

Founded 1933

Incorporated 1967

EATON PARK MINIATURE RAILWAY

***e*-BULLETIN**

Summer 2022



"It's life Jim, but not as we know it"
more inside...

Cover story

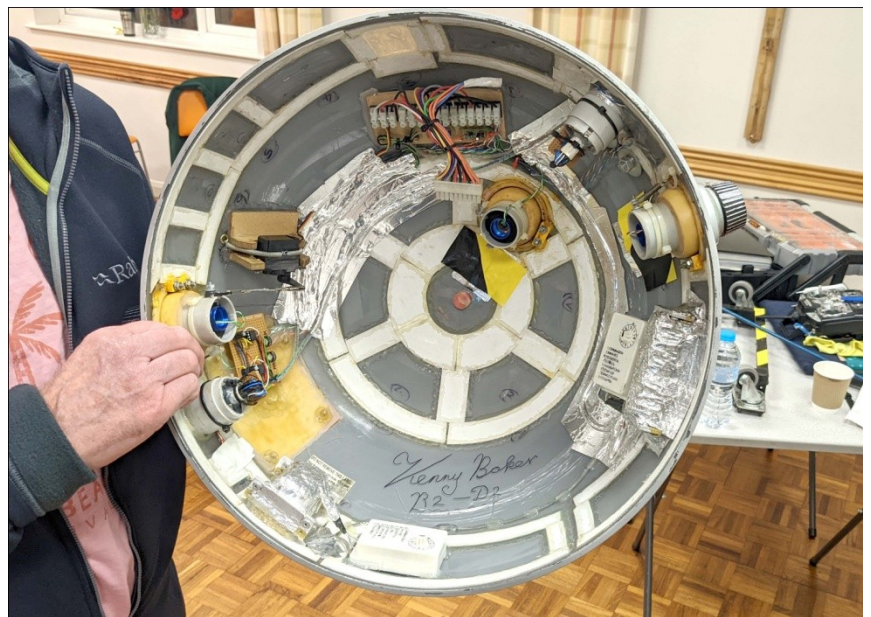
Ok, we understand that Spock didn't really say that but we know what is meant. And recently, ndsme members got a chance to see a R2D2 in the flesh (if it had flesh, which it didn't, that would be a cyborg")

Chris Eve takes up the story,

On April 1st 2022, the NDSME's monthly meeting attendees were treated to a talk by Owen Wright, who has spent several years building his very own replica of R2-D2, the well known robot of the Star Wars films.

After introducing the radio controlled machine to the fanfare of the Star Wars theme, and a sample of classic R2-D2 chatter thanks to the in-built sound system, Owen then proceeded to give a very entertaining and engrossing talk of the build, with a projected slideshow of build photos.

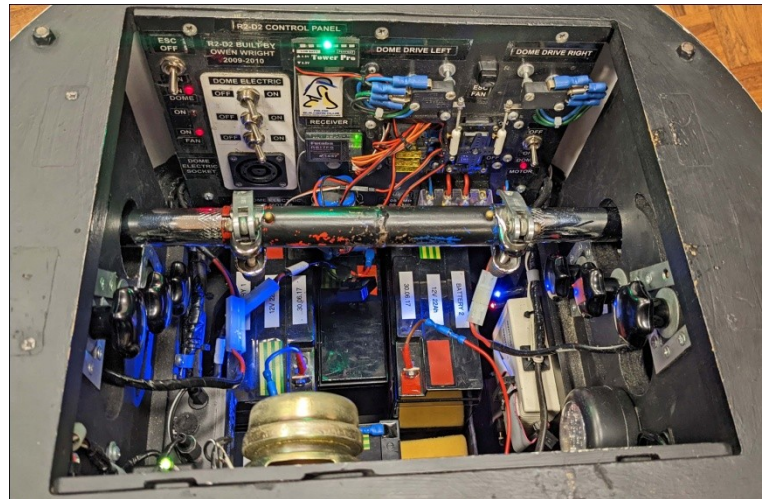
Owen explained how the project began in 2007 with a clear Perspex dome, and using a much smaller scale model of R2-D2 for his measurements and detailing references. Using a mix



of metal for the main framework, MDF for the body structure and plastic for the outer detailing, Owen then set about gradually building the model to what you see today, which regularly appears at the Lord Mayor's Carnivals.

R2-D2 is powered by several 12v batteries through an inverter, powering the multitude of lighting which was adapted from Christmas lights, and fitted a 2.4hz radio control system similar to that used in R/C cars and planes, to manoeuvre the robot via three electric motors in the feet, which operate castor wheels.

