trains ready to go. Other track is the Sick Bay.

IF UNDELIVERED PLEASE RETURN TO:—

Whangarei Model Engineering Club Inc,
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