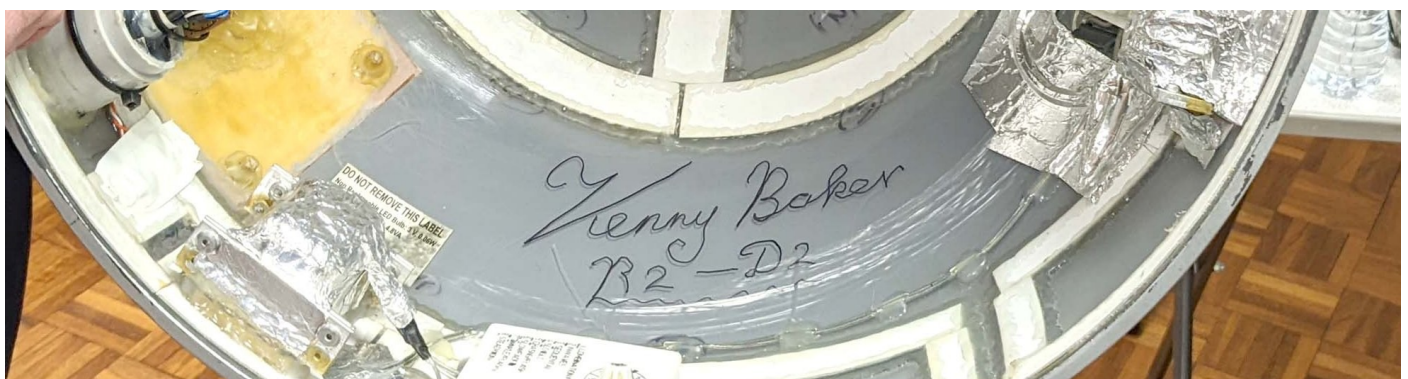
Owen then explained that part-way through the build he came across some scale dimensional plans on the internet which confirmed the dimensions of his model were very close to that of the



original.



Following a tea break, Owen very kindly opened up the robot to reveal all of the internal electrics and bodywork, and actor Kenny Baker's signature inside the dome, before R2-D2 gave his own short speech and exited singing his own version of a well-known Christmas song!



Thanks to Mike Fordham for organising a very entertaining evening.

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Members Out and About

I visited a German U-Boat.

By Mike Fordham

There are several British submarines you can visit in the UK and I did venture inside *HMS Ocelot* (S17) at the Chatham Historic Dockyard around ten years ago. But today I would find moving around and scrambling through the hatches linking the sections of the submarines very difficult. But at the Woodside Ferry Terminal *U-Boat Story Museum*, Birkenhead (take the Mersey ferry from Liverpool) you can look round a German Unterseeboot, U-534 with ease.

The Type IX C40 U-534 was a long-range submarine used by the Kriegsmarine from 1942 to 1945. Built in 1942 in Hamburg-Finkenwerder by *Deutsche Werft* AG, U534 was commissioned in December 1942 and was used chiefly as a platform to test weapons.

It also operated as a weather ship in the North Atlantic. In the summer of 1942, it left the huge submarine pens at Bordeaux, France, and sailed to Kiel in Germany. It went on only two combat patrols, sank no ships but shot down two aircraft. It remained there until May 1945.

On May 2nd 1945, just before the German surrender, U-534 was ordered to leave Germany by Admiral Doenitz, Hitler's successor. It had taken on special provisions and was sent towards Kristiansand in Norway, commanded by Captain Herbert Nollau with a crew of 52. Two days later, on the 4th May, all German forces surrendered to the Allies.

When Doenitz ordered the surrender of all submarines, Nollau either failed to receive the order or refused to accept it.

On the 5th May two R A F Liberator bombers attacked U 534 which was on the surface near Anholt, a Danish island, but the sea was too shallow for crash diving. The crew managed to shoot one bomber down. Nine depth charges from the bombing runs missed, but one was a direct hit and U-534 began to take on water as a result of the damage to her aft section by the engine rooms, and sank north-east of Anholt in 220ft of water.

Most of the crew managed to escape but five were trapped and were dragged down with the boat. Amazingly they freed themselves. One subsequently died trying to reach the surface and two others drowned while awaiting rescue. The shot-down Liberator crashed and all on board the plane died.

Now the war was over what was the U-boat doing? Speculation arose that Nollau was carrying a leading Nazi figure or Nazi treasure. U-534 had a range of 1100 miles. So could Nollau have been going to South America?

As time went on rumours about treasure persisted, and inevitably, people attempted to find U-534. A diver named Aagae Jensen rediscovered it in 1986 and a Danish publisher, Karsten Ree began a salvage operation in August 1993. With the help of the Dutch Navy, the Dutch salvaging company *Smit Tak*



removed five tons of explosives from the submarine. About two tons of documents were also found. Disappointingly there was no treasure. The salvage operation had taken more than four weeks and from Grenaa it

went to Birkenhead, England on a huge barge. The vessel itself was also taken to Birkenhead docks, where it was displayed in the Warship Preservation Trust. When this trust collapsed the Mersey Travel Transit Authority acquired U-534 and displayed it from February 2009, in four sections at the Woodside Ferry Terminal, Birkenhead.



It was cut into sections by a diamond wire cutter, each section weighing around 240 tons and moved by floating crane. *[This attraction opened on 10 February 2009 and*

closed in 2020. In October 2021, ownership of U-534 transferred to Big Heritage, operators of nearby Western Approaches Museum. Ed.

1,250 U-boats went to sea in World War Two. Of those, nearly 800 were destroyed by Allied ships and aircraft, 220 were intentionally scuttled by their crews at war's end, 156 were handed over to the Allies on VE-Day (116 of those were later sent to the bottom), 50 were declared missing and six were captured in action. 30,000 German submariners lost their lives.

Today, only five U-boats remain and four of them are open to the public these are -

U505 USA – U995 Kiel – U534 Birkenhead – U2540 – Bremerhaven



The interiors made visible by cutting into four



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Mystery item last edition...

NG23 ex RAF battery electric 4w 2' gauge loco, built by Baguley-Drewy in 1973 for the underground RAF ammunition store at Chilmark, Wiltshire.

Seen on a visit to the Leighton Buzzard Railway.



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New Kid on the Block - 1

The Scamp loco in 7.25 gauge

The Scamp takes as its inspiration the Lister Rail Truck.



This is what Wikipedia has to say about the origins and history of the original

“The Lister Auto-Truck was a small monowheel tractor built for moving light loads around factories, railway yards and similar sites. They were based on a design originally by Auto Mowers Ltd, and were built by R A Lister and Company of Dursley, Gloucestershire, well known for their range of small stationary engines (although the Auto Truck used a J.A.P. petrol engine). A narrow-gauge rail version of the Auto-Truck (the Rail-Truck) was made along similar stylistic lines as regards the bonneted engine, and its light weight made it popular for temporary and lightly laid tracks such as used on brickworks, peat bogs, and construction sites. Production of both the Auto-Truck and the Rail-Truck extended from the 1920s to the 1970s.

From 1928, the Lister Auto-Truck mechanism was used to make a small narrow gauge locomotive or 'Rail-Truck'. Motor Rail had provided a large number of its robust and reliable "Simplex" locomotives for service in World War I and Lister were keen to gain a share of their post-war market. With suitable gearing, even a small engine could pull a usefully heavy load on rails, although with limited speed. The "Rail-Truck" locomotives that Lister produced were some of the lightest locomotives

available and so were particularly suitable for use on poorly laid or temporary tracks. They were used for construction sites, waterworks, peat cutting small quarries and clay or gravel pits. Several hundred had been built by 1940, an exceptionally large production run for British narrow gauge locomotives.

From 1928 up to 1956, around 350 Rail-Trucks were built. Production continued into the early 1970s, although Lister's records were later destroyed by a 1983 fire. The oldest known surviving Rail-Truck, No 873 of 1928, is preserved in a Dutch museum. Around 90 Rail-Trucks survive in total."

Member James Smith takes up the story

In architecture, the concept of minimalism describes a subject that has been reduced to its necessary elements. When combined with railways, minimalism describes just that. Therefore; "a minimal railway is one with just its most basic components, it is a tiny railway that does a real (however modest) job of work. These railways are not miniatures in the traditional sense, where locomotives and rolling stock are intricate models of their real life counterparts, they are narrow gauge railways in their own right. Whether it serves an allotment, workshop or paddock, if a railway does a real life job it can be considered minimal." This provides a perfect blank canvas for locomotive designers to build exactly what they need for their own purposes. for example, member Mike Riches' Pat the Petter, which is definitely not a scale model! But, not all of us have the technical know-how required to design and build a loco from scratch. What was needed was a loco that could be bolted together with nothing more than hand tools, could be loaded into the back of a hatchback, still provide enough power for club passenger hauling and be suited to the tight curves of a working garden railway; all while still smearing the minimal criteria. This is where the Scamp comes in.

The design is derived from 'Goliath'. A side saddle locomotive that was designed as an A-Level project by David Malton. Colin Edmondson, the designer of the Scamp, set about making 'Goliath' (yes the builder's name was David you read that right) into a product that could be manufactured using CNC laser cutting machining techniques. Colin's loco has been a massive success. At the time of writing there are 127 Scamps. There have been four design iterations which have taken the Scamp from a

welded assembly with a shorter than comfortable wheelbase to a very accessible easy to assemble locomotive with different options and add-ons.

The kit is fully bolted together, the only welding required is for the wheels and layshaft, and this can even be done by the manufacturers by request for an extra charge. This makes the loco super accessible to people with little to no model engineering



experience. There are four types of bonnet available for the Scamp, I went for the Lister style with its curved roof. To keep up with the 'Lister look' I swapped out the standard derailing bars with the optional ballast boxes and added the side weights to finish it all off. I chose safety yellow because, quite frankly, there are

enough black, blue and green locos in the world. What interests me most about the scamp is the ingenious method of transmission. The locomotive is petrol electric which means that a traction motor drives the wheels and a petrol engine provides the energy. A belt and





pulley on the engine shaft spins another identical motor that isn't connected to the wheels, thus, the output wires of the motor now have a voltage that can be varied by use of the throttle. A cheap PWM controller from eBay regulates the percentage of this power that gets to the traction motor and is probably the

cheapest 'gearbox' money can buy. A high current reversing switch allows an equal top speed in both directions.

I intend to make Syd the Scamp useful on public running days. Being a petrol loco it will run all day without the risk of it running out and needing a lengthy recharge. It's got plenty of traction as the driver sits right on top of the wheels so should prove useful on slippery days where leaves and rain can



make some steam locos struggle. I have thoroughly enjoyed the build but think I'll enjoy running it a lot more!



Last Word - Peter Fisher

Peter Fisher. 1944 – 2022

The society was saddened to learn of the passing of member Peter Fisher, following a recent illness.

Peter leaves his wife Ann, daughters Caroline and Diane and three granddaughters, Poppy, Beth & Tula.

He led a varied life, joining the merchant navy when he left school, followed by a spell in the TA where he trained as a mechanic and latterly he had his own business in engineering and welding. These skills he put to good use when building his steam engine, it was a great disappointment to him when he realised he wouldn't be able to finish it.



After moving to Norfolk from Bromley three years ago he appreciated the Norfolk countryside and wildlife and enjoyed the camaraderie of the NDSME

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1921

The Motor Vehicle
which has **NO GEARS**
and **NO CLUTCH**

TILLING-STEVENS
PETROL-ELECTRIC

THE Vehicle which will pay is the Petrol Electric. Jolts and jars due to gear changing are eliminated, maintenance costs are reduced to a minimum and tyre mileage increased by this unique system of transmission. This type of Vehicle is used by the majority of the leading Transport Companies such as, London County Council, Birmingham Corporation, Birmingham and Midland Motor Omnibus Co. Ltd., Pickfords, Ltd., Harland & Wolff Ltd., &c., &c.

PRICES:
20-25 Passenger or 2-ton Load. T.S. £865
30-37 Passenger or 4-ton Load. T.S. £1,165
24-ton Gear Driven. T.S.B. £725
4-ton Gear Driven. T.S.B. £395

Write for further particulars.

Tilling-Stevens Motors Ltd.
MAIDSTONE.
London Office:
26, Victoria Street, London, S.W.1.

Vintage ads from Mike Fordham's collection

A 1921 ad for the Tillings-Stevens petrol electric bus/lorrychassis. These we're popular in the 1920s before being completely superseded by oil engines. So, electric buses – nothing new. It was happening a century ago!

In the park – some recent pics

A start is made
on the raised
track new
storage
project



Repairs to the
turntable



Modifications to the CI.42 motor bogies. Malcolm Pettitt (below) has now been appointed the Custodian of this loco.





Not often seen, Mike Riches Cl.73 with the body shell removed. A lot is packed into a relatively small space

Oil change for the Petter engined industrial sidesaddle. A mucky job but someone's got to do it!



New Kid on the Block – 2



Class 66 No.66029 54 *Squadron*. Recently acquired by member Pete Ottley, this has been extensively customised and is now in regular use on Sundays.





Rather than a hand-held controller, Pete Ottley has made and installed a control console. A crucial omission, however, is a cup holder.



Inside the driving trolley is the vacuum pump and two sets of chargers, one for the traction batteries and the other for the 12v battery that powers the console.



The loco was tested in mid-May. Here, it is driven by Brian “Two Sheds” Sayer, with Pete Ottley sitting behind. The golden gorse is now in flower, the yellow being similar to the shade initially used by the M&GN

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Security at the Park

Would members please remember that our access code only works on the YELLOW padlock on the sliding gate. The blue is for park contractors only. Sometimes we find that a member has input the code on the blue padlock and, having found it does not work, has then tried the yellow padlock but leaving the code still visible on the blue lock. Please remember to scramble the padlocks whenever you have used them for access.

Boiler tests

These are offered as a benefit of society membership and can be booked for Tuesdays or on Sundays for members who are unable to attend on a Tuesday. There is normally just one slot free on a Sunday. All tests must be pre-booked and engines must be presented in a suitable condition for a test to take place. Contact Barry Fane, Chris Shingles or Brian Baker for further details or to arrange a test.

Raised track group

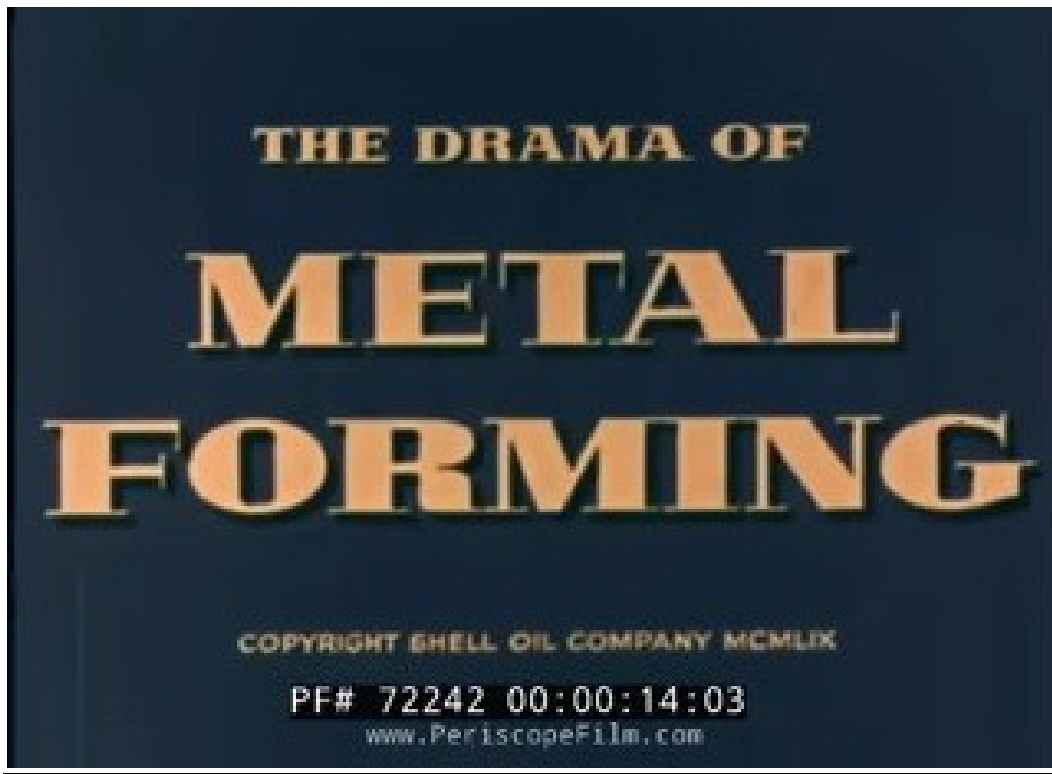
Just a reminder that the first Saturday of each month is allocated specifically to 5" and 3.5" locos on the raised track. Other days are also general members days for running locos on either of the two tracks unless otherwise required by the society for other functions. Please note that a minimum of two adults must be present.

Whilst on this subject, a start is being made on the new storage facility for r/t rolling stock. As we go to print, quotes are being sought for the materials required to construct the facility. When the stock is transferred to the new-build then committee will consider how the former raised track storage area might be repurposed to ease the present nearly-full g/l storage.

Midlands Exhibition

If you wish to go to this, please contact Barry Fane, if you haven't already responded to the e-mailout (a few weeks back.)

Spotted on YouTube



<https://www.youtube.com/watch?v=aEatTMQsGtg>

THE METAL FOUNDRY AND FORMING PROCESS , A SHELL OIL INDUSTRIAL FILM OF 1959

Created in 1959, "*The Drama of Metal Forming*" is an exceptional film that shows the forming of metal in a foundry. It was directed by Peter DeNormanville and produced by the famed editor Raymond Spottiswoode, the father of Hollywood director Roger Spottiswoode and distant relative of the Swindon Bakery's famous chef Angus Spottiswoode. Slabbing mills and rollers are shown, almost certainly located in the UK, and the many processes used to create finished parts such as railway car wheels (see the 17 minute mark), auto parts, gear blanks, wire, aluminium foil, and finished materials for the construction and oil industry. It is a world that we have largely lost now.

The Shell Film Unit was created in 1934 under the guidance of the UK's most influential documentary film-maker of the time, John Grierson (1898 – 1972). One of the first to see the power of motion pictures to educate and shape

opinion, Grierson is still widely regarded as the father of the documentary today. The films Shell produced set out to inform and entertain, using action and animation to explain the mechanical marvels of the age to a wide audience. They demonstrated how people around the world could overcome challenges in health, food and transport.

The intention was not to advertise Shell's brands: the film-makers consciously took a journalistic approach, and the company name and pecten logo appeared only at the end of films.

In the latter C20th, the unit was renamed *The Shell Film and Video Unit* to reflect changing technologies and continues to this day. Subsequently, it transferred its entire film archive to the British Film Institute's *National Film and Television Archive* in Bradford



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WANTED!

*Can you write? Inform?
Describe? Educate?
Entertain? Photograph?
Portray? Depict?*

If you can say YES to any of the above then consider writing and submitting an article, text or photos to the ndsme eBulletin. From the serious to the sublime, all articles, texts or pics are welcome

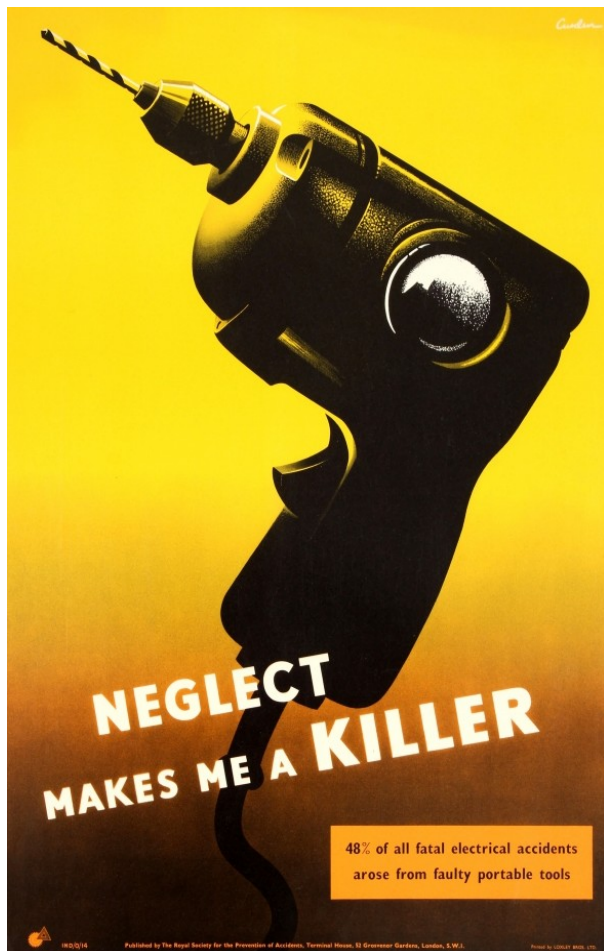
Don't leave it to the few!

Be one of the many!

Contact
ndsmecommunications@gmail.com



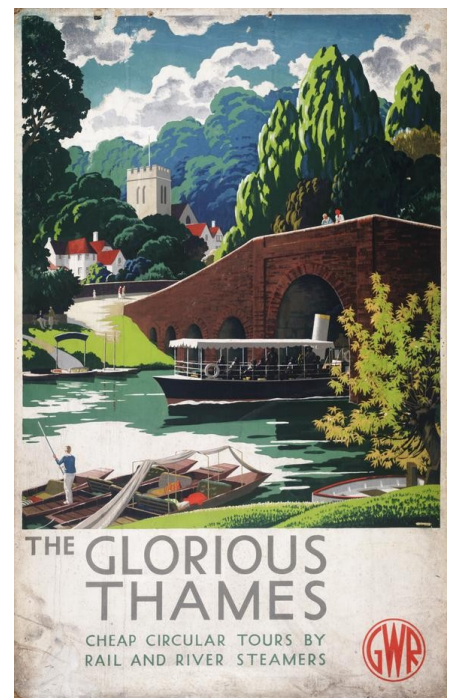
Workshop Safety in Art



Neglect Makes me a Killer. RoSPA, 1950s.

Published by the Royal Society for the Prevention of Accidents (ROSPA) depicting a black electric power drill set against a bright yellow and orange shaded background with the bold white warning text and statistic box below: *"Neglect makes me a killer / 48% of all fatal electrical accidents arose from faulty portable tools"*

"Neglect..." is another poster by Leonard Cusden (1898-1979)



Leonard Cusden was a British poster artist working in the 1930s to 1950s. He produced hundreds of posters for RoSPA and, of course, for the railways, such as watercolour *The Glorious Thames*, produced in 1937 for the GWR

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From the tea room



Covid and ndsme – as you will be aware, infected people are no longer required to isolate. The society must act to protect the interests of its members, many of whom are elderly and thus vulnerable. If you become infected or have symptoms that could be of Covid, or someone in your family does, please do not attend at Eaton Park.

Barry Steel – the bench donated by Janet Steel is now in place and a memorial plaque is being sourced. Groundwork by Richard Hendrick and installed by Brian Jacobs.

Loco Lift – floodlight is now fully functional and will be of considerable help in out of season pop-ups when light fades quickly

Rolling stock – a yearly inspection revealed that the Warship driving trolley will soon need new wheelsets. Brian Jacobs has offered to fabricate these.

Guards trucks – now fitted with voltmeters. When the battery goes below 12v it must be removed and recharged and replaced with a fresh battery.

Warship loco – Malcolm Pettitt is now the official custodian of this loco and will oversee any work that needs doing and will keep suitable records. Recent works have involved replacing the drive chains and fitting chain tensioners. A new controller unit has been installed. GPS speedometers are being considered for the driving trolley and also the dual purpose guards truck. Drivers are reminded that the MAX speed is 6mph and that a circuit should not take less than 6½ minutes.

Richard Wells – is selling his 5” gauge Class 66 – contact him for details



NDSME directors (committee) and officers as at May 2022

Company Sec. J McDonell

Estates officer P Moore

Treasurer C Eve

Publicity

M Rhodes

Other directors: , B Fane, R Hendrick, B. Fraser, R. Wells, B Sayer,

Other officers: R Montgomery (Rolling stock), P King (PW) H&S, tbc, Meetings organiser M Fordham (*pro tem*) A3 Support Group J Horrex, A3 coordinator

Hard copy bulletin distribution: - P Moore

There are other roles that need filling. Contact the Company Secretary if you are interested. Email clubsecretary@ndsme.org



Storage Space at EP

The Society is reviewing the use of the underfloor storage by members for their private rolling stock. We are not, for the time being anyway, accepting any more items for storage. Chris Eve has offered to assess the situation and to report back to the committee shortly.

We have started constructing a new raised track storage facility behind Larch End station. This will free up the present underfloor storage to be used by ground level stock. Philip Moore is providing costings for this transformation.

A touch of humour

A mathematician, a physicist and an engineer

A mathematician, physicist, and engineer are all trying to find the volume of a yellow bouncy ball.

The mathematician gets his callipers out and measures the diameter, then evaluates the integral.

The physicist fetches a bowl of water, drops the ball in and measures the displacement.

The engineer strolls up with book in hand, checks for a serial number and looks up the volume in his yellow bouncy ball table.



CS171456

"As a steam enthusiast, a stairlift wasn't enough for Martin, he installed his own funicular railway."

Membership matters

We welcome the following as new members

Peter Willis

Engineering in Art



***Rain, Steam
and Speed –
The Great
Western
Railway*** by
the C19th
British painter
J. M. W.
Turner(1775-
1851).

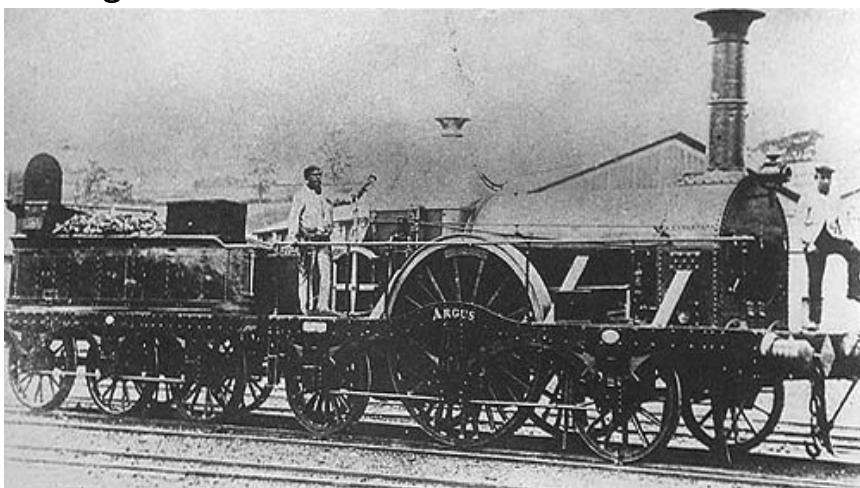
Turner's painting illustrates an oncoming train in the countryside during a summer rainstorm. The train in the centre is dark and rain-shrouded, surrounded by a golden natural landscape on both sides.^[6] However, the train and bridge, the solid elements of the painting, are barely hinted at, disappearing into the hazy and unreal atmosphere. The mist rising from the water, the rain that veils the sky, and the steam from the locomotive are blurred and mixed, unifying the painting's colours. In the lower-left corner of the painting, we can see a little person on a boat, making evident that the bridge is constructed on top of a river. In the bottom right of the painting, a hare runs along the track. Three white puffs of steam released by the engine into the air indicate that the train is in motion. The first, and nearest to the engine is the most distinct puff, while the other two gradually disappear in the horizon. This detail expresses the idea of speed, as the puffs are progressively left behind. In the interior of the

train, Turner depicted a crowd of waving figures that served as a reminder that the railway was a festive and popular entertainment.

The painting was first exhibited at the Royal Academy in 1844, though it may have been painted earlier. It is now in the collection of the National Gallery, London. The painting gives an impression of great speed in a static painting, an attribute that distinguished Turner from other artists. The work combines the power of nature and technology to create an emotional tension associated with the concept of the *sublime or greatness*.

The painting was created close to the end of the Industrial Revolution, which brought a massive shift from an agrarian economy to one dominated by machine manufacturing in the Victorian Era. The railway was among the most potent symbols of industrialization, since this new way of transportation heavily affected industrial and social life. Turner seemed to be a generation ahead of other artists, as he was among the few painters at the time to consider industrial advancement as a commendable subject of art. The painting suggests that modern technology is a reality racing towards us.

The engine of the 'Firefly' class that he used in his painting was called *Greyhound*. The Great Western Railway (GWR) was one of a number of private British railway companies created to develop the new means of transport. The location of the painting is widely accepted as



Maidenhead Railway Bridge, across the River Thames between Taplow and Maidenhead; a place that Turner had been exploring for over thirty years. The view is looking east towards London. The bridge was designed by Brunel and completed in 1838.

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Members Meetings

The next member's meeting at the Ipswich Rd URC is on 1st June and the theme is *Things We Have Collected*. In July there will be the BBQ (6th) On Saturday 6th August we have a special -A Freestyle steam loco with extras! A talk by Brian Parker. Note this is a Saturday and outdoors under cover at Eaton Park, starting at 2pm

Mystery pic



The Fen Five, a popular combo in the mid-1960s, but what is the connection to ndsme?

Answer next time.

Safety Matters

Members are reminded that any safety equipment provided by the society should not be removed or otherwise tampered with, particularly guards on machines. It may be an inconvenience to operate, eg a lathe, with a chuck guard, but think how much more of an inconvenience life could be without an eye, or with a mutilated hand!

Ndsme in the community

The society will be represented at the Norfolk Railway Society annual show at Poringland on Saturday 28th May. If you're at a loose end, why not pop along and help out. The stand is being run by, *inter alia*, Mike Fordham and Roger Montgomery.

The Forum Science Week, previously every October, has been moved to February half term 2023 so there won't be one this year. Watch out for more detail later this year.

Tailpiece

Do you remember...



...when bus tickets were issued from a rack and with a ding? Invariably they carried ads on the back.

What names do you recall?